IN THE MATTER OF

AUTOMOTIVE BREAKTHROUGH SCIENCES, INC., ET AL.

FINAL ORDER, ETC., IN REGARD TO ALLEGED VIOLATION OF SEC. 5 OF THE FEDERAL TRADE COMMISSION ACT

Docket 9275. Complaint, Sept. 27, 1995–Final Order, Sept. 9, 1998

This final order prohibits, among other things, two New York-based corporations and an officer, that manufactures, advertises and distributes automotive products and devices, from making any claims that the aftermarket brakes they sell are as effective as factory installed antilock braking systems and prohibits the respondents from using the term "ABS" in its advertising and marketing. In addition, the order requires the respondents to notify all distributors and purchasers of the Commission's findings, and requires them to possess competent and reliable scientific evidence to substantiate any future claims regarding the attributes, efficacy, safety or benefits of any braking system or device designed to be used in any motor vehicle.

Participants

For the Commission: *Janet Evans, Theodore Hoppock, Sydney Knight,* and *Susan Braman.*

For the respondents: *Pro se.*

COMPLAINT

The Federal Trade Commission having reason to believe that Automotive Breakthrough Sciences, Inc., a corporation, ABS Tech Sciences, Inc., a corporation, and Richard Schops, individually and as an officer and director of said corporations ("respondents"), have violated the provisions of the Federal Trade Commission Act, and it appearing to the Commission that a proceeding by it in respect thereof would be in the public interest, alleges:

PARAGRAPH 1. Respondent Automotive Breakthrough Sciences, Inc., is a New York corporation, with its offices and principal place of business located at P.O. Box 474, Wheatley Heights, New York.

Respondent ABS Tech Sciences, Inc., is a New York corporation, with its offices and principal place of business located at P.O. Box 474, Wheatley Heights, New York.

Respondent Richard Schops is or was at relevant times herein an officer and director of the corporate respondents. Individually or in

concert with others, he formulates, directs, and controls the acts and practices of the corporate respondents, including the acts and practices alleged in this complaint. His office and principal place of business is at P.O. Box 474, Wheatley Heights, New York.

PAR. 2. Respondents have manufactured, advertised, offered for sale, sold, and distributed certain after-market automotive products including A●B●S/Trax and A●B●S/ TRAX[2] (hereinafter collectively referred to as "A●B●S / Trax"), devices that are installed on a vehicle to improve its braking performance.

PAR. 3. The acts and practices of respondents alleged in this complaint have been in or affecting commerce, as "commerce" is defined in Section 4 of the Federal Trade Commission Act.

PAR. 4. Respondents have disseminated or caused to be disseminated advertisements and promotional materials for A●B●S/ Trax, including but not necessarily limited to the advertisements and promotional materials attached hereto as Exhibits A, B, and C. These advertisements contain the following statements and depictions:

(a) **STOP SKIDDING AROUND. ADD A●B●S / TRAX™**
ANTI-LOCK BRAKING SAFETY TO YOUR CAR.

[Depiction of multivehicle highway crash scene.]

The Terrifying Panic Stop!

You're driving along and then suddenly. . . crisis.

Your reflexes take over! You slam on the brakes. Wheels lock, steering freezes, tires skid. Too often, especially on wet roads, what happens next is a spin-out and then. . . *impact.*

Even if it's never happened to you, you've certainly seen the result: Cars whirling into opposite lanes - doing 180^0 or even 360^0 spins - leaving those scary skid marks. . . or worse.

Every day, thousands of such accidents are avoidable.

A●B●S / TRAX Anti-Lock Braking Helps You Keep Control in an Emergency.

The A●B●S / TRAX Breakthrough Anti-Lock Braking System interacts with your existing brakes to help give you steering and braking control in an emergency stop.

More precisely, A●B●S / TRAX automatically regulates the flow of energy to your brakes to prevent wheels from locking. Tires retain traction with the road surface - so you can control-steer to a shorter, straighter, anti- skidding stop.

[Two photographs depicted. In photograph identified as Panic Brake Test A, a test vehicle is shown skidding sideways and knocking over orange cones used as lane markers. Below the photograph are the words "Without A●B●S / TRAX: wheels lock, car skids." In photograph identified as Panic Brake Test B, the test vehicle is shown centered between orange cones used as lane markers. Below the photograph are the words "With A●B●S / TRAX: steering, braking in control."]

A●B●S / TRAX Stops Your Car Up To 30% Shorter in an Emergency.

Simulation testing has shown that A●B●S / TRAX can shorten stopping distance up to three car lengths - approximately 30 feet - when aggressively decelerating from 60 to 0 MPH. (Stopping distances can vary substantially by weight of car and road conditions.)

[Chart depicts two columns. In the first column, entitled "STANDARD 1989 SEDAN WITHOUT A●B●S / TRAX," a sequential depiction shows a car stopping at the 30 ft. line, at an angle. In the second column entitled "STANDARD 1989 SEDAN A●B●S / TRAX INSTALLED," a car is shown stopping at the 5 ft. line.]

* * * *

Finally, Anti-Lock Safety at a Price You Can Safely Afford.

Until now, A.B.S. braking safety was available only on expensive new luxury cars.

The American technological genius of A●B●S / TRAX has revolutionized the safe-stopping security of A.B.S with a system that can be installed in most any car* you're driving now - at a fraction of the cost of new-car A.B.S systems.

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* Except Chevrolet Caprice Chevrolet LUV, Ford Taurus or quick-release braking systems.

Install Safety in Most Cars in Under 30 Minutes.

A●B●S / TRAX converts the conventional, existing hydraulic brakes of virtually any year, make, and model . . . to anti-lock braking.

* * * *

A●B●S / TRAX Insures You a Big Break on Your Auto Insurance.

Installing A●B●S / TRAX in your car qualifies you for your auto insurance carrier's A.B.S discount - as much as 10%. That 10% discount - year after year - means A●B●S / TRAX can eventually pay for itself 100%! (A certificate for carrier discount comes with A●B●S / TRAX; discounts vary.)

* * * *

Stop Skidding Around with Driving Safety.

The safety of anti-lock braking is no longer a luxury. Soon, A.B.S will likely become a mandatory car safety component, as common as seat belts. But why wait, when lives are at stake every day, at every panic stop? A●B●S / TRAX *Anti-Lock Braking is here - at a price you can live with.* [EXHIBIT A]

(b) **SKID HAPPENS** ™

[Depiction of universal road sign for slippery roadway]

STOP SKIDDING AROUND. ™

A●B●S / TRAX®

ANTI-LOCK BRAKING

* * * *

A●B●S / TRAX² ANTI-LOCK BRAKING BREAKS THE CYCLE OF THE SUDDEN-STOP SKID.

The A●B●S / TRAX^2 Breakthrough Anti-Lock Braking System interacts with your existing brakes to help give you steering and braking control in an emergency stop.

More precisely, A●B●S / TRAX^2 automatically absorbs hydraulic pressure "shocks" to your brakes. It functions as a hydraulic "shock absorber" to continuously control the degree of rotational wheel slip at one or more of the wheels during braking.

That means when you slam, A●B●S / TRAX^2 allocates the precise application of brake pressure at the master cylinder to inhibit wheels from over-reacting or locking. Tires retain traction with the road surface - so you can control- steer to a shorter, straighter, anti-skidding stop.

[Chart depicts two columns. In the first column entitled "STANDARD 1989 SEDAN WITHOUT A●B●S / TRAX," a sequential depiction shows a car stopping at the 30 ft. line, at an angle. In the second column entitled "STANDARD 1989 SEDAN A●B●S / TRAX INSTALLED," a car is shown stopping at the 5 ft. line.]

* * * *

A●B●S / TRAX^2 STOPS YOUR CAR SHORTER, SURER IN AN EMERGENCY.

Simulation testing has shown that A●B●S / TRAX^2 Anti-Lock Braking System can shorten crucial stopping distance when aggressively decelerating.

* * * *

FINALLY, ANTI-LOCK SAFETY AT A PRICE YOU CAN SAFELY AFFORD.

The concept of anti-lock braking systems (A●B●S) is not new.

A.B.S. brakes were originally designed by the aerospace industry to keep pilots from losing control during high-speed landings on short runways in bad weather.

European manufacturers introduced electronic A●B●S braking to the automotive industry - but made it available only on expensive new luxury cars, unavailable on cars not originally equipped.

Now, the American technological genius of A●B●S / TRAX^2 has revolutionized the safe-stopping security of A.B.S. with an all-mechanical system that can be installed inexpensively in any car you are currently driving.

[Two photographs depicted. In photograph identified as Panic Brake Test A, a test vehicle is shown skidding sideways and knocking over orange cones used as lane markers. Below the photograph are the words "Without A●B●S / TRAX: wheels lock, car skids." In photograph identified as Panic Brake Test B, the test vehicle is shown centered between orange cones used as lane markers. Below the photograph are the words "With A●B●S / TRAX: steering, braking in control."]

ALL-THE-TIME A●B●S FOR EVERYDAY, EVERY BRAKE SECURITY.

Because A●B●S / TRAX^2 is an all-mechanical system, it's active in your car full-time, at all four wheels.

While new-car, electronic A●B●S systems go into action only in an emergency, A●B●S / TRAX^2 *improves braking effectiveness every time you apply the brakes.*

* * * *

SOME INSURANCE CARRIERS OFFER A BREAK FOR ANTI-LOCK BRAKING.

Because of their safety value, anti-lock brakes (ABS) and airbags may qualify you for a discount on your insurance premium. Each carrier has a different position on the subject of allowance for ABS, but the feature generally results in a reduction of the collision, medical and liability portion of your policy. Such insurance discounts are competitive, so shop around for your best buy.

* * * *

STOP SKIDDING AROUND WITH DRIVING SAFETY.

The safety of anti-lock brakes is no longer a luxury item.

Soon, A●B●S will likely become a mandatory car safety component, as common as seat belts. But why wait, when lives are at stake every day, in every panic stop? A●B●S / TRAX^2 *Breakthrough Anti-Lock Braking is here today at a price you can live with.* [EXHIBIT B]

(c) **ABS Installation Certificate for Insurance Discount**

SEND TO YOUR INSURANCE CARRIER.

THIS IS TO CERTIFY THAT (Please Print) _____ HAS ADAPTED THE A●B●S / TRAX™ ANTI-LOCK BRAKING SYSTEM (ABS) TO THE VEHICLE BELOW. THE A●B●S / TRAX™ ANTI-LOCK SYSTEM IS IN COMPLIANCE WITH THE WHEEL SLIP BRAKE CONTROL SYSTEM ROAD TEST CODE - SAE J46, AND NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, (DOT) 49 CODE OF FEDERAL REGULATIONS CH. V. (10-1-87) EDITION 571-105 - SA "ANTI-LOCK SYSTEM."

* * * * [EXHIBIT C]

PAR. 5. Through the use of the trade names A●B●S / Trax and A●B●S / TRAX^2 and the statements and depictions contained in the advertisements and promotional materials referred to in paragraph four, including but not necessarily limited to the advertisements and promotional materials attached as Exhibits A, B, and C, respondents have represented, directly or by implication, that A●B●S / Trax is an antilock braking system.

PAR. 6. In truth and in fact, A●B●S / Trax is not an antilock braking system. Therefore, the representation set forth in paragraph five was, and is, false and misleading.

PAR. 7. Through the use of the statements and depictions contained in the advertisements and promotional materials referred to in paragraph four, including but not necessarily limited to the advertisements and promotional materials attached as Exhibits A, B, and C, respondents have represented, directly or by implication, that:

(a) A●B●S / Trax prevents or substantially reduces wheel lock-up, skidding, and loss of steering control in emergency stopping situations;

(b) Installation of A●B●S / Trax will qualify a vehicle for an automobile insurance discount in a significant proportion of cases;

(c) A●B●S / Trax complies with a performance standard set forth in Wheel Slip Brake Control System Road Test Code SAE J46;

(d) A●B●S / Trax complies with a standard pertaining to antilock braking systems set forth by the National Highway Traffic Safety Administration;

(e) Tests prove that A●B●S / Trax reduces stopping distances by up to 30 % when the vehicle's brakes are applied at a speed of 60 mph; and

(f) A●B●S / Trax provides antilock braking system benefits, including wheel lock-up control benefits, that are at least equivalent to those provided by original equipment manufacturer electronic antilock braking systems.

PAR. 8. In truth and in fact:

(a) A●B●S / Trax does not prevent or substantially reduce wheel lock-up, skidding, and loss of steering control in emergency stopping situations;

(b) Installation of A●B●S / Trax will not qualify a vehicle for an automobile insurance discount in a significant proportion of cases;

(c) A●B●S / Trax does not comply with a performance standard set forth in Wheel Slip Brake Control System Road Test Code SAE J46 ("SAE J46"). SAE J46 sets forth a test procedure for evaluating the performance of antilock brake systems, but contains no performance standard. Moreover, A●B●S / Trax has not been subjected to the testing set forth in SAE J46;

(d) A●B●S / Trax does not comply with a standard pertaining to antilock braking systems set forth by the National Highway Traffic Safety Administration. The provision referred to establishes only a definition pertaining to antilock braking systems, and A●B●S / Trax does not meet that definition;

(e) Tests do not prove that A●B●S / Trax reduces stopping distances by up to 30 % when the vehicle's brakes are applied at a speed of 60 mph; and

(f) A●B●S / Trax does not provide antilock braking system benefits, including wheel lock-up control benefits, that are at least equivalent to those provided by original equipment manufacturer electronic antilock braking systems.

Therefore, the representations set forth in paragraph seven were, and are, false and misleading.

PAR. 9. Through the use of the statements and depictions contained in the advertisements and promotional materials referred to in paragraph four, including but not necessarily limited to the advertisements and promotional materials attached as Exhibits A, B, and C, respondents have represented, directly or by implication, that:

(a) In emergency stopping situations, a vehicle equipped with A●B●S / Trax will stop in a shorter distance than a vehicle that is not equipped with the device; and

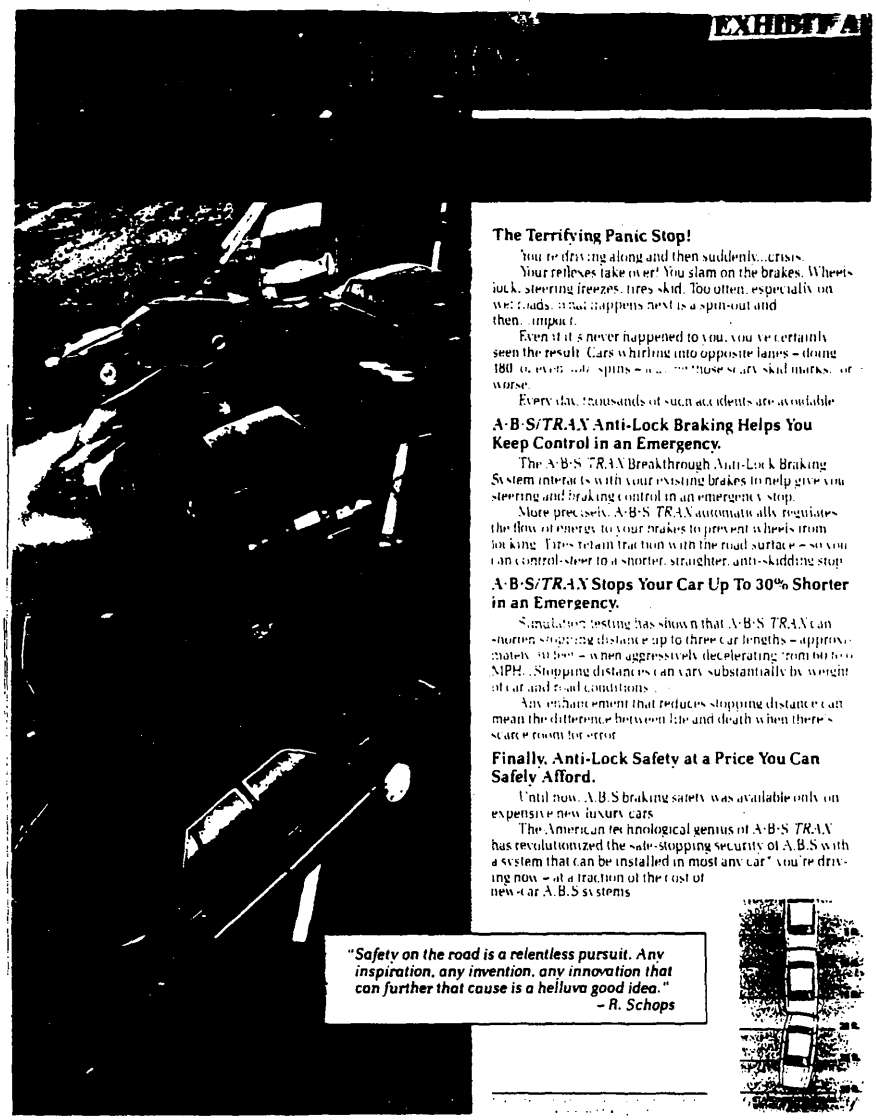
(b) Installation of A●B●S / Trax will make operation of a vehicle safer than a vehicle that is not equipped with the device.

PAR. 10. Through the use of the statements and depictions contained in the advertisements and promotional materials referred to in paragraph four, including but not necessarily limited to the advertisements and promotional materials attached as Exhibits A, B, and C, respondents have represented, directly or by implication, that at the time they made the representations set forth in paragraphs five, seven, and nine, respondents possessed and relied upon a reasonable basis that substantiated such representations.

PAR. 11. In truth and in fact, at the time they made the representations set forth in paragraphs five, seven, and nine, respondents did not possess and rely upon a reasonable basis that substantiated such representations. Therefore, the representation set forth in paragraph ten was, and is, false and misleading.

PAR. 12. The acts and practices of respondents as alleged in this complaint constitute unfair or deceptive acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act.

EXHIBIT A



The Terrifying Panic Stop!

You're driving along and then suddenly...crisis.

Your reflexes take over! You slam on the brakes. Wheels lock, steering freezes, tires skid. Too often, especially on wet roads, what happens next is a spin-out and then...impact.

Even if it's never happened to you, you've certainly seen the result. Cars whirling into opposite lanes – doing 180s, even 360s. Spins – and those scary skid marks...or worse.

Every day, thousands of such accidents are avoidable.

A·B·S/*TRAX* Anti-Lock Braking Helps You Keep Control in an Emergency.

The A·B·S *TRAX* Breakthrough Anti-Lock Braking System interacts with your existing brakes to help give you steering and braking control in an emergency stop.

More precisely, A·B·S *TRAX* automatically regulates the flow of energy to your brakes to prevent wheels from locking. Tires retain traction with the road surface – so you can control-steer to a shorter, straighter, anti-skidding stop.

A·B·S/*TRAX* Stops Your Car Up To 30% Shorter in an Emergency.

Simulator testing has shown that A·B·S *TRAX* can shorten stopping distance up to three car lengths – approximately 30 feet – when aggressively decelerating from 60 to 0 MPH. Stopping distances can vary substantially by weight of car and road conditions.

Any enhancement that reduces stopping distance can mean the difference between life and death when there's scarce room for error.

Finally, Anti-Lock Safety at a Price You Can Safely Afford.

Until now, A.B.S. braking safety was available only on expensive new luxury cars.

The American technological genius of A·B·S *TRAX* has revolutionized the safe-stopping security of A.B.S. with a system that can be installed in most any car you're driving now – at a fraction of the cost of new-car A.B.S. systems.

"Safety on the road is a relentless pursuit. Any inspiration, any invention, any innovation that can further that cause is a helluva good idea."
– R. Schops

EXHIBIT A

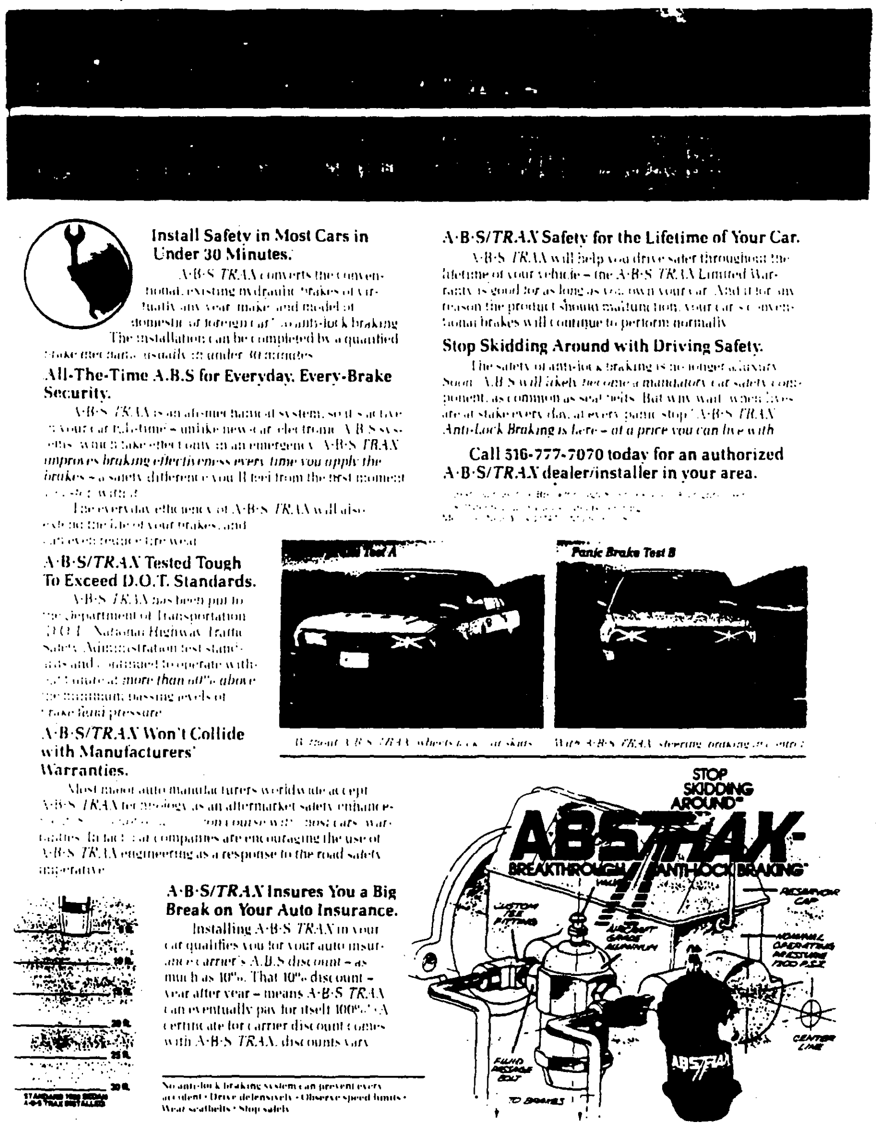
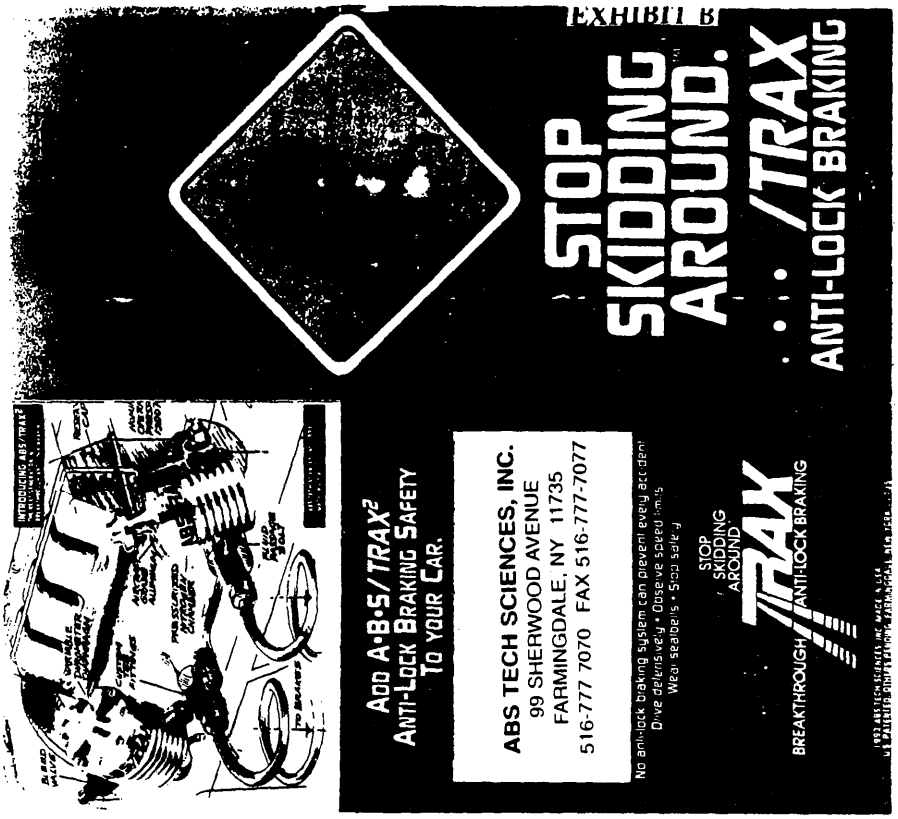

Install Safety in Most Cars in Under 30 Minutes.
All-The-Time A.B.S for Everyday, Every-Brake Security.
A·B·S/TRAX Tested Tough To Exceed D.O.T. Standards.
A·B·S/TRAX Won't Collide with Manufacturers' Warranties.
A·B·S/TRAX Insures You a Big Break on Your Auto Insurance.
Installing A·B·S TRAX in your car qualifies you for your auto insurance carrier's A.B.S discount – as much as 10%. That 10% discount – year after year – means A·B·S TRAX can eventually pay for itself 100%!
A·B·S/TRAX Safety for the Lifetime of Your Car.
Stop Skidding Around with Driving Safety.
Call 516-777-7070 today for an authorized A·B·S/TRAX dealer/installer in your area.
Panic Brake Test B
STOP SKIDDING AROUND
ABS TRAX
BREAKTHROUGH ANTI-LOCK BRAKING

EXHIBIT B



SOME INSURANCE CARRIERS OFFER A BREAK FOR ANTI-LOCK BRAKING.

Because of their safety value, anti-lock brakes (ABS) and airbags may qualify you for a discount on your insurance premium. Each carrier has a different position on the subject of allowance for ABS, but the feature generally results in a reduction of the collision, medical and liability portion of your policy. Such insurance discounts are competitive, so shop around for your best buy.

A-B-S/TRAX² MEANS STOPPING SAFETY FOR THE LIFETIME OF YOUR CAR.

Lifetime is not a word used lightly here. The reason A-B-S/TRAX² anti-lock braking is important is because it might save lives. And the A-B-S/TRAX² limited warranty is good for as long as the purchaser owns the car. If for any reason the product should malfunction, your car's conventional brakes will continue to perform in their normal manner. Read the limited warranty that comes with product for a full explanation.

STOP SKIDDING AROUND WITH DRIVING SAFETY.

The safety of anti-lock brakes is no longer a luxury item. Soon, A-B-S will likely become a mandatory car safety component, as common as seat belts. But why wait, when lives are at stake every day, in every panic stop? A-B-S/TRAX² Breakthrough Anti-Lock Braking is here today and at a price you can live with.

on the road is a relentless pursuit. Any inspiration, any invention, any innovation that can further that cause

Richard Scarry

THE TERRIFYING PANIC STOP!

You're driving along and then suddenly, crisis! Reflexes take over: you slam on the brakes, wheels lock, steering freezes, tires skid. Too often, and especially on wet roads, you lose control, spin-out and then ... *impact.*

Every day, thousands of such accidents are avoidable. The key is keeping control of steering during a panic braking situation.

When drivers hit the brakes in an emergency, they lose control. The wheels lock and they are unable to steer the vehicle to a safe, straight, sure stop.

Even if it's never happened to you, you've certainly seen the result: cars whirling into opposite lanes – doing 180° or sometimes 360° spins–leaving those scary skid marks ... or worse.

A·B·S/*TRAX*^{2} ANTI-LOCK BRAKING BREAKS THE CYCLE OF THE SUDDEN-STOP SKID.

The A·B·S/*TRAX*^{2} Breakthrough Anti-Lock Braking System interfaces with your existing brakes to help give you steering and braking control in an emergency stop.

More precisely, A·B·S/*TRAX*^{2} automatically absorbs hydraulic pressure "shocks" to your brakes. It functions as a hydraulic "shock absorber" to continuously control the degree of rotational wheel slip of one or more of the wheels during braking.

That means when you slam, A·B·S/*TRAX*^{2} allocates the precise application of brake pressure at the master cylinder to inhibit wheels from over-reacting or locking. Tires retain traction with the road surface – so you can control-steer to a shorter, straighter, anti-skidding stop.

It's a safety improvement that benefits every driver. *In critical times, even expert professional drivers couldn't duplicate* A·B·S/*TRAX*^{2} *braking control.*

A·B·S/*TRAX*^{2} STOPS YOUR CAR SHORTER, SURER IN AN EMERGENCY.

Simulation testing has shown that the A·B·S/*TRAX*^{2} Anti-Lock Braking System can shorten crucial stopping distance when aggressively decelerating. Stopping efficiency is enhanced because the proactive A·B·S/*TRAX*^{2} mechanical system is pre-calibrated to account for your car's inertial braking dynamics.

Any advantage in shortening stopping distances can mean the difference between life and death when there's scarce room for error. Stopping distances can vary substantially by weight of car and road conditions, so always drive defensively.

FINALLY, ANTI-LOCK SAFETY AT A PRICE YOU CAN SAFELY AFFORD.

The concept of anti-lock braking systems (A·B·S) is not new.

A·B·S brakes were originally designed by the aerospace industry to keep pilots from losing control during high-speed landings on short runways in bad weather.

European manufacturers introduced electronic A·B·S braking to the automotive industry – but made it available only on expensive new luxury cars, unavailable on cars not originally equipped.

Now, the American technological genius of A·B·S/*TRAX*^{2} has revolutionized the safe-stopping security of A·B·S with an all-mechanical system that can be installed inexpensively in any car you are currently driving.

Without A·B·S/TRAX^2 *wheels lock, car skids*

With A·B·S/TRAX^2 *steering/braking in control*

ALL-THE-TIME A·B·S FOR EVERYDAY, EVERY BRAKE SECURITY.

Because A·B·S/*TRAX*^{2} is an all-mechanical system, it's active in your car full-time, at all four wheels.

While new-car, electronic A·B·S systems go into action only in an emergency, A·B·S/*TRAX*^{2} *improves braking effectiveness every time you apply the brakes.* You'll feel the safety difference from the first moment you drive with A·B·S/*TRAX*^{2}.

The everyday efficiency of A·B·S/*TRAX*^{2} will also extend – possibly double – the life of your brakes, ... and can even reduce tire wear.

INSTALLING A·B·S/*TRAX*^{2} ENHANCES EXISTING BRAKING CAPABILITY.

When installed by a qualified brake mechanic, A·B·S/*TRAX*^{2} converts the conventional brakes on any year, make, model vehicle, whether domestic or foreign, to a higher level of efficiency - performance. Anti-lock braking (ABS) is one of today's most important driving safety improvements and is now available for the vehicle you already own.

A·B·S/*TRAX*^{2} TESTED TOUGH ENOUGH TO EXCEED D.O.T. STANDARDS.

A·B·S/*TRAX*^{2} has been put to the Department of Transportation National Highway Traffic Safety Administration test standards and passed with high marks.

A·B·S/*TRAX*^{2} easily withstood the DOT minimum level of 3000 psi brake fluid pressure. And A·B·S/*TRAX*^{2} continued to function without failure up to 5000 psi – *60% better* than the government standard!

Such extraordinary safety ratings are winning A·B·S/*TRAX*^{2} rave reviews around the world. From European automotive enthusiasts, who are embracing A·B·S/*TRAX*^{2} braking technology for safety on their super highways. From the high-risk race track, where A·B·S/*TRAX*^{2} has performed with unprecedented success. And from nationwide police ambulance and fire departments, which are urging the use of the A·B·S/*TRAX*^{2} anti-lock braking product on their fleet vehicles.

A·B·S/*TRAX*^{2} WON'T COLLIDE WITH CAR MANUFACTURERS' WARRANTIES.

Major auto manufacturers around the world understand A·B·S/*TRAX*^{2} technology as an after-market enhancement. So, it's not on a collision course with any car's warranty. In fact, car companies are intrigued by A·B·S/*TRAX*^{2} anti-lock braking technology as an important breakthrough that responds to their own safety imperatives.

EXHIBIT C

STOP SKIDDING AROUND

ABS/TRAX

BREAKTHROUGH ANTI-LOCK BRAKING

ABS Installation Certificate for Insurance Discount

SEND TO YOUR INSURANCE CARRIER

THIS IS TO CERTIFY THAT (Please Print) _____

HAS ADAPTED THE **A-B-STRAX™** ANTI-LOCK BRAKING SYSTEM (ABS) TO THE VEHICLE BELOW THE **A-B-STRAX™** ANTI-LOCK SYSTEM IS IN COMPLIANCE WITH THE WHEEL SLIP BRAKE CONTROL SYSTEM ROAD TEST CODE SAE J46 AND NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION (DOT) 49 CODE OF FEDERAL REGULATIONS CH V (10-1-87) EDITION 571-105 - SA "ANTI-LOCK SYSTEM"

THIS CERTIFICATE IS VALID ONLY WHEN ACCOMPANIED BY INVOICE OF PURCHASE, OR INVOICE OF VEHICLE HAVING THE **A-B-STRAX™** ANTI-LOCK SYSTEM INSTALLED AND IS SUBJECT TO PURCHASER'S INSURANCE CARRIER POLICIES ON ANTI-LOCK BRAKING DISCOUNTS. **A-B-STRAX™** MAKES NO CLAIMS OR REPRESENTATIONS THAT THE PURCHASER'S INSURANCE CARRIER HAS SUCH A DISCOUNT POLICY

BUYER'S SIGNATURE _____ VEHICLE YEAR/MAKE/MODEL _____

PRESENT MILEAGE _____ VEHICLE IDENTIFICATION NUMBER (VIN) _____

P. SANDERS _____ INSTALLATION DATE _____

REFER ALL INQUIRES TO
AUTOMOTIVE BREAKTHROUGH SCIENCES, INC.
P.O. BOX 1491, MELVILLE, NY 11747 1-800-4 SAFE STOP

00000070

EX. C

INITIAL DECISION

BY LEWIS F. PARKER, ADMINISTRATIVE LAW JUDGE
MARCH 3, 1997

I. INTRODUCTION

The Commission issued the complaint in this case and two companion cases on September 27, 1995.

I issued a default judgment in one companion case (D. 9276) on October 16, 1996.

The complaint in this case charges that Automotive Breakthrough Sciences, Inc. ("ABSI"), ABS Tech Sciences, Inc. ("ABSTSI"), and Richard Schops, individually and as an officer and director of these corporations, have violated the Federal Trade Commission Act by representing, through use of the trade names A●B●S/Trax and A●B●S/Trax^2 and statements and depictions in advertisements and promotional materials, that A●B●S/Trax is an antilock braking system whereas, in truth and in fact, A●B●S/Trax is not an antilock braking system. The complaint also alleges that the following representations in respondents' advertising and promotional materials are not true and are, therefore, false and misleading:

(a) A●B●S/Trax prevents or substantially reduces wheel lock-up, skidding, and loss of steering control in emergency stopping situations;

(b) Installation of A●B●S/Trax will qualify a vehicle for an automobile insurance discount in a significant proportion of cases;

(c) A●B●S/Trax complies with a performance standard set forth in Wheel Slip Brake Control System Road Test Code SAE J46;

(d) A●B●S/Trax complies with a standard pertaining to antilock braking systems set forth by the National Highway Traffic Safety Administration;

(e) Tests prove that A●B●S/Trax reduces stopping distances by up to 30% when the vehicle's brakes are applied at a speed of 60 mph; and

(f) A●B●S/Trax provides antilock braking system benefits, including wheel lock-up control benefits, that are at least equivalent to those provided by original equipment manufacturer electronic antilock braking systems.

The complaint also alleges that respondents have falsely represented that:

(a) In emergency stopping situations, a vehicle equipped with A●B●S/Trax will stop in a shorter distance than a vehicle that is not equipped with the device; and

(b) Installation of A●B●S/Trax will make operation of a vehicle safer than a vehicle that is not equipped with the device.

Finally, the complaint alleges that respondents did not possess and rely upon a reasonable basis that substantiated the alleged representations described above.

On October 10, 1995, respondents filed an answer denying that they had violated the Federal Trade Commission Act as charged.

During the pretrial phase of this case, I issued two summary decisions. The first found that respondents' trade names, the advertising and promotional materials attached to the complaint, and a television ad disseminated by respondents made the alleged claims (Partial Summary Decision, issued May 22, 1996, clarified, May 28, 1996 (hereafter, "Partial Summary Decision (Ad Meaning)")). In the second, I found that respondents' representation that installation of their braking devices will qualify a vehicle for an automobile insurance discount in a significant proportion of cases is false and unsubstantiated (Partial Summary Decision, Oct. 16, 1996 (hereafter, "Partial Summary Decision (Insurance Discounts)")).

Trial in this proceeding was held between October 21, 1996 and December 4, 1996. The record was closed on December 9, 1996 and complaint counsel filed their proposed findings on January 8, 1997. Respondents did not file proposed findings which complied with Section 3.46 of the Rules of Practice. Instead, they filed an out-of-time post trial brief on January 15, 1997. I have nevertheless considered the arguments made in this brief.

This decision is based on the transcript of testimony, the exhibits which I received in evidence, and the proposed findings of fact and conclusions of law filed by the parties. I have adopted several proposed findings verbatim. Others have been adopted in substance. All other findings are rejected either because they are not substantiated by the record or because they are irrelevant.

II. FINDINGS OF FACT

A. The Corporate Respondents' Business And Mr. Schops' Connection Therewith

1. Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc. are New York corporations, with their offices and principal place of business located at P.O. Box 474, Wheatley Heights, New York (Answer, pp. 2, 5).

2. Richard Schops resides in Melville, New York (Tr. 2301).[1] In 1991, he formed ABSI to sell a brake product that he named "ABS/Trax" (Tr. 2367, 2374). He served as the corporate CEO and operated ABSI on a day-to-day basis; only one other person was actively involved in corporate management (Tr. 2301, 2381, 2383). In addition to selecting the product name, Mr. Schops designed the product and corporate logo, and drafted everything in the ABSI ads--including magazine and television ads, brochures bearing his own name, Question and Answer brochures, product packaging, and an insurance discount certificate (Tr. 2374- 78). Mr. Schops is quoted in ABSI's advertising (CX-l, CX-2 (Complaint Exhibits A, B)). Mr. Schops recommended where the ads should be placed, and placed them (Tr. 2378). He designed distributor information and sent it to potential distributors, provided language describing ABSI and ABS/Trax for inclusion in the directory for the major aftermarket equipment trade show (the Special Equipment Manufacturers' Association ("SEMA") show, held annually in Las Vegas, Nevada), and attended SEMA shows on ABSI's behalf to promote ABS/Trax (Tr. 2378-79). In his capacity as ABSI's CEO, Mr. Schops signed agreements with distributors and corresponded with automobile companies and NHTSA (the National Highway Traffic Safety Administration) (Tr. 2379- 82; CX-72, CX-79-A-H, CX-30). He also communicated with suppliers and potential purchasers (Tr. 2384-87).

3. In 1992, after a dispute with his partner in ABSI, Mr. Schops formed Dynamics of Trucking and Transportation ("DTT") and

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[1] The following abbreviations are used in this decision:

F.:	Finding number in this decision.
Tr.:	Transcript of the proceeding.
CX:	Commission exhibit.
RX:	Respondents' exhibit.

started selling ABS/Trax through DTT, which made all the representations for ABS/Trax previously made by ABSI. Mr. Schops formulated and controlled the policies, acts and practices of DTT (Tr. 2387-88).

4. Later in 1992, Mr. Schops started selling ABS/Trax through ABSTSI, which also made all of the representations for the product previously made by ABSI. Mr. Schops is an officer and director of ABSTSI. He prepared a variety of advertising and promotional materials bearing the ABSTSI name, attended the SEMA show on ABSTSI's behalf, and signed agreements with product distributors (Tr. 2389-96). Individually or in concert with others he formulates, directs and controls the acts and practices of ABSTSI (Answer, p. 2; Tr. 2389-96).

5. At all times relevant to the complaint, the acts and practices of respondents alleged in the complaint have been in or affecting commerce (Answer ¶ 3; F. 9-11, *infra*).

B. The Claims Made By Respondents For ABS/Trax

6. The ABS/Trax device consists of a metal housing containing a resilient membrane. It is sold in sets of two, so that one may be attached to each of the two hydraulic brake lines of a motor vehicle. The device is a simple hydraulic accumulator, meaning that during heavy brake pedal application, the resilient membrane can expand to accept some brake fluid. When the pedal is released, the brake fluid is returned to the brake lines (Tr. 874; CX-32-M, -Z-24).

7. Respondents have sold various versions of the ABS/Trax device. The original 1991 product was supplied by the Marketex company, which also sold it under the name AccuBrake (Tr. 2422-23; compare CX-1 with CX 35-Z-17). In October 1991, ABSI ceased selling the Marketex product (CX-30-A,-B). In late 1991, respondents started selling a product produced by a Mr. Cardenas (Tr. 2425), which respondents claim to have "upgraded" over time (CX-32-L, -M; Tr. 80). Although the new product was produced by a different manufacturer and had a different shape and size, respondents continued to make all of the same advertising claims for the product (Tr. 2425-26; *see* CX-32-M). From 1993 through 1995, respondents marketed a version of the product under the name ABS/Trax^2, again with the same claims (CX-2, CX-62, CX-63-B, CX-64).

8. ABS/Trax systems were sold to consumers at a price of $459 to $499, and respondents' gross revenue from ABS/Trax sales was approximately $150,000 (CX-99-L (Response to Interrogatories 4a and 4c)). From January 1992 to January 1996, ABSTSI sold 7422 ABS/Trax systems, with revenues of $1,055,000 (Tr. 2441; CX-60-B, -E)

9. Complaint Exhibit A (CX-l) was disseminated in "Automobile Magazine" in October and November 1991, and in "Motor Trend" in December 1991. A print ad also appeared in the November 1991 issue of "Auto Week" (Respondents' Admission 1; CX-99-L (Response to Interrogatory 3)). CX-5, a television ad, ran twice on WNBC-TV, New York, New York, and 30 times on Long Island, New York cable television in October 1991 (CX-99-L (Response to Interrogatory 3); Respondents' Admissions 56-59).

10. In 1991, ABSI sponsored a booth at the SEMA show. SEMA is an association of automotive aftermarket manufacturers, distributors and outlets, and it holds the world's largest automotive aftermarket show, attended by manufacturers, distributors and dealers, every November in Las Vegas, Nevada (Tr. 108-09, 166-67). At this show, ABSI displayed banners and t-shirts and distributed thousands of brochures that repeated the claims made in the magazine ads (Tr. 2399). It also sent hundreds of letters to potential distributors describing the ABS/Trax device as an antilock brake system and repeating most of the claims made in the magazine ads (Tr. 2399).

11. In 1992, 1993 and 1994, respondents attended the SEMA shows to promote ABS/Trax; these SEMA promotions resulted in contracts with various groups to sell the product (Tr. 2400-02). Respondents also provided promotional materials, such as magazine ads, brochures and press releases (CX-2, CX-62, CX-63, CX-64, CX-66, CX-67, CX-68, CX-69), to persons interested in selling the product, including one major retailer (Montgomery Ward) that entered into an agreement to sell it (Tr. 2401-03). The last ad admitted into the record is dated April 1995 (CX-64).

12. ABSI's cost to advertise ABS/Trax in print and television media in 1991 was between $65,500 and $80,600 (CX-99-L). Mr. Schops estimated a total 1991 advertising cost of $100,000 (Tr. 2336). From 1992-1996, ABSTSI spent $17,885 on advertising and media, and $30,472 on SEMA and trade shows, for a total of $48,357 (CX-60-E, -F; Tr. 2401).

13. In my Partial Summary Decision (Ad Meaning), I found that respondents' trade names, the advertising and promotional materials attached to the complaint, and a television ad, CX-5, made the following claims.

A) ABS/Trax is an antilock brake system (Complaint ¶ 5) that complies with a standard pertaining to antilock braking systems set forth by the National Highway Traffic Safety Administration (Complaint ¶ 7d, "NHTSA compliance claim") and prevents or substantially reduces wheel lockup, skidding and loss of steering control in emergency stopping situations (Complaint ¶ 7a, "braking control benefits claim");

B) ABS/Trax complies with a performance standard set forth in Wheel Slip Brake Control System Road Test Code SAE J46 (Complaint ¶ 7c, "SAE J46 claim");

C) ABS/Trax provides antilock braking system benefits, including wheel lockup control benefits, at least equivalent to those provided by original equipment manufacturer electronic antilock braking systems (Complaint ¶ 7f, "OEM ABS equivalence claim");

D) ABS/Trax will, in an emergency stopping situation, stop a vehicle in a shorter distance than a vehicle that is not equipped with the device (Complaint ¶ 9a), and tests prove that ABS/Trax reduces stopping distances by up to 30% when the vehicle's brakes are applied at a speed of 60 mph (Complaint ¶ 7e) ("general and specific stopping distance claims"); Partial Summary Decision (Ad Meaning), at 17;

E) Installation of ABS/Trax will qualify a vehicle for an automobile insurance discount in a significant proportion of cases (Complaint ¶ 7b, "insurance discount claim");

F) Installation of ABS/Trax will make operation of a vehicle safer than a vehicle that is not equipped with the device (Complaint ¶ 9b, "comparative safety claim"); and

G) At the time they made the representations set forth in Complaint paragraphs five, seven, and nine, respondents possessed and relied upon a reasonable basis that substantiated such representations (Complaint ¶ 10).

14. Additional promotional materials admitted into evidence also make some or all of the advertising claims alleged in the complaint. CX-14-B, CX-15-B, CX-30-D, CX-31-D, CX-62, CX-63, CX-64, CX-

65, CX-70, CX-76, and CX-77 each identify the product by the trade name ABS/Trax, and thus, make the claim that the product is an antilock brake system. Additionally, many of these ads reinforce this claim by expressly identifying the product as providing "ABS braking safety" (CX-14-B), or as being an "anti-lock" or "ABS" system (*e.g.*, CX-15-B, CX-76-A, CX-30-D, CX-31-D, CX-62, CX-63-A (transmitting CX-63-B, containing this claim)).

15. CX-65 contains copy elements identical to CX-1, elements that I have found convey the braking control benefits, general and specific stopping distance, insurance discount, OEM ABS equivalence, and comparative safety claims. Compare CX-65 with CX-1.

16. CX-76 and CX-77 are "Question and Answer" sheets that expressly state that the ABS/Trax device provides "shorter stopping distances," and that "ABS/Trax has been found to reduce stopping distance up to 30% when aggressively decelerating from 60 to 0 mph." This language is substantially similar to that which I previously found conveyed the specific and general stopping distance claims. Additionally, these sheets contain language substantially similar to that which I previously found conveyed the insurance discount claim:

> Insurance companies save money when people have fewer accidents. That's why they support safety products like A.B.S. by publishing their own literature describing its benefits and by awarding A.B.S. discounts to policyholders. Installing A.B.S. Trax qualifies you for your carrier's A.B.S. discount. . . . While discounts vary, they can often total as much as 10% annually.

(CX-76, CX-77; *see* Partial Summary Decision (Ad Meaning), at 13). Thus, these ads, too, convey the insurance discount claim. *Id.* Additionally, by describing the product as a "safety" product, the Question and Answer sheets also expressly make the comparative safety claim.

17. CX-14-B also identifies the product as providing "retrofit ABS braking safety . . . to stop cars, trucks and motorcycles, shorter, straighter, safer," thus making in an express fashion both the general stopping distance and comparative safety claims. CX-31-D expressly states that the product provides "safety . . . benefits." CX-62 states that "ABS/Trax^2 shortens stopping distances," thus expressly making the general stopping distance claim. Additionally, it expressly conveys the comparative safety claim when it states that "ABS/Trax^2 . . . produc[es] enhanced response and a non-delayed, safer stop" and

makes the assertion that "[s]erious safety on the road is what ABS/Trax[2] makes available to all drivers." CX-63 states that "ABS/Trax shortens stopping distances," thus expressly making the general stopping distance claim. CX-64 expressly states that ABS/Trax[2] "stops cars shorter."

18. Finally, CX-70 is the ABS/Trax product package which, on the outside, expressly makes the braking control benefits and general shorter stopping distance claims when it states that the product "prevents wheels from over- reacting or locking (anti-lock). Tires retain traction to the road surface so the driver can control-steer the car to a shorter, straighter, surer stop." In addition, the packaging contains the language previously found to convey the NHTSA ABS compliance and SAE J46 claims (Partial Summary Decision (Ad Meaning), at 16-17).

19. Respondents intended to make many of the above claims. Mr. Schops knew that the abbreviation "ABS" stood for antilock brake system, and that from 1990 to 1996, auto manufacturers had used "ABS" to refer to antilock brake systems in new car ads widely disseminated to the public (Tr. 2403-04; Respondents' Admissions 67-68). He intended to claim that the ABS/Trax would substantially reduce lockup, skidding and loss of control; and that it complied with the NHTSA ABS definition and with SAE J46 (Tr. 2403- 06). He also intended to make the specific stopping distance claim (Tr. 2415).

C. Substantiation For Respondents' Ad Claims

1. Complaint Counsel's Expert Witnesses

20. Complaint counsel called three expert witnesses who testified about respondents' devices and their comparison with OEM antilock brakes.

a. John W. Kourik

21. John W. Kourik is a licensed professional engineer in the State of Missouri (Tr. 1083). He obtained a B.S. in Mechanical Engineering from Washington University in 1948 and was employed with Wagner Electric, a manufacturer of brake systems, from 1948 until his retirement in 1988. Positions he held at Wagner included Supervisor, Hydraulics Brake Products, Chief Engineer, Brake Products, and Director, Brake Engineering and Aftermarket Services (CX-84-A; Tr. 1073-75).

22. During his 40 years at Wagner, Mr. Kourik was involved in the design, construction and testing of brake assemblies, including construction of various types of hydraulic valves used in brake systems, and in the construction of air brake antilock systems (Tr. 1076, 1081- 82). He was substantially involved in the development of test protocols for Wagner's brakes, the supervision of road tests conducted at three facilities on a fleet of forty test vehicles, and the analysis of test results (Tr. 1076-82, 1089). His experience included testing the effectiveness of antilock systems (Tr. 1082).

23. Mr. Kourik was a long-term member of the Society of Automotive Engineers ("SAE"), an internationally based association of professionals who work on developing standards and recommended practices for the automotive and aircraft industries. Mr. Kourik was involved in the collection and analysis of test data as part of his involvement in SAE committees that developed a brake rating test procedure and a test protocol to evaluate brake linings, each of which was adopted by the SAE (Tr. 1087-88). In addition, Mr. Kourik was the first chairman of the Wheel Slip Brake Control Systems Subcommittee, which developed a SAE-approved test protocol, SAE-J46, designed to distinguish antilock systems from non-antilock systems and to enable an antilock manufacturer to fine-tune a system during the development process (Tr. 1090-91). Mr. Kourik also served as a member of the Brake Task Force of the Truck-Trailer Manufacturers Association (CX-84-A), in an effort to ensure compatibility of antilock systems on trailers with those on the tractors that hauled them. This twenty-year effort required the evaluation of antilock system test data (Tr. 1093).

24. During his career Mr. Kourik has reviewed hundreds of stopping distance tests and hundreds of wheel slip control tests, including wheel slip control tests on passenger cars (Tr. 1118-19). Mr. Kourik is an expert in the design and application of brake systems, their components, actuating systems and control systems, and in the analysis of brake system testing, including stopping distance and wheel slip control testing (Tr. 1094).

b. James G. Hague

25. James G. Hague is a project engineer working with NHTSA's Office of Defects Investigation ("ODI") at the Vehicle Research and Test Center ("VRTC"), which conducts investigatory testing to assist

in ODI's vehicle safety investigations (CX-92-A; Tr. 33-37). While in the military, Mr. Hague received training and had several years of experience with aircraft mechanics, including aircraft hydraulic and brake systems, which are similar to automotive hydraulic and brake systems. He continued to be responsible for aircraft maintenance in private employment for six years after leaving the military (Tr. 744-52). In 1979, Mr. Hague enrolled in Ohio State University ("OSU"). His university experience included course work in auto engineering and braking systems and extracurricular activities involving vehicle design and construction. In 1983, he received a B.S. in Mechanical Engineering from OSU (Tr. 752-56).

26. In 1983 Mr. Hague became a contract employee at NHTSA's VRTC in East Liberty, Ohio. VRTC conducts vehicle and vehicle component tests for NHTSA, including testing for ODI. Mr. Hague was a project or test engineer, providing technical expertise and support in the development of test protocols, test designs, the conduct and supervision of testing, and the deduction, analysis and presentation of the data (Tr. 761). His specific assignment included brake testing (Tr. 762). From 1984 through 1989, Mr. Hague held various positions, including service as a test engineer on hydraulic systems, as a test engineer on power industry equipment, and as president of a company that developed and marketed software for use by test engineers (CX-92; Tr. 764-68).

27. In 1989, Mr. Hague returned to VRTC as a contract employee. There, he provides technical expertise and support to VRTC in the development of test protocols, the conduct of testing, and the analysis and presentation of test data (Tr. 761, 769). His tests are investigatory, designed to determine whether there is a safety-related defect in an automotive system, and if so, what the consequences are. He is assigned most of the brake investigations that come to VRTC. In this position, he has conducted numerous tests of braking systems, and authored twenty-eight reports regarding the results of his investigations of vehicle systems (Tr. 771-83; CX-92-B, -C).

28. Mr. Hague's position requires expertise in passenger cars and light trucks and extensive knowledge of testing. Mr. Hague is an expert in passenger car and light truck systems, particularly brake systems, and in passenger car and light truck testing, particularly brake testing (Tr. 784).

c. John Hinch

29. John Hinch is Lead Engineer in the Office of Defects Investigation of NHTSA. He obtained a B.S. degree in Atmospheric and Oceanic Sciences from the College of Engineering at the University of Michigan. His course work in that program involved numerous engineering courses. Subsequently, he took masters level classes in general and mechanical engineering (CX-94; Tr. 1868-72).

30. From 1975 to 1978, Mr. Hinch was employed by NHTSA as a mechanical engineer, designing tests to evaluate the traction generating potential of tires, specifying control procedures and test instrumentation, analyzing the test data and preparing the reports (Tr. 1872-81). From 1978 to 1989 he was employed as an engineer at ENSCO, Inc., a research and development company, where he was responsible for testing of automotive systems and the interaction of automobiles with other systems. While at ENSCO, he served as lead engineer designing and constructing a test facility for the Federal Highway Administration. During his career at ENSCO, Mr. Hinch conducted over two hundred full-scale crash tests, calibrating equipment, processing the data after the test, and preparing or conducting final review of the project reports (Tr. 1882-89).

31. In 1989, Mr. Hinch returned to NHTSA as an engineer assisting the Chief of its Crash Avoidance Division. While in this position he designed tests to analyze what vehicle properties are associated with rollover crashes, and analyzed the resulting data (Tr. 1891-93). In 1992, he moved to ODI as a defect engineer, where he investigated alleged safety defects in school bus and heavy truck fleets, critically analyzing test data submitted by the fleet vehicle manufacturers to determine whether their data was competent and reliable, directing the conduct of tests to evaluate the validity of defect complaints, and writing detailed scientific reports to document the conclusions of investigations (Tr. 1894-96).

32. In 1994, Mr. Hinch was promoted to the position of Technical Assistant to the Director of ODI, where he provides support to the director on the technical issues raised in each of the two to three hundred investigations performed by ODI each year, supervises junior engineers in the development of scientifically sound investigation techniques and test protocols, and critically reviews test data submitted by manufacturers. Since 1995, he has been in charge of all testing conducted at VRTC, ensuring that such work is performed in

a competent manner; he also gives guidance to testing conducted at other locations such as the Aberdeen Proving Grounds, where seat-belt buckle testing is conducted (Tr. 1896-99).

33. Mr. Hinch has investigated and tested antilock brakes on school buses, has been involved in component testing on antilock brake systems, and has studied the traction generating potential of ABS-type controllers (Tr. 1902-03).

34. Mr. Hinch has written more than twenty different technical reports and papers, some of which have been published by the SAE (Tr. 1881-82). He is a member of the SAE and the National Safety Council, another professional society (Tr. 1882).

35. During his career, Mr. Hinch has been involved in the design and analysis of brake testing protocols. He has been responsible for the design of scientifically reliable test protocols to test various aspects of automobile performance, including braking performance, and is also responsible for the evaluation of such testing. Mr. Hinch is an expert in vehicle testing, vehicle test procedures and the analysis of data obtained from vehicle testing (Tr. 1900).

2. The Function of Automotive Brake Systems

36. The function of a motor vehicle's brake system is to slow or stop the vehicle. Hydraulic brake systems use an incompressible fluid to create pressure within a closed system of brake lines. When the driver pushes on the brake pedal, the brake lines transmit this pressure through the master cylinder to wheel cylinders or brake caliper pistons, which, in turn, apply force to the brake linings or pads (CX-102-Z-18; Tr. 786-89). This produces a brake torque at the axle which is transmitted to the tire/pavement interface (Tr. 789).

37. When the wheels slow down relative to the ground, slip is caused, generating horizontal tire-road forces. Wheel slip refers to the difference between the angular velocity of the free rolling wheel and the angular velocity of the braked wheel, divided by the angular velocity of the free rolling wheel, expressed as a percentage (CX-l03-B; Tr. 789-90, 1119-20). Stated more simply, wheel slip refers to the proportional amount of wheel/tire skidding relative to vehicle forward motion (CX-l02-J n.27). The amount of brake force developed at the tire/road interface is a function of the amount of wheel slip (CX-103-C; Tr. 789-90). As brake application is increased, the slip at each wheel increases, thus increasing the braking forces on the vehicle. When slip proceeds beyond 20%, however, brake force starts to fall

off subtly. More important, after 20% slippage, the ability of the tire/road contact spot to produce lateral force generation--necessary to make turns--falls precipitously (Tr. 790-91). An example of this is when a driver attempts to turn on clear ice: the vehicle will not turn, because there is severely limited lateral force generation capability (Tr. 791).

38. At 100% wheel slip, the wheels are locked and no longer rotating (Tr. 791). Wheel lockup occurs whenever the brake force generated at the road/tire interface exceeds the capacity of the pavement and the tire interface to produce that force. The friction, or "mu" of a road surface, referring to the ability of a given surface to produce a frictional force, is a factor in wheel lockup. Dry concrete is a high friction surface; ice is a very low friction surface. Vehicle speed is also a factor in lockup. However, wheel lockup can occur at any speed, and on a surface of any level of friction, if the driver applies sufficient force (Tr. 791-94; CX-l03-D, -E).

39. Certain risks are associated with wheel lockup. If front wheels lock first, braking force is diminished and the stopping distance is extended. Additionally, when the front wheels lock, there is no lateral force generation capability, and the driver in unable to steer. If rear wheels lock first, the vehicle typically spins out of control (Tr. 796).

3. The Operation of Antilock Brake Systems

40. Antilock brake systems are designed to maintain maneuverability and controllability during braking, under all operating conditions, by controlling wheel slip (CX-103-C, -D, CX-102-Z-22). NHTSA defines an antilock system as "a portion of a service brake system that automatically controls the degree of rotational wheel slip at one or more road wheels of the vehicle during braking" (CX-37-A; Tr. 1120).

41. The SAE publication "Antilock Brake System Review--SAE J2246" ("SAE J2246"), similarly defines an antilock brake system as "[a] device which automatically controls the level of slip in the direction of rotation of the wheel on one or more wheels during braking" (CX-l03-A). SAE publications are regarded as authoritative by experts in the braking field (Tr. 1125, 1909). Although the document where this definition appears does not include information about aftermarket devices, it is pertinent because it sets forth the

fundamentals of ABS and the development of ABS systems (CX-l03-A, -B, -C).

42. In order to control the "degree" or "level" of wheel slip as set forth in the NHTSA and SAE definitions, an ABS system must have components to detect what the rotational wheel slip is, even before it needs to be controlled. Thus, it needs sensors at the road wheels or the drive train that measure the rate of rotation of the road wheels. It also needs a computational device that can measure any change in the rotation of the wheel over time and compute the wheel slip, so as to evaluate whether lockup is approaching. If so, the system must be able to send signals to an actuator or control device to reduce the line pressure at the wheel, reducing brake force so the wheel can continue rolling at a more appropriate speed (Tr. 800-01, 1120-21, 1750-55). These components are necessary because the only way to control a system is to know whether the system is generating error (*i.e.*, to know what level of slip exists, and whether it is excessive) and to be able to affect the processes to correct the system back to the desired point (*i.e.*, to be able to return slip to the required level) (Tr. 802). A system that can sense the rotation of a wheel at a given point in time, but cannot sense the vehicle's speed and does not know the wheel's immediate past history of wheel rotation, cannot function as an antilock system, because it will not be able to calculate changes in wheel slip, and thus control the degree to which wheel slip is allowed (Tr. 1121-22).

43. Brake engineers generally understand ABS to mean a portion of a service brake system that automatically controls the degree of rotational wheel slip during braking by: (1) sensing the rate of angular rotation of the wheels; (2) transmitting signals regarding the rate of wheel angular rotation to one or more devices which interpret those signals and generate responsive controlling output signals; and (3) transmitting those controlling signals to one or more devices which adjust brake actuating forces in response to those signals (CX-l02-G, -I). This definition reflects the meaning of ABS as it has been generally understood among brake engineers since at least 1990 (Tr. 1123-25).

44. In 1995, NHTSA amended its definition of an antilock brake system to adopt the definition set forth in F. 43 (CX-l02). The new regulation clarifies the definition (Tr. 1122, 157) but does not substantively change it (Tr. 156-58); compare F. 42 with F. 43 (elements

of this new definition are consistent with elements required to comply with the prior definition).

45. In SAE J2246, SAE identifies the components of an antilock brake system as: (a) sensors to determine the wheel speed and the vehicle speed; (b) control logic to process the sensors' signals and determine the desired regulation of the brake pressure; (c) a means to implement the control logic; and (d) a means to regulate the brake pressure as dictated by the control logic (CX-l03-L; Tr. 1126).

46. SAE states that, "in a typical application, variable reluctance sensors are used for wheel speed sensing. The vehicle speed is estimated from the wheel speeds, eliminating the need for a separate vehicle speed sensor. The control logic is implemented via microprocessor software in an electronic controller. . . . A wiring harness links the various sensors, the displays, the controller, the vehicle electric system, and the modulator. The brake pressure regulation is typically done with the modulator employing solenoids that close or open different fluid paths to build or decay the brake pressure at the wheels" (CX-l03-L; Tr. 1126).

47. Factory-installed ABS systems widely advertised to consumers by auto manufacturers consist of wheel sensors, electronic signaling mechanisms, ABS computers, and hydraulic modulators (Respondents' Admission 71). These systems control the degree of rotational wheel slip during braking by: (a) sensing the rate of angular rotation of the wheels; (b) transmitting signals regarding the rate of wheel angular rotation to one or more controlling devices which interpret those signals and generate responsive controlling output signals; and (c) transmitting those controlling signals to one or more modulators which adjust brake actuating forces in response to those signals (Respondents' Admission 69).

48. The ABS/Trax device does not sense the rate of rotation of the wheels and does not know what the degree of wheel slip is (Tr. 2434). The ABS/Trax and ABS/Trax^2 devices advertised by respondents do not control the degree of rotational wheel slip during braking by: (a) sensing the rate of angular rotation of the wheels; (b) transmitting signals regarding the rate of angular rotation to one or more controlling devices which interpret those signals and generate responsive controlling output signals; and (c) transmitting those controlling signals to one or more modulators which adjust brake actuating forces in response to those signals (Respondents' Admission 70).

49. The ABS/Trax device is an accumulator. Accumulators are part of some ABS Systems, but are not ABS themselves. In ABS systems that include accumulators, if the wheel sensors send signals that tell the computer that the wheel is beginning to slip, the computer sends a control signal to the modulator to close the isolation valve, which prevents the driver from pushing further fluid from the master cylinder out to the caliper. Then, the computer issues control signals to the controller to open a dump valve, which allows the brake fluid to be released from the brake line and to be stored in a low-pressure accumulator. When sufficient fluid has been dumped so that the wheel begins to spin again at about 10% slip, the computer signals to the modulator to increase pressure. A high-pressure electrical pump then restores fluid from the accumulator to the brake line, as needed, to increase wheel slip, until slip again reaches about 30%, at which point the cycle begins again. The accumulator in such an ABS system is simply a storage device that supplies fluid to the pump, which in turn supplies the fluid to the brake lines. This is unlike respondents' accumulators, which are plumbed directly into the brake lines to provide a supply of energy for braking force (Tr. 876-80). Accumulators are not themselves ABS, because accumulators alone do not have the capacity to measure wheel speeds, make error determinations, and issue control signals to adjust the brake torques and braking response to actively and automatically control the degree of rotation of wheel slip of one or more of the wheels during the braking maneuver (Tr. 876). Thus, the ABS/Trax device does not have the components needed to operate as an ABS system.

4. Testing Antilock Brake Systems

50. To demonstrate that a product controls the degree or level of rotational wheel slip (and thus prevents or substantially reduces wheel lockup, skidding and loss of control), as called for by the NHTSA and SAE definitions, adequate, competent and reliable testing is needed that compares the performance of a vehicle equipped with the purported ABS system, to the performance of the same vehicle not equipped with the system, under controlled conditions, during a variety of driving maneuvers where controllability during braking is at issue. The driving maneuvers should include stops on a variety of road surfaces, such as changing friction surfaces (*e.g.*, where the road changes from dry to slick, or vice versa), split friction surfaces (where one side of the road is high friction and the other side of the road is

low friction), a low friction lane change, or a low friction curve maneuver (Tr. 1127-31; 802-12, 1907-08). Some testing involving curves or turns is important because the lateral force generation capability of a vehicle--that is, its ability to maintain maneuverability during a stop--is an important aspect of wheel slip control (Tr. 806-09). During the testing, sufficient pedal force should be applied so that lockup would occur, but for the operation of the device (Tr. 803-04, 1909-10, *see* Tr. 1128).

51. Conditions that should be controlled include the condition of the tires and brakes, the road surface, the velocity at the onset of braking and the brake application (Tr. 804-05, 1129-30). One way to ensure that the tire, brake and road surface conditions are as similar as possible is to run the tests with and without the device on the same vehicle as contemporaneously as possible (Tr. 804-05).

52. Additionally, proper instrumentation to record the parameters of interest is needed, including the velocity of the vehicle at the commencement of the stop, the brake pedal force applied, the line pressures developed in the brake system during the stop (measured, for example, by a brake force transducer), the wheel slip (calculated, for example, from data derived from wheel sensors), and whether the wheel lockup had occurred or was being modulated (Tr. 1129-31, 802-12). A visual display of conditions to ensure that the driver can repeat the pedal force he used in the prior test is also needed (Tr. 810, 1132).

53. Results of an antilock brake test should be adequately documented (Tr. 1287) (requiring "documentation that's without dispute"). If a test shows that a braking device shortens stopping distance, that alone does not demonstrate that it is an antilock brake system, because it does not show that the device eliminates or controls wheel lockup (Tr. 1132, 812). However, if a stopping distance test shows that a vehicle experiences lockup, it does demonstrate that wheel slip has not been controlled (Tr. 1132, 813). Anecdotal consumer reports that a device reduced lockup or prevented accidents do not provide competent and reliable evidence that a device is an antilock brake system, because consumers do not have the expertise required to evaluate an antilock system, and because they cannot tell whether or not specific wheels experienced lockup (Tr. 813, 1132, 1912).

54. The SAE has published a test procedure for evaluating antilock systems that is widely recognized throughout the automotive testing industry (Tr. 829). SAE J46, originally adopted in July 1973 and re-approved without change in 1993, sets forth a test code for evaluating whether or not a product controls wheel slip (CX-39, CX-40; Tr. 1133-34). The objectives of the test procedure are to separate antilock systems from non-antilock systems and to enable antilock manufacturers to evaluate alternatives in systems under development (Tr. 1091). SAE J46 identifies appropriate instrumentation, test facilities, and vehicle preparation, and sets forth four series of recommended road test maneuvers, including: (a) constant friction surface tests at various speeds; (b) split friction surface tests, (c) changing friction (high to low friction) tests; and (d) lane change tests (CX-40-A, -D; Tr. 1134-35). SAE does not set forth a required pedal force, but assumes that sufficient force would be applied to cause lock-up, but for the operation of the device (Tr. 1136). SAE J46 does not set forth exact parameters of testing, but was designed to permit each test facility to select road conditions and test conditions that were appropriate to it, considering that road surfaces varied among test facilities, and to develop comparative data (Tr. 1135).

5. Testing Comparative Stopping Distance

55. Scientifically sound evidence that one braking system provides shorter stopping distance than another system (that is, a comparative stopping distance test) requires competent and reliable testing that compares the performance of a vehicle with the device engaged to the performance of the same vehicle with the device disengaged. Braking a vehicle is an energy conversion process in which the vehicle's kinetic energy is changed into heat energy. Because the kinetic energy of the vehicle is proportional to the square of the velocity, even minor variations in speed can result in significant differences in the distance traveled. Accordingly, the speed that the vehicle is traveling at the point the brakes are applied must be carefully controlled. When there are minor variations in speed, the stopping distance may be corrected by following an SAE-approved procedure which requires that the vehicle be equipped with instrumentation that captures and records the actual speed of the vehicle at the point of braking, and the actual distance traveled from the point the brake was applied until the point the vehicle comes to rest (Tr. 814-19, 1160-66, 1916-18).

56. All other elements of the testing, *i.e.*, the tires, brakes, and the road surface must be controlled. Tests with and without the device should be conducted sufficiently close in time to avoid the possibility of an independent variable causing any apparent difference in results. The driver must be provided with a protocol for applying force to the pedal, so as to control the applied force, because differences in pedal apply time can affect stopping distance. One appropriate protocol is to tell the driver, under each condition, to use whatever brake pedal force is necessary to bring the vehicle to a stop in the shortest distance possible (Tr. 822, 1160-66, 1913-16, 2008). A minimum of three stops should be conducted to determine whether the results produced are consistent (Tr. 822).

57. A report regarding stopping distance tests should reflect the recording equipment used, show some evidence that information was taken from recorded data, and demonstrate that appropriate controls were used (Tr. 1165). It should show what the test protocol was, and what instructions were given to the driver (Tr. 1986-87, 2010).

58. Reports of consumer experiences do not provide competent and reliable evidence that a device provides comparative stopping distance benefits (Tr. 823-24). Test reports reflecting use of a tape measure to measure stopping distance are not reliable because they suggest that: (a) the tester was not aware of the vehicle's precise speed at entry, and thus was not able to correct for differences in kinetic energy; and (b) there was no certainty regarding the point at which braking commenced. An onlooker cannot reliably tell at what point the driver first applied the brake, and a driver cannot reliably brake at a predetermined point on the road (Tr. 824, 1164-65, 1918). Even minor errors regarding the point that braking commenced are significant, as a vehicle traveling at 60 miles per hour is moving at 88 feet per second; thus, an error time of even a tenth of a second can result in an 8.8 foot error in measured distance (Tr. 1163-64, 1919).

59. A competent and reliable test designed to measure stopping distance and wheel slip control would cost approximately $50,000 (*see*, Tr. 2202, Tr. 901).

6. The Performance of ABS/Trax

a. Evidence Relied Upon By Respondents

(1) Mr. Schops' Opinion Evidence

60. In support of the various ABS and ABS performance claims, respondents rely upon Mr. Schops' opinions regarding the performance of the ABS/Trax device and of factory-installed ABS; however, only competent and reliable testing, not opinion evidence, can establish that a device shortens stopping distances or provides wheel slip control (F. 50, 58). Moreover, Mr. Schops' opinions are not reliable and probative because he lacks the expertise to evaluate the performance of ABS systems or the ABS/Trax device. At trial, Mr. Schops did not offer himself as an expert witness, and his background and training do not demonstrate that he has the requisite expertise. Mr. Schops is a high school graduate who, from 1960 to 1970, was employed by various advertising agencies and media, selling advertising and advertising time (Tr. 2365-66). From 1970 to 1991 he started and operated several different businesses and served as a marketing consultant (Tr. 2367). He has no engineering degree, is not a member of the SAE, and has never attended classes on ABS systems given by any of the ABS manufacturers (Tr. 2367).

61. Mr. Schops' experiences driving vehicles equipped with aftermarket devices (Tr. 2373), and which he admits are anecdotal (Tr. 2416), are not reliable or probative because consumers do not have the expertise needed to evaluate an antilock system or to tell whether or not specific wheels experienced lockup (Tr. 1132, 813).

(2) AccuBrake Testing

62. In support of their claims, respondents also rely upon reports of certain tests. In October 1991, when respondents first disseminated their claims, ABSI had not conducted any tests to determine whether or not the ABS/Trax device controlled wheel slip (Tr. 2415). Instead, they relied on information provided by their supplier, Marketex, with regard to the performance of the AccuBrake system, the first ABS/Trax device sold by ABSI. The AccuBrake information is the only written test report Mr. Schops recalls seeing, and on which he relied in writing ads. It was an anonymous, one page report of stopping distance tests which demonstrated that when the AccuBrake system was installed on a vehicle, that vehicle continued to experience lockup (CX-30-F; Tr. 2415-16). This test supports the

conclusion that the ABS/Trax is not an antilock brake system, and does not constitute substantiation for respondents' claims (*see* Tr. 1132; Tr. 813).

63. The AccuBrake test report indicates that the device tested shortened stopping distances from 119 feet to 106.6 feet, or by 11%. However, the report shows that the tester dismissed the shortest of the test runs without the device; if this run is included, the "before" stopping distance drops to 115 feet, and the stopping distance improvement drops to 7.3% (CX-30-F; *see* Tr. 2418). Finally, the test report does not state how the stopping distances, each of which is reported as a whole number, were measured (CX-30-F). Mr. Schops testified that the stopping distances may have been measured with a tape measure (Tr. 2419). Stopping distance measurements conducted with a tape measure are not reliable (F. 58).

(3) Thailand Testing

64. Respondents also rely upon a videotape of testing conducted in Thailand, the date of which is not indicated (Tr. 2339). Mr. Schops testified that this test was conducted on "a mechanical ABS system that we had" (Tr. 2371). The entire tape is narrated in a foreign language, and the graphics are also foreign. There is no English translation. The tape shows a series of stopping distance runs at a racetrack facility. A vehicle would pass a point at which a person held a checkered flag; thereafter the vehicle would come to a stop, and stopping distances were measured with measuring tapes (Tr. 2024-31, 1242, 2438). The tape did not show that the vehicle was properly instrumented to record the speed at which braking commenced, that reliable means were utilized to measure the stopping distances, that sufficient runs were made to provide reliable data, or that stopping distances were corrected to accommodate differences between the actual speed and the target speed. Thus, it does not provide reliable evidence regarding stopping distances (Tr. 1242, 2024-31).

65. The Thailand test video tape shows that, with or without the device installed, the vehicle's wheels locked up almost immediately upon brake application (Tr. 2031). Thus, the tape does not provide competent and reliable scientific evidence that the ABS/Trax device controls the degree of wheel slip (Tr. 2032). A written report of the Thai testing also did not indicate that any appropriate evaluation of

the device's antilock brake system capacity was made, nor did it provide any reliable stopping distance data (Tr. 1242-47, 2023-24).

(4) Australia Testing

66. Respondents also rely on tests conducted by an Australian test entity in December 1993 (Tr. 2351-53, 2434-37). Mr. Schops testified that he was not certain on what version of his product the test was conducted (Tr. 2372). The report states that, "the ABS/Trax-fitted vehicle gained higher deceleration rates in all testing and, as such, shorter stopping distances" (Tr. 2352). In fact, the test organization tested only for deceleration levels, and did not directly measure stopping distances. It is not possible to reliably compute stopping distances from deceleration levels, because deceleration is not constant (Tr. 2019-20). Therefore, the report does not provide competent and reliable evidence that the ABS/Trax device will shorten stopping distances (Tr. 2021).

67. The report of the Australian testing also states that when the ABS/Trax device was installed, the vehicle continued to experience lockup, but less often (Tr. 2352-53). That test, however, nowhere states that the device tested controlled the degree of wheel slip (Tr. 2436). The report does not show that split mu or lane change testing was conducted, or that the testers used instrumentation such as wheel sensors to compare the degree of wheel slip with and without the device. The report does not show specific occasions where wheel lockup occurred without the device engaged, so that one could evaluate what percentage of the time the ABS/Trax device prevented wheel lockup. The report does indicate that during the testing, the wheels locked up with the device installed, and that driver control was required for unlocking (Tr. 2434-37). Thus, the report demonstrates that the device tested was not an antilock brake system (Tr. 1252); and it does not provide competent and reliable evidence that the ABS/Trax device controls the degree of wheel slip (Tr. 2021). In any event, Mr. Schops did not rely on this test when making advertising claims (Tr. 2438).

b. NHTSA Investigation and Testing

68. In 1991, NHTSA's Ohio-based VRTC became aware of aftermarket devices advertised as antilock brake systems which would also shorten stopping distances. To evaluate the performance of these devices, VRTC conducted tests on an AccuBrake device.

Subsequently, ODI opened a new defects investigation to assess the safety performance of devices sold by ABSI and two other companies (CX-32-K). As part of ODI's investigation, VRTC conducted carefully controlled road testing designed to evaluate the capacity of respondents' devices to prevent wheel lockup, skidding and loss of control under a variety of road conditions where, in real life, a vehicle without antilock brakes will experience wheel lockup, resulting in loss of vehicular control (CX-32-Z-2l, CX-34). These tests demonstrated that none of respondents' devices prevented lockup in those circumstances, that the test vehicle performed no better with the devices turned on than it did when they were turned off, and that the performance of the various devices was extremely similar. *See generally*, CX-34. By contrast, the identical vehicle equipped with factory-installed ABS and subjected to the same road tests maintained control. *Id.* NHTSA concluded that further allocation of resources to its investigation was unlikely to lead to an order to recall the devices and closed the defect investigation. However, because the testing and investigation indicated that the devices did not perform as claimed in advertising, the matter was referred to the Federal Trade Commission (CX-32-G).

(1) 1991 Testing

69. CX-35 is a report of tests that VRTC performed in 1991 on the AccuBrake device originally marketed by ABSI in 1991 (Tr. 2384, 2422-23). These included straight line stopping distance tests, as well as stopping distance tests during a lane change and on a 500-foot radius curve, on a variety of surfaces (CX-35-L; Tr. 1172). The test vehicle was properly instrumented for stopping distance tests, and included a lockup box designed to permit visual indication of individual wheel lockup (CX-35-H; Tr. 1171-72). Stopping distances were corrected to account for any difference between the target speed and the actual speed (Tr. 1173; CX-35-K). Tests with and without the device were conducted on the same vehicle, a Toyota pickup truck. An adequate number of runs were made and the parameters of the test were carefully controlled (Tr. 1173-74, 1177; CX-35-S (tests with and without device conducted in series so as to assure consistent conditions)). CX-35 was performed in a competent manner and the results are reliable (Tr. 1177).

70. The AccuBrake device did not reduce stopping distances; indeed, stopping distances were somewhat longer, on average, when the device was installed (CX-35-Z-3). The results of 69 different tests conducted when the vehicle contained no cargo provided an average stopping distance without the device of 152 feet, whereas the average stopping distance of the same number of runs with the device installed was 165 feet (CX-35-Z-2, CX-35-S, -T). An additional series of tests were conducted with the vehicle loaded with cargo. Two drivers conducted these tests, with each driver conducting a complete set of tests with and without the device (*i.e.*, each made 66 runs with the device, 66 without). The first driver's average stopping distance without the device was 172 feet, whereas his average with the device was 181 feet. The second driver's average stopping distance without the device was 161 feet, and his average with the device was 162 (CX-35-Z-2, Z-l9-2l). The results of CX-35 provide competent and reliable evidence that the AccuBrake device does not shorten stopping distances (Tr. 1177; CX-35-Z-3).

71. The report also provides results of 60 mph stopping distance tests (CX-35-T, -W). In the first series of these tests, the AccuBrake device extended the stopping distance by 36 feet (from 173 to 209 feet), or by 20%. In the second series of 60 mph tests, the device extended the stopping distance by 3 feet (from 217 to 220), or by 1.3%. In the third series, the device shortened the stopping distance from 202 to 194 feet, or by 4.1% (CX-35-T, -W). These tests provide competent and reliable evidence that the AccuBrake device tested does not shorten stopping distances by up to 30% when the brakes are applied at 60 mph. (*See* Tr. 1177).

72. In VRTC's 1991 stopping distance tests, the AccuBrake device tested failed to prevent lockup in 26 of 30 panic stop tests (CX- 35-S (reference to "full dump" tests), -U). Thus, it did not perform as an antilock device (CX-35-U; Tr. 1132, 813). Indeed, in some instances, rear lockup occurred with the device engaged, where it had not occurred with the device disengaged (CX-35-U).

(2) 1992-93 Testing

73. CX-34 reports the results of VRTC tests performed in 1992 and 1993 on two versions of the ABS/Trax device: one purchased in July 1992, and a second that Mr. Schops provided in October 1992 and which he described as "upgraded through 23 additional

`patentable' changes" (CX-32-L). One of these was the Cardenas version of the ABS/Trax device (Tr. 2427).

74. Four different road braking tests were conducted to determine if the two ABS/Trax devices and three other aftermarket "ABS" devices could control the degree of road-wheel slippage when subjected to panic braking on medium to very low friction surfaces (CX-34-K; Tr. 826-27, 1137). The performance of the test vehicle with each device engaged was compared to that of the same vehicle with the device disengaged (Tr. 1138). In addition, the same tests were performed on a nearly identical vehicle with factory-installed antilock brakes, tested with the ABS on and off, to demonstrate the performance of the factory-installed ABS and make the results more understandable to the consumer (CX-34-F; Tr. 883, 1138).

75. The aftermarket device tests were conducted on a low mileage (three to five thousand miles) 1992 vehicle without factory-installed antilock brakes ("aftermarket vehicle"). Prior to the beginning of testing, new tires, front brake pads and rear brake shoes were installed on the vehicle, and the brakes were burnished to control their condition (Tr. 833-36). The devices tested were the appropriate size for the test vehicle, and installed so they could be engaged and disengaged (CX-32-I, -L; Tr. 831-32, 80). The factory-installed ABS tests were conducted on a new 1992 vehicle ("OEM vehicle"), with just a few hundred miles on the odometer, again equipped with new tires and brakes, which were appropriately burnished prior to the testing. A switch was installed so that the ABS could be turned on and off (Tr. 832-36). The only difference between the two vehicles was that the aftermarket vehicle had rear drum brakes, whereas the OEM vehicle had rear disc brakes. There is no reason to believe that the rear brakes on the two vehicles would have in any manner affected the test results (Tr. 833, 871).

76. The test protocol included test maneuvers set forth in SAE J46, including the lane change test, a changing friction surface test, and a split friction surface test (Tr. 827). The test was based upon SAE J46 because it is a test procedure that is widely recognized throughout the automotive testing industry as appropriate for the testing being done (Tr. 829-30). In addition, the vehicles were tested on a five hundred-foot radius curve surface, which evaluated the ability of a vehicle to come to a stop on a wet curve, without leaving the road and without hitting a barrier in front of it (Tr. 855).

77. The same driver was used for all tests. The surfaces where the tests were conducted were monitored, used exclusively for vehicle tests and regularly checked for friction levels. On the surfaces that are used wet, the facility uses a water truck to keep it uniformly wet. Application of brakes was controlled by instructing the driver to apply the same level of pedal force (112 pounds) during each driving maneuver, an appropriate level of pedal force (Tr. 833-41, 845; CX-34-H). The test parameters were appropriately controlled (Tr. 1148).

78. After the ABS/Trax I device was installed on the aftermarket vehicle pursuant to the manufacturer's instructions, the vehicle was run through the test procedures six times with the device off and then six times with the device on. Tests with and without the device were conducted within minutes of each other. This procedure was calculated to ensure that the various parameters of the tests with and without the device were controlled (Tr. 841-42). Immediately after completing the tests of the ABS/Trax I device, the tests were run on the ABS/Trax II device (Tr. 834). Since the results of testing on the ABS/Trax I device had been so consistent, all subsequent tests were conducted with only three runs for each permutation. This number of test runs was appropriate (Tr. 841, 1147). Comparison tests on the OEM vehicle with the factory-installed ABS engaged and disengaged were conducted five days before the ABS/Trax I tests, and immediately after the ABS/Trax II tests (Tr. 842). The five-day interval between the testing of the ABS/Trax I device and the factory-installed device is unlikely to have affected the results of the testing, given the other controls used and the fact that the weather was mild during the time of the testing (Tr. 843).

79. The aftermarket device test vehicle was instrumented to provide the test driver with a visual readout of vehicle speed, applied pedal force (obtained from the brake force transducer), deceleration, stopping distance, and elapsed time of maneuver. Additionally, an onboard computer data acquisition system was used to record the time history of vehicle speed, pedal force, vehicle acceleration, brake line pressure at four wheels, and wheel speed at four wheels (CX-34-I, -J; Tr. 833-36). The baseline tests on the OEM vehicle were conducted using this same equipment. This test also served as the comparison test for the ABS/Trax I device. For the comparison tests to the ABS/Trax II testing, the OEM vehicle was instrumented with the same visual readout (vehicle speed, applied pedal force, deceleration, stopping distances and elapsed time of maneuver) but the only data

automatically recorded was the time history of pedal force and a marker for the time of braking, when the comparison test to the ABS/Trax II testing was run (CX-34-J). The instrumentation was appropriate for this test (Tr. 1147-48).

80. The low-friction surface lane change test simulates a situation where a driver traveling at 35 mph on a wet, two lane highway encounters a stopped vehicle (denoted in the test by cones in the road) approximately 90 feet ahead, applies the brakes with 112 lbs. of pedal force, and attempts to switch to an adjacent lane and stop before hitting a second vehicle somewhat further ahead (CX-34-L, -M; Tr. 846-48). This test procedure is one of the primary procedures within SAE J46 and is conducted so frequently that there is a permanently marked course for it at the VRTC test facility (Tr. 847). When equipped with the ABS/Trax I device, the test vehicle failed to negotiate successfully the course regardless of whether the device was engaged or disengaged. In every attempt, when the brakes were applied all four wheels locked and the driver lost control of the vehicle, hitting the cones in the first lane and traveling uncontrolled until gradually coming to rest off the road (CX-34-S, -T; Tr. 851-53, 1140). The results of the ABS/Trax II testing were virtually the same, as were the results of the tests on the OEM vehicle when the factory-installed ABS was disengaged (CX-34-S, -U, -Z-l3; Tr. 850-53, 1139-40). By contrast, when the factory ABS was engaged on the OEM vehicle, the road wheels were observed to slow down and spin back up, avoiding lockup, so that the driver was able, on every attempt, to avoid the obstacle in lane 1 by steering into lane 2, and bringing the vehicle to a controlled stop well short of the obstacle in lane 2 (CX-34-S; Tr. 853, 1139).

81. The low friction surface curve test simulates a situation on a wet two lane curve, where the driver proceeding at 35 mph encounters a vehicle stopped ahead of him, but cannot change lanes because of obstacles in the second lane. He must apply 112 lbs. of pedal force and attempt to stop before striking the vehicle ahead of him, without leaving the road (CX-34-N). Although not a part of SAE J46, this procedure is used so frequently that a course for conducting the test is permanently marked at the VRTC test facility (Tr. 854). On each occasion when equipped with the ABS/Trax II devices, whether they were engaged or disengaged, the test vehicle experienced four wheel lockup, and the driver lost control of the

vehicle which proceeded in a straight line, leaving the curved road (Tr. 857-58, 1140-41; CX-34-U, -V, -W, -Z-18). Had there been obstacles off the road, such as trees, the vehicle would have struck them (Tr. 857). Similarly, when the OEM vehicle's ABS was disengaged, it experienced four wheel lockup, leaving the road (Tr. 856; CX-34-U, -V). When the factory-installed ABS was engaged, however, lockup was avoided and the driver was able to steer safely around the course, coming to a stop prior to colliding with the obstacle placed in the road (Tr. 856-57, 1141; CX-34-V).

82. The changing-friction surface test requires a vehicle to brake while experiencing a large change in surface friction, simulating the experience of a driver traveling on a wet highway at 40 mph who hits the brakes with 112 lbs. of pedal force and then encounters a patch of ice (CX-34-O, -P). This test procedure is described in SAE J46 and there is a preexisting test surface for such tests at the VRTC test facility (Tr. 860). CX-34, the report of the VRTC testing, contains graphs depicting the history of wheel slip during the changing friction surface test, based upon data obtained from the instrumentation installed in the vehicles (Tr. 863). The graphs show that whether the ABS/Trax I or II was engaged or disengaged, as the front and rear axles proceeded onto the very low friction surface, the wheels proceeded almost immediately to 100% wheel slip, where they remained throughout the rest of the maneuver (CX-34-W, -Z-23-26; Tr. 865-66). When the factory-installed ABS was disengaged, the OEM vehicle's performance mimicked that of the aftermarket test vehicle (CX-34-X). When its ABS was engaged, the graphs show that as the wheels transitioned onto the very low friction patch, the wheels commenced toward lockup. As the OEM ABS system detected the lockup, however, it adjusted the level of braking downward, and allowed the wheels to spin again. A controlled, optimal level of braking was established at each wheel, and slippage was held to between 10 and 20% throughout the remainder of the maneuver. On graphs appended to the test report, short duration spikes at approximately one-half second intervals show the ABS system continually assessing wheel speed and adjusting braking action as appropriate (Tr. 864, 1142-43; CX-34-X, -Z-2).

83. The fourth test was a split-friction surface test, also recommended in SAE J46 and also conducted on a track permanently dedicated to such testing at VRTC. In this test, a twelve-foot lane is marked so that the wheels on one side of a vehicle will be on a

surface similar to a wet highway, and the other side's wheels will be on a surface similar to an ice-covered highway. The driver was instructed to approach the course at 40 mph, apply 112 lbs. of brake pedal force, and try to steer a straight path. In such a test, if wheel slippage is not controlled, the subsequent loss of steering control generally will cause the vehicle to spin toward the higher friction surface (CX-34-Q, -R). During this testing, when the ABS/Trax I and II devices were engaged, all four wheels locked, resulting in the vehicle yawing (spinning) anywhere from 20 to 310 degrees out of control. When the OEM vehicle's ABS was disengaged, that vehicle, too, experienced loss of control, yawing between 90 and 190 degrees. When the OEM vehicle's ABS was engaged, however, the vehicle experienced no yaw; instead, it proceeded straight through the course, under control (CX-34-Z-3; Tr. 868-70).

84. VRTC disassembled and inspected the ABS/Trax I and II devices and concluded that they were simple small-volume hydraulic accumulators, that is, hydraulic energy storage devices. Other devices tested by VRTC, which were subject to the same road tests as the ABS/Trax devices and performed in the same manner, varied in the volume, hardness, and weight of the rubber insert. One of these other devices also had a screw which permitted the volume and stiffness of the insert to be adjusted. There is no reason to believe that redesigning the devices would have any effect on the outcome of the tests (CX-34-Z-5, -Z-6; Tr. 872-73).

85. The test reported in CX-34 was competent and reliable (Tr. 1149), and demonstrates that the ABS/Trax devices do not control the degree of rotational slip at one or more road wheels, as set forth in the NHTSA definition of ABS (CX-37-A; Tr. 880-81, 1150), nor do the devices control the level of rotational slip in the direction of rotation of the wheel on one or more wheels during braking, as set forth in the SAE J2246 definition (CX-103; Tr. 880-81, 1151). Thus, respondents' devices are not ABS as braking engineers define that term (CX-102-G, -I) since they do not sense the rate of angular rotation of the wheels, do not transmit signals regarding the rate of wheel angular rotation to one or more controlling devices, and do not transmit controlling signals to modulators that adjust brake actuating forces in response to those signals (Tr. 880-81, 1151).

86. The tests of the aftermarket vehicle reported in CX-34 demonstrate that the ABS/Trax devices do not prevent or

substantially reduce wheel lockup, skidding, and loss of control. In those tests there was no indication that the devices had any capacity to control the degree of wheel slip (Tr. 881, 1151).

87. The tests reported in CX-34 demonstrate that respondents' devices provide no wheel lockup control benefits (Tr. 881). By contrast, the factory-installed system tested in CX-34 demonstrated effective wheel lockup control (CX-34-Z-7; Tr. 104). By definition, genuine antilock braking systems provide wheel lockup control benefits (Tr. 1152; Respondents' Admission 69). Respondents' devices do not provide antilock brake system benefits, including wheel lockup control benefits, that are at least equivalent to those provided by OEM ABS (Tr. 881).

88. SAE J46 does not contain any performance standards or goals to be met in order to pass. Thus, a claim that a product complies with a performance standard set forth in SAE J46 is untruthful (Tr. 1136-37). Moreover, the testing that Mr. Schops relied on when preparing the ABS/Trax advertising, that is, the AccuBrake study, did not reflect any split mu or changing surface testing, as set forth in SAE J46 (CX-30-F; Tr. 2421-22). When tested pursuant to a protocol consistent with SAE J46, respondents' device did not perform as antilock brakes (CX-34).

III. CONCLUSIONS OF LAW

A. *Respondents Made The Alleged Claims*

Through the use of their trade names, advertising and promotional materials attached to the complaint, and a television ad, respondents made the claims alleged in the complaint (F. 13-18).

Each of the ads described in the findings make the challenged claims expressly, or convey their meaning so clearly that I can confidently find that they make one or more of the claims alleged in the complaint. *See Kraft, Inc.*, 114 FTC 40, 121 (1991), *aff'd*, 970 F.2d 311 (7th Cir. 1992), *cert. denied*, 507 U.S. 909 (1993).

Respondents intended to make many of these claims (F. 19), and it is appropriate to consider their intent when deciding whether a claim has been conveyed. *Thompson Medical Co.*, 104 FTC 648, 791, *aff'd*, 791 F.2d 189 (D.C. Cir. 1986), *cert. denied*, 479 U.S. 1086 (1987).

B. The Level Of Substantiation Required To Support Respondents' Claims

An ad is likely to mislead if the message it conveys is false, or if claims which are made are unsubstantiated, and advertisers must possess a reasonable basis for substantiation of claims which are made. *Thompson Medical* 104 FTC at 813, 818-19. Respondents' ads do not, with one exception,[2] reveal the level of support which they had for their claims. Thus, one must consider, for these claims, the six "Pfizer factors" which determine the type and amount of substantiation respondents should have possessed when they were made. *Thompson Medical Co.*, 104 FTC 648, 821 (1984), *aff'd*, 791 F.2d 189 (D.C. Cir. 1986), *cert. denied*, 479 U.S. 1086 (1987).

These factors include the type of claim, the product involved, the consequences of a false claim, the benefits of a truthful claim, the cost of developing substantiation for the claim, and the amount of substantiation which experts in the field believe is reasonable. *Thompson Medical*, 104 FTC at 821; *Pfizer, Inc.*, 81 FTC 23, 64 (1972).

Respondents' braking device involves automobile safety, and the experts called by complaint counsel agree that scientific tests should be conducted to verify claims made for it (F. 50-54; antilock claims) (F. 55-58; stopping distance claims).

The benefits of a truthful claim are evident and the cost of substantiation would not be prohibitive (F. 59).

The consequences of a false claim are significant, for each consumer who relied on respondents' claims paid approximately $450 for a device which does not operate as advertised (F. 8).

Consideration of the Pfizer factors compels the conclusion that the proper level of substantiation for the claims that respondents' braking device is an antilock braking system and complies with the NHTSA ABS definition, and for the braking distance and stopping distance claims, is competent and reliable scientific testing. *Thompson Medical*, 104 FTC at 826; *Firestone Tire & Rubber Co.*, 81 FTC 398, 463 (1972), *aff'd*, 481 F.2d 246 (6th Cir.), *cert. denied*, 414 U.S. 1112 (1973).

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[2] Some ads stated that the specific stopping distance claims were proven by tests and respondents should have had appropriate scientific evidence in support of them. *Removatron Int'l Corp.*, 111 FTC 206, 302, *aff'd*, 884 F.2d 1489 (1st Cir. 1989).

C. *Respondents' Claims Are False And Unsubstantiated*

The ABS/Trax devices advertised and promoted by respondents are not, in fact, antilock brake systems. As specified by the original and clarified NHTSA definitions, as defined by SAE, as understood by engineers in the brake field since 1990, and as advertised to consumers, an antilock brake system is one that controls the level or degree of rotational wheel slip (F. 40, 41, 44, 45, 47). Respondents' device does not have the components necessary to accomplish this feat. (Compare F. 42, 43, 45 with F. 6, 48-49). Competent and reliable testing conducted by VRTC on three versions of the ABS/Trax device demonstrates that it does not control wheel slip (F. 72, 87). Respondents have submitted no competent and reliable evidence that supports their claims (F. 62-67). Thus, the claims that the ABS/Trax device is an antilock brake system and complies with the NHTSA ABS definition (Complaint ¶¶ 5 and 7d) are false and unsubstantiated.

The results of the testing described in CX-34 demonstrate that respondents' device does not prevent or substantially reduce wheel lockup, skidding, or loss of steering control (F. 86). Respondents have submitted no competent and reliable evidence to support this claim (F. 60-67). To the contrary, the results of testing relied upon by respondents demonstrated that wheel lockup commonly resulted during stopping distance tests. *Id.* Accordingly, the claim that the ABS/Trax device prevents or substantially reduces wheel lockup, skidding and loss of steering control in emergency stopping situations (Complaint ¶ 7a) is false and unsubstantiated.

The results of the testing set forth in CX-34 demonstrate that respondents' device does not provide any meaningful wheel lockup control (F. 86). The testing further provides substantial evidence that factory-installed antilock brake systems do provide meaningful wheel lockup control (*Id.*; F. 87). Respondents have submitted no competent and reliable evidence to support the equivalence of their device with factory-installed ABS (*see* F. 60-67). Accordingly, the claim that ABS/Trax provides ABS benefits, including wheel lockup control benefits, at least equivalent to those provided by original equipment manufacturer electronic ABS systems (Complaint ¶ 7f), is false and unsubstantiated.

SAE J46 does not contain any performance standards or goals to be met. It is simply a test protocol, and any claim that a product

complies with a performance standard set forth in SAE J46 is false (F. 54). Moreover, respondents did not possess and rely on any testing conducted pursuant to SAE J46 at the time they made the claim (F. 62-67). When later tested by NHTSA pursuant to a protocol consistent with SAE J46, respondents' device did not perform as antilock brakes (CX-34). Accordingly, the claim that the ABS/Trax device complies with a performance standard set forth in Wheel Slip Brake Control System Road Test Code SAE J46 (Complaint ¶ 7c) is false and unsubstantiated.

Respondents' claim that installation of the ABS/Trax will qualify a vehicle for an automobile insurance discount in a significant proportion of cases (Complaint ¶ 7b) is false and unsubstantiated (Partial Summary Decision, Oct. 13, 1996).

Respondents' representation that tests prove that the ABS/Trax device reduces stopping distances by up to 30% when the vehicle's brakes are applied at a speed of 60 mph (Complaint ¶ 7e) is false. At the time this claim was made, the testing relied upon by respondents showed, at best, an 11% stopping distance improvement. In any event, respondents have not shown that this testing is competent and reliable (F. 63). Nor have respondents submitted any other competent and reliable evidence in support of this claim (F. 60-67). By contrast, competent and reliable testing performed by VRTC provides substantial evidence that such a stopping distance enhancement will not occur (F. 70).

Respondents' claim that the ABS/Trax device will improve stopping distances in an emergency situation is unsubstantiated (Complaint ¶ 9a). Respondents possess no competent and reliable evidence in support of this claim (F. 60-67). By contrast, testing performed by VRTC found no stopping distance improvement from the device (F. 70).

Respondents introduced no evidence that their device will make a vehicle safer (F. 60-67; Tr. 1255). By contrast, competent and reliable testing performed by VRTC found that the device did not shorten stopping distances, and did not control wheel slip (F. 70, 80-83). Accordingly, respondents' claim that the ABS/Trax device will make a vehicle safer than a vehicle not equipped with the device (Complaint ¶ 9b) is unsubstantiated.

D. Respondents' Deceptive Claims Are Material

Advertising misrepresentations are deceptive under Section 5 of the FTC Act only if they are "material" (FTC Policy Statement on Deception ("Deception Statement"), 103 FTC 174, 182 (1984)). A material misrepresentation is one that is likely to affect a consumer's choice of or conduct regarding a product, *i.e.*, reasonable consumers would consider the information in the claims important. *Id.*

Materiality is presumed for express claims. *Id.* Many of the claims alleged in the complaint were made expressly. This includes the claim that the product is an antilock brake system (Partial Summary Decision (Ad Meaning), at 4); the insurance discount availability claim (*Id.* at 13); the NHTSA ABS standard and SAE J46 compliance claims (*Id.* at 16-17; claims virtually express); the general and specific stopping distance claims (*Id.* at 17); and the comparative safety claim (*Id.* at 23).

Materiality is presumed for claims that respondents intended to make, *i.e.*, the claims that the ABS/Trax device was an antilock brake system, that it would substantially reduce lockup, skidding and loss of control, and that it complied with the NHTSA ABS definition and with SAE J46 (F. 19).

The Commission also presumes claims to be material if they pertain to the "central characteristics of a product . . . such as those relating to its purpose . . . [or] efficacy," or to safety (*Thompson Medical Co.*, 104 FTC at 816-17; Deception Statement, 103 FTC at 182). The majority of the challenged claims made for the product directly involved its purpose, efficacy, safety and cost. The central theme of respondents' advertising was that the ABS/Trax device was an antilock brake system that provided certain braking and stopping distance improvements, and that installing an antilock brake system like ABS/Trax would make the vehicle safer (*e.g.*, CX-1, CX-2, CX-3, CX-4). The SAE J46 and NHTSA ABS claims served to reinforce the impression that the device was an antilock brake system, and thus drove home this "safety" message.

Finally, claims regarding cost are presumed material (Deception Statement, 103 FTC at 182). The insurance discount availability claim made by respondents pertained to the overall cost of using the ABS/Trax device and hence it was material.

E. Mr. Schops Is Individually Liable For Respondents' Ad Claims

An individual can be held liable for a corporation's violations of Section 5 if he formulates, controls or directs corporate policy. *See Benrus Watch Co. v. FTC*, 352 F.2d 313, 324-25 (8th Cir. 1965), *cert. denied*, 384 U.S. 939 (1966); *Standard Distribs. v. FTC*, 211 F.2d 7, 13-15 (2d Cir. 1954); *Griffin Sys., Inc.*, D. 9249, 1994 FTC LEXIS 76, at *22-28 (Apr. 29, 1994); *see also Standard Educators, Inc. v. FTC*, 475 F.2d 401, 403 (D.C. Cir.), *cert. denied*, 414 U.S. 828 (1973).

Mr. Schops is individually liable for the illegal conduct described in this decision because he incorporated ABSI to market the ABS/Trax device, prepared and placed the deceptive and misleading ads, and sent materials repeating the advertising claims to hundreds of potential distributors. He also represented ABSI in attending trade shows, as a signatory to distribution agreements, and in correspondence with suppliers and purchasers (F. 2).

Mr. Schops is also individually liable for the activities of DTT (F. 3) and ABSTSI (F. 4)

F. Respondents' Defenses

Respondents' post hearing brief asserts several defenses, none of which are supported by the record in this case.

1. This Proceeding Is In The Public Interest

Respondents argue that this proceeding is not in the public interest because there were few consumer complaints regarding the ABS/Trax device and because the few ads which were disseminated did not result in extensive sales.

The ads in question were disseminated over an extensive period of time (October 1991 through 1995) in three nationally distributed periodicals and on TV (in 1991). In addition, ABSI sponsored a booth at the SEMA show in 1991 and attended SEMA shows in 1992, 1993, and 1994 at which it attempted to sell the ABS/Trax device (F. 9, 10, 11). Total advertising costs during this period were significant (F. 12). Some ads were directed to the trade, not to consumers, but this does not absolve respondents from responsibility. *See Litton Ind., Inc.*, 97 FTC 1, 13-15 (1981), *aff'd as modified*, 676 F.2d 364 (9th Cir. 1982).

Respondents' device sold for $459 to $499, and some 7000 units were sold from January 1992 to January 1996 (F. 8). These figures include foreign sales, over which the Commission has jurisdiction because they were initiated in the United States (Tr. 2401). *Branch v. FTC*, 141 F.2d 31, 35 (7th Cir. 1944).

There were few customer complaints but this is not due to consumer satisfaction but to the difficulty a layman would have in evaluating the efficacy of the ABS/Trax device (F. 58). I therefore find that this proceeding is in the public interest.

2. ABS Criteria Are Objective and Well Known

I reject respondents' argument that there are no criteria for determining whether an aftermarket device is an antilock braking system, for government and industry have established such criteria and they are well known (F. 40-46, 50-54).

3. Accumulators Are Not ABS

There is no evidence in this record that accumulators are ABS (F. 49).

4. NHTSA's Tests Were Competent and Reliable

Respondents assert, without any record evidence, that NHTSA's tests of the ABS/Trax device were flawed. The record amply supports complaint counsel's argument that NHTSA's tests were competent and reliable.

5. There Was No Foreign "Approval" of Respondents' Ads

Respondents argue that they have not violated Section 5 of the FTC Act because foreign testing of their device constituted official approval of that device. However, the tests cited by respondents did not "approve" their device; in fact both tests show that it did not control wheel lockup (F. 64-67).

G. The Appropriate Order

1. Introduction

Complaint counsel urge me to adopt, as an appropriate remedy, the notice order attached to the complaint and, in addition, the reseller and consumer notification provision in the order I entered after I found that respondents in a companion case, BST Enterprises, Inc., D. 9276, had defaulted.

After considering the matters discussed below, I agree that a broad fencing-in order is appropriate in this proceeding. *See FTC v. Colgate-Palmolive Co.*, 380 U.S. 374, 395 (1965).

2. The Violations Were Serious

Respondents made false claims over a four year time period (F. 9-11) for a device involving automobile safety where claimed performance could not be evaluated by consumers. *See Stouffer Foods Corp.*, D. 9250, FTC LEXIS 196 at 39-40 (Sept. 26, 1994); *Thompson Medical*, 104 FTC at 834.

3. The Violations Were Deliberate

In the face of substantial, contrary evidence, of which they were aware (F. 62-63), respondents disseminated false ads claiming that their braking device was an antilock brake system and had the attributes of factory-installed ABS. The willingness to make claims in the face of contrary, convincing evidence warrants the relief sought by complaint counsel. *See Thompson Medical*, 104 FTC at 834-35.

4. The Violations Are Transferable

In view of Mr. Schops' conduct in promoting and selling the products involved in this proceeding through false and misleading ads for which no reasonable basis existed, it is apparent that, unless he is ordered not to do so, he will use the same tactic in promoting other products which he might manufacture or distribute in the future. *See Litton Indus. Inc.*, 97 FTC 1 (1981), *aff'd as modified*, 676 F.2d 364, 370, 372 (9th Cir. 1982).

5. Reseller And Consumer Notification Is Appropriate

The reseller and consumer notification provisions will alert respondents' customers that they should not rely on the benefits promised in ads for the ABS/Trax device. *Removatron Int'l Corp.*, 111 FTC 206, 311 (1988), *aff'd*, 884 F.2d 1489 (1st Cir. 1989); *Southwest Sunsites, Inc.*, 105 FTC 7, 176-78, *aff'd*, 785 F.2d 1431 (9th Cir.), *cert. denied*, 479 U.S. 828 (1986); *Amrep Corp.*, 102 FTC 1362, 1678-80 (1983), *aff'd*, 768 F.2d 1171 (10th Cir. 1985), *cert. denied*, 475 U.S. 1034 (1986).

6. Trade Name Excision Is Warranted

In my partial summary decision (Ad Meaning) at 27, I found that respondents' product logos that employ the "ABS" acronym falsely convey to reasonable consumers that their products are antilock braking systems.

In such a situation the only practical remedy is to order excision of the ABS in connection with the promotion of respondents' device, *see Thompson Medical*, 104 FTC at 837-38, for any qualifying phrase would create more confusion that it could cure. *Continental Wax Corp. v. FTC*, 330 F.2d 475, 480 (2nd Cir. 1964); *Resort Car Rental Sys. Inc.*, 83 FTC 234, 298 (1973), *aff'd*, 518 F.2d 962 (9th Cir.), *cert. denied*, 423 U.S. 827 (1975).

H. Summary

1. The Federal Trade Commission has jurisdiction over respondents and over their acts and practices that are the subject of this proceeding under Section 5 of the FTC Act.

2. The acts and practices of respondents as described in my findings of fact constitute unfair or deceptive acts and practices in or affecting commerce in violation of Section 5(a) of the FTC Act.

3. The following order is appropriate under applicable legal precedent and the facts of this case.

ORDER

DEFINITIONS

For the purposes of this order:

1. "*Competent and reliable scientific evidence*" shall mean tests, analyses, research, studies, or other evidence based upon the expertise of professionals in the relevant area, that has been conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results; and

2. "*Purchasers for resale*" shall mean all purchasers of A•B•S/Trax or A•B•S/Trax^2 for resale to the public, including but not limited to franchisees, wholesalers, distributors, retailers, installers, and jobbers.

I.

It is ordered, That respondents, Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and their officers, and Richard Schops, individually and as an officer and director of said corporations, and respondents' agents, representatives, and employees, directly or through any partnership, corporation, subsidiary, division, or other device, in connection with the manufacturing, labeling, advertising, promotion, offering for sale, sale, or distribution of A•B•S/Trax, A•B•S/Trax^2 or any substantially similar product in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from employing the initials or term ABS in conjunction with or as part of the name for such product or the product logo.

II.

It is further ordered, That respondents, Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and their officers, and Richard Schops, individually and as an officer and director of said corporations; and respondents' agents, representatives, and employees, directly or through any partnership, corporation, subsidiary, division, or other device, in connection with the manufacturing, labeling, advertising, promotion, offering for sale, sale, or distribution of A•B•S/Trax, A•B•S/Trax^2 or any substantially similar product in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from representing, in any manner, directly or by implication, that such product:

A. Is an antilock braking system;

B. Prevents or substantially reduces wheel lock-up, skidding, or loss of steering control in emergency stopping situations;

C. Will qualify a vehicle for an automobile insurance discount in a significant proportion of cases;

D. Complies with a performance standard set forth in Wheel Slip Brake Control System Road Test Code SAE J46;

E. Complies with a standard pertaining to antilock braking systems set forth by the National Highway Traffic Safety Administration;

F. Has been proven in tests to reduce stopping distances by at least 30% when the vehicle's brakes are applied at a speed of 60 mph; or

G. Provides antilock braking system benefits, including wheel lock-up control benefits, that are at least equivalent to those provided by original equipment manufacturer electronic antilock braking systems.

III.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and their officers, and Richard Schops, individually and as an officer and director of said corporations, and respondents' agents, representatives, and employees, directly or through any partnership, corporation, subsidiary, division, or other device, in connection with the manufacturing, labeling, advertising, promotion, offering for sale, sale, or distribution of any braking system, accessory, or device, in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from representing, in any manner, directly or by implication, that:

A. In emergency stopping situations, a vehicle equipped with the system, accessory, or device will stop in a shorter distance than a vehicle that is not equipped with the system, accessory, or device; or

B. Installation of the system, accessory, or device will make operation of a vehicle safer than a vehicle that is not equipped with the system, accessory, or device;

unless, at the time of making such representation, respondents possess and rely upon competent and reliable scientific evidence that substantiates the representation.

IV.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and their officers, and Richard Schops, individually and as an officer and director of said corporations, and respondents' agents, representatives, and employees, directly or through any partnership, corporation, subsidiary, division, or other

device, in connection with the manufacturing, labeling, advertising, promotion, offering for sale, sale, or distribution of any product in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from misrepresenting, in any manner, directly or by implication:

A. The contents, validity, results, conclusions, or interpretations of any test or study;

B. The compliance of any such product with any standard, definition, regulation, or any other provision of any governmental entity or unit, or of any other organization; or

C. The availability of insurance benefits or discounts arising from the use of such product.

V.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and their officers, and Richard Schops, individually and as an officer and director of said corporations, and respondents' agents, representatives, and employees, directly or through any partnership, corporation, subsidiary, division, or other device, in connection with the manufacturing, labeling, advertising, promotion, offering for sale, sale, or distribution of any braking system, accessory, or device, or any other system, accessory, or device designed to be used in, on, or in conjunction with any motor vehicle, in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from making any representation, directly or by implication, regarding the absolute or comparative attributes, efficacy, performance, safety, or benefits of such system, accessory, or device, unless such representation is true and, at the time of making such representation, respondents possess and rely upon competent and reliable evidence, which when appropriate must be competent and reliable scientific evidence, that substantiates the representation.

VI.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and Richard Schops shall:

A. Within forty-five (45) days after the date of service of this order, compile a current mailing list containing the names and last known addresses of all purchasers of A•B•S/Trax or A•B•S/Trax^2 since January 1, 1990. Respondents shall compile the list by:

1. Searching their own files for the names and addresses of such purchasers; and

2. Using their best efforts to identify any other such purchasers, including but not limited to sending by first class certified mail, return receipt requested, within five (5) days after the date of service of this order, to all of the purchasers for resale with which respondents have done business since January 1, 1990, an exact copy of the notice attached hereto as Appendix A. The mailing shall not include any other documents. In the event that any such purchaser for resale fails to provide any names or addresses of purchasers in its possession, respondents shall provide the names and addresses of all such purchasers for resale to the Federal Trade Commission within forty-five (45) days after the date of service of this order.

3. In addition, respondents shall retain a National Change of Address System ("NCOA") licensee to update this list by processing the list through the NCOA database.

B. Within sixty (60) days after the date of service of this order, send by first class mail, postage prepaid, to the last address known to respondents of each purchaser of A•B•S/Trax or A•B•S/Trax^2 identified on the mailing list compiled pursuant to subparagraph A of this Part, an exact copy of the notice attached hereto as Appendix B. The mailing shall not include any other documents. The envelope enclosing the notice shall have printed thereon in a prominent fashion the phrases "FORWARDING AND RETURN POSTAGE GUARANTEED" and "IMPORTANT NOTICE--U.S. GOVERNMENT ORDER ABOUT A•B•S/TRAX or A•B•S/TRAX^2 BRAKING DEVICE."

C. Send the mailing described in subparagraph B of this Part to any person or organization not on the mailing list prescribed in subparagraph A of this Part about whom respondents later receive information indicating that the person or organization is likely to have been a purchaser of A•B•S/Trax or A•B•S/Trax^2, and to any purchaser whose notification letter is returned by the U.S. Postal Service as undeliverable and for whom respondents thereafter obtain a corrected address. The mailing required by this subpart shall be made within ten

(10) days of respondents' receipt of a corrected address or information identifying each such purchaser.

D. In the event respondents receive any information that, subsequent to its receipt of Appendix A, any purchaser for resale is using or disseminating any advertisement or promotional material that contains any representation prohibited by this order, immediately notify the purchaser for resale that respondents will terminate the use of said purchaser for resale if it continues to use such advertisement or promotional material.

E. Terminate within ten (10) days the use of any purchaser for resale about whom respondents receive any information that such purchaser for resale has continued to use any advertisement or promotional material that contains any representation prohibited by this order after receipt of the notice required by subparagraph A of this Part.

VII.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, and Richard Schops shall for five (5) years after the last correspondence to which they pertain, maintain and upon request make available to the Federal Trade Commission or its staff for inspection and copying:

A. The list compiled pursuant to subparagraph A of Part VI of this order;

B. Copies of all notification letters sent to purchasers pursuant to subparagraphs B and C of Part VI of this order;

C. Copies of notification letters sent to purchasers for resale pursuant to subparagraphs A and D of Part VI of this order, and all other communications with purchasers for resale relating to the notices required by Part VI of this order.

VIII.

It is further ordered, That for five (5) years after the last date of dissemination of any representation covered by this order, respondents, or their successors or assigns, shall maintain and upon request make available to the Federal Trade Commission or its staff for inspection and copying:

A. All materials that were relied upon in disseminating such representation; and

B. All tests, reports, studies, surveys, demonstrations, or other evidence in their possession or control that contradict, qualify, or call into question such representation, or the basis relied upon for such representation, including complaints from consumers, and complaints or inquiries from governmental organizations.

IX.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., their successors and assigns, shall:

A. Within thirty (30) days after the date of service of this order, provide a copy of this order to each of respondents' current principals, officers, directors, and managers, and to all personnel, agents, and representatives having sales, advertising, or policy responsibility with respect to the subject matter of this order; and

B. For a period of ten (10) years from the date of service of this order, provide a copy of this order to each of respondents' future principals, officers, directors, and managers, and to all personnel, agents, and representatives having sales, advertising, or policy responsibility with respect to the subject matter of this order, within three (3) days after the person assumes his or her position.

X.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc., their successors and assigns, shall notify the Commission at least thirty (30) days prior to any proposed change in the corporations such as a dissolution, assignment, or sale resulting in the emergence of a successor corporation, the creation or dissolution of subsidiaries, or any other change in the corporation which may affect compliance obligations under this order.

XI.

It is further ordered, That respondent Richard Schops shall, for a period of ten (10) years from the date of entry of this order, notify the Commission within thirty (30) days of the discontinuance of his present business or employment and of his affiliation with any new

business or employment. Each notice of affiliation with any new business or employment shall include respondent's new business address and telephone number, current home address, and a statement describing the nature of the business or employment and his duties and responsibilities.

XII.

It is further ordered, That this order will terminate twenty years from the date of its issuance, or twenty years from the most recent date that the United States or the Federal Trade Commission files a complaint (with or without an accompanying consent decree) in federal court alleging any violation of the order, whichever comes later; provided, however, that the filing of such a complaint will not affect the duration of:

A. Any paragraph in this order that terminates in less than twenty years;

B. This order's application to any respondent that is not named as a defendant in such complaint; and

C. This order if such complaint is flied after the order has terminated pursuant to this paragraph.

Provided further, that if such complaint is dismissed or a federal court rules that the respondent did not violate any provision of the order, and the dismissal or ruling is either not appealed or upheld on appeal, then the order will terminate according to this paragraph as though the complaint was never filed, except that the order will not terminate between the date such complaint is filed and the later of the deadline for appealing such dismissal or ruling and the date such dismissal or ruling is upheld on appeal.

XIII.

It is further ordered, That respondents shall, within sixty (60) days after service of this order upon them, and at such other times as the Commission may require, file with the Commission a report, in writing, setting forth in detail the manner and form in which they have complied with this order.

APPENDIX A

[Automotive Breakthrough Sciences, Inc. or ABS Tech Sciences, Inc. letterhead]

Dear A•B•S/Trax Reseller:

Our records indicate that you are or have been a distributor or retailer of the A•B•S/Trax or A•B•S/Trax^2 (hereinafter "A•B•S/Trax"), a brake product. This letter is to advise you that the Federal Trade Commission ("FTC") recently obtained an Order against Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. regarding certain claims made for the A•B•S/Trax device. Under that Order, we are required to notify our distributors, wholesalers and others who have A•B•S/Trax to stop using or distributing advertisements or promotional materials containing these claims. We are also asking for your assistance in compiling a list of A•B•S/Trax purchasers, so that we may contact them directly. Please read this letter in its entirety and comply with all parts.

The FTC's Decision and Order

The Federal Trade Commission has determined that the following claims made for the A•B•S/Trax device in Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc.'s advertisements, logos and promotional material are **FALSE** and **MISLEADING**:

(a) A•B•S/Trax is an antilock braking system.

(b) A•B•S/Trax prevents or substantially reduces wheel lock-up, skidding, or loss of steering control in emergency stopping situations;

(c) A•B•S/Trax will qualify a vehicle for an automobile insurance discount in a significant proportion of cases;

(d) A•B•S/Trax complies with a performance standard set forth in Wheel Slip Brake Control System Road Test Code SAE J46;

(e) A•B•S/Trax complies with a standard pertaining to antilock braking systems set forth by the National Highway Traffic Safety Administration;

(f) A•B•S/Trax has been proven in tests to reduce stopping distances by up to 30% when the vehicle's brakes are applied at a speed of 60 mph; and

(g) A•B•S/Trax provides antilock braking system benefits, including wheel lock-up control benefits, that are at least equivalent to those provided by original equipment manufacturer electronic antilock braking systems.

The FTC Order requires Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. to cease and desist from making these false claims for the A•B•S/Trax device.

In addition, the FTC Order requires Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. to cease and desist from

making claims that A•B•S/Trax will shorten stopping distances in emergency stopping situations or make a vehicle safer, unless at the time of making such representation it possesses competent and reliable scientific evidence substantiating the representation.

We need your assistance in complying with this Order.

Please immediately send us the names and last known addresses of all persons or businesses, including other resellers, to whom you have sold an A•B•S/Trax or A•B•S/Trax² since January 1, 1990. We need this information in order to provide the notification required by the FTC Order. If you do not provide this information, we are required to provide your name and address to the FTC.

Please stop using the A•B•S/Trax or A•B•S/Trax² promotional materials currently in your possession. These materials may contain claims that the FTC has determined to be false or unsubstantiated. You also should avoid making any of the representations as described in this letter. Under the FTC Order, we must stop doing business with you if you continue to use the prohibited materials or make the prohibited representations.

If you have any questions, you may call Deborah Kelly of the Federal Trade Commission at (202) 326-3004. Thank you for your cooperation.

Very truly yours,

Richard Schops
President
Automotive Breakthrough Sciences, Inc.

APPENDIX B

[Automotive Breakthrough Sciences, Inc. or ABS Tech Sciences, Inc. letterhead]

Dear A•B•S/Trax Customer:

Our records indicate that you previously purchased an A•B•S/Trax or A•B•S/Trax² (hereinafter "A•B•S/Trax") for your vehicle. This letter is to advise you that the Federal Trade Commission ("FTC") recently obtained an Order against Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. regarding certain claims made for the A•B•S/Trax device. Please read this letter in its entirety.

The FTC's Decision and Order

The Federal Trade Commission has determined that the following claims made for the A•B•S/Trax device in Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc.'s advertisements, logos and promotional material are **FALSE** and **MISLEADING**:

(a) A•B•S/Trax is an antilock braking system.

(b) A•B•S/Trax prevents or substantially reduces wheel lock-up, skidding, or loss of steering control in emergency stopping situations;

(c) A•B•S/Trax will qualify a vehicle for an automobile insurance discount in a significant proportion of cases;

(d) A•B•S/Trax complies with a performance standard set forth in Wheel Slip Brake Control System Road Test Code SAE J46;

(e) A•B•S/Trax complies with a standard pertaining to antilock braking systems set forth by the National Highway Traffic Safety Administration;

(f) A•B•S/Trax has been proven in tests to reduce stopping distances by up to 30% when the vehicle's brakes are applied at a speed of 60 mph; and

(g) A•B•S/Trax provides antilock braking system benefits, including wheel lock-up control benefits, that are at least equivalent to those provided by original equipment manufacturer electronic antilock braking systems.

The FTC Order requires Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. to cease and desist from making these false claims for the A•B•S/Trax device.

In addition, the FTC Order requires Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. to cease and desist from making claims that A•B•S/Trax will shorten stopping distances in emergency situations or make a vehicle safer, unless at the time of making such representation it possesses competent and reliable scientific evidence substantiating the representation.

If you have any questions, you may call Deborah Kelly of the Federal Trade Commission at (202) 326-3004. Thank you for your cooperation.

Very truly yours,

Richard Schops
President
Automotive Breakthrough Sciences, Inc.

OPINION OF THE COMMISSION

BY ANTHONY, *Commissioner*:

I. INTRODUCTION

This case is before the Commission on appeal from an initial decision and order by Administrative Law Judge Lewis F. Parker.[1] Judge Parker found that respondents, Automotive Breakthrough Sciences, Inc. ("ABSI"), ABS Tech Sciences, Inc. ("ABSTSI"), and Richard Schops, engaged in unfair and deceptive acts and practices in violation of Section 5 of the Federal Trade Commission Act, 15 U.S.C. 45 ("Section 5"), in connection with the sale and promotion of their "ABS/Trax" after-market braking device.[2]

Like its companion case, Brake Guard Products, Inc., Docket No. 9277,[3] this case is important, not only because of the deceptive practices that form the core of respondents' claims, but also, because respondents' actions have potentially grave implications for motor vehicle safety. After careful examination of the record, the Commission affirms the initial decision of the Administrative Law Judge and adopts his findings and conclusions to the extent they are not inconsistent with this opinion.[4] The order we issue, however, differs slightly from that issued by the Administrative Law Judge and is substantially similar to the order issued in Brake Guard Products, Inc.

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[1] References to the record are abbreviated as follows:

ID	Initial Decision
IDF	Initial Decision Finding
RAB	Respondents' Appeal Brief (styled "Motion To Appeal")
Tr.	Transcript of Testimony
CX	Complaint Counsel's Exhibit
PSD1	Partial Summary Decision of May 22, 1996
PSD2	Partial Summary Decision of October 16, 1996
F.	Finding in Partial Summary Decision

[2] "ABS/Trax" is used herein to refer collectively to all the after-market devices sold or marketed by respondents for installation on a vehicle to improve its braking performance. The original 1991 product was sold under the name "AccuBrake." *See* CX-30-A through -C. Subsequent versions were sold as ABS/Trax and ABS/Trax2. The same claims were made with respect to all versions of the device. *See* IDF 7.

[3] *See infra* note 6.

[4] There appears to be a typographic error on page 41 of the Initial Decision. On line 11 of that page, the ID refers to braking "distance" instead of braking "control." This seems to be incorrect in the context. Changing the word "distance" to the word "control" makes the sentence consistent with the record, the discussion immediately preceding the sentence in question (*id.* at 40) and with the cited findings of fact. The Commission adopts the discussion with this modification.

II. BACKGROUND

Beginning in 1991, the respondents[5] sold various versions of the ABS/Trax device through advertising placed in print media, on television and at trade shows. On September 27, 1995, the Commission issued its complaint[6] challenging a number of respondents' advertising claims as false and/or unsubstantiated and alleging that they violated Section 5.[7] The complaint alleged that respondents made the following false and/or unsubstantiated claims:

1. Antilock Brake System Claims:
   a. That ABS/Trax is an antilock brake system (Complaint ¶ 5);
   b. That ABS/Trax prevents or reduces lock-up, skidding and loss of steering control (Complaint ¶ 7(a));
   c. That ABS/Trax provides antilock braking benefits that are as good as those provided by original equipment manufacturer-installed electronic antilock braking systems (Complaint ¶ 7(f));
2. Stopping-Distance Claims:
   a. That in emergency stopping situations, ABS/Trax will stop a vehicle in a shorter distance than a vehicle that is not equipped with the device (Complaint ¶ 9(a));
   b. That tests prove that ABS/Trax reduces stopping distances by up to 30% at a speed of 60 mph (Complaint ¶ 7(e));
3. General Comparative Safety Claim:
   That ABS/Trax will make operation of a vehicle safer than operation of a vehicle not equipped with ABS/Trax (Complaint ¶ 9(b));
4. Compliance with Standards Claims:
   a. That ABS/Trax complies with National Highway Traffic Safety Administration ("NHTSA") standards for antilock brakes (Complaint ¶ 7(d));

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[5] ABSI and ABSTSI are New York corporations with their principal place of business in Wheatley Heights, New York. IDF 1. ABSI was formed in 1991 for purposes of marketing a brake product known as "ABS/Trax." The designer of the device, respondent Richard Schops, was ABSI's Chief Executive Officer and, with another individual, managed the firm on a day-to-day basis. In addition to selecting the product name and logo, Mr. Schops drafted and placed the advertising and promotional materials. Since 1992, ABS/Trax has been sold through ABSTSI. In his capacity as officer and director of ABSTSI, Mr. Schops attends trade shows, signs agreements with product distributors, and prepares promotional materials. IDF 2, 4.

[6] On the same date, the Commission issued substantially similar complaints in BST Enterprises, Inc., Docket No. 9276, and Brake Guard Products, Inc., Docket No. 9277. On October 16, 1996, the Administrative Law Judge entered a judgment by default in Docket No. 9276, and on May 30, 1997, the Commission issued its final order. On May 2, 1997, the Administrative Law Judge issued an initial decision in Docket No. 9277, which was appealed to the Commission. On January 15, 1998, the Commission issued a final order and opinion in that proceeding.

[7] The complaint alleged that the general stopping-distance and comparative safety claims (Complaint ¶ 9) were unsubstantiated (Complaint ¶ 10), and that the remaining claims were both unsubstantiated and false (Complaint ¶¶ 5 and 7).

b. That ABS/Trax complies with performance standards set forth in the Wheel Slip Brake Control System Road Test Code of the Society of Automotive Engineers ("SAE J46") (Complaint ¶ 7(c)); and

5. Insurance Discount Claim:

That installation of ABS/Trax will qualify a vehicle for an insurance discount in a significant proportion of cases (Complaint ¶ 7(b)).

On October 21, 1995, trial began,[8] and on May 22, 1996, the Administrative Law Judge granted complaint counsel's motion for partial summary decision, holding that respondents had made the alleged claims through their trade names, advertising, and promotional materials.[9] On October 16, 1996, in a second partial summary decision, the Administrative Law Judge found that respondents' claim (Complaint ¶ 7(b)) that installation of their device would qualify a vehicle for an insurance discount was both false and unsubstantiated.[10]

The record closed on December 9, 1996, and on March 3, 1997, the Administrative Law Judge issued his initial decision and order.[11] The Judge concluded that each of the claims challenged in the complaint was false and/or unsubstantiated, in violation of Section 5.[12] He found corporate liability and also held respondent Richard Schops individually liable for the violations.[13]

With the initial decision, Judge Parker issued an order prohibiting respondents from making any of the claims found to be false and from making any of the unsubstantiated claims without proper support. He also barred them from using the term "ABS" in marketing their braking device or substantially similar products. The Judge's order also prohibited respondents from making certain claims in connection with products other than ABS/Trax or similar devices. Order ¶¶ III, IV and V.

Respondents do not appeal Judge Parker's finding that they made the claims challenged in the complaint. The principal contentions in

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[8] This case was consolidated with Docket Nos. 9276 and 9277.

[9] PSD1; *see also* IDF 13.

[10] PSD2; *see also* ID 43.

[11] The initial decision includes some findings and conclusions on issues first addressed in the earlier partial summary decisions.

[12] ID 41-43; PSD2.

[13] ID 45.

respondents' appeal appear to be[14] that the Administrative Law Judge erred in finding their claims for ABS/Trax false and/or unsubstantiated and also erred in ordering them to cease using the term "ABS." Respondents also contend that the Commission's adjudicative procedures are unfair[15] and that this proceeding was not in the public interest.

The Commission's review of this matter is based on the record of the proceeding, which does not include oral argument by the parties. The Commission's Rules of Practice provide that "[o]ral arguments will be held in all cases on appeal to the Commission, unless the Commission otherwise orders upon its own initiative or at the request of any party made at the time of filing of his brief." 16 CFR 3.52(i)(1998).

After issuance of the initial decision on March 3, 1997, the parties submitted appeal briefs, and neither requested that oral argument not be held. Indeed, respondent Schops made known his desire to present argument on several occasions.[16] On May 14, 1998, the Commission convened to hear oral argument, and although complaint counsel were

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[14] The document filed by respondents as their appeal brief is styled "Respondent(s)' Motion To Appeal from the Decision." It fails to comply with § 3.52(b) of the Commission's Rules of Practice, 16 CFR 3.52(c) (1998), which specifies that an appeal brief "shall contain [among other things]. . . [a] concise statement of the case; . . . [a] specification of the questions intended to be urged; . . . [t]he argument presenting clearly the points of fact and law relied upon in support of the position taken on each question, with specific page references to the record and the legal or other material relied upon . . . and [a] proposed form of order. . . ." The document filed is conclusory and difficult to follow. Nonetheless, recognizing that respondents are appearing *pro se*, the Commission accepted the appeal and endeavored to understand, consider and address respondents' contentions.

[15] In connection with their fairness argument, respondents also seem to suggest that the Commission brought this action on behalf of manufacturers of new automobiles and their brake equipment suppliers, who, respondents argue, stand to benefit from the proceeding. *See* RAB 7-8, 13. Respondents also suggest that because "the Giant Manufacturers" have not brought suit against respondents, their claims for ABS/Trax must be true. *See* RAB 14-15. Respondents cited no record evidence in support of these bald assertions, and the Commission rejects them as without factual basis.

[16] Oral argument was originally scheduled for August 14, 1997. On three occasions between that date and May 14, 1998, respondent Schops requested that the Commission postpone the argument, and each time, the Commission granted his request. On the last such occasion, on April 1, 1998, in response to the latest letter from Mr. Schops seeking yet another postponement of the date of argument, the Commission issued an order postponing oral argument scheduled for April 6 and further stating that if respondents failed to appear at the next scheduled argument date, the Commission would decide the case on the papers. On April 16 the Commission issued a notice rescheduling the oral argument for May 14 at 2:00 p.m. Copies of both the April 1 order and the April 16 notice were dispatched to Mr. Schops on numerous occasions by multiple methods including express mail, commercial delivery service and facsimile transmission. In addition, the Office of the Secretary of the Commission left several recorded messages on Mr. Schops' telephone answering device describing the documents to Mr. Schops and requesting that he advise the Commission whether he intended to participate in the argument on May 14. No answer was received as of that date. *See* Transcript of Hearing Before the Commission, 3-5, May 14, 1998.

present, neither respondent Schops, nor anyone else representing the respondents, appeared. Having heard the Secretary of the Commission describe his efforts to satisfy Mr. Schops' expressed desire for an opportunity to present argument as well as to notify Mr. Schops of various argument dates and to accommodate his numerous requests for postponement, the Commission issued an order, consistent with Rule 3.52(i), canceling the oral argument and reiterating its intention, as stated in its notice of April 16, to decide the matter on the papers.[17]

III. CONCLUSIONS OF LAW

Under Section 5 of the FTC Act, an advertising claim is deceptive if it is "likely to mislead consumers acting reasonably in the circumstances, and . . . is material."[18] A claim that is false and material[19] is misleading to reasonable consumers and, therefore, is deceptive. In addition, the Commission long has held that "a firm's failure to possess and rely upon a reasonable basis for objective claims constitutes an unfair and deceptive act or practice in violation of Section 5."[20] When an advertisement promises a level or type of substantiation, such as "75% of doctors agree" or "tests show," the level or type of substantiation promised constitutes a reasonable basis

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[17] On May 18, 1998, Mr. Schops sent a letter to the Secretary explaining his failure to appear at the oral argument and stating that he had been out of town and had not received the notices of the May 14 date until four days after it had passed. The letter concludes, "As a *pro se* Respondent unfamiliar with protocols and *pursuancies*, I respectfully request instruction as to re-opening the oral argument on appeal opportunity." On May 19, complaint counsel filed in opposition, noting that the Commission's April 16 notice setting the argument for May 14 was consistent with the respondents' earlier request by letter of March 30, 1998, that the argument be set for "mid-May." Although the Commission's Rules do not permit a reply from a moving party (16 CFR 3.22(c)), Mr. Schops submitted such a reply on May 20. By order of May 27, the Commission denied respondents' motion, noting once more its previous efforts to accommodate respondents' *pro se* status and citing Commission Rule 3.52(i). On May 29, respondents requested that the Commission reconsider its order of May 27, and the Commission denied this motion by order of June 25, 1998.

[18] *Cliffdale Associates, Inc.*, 103 FTC 110, 164-65 (1984); *see id.* at 174-84 (Appendix) (Federal Trade Commission Policy Statement on Deception ("Deception Statement")); *accord, Kraft, Inc.*, 114 FTC 40 (1991), *aff'd*, 970 F.2d 311 (7th Cir. 1992), *cert. denied*, 507 U.S. 909 (1993); *Removatron Int'l Corp.*, 111 FTC 206 (1988), *aff'd*, 884 F.2d 1489 (1st Cir. 1989).

[19] To be material, a claim must be "important to consumers and, hence, likely to affect their choice of, or conduct regarding, a product. . . ." *Cliffdale Associates, Inc.*, 103 FTC at 165; *see* Deception Statement, 103 FTC at 182.

[20] *Thompson Medical Co.*, 104 FTC 648, 839 & 839-42 (Appendix) (FTC Policy Statement Regarding Advertising Substantiation ("Advertising Substantiation Statement")) (1984), *aff'd*, 791 F.2d 189 (D.C. Cir. 1986), *cert. denied*, 479 U.S. 1086 (1987); *see National Dynamics Corp.*, 82 FTC 488, 552-53 (1973), *aff'd and remanded on other grounds*, 492 F.2d 1333 (2d Cir.), *cert. denied*, 419 U.S. 993 (1974), *reissued* 85 FTC. 391 (1976).

for the claims made. When no level or type of support is specified, the Commission applies the following analysis:

> [W]hat constitutes a reasonable basis is essentially a factual issue which will be affected by the interplay of overlapping considerations such as (1) the type and specificity of the claim made -- *e.g.*, safety, efficacy . . . ; (2) the type of product -- *e.g.*, . . . potentially hazardous consumer product . . . ; (3) the possible consequences of a false claim -- *e.g.*, personal injury, property damage; (4) the degree of reliance by consumers on the claims; (5) the type, and accessibility, of evidence adequate to form a reasonable basis for making the particular claims.[21]

Also relevant is "the amount of substantiation experts in the field believe is reasonable."[22]

Advertisers must have appropriate substantiation for claims when they are made,[23] and the Commission has observed that, "in fairness and in the expectations of consumers," the only reasonable basis for some types of claims for some types of products would be competent and reliable scientific evidence.[24]

In this case the Commission concludes that the claims, which potentially involve consumer safety, require substantiation by competent and reliable scientific evidence. As discussed further below, the Commission also concludes that respondents' claims that their device would make a vehicle safer and would shorten stopping distances in emergency stopping situations are unsubstantiated and that the other challenged claims are both unsubstantiated and false. The claims are material. Therefore, as a matter of law, the claims are deceptive and violate Section 5. The Commission further concludes that the violations are serious and readily transferable to other products. The Commission believes that barring use of the term "ABS" is appropriate, but we modify the fencing-in provisions in the Judge's order to tailor them more closely to the circumstances before

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[21] *Pfizer, Inc.*, 81 FTC 23, 64 (1972); *see also* Advertising Substantiation Statement, 104 FTC at 839-40 (1984).

[22] *Removatron Int'l Corp.*, 111 FTC 206, 297 (1988), *aff'd*, 884 F.2d 1489 (1st Cir. 1989); *see* Advertising Substantiation Statement, 104 FTC at 840.

[23] *See, e.g., Porter & Dietsch, Inc. v. FTC*, 605 F.2d 294, 302 n.6 (7th Cir. 1979); *Pfizer*, 81 FTC at 67 (1972) ("[T]o have had a reasonable basis, the tests must have been conducted prior to, and actually relied upon in connection with, the marketing of the product in question."); *see also* Advertising Substantiation Statement, 104 FTC at 839.

[24] *Pfizer Inc.*, 81 FTC at 64; *see, e.g., Removatron Int'l Corp.*, 111 FTC 206 (1988), *aff'd*, 884 F.2d 1489 (1st Cir. 1989); *Firestone Tire & Rubber Co.*, 81 FTC 398, 463 (1972), *aff'd*, 481 F.2d 246 (6th Cir.), *cert. denied*, 414 U.S. 1112 (1973).

us and to include certain technical changes consistent with Commission's Rules of Practice. Finally, the Commission concludes that the proceedings in this matter are fair and in the public interest.

IV. RESPONDENTS' CLAIMS VIOLATE SECTION 5

A. ABS/Trax Is Not and Does Not Provide the Benefits of an Antilock Braking System

1. ABS/Trax Is Not an Antilock Braking System

We first consider respondents' advertising claims that ABS/Trax is an antilock braking system. The essential features of an antilock braking system are reflected in well established and widely accepted industry and governmental standards.[25] In brief, an antilock braking system must automatically control the level or degree of rotational wheel slip, which is the proportional amount of wheel or tire skidding relative to vehicle forward motion.[26] IDF 37, 40-41, 44-45.

To control the level of rotational wheel slip automatically, a system must have sensors at the road wheels or drive train and a computational device to evaluate whether lock-up is approaching. IDF 42. The system also must be able to send signals to a control device that will reduce brake force so that the wheels will continue rolling. *Id.* ABS/Trax lacks the necessary components to detect and control the level or degree of rotational wheel slip automatically. IDF 6, 42-43, 45, 48-49, 72, 87. Rather, the ABS/Trax device is simply a "hydraulic accumulator": a resilient membrane in a metal housing that may be attached to the hydraulic brake line of an automobile. In a hard stop, the membrane expands to accept some brake fluid, returning it to the line when the brake pedal is released. IDF 6.

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[25] NHTSA regulations set forth the components of an antilock braking system. *See* CX-102; CX 37-A. The fundamentals of an antilock system are also set forth in a publication of the Society of Automotive Engineers, "Antilock Brake System Review -- SAE J2246." CX-103. SAE publications are regarded as authoritative by experts in the field. IDF 41. The views of experts in the field as to the essential features of an antilock system are consistent with definitions reflected in NHTSA and SAE standards. IDF 43; ID 41.

[26] As brake application is increased, wheel slip increases. After 20% slippage, the ability to make turns falls precipitously. At 100% wheel slip, the wheels are locked and no longer rotating. IDF 37-38. If the front wheels lock up first, the driver is unable to steer. If the rear wheels lock first, the vehicle spins out of control. IDF 39.

Respondents' contention that ABS/Trax qualifies as an antilock system because it is an "accumulator" (RAB 3) is without merit. As explained by complaint counsel's witnesses, experts in the field of automotive brake systems,[27] although some antilock systems contain accumulators, an accumulator, by itself, does not qualify as an antilock braking system because it does not have the capacity to measure wheel speed, make error determinations or issue control signals to control automatically the degree of rotational wheel slip. Respondents' Admissions 70; Tr. 876-80 (Hague); IDF 48-49.

There also is no merit to respondents' contention (RAB 3) that the Administrative Law Judge erred in assuming that a brake system must use an electronic apparatus if it is to be advertised or promoted as an antilock braking system.[28] The record does not show that the case was either tried or decided on such an assumption. Rather, as noted by the Administrative Law Judge, the gist of the complaint is that respondents promoted and advertised ABS/Trax as an antilock braking system even though the device lacks the capability, through whatever means, to control rotational wheel slip automatically. Although the antilock systems being marketed in the United States today rely on electronics to sense wheel rotation and transmit control signals (*see* CX 102-L), NHTSA has stated that these "functions could be performed using pneumatic, hydraulic, optic, or other mechanical means." *Id.* Nothing in the initial decision assumes away such a possibility.

2. ABS/Trax Does Not Provide the Benefits of an Antilock Braking System

We next consider respondents' advertising claims that their braking device provides the benefits of a factory-installed antilock braking system, such as preventing or reducing wheel lock-up, skidding and loss of steering control. Respondents did not submit or cite any evidence in support of these claims apart from lay opinion testimony by respondent Schops and patently unreliable tests.

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[27] Respondents presented no expert testimony.

[28] Respondent argues further that by predicating use of the term "ABS" or "antilock braking system" on the presence of an electronic apparatus, the Commission essentially limits use of the term to new car manufacturers and their suppliers.

The testimony of respondent Schops is not reliable or probative. Mr. Schops clearly lacks the training necessary to evaluate the performance of an automotive braking system[29] and, indeed, did not offer himself as an expert. IDF 60. Mr. Schops admits that his experiences driving vehicles equipped with aftermarket devices are anecdotal (Tr. 2416), and the record shows that as a layman, he cannot reliably evaluate whether specific wheels experienced lock-up either with or without the ABS/Trax device. Tr. 813, 1132 (Hague); IDF 58, 60-61. Therefore, his observations do not constitute the requisite competent and reliable scientific evidence to support respondents' claims that the ABS/Trax device will prevent or reduce wheel lock-up, skidding and loss of control in emergencies.

Mr. Schops recalls seeing only one written report before developing the advertisements for AccuBrake, the first ABS/Trax device sold by respondents. Tr. 2416. This report is an anonymous, one-page document setting forth purported results of tests apparently aimed at assessing comparative stopping distance performance of a 1980 Triumph TR-8 with and without respondents' device. CX-30-F. This document is devoid of any description of test protocols or other details necessary to permit assessment of the reliability and probative value of the results. *Id.*; IDF 62; Tr. 2416; compare with CX-34 (documenting NHTSA tests of five after-market add-on brake devices) and CX-35 (documenting NHTSA tests on an AccuBrake device sold by respondents).[30] In any event, the test results described in the report show that when the test vehicle was equipped with the ABS/Trax device, it continued to experience wheel lock-up. Even disregarding the absence of documented protocols and methodology, therefore, the test fails to support respondents' claims that its device will prevent or reduce wheel lock-up. IDF 62-63.

Respondents' reliance on a videotape of tests conducted in Thailand on "a mechanical system that [respondents] had" (Tr. 2371

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[29] Mr. Schops has neither formal scientific training nor background in engineering. Before his involvement with ABSI and ABSTSI, he worked for various advertising agencies selling advertising and advertising time. He has started and operated several businesses and also worked as a marketing consultant. *See* IDF 60. He also admits he is not an expert. Tr. 198. In contrast, complaint counsel offered and the Judge found persuasive the testimony of three expert witnesses. IDF 20-35. We agree with Judge Parker's assessment of this testimony.

[30] Although CX-35 on its face reports testing on a "Brake-Guard" device, testimony shows that although identical to the Brake-Guard product, the tested device, in fact, was a product called "AccuBrake," which was the first version of ABS/Trax to be marketed by respondent Schops and his companies. Tr. 46, 2415-16; CX-30-A through C.

(Schops)) is likewise without merit.[31] The record shows that competent and reliable testing is necessary to demonstrate that a product controls wheel slip, thereby preventing lock-up, skidding and loss of control, and that it reduces stopping distances. *See* IDF 50-58. According to complaint counsel's expert, Mr. Kourik, the tests reported on the videotape appear to have been conducted without any instrumentation, and Mr. Kourik also stated that they show "nothing on methodology at all." Tr. 1244-49. Mr. Hinch, another of complaint counsel's expert witnesses, testified that the videotape shows that with or without the ABS/Trax device installed, "the wheels locked-up on the vehicle almost immediately upon brake application." Tr. 2031; IDF 65. He also testified that the videotape does not provide competent and reliable scientific evidence that ABS/Trax controls the degree of wheel slip. *Id.* Therefore, the videotape does not support respondents' claim that the device reduces or prevents wheel lock-ups or otherwise provides the benefits of an antilock braking system.

Respondents cite an Australian test conducted in December 1993 (Tr. 2435 (Schops)) on deceleration levels of an ABS/Trax-fitted vehicle. This test is not on the record. Nonetheless, it is deficient because it does not show that split mu[32] or lane-change testing was conducted or that instrumentation was used to compare wheel slip with and without the device. Regardless of its methodological deficiencies, the Australian test demonstrates that the test vehicle continued to experience lock-up with respondents' device installed. IDF 67. In any event, respondents did not use or rely on the Australian test results at the time they made their claims for ABS/Trax. IDF 67; Tr. 2438 (Schops). Therefore, the results do not show that respondents had or relied on competent and reliable

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[31] The audio of the tape, its graphics and the accompanying written report, none of which is on the record, are in a foreign language, apparently Thai, and are unaccompanied by English subtitles or other translation. IDF 64-65.

[32] The Greek letter "mu" in the context of brake testing stands for the frictional coefficient of the surface on which the test is being conducted. *See* Tr. 792 (Hague). Uncontroverted expert testimony in the record establishes that appropriate methodology for testing whether a product controls the level or degree of rotational wheel slip as called for in the NHTSA regulations and SAE J2246 specifications (*see supra* note 25) includes test runs on a variety of surfaces with different frictional or mu levels. A "split mu" test is conducted on a surface with different frictional levels on the right and left sides of the test vehicle. Tr. 1127 (Kourik).

scientific evidence in support of their performance claims at the time the claims were made.[33]

In contrast to respondents' proffered substantiation, tests conducted by NHTSA in accordance with SAE J46 (CX-39, CX-40), a widely-accepted industry protocol (Tr. 829-30; IDF 76), demonstrate that ABS/Trax will not prevent wheel lock-up. *See* CX-34; CX-35; IDF 68-87.[34] The expert testimony offered by complaint counsel's witnesses corroborates the testing results and confirms that ABS/Trax does not provide the benefits of an antilock braking system. *See, e.g.*, Tr. 873-83 (Hague); Tr. 1140-52 (Kourik).

Respondents argue that the NHTSA "testings" relied on by the Administrative Law Judge are "highly arguable and inarguably limited/biased," stating that they have been "shown to be dysfunctional in protocol and conclusion, actually producing (mis)information that unabashedly confers 15% shortened stopping on electronic (OE) ABS." They assert further that this "determination is now scandalously admitted by the car makers and ABS brake manufacturers themselves to be mostly inaccurate and inarticulate . . . ." RAB 7.

Respondents do not identify the testing to which they refer. If respondents' intention is to challenge the validity of the NHTSA tests on the record, such as CX-34 and CX-35, which were relied on by the Administrative Law Judge, and which we consider both reliable and probative, they cite no supporting record evidence. The Commission finds these arguments without factual basis in the record.[35] We find, therefore, that the NHTSA test results, the expert testimony presented by complaint counsel and respondents' failure to submit competent and reliable evidence to substantiate their claims provide strong

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[33] *See supra* note 23.

[34] Respondents also argue that "[t]here are . . . no D.O.T. standards . . . effectively no discreet pass/fail delineation." RAB 5. Assuming that by this, respondents mean to argue that no objective means exist to evaluate wheel-slip control, the record is to the contrary. Well established protocols exist for evaluating the ability of a device to control wheel slip and were used in the NHTSA testing. *See* IDF 50-54.

[35] Respondents seem to argue that the NHTSA test results relied on by the Administrative Law Judge are flawed as indicators of the performance of their products, because they constitute "simple, selective, and single minded testing of mostly new cars." They argue that "RESPONDENT company agenda is primarily the retrofit of mostly older or somewhat aged, non ABS equipped cars," but also "admit [ ] application of its claims to all non ABS cars, including newly manufactured hydraulics braking facilitate vehicles." RAB 9. This argument is somewhat opaque. In any event, however, none of the advertising claims challenged in this proceeding distinguishes between old and new vehicles.

support for concluding that respondents made false and unsubstantiated claims that ABS/Trax would perform like and as well as an antilock braking system with respect to wheel lock-up, skidding and control in panic stops.

B. ABS/Trax Does Not Reduce Stopping Distances in Emergencies; Nor Do Tests Show Using ABS/Trax Reduces Stopping Distances by Up To 30%

Respondents' advertising made two claims concerning stopping distances: a general claim that vehicles equipped with ABS/Trax would experience shorter stopping distances in emergency circumstances than would vehicles without the device; and a more specific claim that "simulation testing has shown that use of the device would reduce a vehicle's stopping distances by up to 30% at a speed of 60 mph." We find both of these claims unsubstantiated and the second false, as well.

Respondents appear to argue that because no performance standards for vehicle stopping distances exist, testing or other competent reliable scientific evidence is not required to support the claims. RAB 1. This argument is in error. Two of respondents' advertisements expressly state that "simulation testing has shown" the claimed reduction in distances needed for emergency stops. Respondents, therefore, were obligated to have and rely on tests demonstrating the validity of those claims.[36] The remaining advertisements that include claims about reduced stopping distances do not reference testing results and are properly assessed under the analysis in Pfizer. *See supra* pp. 293-94. Under a Pfizer analysis, respondents' claims require substantiation by competent and reliable scientific evidence. *See* IDF 50-58; ID 40-41.

Respondents do not specify a basis in the record for their apparent disagreement with the Administrative Law Judge's decision that their general stopping-distance claim was unsubstantiated and their specific claim that tests showed up to 30% reduction in stopping distance was false. Respondents appear to argue that because they claimed that tests showed that vehicles using their device would experience "up to" 30% shorter stopping distances than those without it, any reduction in stopping distance in any test, regardless of that

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[36] *Removatron Int'l Corp.*, 111 FTC at 297-98 & n.11.

test's validity or its showing with respect to the consistency of the device's performance, would substantiate the claim. Respondents' position seems to be that the "up to" qualification is "necessary because every car and especially as it ages/wears its various braking component parts... will produce unspecific predictably unpredictable results without add-on ABS, thereby the same consistent inconsistencies are anticipated with add-on ABS." RAB 10.

Even had respondents' device been shown on the record to produce consistent small reductions in stopping distances, which it was not, the claim challenged in the complaint was not so limited. The claim, "tests show up to 30% reduction," in our view, conveyed a message that respondents had and relied on tests that showed consistently significant reductions in stopping distances. In fact, the record is devoid of test results that demonstrate that ABS/Trax consistently reduced stopping distances by any substantial percentage, let alone 30%. To the contrary, the record contains both reliable and probative evidence that respondents' product did not and could not perform as claimed. *See, e.g.*, CX-34, CX-35; discussion *supra* pp. 295-305.

We already have addressed and rejected as unreliable and not probative the extra-record testing material cited by respondents to support their wheel lock-up and related claims. *See supra* pp.296-302. In the context of respondents' stopping-distance claims, we note additional deficiencies in this evidence.

Although the one-page AccuBrake test report states that use of respondents' device shortened stopping distances by an average of 11.6%, it does not state how those distances were measured. CX-30-F. Mr. Schops testified that a tape measure could have been used. Tr. 2419. The manner in which stopping distances are measured is critical to permit control of all relevant factors and ensure accuracy. IDF 50-58. Casual consumer observations and use of tape measures are not reliable means of assessing comparative stopping distances.

Tr. 824, 1242, 1287, 1912-19, 2031-32; IDF 53 & 58.[37] This unscientific test does not support either of respondents' claims of reduced stopping distances.

Similarly, the Thailand test videotape does not provide reliable evidence regarding stopping distances that would support either claim. Brake engineering experts testified without contradiction that the videotape shows the test vehicle was not properly instrumented to record the speed at which braking was commenced, that reliable means were not used to measure the stopping distances, that insufficient test runs were made to provide reliable data and that stopping distances were not corrected to accommodate differences between the actual speed and the target speed. IDF 64; Tr. 1242 (Kourik), 2024-31 (Hinch), 2438-39 (Schops).[38]

The Australian test also is deficient with respect to respondents' two stopping-distance claims. Stopping distances cannot be computed reliably from deceleration levels because deceleration is not constant. IDF 66; Tr. 2019-20 (Hinch). In addition, respondent Schops admits that the reported stopping distances were measured with a tape measure, a measurement technique that uncontroverted expert testimony persuades us is unreliable. IDF 58; Tr. 824 (Hague), 1242 (Kourik), 2031-32 (Hinch).

Tests conducted by NHTSA demonstrate clearly that ABS/Trax does not reduce stopping distances in emergencies. CX-35; IDF 69-71. Indeed, in some instances, this competent and reliable testing shows that respondents' device actually extended stopping distances by as much as 20%. CX-35-T, -W; IDF 71. Based on all of these tests, the Commission finds that both of respondents' stopping distance claims were unsubstantiated. It further finds that the claim

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[37] CX-30-F also is inaccurate on its face. The calculation of average stopping distances reflected in the report does not appear to have included the figure for the shortest stop by the control vehicle, which was not equipped with respondents' device. The report does not show that the figures used were adjusted to compensate for the unequal number of test runs for the control and test vehicles. If the omitted stopping distance is included in the calculation, the resulting figure shows a reduction of four feet in the average stopping distance needed by the control vehicle and decreases to 7.3% the percentage of purported improvement for the vehicle using respondents' device. *Id.*; IDF 63. These results of an unreliable and inaccurately reported test, although minimally favorable to respondents' general position, do not constitute competent and reliable scientific evidence sufficient to support respondents' stopping-distance claims.

[38] The expert testimony concerning the Thailand test and that of respondent Schops was based on the pictures appearing on the videotape because the audio, graphics and accompanying written material were in Thai. *See* Tr. 2024 (Hinch); *see also supra* note 31.

that respondents had tests showing up to a 30% reduction in stopping distances at a speed of 60 m.p.h. was false.

C. *Respondents Lacked Reasonable Basis for Claim that ABS/Trax Provides Comparative Safety*

We next address respondents' advertising claim that installation of ABS/Trax will make operation of a vehicle safer than operation of a vehicle not equipped with the device. This claim is unsubstantiated.

Respondents offered no evidence in support of their comparative safety claim, and their appeal brief points to no record evidence to substantiate the representation. The only evidence in the record that might be relevant to this claim is the material relating to the ability of ABS/Trax to prevent or reduce wheel lock-up, skidding and loss of steering control and to reduce stopping distances in emergencies. We already have found that this material is neither probative nor reliable, and that it does not support a claim that ABS/Trax prevents or reduces wheel lock-up, skidding or loss of steering control (*see supra* pp. 296-303) or a claim that the product will shorten stopping distances in emergency circumstances. *See supra* pp. 299-302. It follows, there-fore, that this material does not support respondents' comparative safety claim. *See* Tr. 1254-55 (Kourik); ID at 43.

D. *ABS/Trax Does Not Comply with NHTSA Antilock Brake Standards or with Performance Standards in SAE J46*

As already discussed (*supra* pp. 295-96), respondents' claim that their device complies with NHTSA standards for antilock braking systems is unsubstantiated and false. Respondents also claim falsely and without substantiation that ABS/Trax complies with performance standards set forth in SAE J46 ("Wheel Slip Brake Control System Road Test"). SAE J46, on its face, however, does not contain performance standards. *See* CX-39, CX-40. As stated in the publication itself, "This document establishes a uniform procedure for the road test of wheel-slip brake-control systems. . . ."[39] *See also* IDF 54, 88.[40] Because SAE J46 does not contain performance standards,

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[39] CX-40 at ¶ 1.4.

[40] None of the tests relied on by respondents at the time they made their claims was conducted according to the protocol prescribed by SAE J46. IDF 62-67.

"the claim that the ABS/Trax device complies with a performance standard set forth in . . . SAE J46 . . . is false and unsubstantiated." ID at 42-43.

E. Installation of ABS/Trax Will Not Qualify Vehicles for Insurance Discounts in a Substantial Proportion of Cases

We next address the allegation that respondents have made unsubstantiated and false representations that installation of ABS/Trax will qualify a vehicle for an insurance discount. The record shows that respondents, in making their claim, relied on promotional literature from Allstate and another unspecified insurer stating that consumers could get a discount on their auto insurance if they had antilock brakes. In fact, Allstate expressly limits its discount to factory-installed ABS systems. *See* PSD2, F. 12. In addition, although respondents contacted insurance brokers at about the time they prepared their advertisements, they could not get an answer to whether their device would qualify for a discount. *Id.*, F. 14. By their own admission, respondents simply "took a look at some of the advertising literature of some of the insurance carriers," and "where their advertising [said] 'ABS discount,' and did not invoke any electronics . . . factory or any other qualification for it . . . [they] put two and two together and said, 'If this is ABS and ABS discounts apply, this certainly would qualify for it.'" *Id.*

Respondents' leap of faith was unwarranted. The record shows that ABS/Trax is not an antilock braking system. Even if respondents' device somehow were classified as such a system, vehicles equipped with the device would not necessarily qualify for an insurance discount because insurers that offer brake-related discounts typically limit the availability of such a discount to factory-installed antilock braking systems. *See* PSD2, F. 2a-f; Affidavits from GEICO, State Farm, Allstate and others, appended to Complaint Counsel's Motion for Summary Decision on Insurance Discount Issue.[41]

Respondents argue that the Administrative Law Judge incorrectly found false and unsubstantiated their claim that vehicles using their

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[41] As noted in the insurance company affidavits and PSD2, the only exception to the general policy of providing discounts for only factory-installed automatic braking systems was in the State of Florida, which until 1993, prohibited insurers from conditioning discounts on factory-installation of the device. PSD2, F. 7d.

device would receive an insurance discount in a significant proportion of cases. They assert error in the Judge's finding "that insurance carriers only recognize factory (OE) ABS for safety discount." RAB 12. Arguing, in effect, that the insurance carriers fail to take account of what respondents believe are "serious concerns about the safety delivered by factory (OE) ABS," and that these firms are "self-admittedly, not that knowledgeable about the technology" (*id.*), respondents contend that the Administrative Law Judge "deems to disqualify ABS claims of possible 'insurance acceptance based upon individual carrier policy' as untruthful, when there is every reason to believe add-on ABS should, could and would qualify were it not for the NHTSA, GM and FTC misteachings and 'tortous' [sic] conduct." *Id.* at 12-13. We have found the challenged advertising claim that users of respondents' device would receive a discount in their insurance in a significant proportion of cases is false and without substantiation, and the record is devoid of evidence of the collusion between the FTC and NHTSA on the one hand and the automobile manufacturers on the other. The fact that respondents believe their product should or could qualify for insurance discounts is irrelevant. What is relevant is that respondents failed to present evidence that their device qualified for such a discount.

V. FAIRNESS AND PUBLIC INTEREST

Respondents have challenged on appeal the fairness of this adjudication, particularly the delegation of the trial to an administrative law judge who, respondents assert, is in an "inseparable relationship" with the Commission, the final adjudicator of the merits. RAB 1. Section 556 of the Administrative Procedure Act, 5 U.S.C. 556, however, expressly authorizes agencies to delegate the duties of conducting an adjudication to an administrative law judge. Nonetheless, the Commission itself must conduct a *de novo* review of the decision of an administrative law judge on appeal by a party to the proceeding, or it may do so on its own motion. *See* 5 U.S.C. 557.

Respondents also appear to argue that the Commission's roles of prosecutor and adjudicator conflict to deprive respondents of a fair and objective proceeding. Section 554(d) of the Administrative Procedure Act, 5 U.S.C. 554(d), explicitly provides for separation of investigatory or prosecutory functions and adjudicative functions

within an administrative agency such as the Commission.[42] In addition, this argument has been rejected repeatedly by the courts.[43] Respondents' position, therefore, is without merit. Fairness and failure to prevail on the merits should not be confused.

Finally, respondents argue that this proceeding is not in the public interest. Respondents' assertion appears to be based largely on their conviction that the absence of consumer complaints or enforcement actions by other agencies renders this proceeding an "overreaction." RAB 7. The FTC Act permits the Commission to issue an administrative complaint only on finding "reason to believe," based on available information, but not necessarily on complaints or enforcement actions by other agencies, that Section 5 has been violated and that an administrative proceeding "in respect thereof would be to the interest of the public." 15 U.S.C. 45(b). These requirements were met when the Commission issued its complaint in this matter.

The Commission looks with disfavor on challenges to its initial public interest determination in adjudications.[44] Nothing in respondents' brief or in the record suggests or supports the notion that this proceeding is not in the public interest. To the contrary, even had we not found the allegations supported by a preponderance of the evidence in the record,[45] if consumers purchased respondents' product based on respondents' unsubstantiated or false claims of product safety and performance, we may reasonably assume that these consumers are at some physical risk and have suffered economic loss as well. This more than adequately justifies the conduct of the current

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[42] But *see* 5 U.S.C. 554(d)(2)(C) (exempting head of agency from separation of functions requirements of the Administrative Procedure Act).

[43] *See, e.g., Withrow v. Larkin*, 421 U.S. 35, 47 (1975) (assertion of unfairness based on combination of investigative and adjudicative functions "must overcome a presumption of honesty and integrity in those serving as adjudicators"); *Sheldon v. SEC*, 45 F.3d 1515 (11th Cir. 1995) ("'It is uniformly accepted that many agencies properly combine the functions of prosecutor, judge and jury.'") (*quoting Touche Ross & Co. v. SEC*, 609 F.2d 570, 581 (2d Cir. 1979)); *FTC v. Cinderella Career and Finishing Schools*, 404 F.2d 1308, 1315 (D.C. Cir. 1968) ("It is well settled that a combination of investigative and judicial functions within an agency does not violate due process.").

[44] *See, e.g., Pepsico, Inc.*, 83 FTC 1716 (1974) (interlocutory order) ("Only in the most extraordinary circumstances" will the Commission review its public interest determination); *Exxon Corp.*, 83 FTC 1759 (1974) (interlocutory order).

[45] To justify issuance of a complaint, the Commission must simply find reason to believe the law has been violated. This may be based, for example, on evidence suggesting that liability is more likely to be found than not. To find liability, however, the Commission must be persuaded that each of its findings is supported by a preponderance of the evidence on the record. *See Adventist Health System/West*, 117 FTC 224, 297 (1994); *Charlton v. FTC*, 543 F.2d 903, 907 (D.C. Cir. 1976).

proceeding. We therefore reject respondents' argument on appeal as groundless.

VI. RELIEF

A. Standards

Having concluded that respondents have violated Section 5 in advertising for their after-market braking devices, the Commission will impose an order to prevent recurrence of the unlawful acts and practices found. The Commission has wide discretion in its choice of a remedy, and it is authorized to enter an order that is sufficiently broad to ensure that respondents will refrain from engaging in similar conduct or conduct that likely would have the same or similar effects.[46]

The discretion of the Commission is limited by two constraints. First, the order must be sufficiently clear and precise that its requirements can be understood.[47] Second, the order must bear a "reasonable relation" to the unlawful practices found.[48] The Commission's fencing-in relief is not limited to enjoining unlawful actions. "[I]t is within the Commission's discretion to determine that the only effective way to terminate the effects of the unlawful conduct is by barring an otherwise lawful course of conduct which could have the practical effect of continuing the unlawful conduct unmitigated."[49]

In determining whether to impose fencing-in relief, the Commission considers the seriousness and deliberateness of the violations; the ease with which the unlawful conduct can be transferred to other products; and whether the respondents have a history of violations.[50] The more egregious the facts with respect to any one of these elements, the less important it is that other negative factors be present.[51]

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[46] *See, e.g., FTC v. Ruberoid Co.*, 343 U.S. 470, 473 (1952); *Jacob Siegel Co. v. FTC*, 327 U.S. 608, 611-13 (1946).

[47] *See FTC v. Colgate-Palmolive Co.*, 380 U.S. 374, 392 (1965).

[48] *Jacob Siegel Co.*, 327 U.S. at 612.

[49] *Sandura Co. v. FTC*, 339 F.2d 847, 860-61 (6th Cir. 1964). *See FTC v. National Lead Co.*, 352 U.S. 419, 430 (1957); *FTC v. Ruberoid Co.*, 343 U.S. 470, 473 (1952).

[50] *See Thompson Medical Co.*, 104 FTC at 833.

[51] *See Sears Roebuck & Co. v. FTC*, 676 F.2d 385, 392 (9th Cir. 1982); *Thompson Medical Co.*, 104 FTC at 833.

B. Commission Order

The order the Commission issues in this matter, like that accompanying the initial decision, enjoins respondents from using the term "ABS" in conjunction with or as part of the name or logo for ABS/Trax or any substantially similar product. Order ¶ I. The order also enjoins respondents from making any of the claims found both false and unsubstantiated for ABS/Trax or any substantially similar product (*id.* ¶ II); and from making the two claims found simply unsubstantiated for ABS/Trax and certain other products, unless respondents can support them with "competent and reliable scientific evidence." *Id.* ¶ III. In addition, the order prohibits respondents from making misrepresentations concerning tests or studies, the compliance of ABS/Trax and certain other products with any standard, definition or regulation and the availability of insurance benefits and discounts based on use of certain products. *Id.* ¶ IV. The order also enjoins representations concerning the attributes, efficacy, performance, safety or benefits of ABS/Trax and certain other products unless the representations are true and supported by competent and reliable scientific evidence. *Id.* ¶ V. Paragraph VI of the order requires, among other things, that respondents mail to each purchaser of their ABS/Trax products a prescribed letter notifying the recipients of the order.[52]

1. Prohibition of Use of Term "ABS"

Respondents' appeal the prohibition in the order issued by the Administrative Law Judge on use of the term "ABS." Respondents call this provision "unconscionable and unconstitutional" and argue that their "entitlement to the ABS acronym ought not be a subjective arbitrary whim or an unwitting aberration." RAB 3. The Commission agrees that brand-name excision should not be ordered arbitrarily. We have considered, therefore, whether the deception inherent in respondents' use of the term "ABS" is properly remedied by prohibiting them from using the term in conjunction with, or as part of, their trade name.

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[52] Paragraph VII of the order requires respondents to maintain the list required by Paragraph VI for five years along with copies of the letters sent to purchasers. Paragraphs VIII-XI and XIII are standard compliance provisions typically found in Commission orders, and Paragraph XII provides for sunsetting of the order consistent with current Commission policy.

Brand name excision may be appropriate when a less restrictive remedy, such as an affirmative disclosure, is insufficient to eliminate the deception conveyed by the name or will lead to a "confusing contradiction in terms."[53] The relevant question is whether any less restrictive means exists for eliminating the deception inherent in the respondents' use of "ABS" in conjunction with, or as part of, their trade name or trademark.[54]

Trade names and trademarks are valuable business assets. Here, however, the record shows the association of the term "ABS" with antilock braking systems and their performance attributes to be sufficiently established that consumers are likely to be misled into believing that the ABS/Trax device is equivalent to and provides the benefits advertised for factory-installed antilock braking systems. PSD1, F. 3. The terms "ABS" and "antilock brakes" are used interchangeably in advertising for new cars. *Id.* Indeed, the record demonstrates that new car manufacturers are willing to use promotional materials in which the shorthand expression "ABS" appears without an accompanying explanation, which reflects a high degree of confidence among industry marketing personnel that the consuming public has a clear understanding of the meaning of the term. PSD1, F. 1; Respondents' Answers to Complaint Counsel's First Request for Admissions 54-55. Consumers commonly use the term "ABS" to refer to antilock braking systems in their contacts with NHTSA officials, another reliable indicator that consumers would assume that a product described as "ABS" is an antilock braking system. PSD1, F. 2; Respondents' Answers to Complaint Counsel's First Request for Admissions 67-69.

In light of the strong association of the term "ABS" with antilock braking systems and their performance attributes, adding a qualifying phrase to respondents' trade names or advertising claims using the term would result in an apparent contradiction in terms and would likely confuse consumers.[55] The potential for confusion is of

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[53] *Continental Wax Corp. v. FTC*, 330 F.2d 475, 479-80 (2d Cir. 1964), *aff'g* 62 FTC 1064 (1963); *see Thompson Medical Co.*, 104 FTC at 837-39.

[54] *See Jacob Siegel Co. v. FTC*, 327 U.S. at 612; *Continental Wax Corp., supra.*

[55] *See Continental Wax Corp.*, 330 F.2d at 479-80 (where "the offending deception is caused by a clear and unambiguous false representation implicit in the product's name, [so that] addition of a qualifying phrase would lead to a confusing contradiction in terms, no remedy short of complete excision of the trade name will suffice").

particular concern to us here, where the product and claims relate to the safety and performance of a motor vehicle. Permitting respondents to continue using the term "ABS " in conjunction with or as part of their trade name or trademark would enable them to continue selling a product to consumers that not only would deceive them by failing to perform as advertised, but also, could lull them into believing that the product will make their vehicles safer when the opposite would be true. Therefore, the Commission enjoins respondents from using the term "ABS " in conjunction with or as part of their trade name or trademark.[56]

2. Scope of Fencing-in Provisions

The Commission believes that respondents' practices are serious and deliberate and are readily transferable to other products and claims. *See* ID 48 and findings and cases cited therein. They clearly justify fencing-in relief.[57] Respondents' broad based campaign to market their braking device as an antilock braking system over an extended period (IDF 4-11), without regard to whether there was reliable information to support their claims[58] and in the face of substantial information that the claims were false, demonstrates the serious and deliberate nature of the violations before us. First, respondent Schops admitted that many of the challenged claims were intentional. Tr. 2403-04 (Schops); IDF 19. In addition, although required by Section 5 to have a reasonable basis for their claims in the

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[56] Compare *Continental Wax* with *Beneficial Corp.*, 86 FTC 119, 167-68 (1975), *vacated and remanded in part*, 542 F.2d 611 (3d Cir. 1976), *cert. denied*, 430 U.S. 983 (1977). In Beneficial, the Third Circuit vacated and remanded a provision in the Commission's order barring use of the term "Instant Tax Refund." The court held that the term could be explained without creating ambiguity or confusion and that "[i]n failing to consider fully the feasibility of requiring merely that advertising copy be rewritten in lieu of total excision of the offending language, the Commission would appear to have exceeded its remedial authority under § 5. . . ."

The record in this proceeding shows that unlike the term the Commission attempted to bar in Beneficial, the term "ABS," which, among other things, is part of respondents' product name, is widely used by industry as a synonym for factory-installed antilock braking systems and is not susceptible to unambiguous clarification. As we said in Continental Wax, the term "is more than a trade name; it is an allegation concerning the performance of a product." 62 FTC at 1084. We have found that performance allegation false and unsubstantiated. Therefore, we believe that any genuine effort to explain that respondents' product name should not be taken as a claim that the product is, or will perform as if it is, a factory-installed antilock braking system would be contradictory and confusing.

[57] *See, e.g., Stouffer Foods Corp.*, 118 FTC 746, 813-15; *see also id.* at 815-18 (Commissioner Azcuenaga concurring in part) (1994); *Kraft, Inc.*, 114 FTC 40, 139-42 (1991), *aff'd*, 970 F.2d 311 (7th Cir. 1992), *cert. denied*, 507 U.S. 909 (1993).

[58] Respondents even professed reliance on a test, the results of which appear to have been manipulated to support their claims. IDF 63; CX-30-F; Tr. 2418; *supra* note 37.

form of competent and reliable scientific evidence (*supra* pp. 302-03), and despite being informed by NHTSA that their claims were not supported,[59] respondents failed to obtain an independent and scientific assessment of their product before continuing to disseminate their advertising claims. This conduct supports the conclusion that respondents did not want to discover or accept the truth and that their false and unsubstantiated claims were deliberate.

We also find that the ease with which the unlawful conduct here might be transferred to other products justifies limiting future claims regarding products in addition to ABS/Trax and similar devices. Respondents have demonstrated a lack of interest in using proper scientific methodology to test equipment purportedly designed to enhance the safety and performance of motor vehicles, and they have ignored the results of competent and reliable tests repudiating their claims for such equipment. Such irresponsible conduct easily could be transferred to the testing of other products.[60]

Taking into account that respondents' advertising representations are "credence" claims that consumers cannot evaluate accurately on their own, considering that the claims and product involve the performance and comparative safety of a motor vehicle, and noting the respondents' repeated and apparently deliberate disregard for testing results inconsistent with their claims, we readily conclude that strong fencing-in relief is required to prevent recurrence of the respondents' unlawful conduct.[61]

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[59] NHTSA sent Mr. Schops a letter in early January 1992, informing him that NHTSA was "investigating the performance of bolt-on 'antilock' devices to determine if their performance was consistent with the marketing claims being made by their manufacturers and distributors." CX-29-A. The letter also informed Mr. Schops that "[b]ased on preliminary testing," NHTSA had "contacted the Federal Trade Commission when it appeared the devices did not perform as claimed." *Id.* The claims described in the NHTSA letter included several of the claims at issue in this proceeding. Respondents submitted information and product in response to the NHTSA letter and offered to assist in the investigation. CX-30 and CX-31. Mr. Schops also testified that he received a report from NHTSA at some time before August 16, 1994, concluding that ABS/Trax did not function as an antilock braking system. Tr. 2431-32. Despite their contacts with NHTSA, respondents continued to disseminate their claims throughout this period and beyond, offering as substantiation only the unsupported conclusions of respondent Schops and a few demonstrably unreliable reports, one of which is in a foreign language offered without translation.

[60] *See Kraft, Inc.*, 114 FTC 40, 141-42 (1991), *aff'd*, 970 F.2d 311 (7th Cir. 1992), *cert. denied*, 507 U.S. 909 (1993); *Cf. American Home Products*, 98 FTC 136, 405 (1981) ("effort to misrepresent the nature of a quite ordinary ingredient is a technique that could easily be applied to advertising of ... products other than [this one]").

[61] *See Kraft, Inc.*, 114 FTC at 140-42; *Thompson Medical Co.*, 104 FTC at 832-33; *Sears, Roebuck*, 676 F.2d at 392; *Litton Indus., Inc. v. FTC*, 676 F.2d 364, 370-72 (9th Cir. 1982).

"All-product" coverage, however, in our view, is overly broad. The record does not show that respondents' business has extended beyond manufacturing and promoting one or more versions of the ABS/Trax device; nor does the record suggest that respondents are likely to extend their endeavors beyond automobile and other motor vehicle accessories and devices in the future.[62] On the other hand, coverage limited to "any braking system, accessory or device" appears less than adequate to protect against future related violations with respect to other automotive and motor vehicular products. The Commission, therefore, has decided to make all three fencing-in provisions of the order applicable to "any braking system, accessory, or device, or any other system, accessory, or device designed to be used in, on, or in conjunction with any motor vehicle."[63]

This approach will make the fencing-in coverage in paragraphs III, IV and V consistent and, we believe, appropriately tailored.[64] This language also parallels that in the comparable provisions of the final order in Docket No. 9277.

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[62] The record shows that respondent Schops was the founder, CEO and virtual alter ego of the corporate defendants, controlling nearly every aspect of their business. IDF 1-4. Respondent Schops, however, made clear on several occasions in this proceeding that his financial resources are modest. For example, he explained to the Administrative Law Judge that he "was financially unable to attend" the entire trial (Tr. 8); and he requested that the Commission pay his travel expenses to enable him to present oral argument on appeal to the Commission. Respondent's Response to Notice of Schedule of Oral Argument and Request for Adjournment and Request for Continuance at 1 (May 30, 1998). In addition, he stated on two occasions since the close of the administrative trial that he "has voluntarily ceased operation (Respondent's Motion for Continuance of the September 3, 1997 Appeal Hearing Based Upon Exigent Medical Circumstance at 1 (August 26, 1997)) and that "there is no product being manufactured, no inventory and no product being sold." Response to Notice of Schedule of Oral Argument and Request for Adjournment and Request for Continuance, *supra*. We are persuaded that neither respondent Schops nor the corporate respondents he controls are likely to expand business beyond the manufacture and sale of products for automobiles and other motor vehicles. *Cf. Kraft, Inc.*, 970 F.2d at 327 (approving Commission finding that violations with respect to Kraft Singles were transferable only to other Kraft cheese products).

[63] Compare Administrative Law Judge Order ¶ III ("any braking system, accessory, or device"); with Administrative Law Judge Order ¶ IV ("any product"); and Administrative Law Judge Order ¶ V ("any braking system, accessory, or device, or any other system, accessory, or device designed to be used in, on, or in conjunction with any motor vehicle").

[64] We also make several technical modifications to the order issued by the Administrative Law Judge. These changes in paragraphs VI-A and B, IX-A and B and XIII are consistent with the Commission's Rules of Practice and are intended simply to conform the order more closely to the Rules. *See also* Brake Guard Products, Inc., Docket No. 9277 (Order Denying Respondents' Motion for Reconsideration and Modifying Final Order) (March 27, 1998).

3. Notification Requirements

The Commission adopts without change the notification provisions in the order issued by the Administrative Law Judge.[65] Generally, these provisions require respondents to compile a mailing list of all purchasers of their braking devices since 1990 and to send to each purchaser a prescribed letter notifying the purchaser that the Commission has found most of the advertising claims at issue in this proceeding "false and misleading" and that the FTC has issued an order barring respondents from making such claims in the future. The notice letter explains further that the order prohibits respondents from making safety claims and claims that their product reduces stopping distances in emergencies without having competent and reliable scientific evidence substantiating the representation. Respondents also are required to notify their distributors and seek their cooperation in locating purchasers.

It is well established that the Commission may order respondents to notify product distributors and retail purchasers that advertising claims for products they have purchased have been found to violate Section 5.[66] Such notification is intended to apprise consumers of the truth about their purchase and to reduce the likelihood of further deception from any recurrence of the false or deceptive claims.[67]

Notification provisions are especially appropriate to warn consumers about potential safety concerns.[68] Here, it is reasonable to conclude that consumers decided not to purchase factory-installed antilock braking systems in reliance on respondents' deceptive claims that their product was an equally effective alternative. It also is reasonable to conclude that these consumers will not find out until

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[65] Respondents do not appear to challenge the notification provisions in the Administrative Law Judge's order. Nonetheless, in view of respondents' *pro se* status, we will address these provisions briefly.

[66] *See, e.g., Removatron Int'l Corp.*, 111 FTC 206, 311 (1988), *aff'd*, 884 F.2d 1489 (1st Cir. 1989); *Southwest Sunsites, Inc.*, 105 FTC 7, 176-78 (1985), *aff'd*, 785 F.2d 1431 (9th Cir.), *cert. denied*, 479 U.S. 828 (1986).

[67] *FTC v. Virginia Homes Mfg. Corp.*, 509 F.Supp. 51, 56-59 (D.Md. 1981); *Removatron*, 111 FTC at 311 (notification of Removatron operators to prevent future dissemination of deceptive sales materials to consumers); *Figgie, Int'l, Inc.*, 107 FTC 313, 368-70, 395 (1986), *aff'd*, 817 F.2d 102 (4th Cir. 1987); *Southwest Sunsites*, 105 FTC at 176-78; *AMREP Corp.*, 102 FTC 1362, 1678-80 (1983), *aff'd*, 768 F.2d 1171 (10th Cir. 1985), *cert. denied*, 475 U.S. 1034 (1986).

[68] *See Figgie*, 107 FTC at 368-70, 395; *see also, e.g., MACE Security Int'l, Inc.*, C-3487 (Mar. 25, 1994) (consent order); *Aquanautics Corp.*, 109 FTC 34 (1987) (consent order); *Bayleysuit, Inc.*, 102 FTC 1285 (1983) (consent order).

too late that unlike factory-installed systems, the device will not reduce stopping distances (CX-35; IDF 69-87) and will leave them susceptible to wheel lock-up, loss of control and possible injury. *Id.*[69]

VII. CONCLUSION

The Commission concludes that the respondents have engaged in unfair and deceptive acts or practices in violation of Section 5 of the Federal Trade Commission Act. Accordingly, the Commission issues the attached final order.

FINAL ORDER

DEFINITIONS

For the purposes of this order:

1. "*Competent and reliable scientific evidence*" shall mean tests, analyses, research, studies, or other evidence based upon the expertise of professionals in the relevant area, that has been conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results; and

2. "*Purchasers for resale*" shall mean all purchasers of A•B•S/Trax or A•B•S/Trax² for resale to the public, including but not limited to franchisees, wholesalers, distributors, retailers, installers, and jobbers.

I.

It is ordered, That respondents, Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and their officers, and Richard Schops, individually and as an officer and director of said corporations, and respondents' agents, representatives, and employees, directly or through any partnership, corporation, subsidiary, division, or other device, in connection with the manufacturing, labeling, advertising, promotion, offering for sale, sale, or distribution of A•B•S/Trax, A•B•S/Trax² or any substantially similar product in or affecting commerce, as "commerce" is defined in the Federal Trade

[69] *See Figgie*, 107 FTC at 363 (reasonable to conclude that consumers purchased heat detectors in reliance upon respondents' safety claims and will be unable to determine for themselves until it is too late that their heat detectors will not provide the promised protection).

Commission Act, do forthwith cease and desist from employing the initials or term "ABS" in conjunction with, or as part of the name for, such product or the product trademark.

II.

It is further ordered, That respondents, Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and their officers, and Richard Schops, individually and as an officer and director of said corporations, and respondents' agents, representatives, and employees, directly or through any partnership, corporation, subsidiary, division, or other device, in connection with the manufacturing, labeling, advertising, promotion, offering for sale, sale, or distribution of A•B•S/Trax, A•B•S/Trax^2 or any substantially similar product in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from representing, in any manner, directly or by implication, that such product:

A. Is an antilock braking system;
B. Prevents or substantially reduces wheel lock-up, skidding, or loss of steering control in emergency stopping situations;
C. Will qualify a vehicle for an automobile insurance discount in a significant proportion of cases;
D. Complies with a performance standard set forth in Wheel Slip Brake Control System Road Test Code SAE J46;
E. Complies with a standard pertaining to antilock braking systems set forth by the National Highway Traffic Safety Administration;
F. Has been proven in tests to reduce stopping distances by at least 30% when the vehicle's brakes are applied at a speed of 60 mph; or
G. Provides antilock braking system benefits, including wheel lock-up control benefits, that are at least equivalent to those provided by original equipment manufacturer electronic antilock braking systems.

III.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and their officers, and Richard Schops, individually and as an officer and director of said corporations, and

respondents' agents, representatives, and employees, directly or through any partnership, corporation, subsidiary, division, or other device, in connection with the manufacturing, labeling, advertising, promotion, offering for sale, sale, or distribution of any braking system, accessory, or device, or any other system, accessory, or device designed to be used in, on, or in conjunction with any motor vehicle, in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from representing, in any manner, directly or by implication, that:

A. In emergency stopping situations, a vehicle equipped with the system, accessory, or device will stop in a shorter distance than a vehicle that is not equipped with the system, accessory, or device; or
B. Installation of the system, accessory, or device will make operation of a vehicle safer than a vehicle that is not equipped with the system, accessory, or device;

unless, at the time of making such representation, respondents possess and rely upon competent and reliable scientific evidence that substantiates the representation.

IV.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and their officers, and Richard Schops, individually and as an officer and director of said corporations, and respondents' agents, representatives, and employees, directly or through any partnership, corporation, subsidiary, division, or other device, in connection with the manufacturing, labeling, advertising, promotion, offering for sale, sale, or distribution of any braking system, accessory, or device, or any other system, accessory, or device designed to be used in, on, or in conjunction with any motor vehicle, in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from misrepresenting, in any manner, directly or by implication:

A. The contents, validity, results, conclusions, or interpretations of any test or study;

B. The compliance of any such product with any standard, definition, regulation, or any other provision of any governmental entity or unit, or of any other organization; or
C. The availability of insurance benefits or discounts arising from the use of such product.

V.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and their officers, and Richard Schops, individually and as an officer and director of said corporations, and respondents' agents, representatives, and employees, directly or through any partnership, corporation, subsidiary, division, or other device, in connection with the manufacturing, labeling, advertising, promotion, offering for sale, sale, or distribution of any braking system, accessory, or device, or any other system, accessory, or device designed to be used in, on, or in conjunction with any motor vehicle, in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from making any representation, directly or by implication, regarding the absolute or comparative attributes, efficacy, performance, safety, or benefits of such system, accessory, or device, unless such representation is true and, at the time of making such representation, respondents possess and rely upon competent and reliable evidence, which when appropriate must be competent and reliable scientific evidence, that substantiates the representation.

VI.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, their successors and assigns, and Richard Schops shall:

A. Within forty-five days after the date this order becomes final, compile a current mailing list containing the names and last known addresses of all purchasers of A•B•S/Trax or A•B•S/ Trax^2 since January 1, 1990. Respondents shall compile the list by:

1. Searching their own files for the names and addresses of such purchasers; and

2. Using their best efforts to identify any other such purchasers, including but not limited to sending by first class certified mail, return

receipt requested, within five days after the date this Order becomes final, to all of the purchasers for resale with which respondents have done business since January 1, 1990, an exact copy of the notice attached hereto as Appendix A. The mailing shall not include any other documents. In the event that any such purchaser for resale fails to provide any names or addresses of purchasers in its possession, respondents shall provide the names and addresses of all such purchasers for resale to the Federal Trade Commission within forty-five days after the date this order becomes final.

3. In addition, respondents shall retain a National Change of Address System ("NCOA") licensee to update this list by processing the list through the NCOA database.

B. Within sixty days after the date this order becomes final, send by first class mail, postage prepaid, to the last address known to respondents of each purchaser of A•B•S/Trax or A•B•S/Trax² identified on the mailing list compiled pursuant to subparagraph A of this Part, an exact copy of the notice attached hereto as Appendix B. The mailing shall not include any other documents. The envelope enclosing the notice shall have printed thereon in a prominent fashion the phrases "FORWARDING AND RETURN POSTAGE GUARANTEED" and "IMPORTANT NOTICE -- U.S. GOVERNMENT ORDER ABOUT A•B•S/TRAX or A•B•S/TRAX² BRAKING DEVICE."

C. Send the mailing described in subparagraph B of this Part to any person or organization not on the mailing list prescribed in subparagraph A of this Part about whom respondents later receive information indicating that the person or organization is likely to have been a purchaser of A•B•S/Trax or A•B•S/Trax², and to any purchaser whose notification letter is returned by the U.S. Postal Service as undeliverable and for whom respondents thereafter obtain a corrected address. The mailing required by this subpart shall be made within ten (10) days of respondents' receipt of a corrected address or information identifying each such purchaser.

D. In the event respondents receive any information that, subsequent to its receipt of Appendix A, any purchaser for resale is using or disseminating any advertisement or promotional material that contains any representation prohibited by this order, immediately notify the purchaser for resale that respondents will terminate the

use of said purchaser for resale if it continues to use such advertisement or promotional material.

E. Terminate within ten days the use of any purchaser for resale about whom respondents receive any information that such purchaser for resale has continued to use any advertisement or promotional material that contains any representation prohibited by this order after receipt of the notice required by subparagraph A of this Part.

VII.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., corporations, and Richard Schops shall for five years after the last correspondence to which they pertain, maintain and upon request make available to the Federal Trade Commission or its staff for inspection and copying:

A. The list compiled pursuant to subparagraph A of Part VI of this order;
B. Copies of all notification letters sent to purchasers pursuant to subparagraphs B and C of Part VI of this order;
C. Copies of notification letters sent to purchasers for resale pursuant to subparagraphs A and D of Part VI of this order, and all other communications with purchasers for resale relating to the notices required by Part VI of this order.

VIII.

It is further ordered, That for five years after the last date of dissemination of any representation covered by this order, respondents, or their successors or assigns, shall maintain and upon request make available to the Federal Trade Commission or its staff for inspection and copying:

A. All materials that were relied upon in disseminating such representation; and
B. All tests, reports, studies, surveys, demonstrations, or other evidence in their possession or control that contradict, qualify, or call into question such representation, or the basis relied upon for such representation, including complaints from consumers, and complaints or inquiries from governmental organizations.

IX.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc. and ABS Tech Sciences, Inc., their successors and assigns, shall:

A. Within thirty days after this order becomes final, provide a copy of this order to each of respondents' current principals, officers, directors, and managers, and to all personnel, agents, and representatives having sales, advertising, or policy responsibility with respect to the subject matter of this order; and
B. For a period of ten years from the date this order becomes final, provide a copy of this order to each of respondents' future principals, officers, directors, and managers, and to all personnel, agents, and representatives having sales, advertising, or policy responsibility with respect to the subject matter of this order, within three days after the person assumes his or her position.

X.

It is further ordered, That respondents Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc., their successors and assigns, shall notify the Commission at least thirty (30) days prior to any proposed change in the corporations such as a dissolution, assignment, or sale resulting in the emergence of a successor corporation, the creation or dissolution of subsidiaries, or any other change in the corporation which may affect compliance obligations under this order.

XI.

It is further ordered, That respondent Richard Schops shall, for a period of ten (10) years from the date this order becomes final, notify the Commission within thirty days of the discontinuance of his present business or employment and of his affiliation with any new business or employment. Each notice of affiliation with any new business or employment shall include respondent's new business address and telephone number, current home address, and a statement describing the nature of the business or employment and his duties and responsibilities.

XII.

It is further ordered, That this order will terminate twenty years from the date it becomes final, or twenty years from the most recent date that the United States or the Federal Trade Commission files a complaint (with or without an accompanying consent decree) in federal court alleging any violation of the order, whichever comes later; provided, however, that the filing of such a complaint will not affect the duration of:

A. Any paragraph in this order that terminates in less than twenty years;
B. This order's application to any respondent that is not named as a defendant in such complaint; and
C. This order if such complaint is filed after the order has terminated pursuant to this paragraph.

Provided further, that if such complaint is dismissed or a federal court rules that the respondent did not violate any provision of the order, and the dismissal or ruling is either not appealed or upheld on appeal, then the order will terminate according to this paragraph as though the complaint was never filed, except that the order will not terminate between the date such complaint is filed and the later of the deadline for appealing such dismissal or ruling and the date such dismissal or ruling is upheld on appeal.

XIII.

It is further ordered, That respondents shall, within sixty days after the date this order becomes final, and at such other times as the Commission may require, file with the Commission a report, in writing, setting forth in detail the manner and form of their compliance with this order.

APPENDIX A

[Automotive Breakthrough Sciences, Inc. or ABS Tech Sciences, Inc. letterhead]

Dear A•B•S/Trax Reseller:

Our records indicate that you are or have been a distributor or retailer of the A•B•S/Trax or A•B•S/Trax² (hereinafter "A•B•S/ Trax"), a brake product. This letter is to advise you that the Federal Trade Commission ("FTC") recently obtained an Order against Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. regarding certain claims made for the A•B•S/Trax device. Under that Order, we are required to notify our distributors, wholesalers and others who have A•B•S/Trax to stop using or distributing advertisements or promotional materials containing these claims. We are also asking for your assistance in compiling a list of A•B•S/Trax purchasers, so that we may contact them directly. Please read this letter in its entirety and comply with all parts.

The FTC's Decision and Order

The Federal Trade Commission has determined that the following claims made for the A•B•S/Trax device in Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc.'s advertisements, logos and promotional material are **FALSE** and **MISLEADING**:

(a) A•B•S/Trax is an antilock braking system;
(b) A•B•S/Trax prevents or substantially reduces wheel lock-up, skidding, or loss of steering control in emergency stopping situations;
(c) A•B•S/Trax will qualify a vehicle for an automobile insurance discount in a significant proportion of cases;
(d) A•B•S/Trax complies with a performance standard set forth in Wheel Slip Brake Control System Road Test Code SAE J46;
(e) A•B•S/Trax complies with a standard pertaining to antilock braking systems set forth by the National Highway Traffic Safety Administration;
(f) A•B•S/Trax has been proven in tests to reduce stopping distances by up to 30% when the vehicle's brakes are applied at a speed of 60 mph; and
(g) A•B•S/Trax provides antilock braking system benefits, including wheel lock-up control benefits, that are at least equivalent to those provided by original equipment manufacturer electronic antilock braking systems.

The FTC Order requires Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. to cease and desist from making these false claims for the A•B•S/Trax device. In addition, the FTC Order requires Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. to cease and desist from making claims that A•B•S/Trax will shorten stopping distances in emergency stopping situations or make a vehicle safer, unless at the time of making such representation it possesses competent and reliable scientific evidence substantiating the representation.

We need your assistance in complying with this Order.

Please immediately send us the names and last known addresses of all persons or businesses, including other resellers, to whom you have sold an A•B•S/Trax or A•B•S/Trax² since January 1, 1990. We need this information in order to provide the notification required by the FTC Order. If you do not provide this information, we are required to provide your name and address to the FTC.

Please stop using the A•B•S/Trax or A•B•S/Trax² promotional materials currently in your possession. These materials may contain claims that the FTC has determined to be false or unsubstantiated. You also should avoid making any of the representations as described in this letter. Under the FTC Order, we must stop doing business with you if you continue to use the prohibited materials or make the prohibited representations.

If you have any questions, you may call the Division of Enforcement of the Federal Trade Commission at (202) 326-2998. Thank you for your cooperation.

Very truly yours,

Richard Schops
President
Automotive Breakthrough Sciences, Inc.

APPENDIX B

[Automotive Breakthrough Sciences, Inc. or ABS Tech Sciences, Inc. letterhead]

Dear A•B•S/Trax Customer:

Our records indicate that you previously purchased an A•B•S/Trax or A•B•S/Trax² (hereinafter "A•B•S/Trax") for your vehicle. This letter is to advise you that the Federal Trade Commission ("FTC") recently obtained an Order against Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. regarding certain claims made for the A•B•S/Trax device. Please read this letter in its entirety.

The FTC's Decision and Order

The Federal Trade Commission has determined that the following claims made for the A•B•S/Trax device in Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc.'s advertisements, logos and promotional material are **FALSE** and **MISLEADING**:

(a) A•B•S/Trax is an antilock braking system;
(b) A•B•S/Trax prevents or substantially reduces wheel lock-up, skidding, or loss of steering control in emergency stopping situations;
(c) A•B•S/Trax will qualify a vehicle for an automobile insurance discount in a significant proportion of cases;
(d) A•B•S/Trax complies with a performance standard set forth in Wheel Slip Brake Control System Road Test Code SAE J46;
(e) A•B•S/Trax complies with a standard pertaining to antilock braking systems set forth by the National Highway Traffic Safety Administration;
(f) A•B•S/Trax has been proven in tests to reduce stopping distances by up to 30% when the vehicle's brakes are applied at a speed of 60 mph; and
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The FTC Order requires Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. to cease and desist from making these false claims for the A•B•S/Trax device. In addition, the FTC Order requires Automotive Breakthrough Sciences, Inc., and ABS Tech Sciences, Inc. to cease and desist from making claims that A•B•S/Trax will shorten stopping distances in emergency situations or make a vehicle safer, unless at the time of making such representation it possesses competent and reliable scientific evidence substantiating the representation.

If you have any questions, you may call the Division of Enforcement of the Federal Trade Commission at (202) 326-2998. Thank you for your cooperation.

Very truly yours,

Richard Schops
President
Automotive Breakthrough Sciences, Inc.