

Ferrari

Ferrari North America, Inc.

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OFFICE OF
DEFECTS INVESTIGATION

January 27, 1997

Mr. Charles L. Gauthier, Director
Office of Defects Investigation
National Highway Traffic Safety Administration
400 Seventh Street, SW
Washington, D.C. 20590

977-333 (U)



Dear Director:

Enclosed please find Vehicle Safety Defect Initial Information Reports regarding the Recall Campaign which we are initiating in order to correct the following:

On Ferrari vehicles, model F355 with assembly numbers between 21628 and 23520 inclusive and model 456 GTA with assembly numbers between 22918 and 23489 inclusive, the electric motor which drives the anti-lock brake system (ABS) hydraulic pump will not function after a period of operation.

Should such a condition occur, loss of brake boost (servo assistance) will result. Drivers of potentially affected vehicles would, however, be warned of the possibility of brake boost loss before any actual loss would occur. Impending brake boost loss will be indicated in the F 355 by the illumination of the amber colored ABS warning lamp and the red brake warning lamp, and in the 456 GTA by illumination of the red brake warning lamp. Immediately after illumination of the warning lamps, the vehicle can still be stopped several times just as if no loss of brake boost had occurred, since the brake system is able to use the stored hydraulic energy in the pump accumulator. Thereafter, vehicle braking will require increased pedal force. It must be noted, however, that even without brake servo assistance, the legal requirement for minimum deceleration of the vehicle without brake servo assistance will still be satisfied.

This condition was determined to exist after failure of the electric motor in the field and the subsequent analysis of the failed parts by the electric motor manufacturer. That analysis indicated that an anomaly in the manufacturing process will cause the mechanical jamming of the internal brush. As a consequence, the motor will cease functioning after the brush has been running for some time. This condition was, however, determined by the electric motor manufacturer to be limited to electric motors produced on one particular day. For safety reasons, Ferrari has decided to inspect all vehicles which may contain electric motors produced on that day.

The remedy consists of inspecting the electric motor 5 digit production date code or the 12 digit serial number of the ABS hydraulic pump/motor assembly to determine if replacement is required. If necessary, the ABS hydraulic pump electric motor will be replaced in accordance with the attached technical instructions.



01/7-113 (02)

Attached you will find a list of all potentially affected vehicles indicated by the last six digits of the V.I.N. and the Assembly Number.

For the above campaign, it is our intention to notify each Ferrari Dealer with a comprehensive letter explaining the remedy and to notify each potentially affected vehicle owner with a letter informing them of the required recall modification. Follow-up letters will be sent if necessary.

Enclosed are draft letters that Ferrari North America, Inc. will send to the potentially affected owners and to the Authorized Ferrari Dealers, as well as a draft of the technical instructions.

Please do not hesitate to contact me at 201-816-2652 with any questions that you may have regarding the foregoing.

Yours Truly,

A handwritten signature in black ink, appearing to read "William S. Story", is written over the "Yours Truly," text.

William S. Story
Director of Technical Services

WSS:cc

Enclosures

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91V-313 (6)

February , 1997

«MR.» «PAUL» «WALTON»
«M_5701_E_SOUTHPORT_RD»
«INDIANAPOLIS», «IN» «M_46237»

Chassis Number:

Dear Ferrari Customer:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. Ferrari has determined that a defect which relates to motor vehicle safety exists in certain Ferrari Model F 355 and 456 GTA vehicles.

On Ferrari vehicles, model F355 with assembly numbers between 21628 and 23520 inclusive and model 456 GTA with assembly numbers between 22918 and 23489 inclusive, the electric motor which drives the anti-lock brake system (ABS) hydraulic pump will not function after a period of operation.

Should such a condition occur, loss of brake boost (servo assistance) will result. Drivers of potentially affected vehicles would, however, be warned of the possibility of brake boost loss before any actual loss would occur. Impending brake boost loss will be indicated in the F 355 by the illumination of the amber colored ABS warning lamp and the red brake warning lamp; and in the 456 GTA by illumination of the red brake warning lamp. Immediately after illumination of the warning lamps, the vehicle can still be stopped several times just as if no loss of brake boost had occurred, since the brake system is able to use the stored hydraulic energy in the pump accumulator. Thereafter, vehicle braking will require increased pedal force.

The remedy consists of inspecting, and if necessary, replacing the ABS hydraulic pump electric motor.

Since your car is among those potentially affected by the above condition, we kindly ask you to contact any Authorized Ferrari Dealer immediately to arrange for an inspection and repair of your automobile.

The corrective action for the repair, if it is necessary, will be performed free of charge and will require a maximum of 1.8 hours depending on the model in question. However, please plan to leave your vehicle with the dealer as necessary to allow the dealer some flexibility in scheduling your repair.

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HW-113 (13)

By the time you receive this letter, all Authorized Ferrari Dealer will have been supplied with the instructions and parts necessary to perform the repair.

If the Dealer fails or is unable to make the necessary repairs free of charge and within a reasonable time, you should inform the National Headquarters Office of Ferrari North America, Inc.

250 Sylvan Avenue
Englewood Cliffs, New Jersey 07632
(201) 816-2651 (National Technical Office)

Although we urge you to immediately call the number indicated above, if the vehicle is not repaired free of charge and within a reasonable time, you may also contact the Administrator of the National Traffic Safety Administration in Washington, D.C. 20590 or call the Auto Safety Hotline at 1-800-424-9393 nationally, (202) 366-0123 for Washington, D.C. area residents.

We urge you to comply with this notice promptly and apologize for any inconvenience this may cause you.

Best Regards,

William S. Story
Director of Technical Services

WSS:cc

FERRARI NORTH AMERICA, INC.
250 SYLVAN AVENUE
ENGLEWOOD CLIFFS, NJ 07632
January 27, 1997

VEHICLE SAFETY DEFECT
INITIAL INFORMATION REPORT
ANTI-LOCK BRAKING SYSTEM (ABS) HYDRAULIC PUMP ELECTRIC MOTOR
RECALL No. 156

Date Submitted: January 27, 1997
Date Received: January 08, 1996
Campaign No.: 156
Campaign Date: February 1997

<u>MAKE</u>	<u>MODEL</u>	<u>MODEL YEAR</u>	<u>NO. OF VEHICLES</u>	<u>ENCLOSED MFG. DATES</u>		<u>OTHER VEHICLE IDENTIFICATION</u>
				<u>From</u>	<u>Through</u>	<u>Assembly Number</u>
FERRARI	F 355	1996-1997	331	January 1996	August 1996	21628-23520 inclusive
FERRARI	F 456 GTA	1997	15	June 1996	August 1996	22918-23489 inclusive



FERRARI NORTH AMERICA, INC.
250 SYLVAN AVENUE
ENGLEWOOD CLIFFS, NJ 07632
January 27, 1997

VEHICLE SAFETY DEFECT
INITIAL INFORMATION REPORT
ANTI-LOCK BRAKE SYSTEM (ABS) HYDRAULIC PUMP ELECTRIC MOTOR
RECALL No. 156

A) DESCRIPTION OF DEFECT:

On Ferrari Vehicles:

Model F 355 with Vehicle Assembly Numbers between 21628 and 23520 inclusive

Model F 456 GTA with Vehicle Assembly Numbers between 22918 and 23489 inclusive

The electric motor which drives the anti-lock brake system (ABS) hydraulic pump will not always function after a period of operation.

B) CHRONOLOGY OF EVENTS WHICH LED TO DETERMINATION OF A SAFETY DEFECT:

The Ferrari Factory informed us of the following:

This condition was determined to exist after failure of the electric motor in the field and the subsequent analysis of the failed parts by the electric motor manufacture.

C) MEASURES TO BE TAKEN TO REPAIR VEHICLE:

Inspect the electric motor 5 digit production date code or the 12 digit serial number of the ABS hydraulic pump/motor assembly to determine if replacement is required. If necessary, the ABS hydraulic pump electric motor will be replaced.

ESTIMATED INITIATION OF CORRECTIVE ACTION: February 1997

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91V-113 (6)

February , 1997

Dear Ferrari Dealer:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

On Ferrari vehicles, model F355 with assembly numbers between 21628 and 23520 inclusive and model 456 GTA with assembly numbers between 22918 and 23489 inclusive, the electric motor which drives the anti-lock brake system (ABS) hydraulic pump will not function after a period of operation.

Should such a condition occur, loss of brake boost (servo assistance) will result. Drivers of potentially affected vehicles would, however, be warned of the possibility of brake boost loss before any actual loss would occur. Impending brake boost loss will be indicated in the F 355 by the illumination of the amber colored ABS warning lamp and the red brake warning lamp; and in the 456 GTA by illumination of the red brake warning lamp. Immediately after illumination of the warning lamps, the vehicle can still be stopped several times just as if no loss of brake boost had occurred, since the brake system is able to use the stored hydraulic energy in the pump accumulator. Thereafter, vehicle braking will require increased pedal force.

The remedy consists of inspecting the electric motor 5 digit production date code or the 12 digit serial number of the ABS hydraulic pump/motor assembly to determine if replacement is required. If necessary, the ABS hydraulic pump electric motor will be replaced in accordance with the attached technical instructions.

The corrective action will require a maximum of 1.8 hours depending on the model in question.

Attached you will find a listing of all potentially affected vehicles indicated by the last six digits of the V.I.N. and the Assembly Number.

We have sent notices to all owners of potentially affected vehicles advising them of this situation and urging that they contact any Authorized Ferrari Dealer for the repairs.

Upon transmittal of the warranty claim, pursuant to our normal warranty procedure, we will of course reimburse you for the labor and applicable parts expended in carrying out this campaign. Obviously, if you have any potentially

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44-210 (30)

affected vehicles in your stock, you must not sell them until you have performed the necessary repairs. If you have already sold vehicles with the assembly number specified in the enclosed instructions and have not yet sent in the retail sales cards, please do so at once so we may notify these owners.

Thank you for your cooperation.

Best Regards,

William S. Story
Director of Technical Services & Parts

WSS:cc

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4/11/00 (10)

RECALL CAMPAIGN NO. 156

INTRODUCTION: Anti-Lock Brake System (ABS) Hydraulic Pump Electric Motor

SUBJECT: Recall Campaign No. 156/1, 156/2, 156/3 and 156/4
ABS Hydraulic Pump Electric Motor

VEHICLES: Ferrari F 355 with assembly numbers between 21628 and 23520
inclusive, and,

Ferrari 456 GTA with assembly numbers between 22918 and 23489
inclusive

CONDITION: On Ferrari vehicles, model F355 with assembly numbers
between 21628 and 23520 inclusive and model 456 GTA with
assembly numbers between 22918 and 23489 inclusive, the
electric motor which drives the anti-lock brake system (ABS)
hydraulic pump will not always function after a period of
operation

Should such a condition occur, loss of brake boost (servo
assistance) will result. Drivers of potentially affected vehicles
would, however, be warned of the possibility of brake boost
loss before any actual loss would occur. Impending brake
boost loss will be indicated in the 355 by the illumination of the
amber colored ABS warning lamp and the red brake warning
lamp; and in the 456 GTA by illumination of the red brake
warning lamp. Immediately after illumination of the warning
lamps, the vehicle can still be stopped several times just as if no
loss of brake boost had occurred, since the brake system is able
to use the stored hydraulic energy in the pump accumulator.
Thereafter, vehicle braking will require increased pedal force.

REMEDY: The remedy consists of inspecting the electric motor 5 digit
production date code or the 12 digit serial number of the ABS
hydraulic pump/motor assembly to determine if replacement is
required. If necessary, the ABS hydraulic pump electric motor
will be replaced in accordance with the attached technical
instructions.

PARTS: Qty. 1 70000887 New Electric Motor Kit Dealer Cost \$ _____

Included with this documentation is an initial quantity of the new electric
motor kit (P/N 70000887). Please order additional kits as required
following the normal parts ordering procedure.

The new electric motor kit part number 70000887 includes the following items:

- 70000774 Electric Motor Kit
- 70000509 Connection Kit
- 70000510 O-Ring Kit

Please check your stock of P/N 70000772 (complete ABS pump assembly) and P/N 70000774 (electric motor kit) to obtain the 5 digit production date code or the 12 digit serial number of each unit. If the codes on those components correspond to the potentially affected units as set forth in the attached technical and warranty instructions, then you must immediately return them to the Ferrari North America Parts Department, following the normal parts return procedure.

LABOR

Model F 355

156/1 Inspection Procedure Only

Component Code: 4366
Defect Code: 01
Labor Operation No. 4366.1
Labor Time: 0.5 Hours

156/2 Inspection Procedure and Repair

Component Code: 4366
Defect Code: 01
Labor Operation No. 4366.0
Labor Time: 1.8 Hours

Model 456 GTA

156/3 Inspection Procedure Only

Component Code: 4366
Defect Code: 01
Labor Operation No. 4366.1
Labor Time: 0.2 Hours

156/4 Inspection Procedure and Repair

Component Code: 4366
Defect Code: 01
Labor Operation No. 4366.0
Labor Time: 1.3 Hours

REIMBURSEMENT: Upon receipt of information via MEDEA

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RECALL NO. 156

91V-110 (1)

TECHNICAL AND WARRANTY INSTRUCTIONS

A. **Preliminary:**

First inspect the vehicle to determine whether the anti-lock brake system (ABS) hydraulic pump electric motor codes indicate the need for replacement and if necessary proceed with the repair.

The production date code which is stamped in white paint on the black plastic cap of the electric motor ("A" in the diagram) consists of a 5 digit code. The first 4 digits of this code describes the production day. The fifth digit is not applicable.

UNITS WITH A CODE HAVING THE FIRST 4 DIGITS "0236" MUST BE REPLACED

If, for some reason, the production date code is not legible, you must use the 12 digit serial number of the ABS hydraulic pump/motor assembly. This number can be found on the adhesive label fitted on the black electric motor housing near the plastic cap ("B" on the diagram). This label shows the manufacturer's part number in the upper portion of the label. A bar code and the unit's 12 digit serial number appear in the lower portion. The last 4 digits of the 12 digit serial number identify the production date of the unit.

THE PRODUCTION PERIOD INDICATED BY SERIAL NUMBERS OF WHICH THE LAST 4 DIGITS ARE "0296" THROUGH "0546" INCLUSIVE, MAY HAVE ELECTRIC MOTORS THAT ARE SUBJECT TO THIS RECALL CAMPAIGN. THEREFORE, THE ELECTRIC MOTOR MUST BE REPLACED.

B. Procedure for Inspection:

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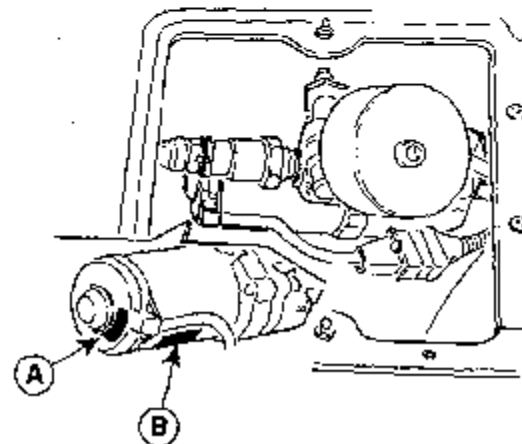
F 355 (156/1):

CAUTION: BRAKE FLUID UNDER HIGH PRESSURE
TO HELP AVOID PERSONAL INJURY, PRESSURE MUST BE
REMOVED BEFORE SERVICING ANY PART OF THIS BRAKE UNIT

9. V-110 (1)

- BY:
1. DISCONNECTING THE BATTERY
 2. APPLYING THE BRAKE PEDAL 25 TIMES

1. Remove the luggage compartment left side upper cover.
2. Remove the ABS pump upper fastening bolt.
3. Rotate the assembly to inspect the codes.

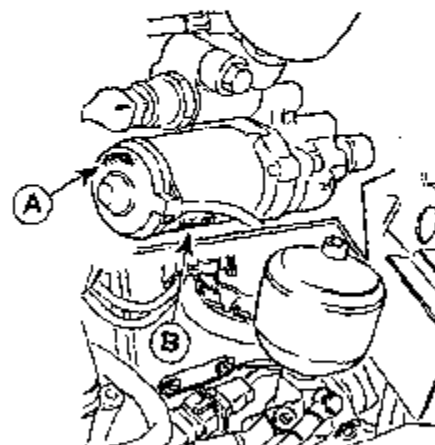


456 GTA (156/3):

CAUTION: BRAKE FLUID UNDER HIGH PRESSURE
TO HELP AVOID PERSONAL INJURY, PRESSURE MUST BE
REMOVED BEFORE SERVICING ANY PART OF THIS BRAKE UNIT

- BY:
1. DISCONNECTING THE BATTERY
 2. APPLYING THE BRAKE PEDAL 25 TIMES

1. Unfasten ABS mounting flange from the bulkhead.
2. Disconnect pressure switch and electric pump connectors to allow easier movement of the assembly.
3. Rotate the assembly to inspect the codes.



IF THE CODING INDICATES THAT REPLACEMENT OF THE ELECTRIC MOTOR IS REQUIRED, PROCEED TO STEP "C" BELOW.

9/11/10 (10)

IF THE CODING INDICATES THAT THE ELECTRIC MOTOR DOES **NOT** REQUIRE REPLACEMENT, REFIT THE ABS PUMP AND SECURE ASSEMBLY FASTENING BOLT AND PROCEED TO STEP "D" BELOW.

C. Replacement Procedure:

F 355 156/2 and 456 GTA 156/4:

AT THIS POINT, THE VEHICLE'S BATTERY SHOULD ALREADY BE DISCONNECTED, THE BRAKE FLUID PRESSURE REMOVED AND THE ABS PUMP ASSEMBLY DISMOUNTED.

1. Disconnect the pressure switch electrical connector.

ATTENTION:

- A. BRAKE FLUID WILL DAMAGE PAINTED SURFACES. AVOID CONTACT WITH PAINTED SURFACES.
 - B. SAFETY GLASSES MUST BE WORN TO PREVENT BRAKE FLUID FROM COMING IN CONTACT WITH THE EYES. CONSULT YOUR BRAKE FLUID MATERIAL SAFETY DATA SHEET (MSDS).
2. Remove the brake fluid reservoir line and plug the line to prevent leakage.
 3. Remove the brake fluid pressure line and plug the line to prevent leakage.
 4. Disconnect electrical harness connector.
 5. Remove unit from vehicle.
 6. Remove the pressure switch.
 7. Remove the accumulator.
 8. Fit the new component with:
 - a. The accumulator using the new O-Rings and tighten to a torque of 30 ft. lb.
 - b. The pressure switch using the new O-Rings and tighten to a torque of 26 ft. lb.

9. With the new component at the vehicle connect the following:
- a. Brake fluid reservoir line tightening the clamp.
 - b. Brake fluid pressure line with new sealing rings and tighten to a torque of 13 ft. lb.
 - c. Pressure switch electrical connector
 - d. Harness electrical connector
10. Mount the unit to the vehicle via the fastening bolt.
11. Reconnect the battery.
12. Raise the vehicle using a suitable vehicle hoist and remove the front and rear wheels.
13. Proceed with the brake system bleeding following the procedure outlined in the respective vehicle workshop manual section "G".
14. Before completing the bleeding operation, check for brake fluid leaks at all ABS pump connections.
15. After completion of the bleeding be sure that the brake fluid reservoir level is correct.
16. Refit the front and rear wheels and tighten the bolts to a torque of 72 ft. lbs.
17. Test brake pedal for proper operation.
18. Road test the vehicle for proper brake system operation.

D P S E T

5. V-1.0 (1)

D. Warranty Claim Reimbursement:

1. Enter recall claims following the normal warranty procedure, paying special attention to the following:
 - a. Enter cost code "24" for recalls
 - b. Enter recall number 156X
"X" represents the specific recall operation performed (eg. 1561)
2. **F 355:**
 - a. If only the inspection process was performed, enter recall number 1561 and you will be reimbursed 0.5 hours
 - b. If the inspection process and repair was performed, enter recall number 1562 and you will be reimbursed 1.8 hours plus parts.

3. 456 GTA:

- a. If only the inspection process was performed, enter recall number 1563 and you will be reimbursed 0.2 hours
- b. If the inspection process and repair was performed, enter recall number 1564 and you will be reimbursed 1.3 hours plus parts.

4.V-310 (i)

NOTE: YOU MAY ONLY SUBMIT ONE CLAIM FOR EACH VEHICLE

- i.e. One claim for the inspection (156/1 or 156/3) or one claim for the inspection and repair (156/2 or 156/4) depending on the model.

F 355:	156/1 or 156/2
456 GTA	156/3 or 156/4

**Recall 156 Vehicle Listing
by Serial Number**

81V-110 (10)

Serial No.	Assembly No.	Model Description
104395	21874	F355 SP CA MY96
104560	21899	F355 SP CA MY96
104806	21628	F 355 SPIDER
104807	21635	F 355 SPIDER
104808	21645	F 355 SPIDER
104816	21652	F355 B USA MY/96
104817	21695	F355 B USA MY/96
104818	21708	F355 B USA MY/96
104820	21655	F 355 SPIDER
104821	21659	F 355 SPIDER
104822	21663	F 355 SPIDER
104829	21770	F355 B USA MY/96
104830	21788	F355 B USA MY/96
104834	21671	F 355 SPIDER
104835	21677	F 355 SPIDER
104848	21682	F 355 SPIDER
104849	21692	F 355 SPIDER
104851	21684	F 355 SPIDER
104852	21704	F 355 SPIDER
104861	21636	F355 GTS USA MY/96
104862	21679	F355 GTS USA MY/96
104871	21690	F355 GTS USA MY/96
104872	21734	F355 GTS USA MY/96
104873	21710	F 355 SPIDER
104874	21723	F 355 SPIDER
104875	21716	F 355 SPIDER
104883	21728	F355 GTS USA MY/96
104884	21753	F355 GTS USA MY/96
104885	21725	F 355 SPIDER
104886	21744	F 355 SPIDER
104887	21747	F 355 SPIDER
104888	21736	F 355 SPIDER
104889	21751	F 355 SPIDER
104896	21762	F355 GTS USA MY/96
104897	21795	F355 GTS USA MY/96
104898	21772	F 355 SPIDER
104899	21774	F 355 SPIDER
104900	21782	F 355 SPIDER
104906	21785	F 355 SPIDER
104907	21802	F 355 SPIDER
104908	21793	F 355 SPIDER
104918	21807	F355 GTS USA MY/96
104920	21818	F 355 SPIDER
104924	21862	F355 B USA MY/96
104932	21850	F 355 SPIDER
104933	21837	F 355 SPIDER
104938	22036	F355 GTS USA MY/96

**Recall 156 Vehicle Listing
by Serial Number**

9-V-110 (1)

Serial No.	Assembly No.	Model Description
104953	21848	F 355 SPIDER
104954	21869	F 355 SPIDER
104964	22043	F355 GTS USA MY/96
104967	21860	F 355 SPIDER
104972	21909	F355 B USA MY/96
104979	21865	F 355 SPIDER
104980	21883	F 355 SPIDER
104991	22047	F355 GTS USA MY/96
104996	21886	F 355 SPIDER
105004	22049	F355 GTS USA MY/96
105008	21892	F 355 SPIDER
105022	21922	F 355 SPIDER
105023	21902	F 355 SPIDER
105029	22076	F355 B USA MY/96
105033	22062	F355 GTS USA MY/96
105036	21906	F 355 SPIDER
105051	21942	F 355 SPIDER
105052	21927	F 355 SPIDER
105056	22024	F355 B USA MY/96
105060	22067	F355 GTS USA MY/96
105064	21952	F 355 SPIDER
105079	21939	F 355 SPIDER
105080	21915	F355 SP CA MY96
105090	22064	F355 GTS USA MY/96
105093	21963	F 355 SPIDER
105094	21980	F 355 SPIDER
105105	22073	F355 GTS USA MY/96
105109	22008	F 355 SPIDER
105115	22187	F355 B USA MY/96
105123	22017	F 355 SPIDER
105124	22005	F 355 SPIDER
105133	22082	F355 GTS USA MY/96
105138	21969	F 355 SPIDER
105147	22106	F355 GTS USA MY/96
105151	22011	F 355 SPIDER
105159	22091	F355 GTS USA MY/96
105163	22021	F 355 SPIDER
105164	22027	F 355 SPIDER
105175	22167	F355 GTS USA MY/96
105178	22038	F 355 SPIDER
105184	22242	F355 B USA MY/96
105190	22240	F 355 SPIDER
105204	21947	F355 SP CA MY96
105207	21871	F 355 GTS CA MY96
105217	21957	F355 SP CA MY96
105222	21877	F 355 GTS CA MY96
105237	21919	F 355 GTS CA MY96

Recall 156 Vehicle Listing
by Serial Number

4.11.01 (1)

Serial No.	Assembly No.	Model Description
105245	22279	F355 B USA MY/96
105246	22516	F355 B USA MY/96
105253	22195	F355 GTS USA MY/96
105262	22199	F355 GTS USA MY/96
105275	22223	F355 GTS USA MY/96
105276	22203	F355 GTS USA MY/96
105277	22215	F355 GTS USA MY/96
105290	22206	F355 GTS USA MY/96
105291	22225	F355 GTS USA MY/96
105292	22257	F355 GTS USA MY/96
105307	22217	F355 SP CA MY96
105310	22233	F355 SP CA MY96
105311	22248	F355 SP CA MY96
105315	22907	F355 GTS USA MY/96
105316	22876	F355 GTS USA MY/96
105321	22286	F355 SP CA MY96
105328	22253	F 355 GTS CA MY96
105329	22312	F 355 GTS CA MY96
105333	22250	F 355 SPIDER
105339	22503	F355 B USA MY/96
105340	22524	F355 B USA MY/96
105347	22282	F 355 SPIDER
105365	22286	F 355 SPIDER
105368	22260	F 355 SPIDER
105389	22296	F 355 SPIDER
105378	22307	F 355 SPIDER
105379	22314	F 355 SPIDER
105380	22320	F 355 SPIDER
105392	22324	F 355 SPIDER
105393	22298	F 355 SPIDER
105394	22345	F 355 SPIDER
105405	22326	F 355 SPIDER
105406	22339	F 355 SPIDER
105407	22330	F 355 SPIDER
105419	22336	F 355 SPIDER
105420	22343	F 355 SPIDER
105421	22358	F 355 SPIDER
105432	22362	F 355 SPIDER
105433	22369	F 355 SPIDER
105434	22389	F 355 SPIDER
105445	22372	F 355 SPIDER
105446	22391	F 355 SPIDER
105447	22400	F 355 SPIDER
105457	22405	F 355 SPIDER
105458	22383	F 355 SPIDER
105459	22374	F 355 SPIDER
105507	22407	F 355 SPIDER

**Recall 156 Vehicle Listing
by Serial Number**

91V-110 (11)

Serial No.	Assembly No.	Model Description
105508	22413	F 355 SPIDER
105509	22506	F 355 SPIDER
105523	22453	F 355 SPIDER
105525	22462	F355 SP CA MY96
105526	22519	F 355 SPIDER
105527	22534	F 355 SPIDER
105533	22479	F355 SP CA MY96
105534	22476	F355 SP CA MY96
105535	22484	F355 SP CA MY96
105536	22489	F355 SP CA MY96
105537	22498	F355 SP CA MY96
105547	22530	F355 B USA MY/96
105553	22577	F 355 SPIDER
105559	22532	F355 B USA MY/96
105565	22544	F 355 SPIDER
105566	22553	F 355 SPIDER
105573	22572	F355 B USA MY/96
105581	22546	F 355 SPIDER
105582	22548	F 355 SPIDER
105586	22631	F355 B USA MY/96
105592	22567	F 355 SPIDER
105593	22574	F 355 SPIDER
105595	22586	F355 B USA MY/96
105596	22593	F355 B USA MY/96
105604	22579	F 355 SPIDER
105606	22641	F355 B USA MY/96
105612	22584	F 355 SPIDER
105614	22586	F 355 SPIDER
105623	22604	F 355 SPIDER
105624	22597	F 355 SPIDER
105635	22600	F 355 SPIDER
105636	22615	F 355 SPIDER
105637	22621	F 355 SPIDER
105647	22607	F 355 SPIDER
105648	22623	F 355 SPIDER
105649	22633	F 355 SPIDER
105659	22644	F 355 SPIDER
105660	22650	F 355 SPIDER
105661	22657	F 355 SPIDER
105672	22661	F 355 SPIDER
105673	22665	F 355 SPIDER
105674	22670	F 355 SPIDER
105686	22691	F 355 SPIDER
105687	22689	F 355 SPIDER
105698	22701	F 355 SPIDER
105699	22683	F 355 SPIDER
105700	22704	F 355 SPIDER

**Recall 156 Vehicle Listing
by Serial Number**

9/17/96 (2)

Serial No.	Assembly No.	Model Description
105712	22685	F 355 SPIDER
105713	22674	F 355 SPIDER
105724	22710	F 355 SPIDER
105725	22715	F 355 SPIDER
105726	22724	F 355 SPIDER
105738	22744	F 355 SPIDER
105739	22719	F 355 SPIDER
105740	22730	F 355 SPIDER
105750	22735	F 355 SPIDER
105751	22738	F 355 SPIDER
105752	22748	F 355 SPIDER
105852	22807	F355 B USA MY/96
105856	22897	F355 GTS USA MY/96
105857	22810	F 355 GTS CA MY96
105862	22819	F355 SP CA MY96
105868	22927	456 GTA
105874	22831	F355 B USA MY/96
105883	23170	456 GTA
105884	22821	F 355 GTS CA MY96
105890	22838	F355 SP CA MY96
105896	23188	456 GTA
105903	22863	F355 B USA MY/96
105908	22826	F 355 GTS CA MY96
105916	22853	F355 SP CA MY96
105922	22873	F355 B USA MY/96
105928	23264	456 GTA
105933	22849	F 355 GTS CA MY96
105937	22913	F 355 SPIDER
105938	22889	F355 SP CA MY96
105950	22884	F355 B USA MY/96
105957	23214	456 GTA
105958	22918	456 GT C.A.
105963	22903	F 355 SPIDER
105964	22867	F355 SP CA MY96
105977	22895	F355 B USA MY/96
105984	23030	F 355 SPIDER
105988	23284	456 GTA
105994	22920	F355 B USA MY/96
106003	23203	456 GT C.A.
106005	22943	F 355 SPIDER
106011	22939	F355 B USA MY/96
106017	22955	F 355 SPIDER
106021	23305	456 GTA
106034	23230	456 GTA
106047	23312	456 GTA
106113	22949	F 355 SPIDER
106114	23004	F 355 SPIDER

Recall 156 Vehicle Listing
by Serial Number

97V-156 (2)

Serial No.	Assembly No.	Model Description
106115	22973	F 355 SPIDER
106119	23022	F 355 SPIDER
106121	22980	F 355 SPIDER
106122	22993	F 355 SPIDER
106126	23008	F 355 SPIDER
106127	23020	F 355 SPIDER
106128	23062	F 355 SPIDER
106137	23341	456 GTA
106147	23352	456 GTA
106159	23066	F 355 SPIDER
106161	23370	456 GTA
106169	23082	F 355 SPIDER
106172	23099	F355 B USA MY/96
106179	23090	F 355 SPIDER
106180	23094	F 355 SPIDER
106185	23106	F355 B USA MY/96
106188	23120	F355 GTS USA MY/96
106192	23109	F 355 SPIDER
106197	23129	F355 B USA MY/96
106201	23123	F355 GTS USA MY/96
106205	23126	F 355 SPIDER
106206	23130	F355 SP CA MY96
106211	23159	F355 B USA MY/96
106214	23141	F355 GTS USA MY/96
106218	23167	F355 SP CA MY96
106222	23139	F355 B USA MY/96
106226	23157	F355 GTS USA MY/96
106230	23146	F 355 SPIDER
106231	23152	F355 SP CA MY96
106235	23164	F355 B USA MY/96
106238	23171	F355 GTS USA MY/96
106242	23176	F355 SP CA MY96
106244	23489	456 GTA
106248	23181	F355 B USA MY/96
106251	23204	F355 GTS USA MY/96
106252	23173	F 355 GTS CA MY96
106257	23191	F 355 SPIDER
106262	23199	F355 GTS USA MY/96
106263	23201	F 355 GTS CA MY96
106267	23185	F 355 SPIDER
106275	23218	F 355 GTS CA MY96
106396	23234	F355 SPIDER USA MY97
106397	23212	F355 SPIDER USA MY97
106398	23215	F355 SPIDER USA MY97
106401	23222	F355 SPIDER USA MY97
106402	23226	F355 SPIDER USA MY97
106403	23231	F355 SPIDER USA MY97

**Recall 156 Vehicle Listing
by Serial Number**

41V-120 (26)

<u>Serial No.</u>	<u>Assembly No.</u>	<u>Model Description</u>
106406	23239	F355 SPIDER USA MY97
106407	23245	F355 SPIDER USA MY97
106408	23246	F355 SPIDER USA MY97
106409	23251	F355 SPIDER USA MY97
106416	23255	F355 SPIDER USA MY97
106417	23261	F355 SPIDER USA MY97
106418	23266	F355 SPIDER USA MY97
106419	23263	F355 SPIDER USA MY97
106421	23281	F355 SPIDER USA MY97
106422	23275	F355 SPIDER USA MY97
106423	23273	F355 SPIDER USA MY97
106424	23270	F355 SPIDER USA MY97
106427	23279	F355 SPIDER USA MY97
106428	23287	F355 SPIDER USA MY97
106429	23291	F355 SPIDER USA MY97
106431	23295	F355 SPIDER USA MY97
106432	23300	F355 SPIDER USA MY97
106433	23307	F355 SPIDER USA MY97
106434	23310	F355 SPIDER USA MY97
106436	23314	F355 SPIDER USA MY97
106437	23316	F355 SPIDER USA MY97
106438	23328	F355 SPIDER USA MY97
106441	23319	F355 SPIDER USA MY97
106442	23324	F355 SPIDER USA MY97
106443	23337	F355 SPIDER USA MY97
106444	23335	F355 SPIDER USA MY97
106446	23340	F355 SPIDER USA MY97
106447	23346	F355 SPIDER USA MY97
106448	23343	F355 SPIDER USA MY97
106449	23353	F355 SPIDER USA MY97
106466	23358	F355 SPIDER USA MY97
106467	23360	F355 SPIDER USA MY97
106468	23372	F355 SPIDER USA MY97
106482	23364	F355 SPIDER USA MY97
106483	23377	F355 SPIDER USA MY97
106484	23419	F355 SPIDER USA MY97
106498	23379	F355 SPIDER USA MY97
106501	23383	F355 SPIDER USA MY97
106502	23386	F355 SPIDER USA MY97
106518	23403	F355 SPIDER USA MY97
106521	23398	F355 SPIDER USA MY97
106532	23415	F355 SPIDER USA MY97
106534	23433	F355 SPIDER USA MY97
106536	23410	F355 SPIDER USA MY97
106552	23428	F355 SPIDER USA MY97
106553	23423	F355 SPIDER USA MY97
106567	23438	F355 B USA MY97

Recall 156 Vehicle Listing
by Serial Number

9.11.10 (2)

Serial No.	Assembly No.	Model Description
106568	23458	F355 SPIDER USA MY97
106569	23440	F355 SPIDER USA MY97
106571	23443	F355 SPIDER USA MY97
106581	23446	F355 B USA MY97
106583	23445	F355 SPIDER USA MY97
106584	23450	F355 SPIDER USA MY97
106588	23462	F355 B USA MY97
106589	23466	F355 B USA MY97
106602	23453	F355 SPIDER USA MY97
106604	23483	F355 B USA MY97
106606	23486	F355 B USA MY97
106607	23474	F355 B USA MY97
106618	23491	F355 B USA MY97
106619	23488	F355 B USA MY97
106621	23496	F355 B USA MY97
106656	23472	F355 SPIDER USA MY97
106671	23520	F355 SPIDER USA MY97

PF

FEB 24 1997

Mr. William S. Story
Director of Technical Services
Ferrari North America, Inc.
250 Sylvan Avenue
Englewood Cliffs, NJ 07632

NSA-111paw
97V-013

Dear Mr. Story:

This acknowledges receipt of your Defect Information Report dated January 27, 1997, submitted in accordance with 49 CFR Part 573, "Defect and Noncompliance Reports." This recall involves 346 Ferrari North America, Inc. (Ferrari) 1996 and 1997 F355 model vehicles manufactured from January through August 1996, and 1997 F456 GTA model vehicles manufactured from June through August 1996. The electric motor which drives the anti-lock brake system (ABS) hydraulic pump will not always function after a period of operation. Loss of power brake boost can result. **The assigned ID Number for this recall campaign is 97V-013 (Ferrari Campaign No. 156).**

Ferrari is responsible for the remedy of these vehicles from this date forward, regardless of vehicle age, mileage, or ownership. You should know that the agency provides a listing of safety recalls to the media at the end of each month. This recall will be a part of that listing.

QUARTERLY STATUS REPORTS

As stated in Part 573.6, submission of the first of six consecutive quarterly status reports is required within 1 month after the close of the calendar quarter **in which notification to purchasers occurs.** For instance, the current calendar quarter begins on January 1 and ends on March 31, 1997. As stated in your report, owner notification is expected to begin during February 1997. Therefore, the first quarterly report is due by April 30, 1997. In the case where the recall appears to be completed, quarterly reporting is required until your company is notified otherwise by this office. The following chart provides due dates for each of the six quarterly reports.

QUARTER	QUARTER BEGINS	QUARTER ENDS	DUE DATE
1st Quarter	January 1, 1997	March 31, 1997	April 30, 1997
2nd Quarter	April 1, 1997	June 30, 1997	July 30, 1997
3rd Quarter	July 1, 1997	September 30, 1997	October 30, 1997
4th Quarter	October 1, 1997	December 31, 1997	January 30, 1998
5th Quarter	January 1, 1998	March 31, 1998	April 30, 1998
6th Quarter	April 1, 1998	June 30, 1998	July 30, 1998

If you have any questions, please contact Mrs. Pat Wallace or Mrs. Barbara Hayes at (202) 366-5232 or fax at (202) 366-7882.

Sincerely,

JS1
Jonathan D. White, Chief
Recall Analysis Division
Office of Defects Investigation
Safety Assurance




RECALL CAMPAIGN

REF. NO. 156
 ANTI-LOCK BRAKE SYSTEM (ABS)
 HYDRAULIC PUMP ELECTRIC MOTOR
 F 355
 F 456 GTA

FEBRUARY 1997

READ, INITIAL
 AND PASS ON »

Service Manager	Parts Manager	Service Writer	Technician				Warranty Clerk

February 1997

Dear Ferrari Dealer:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.



On Ferrari vehicles, model F355 with assembly numbers between 21628 and 23520 inclusive and model 456 GTA with assembly numbers between 22918 and 23489 inclusive, the electric motor which drives the anti-lock brake system (ABS) hydraulic pump will not function after a period of operation.

Should such a condition occur, loss of brake boost (servo assistance) will result. Drivers of potentially affected vehicles would, however, be warned of the possibility of brake boost loss before any actual loss would occur. Impending brake boost loss will be indicated in the F 355 by the illumination of the amber colored ABS warning lamp and the red brake warning lamp, and in the 456 GTA by illumination of the red brake warning lamp. Immediately after illumination of the warning lamps, the vehicle can still be stopped several times just as if no loss of brake boost had occurred, since the brake system is able to use the stored hydraulic energy in the pump accumulator. Thereafter, vehicle braking will require increased pedal force.

The remedy consists of inspecting the electric motor 5 digit production date code or the 12 digit serial number of the ABS hydraulic pump/motor assembly to determine if replacement is required. If necessary, the ABS hydraulic pump electric motor will be replaced in accordance with the attached technical instructions.

The corrective action will require a maximum of 1.8 hours depending on the model in question.

Attached you will find a listing of all potentially affected vehicles indicated by the last six digits of the V.I.N. and the Assembly Number.

We have sent notices to all owners of potentially affected vehicles advising them of this situation and urging that they contact any Authorized Ferrari Dealer for the repairs.

Upon transmittal of the warranty claim, pursuant to our normal warranty procedure, we will of course reimburse you for the labor and applicable parts expended in carrying out this campaign. Obviously, if you have any potentially



affected vehicles in your stock, you must not sell them until you have performed the necessary repairs. If you have already sold vehicles with the assembly number specified in the enclosed instructions and have not yet sent in the retail sales cards, please do so at once so we may notify these owners.

Thank you for your cooperation.

Best Regards

A handwritten signature in black ink, appearing to read "William S. Story". The signature is written in a cursive style with a long horizontal stroke extending to the right.

William S. Story
Director of Technical Services & Parts

WSS:cc



RECALL CAMPAIGN NO. 156

INTRODUCTION: Anti-Lock Brake System (ABS) Hydraulic Pump Electric Motor

SUBJECT: Recall Campaign No. 156/1, 156/2, 156/3 and 156/4
ABS Hydraulic Pump Electric Motor

VEHICLES: Ferrari F 355 with assembly numbers between 21628 and 23520 inclusive, and,

Ferrari 456 GTA with assembly numbers between 22918 and 23489 inclusive

CONDITION: On Ferrari vehicles, model F355 with assembly numbers between 21628 and 23520 inclusive and model 456 GTA with assembly numbers between 22918 and 23489 inclusive, the electric motor which drives the anti-lock brake system (ABS) hydraulic pump will not always function after a period of operation.

Should such a condition occur, loss of brake boost (servo assistance) will result. Drivers of potentially affected vehicles would, however, be warned of the possibility of brake boost loss before any actual loss would occur. Impending brake boost loss will be indicated in the 355 by the illumination of the amber colored ABS warning lamp and the red brake warning lamp; and in the 456 GTA by illumination of the red brake warning lamp. Immediately after illumination of the warning lamps, the vehicle can still be stopped several times just as if no loss of brake boost had occurred, since the brake system is able to use the stored hydraulic energy in the pump accumulator. Thereafter, vehicle braking will require increased pedal force.

REMEDY: The remedy consists of inspecting the electric motor 5 digit production date code or the 12 digit serial number of the ABS hydraulic pump/motor assembly to determine if replacement is required. If necessary, the ABS hydraulic pump electric motor will be replaced in accordance with the attached technical instructions.

PARTS: Qty. 1 70000887 New Electric Motor Kit Dealer Cost \$375.94

Included with this documentation is an initial quantity of the new electric motor kit (P/N 70000887). Please order additional kits as required following the normal parts ordering procedure.



The new electric motor kit part number 70000887 includes the following items:

- 70000774 Electric Motor Kit
- 70000509 Connection Kit
- 70000510 O-Ring Kit

Please check your stock of P/N 70000772 (complete ABS pump assembly) and P/N 70000774 (electric motor kit) to obtain the 5 digit production date code or the 12 digit serial number of each unit. If the codes on those components correspond to the potentially affected units as set forth in the attached technical and warranty instructions, then you must immediately return them to the Ferrari North America Parts Department, following the normal parts return procedure.

LABOR:

Model F 355

156/1 Inspection Procedure Only

Component Code: 4366
Defect Code: 01
Labor Operation No. 4366.1
Labor Time: 0.5 Hours

156/2 Inspection Procedure and Repair

Component Code: 4366
Defect Code: 01
Labor Operation No. 4366.0
Labor Time: 1.8 Hours

Model 456 GTA

156/3 Inspection Procedure Only

Component Code: 4366
Defect Code: 01
Labor Operation No. 4366.1
Labor Time: 0.2 Hours

156/4 Inspection Procedure and Repair

Component Code: 4366
Defect Code: 01
Labor Operation No. 4366.0
Labor Time: 1.3 Hours

REIMBURSEMENT: Upon receipt of information via MEDEA



RECALL NO. 156

TECHNICAL AND WARRANTY INSTRUCTIONS

A. Preliminary:

First inspect the vehicle to determine whether the anti-lock brake system (ABS) hydraulic pump electric motor codes indicate the need for replacement and if necessary proceed with the repair.

The production date code which is stamped in white paint on the black plastic cap of the electric motor ("A" in the diagram) consists of a 5 digit code. The first 4 digits of this code describes the production day. The fifth digit is not applicable.

UNITS WITH A CODE HAVING THE FIRST 4 DIGITS "0236" MUST BE REPLACED

If, for some reason, the production date code is not legible, you must use the 12 digit serial number of the ABS hydraulic pump/motor assembly. This number can be found on the adhesive label fitted on the black electric motor housing near the plastic cap ("B" on the diagram). This label shows the manufacturer's part number in the upper portion of the label. A bar code and the unit's 12 digit serial number appear in the lower portion. The last 4 digits of the 12 digit serial number identify the production date of the unit.

THE PRODUCTION PERIOD INDICATED BY SERIAL NUMBERS OF WHICH THE LAST 4 DIGITS ARE "0296" THROUGH "0546" INCLUSIVE, MAY HAVE ELECTRIC MOTORS THAT ARE SUBJECT TO THIS RECALL CAMPAIGN. THEREFORE, THE ELECTRIC MOTOR MUST BE REPLACED.



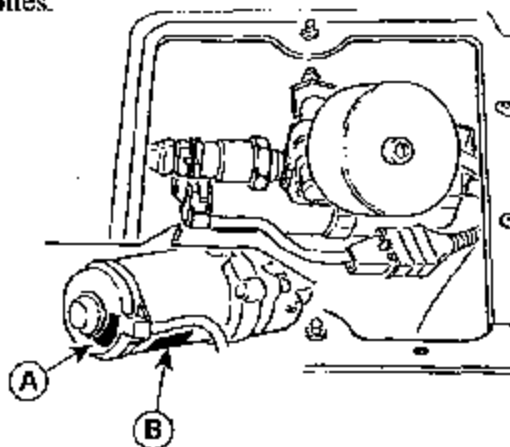
B. Procedure for Inspection:

F 355 (156/1):

CAUTION: BRAKE FLUID UNDER HIGH PRESSURE TO HELP AVOID PERSONAL INJURY, PRESSURE MUST BE REMOVED BEFORE SERVICING ANY PART OF THIS BRAKE UNIT

- BY:
1. DISCONNECTING THE BATTERY
 2. APPLYING THE BRAKE PEDAL 25 TIMES

1. Remove the luggage compartment left side upper cover.
2. Remove the ABS pump upper fastening bolt.
3. Rotate the assembly to inspect the codes.

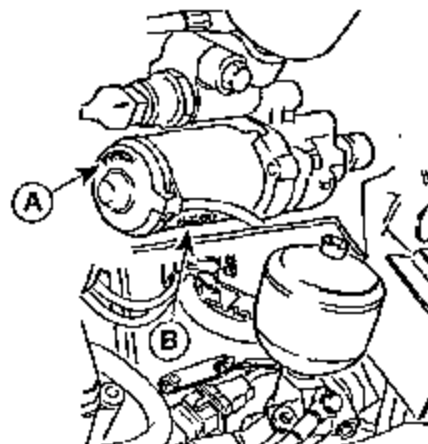


456 GTA (156/3):

CAUTION: BRAKE FLUID UNDER HIGH PRESSURE TO HELP AVOID PERSONAL INJURY, PRESSURE MUST BE REMOVED BEFORE SERVICING ANY PART OF THIS BRAKE UNIT

- BY:
1. DISCONNECTING THE BATTERY
 2. APPLYING THE BRAKE PEDAL 25 TIMES

1. Unfasten ABS mounting flange from the bulkhead.
2. Disconnect pressure switch and electric pump connectors to allow easier movement of the assembly.
3. Rotate the assembly to inspect the codes.





IF THE CODING INDICATES THAT REPLACEMENT OF THE ELECTRIC MOTOR IS REQUIRED, PROCEED TO STEP "C" BELOW.

IF THE CODING INDICATES THAT THE ELECTRIC MOTOR DOES NOT REQUIRE REPLACEMENT, REFIT THE ABS PUMP AND SECURE ASSEMBLY FASTENING BOLT AND PROCEED TO STEP "D" BELOW.

C. Replacement Procedure:

F 355 156/2 and 456 GTA 156/4:

AT THIS POINT, THE VEHICLE'S BATTERY SHOULD ALREADY BE DISCONNECTED, THE BRAKE FLUID PRESSURE REMOVED AND THE ABS PUMP ASSEMBLY DISMOUNTED.

1. Disconnect the pressure switch electrical connector.

ATTENTION:

- A. BRAKE FLUID WILL DAMAGE PAINTED SURFACES. AVOID CONTACT WITH PAINTED SURFACES.
- B. SAFETY GLASSES MUST BE WORN TO PREVENT BRAKE FLUID FROM COMING IN CONTACT WITH THE EYES. CONSULT YOUR BRAKE FLUID MATERIAL SAFETY DATA SHEET (MSDS).

2. Remove the brake fluid reservoir line and plug the line to prevent leakage.
3. Remove the brake fluid pressure line and plug the line to prevent leakage
4. Disconnect electrical harness connector.
5. Remove unit from vehicle.
6. Remove the pressure switch.
7. Remove the accumulator.
8. Fit the new component with:
 - a. The accumulator using the new O-Rings and tighten to a torque of 30 ft. lb.
 - b. The pressure switch using the new O-Rings and tighten to a torque of 26 ft. lb.



9. With the new component at the vehicle connect the following:
 - a. Brake fluid reservoir line tightening the clamp.
 - b. Brake fluid pressure line with new sealing rings and tighten to a torque of 13 ft. lb.
 - c. Pressure switch electrical connector
 - d. Harness electrical connector
10. Mount the unit to the vehicle via the fastening bolt.
11. Reconnect the battery.
12. Raise the vehicle using a suitable vehicle hoist and remove the front and rear wheels.
13. Proceed with the brake system bleeding following the procedure outlined in the respective vehicle workshop manual section "G".
14. Before completing the bleeding operation, check for brake fluid leaks at all ABS pump connections.
15. After completion of the bleeding be sure that the brake fluid reservoir level is correct.
16. Refit the front and rear wheels and tighten the bolts to a torque of 72 ft. lbs.
17. Test brake pedal for proper operation.
18. Road test the vehicle for proper brake system operation.

D. Warranty Claim Reimbursement:

1. Enter recall claims following the normal warranty procedure, paying special attention to the following:
 - a. Enter cost code "24" for recalls
 - b. Enter recall number 156X
"X" represents the specific recall operation performed (eg. 1561)
2. F 355:
 - a. If only the inspection process was performed, enter recall number 1561 and you will be reimbursed 0.5 hours
 - b. If the inspection process and repair was performed, enter recall number 1562 and you will be reimbursed 1.8 hours plus parts.



3. 456 GTA:

- a. If only the inspection process was performed, enter recall number 1563 and you will be reimbursed 0.2 hours
- b. If the inspection process and repair was performed, enter recall number 1564 and you will be reimbursed 1.3 hours plus parts.

NOTE: YOU MAY ONLY SUBMIT ONE CLAIM FOR EACH VEHICLE

- i.e. One claim for the inspection (156/1 or 156/3) or one claim for the inspection and repair (156/2 or 156/4) depending on the model.

F 355:	156/1 or 156/2
456 GTA	156/3 or 156/4

Ferrari

Ferrari North America, Inc.

February 21, 1997

«NAME»
«ADDRESS»
«ADDRESS2»
«CITY», «ST» «ZIP»

Chassis Number: «CN»



Dear Ferrari Customer:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. Ferrari has determined that a defect which relates to motor vehicle safety exists in certain Ferrari Model F 355 and 456 GTA vehicles.

On Ferrari vehicles, model F355 with assembly numbers between 21628 and 23520 inclusive and model 456 GTA with assembly numbers between 22918 and 23489 inclusive, the electric motor which drives the anti-lock brake system (ABS) hydraulic pump will not function after a period of operation.

Should such a condition occur, loss of brake boost (servo assistance) will result. Drivers of potentially affected vehicles would, however, be warned of the possibility of brake boost loss before any actual loss would occur. Impending brake boost loss will be indicated in the F 355 by the illumination of the amber colored ABS warning lamp and the red brake warning lamp; and in the 456 GTA by illumination of the red brake warning lamp. Immediately after illumination of the warning lamps, the vehicle can still be stopped several times just as if no loss of brake boost had occurred, since the brake system is able to use the stored hydraulic energy in the pump accumulator. Thereafter, vehicle braking will require increased pedal force.

The remedy consists of inspecting, and if necessary, replacing the ABS hydraulic pump electric motor.

Since your car is among those potentially affected by the above condition, we kindly ask you to contact any Authorized Ferrari Dealer immediately to arrange for an inspection and repair of your automobile.

The corrective action for the repair, if it is necessary, will be performed free of charge and will require a maximum of 1.8 hours depending on the model in question. However, please plan to leave your vehicle with the dealer as necessary to allow the dealer some flexibility in scheduling your repair.



By the time you receive this letter, all Authorized Ferrari Dealers will have been supplied with the instructions and parts necessary to perform the repair.

If the Dealer fails or is unable to make the necessary repairs free of charge and within a reasonable time, you should inform the National Headquarters Office of Ferrari North America, Inc.

250 Sylvan Avenue
Englewood Cliffs, New Jersey 07632
(201) 816-2651 (National Technical Office)

Although we urge you to immediately call the number indicated above, if the vehicle is not repaired free of charge and within a reasonable time, you may also contact the Administrator of the National Traffic Safety Administration in Washington, D.C. 20590 or call the Auto Safety Hotline at 1-800-424-9393 nationally, (202) 366-0123 for Washington, D.C. area residents.

We urge you to comply with this notice promptly and apologize for any inconvenience this may cause you.

Best Regards,

A handwritten signature in black ink, appearing to read 'William S. Story', written over a horizontal line.

William S. Story
Director of Technical Services

WSS:cc

Q981CALL 393 56 C187



Recall 156 Vehicle Listing by Serial Number

Serial No.	Assembly No.	Model Description
104395	21874	F355 SP CA MY96
104560	21899	F355 SP CA MY96
104806	21828	F 355 SPIDER
104807	21635	F 355 SPIDER
104808	21645	F 355 SPIDER
104816	21652	F355 B USA MY/96
104817	21695	F355 B USA MY/96
104818	21708	F355 B USA MY/96
104820	21655	F 355 SPIDER
104821	21659	F 355 SPIDER
104822	21663	F 355 SPIDER
104829	21770	F355 B USA MY/96
104830	21788	F355 B USA MY/96
104834	21671	F 355 SPIDER
104835	21677	F 355 SPIDER
104848	21682	F 355 SPIDER
104849	21692	F 355 SPIDER
104851	21684	F 355 SPIDER
104852	21704	F 355 SPIDER
104861	21636	F355 GTS USA MY/96
104862	21679	F355 GTS USA MY/96
104871	21690	F355 GTS USA MY/96
104872	21734	F355 GTS USA MY/96
104873	21710	F 355 SPIDER
104874	21723	F 355 SPIDER
104875	21716	F 355 SPIDER
104883	21728	F355 GTS USA MY/96
104884	21753	F355 GTS USA MY/96
104885	21725	F 355 SPIDER
104886	21744	F 355 SPIDER
104887	21747	F 355 SPIDER
104888	21736	F 355 SPIDER
104889	21751	F 355 SPIDER
104896	21762	F355 GTS USA MY/96
104897	21795	F355 GTS USA MY/96
104898	21772	F 355 SPIDER
104899	21774	F 355 SPIDER
104900	21762	F 355 SPIDER
104906	21785	F 355 SPIDER
104907	21802	F 355 SPIDER
104908	21793	F 355 SPIDER
104918	21807	F355 GTS USA MY/96
104920	21818	F 355 SPIDER
104924	21862	F355 B USA MY/96
104932	21850	F 355 SPIDER
104933	21837	F 355 SPIDER
104938	22036	F355 GTS USA MY/96



Recall 156 Vehicle Listing by Serial Number

Serial No.	Assembly No.	Model Description
104953	21846	F 355 SPIDER
104954	21869	F 355 SPIDER
104964	22043	F355 GTS USA MY/96
104967	21860	F 355 SPIDER
104972	21909	F355 B USA MY/96
104979	21865	F 355 SPIDER
104980	21883	F 355 SPIDER
104991	22047	F355 GTS USA MY/96
104996	21886	F 355 SPIDER
105004	22049	F355 GTS USA MY/96
105008	21892	F 355 SPIDER
105022	21922	F 355 SPIDER
105023	21902	F 355 SPIDER
105029	22076	F355 B USA MY/96
105033	22062	F355 GTS USA MY/96
105036	21906	F 355 SPIDER
105051	21942	F 355 SPIDER
105052	21927	F 355 SPIDER
105056	22024	F355 B USA MY/96
105060	22067	F355 GTS USA MY/96
105064	21952	F 355 SPIDER
105079	21939	F 355 SPIDER
105080	21915	F355 SP CA MY96
105090	22064	F355 GTS USA MY/96
105093	21963	F 355 SPIDER
105094	21980	F 355 SPIDER
105105	22073	F355 GTS USA MY/96
105109	22008	F 355 SPIDER
105115	22187	F355 B USA MY/96
105123	22017	F 355 SPIDER
105124	22005	F 355 SPIDER
105133	22082	F355 GTS USA MY/96
105138	21969	F 355 SPIDER
105147	22106	F355 GTS USA MY/96
105151	22011	F 355 SPIDER
105159	22091	F355 GTS USA MY/96
105163	22021	F 355 SPIDER
105164	22027	F 355 SPIDER
105175	22167	F355 GTS USA MY/96
105178	22038	F 355 SPIDER
105184	22242	F355 B USA MY/96
105190	22240	F 355 SPIDER
105204	21947	F355 SP CA MY96
105207	21871	F 355 GTS CA MY96
105217	21957	F355 SP CA MY96
105222	21877	F 355 GTS CA MY96
105237	21919	F 355 GTS CA MY96



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Serial No.	Assembly No.	Model Description
105245	22279	F355 B USA MY/96
105246	22516	F355 B USA MY/96
105253	22195	F355 GTS USA MY/96
105262	22199	F355 GTS USA MY/96
105275	22223	F355 GTS USA MY/96
105276	22203	F355 GTS USA MY/96
105277	22215	F355 GTS USA MY/96
105290	22206	F355 GTS USA MY/96
105291	22225	F355 GTS USA MY/96
105292	22257	F355 GTS USA MY/96
105307	22217	F355 SP CA MY96
105310	22233	F355 SP CA MY96
105311	22248	F355 SP CA MY96
105315	22907	F355 GTS USA MY/96
105316	22878	F355 GTS USA MY/96
105321	22268	F355 SP CA MY96
105328	22253	F 355 GTS CA MY96
105329	22312	F 355 GTS CA MY96
105333	22250	F 355 SPIDER
105339	22503	F355 B USA MY/96
105340	22524	F355 B USA MY/96
105347	22282	F 355 SPIDER
105365	22286	F 355 SPIDER
105368	22260	F 355 SPIDER
105369	22296	F 355 SPIDER
105378	22307	F 355 SPIDER
105379	22314	F 355 SPIDER
105380	22320	F 355 SPIDER
105392	22324	F 355 SPIDER
105393	22298	F 355 SPIDER
105394	22345	F 355 SPIDER
105405	22326	F 355 SPIDER
105406	22339	F 355 SPIDER
105407	22330	F 355 SPIDER
105419	22336	F 355 SPIDER
105420	22343	F 355 SPIDER
105421	22358	F 355 SPIDER
105432	22362	F 355 SPIDER
105433	22369	F 355 SPIDER
105434	22389	F 355 SPIDER
105445	22372	F 355 SPIDER
105446	22391	F 355 SPIDER
105447	22400	F 355 SPIDER
105457	22405	F 355 SPIDER
105458	22383	F 355 SPIDER
105459	22374	F 355 SPIDER
105507	22407	F 355 SPIDER



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Serial No.	Assembly No.	Model Description
105508	22413	F 355 SPIDER
105509	22506	F 355 SPIDER
105523	22453	F 355 SPIDER
105525	22462	F355 SP CA MY96
105526	22519	F 355 SPIDER
105527	22534	F 355 SPIDER
105533	22479	F355 SP CA MY96
105534	22476	F355 SP CA MY96
105535	22484	F355 SP CA MY96
105536	22489	F355 SP CA MY96
105537	22496	F355 SP CA MY96
105547	22530	F355 B USA MY/96
105553	22577	F 355 SPIDER
105559	22532	F355 B USA MY/96
105565	22544	F 355 SPIDER
105566	22553	F 355 SPIDER
105573	22572	F355 B USA MY/96
105581	22546	F 355 SPIDER
105582	22548	F 355 SPIDER
105586	22631	F355 B USA MY/96
105592	22567	F 355 SPIDER
105593	22574	F 355 SPIDER
105595	22566	F355 B USA MY/96
105596	22593	F355 B USA MY/96
105604	22579	F 355 SPIDER
105606	22641	F355 B USA MY/96
105612	22584	F 355 SPIDER
105614	22588	F 355 SPIDER
105623	22604	F 355 SPIDER
105624	22597	F 355 SPIDER
105635	22600	F 355 SPIDER
105636	22615	F 355 SPIDER
105637	22621	F 355 SPIDER
105647	22607	F 355 SPIDER
105648	22623	F 355 SPIDER
105649	22633	F 355 SPIDER
105659	22644	F 355 SPIDER
105660	22650	F 355 SPIDER
105661	22657	F 355 SPIDER
105672	22661	F 355 SPIDER
105673	22665	F 355 SPIDER
105674	22670	F 355 SPIDER
105686	22691	F 355 SPIDER
105687	22689	F 355 SPIDER
105698	22701	F 355 SPIDER
105699	22683	F 355 SPIDER
105700	22704	F 355 SPIDER



Recall 156 Vehicle Listing by Serial Number

Serial No.	Assembly No.	Model Description
105712	22685	F 355 SPIDER
105713	22674	F 355 SPIDER
105724	22710	F 355 SPIDER
105725	22715	F 355 SPIDER
105726	22724	F 355 SPIDER
105738	22744	F 355 SPIDER
105739	22719	F 355 SPIDER
105740	22730	F 355 SPIDER
105750	22735	F 355 SPIDER
105751	22738	F 355 SPIDER
105752	22748	F 355 SPIDER
105852	22807	F355 B USA MY/96
105856	22897	F355 GTS USA MY/96
105857	22810	F 355 GTS CA MY96
105862	22819	F355 SP CA MY96
105868	22927	456 GTA
105874	22831	F355 B USA MY/96
105883	23170	456 GTA
105884	22821	F 355 GTS CA MY96
105890	22838	F355 SP CA MY96
105896	23188	456 GTA
105903	22863	F355 B USA MY/96
105908	22826	F 355 GTS CA MY96
105916	22853	F355 SP CA MY96
105922	22873	F355 B USA MY/96
105928	23264	456 GTA
105933	22849	F 355 GTS CA MY96
105937	22913	F 355 SPIDER
105938	22889	F355 SP CA MY96
105950	22884	F355 B USA MY/96
105957	23214	456 GTA
105958	22918	456 GT C.A.
105963	22903	F 355 SPIDER
105964	22867	F355 SP CA MY96
105977	22895	F355 B USA MY/96
105984	23030	F 355 SPIDER
105986	23284	456 GTA
105984	22920	F355 B USA MY/96
106003	23203	456 GT C.A.
106005	22943	F 355 SPIDER
106011	22939	F355 B USA MY/96
106017	22955	F 355 SPIDER
106021	23305	456 GTA
106034	23230	456 GTA
106047	23312	456 GTA
106113	22949	F 355 SPIDER
106114	23004	F 355 SPIDER



Recall 156 Vehicle Listing by Serial Number

Serial No.	Assembly No.	Model Description
106115	22973	F 355 SPIDER
106119	23022	F 355 SPIDER
106121	22980	F 355 SPIDER
106122	22993	F 355 SPIDER
106126	23008	F 355 SPIDER
106127	23020	F 355 SPIDER
106128	23062	F 355 SPIDER
106137	23341	456 GTA
106147	23352	456 GTA
106159	23066	F 355 SPIDER
106161	23370	456 GTA
106169	23082	F 355 SPIDER
106172	23099	F355 B USA MY/96
106179	23090	F 355 SPIDER
106180	23094	F 355 SPIDER
106185	23106	F355 B USA MY/96
106188	23120	F355 GTS USA MY/96
106192	23109	F 355 SPIDER
106197	23129	F355 B USA MY/96
106201	23123	F355 GTS USA MY/96
106205	23126	F 355 SPIDER
106206	23130	F355 SP CA MY96
106211	23159	F355 B USA MY/96
106214	23141	F355 GTS USA MY/96
106218	23167	F355 SP CA MY96
106222	23139	F355 B USA MY/96
106226	23157	F355 GTS USA MY/96
106230	23146	F 355 SPIDER
106231	23152	F355 SP CA MY96
106235	23164	F355 B USA MY/96
106238	23171	F355 GTS USA MY/96
106242	23176	F355 SP CA MY96
106244	23489	456 GTA
106248	23181	F355 B USA MY/96
106251	23204	F355 GTS USA MY/96
106252	23173	F 355 GTS CA MY96
106257	23191	F 355 SPIDER
106262	23199	F355 GTS USA MY/96
106263	23201	F 355 GTS CA MY96
106267	23185	F 355 SPIDER
106275	23218	F 355 GTS CA MY96
106396	23234	F355 SPIDER USA MY97
106397	23212	F355 SPIDER USA MY97
106398	23215	F355 SPIDER USA MY97
106401	23222	F355 SPIDER USA MY97
106402	23226	F355 SPIDER USA MY97



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Serial No.	Assembly No.	Model Description
106406	23239	F355 SPIDER USA MY97
106407	23245	F355 SPIDER USA MY97
106408	23246	F355 SPIDER USA MY97
106409	23251	F355 SPIDER USA MY97
106416	23255	F355 SPIDER USA MY97
106417	23261	F355 SPIDER USA MY97
106418	23266	F355 SPIDER USA MY97
106419	23263	F355 SPIDER USA MY97
106421	23281	F355 SPIDER USA MY97
106422	23275	F355 SPIDER USA MY97
106423	23273	F355 SPIDER USA MY97
106424	23270	F355 SPIDER USA MY97
106427	23279	F355 SPIDER USA MY97
106428	23287	F355 SPIDER USA MY97
106429	23291	F355 SPIDER USA MY97
106431	23295	F355 SPIDER USA MY97
106432	23300	F355 SPIDER USA MY97
106433	23307	F355 SPIDER USA MY97
106434	23310	F355 SPIDER USA MY97
106436	23314	F355 SPIDER USA MY97
106437	23316	F355 SPIDER USA MY97
106438	23328	F355 SPIDER USA MY97
106441	23319	F355 SPIDER USA MY97
106442	23324	F355 SPIDER USA MY97
106443	23337	F355 SPIDER USA MY97
106444	23335	F355 SPIDER USA MY97
106446	23340	F355 SPIDER USA MY97
106447	23346	F355 SPIDER USA MY97
106448	23343	F355 SPIDER USA MY97
106449	23353	F355 SPIDER USA MY97
106466	23358	F355 SPIDER USA MY97
106467	23360	F355 SPIDER USA MY97
106468	23372	F355 SPIDER USA MY97
106482	23364	F355 SPIDER USA MY97
106483	23377	F355 SPIDER USA MY97
106484	23419	F355 SPIDER USA MY97
106498	23379	F355 SPIDER USA MY97
106501	23383	F355 SPIDER USA MY97
106502	23386	F355 SPIDER USA MY97
106518	23403	F355 SPIDER USA MY97
106521	23398	F355 SPIDER USA MY97
106532	23415	F355 SPIDER USA MY97
106534	23433	F355 SPIDER USA MY97
106536	23410	F355 SPIDER USA MY97
106552	23428	F355 SPIDER USA MY97
106553	23423	F355 SPIDER USA MY97
106587	23438	F355 B USA MY97



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Serial No.	Assembly No.	Model Description
106568	23458	F355 SPIDER USA MY97
106569	23440	F355 SPIDER USA MY97
106571	23443	F355 SPIDER USA MY97
106581	23446	F355 B USA MY97
106583	23445	F355 SPIDER USA MY97
106584	23450	F355 SPIDER USA MY97
106588	23462	F355 B USA MY97
106589	23466	F355 B USA MY97
106602	23453	F355 SPIDER USA MY97
106604	23483	F355 B USA MY97
106606	23486	F355 B USA MY97
106607	23474	F355 B USA MY97
106618	23491	F355 B USA MY97
106619	23488	F355 B USA MY97
106621	23496	F355 B USA MY97
106656	23472	F355 SPIDER USA MY97
106671	23520	F355 SPIDER USA MY97