

V2475

REPORT NO. MGA-97-N01

NEW CAR ASSESSMENT PROGRAM (NCAP)

FRONTAL BARRIER IMPACT TEST

1997 HONDA ACCORD 2 DOOR
NHTSA NO. MV5032

MGA PROVING GROUNDS
5000 WARREN ROAD
BURLINGTON, WI 53105



Test Date: December 6, 1996

Report Date: January 2, 1997

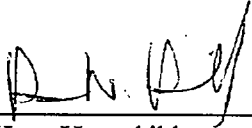
FINAL REPORT

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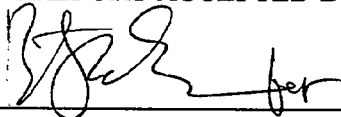
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APPROVED BY: 

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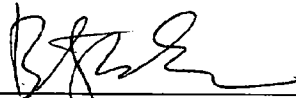
FINAL REPORT ACCEPTED BY:



Manager, New Car Assess. Program (NCAP)

4/1/97

Date of Report Acceptance



Contracting Officer's Tech. Rep. (COTR)

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16. Abstract A 56 kph (35 mph) frontal barrier impact using a 30 load cell barrier was conducted on a 1997 Honda Accord 2-Door at the MGA Proving Grounds and Crash Test Center in Burlington, WI. on December 6, 1996. The barrier impact velocity was 56.4 kph (35.1 mph), and the ambient temperature at the time of impact was 21 °C. The post-test maximum static crush was 537 mm. The test vehicle appeared to comply with the requirements of the following Federal Motor Vehicle Safety Standards: 1. FMVSS 212, "Windshield Mounting" 2. FMVSS 219 (partial), "Windshield Zone Intrusion" 3. FMVSS 301, "Fuel System Integrity" With regard to FMVSS 208, "Occupant Crash Protection" injury criteria, the driver's HIC was 447 and the 3 msec. Clip (Chest g's) was 51 g's. The left and right femur loads for the driver were 2958 and 2300 Newtons, respectively. The passenger's HIC was 713 and the 3 msec Clip was 47 g's. The left and right femur maximum loads were 2872 and 1255 Newtons respectively.			
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SECTION 1
PURPOSE AND TEST PROCEDURE

This 35 mph frontal barrier impact test is part of the Composite FY'97 Vehicle Barrier Impact Testing Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-90-D-12121. The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for an impact speed in excess of the current 48 kph (30 mph) FMVSS 208/212/219/301-75 requirements.

The 56 kph (35 mph) frontal barrier impact test was conducted in accordance with the National Highway Traffic Safety Administration (NHTSA) Indicant Test Procedure for New Car Assessment Program (NCAP) dated January 1, 1990. Data for FMVSS No. 212, "Windshield Mounting", FMVSS No. 219 (Partial), "Windshield Zone Intrusion", FMVSS No. 301-75, "Fuel System Integrity," as well as occupant performance data are provided herein.

SECTION 2

SUMMARY OF FRONTAL BARRIER IMPACT TEST

A load cell barrier consisting of 30 load cells was impacted by a 1997 Honda Accord 2-Door at a velocity of 56.4 kph (35.1 mph). The test was performed at the MGA Proving Grounds and Crash Test Center on December 6, 1996. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

The frontal barrier impact event was documented by one real-time camera and 18 high speed cameras. Camera locations and other pertinent camera information can be found in this report.

Two Part 572E, 50th percentile male anthropomorphic test devices (ATDs) were placed in the driver and right-front passenger seating positions according to dummy placement instructions specified in the Laboratory Indicant Test Procedure.

Both ATDs were fully instrumented with head and chest primary and redundant triaxial accelerometers, pelvis triaxial accelerometers, chest displacement transducer, neck load cell, right/left femur load cells, right/left lower leg sensors, and right/left feet accelerometers. Seat belt load cells were also on the driver and passenger shoulder and lap belts to measure dummy torso and pelvic section loading. Calibrated ATDs, driver (Serial No. 036), and the right front passenger (Serial No. 037), were used for this test. Certification details, along with instrumentation calibration data, are found in Appendix C and D.

The 97 channels of data were recorded on 10 computers. Appendix B contains the vehicle, load cell barrier and dummy response data traces.

The driver's head struck the inflated airbag. The driver HIC was 447.3 and the maximum chest (CLIP) deceleration over 3 milliseconds was 50.8 g's. The maximum chest displacement was 37 mm. The left and right femur loads were 2958 and 2300 Newtons respectively.

The right front passenger's head struck the inflated airbag. The passenger HIC was 712.9 and maximum chest (CLIP) deceleration over 3 milliseconds was 46.8 g's. The maximum chest displacement was 34 mm. The left and right femur loads were 2872 and 1255 Newtons respectively.

GENERAL TEST AND VEHICLE PARAMETER DATA

Vehicle Yr/Make/Model/Body Style: 1997/Honda/Accord/2-Door

NHTSA No.: MV5032 VIN.: 1HGCD7138VA008675

Body color: White Date of Manufacture: 11/96

Engine: 4 Cylinders; C.I.D.; 2.2 Liters;
X Gas; Diesel; Turbocharged
 Longitudinal; X Transverse

Transmission: 5 Speed; X Manual; Automatic; Overdrive

Final Drive: X Front Wheel; Rear Wheel; Four Wheel

Odometer Reading: 69 miles

X A/C; X P/S; X P/B; X P/wdo;
 P/seats; X Tilt Wheel; X Cruise Control; Abs

Type of Occupant Restraint: Type II belt system with driver and passenger airbags.

DATA RECORDED FROM VEHICLE'S TIRE PLACARD:

Tire Pressure (at capacity): Front 221 kPa (32 Psi) Rear 221 kPa (32 Psi)

Recommended Tire Size: P185/65R15 88S

Recommended Cold Tire Pressure: Front 221 kPa (32 Psi) Rear 221 kPa (32 Psi)

Tires on Vehicle: P185/65R15 88S Manufacturer: Bridgestone

Number of Occupants: 2 Front; 3 Rear; 3rd Seat; 5 TOTAL

Type of Front Seats: X Bucket; Bench; Split Bench

Type of Front Seat Back: Fixed; X Adj. With; Power; X Lever

Vehicle Capacity Weight (VCW) = 385.5 kg. (A)

No. of Occupants x 68.0 kg. = 340.0 kg. (B)

Rated Cargo Weight (RCW) A-B = 45.5 kg.

GVWR 1775.4 kg. GAWR: Front 970.4 kg.; Rear 820.8 kg.

GENERAL TEST AND VEHICLE PARAMETER DATA (Cont'd)

WEIGHT OF TEST VEHICLE AS RECEIVED FROM DEALER (WITH MAXIMUM FLUIDS) = UDW:

Right Front = 394.5 kg Right Rear = 246.7 kg
Left Front = 405.9 kg Left Rear = 248.5 kg
TOTAL FRONT WEIGHT = 800.4 kg (61.8 % of Total Vehicle Weight)
TOTAL REAR WEIGHT = 495.2 kg (38.2 % of Total Vehicle Weight)
TOTAL UNLOADED DELIVERED WEIGHT (UDW) = 1295.6 kg

CALCULATION FOR TARGET TEST WEIGHT:

UDW = Unloaded Delivered Weight 1295.6 kg
VCW = Vehicle Capacity Weight 385.5 kg
DSC = Designated Seating Capacity 5 RCW = VCW - 68 (DSC) = 45.5 kg
Target Test Weight = UDW + RCW + (2 dummies x 167 kg/dummy)
Target Test Weight = 1497.1 kg

WEIGHT OF TEST VEHICLE WITH REQUIRED DUMMIES AND CARGO:

Right Front = 440.8 kg Right Rear = 295.7 kg
Left Front = 450.8 kg Left Rear = 309.3 kg
TOTAL FRONT WEIGHT = 891.6 kg (59.6 % of Total Vehicle Weight)
TOTAL REAR WEIGHT = 605.0 kg (40.4 % of Total Vehicle Weight)
TOTAL TEST WEIGHT = 1496.6 kg
Weight of ballast secured in vehicle trunk area = 0 kg
Vehicle components removed to meet target weight: Rear seat, rear bumper, muffler, taillights, sparetire, jack, speakers, side mirrors, and all trunk interior.

VEHICLE ATTITUDE (all dimensions in mm):

Delivered Attitude: RF 693 LF 693 RR 690 LR 692
Test Attitude: RF 677 LF 676 RR 664 LR 664
Post Test RF 685 LF 744 RR 644 LR 685
Wheel Base: 2715 mm; C.G. = 1097 mm rearward of front wheel C/L
Remarks: None Noted

* light trucks and MPVs RCW is 136 kgs or manufacturer's value, whichever is less

GENERAL TEST AND VEHICLE PARAMETER DATA (Cont'd)

POST-IMPACT DATA:

Type of Test: 35 mph Frontal Impact Impact Angle: 90°
 Date of Test: December 6, 1996 Time of Test: 4:15 p.m.
 Ambient Temperature: 21 °C (Spec. Range = 18.8 to 25.6°C)
 Temperature in Occupant Compartment: 21 °C
 Windshield Molding Temperature: 21 °C
 Required Impact Velocity Range: 55.5 to 57.1 kph
 Impact Velocity: primary = 56.4 kph; secondary = 56.6 kph
 Distance From Front Bumper to Barrier Face When
 Entering Speed Trap: 280 mm
 Exiting Speed Trap: 1280 mm

VEHICLE REBOUND AND CRUSH (mm):

Vehicle Length:	Pre-test	= R	<u>4223</u>	C _L	<u>4443</u>	L	<u>4212</u>
	Post-test*	= R	<u>3780</u>	C _L	<u>3921</u>	L	<u>3759</u>
	Crush	= R	<u>443</u>	C _L	<u>522</u>	L	<u>453</u>

Distance from front of test vehicle to point of impact (rebound):

R 610 mm C_L 460 mm L 598 mm

VISIBLE DUMMY CONTACT POINTS:

	<u>Driver</u>	<u>Passenger</u>
Head	<u>To airbag</u>	<u>To airbag</u>
Chest	<u>None noted</u>	<u>None noted</u>
Abdomen	<u>None noted</u>	<u>None noted</u>
Left Knee	<u>To knee bolster and column</u>	<u>To glovebox and airbag</u>
Right Knee	<u>To knee bolster and column</u>	<u>To glovebox and airbag</u>

GENERAL TEST AND VEHICLE PARAMETER DATA (Cont'd)

	<u>Front</u>	
<u>Post-Test Door Opening</u>	<u>Left</u>	<u>Right</u>
(without use of tools)	<u>Opened</u>	<u>Opened</u>

	<u>Front</u>	
<u>Seat Movement</u>	<u>Left</u>	<u>Right</u>
Seat Back Movement	<u>0</u>	<u>0</u>
Seat Shift (mm)	<u>2 mm forward</u>	<u>1 mm forward</u>

Glazing Damage

Backlight/Windshield Windshield cracked

Other Notable Impact Effects: None noted

GENERAL TEST AND VEHICLE PARAMETER DATA (Cont'd)

POST TEST AIRBAG DATA

Vehicle Yr/Make/Model/Body Style: 1997/Honda/Accord/2-Door

NHTSA No.: MV5032 VIN: 1HGCD7138VA008675

- A. Number of Vent Holes: Driver 2; Passenger 2
- B. Size of Vent Holes: Driver 32 mm dia.; Passenger 70 mm
- C. Total Vent Area; Driver 8.0 cm² Passenger 38.5 cm²
- D. Deflated Airbag Length and Width Dimensions or, if Round, Diameter
- Driver; Length mm, Width mm, Diameter 584 mm
- Passenger; Length 483 mm, Width 445 mm, Diameter mm
- E. Is the Airbag Tethered?
- Driver; X Yes; No; If yes, record length of tether 381 mm
- Passenger; Yes; X No; If yes, record length of tether mm

SECTION 3

SUMMARY OF RESULTS FOR-----

FMVSS 212, "Windshield Mounting"

FMVSS 219 (Partial), "Windshield Zone Intrusion"

FMVSS 301-75, "Fuel System Integrity"

FMVSS NO. 212, "WINDSHIELD MOUNTING", DATA SHEET

Details of windshield mounting such as retention method, trim type, etc.:

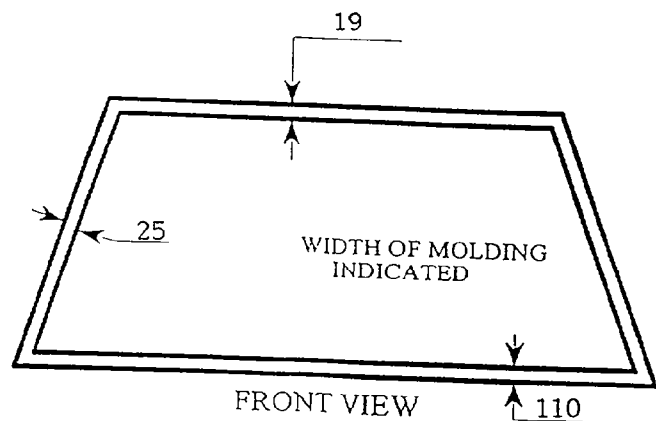
Windshield set in rubber molding with glue and plastic trim

FMVSS 212 Requirements: The Post-Test periphery retention amount must be at least 75% of the Pre-Test periphery measurement for vehicles NOT equipped with automatic restraints, and 50% for each side of windshield for vehicles equipped with automatic restraint systems for front occupants.

FMVSS 212 TEST DATA:

	WINDSHIELD PERIPHERY		PERCENT RETENTION
	PRE-TEST (mm)	POST-TEST (mm)	
RIGHT SIDE	2140	2140	100%
LEFT SIDE	2142	2142	100%
TOTAL	4282	4282	100%

AREA OF RETENTION FAILURE: None



FAILURE DETAILS: None

FMVSS NO. 219, "WINDSHIELD ZONE INTRUSION", DATA SHEET

PROTECTED ZONE LOWER EDGE REQUIREMENT:

The lower edge of the protected zone is determined by placing a 6.5" dia. rigid sphere weighing 15 pounds in a position such that it simultaneously contacts the inner surface of the windshield and the surface of the instrument panel, including padding, and drawing the locus of points on the inner surface of the windshield contactable by the sphere across the width of the instrument panel. From the outermost contact points, extend the locus line horizontally to the edges of the windshield, and then draw a line on the inner surface of the windshield below and $\frac{1}{2}$ " distant from the locus line. The LOWER EDGE OF THE PROTECTED ZONE is the longitudinal projection onto the outer surface of the windshield of this line.

FMVSS 219 TEST DATA:

A= 1090 mm

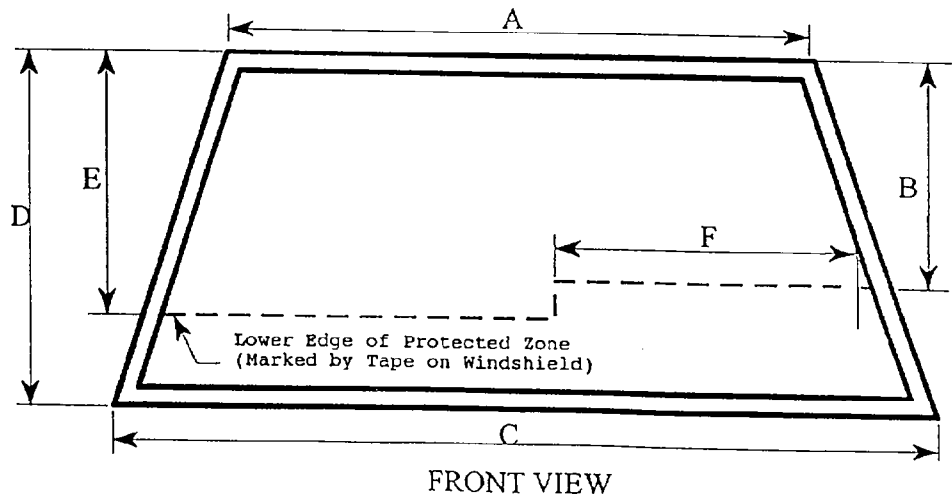
B= 595 mm

C= 1554 mm

D= 818 mm

E= 548 mm

F= 607 mm



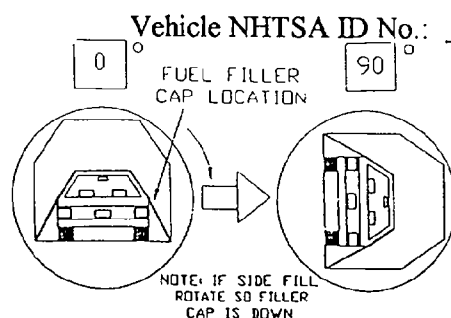
DETAILS OF WINDSHIELD GLASS PENETRATION GREATER THAN 1/4":

(Show location of penetration)

NONE

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET

TEST PHASE: 0° - 90°



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time 2 minutes 41 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 0 seconds

TOTAL 7 minutes 41 seconds

Next whole minute interval 8 minutes

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
------------------------------------	----------	----------	-------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
----------	---------	---------	---------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0	0	0	0
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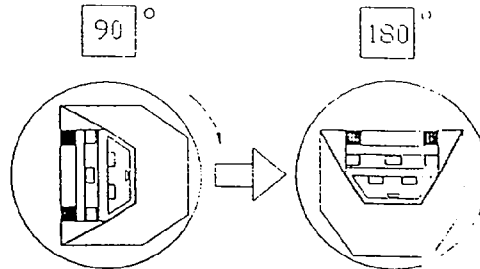
Note: Record Spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATIONS(S): None

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET

TEST PHASE: 90° - 180°

Vehicle NHTSA ID No.: MV5032



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time 2 minutes 19 seconds
(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 0 seconds

TOTAL 7 minutes 19 seconds

Next whole minute interval 8 minutes

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
------------------------------------	----------	----------	-------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
----------	---------	---------	---------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0	0	0	0
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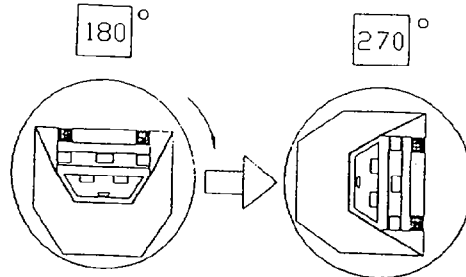
Note: Record Spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATIONS(S): None

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET

TEST PHASE: 180° - 270°

Vehicle NHTSA ID No.: MV5032



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time 2 minutes 28 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 0 seconds

TOTAL 7 minutes 28 seconds

Next whole minute interval 8 minutes

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
------------------------------------	----------	----------	-------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
----------	---------	---------	---------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0	0	0	0
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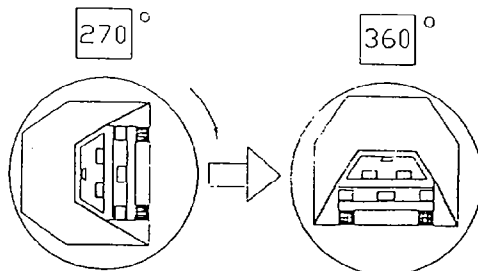
Note: Record Spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATIONS(S): None

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET

TEST PHASE: 270° - 360°

Vehicle NHTSA ID No.: MV5032



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90° Rotation Time 2 minutes 46 seconds

(Spec. Range = 1 to 3 minutes)

FMVSS 301 Position Hold Time + 5 minutes 0 seconds

TOTAL 7 minutes 46 seconds

Next whole minute interval 8 minutes

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min FROM onset of rotation	6th min.	7th min.	8th min. if reqd.
------------------------------------	----------	----------	-------------------

(2) Maximum Allowable Solvent Spillage

5 ounces	1 ounce	1 ounce	1 ounce
----------	---------	---------	---------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0	0	0	0
---	---	---	---

Note: Record Spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATIONS(S): None

SECTION 4
OMI FINAL DATA

Occupant and Vehicle Information

I. OMI DATA

1. Dummy Injury Criteria Data Summary
2. Dummy Positioning Data
3. Seat Belt Positioning Data
4. Seat Belt Performance Assessment Data
5. Camera Locations
6. Vehicle Target Locations

II. OVR DATA

1. Load Cell Barrier Data
2. Vehicle Accelerometer Data
3. Test Vehicle Measurements

III. AID DATA

1. Accident Investigation Damage Data Summary

FMVSS NO. 208, "OCCUPANT CRASH PROTECTION", DATA SHEET

VEH. YR./MAKE/MODEL/BODY STYLE: 1997/Honda/Accord 2-Door

VEH. NHTSA NO.: MV5032 TEST DATE: December 6, 1996

MAX. ACCELERATION VALUES: (g's)	DRIVER # 036	PASSENGER # 037
Head Channel X	-54.1 @ 70 msec.	-69.5 @ 80 msec.
Head Channel Y	-20.7 @ 69 msec.	11.0 @ 83 msec.
Head Channel Z	-18.3 @ 48 msec.	-38.0 @ 59 msec.
HEAD RESULTANT	57.8 @ 70 msec.	70.8 @ 80 msec.
Chest Channel X	-51.9 @ 62 msec.	-48.0 @ 57 msec.
Chest Channel Y	-5.9 @ 78 msec.	8.4 @ 77 msec.
Chest Channel Z	15.2 @ 86 msec.	19.4 @ 83 msec.
CLIP	50.8	46.8
TIME INTERVAL (msec) [3. msec. minimum]	$t_1 = 60.7$ $t_2 = 63.8$	$t_1 = 72.9$ $t_2 = 76.0$

HEAD INJURY CRITERIA (HIC)
VALUES:

HIC	447.3	712.9
$t_1 =$ (msec)	49.00	57.6
$t_2 =$ (msec)	85.00	93.6
Avg. Accel. t_1 to t_2 (g's)	43.4	52.3

[The maximum time interval from t_1 to t_2 is 36 milliseconds.]

MAX. COMPRESSIVE FEMUR FORCES:

Left Side (N)	-2958.3 @ 60 msec.	-2872.4 @ 48 msec.
Right Side (N)	-2300.1 @ 49 msec.	-1254.9 @ 61 msec.

MAXIMUM SEAT BELT FORCES:

Lap Belt (N)	4536.6 @ 55 msec.	7384.8 @ 53 msec.
Shoulder Belt (N)	7527.0 @ 67 msec.	8207.7 @ 63 msec.

HYBRID III NECK, CHEST AND PELVIS DATA SHEET

VEHICLE YR./MAKE/MODEL/BODY STYLE: 1997/Honda/Accord/2-Door

VEHICLE NHTSA NO.: MV5032 TEST DATE: December 6, 1996

MAXIMUM VALUES	DRIVER DUMMY #036	PASSENGER DUMMY #037
Neck Load X (N)	-431.5 @ 116 msec.	-617.1 @ 83 msec.
Neck Load Y (N)	245.8 @ 154 msec.	-201.5 @ 86 msec.
Neck Load Z (N)	-2391.1 @ 56 msec.	-1764.0 @ 72 msec.
Neck Moment X (NM)	-12.5 @ 74 msec.	14.3 @ 86 msec.
Neck Moment Y (NM)	-32.7 @ 122 msec.	32.8 @ 83 msec.
Neck Moment Z (NM)	27.4 @ 82 msec.	-9.5 @ 84 msec.
Chest Deflection X (mm)	37	34
Time of Max. Occurrence	76 msec.	71 msec.
Pelvis X Acceleration (g's)	-51.0 @ 56 msec.	-67.2 @ 49 msec.
Pelvis Y Acceleration (g's)	-9.4 @ 53 msec.	8.9 @ 81 msec.
Pelvis Z Acceleration (g's)	30.7 @ 67 msec.	32.5 @ 73 msec.
Pelvis Resultant (g's)	55.4 @ 60 msec.	68.3 @ 49 msec.

PART 572 DUMMY IN-VEHICLE POSITION

Vehicle NHTSA No.: MV5032 Vehicle: 1997 Honda Accord 2-Door

SEAT TYPE:

☐ Bench
☒ Bucket
☐ Split Bench

ADJUSTER TYPE:

Driver: ☒ Manual
☐ Power

 Passenger: ☒ Manual
☐ Power

BUCKET SEAT BACK TYPE:

☐ Fixed
☒ Adjustable Reclining

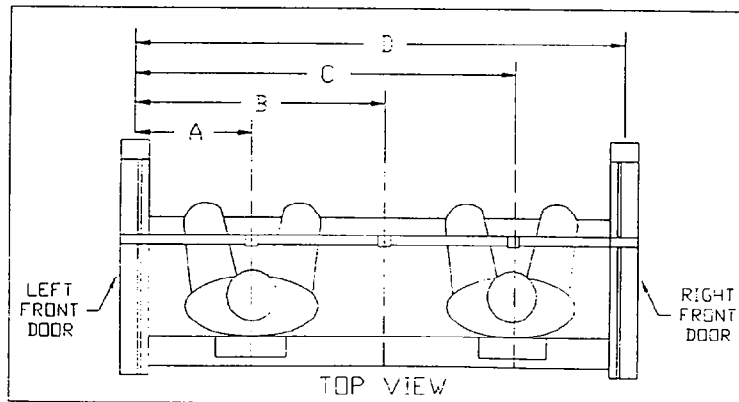
☐ Fixed
☒ Adjustable reclining

DRIVER SEAT POSITION

11th detent rearward out of 21 detents

PASSENGER SEAT POSITION

11th detent rearward of 21 detents



036 DUMMY ID 037

A = Left Door to Driver Centerline	<u>396</u> mm
B = Left Door to Center Passenger Centerline	<u>755</u> mm
C = Left Door to Right Passenger Centerline	<u>1105</u> mm
D = Left Door to Right Door	<u>1510</u> mm

FRONT SEAT MEASUREMENT TABLE

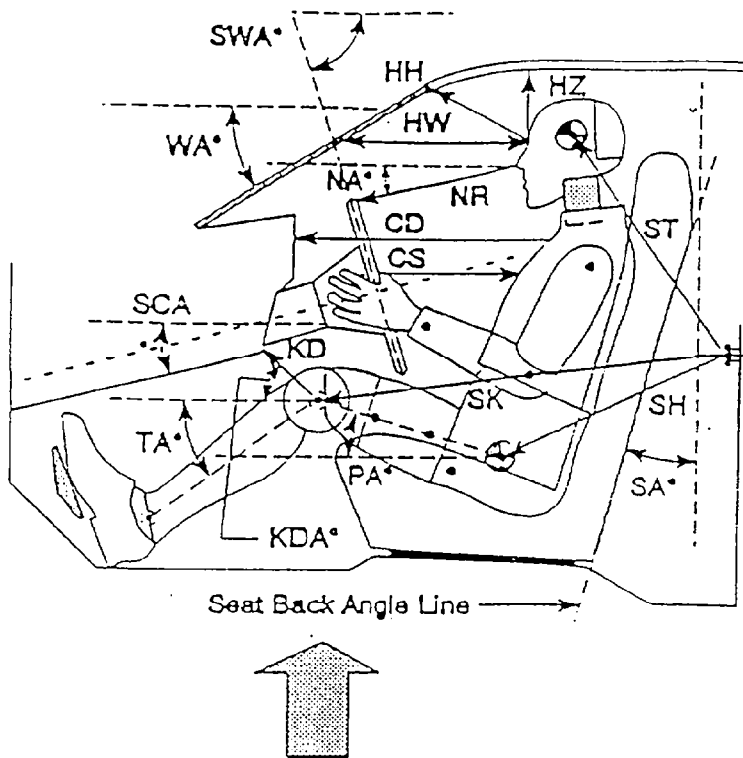
Units (mm)

	DRIVER (Serial #036)	PASSENGER (Serial #037)
WA°	26.3°	
SWA°	25.8°	N/A
SCA°	25.8°	N/A
SA°	5th Notch From Full Up	5th Notch From Full Up
HZ	192	192
HH	341	349
HW	621	627
HR	200	205
NR	452 Angle (NA) 9.7°	N/A
CD	581	654
CS	355	N/A
RA	216	N/A
KDL	200 Angle (KDA) 29.4°	204
KDR	201	198 Angle 23.4°
PA°	24.1°	24.6°
TA°	39.0°	36.6°
KK	278	260
ST*	560 Angle 32.9°	564 Angle 36.1°
SK*	835 Angle 95.3°	843 Angle 96.3°
SH*	504 Angle 112.0°	498 Angle 115.1°
SHY	236	236
HS	308	313
HD	128	118
AD	103	105

N/A = Not Applicable

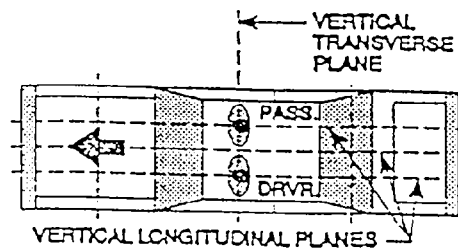
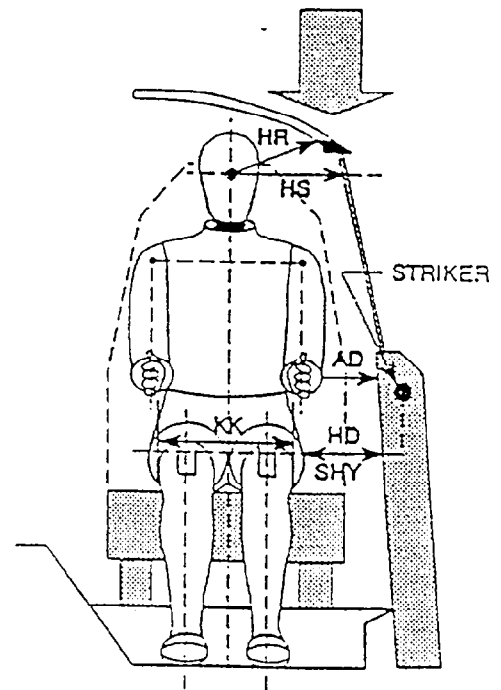
* Angles measured from vertical

FRONT SEAT MEASUREMENTS

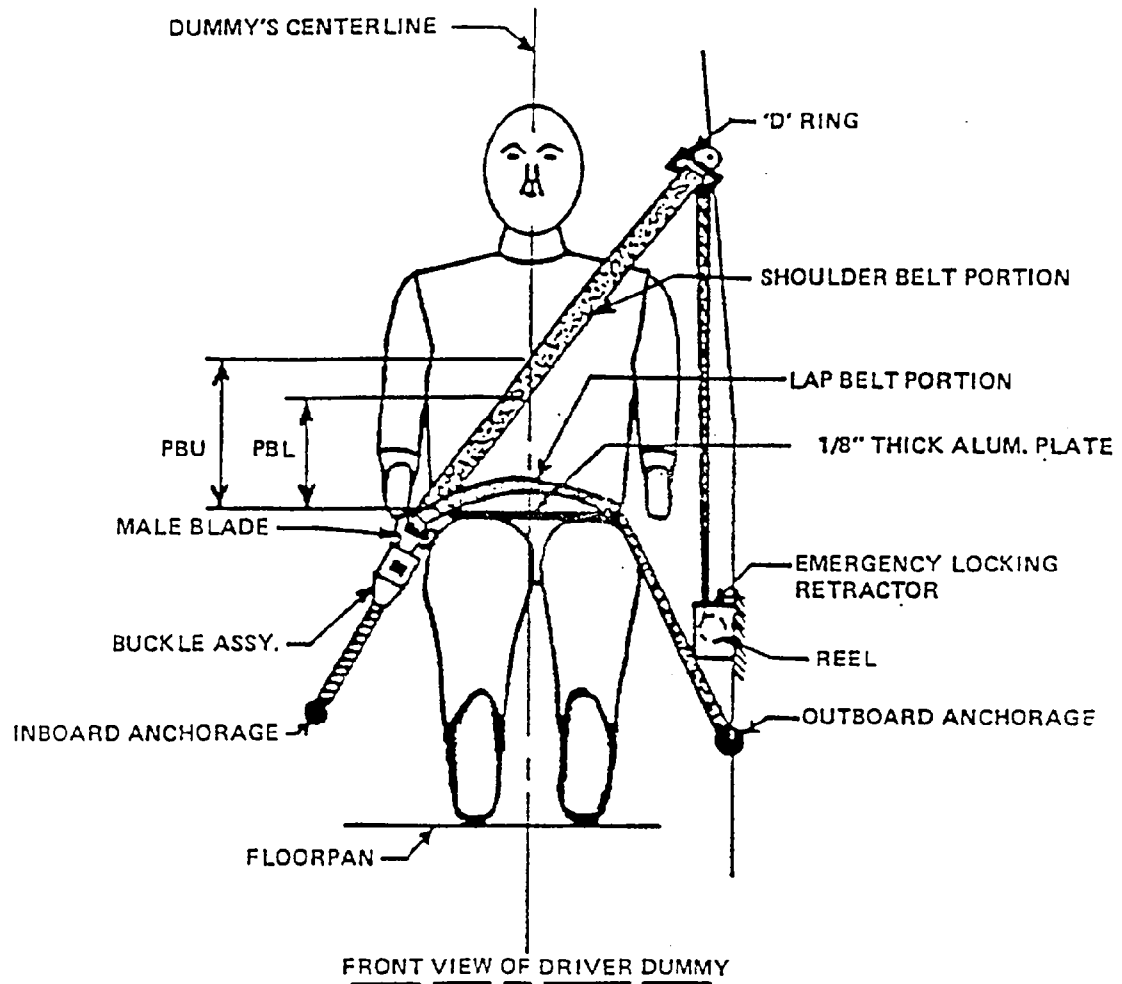


- AD - Arm to Door
- HD - H-Point to Door
- HR - Head to Side Header
- HS - Head to Side Window
- KK - Knee to Knee
- SHY - Striker to H-Point (Y-Direction)

- CD - Chest to Dash
- CS - Steering Wheel to Chest
- HH - Head to Header
- HW - Head to Windshield
- HZ - Head to Roof
- KDA - Knee to Dash Angle
- KDL - Left Knee to Dash
- KDR - Right Knee to Dash
- NA - Nose to Rim Angle
- NR - Nose to Rim
- PA - Pelvic Angle
- RA - Rim to Abdomen
- SA - Seat Back Angle
- SCA - Steering Column Angle
- SH - Striker to H-Point
- SK - Striker to Knee
- ST - Striker to Head
- SWA - Steering Wheel Angle
- TA - Tibial Angle
- WA - Windshield Angle



SEAT BELT POSITIONING DATA



(illustration)

	Dimension = mm	
	DRIVER DUMMY	PASSENGER DUMMY
<u>PBU</u> -- Top surface of alum. plate to upper edge	339	343
<u>PBL</u> -- Top surface of alum. plate to belt lower edge	257	245

SEAT BELT PERFORMANCE ASSESSMENT TEST DATA

BELT LENGTH DATA:

	<u>Driver</u>	<u>Passenger</u>
Length from trim above retractor reel to "D" ring as measured on dummy.	<u>500 mm</u>	<u>504 mm</u>
Shoulder belt length as measured on Part 572 Dummy.	<u>1008 mm</u>	<u>992 mm</u>
Lap belt length as measured on Part 572 Dummy.	<u>811 mm</u>	<u>804 mm</u>

SHOULDER BELT SPOOL-OFF DATA:

As determined by film analysis	<u>44 mm</u>	<u>38 mm</u> at shoulder
As determined mechanically	<u>60 mm</u>	<u>60 mm</u> at retractor
As determined electronically	<u>43 mm</u>	<u>33 mm</u>

BELT STRETCH DATA:

Measured electronically between shoulder belt load cell and the "D" ring.	<u>N/R</u>	<u>N/R</u>
Measured mechanically	<u>N/R</u>	<u>N/R</u>

RETRACTOR LOCK-UP TIME:

As determined by shoulder belt spool-off observed in on-board cameras	<u>75 msec.</u>	<u>70 msec.</u>
---	-----------------	-----------------

N/R Not Recorded

CAMERA LOCATIONS

VEH. NHTSA NO.: MV5032; TEST DATE: December 6, 1996

VEH. YEAR/MAKE/MODEL/BODY STYLE: 1997/Honda/Accord/2-Door

CAMERA POSITION NO.	VIEW	CAMERA POSITIONS (mm.)*			ANGLE (deg)	FILM PLANE TO HEAD TARGET (mm)	LENS (mm)	SPEED (fps)
		X	Y	Z				
1	Real-Time Left Side View	-	-	-	-	-		
2	Left Front View	-1130	-8690	1580	90	-9115	25	976
3	Steering Column Top	-2140	-7680	1540	90	-8105	25	1020
4	Steering Column Bottom	-2130	-7670	1015	90	-8095	25	1020
5	Driver Close-up	-1590	-10240	1395	90	-10665	75	962
6	Driver Angle	-5400	-5770	2045			50	952
7	Onboard Driver						35	1000
8	Onboard Passenger						35	889
9	Right Overall	-2070	8000	1215	90	7575	13	926
10	Right Passenger Half	-1110	8490	1280	90	8065	25	985
11	Right Close-up	-1620	10230	1275	90	9805	75	1042
12	Right Angle	-5070	5800	1940			50	1020
13	Top Overall	350	0	2750			13	980
14	Top Driver	-100	-430	1615			13	901
15	Top Passenger	-100	460	1620			13	843
16	Pit Front	-1165	0	3175			13	1000
17	Pit Rear	-2925	0	3175			13	1000

*** COORDINATES:**

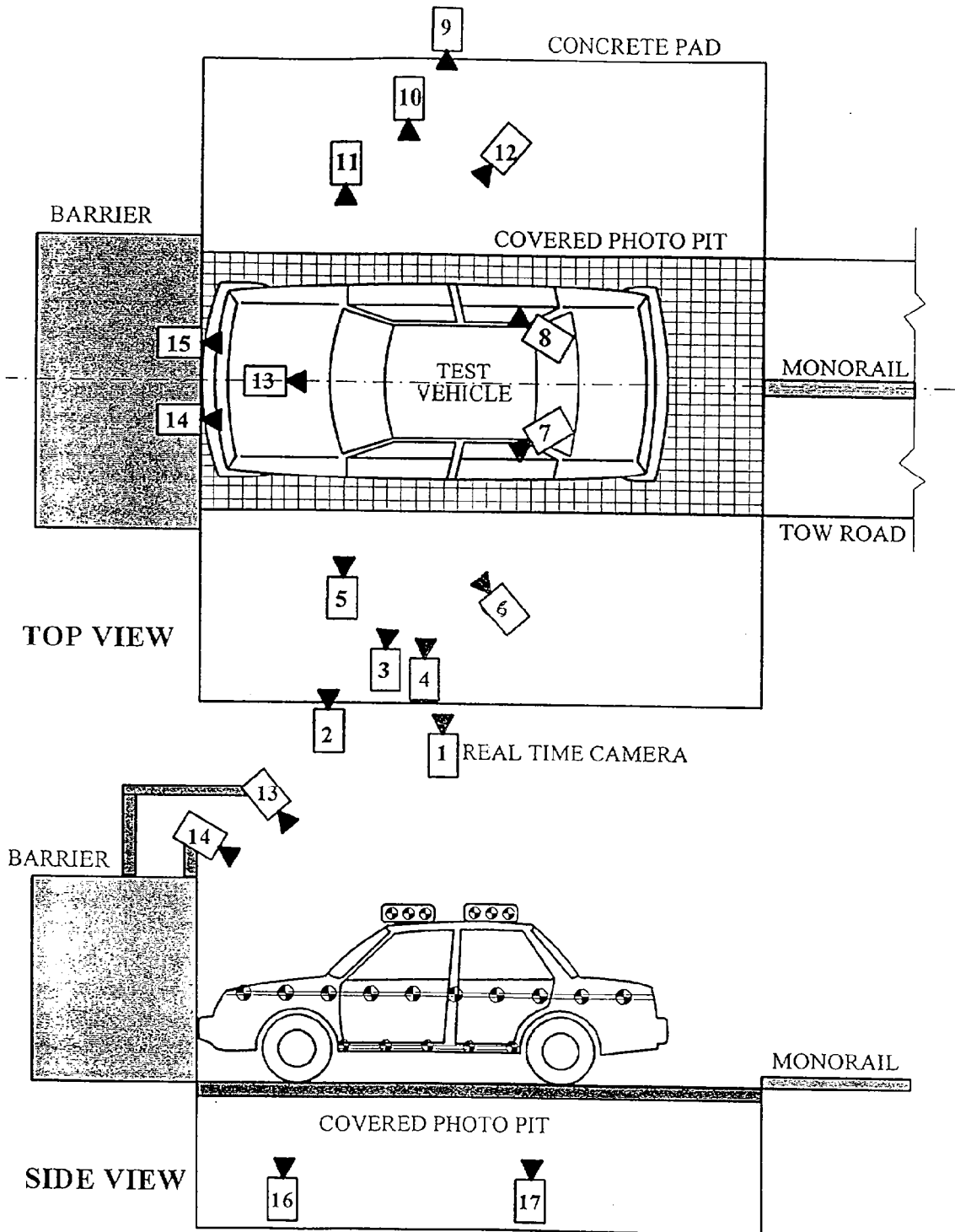
+X = film plane rearward of barrier

+Y = film plane to left of monorail centerline

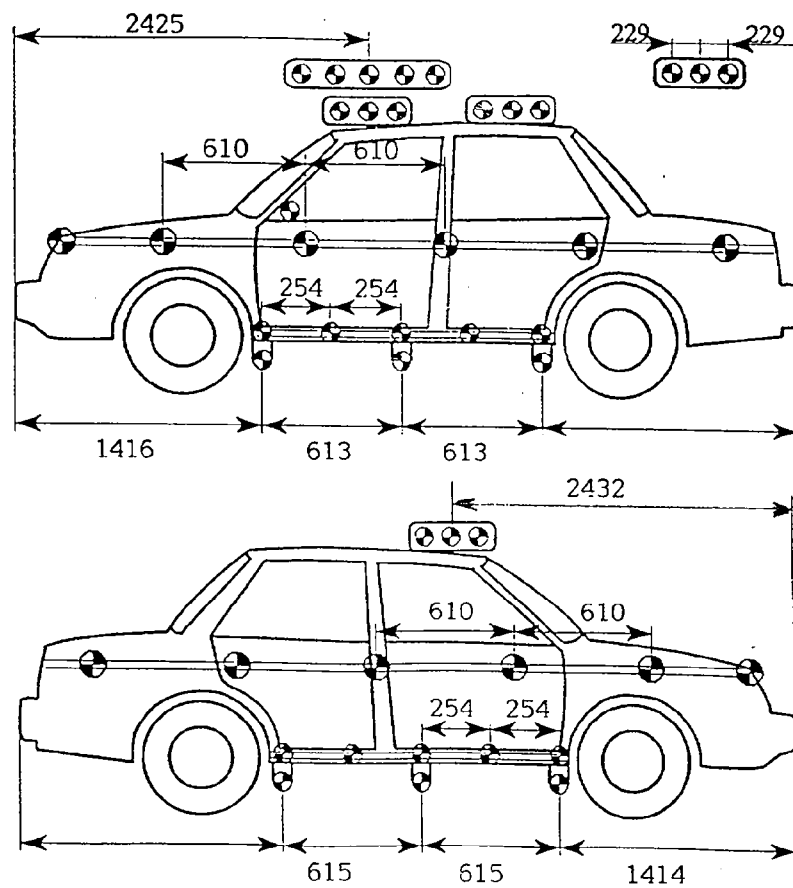
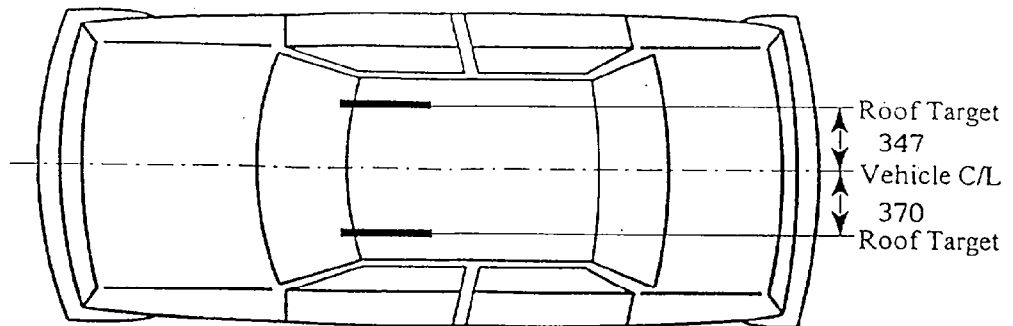
+Z = film plane to above ground level

ORIGIN: For X and Y it is the Impact Point. For Z it is the Floor.

CAMERA LOCATIONS (Cont'd)



VEHICLE TARGET LOCATIONS



(DIMENSIONS IN MM)

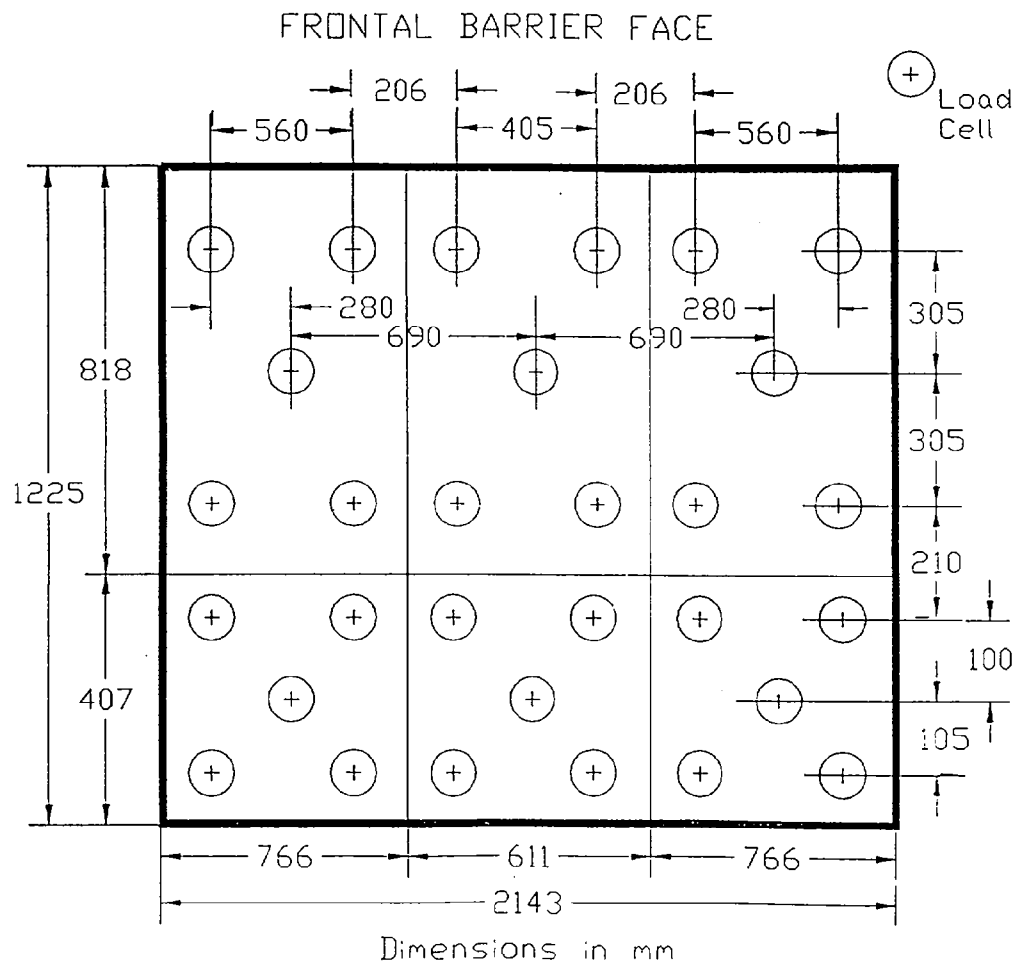
LOAD CELL LOCATIONS ON FIXED BARRIER

30 Load Cells

6 Rows

9 Columns

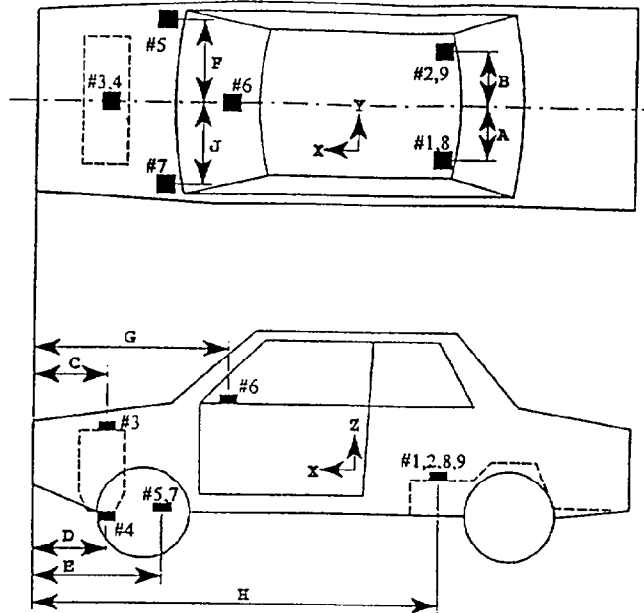
6 Groupings (5 cells/group)



The following data is presented in Appendix B:

- (1) Total or Sum of 30 individual load cells
- (2) Data from 6 Groupings shown above (5 cells/group)

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



Units: (mm)

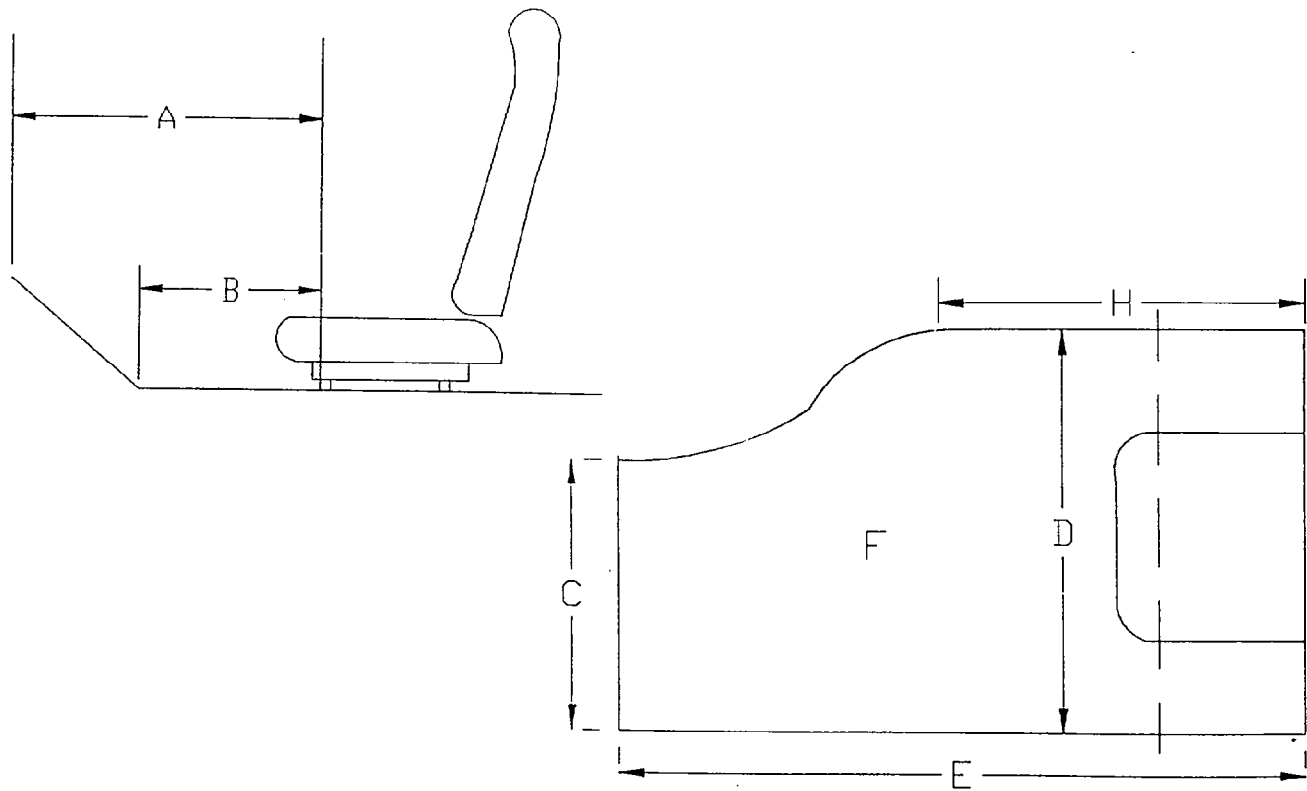
Dimension	Length
A	511
B	511
C	3673
D	3702
E	3628
F	665
G	2828
H	1588
J	665

ACCEL. NO.	ACCELEROMETER	DIRECTION
1 and 8	Left Rear Seat Crossmember	X
2 and 9	Right Rear Seat Crossmember	X
3	Top of Engine	X
4	Bottom of Engine	X
5	Right Side Brake Caliper	X
6	Instrument Panel	X
7	Left Disc Brake Caliper	X

TEST VEHICLE MEASUREMENTS

STATIC FOOTWELL DEFORMATION

Driver's Side



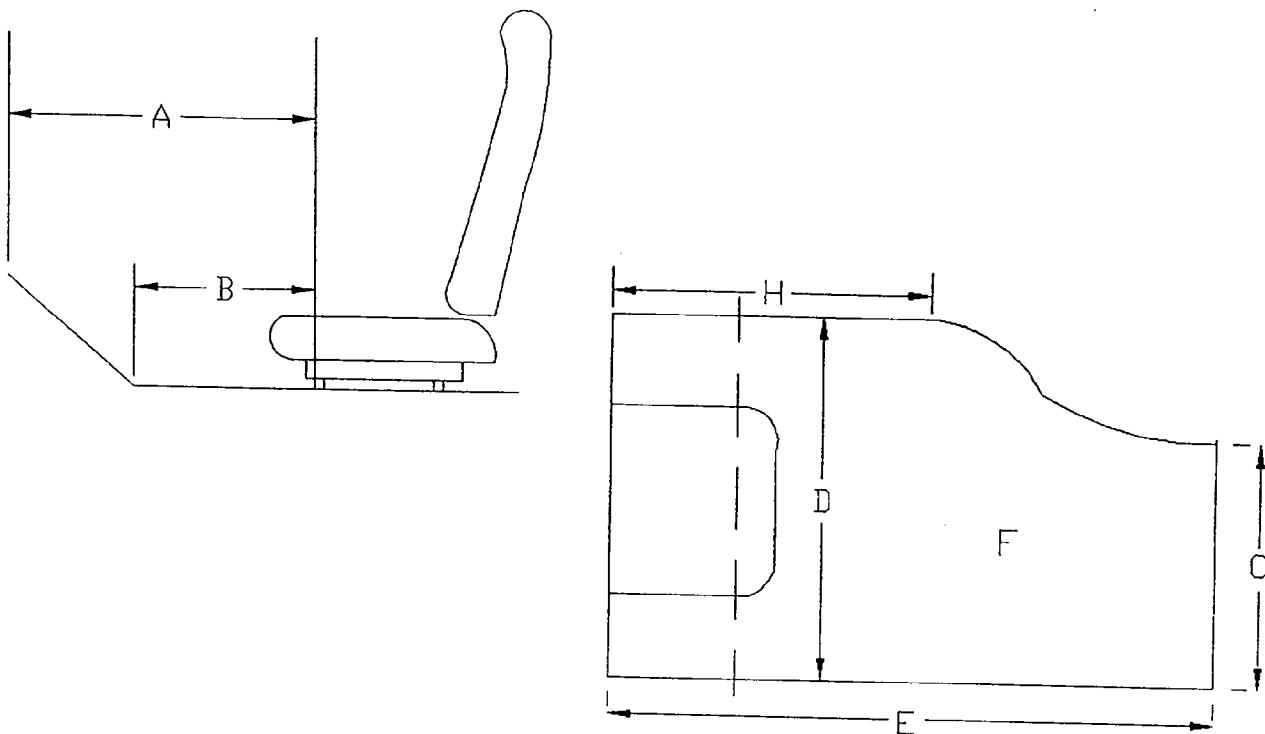
Units = mm

MEASUREMENT	PRE TEST	POST TEST	DIFFERENCE
A	782	608	174
B	577	574	3
C	442	437	5
D	493	493	0
E	1401	1394	7
H	1159	1156	3
F(CM ²)	6845.2	6805.8	39.4

TEST VEHICLE MEASUREMENTS (Cont'd)

STATIC FOOTWELL DEFORMATION

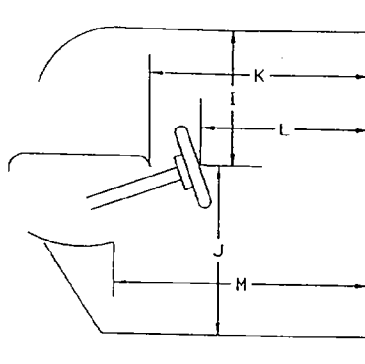
Passenger's Side



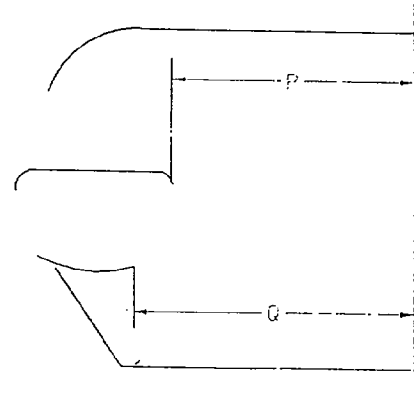
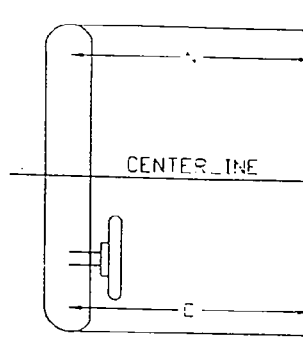
Units = mm

MEASUREMENT	PRE TEST	POST TEST	DIFFERENCE
A	793	602	191
B	556	545	11
C	461	420	41
D	480	480	0
E	1331	1327	4
H	1174	1150	24
F(CM ²)	6373.9	6316.5	57.4

TEST VEHICLE MEASUREMENTS (Cont'd)
 STATIC PASSENGER COMPARTMENT INTRUSION



MEASUREMENTS
 FROM C-PILLAR
 BELT ANCHORAGE



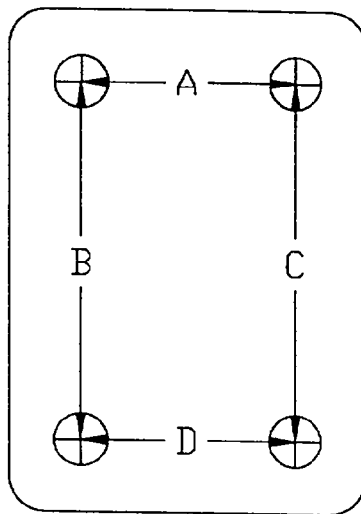
Units = mm

MEASUREMENT	PRE TEST	POST TEST	DIFFERENCE
I	475	400	75
J	642	661	-19
K	1019	972	47
L	825	802	23
M	1246	1196	50
N	1368	1360	8
O	1383	1367	16
P	1226	1162	64
Q	1245	1152	93

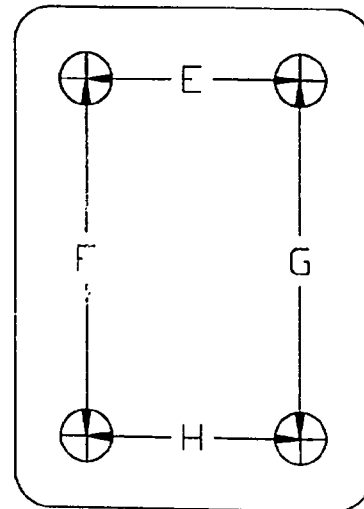
TEST VEHICLE MEASUREMENTS (Cont'd)

UNDERBODY FLOORBOARD DEFORMATION

DRIVER'S SIDE



PASSENGER'S SIDE

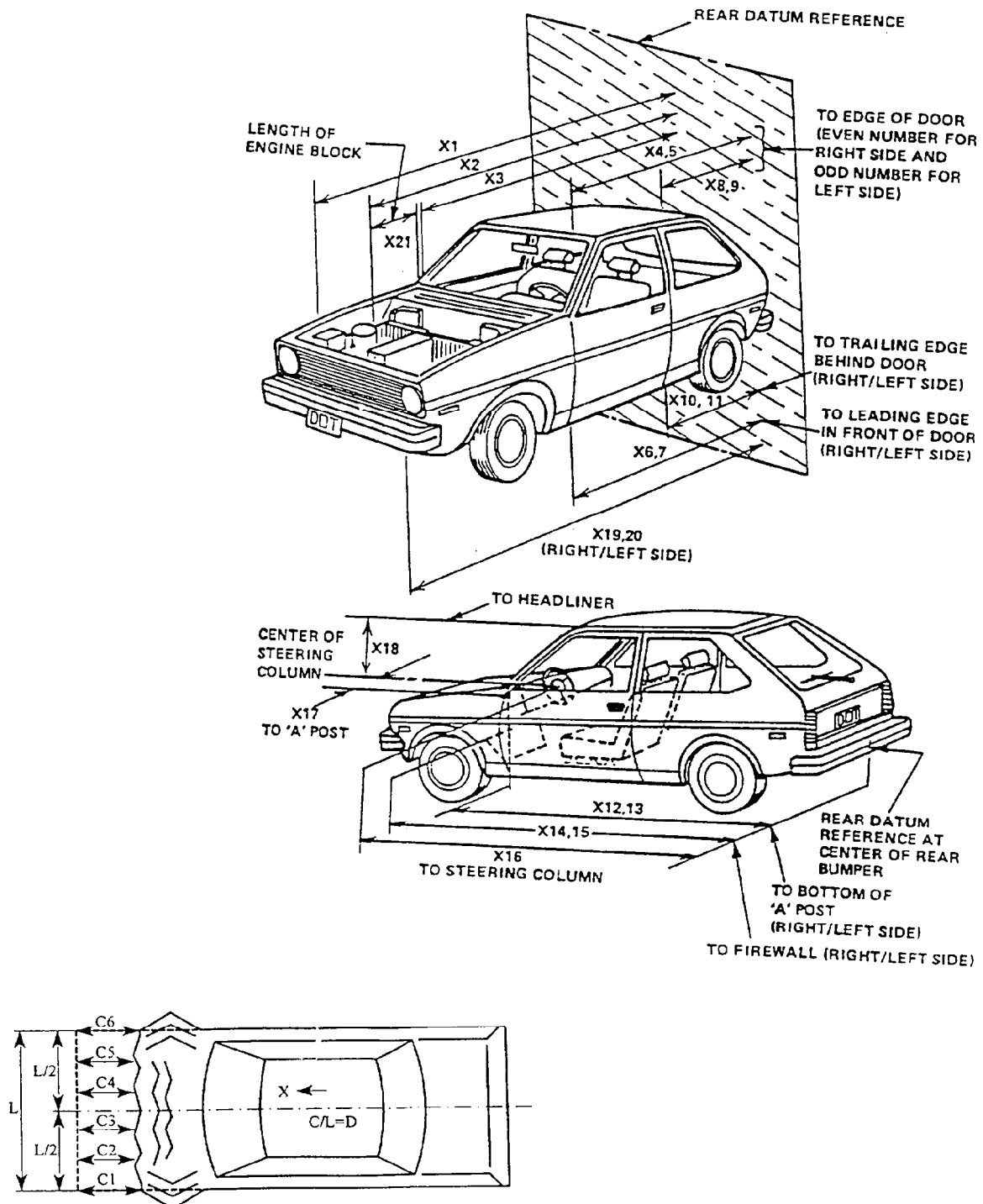


MEASUREMENT	PRE TEST	POST TEST	DIFFERENCE
A	342	342	0
B	388	388	0
C	392	385	7
D	338	340	-2
E	307	305	2
F	396	325	71
G	395	392	3
H	375	372	3

TEST VEHICLE MEASUREMENTS (Cont'd)

No.	MEASUREMENT DESCRIPTION:	Pre-Test (mm)	Post-Test (mm)	Diff. (mm)
X1	Total Length of Test Vehicle at Centerline	4443	3921	522
X2	Rear Surface of Vehicle to Front of Engine	3768	3501	267
X3	Rear Surface of Vehicle to Firewall	3333	3271	62
X4	Rear Surface to Upr. Leading Edge of Rt. Door	2997	3000	-3
X5	Rear Surface to Upr. Leading Edge of Left Door	2983	2983	0
X6	Rear Surface to Lwr. Leading Edge of Rt. Door	3020	3003	17
X7	Rear Surface to Lwr. Leading Edge of Left Door	3010	3005	5
X8	Rear Surface to Upr. Trailing Edge of Rt. Door	1680	1679	1
X9	Rear Surface to Upr. Trailing Edge of Left Door	1667	1672	5
X10	Rear Surface to Lwr. Trailing Edge of Rt. Door	1690	1685	5
X11	Rear Surface to Lwr. Trailing Edge of Left Door	1685	1680	5
X12	Rear Surface to Bottom of A-Post on Rt. Side	3021	3002	19
X13	Rear Surface to Bottom of A-Post on Left Side	3011	3007	4
X14	Rear Surface to Firewall on Right Side	3302	3270	32
X15	Rear Surface to Firewall on Left Side	3274	3230	44
X16	Rear Surface to Steering Column	2467	2458	9
X17	Center of Steering Column to A-Post	392	390	2
X18	Center of Steering Column to Headlining	475	400	75
X19	Rear Surface to Right Side of Front Bumper	4223	3780	443
X20	Rear Surface to Left Side of Front Bumper	4212	3759	453
X21	Length of Engine Block	440	440	0
C1	(See Diagram)	4212	3759	453
C2	(See Diagram)	4359	3885	474
C3	(See Diagram)	4427	3890	537
C4	(See Diagram)	4424	3900	524
C5	(See Diagram)	4357	3895	462
C6	(See Diagram)	4223	3780	443
L	(See Diagram)	1600	1640	-40

TEST VEHICLE MEASUREMENTS (Cont'd)



ACCIDENT INVESTIGATION DIVISION DATA
FOR 35 MPH FRONTAL BARRIER IMPACT

VEHICLE MAKE/MODEL/BODY STYLE: 1997/Honda/Accord 2-Door

VEH. NHTSA NO.: MV5032; VIN: 1HGCD7138VA008675

MODEL YEAR: 1997; BUILD DATE: 11/96; TEST DATE: December 6, 1996

VEH. SIZE CATEGORY: MID; TEST WEIGHT: 1496.6 kg

VEH. WHEELBASE: 2715 mm; FRONT OVERHANG: 898 mm; OVERALL WIDTH: 1772 mm

ACCELEROMETER DATA:

LOCATION: As per measurements on pages 4-13

CALIBRATION PROCEDURE: As per MGA Calibration Procedure

LINEARITY: >99.9%; INTEGRATION ALGORITHM: Trapezoidal

VEH. IMPACT SPEED: 56.4 kph; TIME OF SEPARATION: 114 msec

VELOCITY CHANGE: 66.9 kph

COLLISION DEFORMATION CLASSIFICATION (CDC) CODE: F (Frontal)

CRUSH DEPTH C1 = 453 mm

DIMENSIONS: C2 = 474 mm

C3 = 537 mm

C4 = 524 mm

C5 = 462 mm

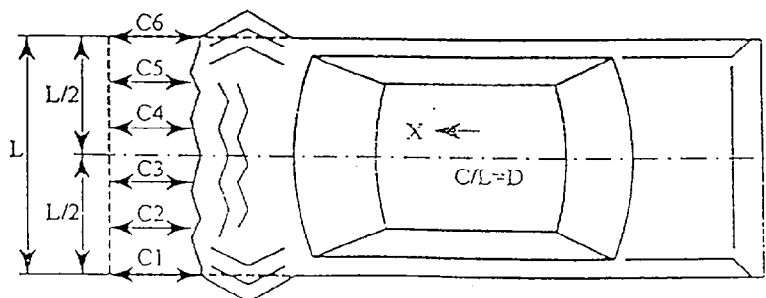
C6 = 443 mm

MIDPOINT OF D = Vehicle Centerline

DAMAGE: (Longitude)

LENGTH OF

DAMAGED REGION: L = 1640 mm



APPENDIX A
PHOTOGRAPHS

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Photo No. A-47 - Rollover 360°	A-47

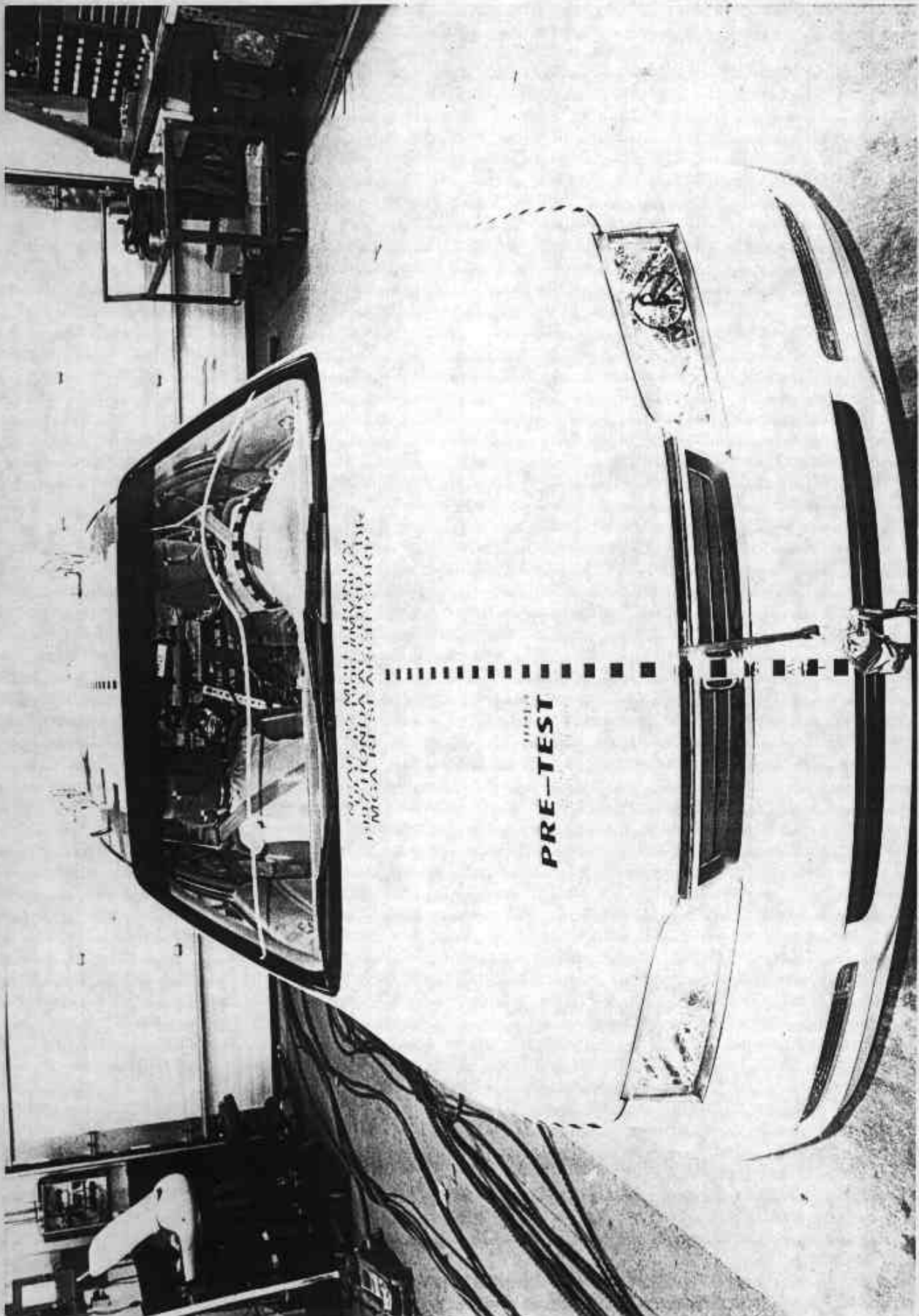


Photo No. A-1 - Pre-Test Front View of Test Vehicle

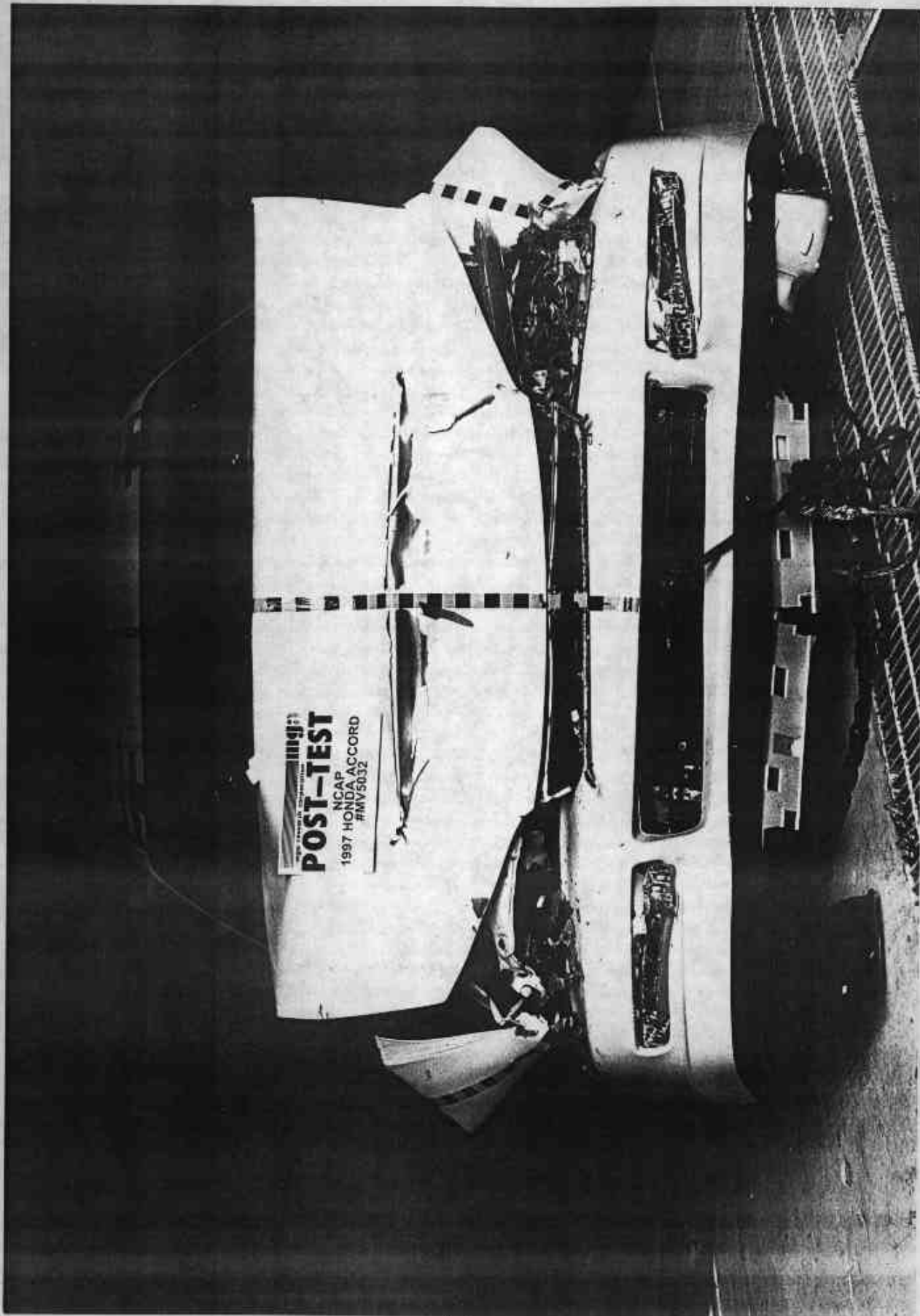


Photo No. A-2 - Post-Test Front View of Test Vehicle

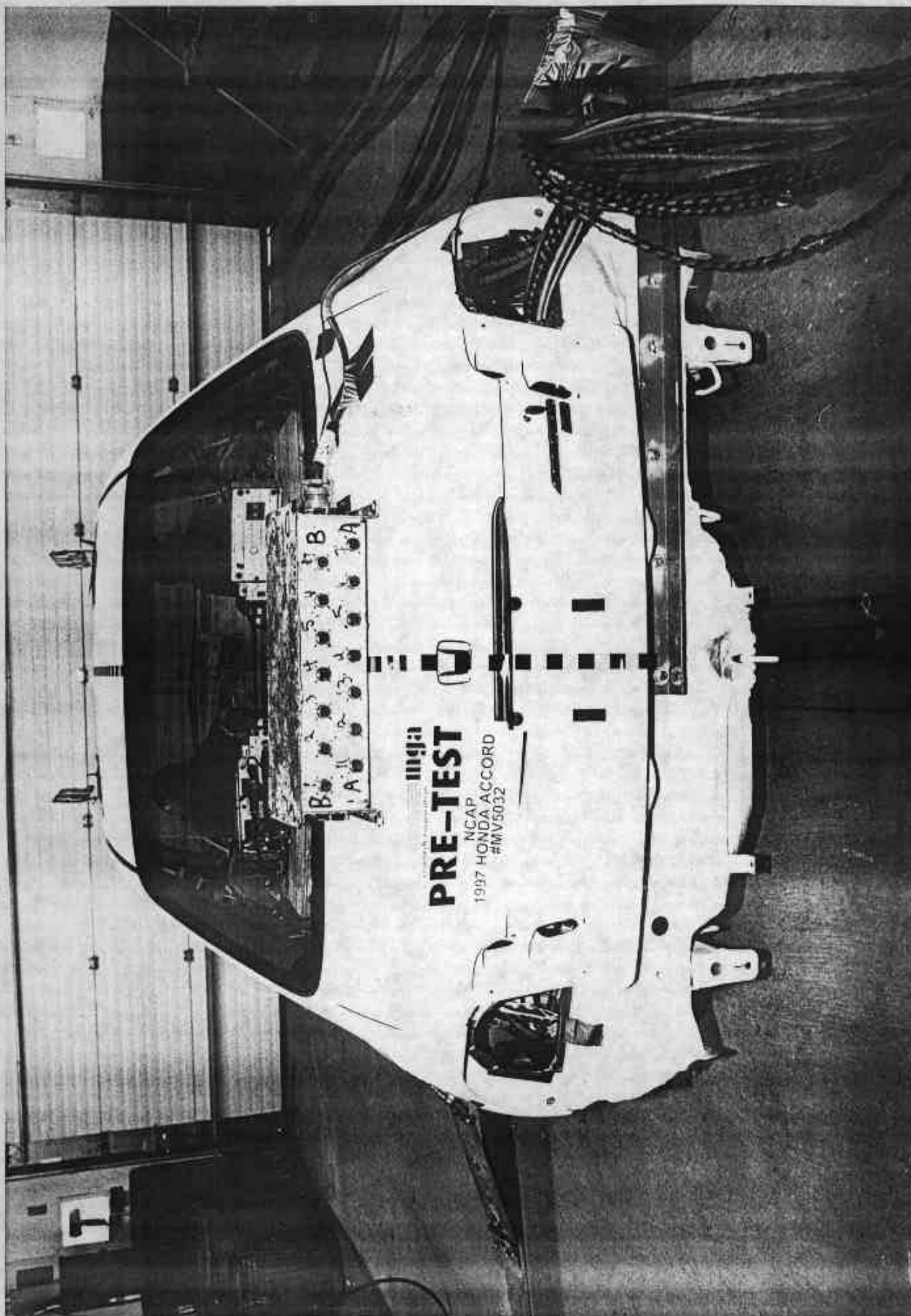


Photo No. A-3 - Pre-Test Rear View of Test Vehicle

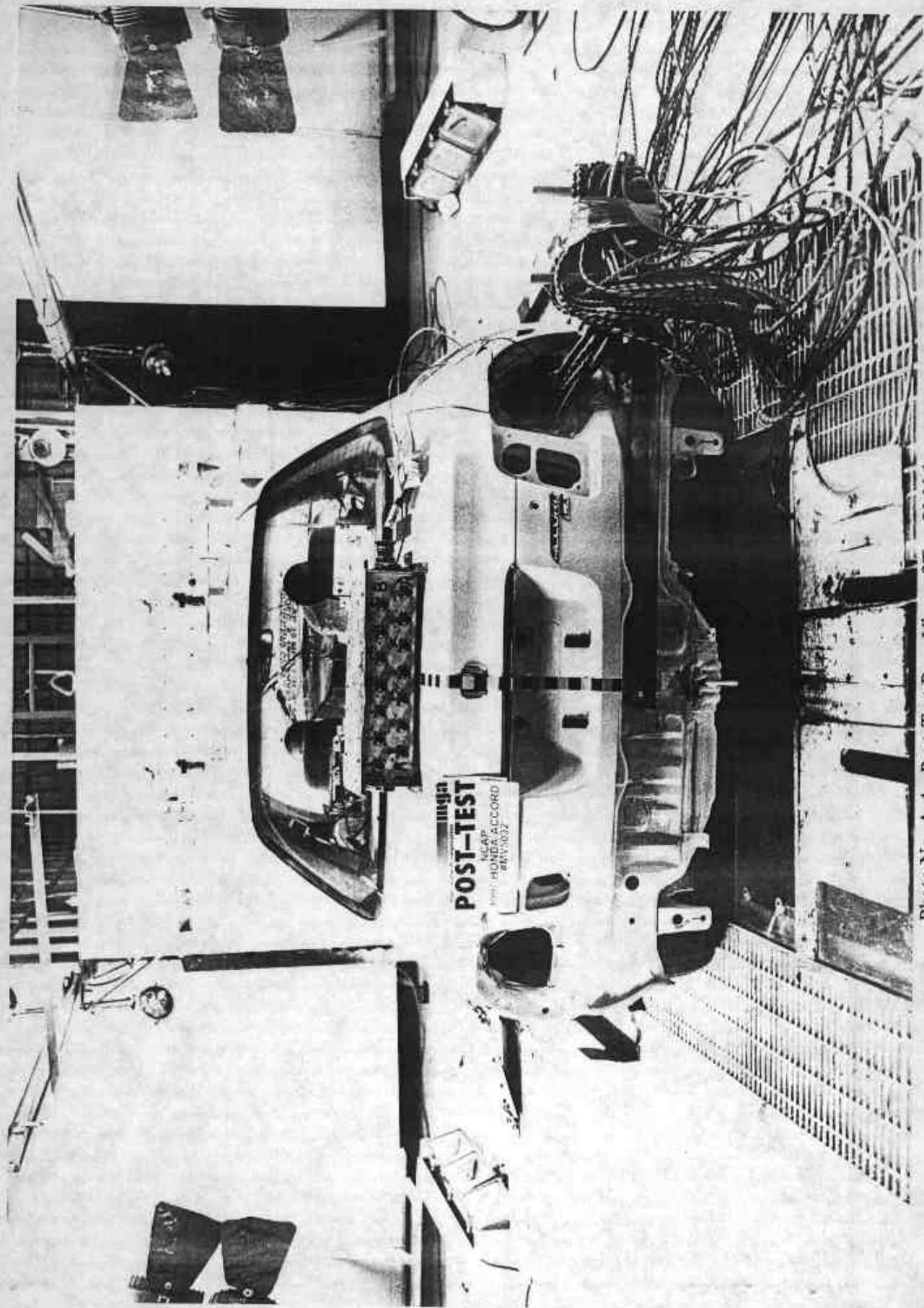


Photo No. A-4 - Post-Test Rear View of Test Vehicle

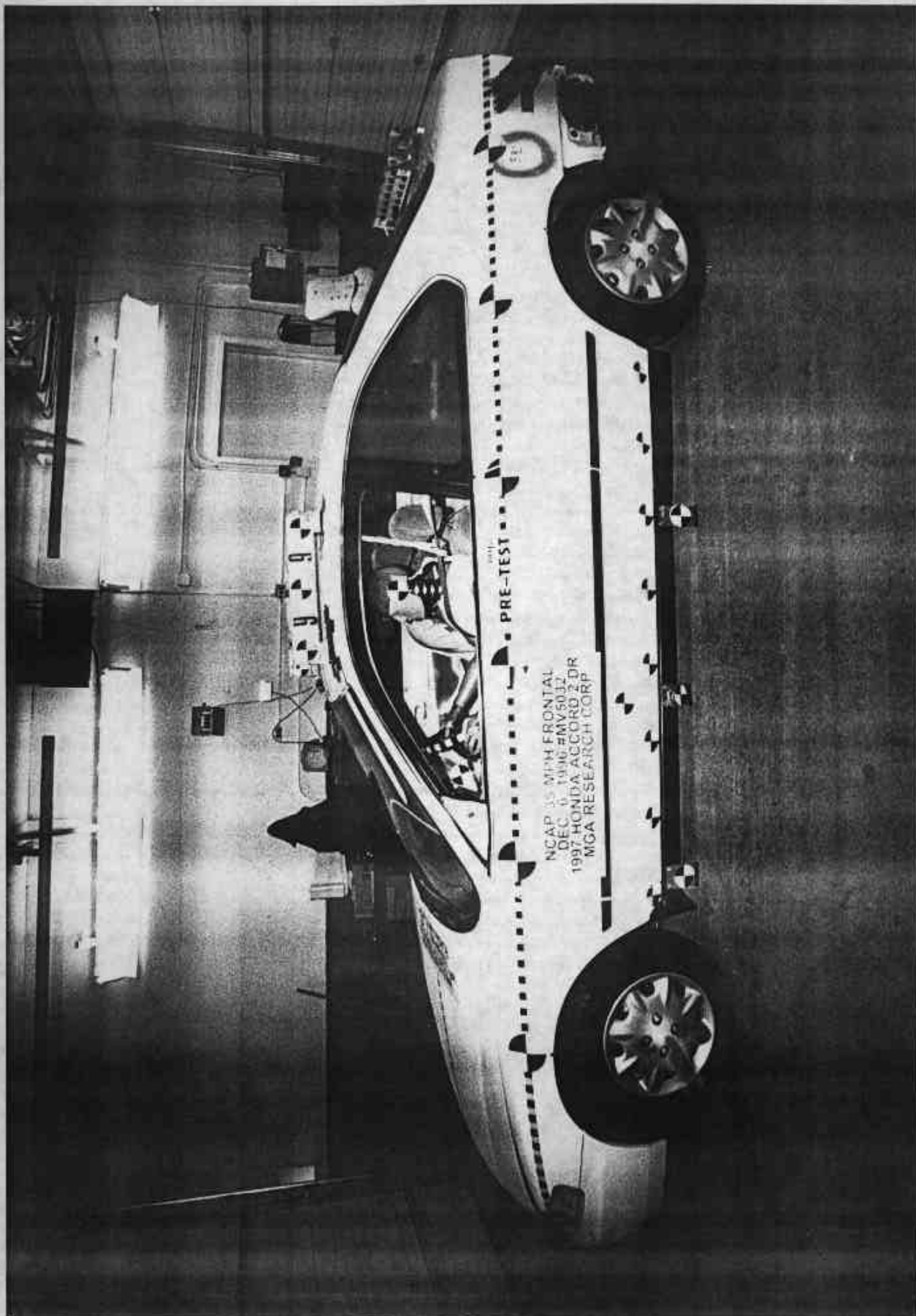
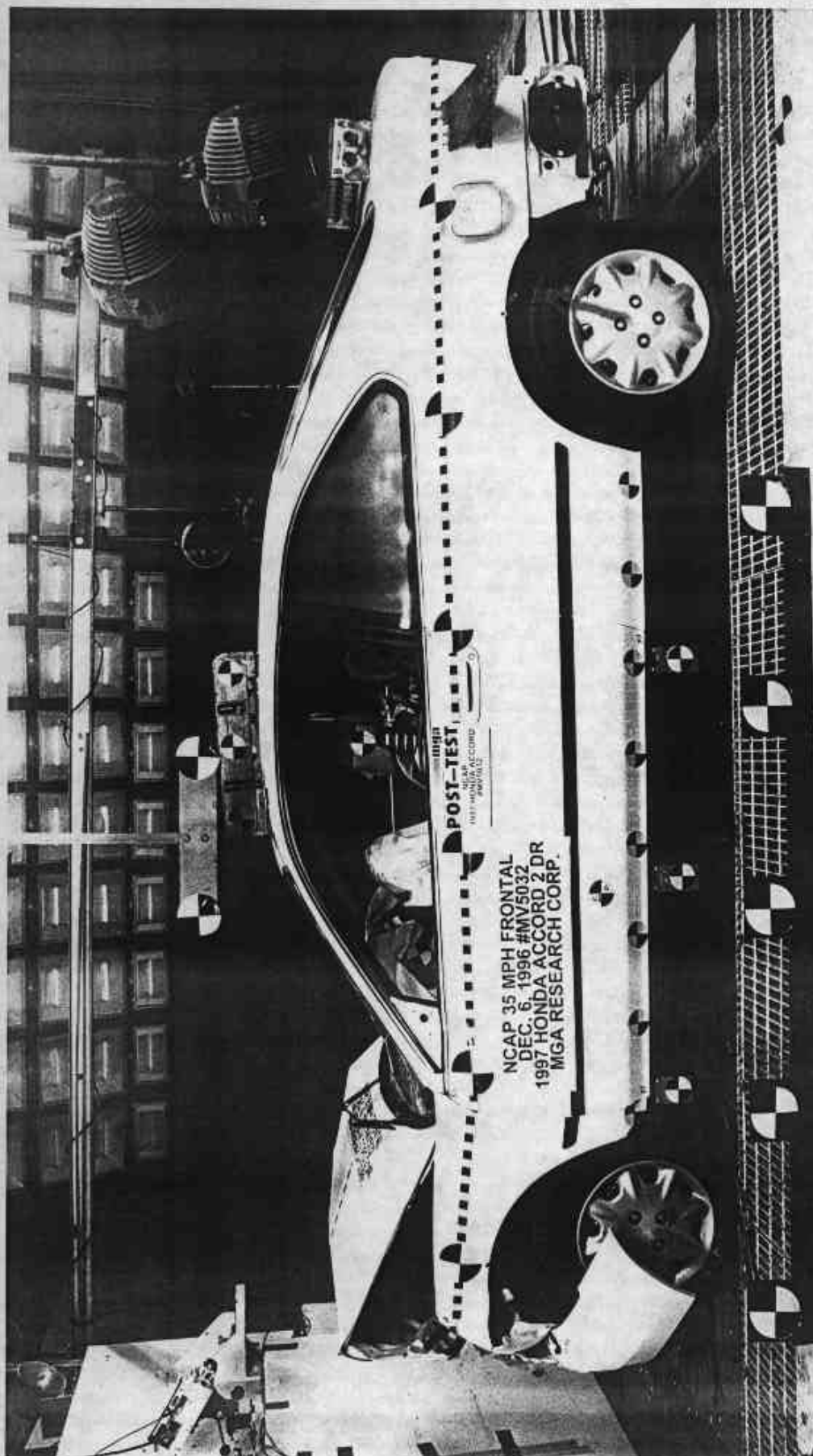


Photo No. A-5 - Pre-Test Left Side View of Test Vehicle



A-6

Photo No. A-6 - Post-Test Left Side View of Test Vehicle

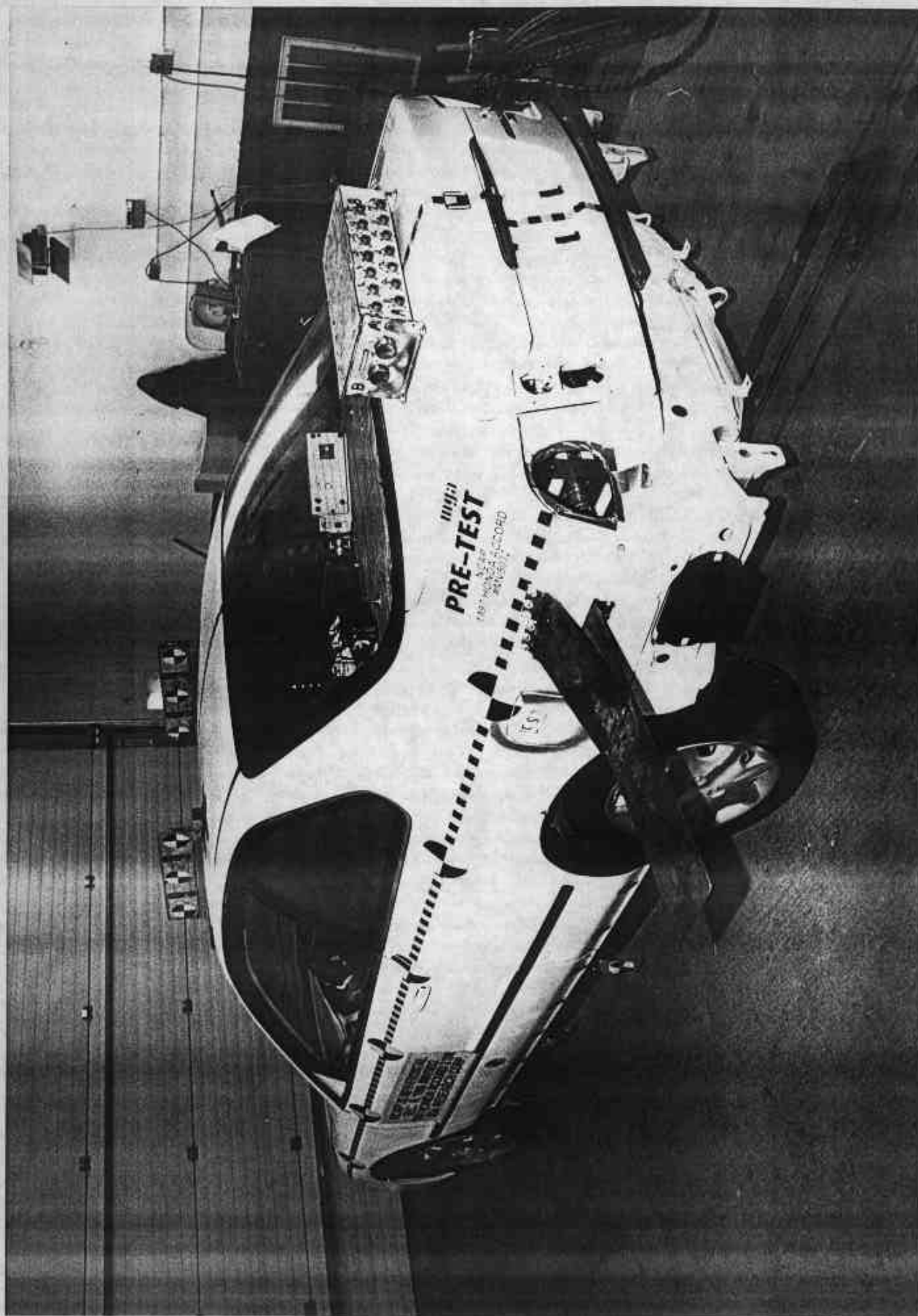


Photo No. A-7 - Pre-Test Left Rear Three-Quarter View of Test Vehicle

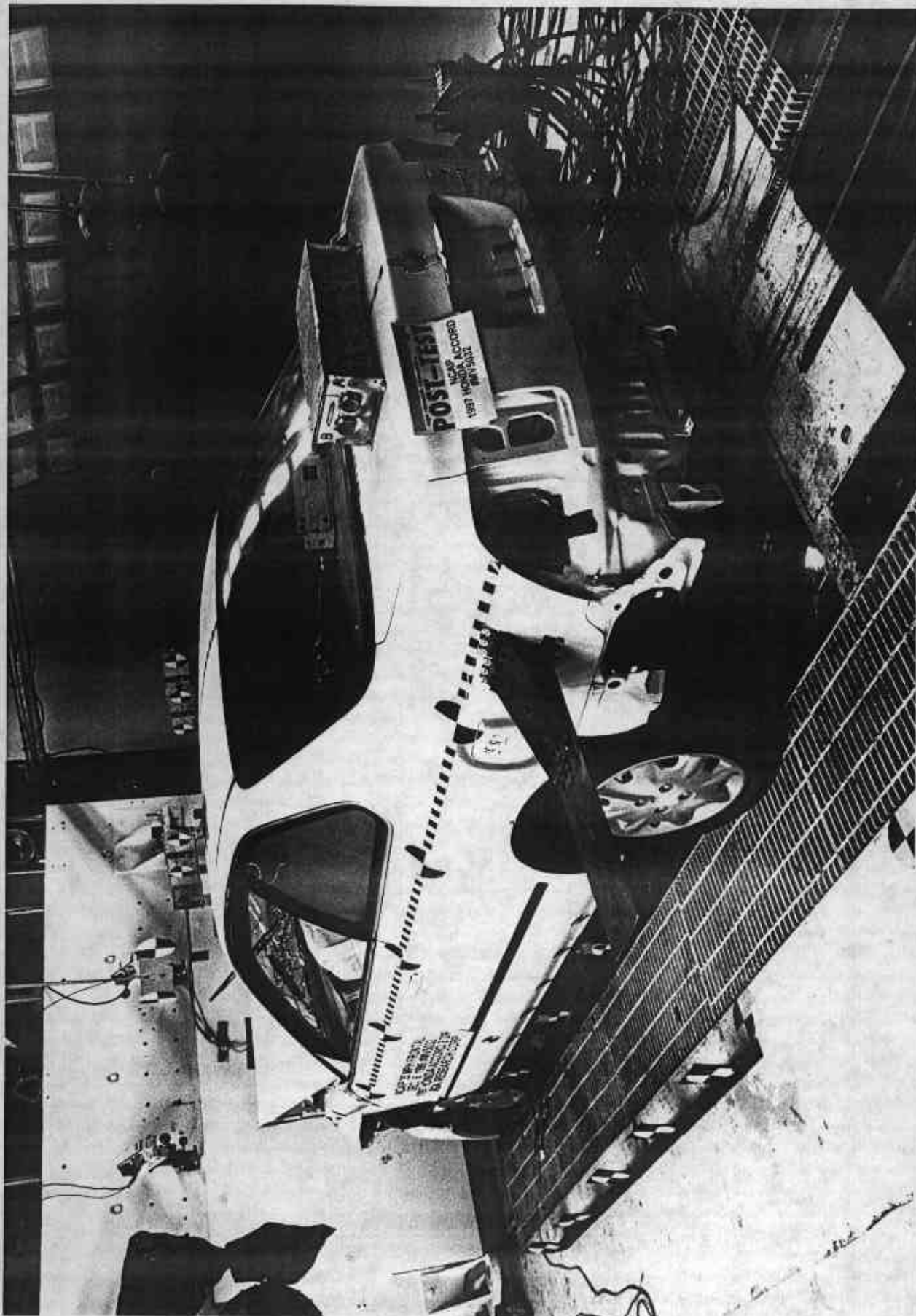
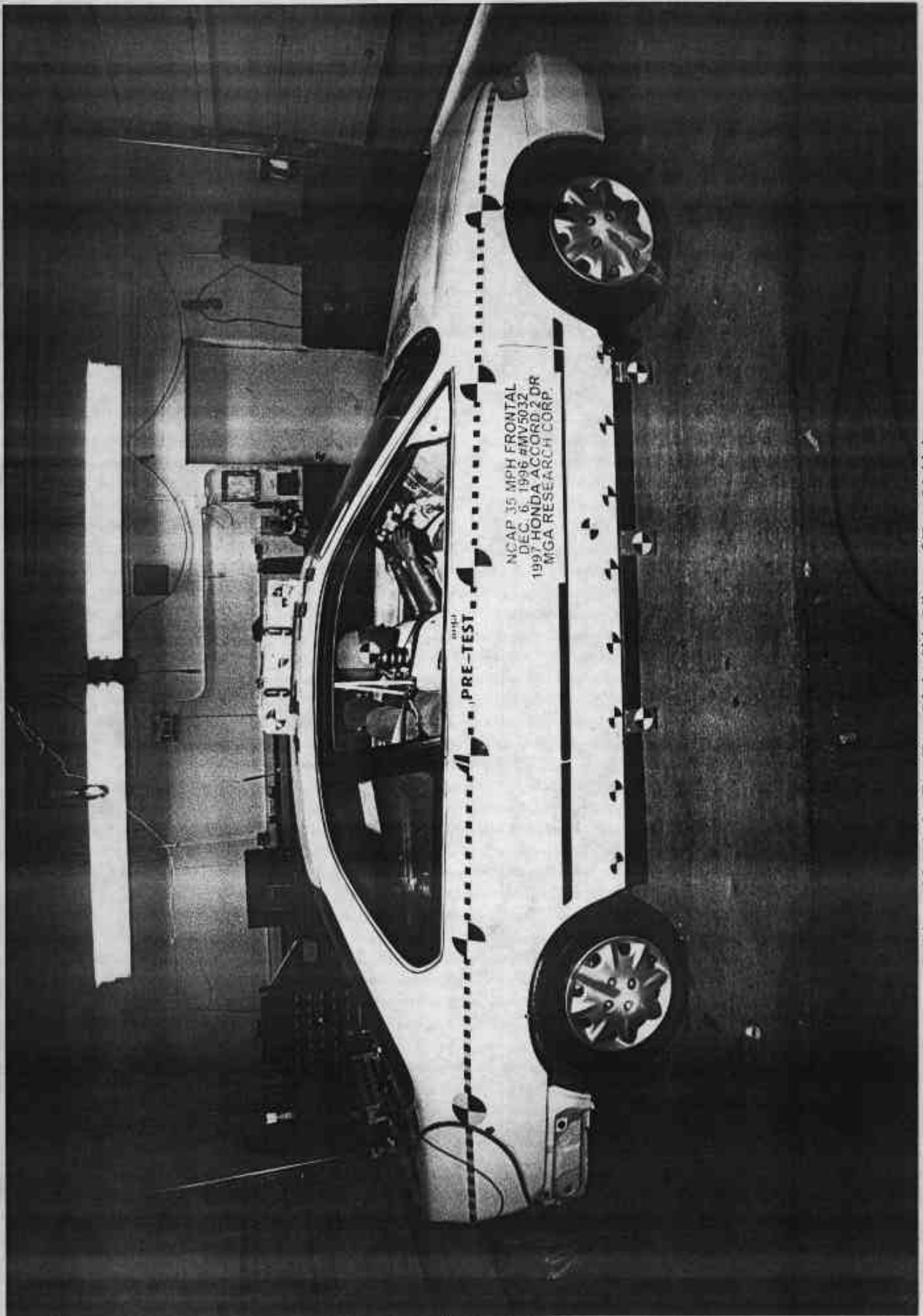


Photo No. A-8 - Post-Test Left Rear Three-Quarter View of Test Vehicle



A-9

Photo No. A-9 - Pre-Test Right Side View of Test Vehicle

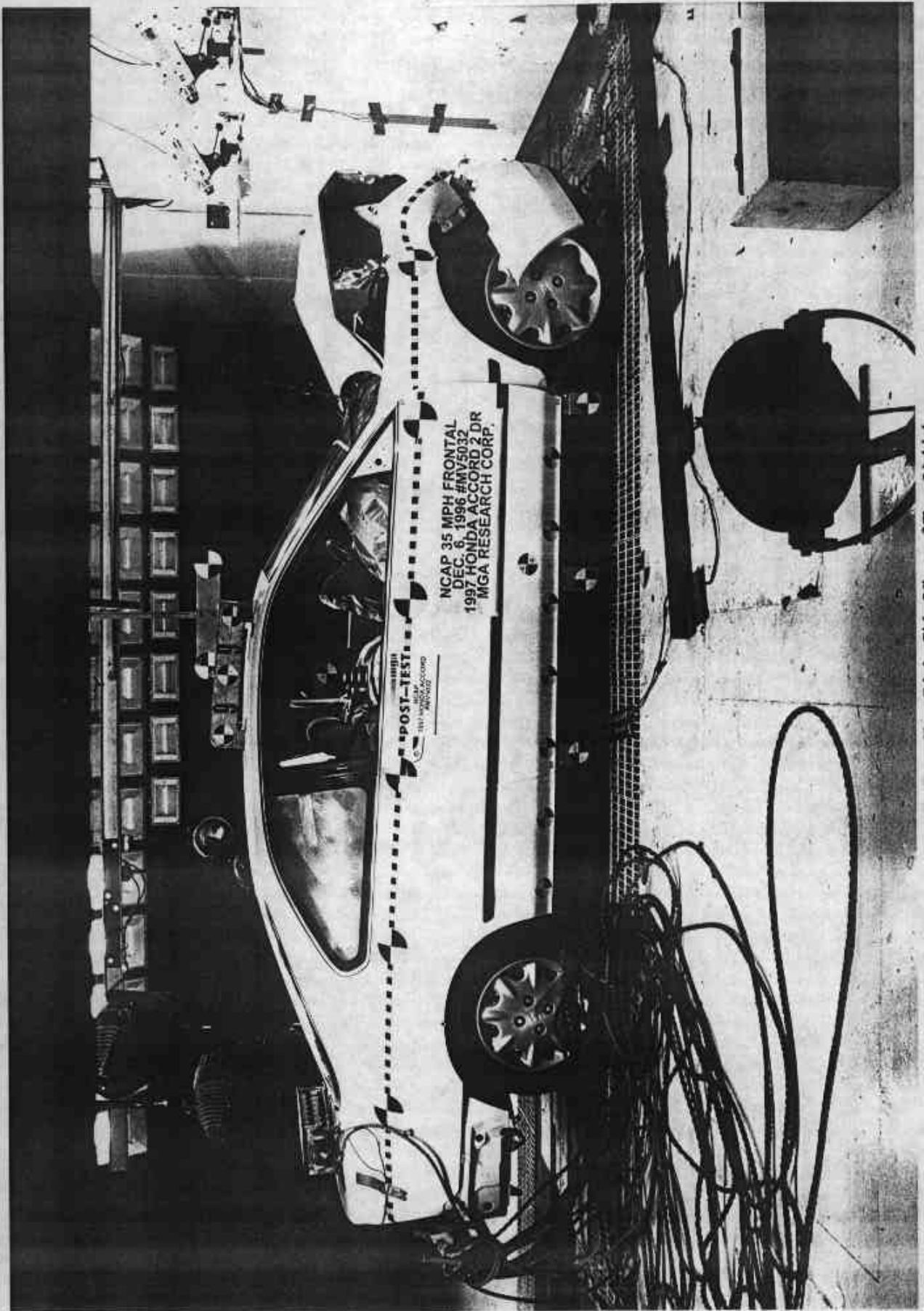
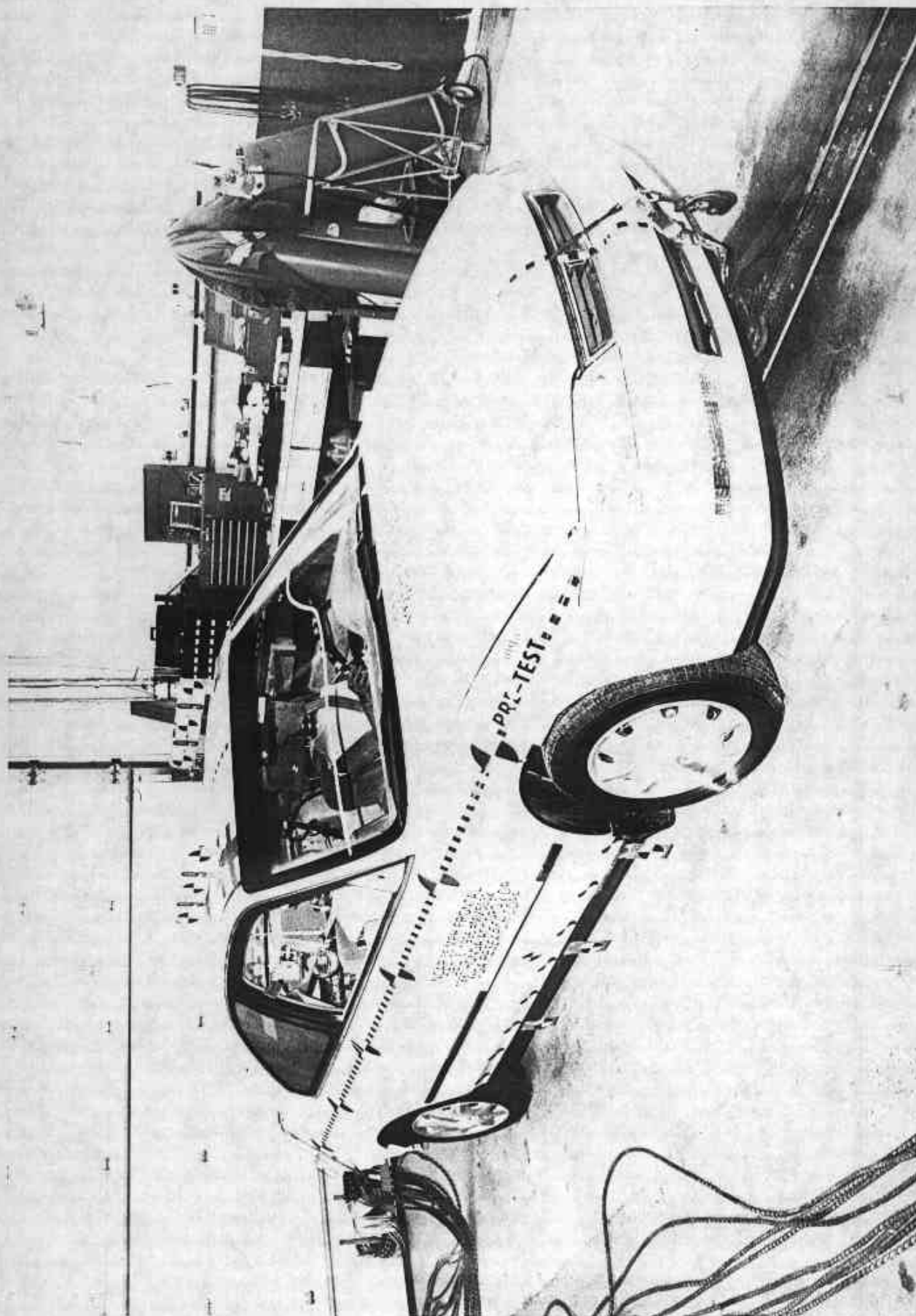


Photo No. A-10 - Post-Test Right Side View of Test Vehicle



A-11

Photo No. A-11 - Pre-Test Right Front Three-Quarter View of Test Vehicle

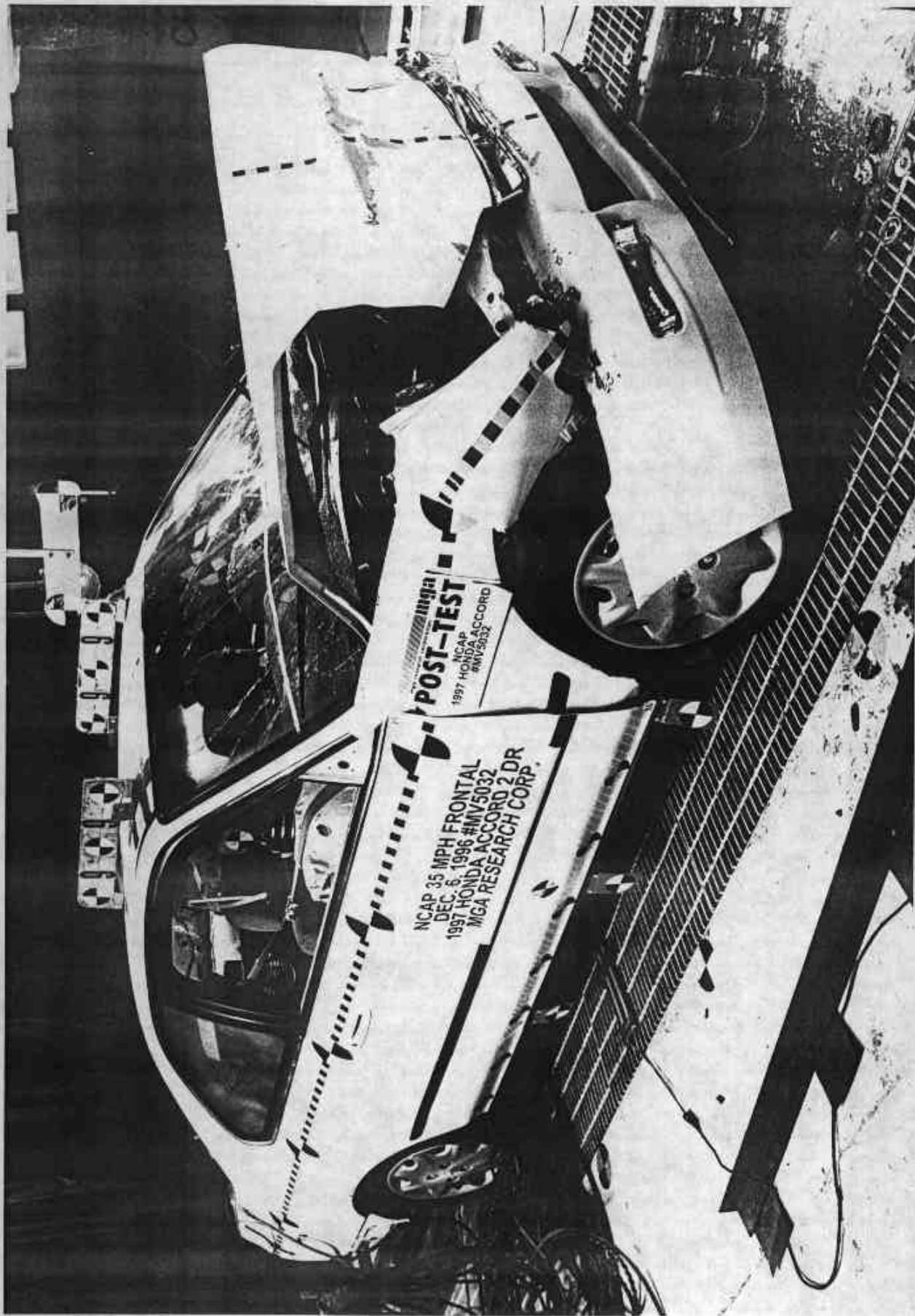


Photo No. A-12 - Post-Test Right Front Three-Quarter View of Test Vehicle

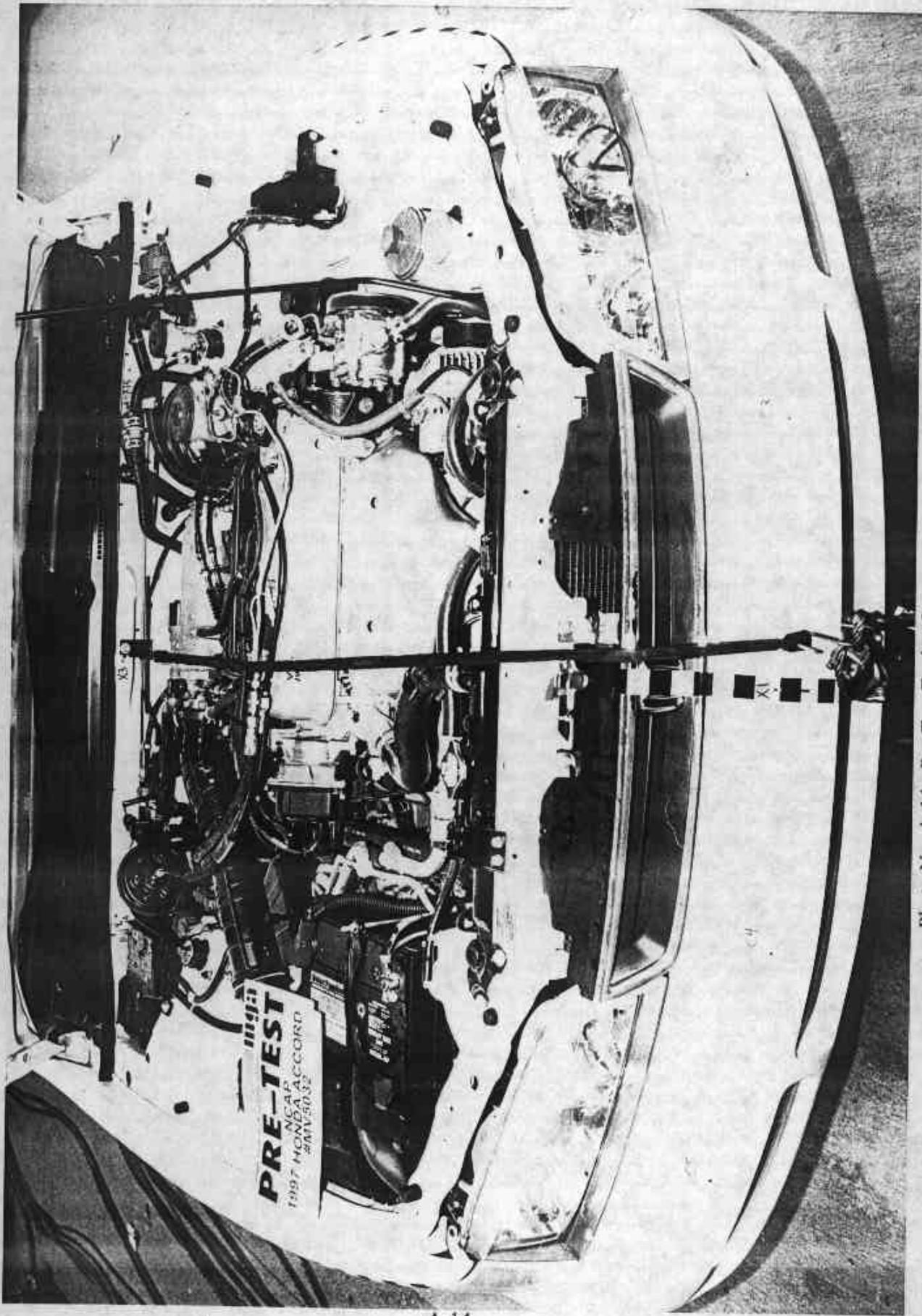
mga resource corporation
PRE-TEST

NCAP
1997 HONDA ACCORD
#MV5032

A-13



Photo No. A-13 - Pre-Test Fuel Filler Cap View



A-14

Photo No. A-14 - Pre-Test Engine Compartment View

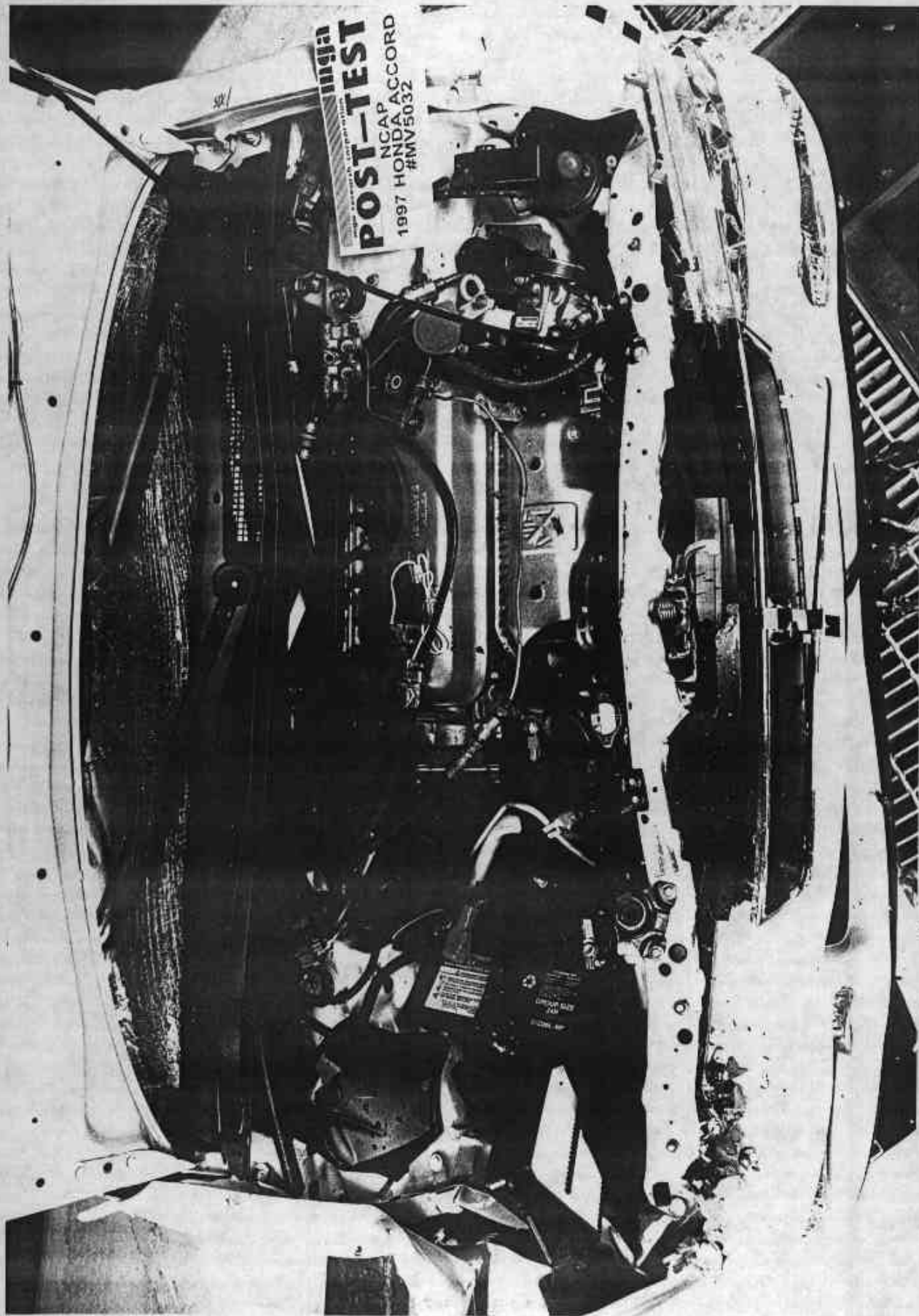


Photo No. A-15 - Post-Test Engine Compartment View

A-15

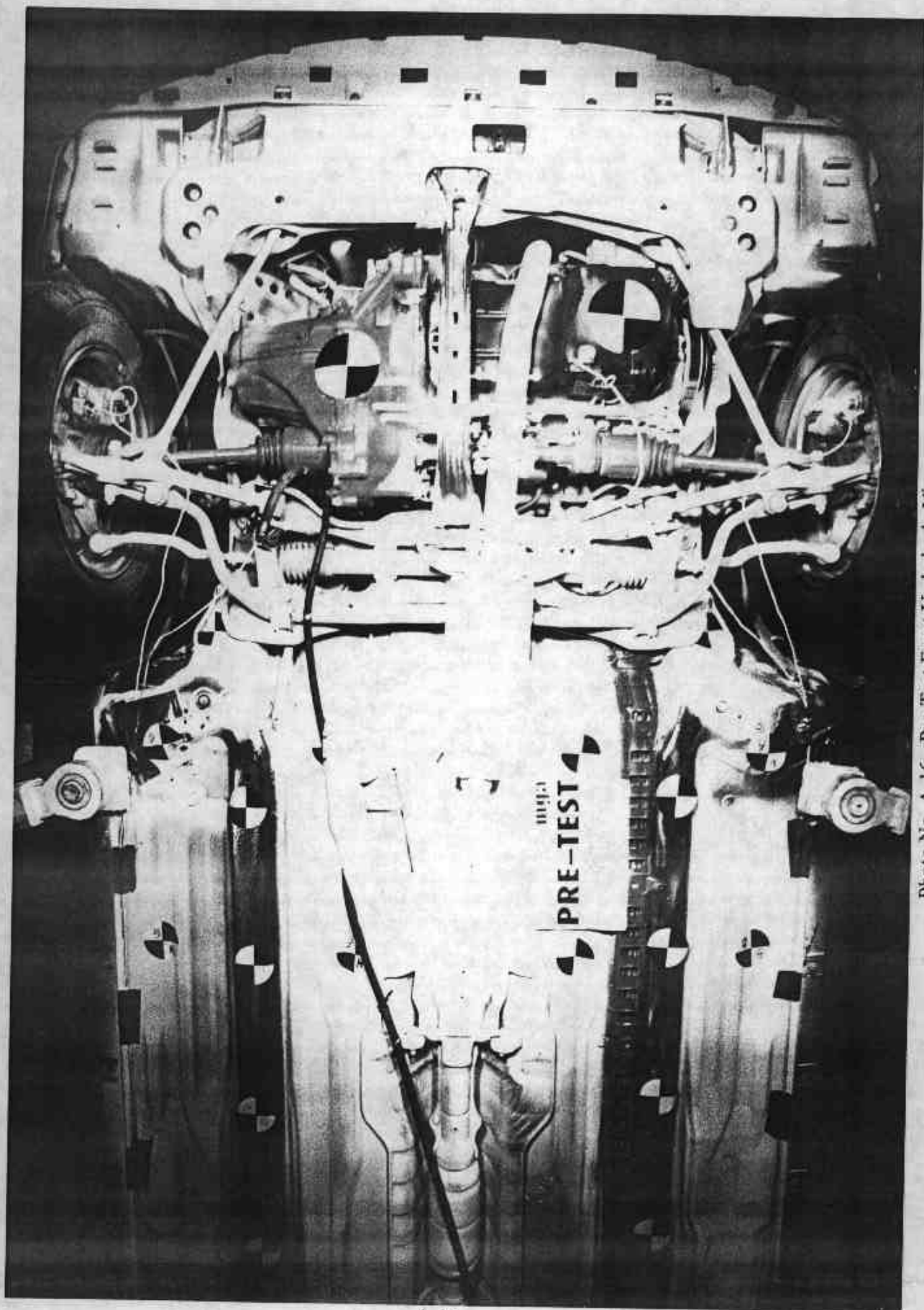


Photo No. A-16 - Pre-Test Front Underbody View

A-16

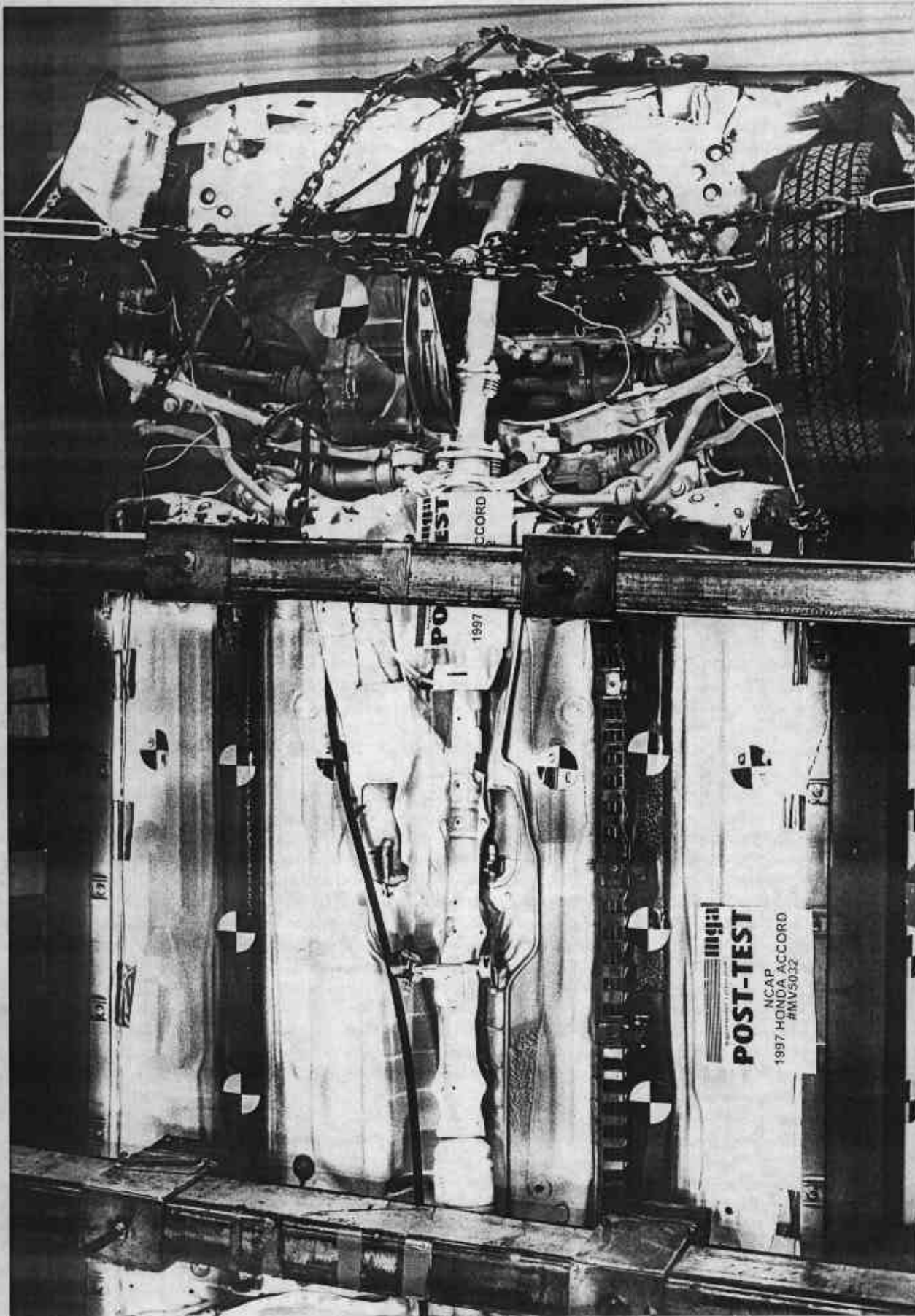


Photo No. A-17 - Post-Test Front Underbody View

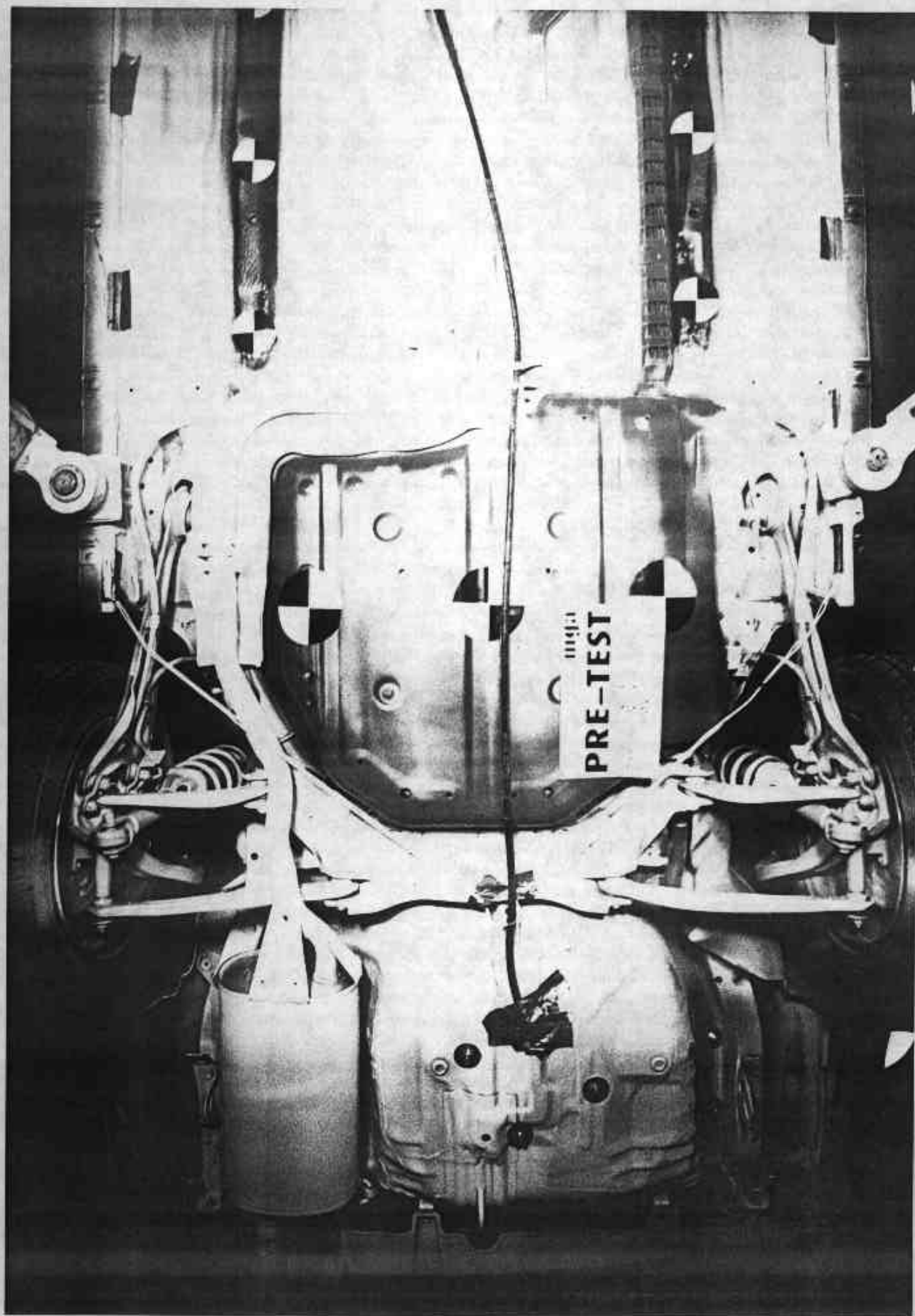


Photo No. A-18 - Pre-Test Rear Underbody View

A-18

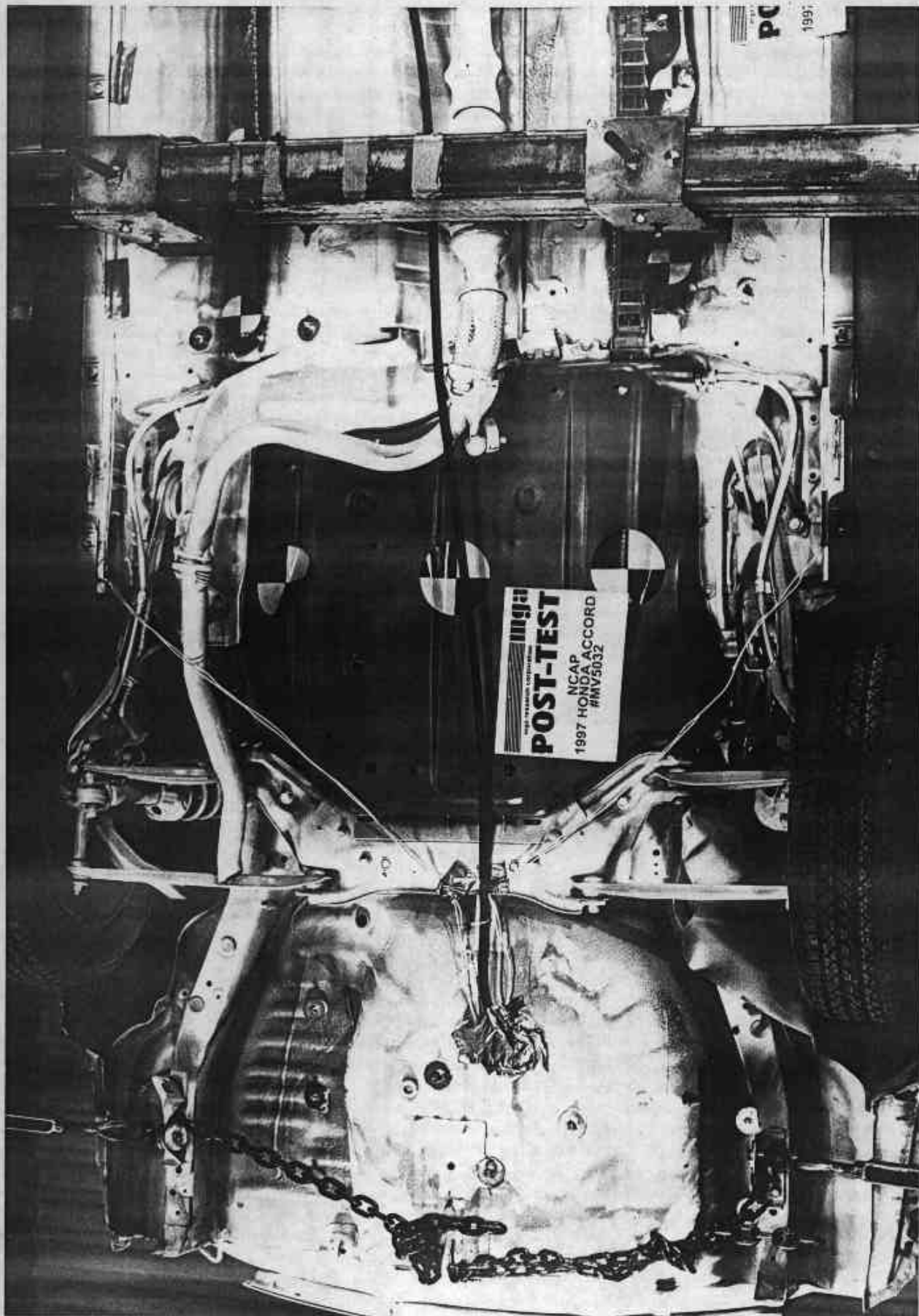
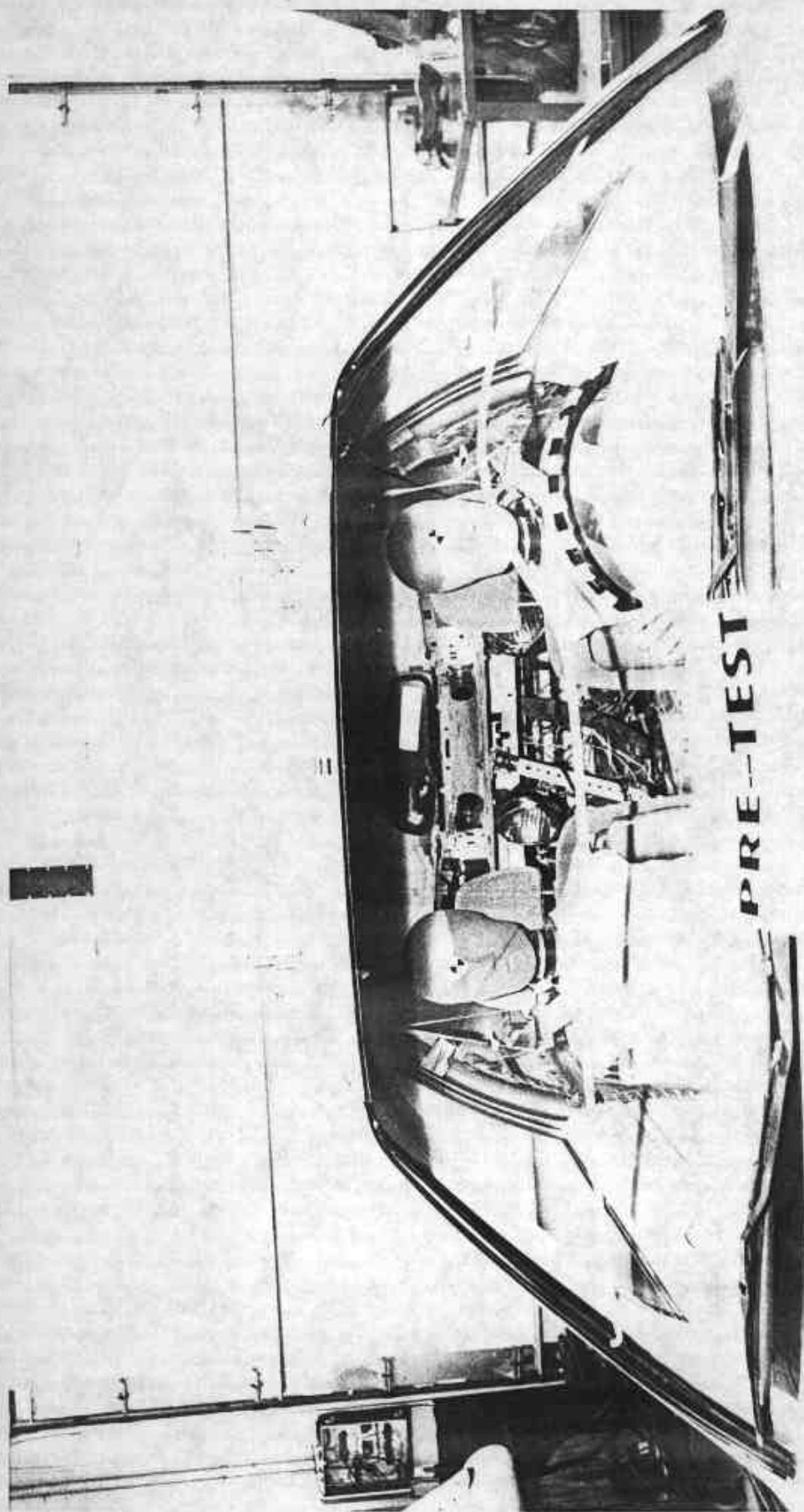


Photo No. A-19 - Post-Test Rear Underbody View

A-19



A-20

Photo No. A-20 - Pre-Test Windshield View



A-21

Photo No. A-21 - Post-Test Windshield View

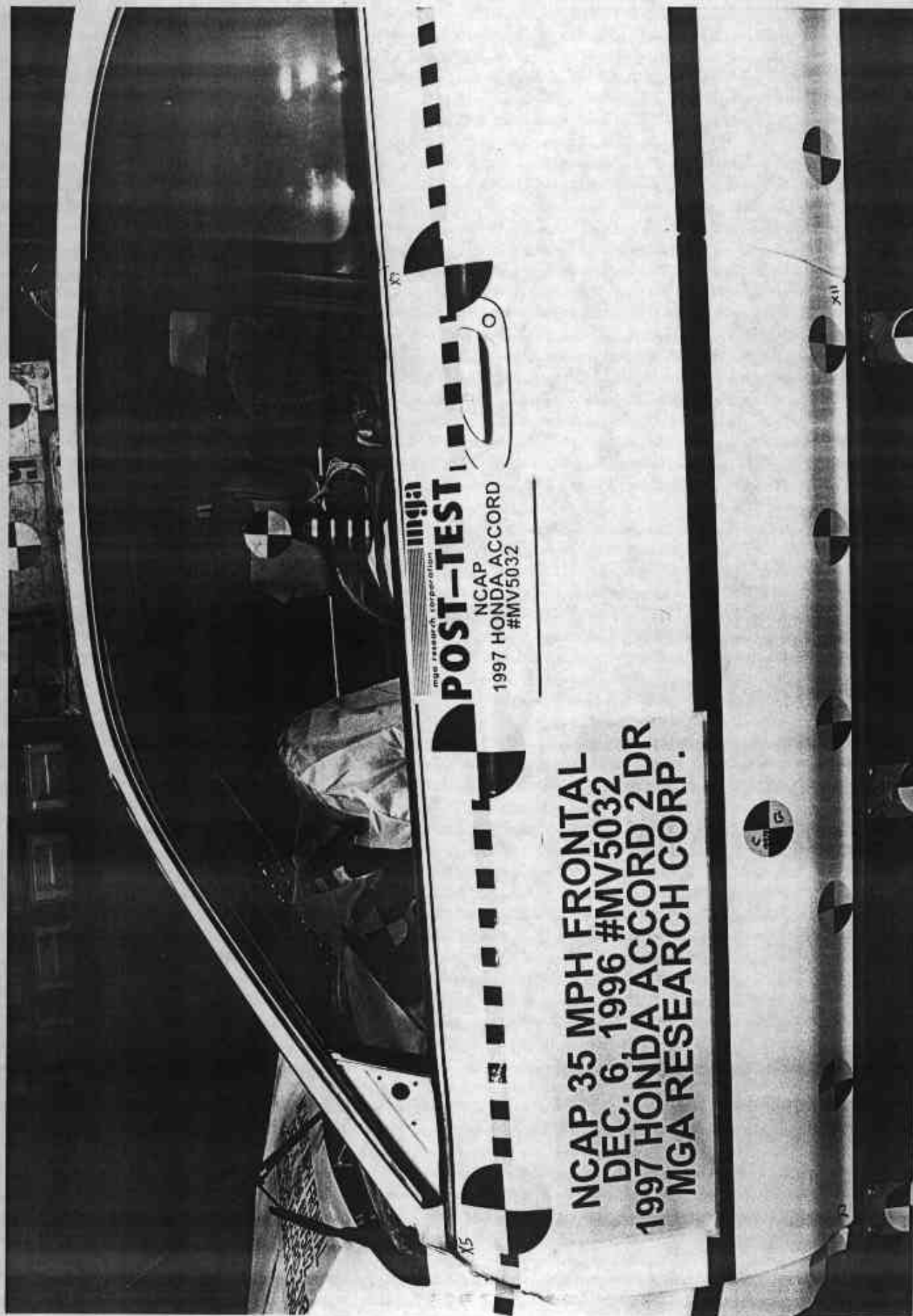


PRE-TEST
NCA
1997 HONDA ACCORD
#MV5032

NCAP 35 MPH FRONTAL
DEC. 6, 1996 #MV5032
1997 HONDA ACCORD 2 DR
MGA RESEARCH CORP.

A-22

Photo No. A-22 - Pre-Test Driver Dummy Position Left Side View



A-23

Photo No. A-23 - Post-Test Driver Dummy Position Left Side View

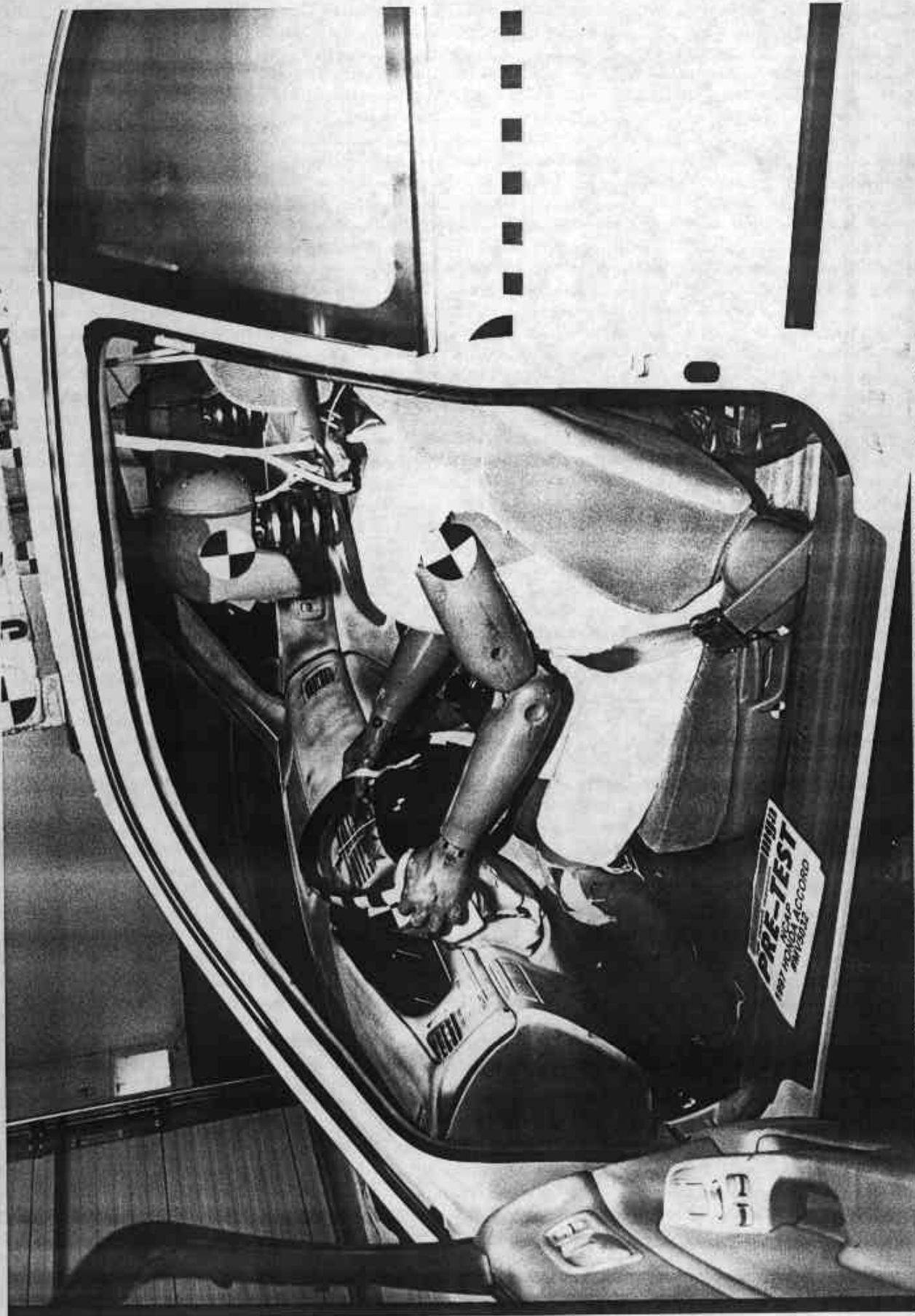


Photo No. A-24 - Pre-Test Driver Dummy Position Left Side View (Door Open)

A-24



Photo No. A-25 - Post-Test Driver Dummy Position Left Side View (Door Open)

A-25



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NCAP
1997 HONDA ACCORD
#MV5032

Photo No. A-26 - Pre-Test Driver Seat Position View



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NCAP
1997 HONDA ACCORD
#MV5032

Photo No. A-27 - Post-Test Driver Seat Position View



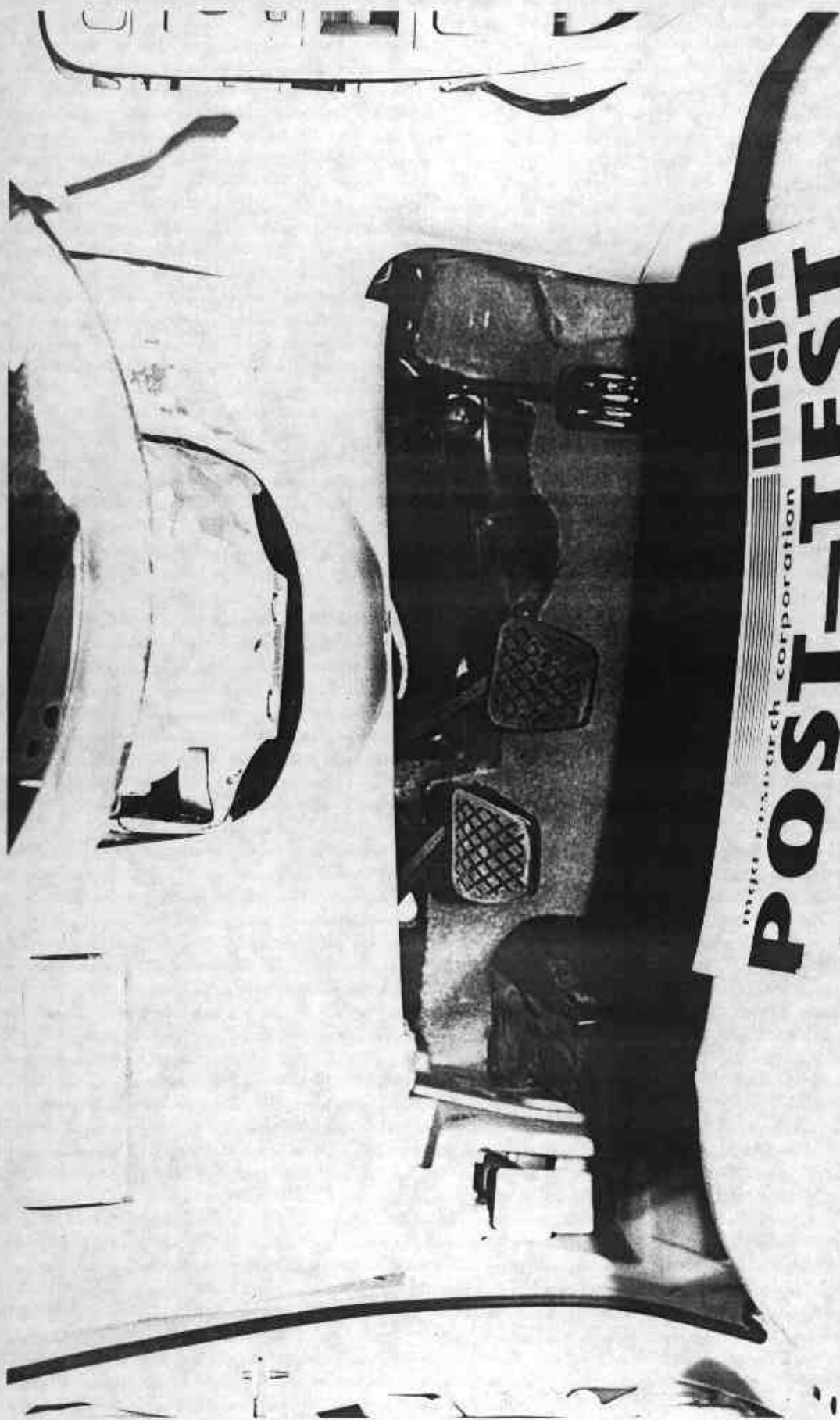
Photo No. A-28 - Pre-Test Driver Dummy Knee Position



Photo No. A-29 - Post-Test Driver Dummy Knee Position



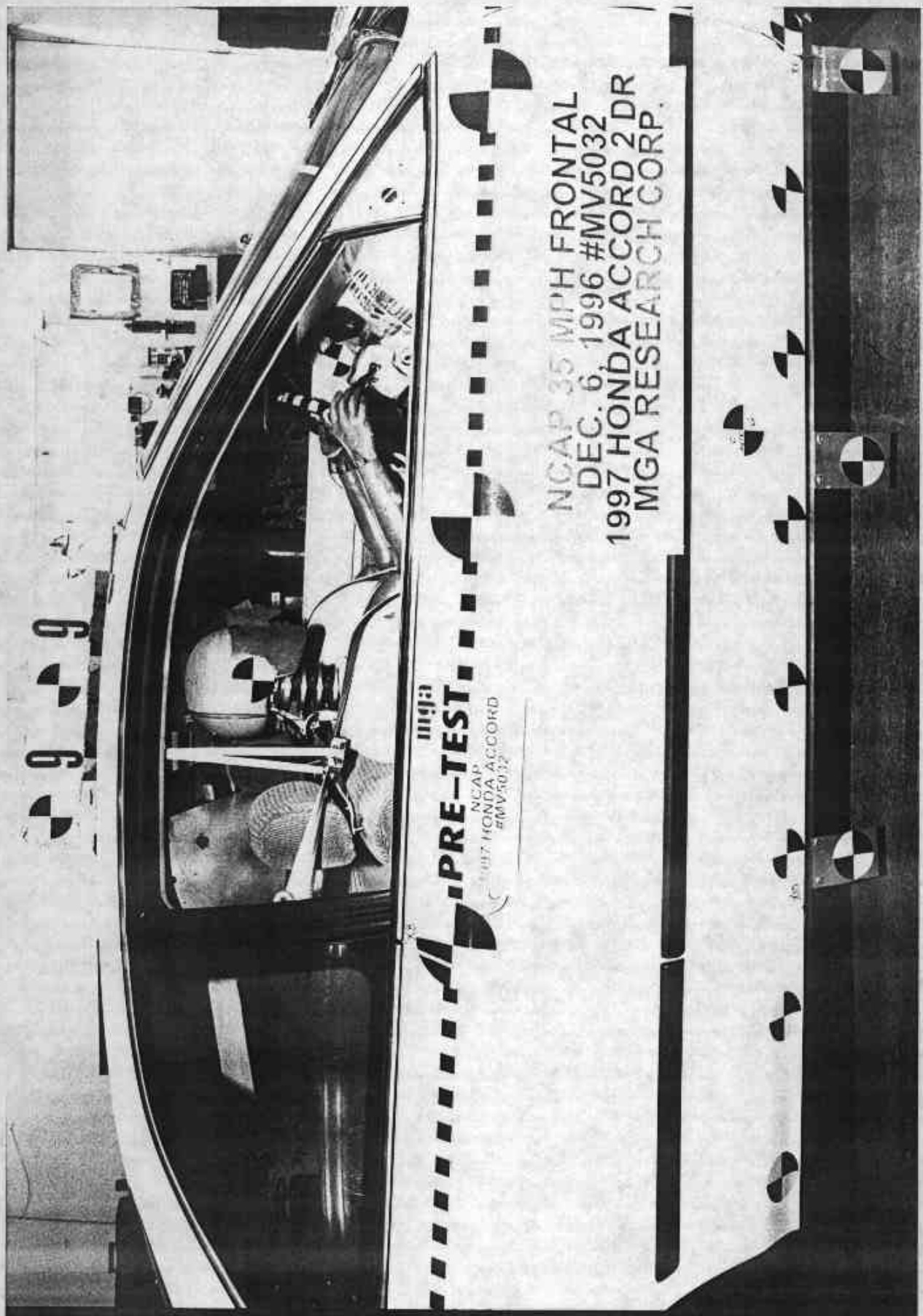
Photo No. A-30 - Post-Test Driver Airbag Contact



A-31

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1997 HONDA ACCORD
#MV5032

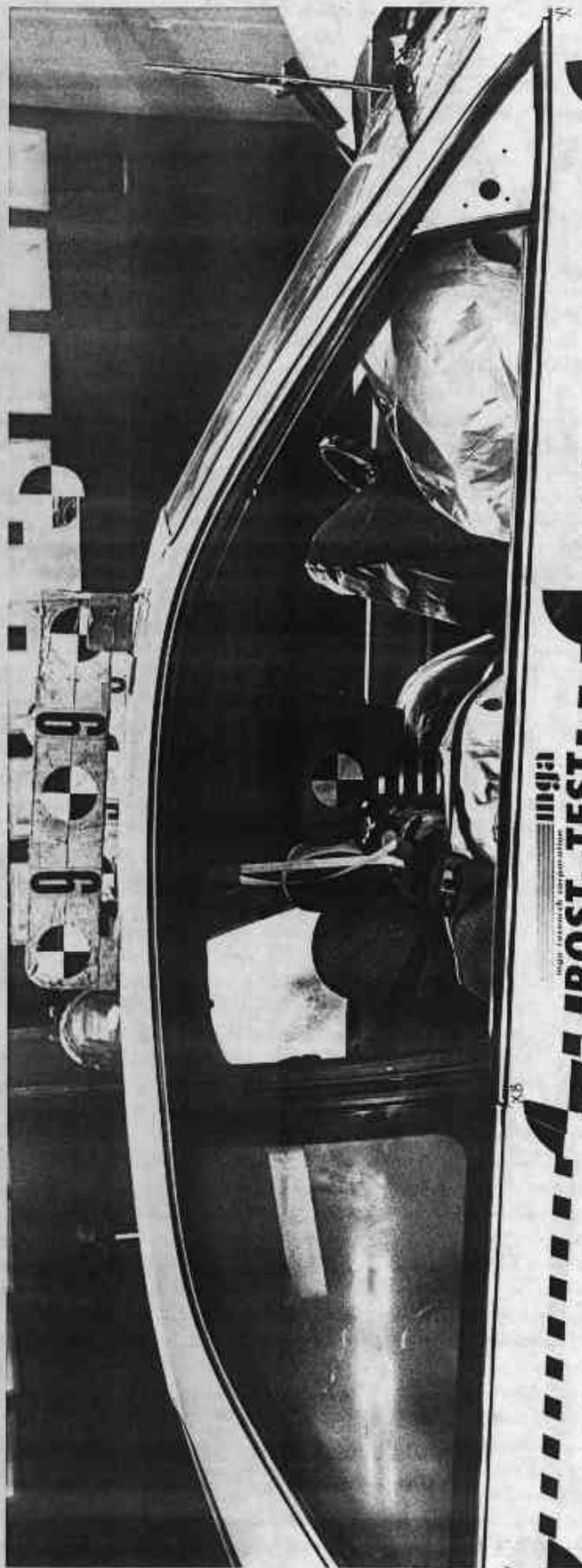
Photo No. A-31 - Post-Test Driver Knee Contact View



NCAP 35 MPH FRONTAL
DEC. 6, 1996 #MV5032
1997 HONDA ACCORD 2DR
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Photo No. A-32 - Pre-Test Passenger Dummy Position Right Side View



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#MV5032

NCAP 35 MPH FRONTAL
DEC. 6, 1996 #MV5032
1997 HONDA ACCORD 2 DR
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Photo No. A-33 - Post-Test Passenger Dummy Position Right Side View

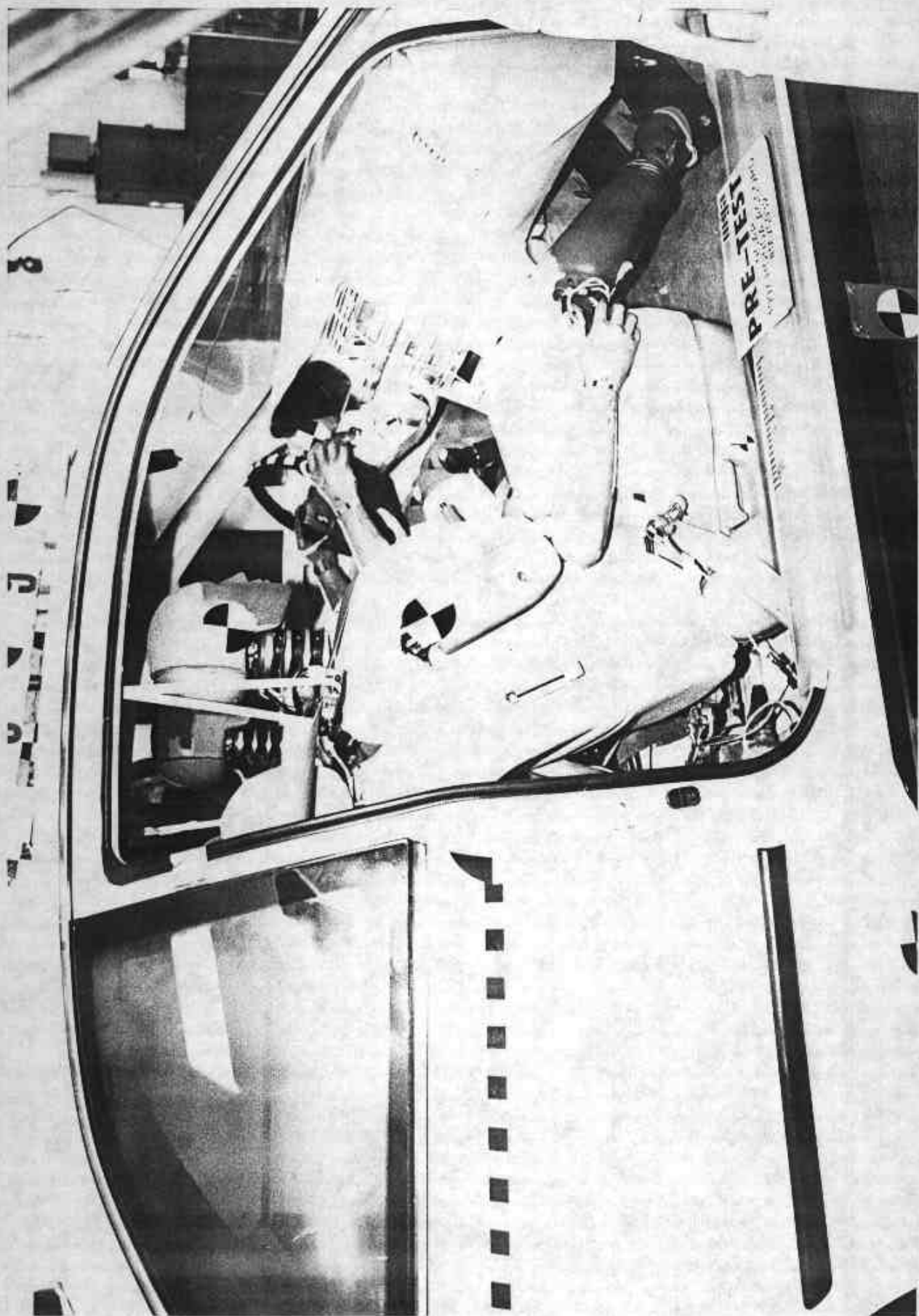


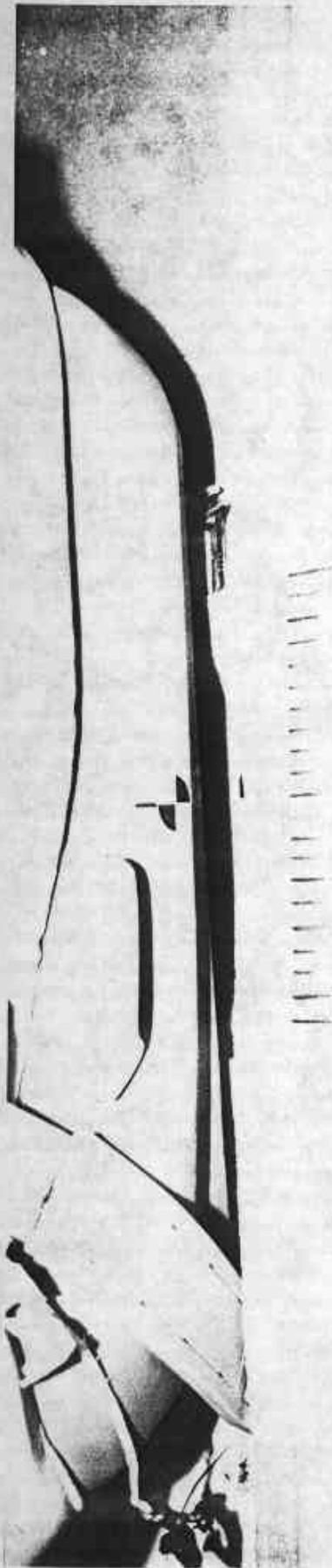
Photo No. A-34 - Pre-Test Passenger Dummy Position Right Side View (Door Open)

A-34



Photo No. A-35 - Post-Test Passenger Dummy Position Right Side View (Door Open)

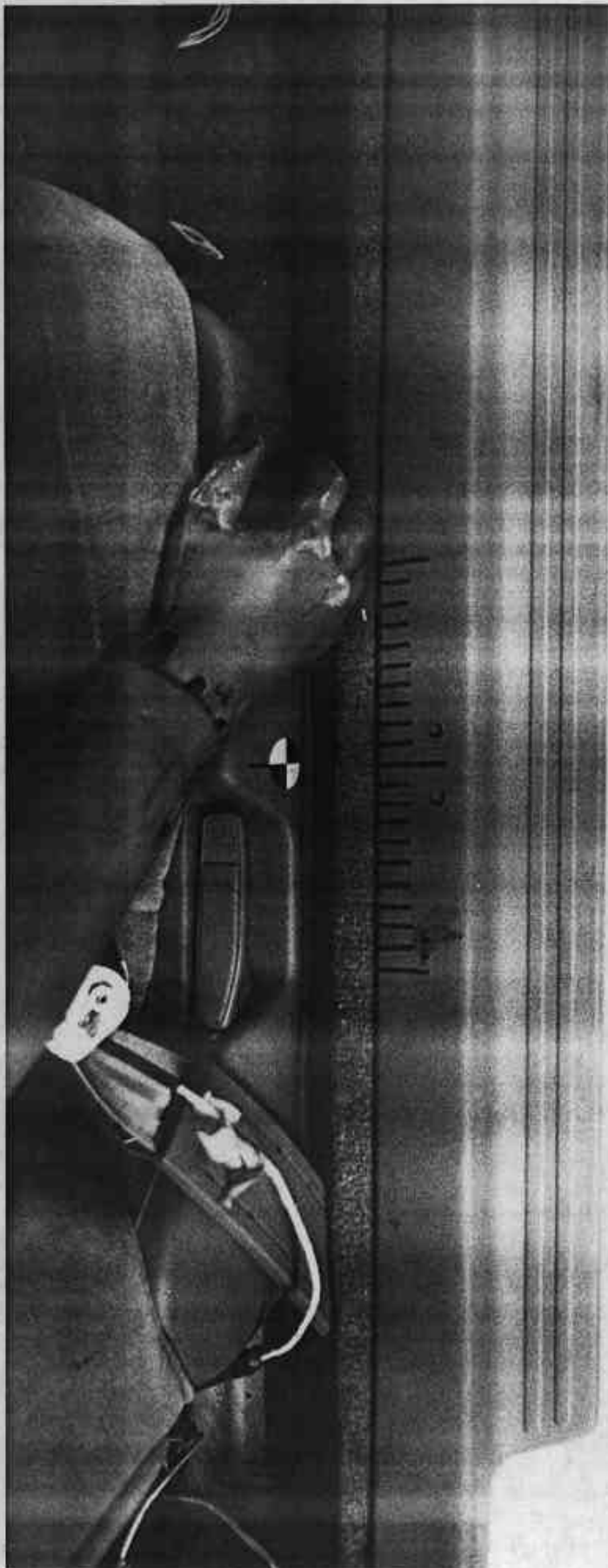
A-35



A-36



Photo No. A-36 - Pre-Test Passenger Seat Position View



A-37



Photo No. A-37 - Post-Test Passenger Seat Position View



Photo No. A-38 - Pre-Test Passenger Dummy Knee Position



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1997 HONDA ACCORD
#MV5032

A-39

Photo No. A-39 - Post-Test Passenger Dummy Knee Position



Photo No. A-40 - Post-Test Passenger Airbag Contact



Photo No. A-41 - Post-Test Passenger Knee Contact View

MFD. BY HONDA OF AMERICA MFG., INC. 11/96
GVWR 3915LBS GAWR F 2140LBS R 1810LBS
THIS VEHICLE CONFORMS TO ALL APPLICABLE
FEDERAL MOTOR VEHICLE SAFETY, BUMPER,
AND THEFT PREVENTION STANDARDS IN EFFECT
ON THE DATE OF MANUFACTURE SHOWN ABOVE:

V.I.N. 1HGCD7138VA008675



MADE IN U.S.A.

PASSENGER CAR

TIRE INFORMATION

VEHICLE CAPACITY WEIGHT: 850 lbs.

SEATING CAPACITY: TOTAL 5 FRONT 2 REAR 3

RECOMMENDED TIRE SIZE

185 / 65R15 88S

COMPACT SPARE TIRE

T115 / 70D14

COLD TIRE INFLATION PRESSURE

FRONT / REAR

220kPa, 32psi

INFLATION PRESSURE

420kPa, 60psi

•UP TO VEHICLE
CAPACITY WEIGHT.

•DO NOT INSTALL
ON OTHER VEHICLES.

SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION.

V4YA3

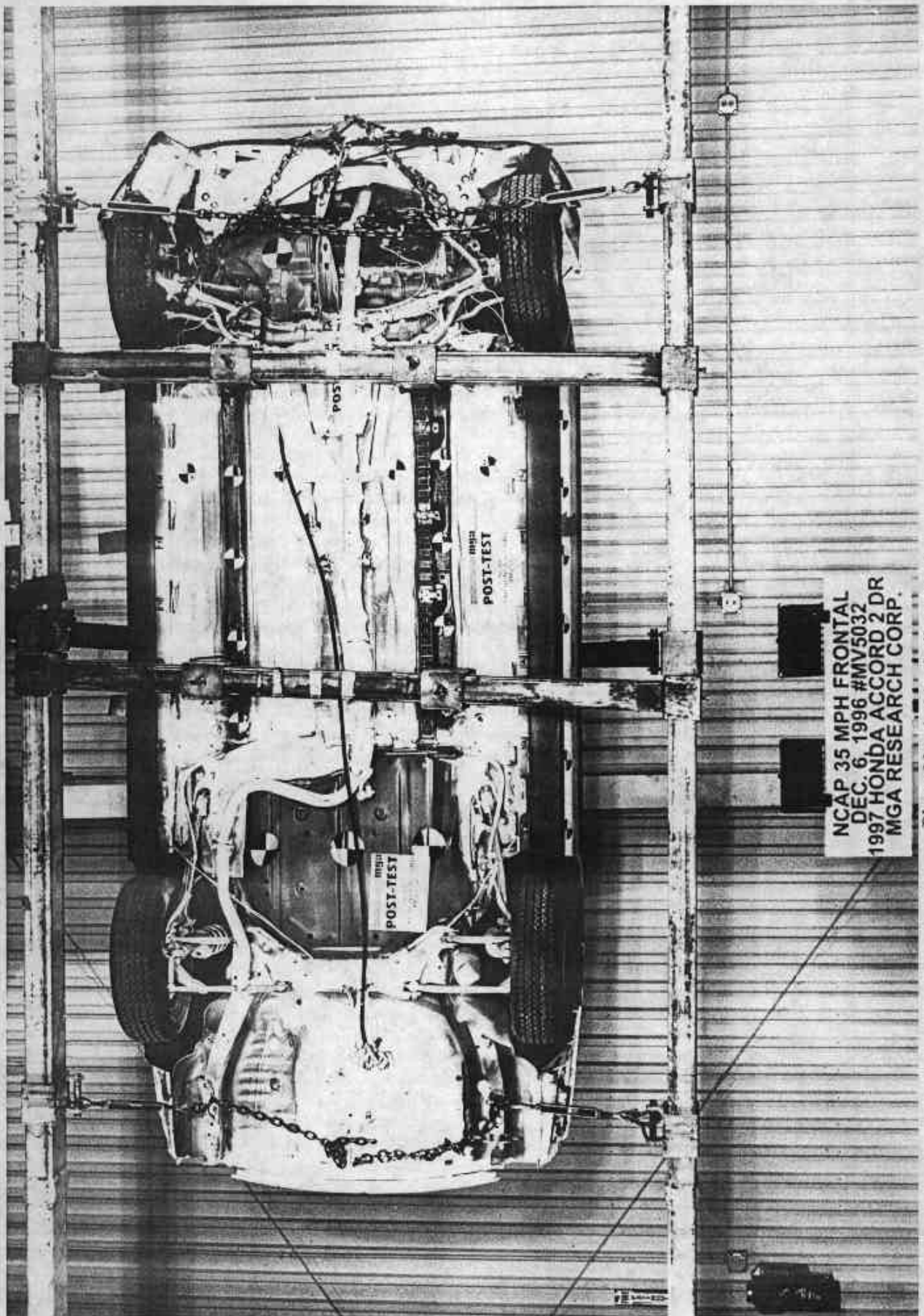
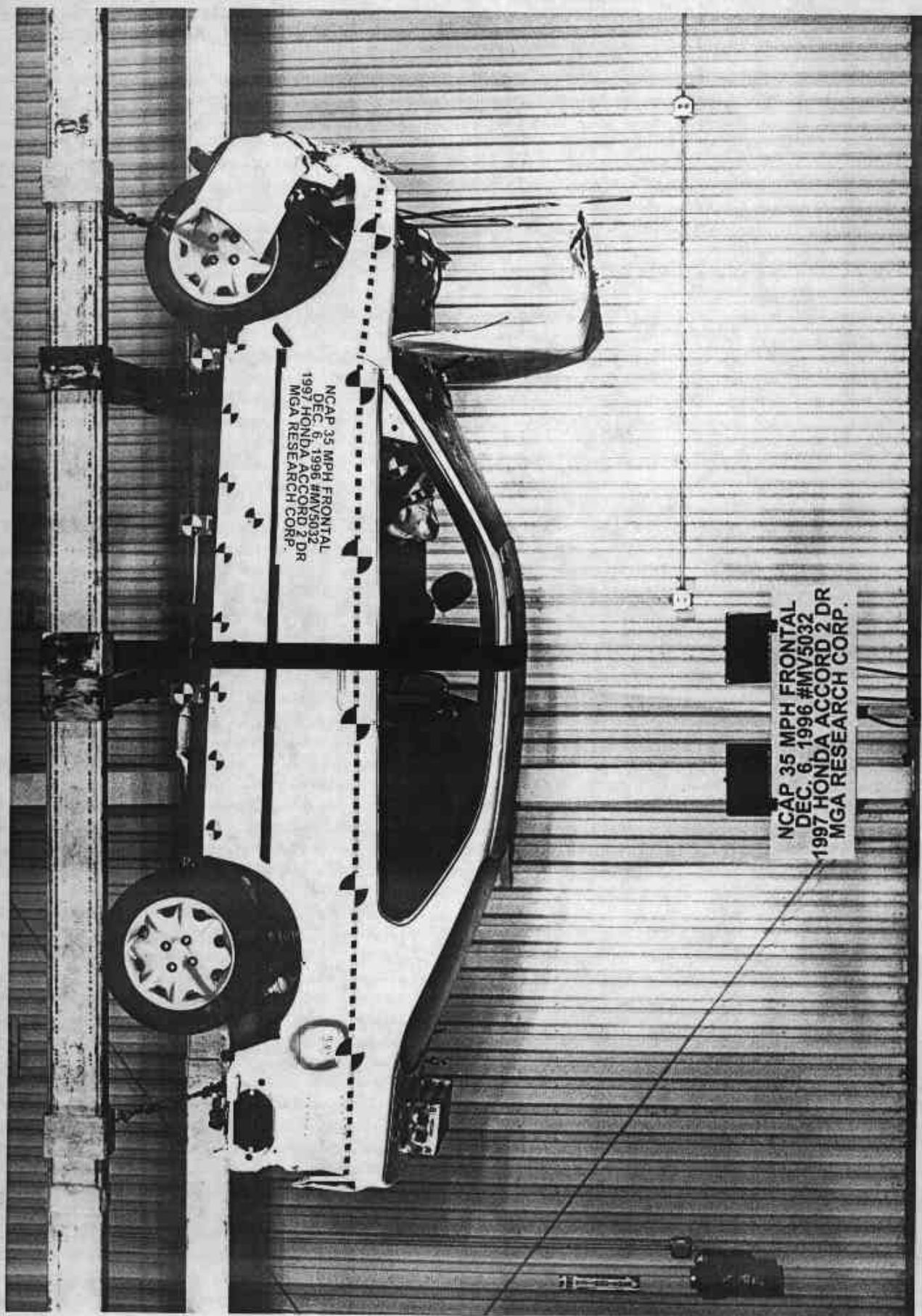


Photo No. A-44 - Rollover 90°



A-45

Photo No. A-45 - Rollover 180°

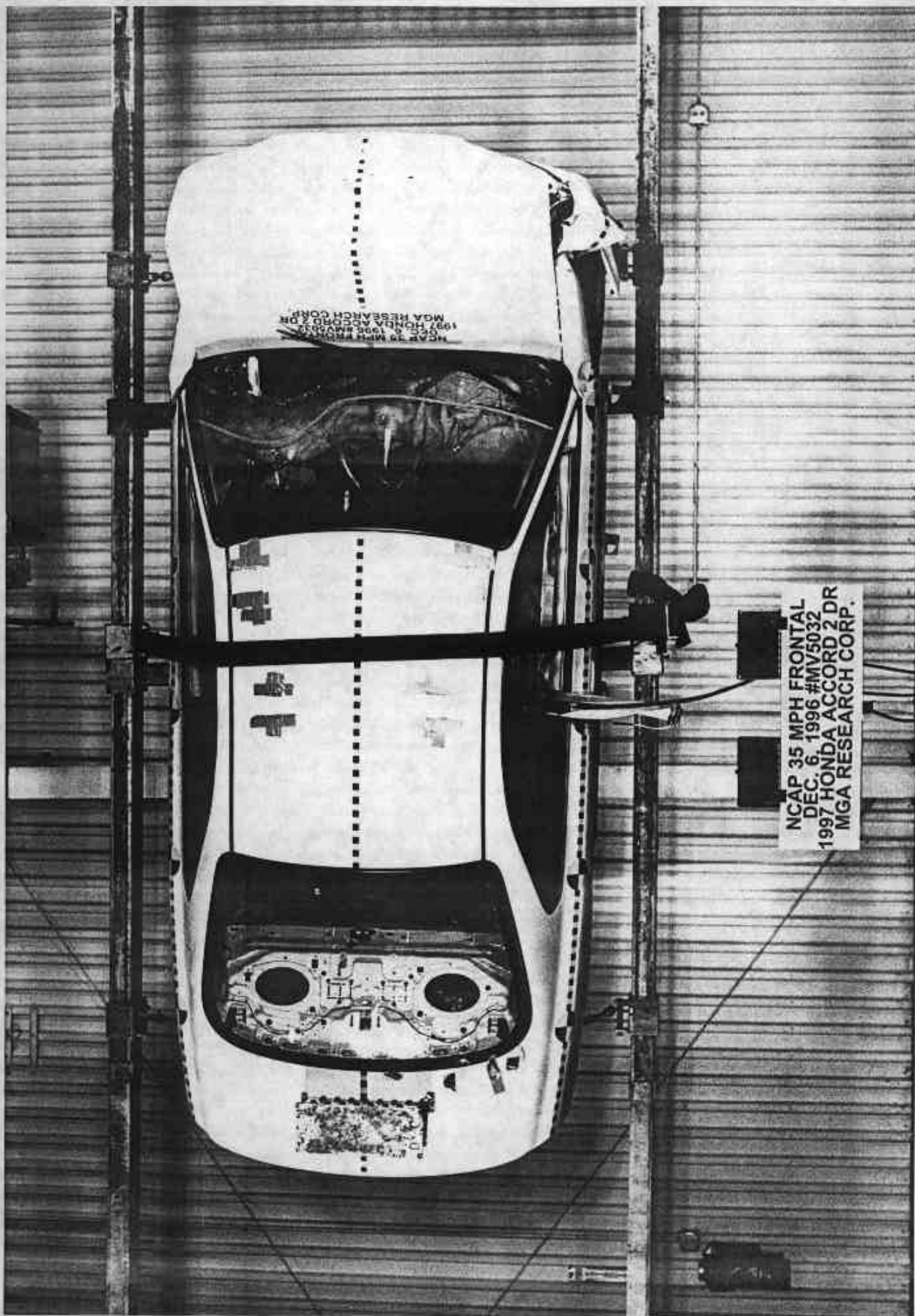
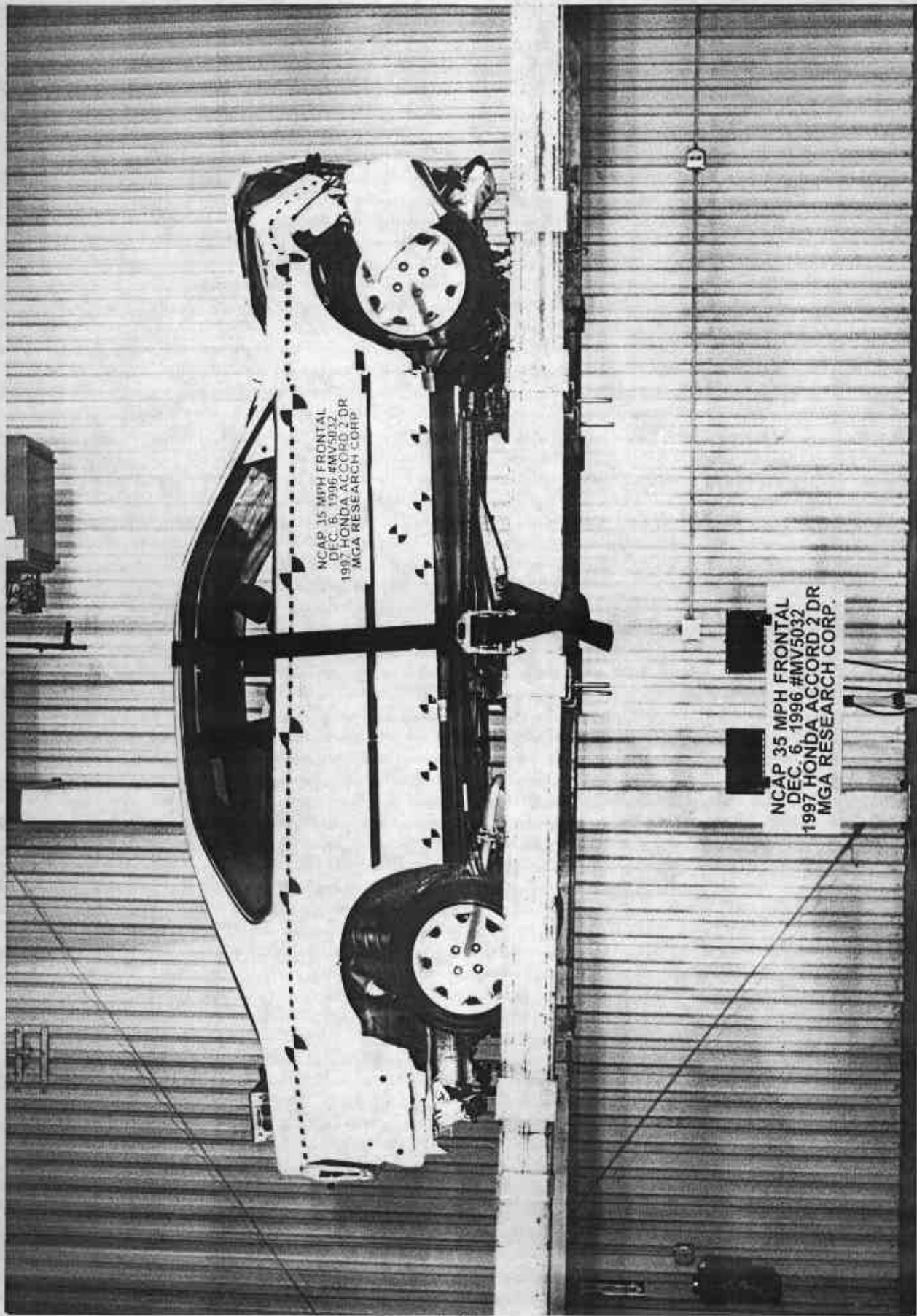


Photo No. A-46 - Rollover 270°



NCAP 35 MPH FRONTAL
DEC. 6, 1996 #MV5032
1997 HONDA ACCORD 2 DR
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NCAP 35 MPH FRONTAL
DEC. 6, 1996 #MV5032
1997 HONDA ACCORD 2 DR
MGA RESEARCH CORP.

APPENDIX B

Vehicle, Load Cell Barrier and Dummy Response Data

1997 Honda Accord
NHTSA NO.: MV5032

VEHICLE DATA FILTER CHANNEL CLASS

Head Accelerations 1000 (1650 Hz)

Chest Accelerations 180 (300 Hz)

Vehicle Accelerations 60 (100 Hz)

Barrier Load Cells 60 (100 Hz)

Femur Load Cells 600 (1000 Hz)

Lap and Torso Belts 60 (100 Hz)

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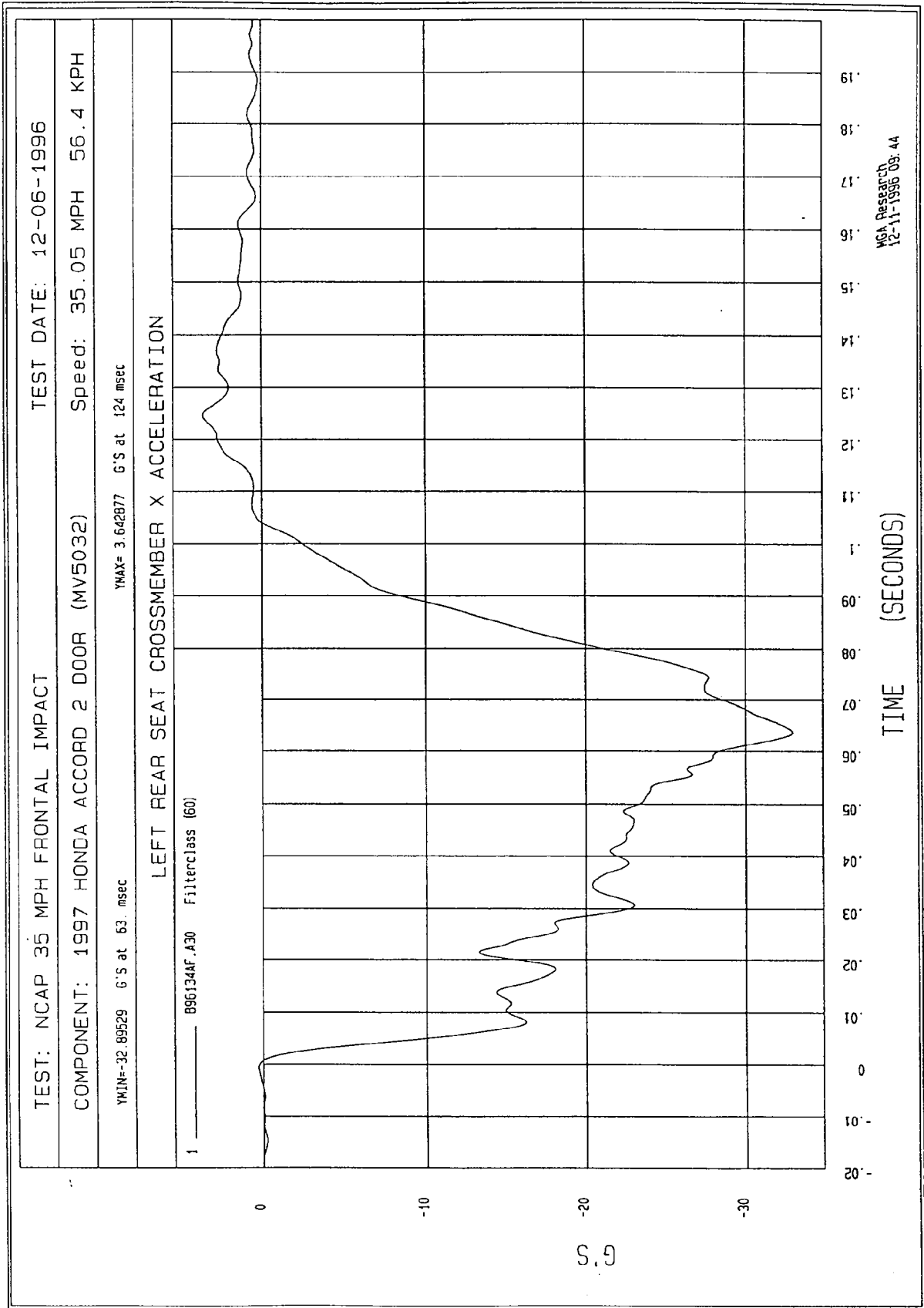
Data PlotPage No.

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TEST: NCAP 35 MPH FRONTAL IMPACT

TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032)

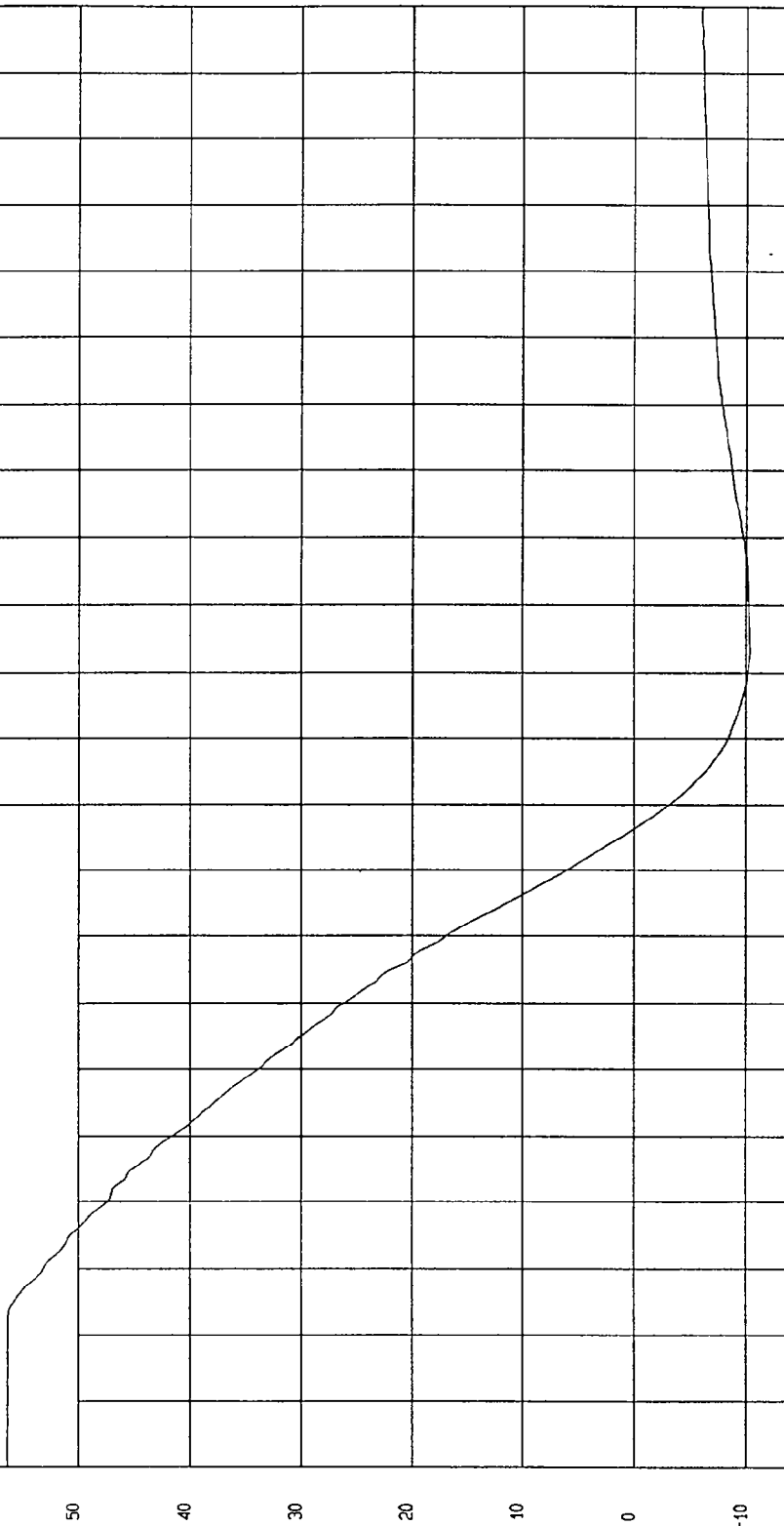
Speed: 35.05 MPH 56.4 KPH

YMIN=-10.37316 KPH at 103 msec

YMAX= 56.40804 KPH at -16. msec

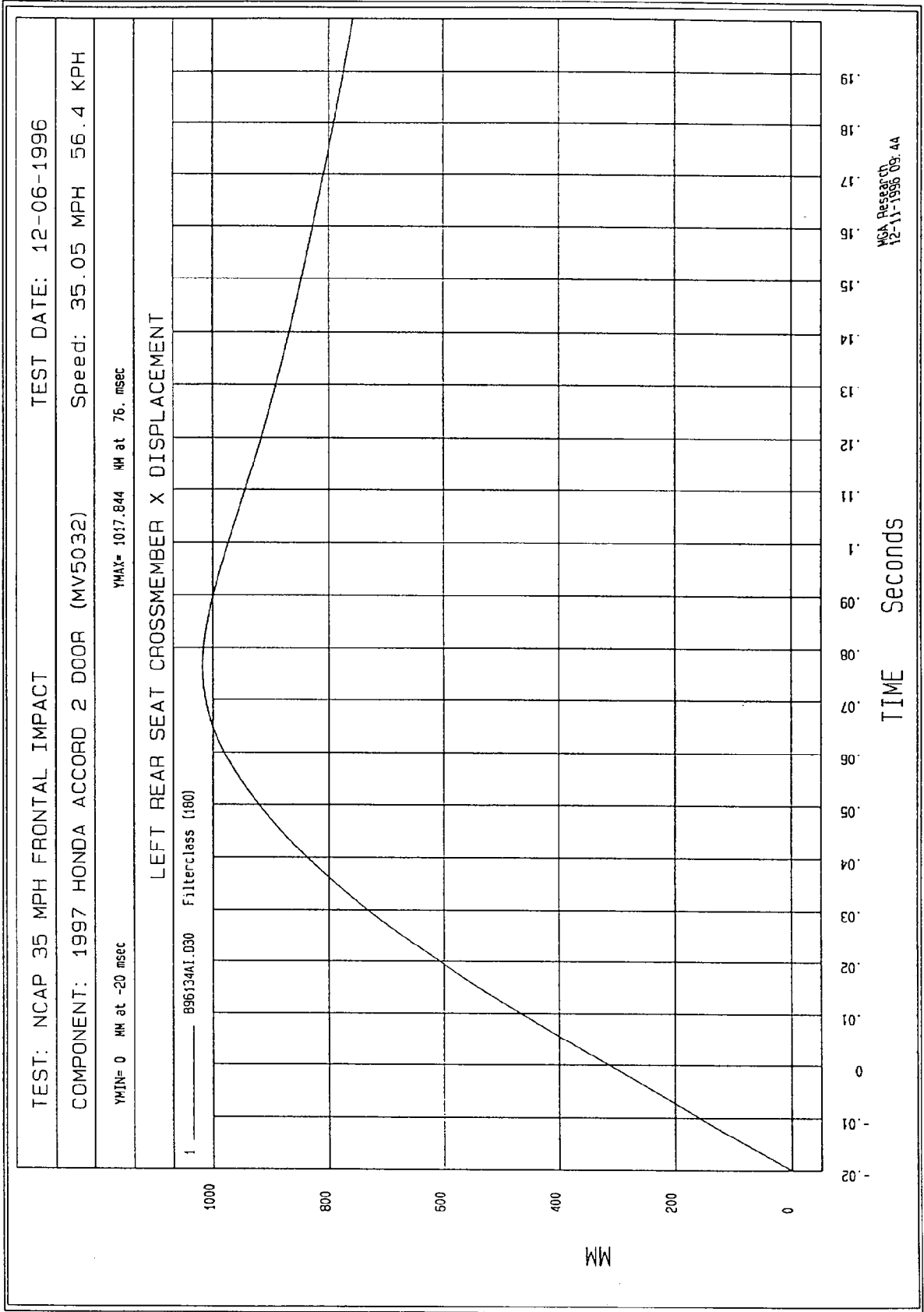
LEFT REAR SEAT CROSSMEMBER X VELOCITY

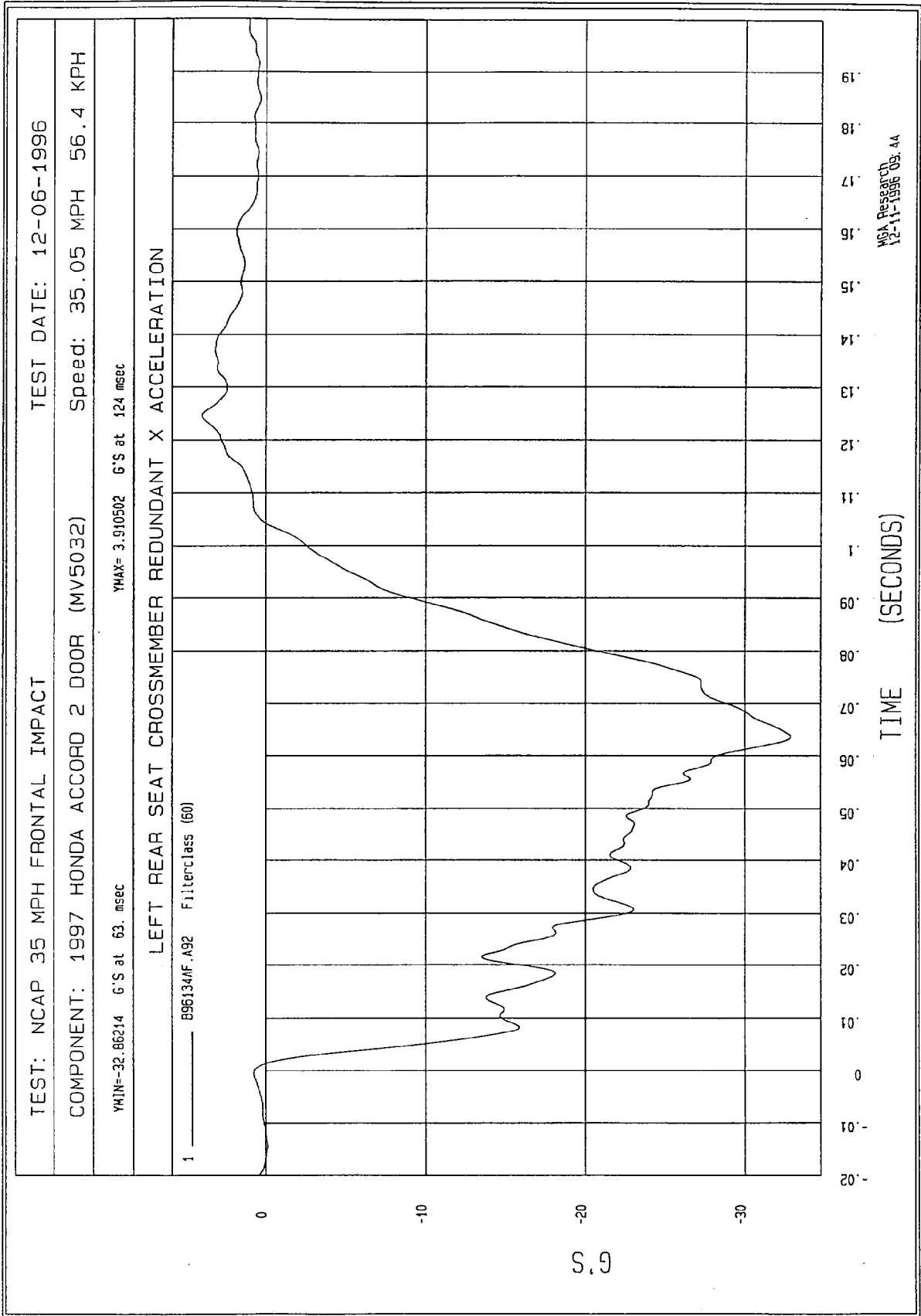
1 896134A1.V30 FilterClass (180)

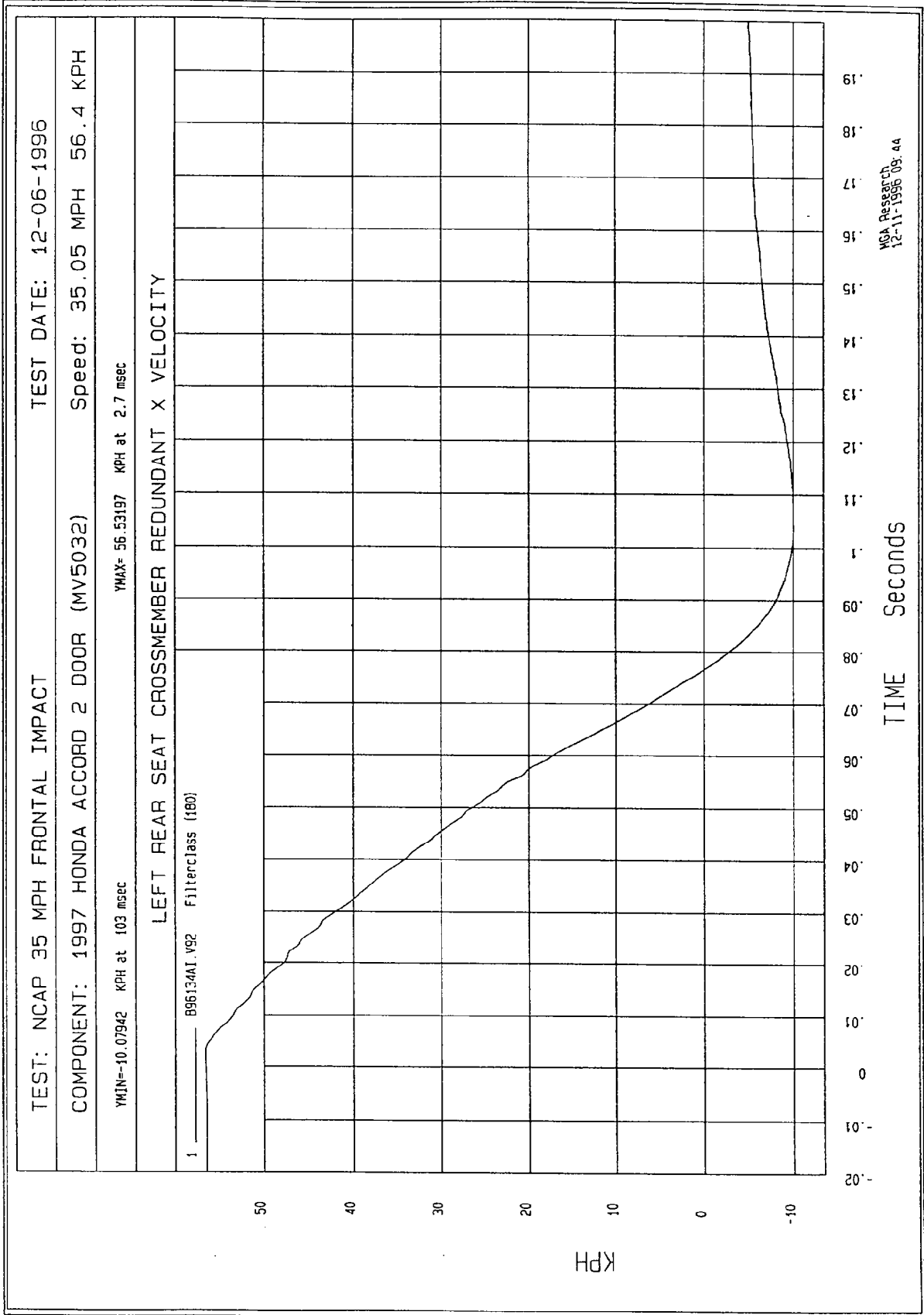


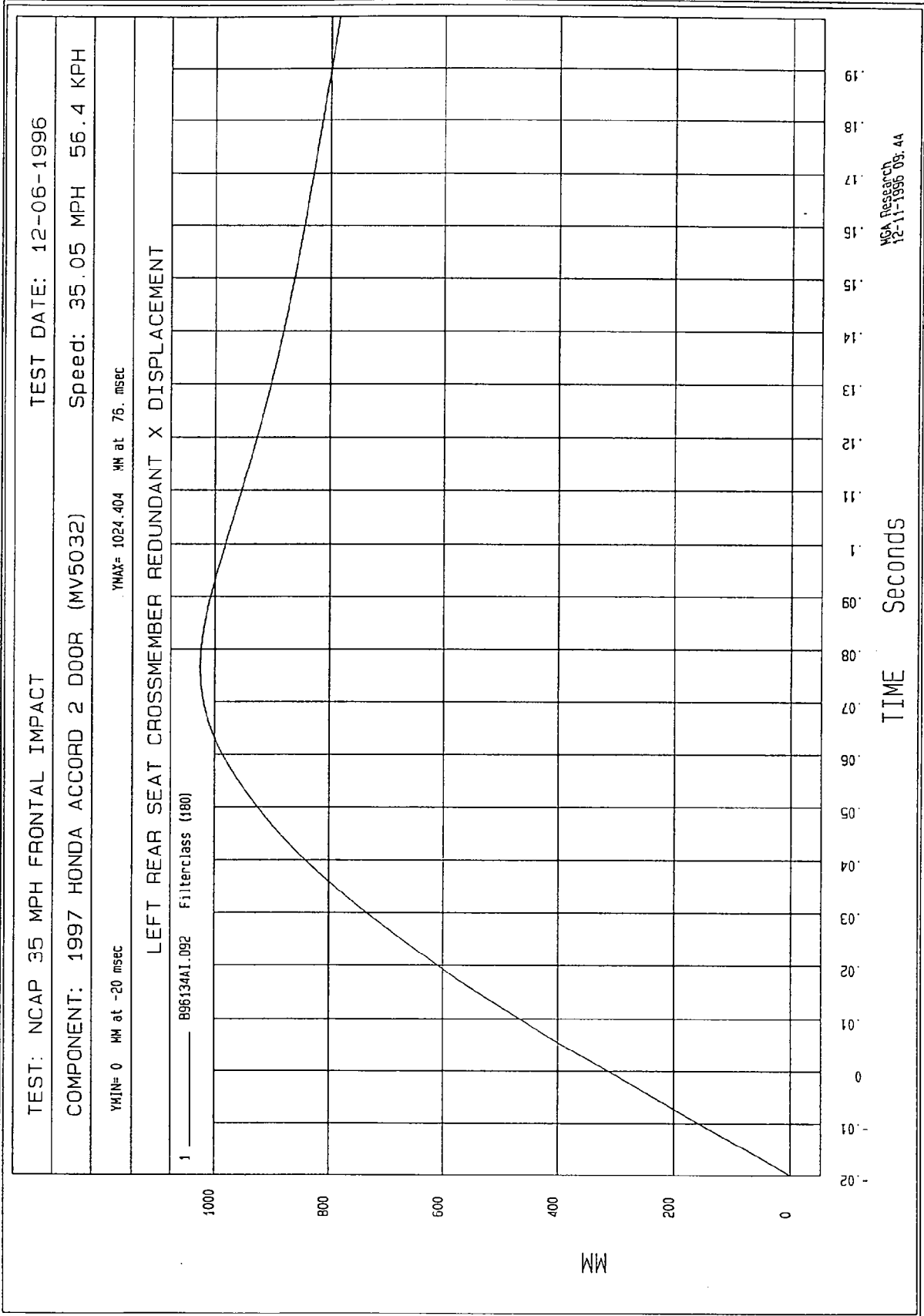
MSA Research
12-11-1996 09.44

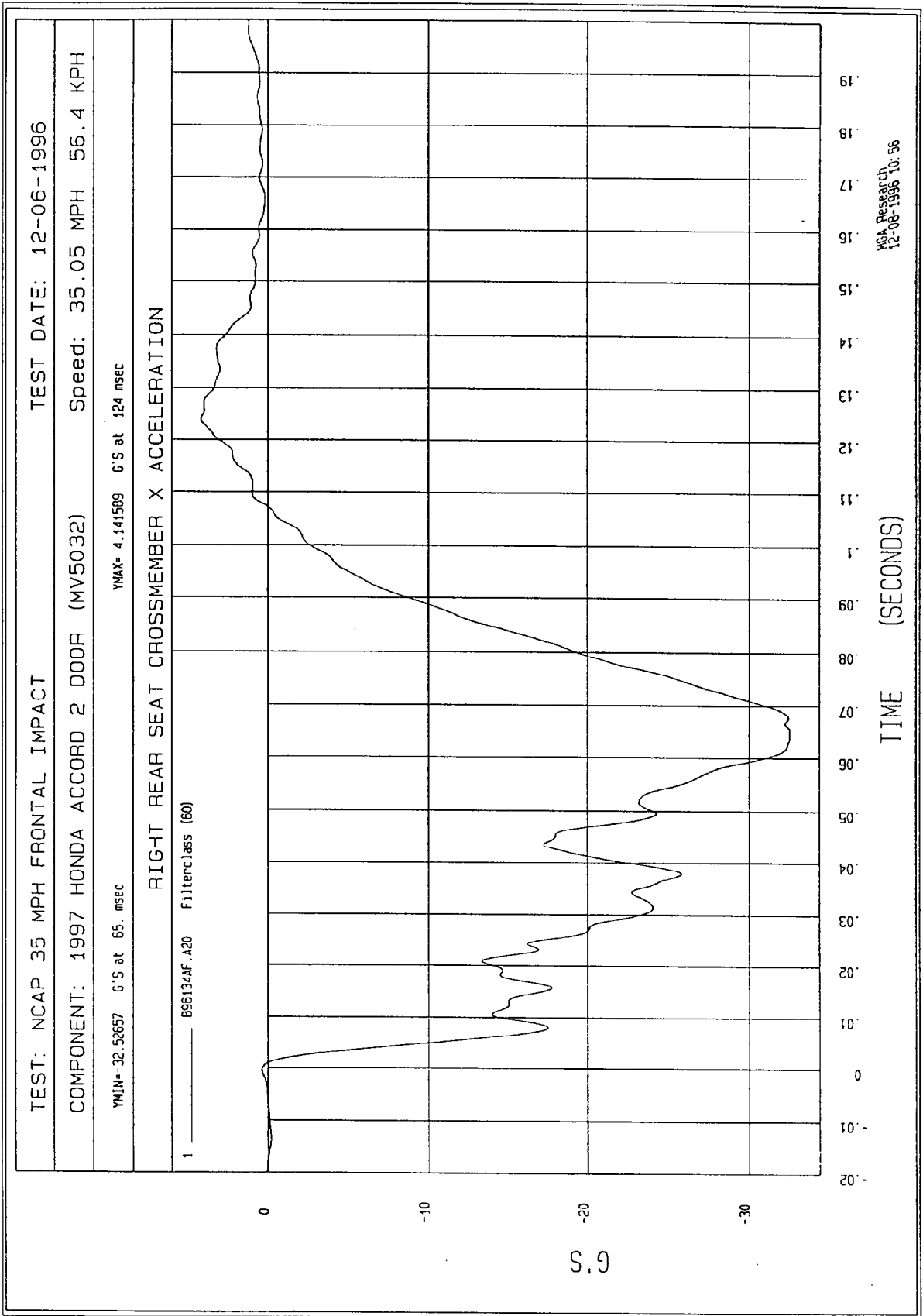
TIME Seconds

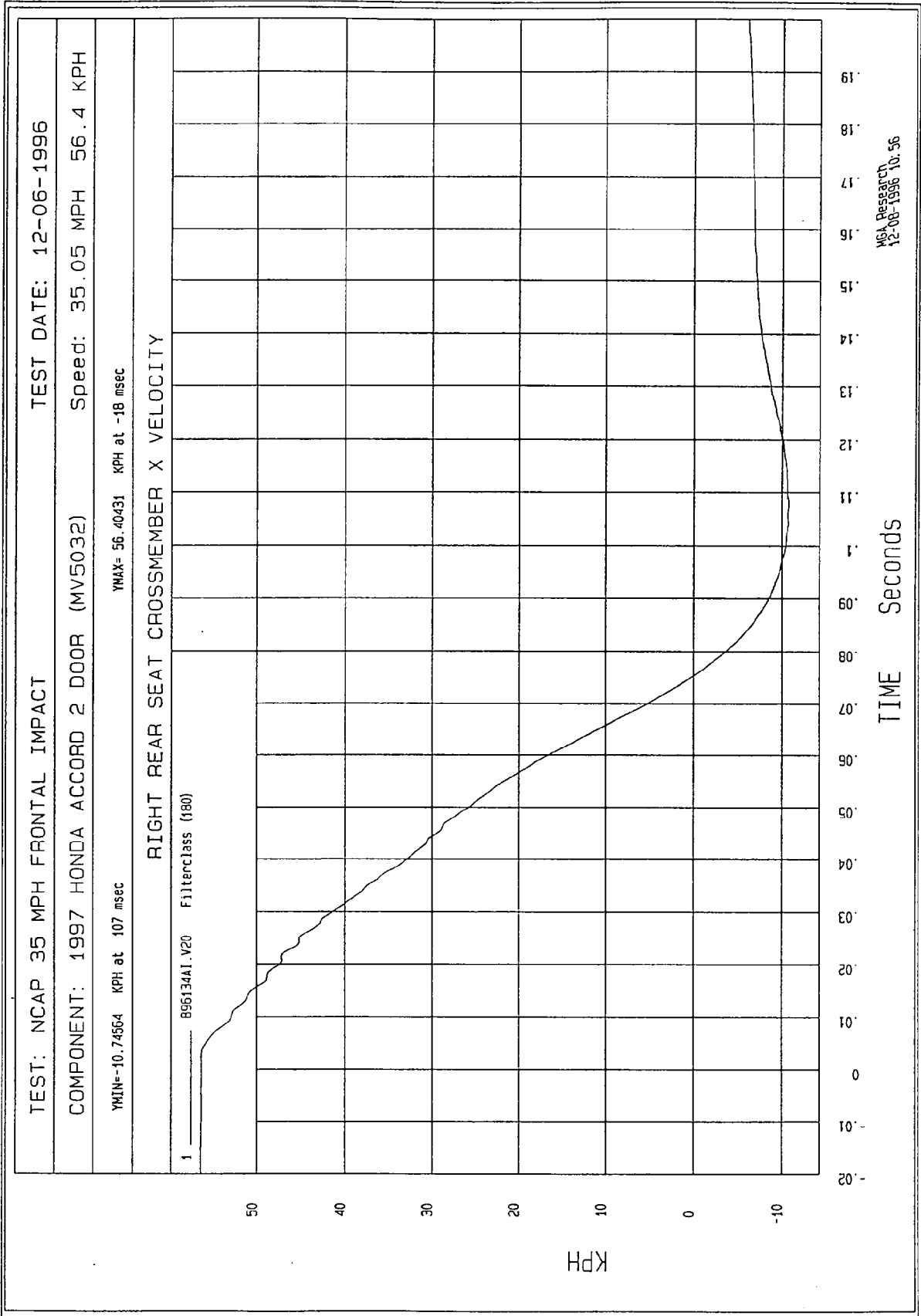


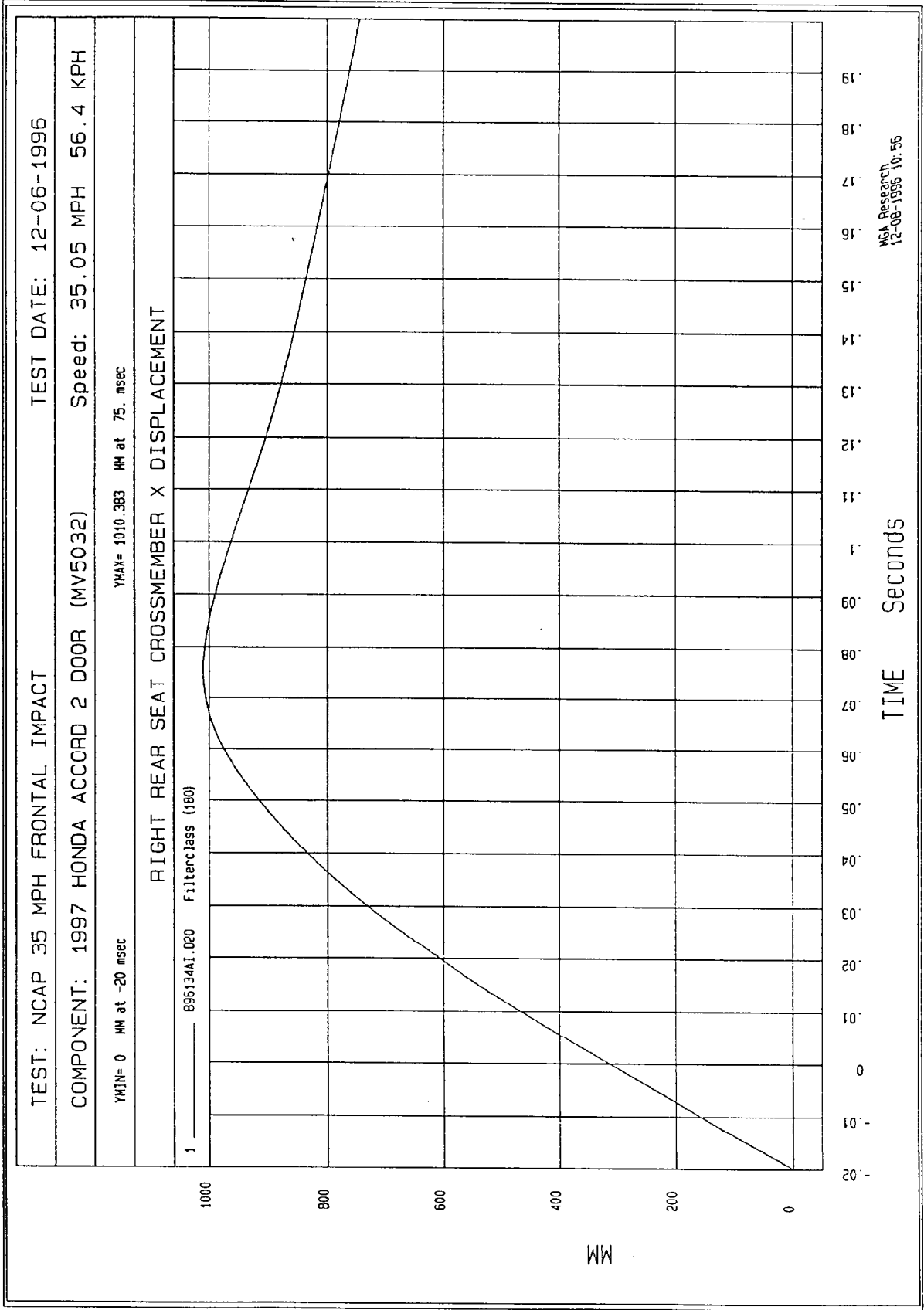


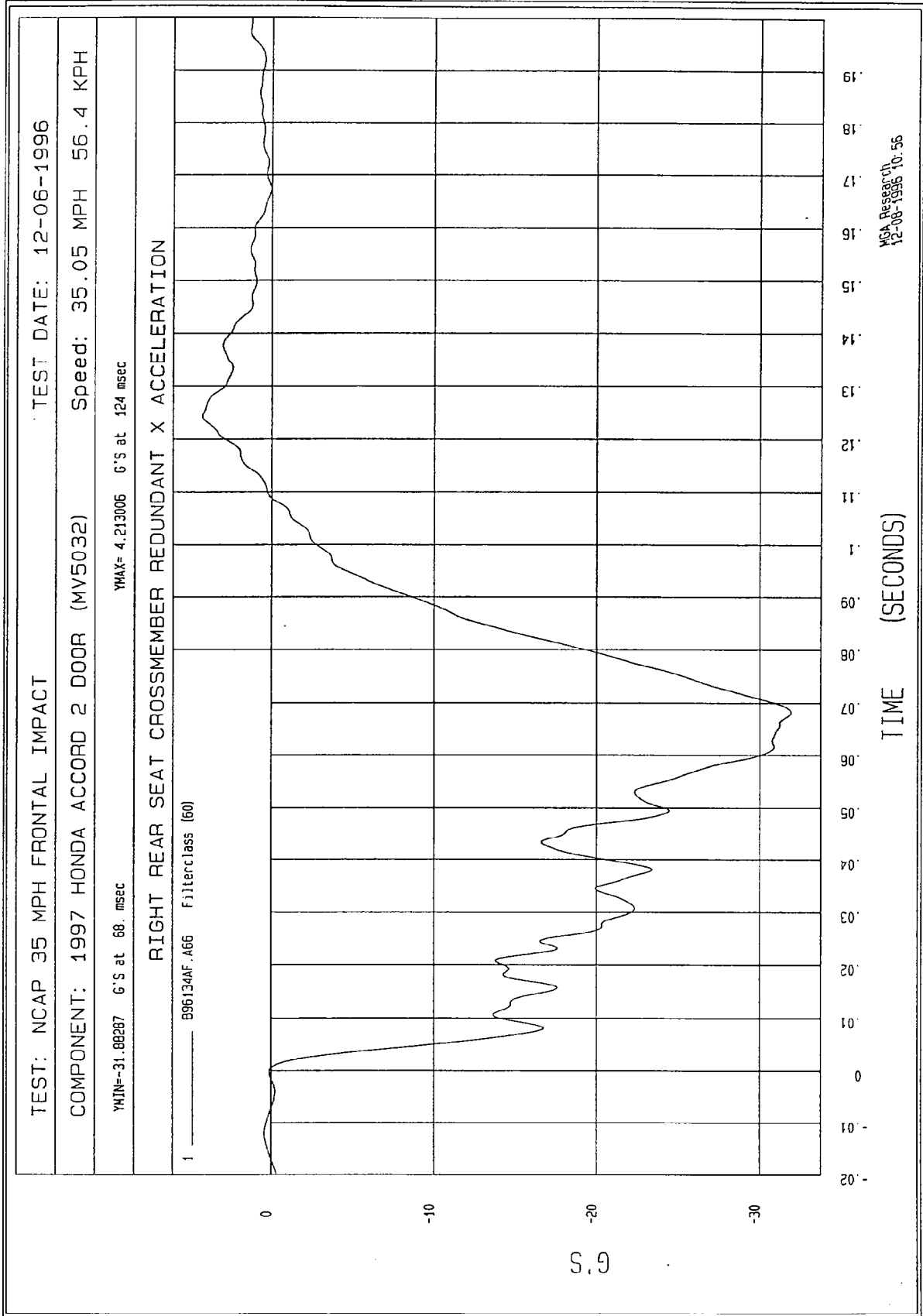


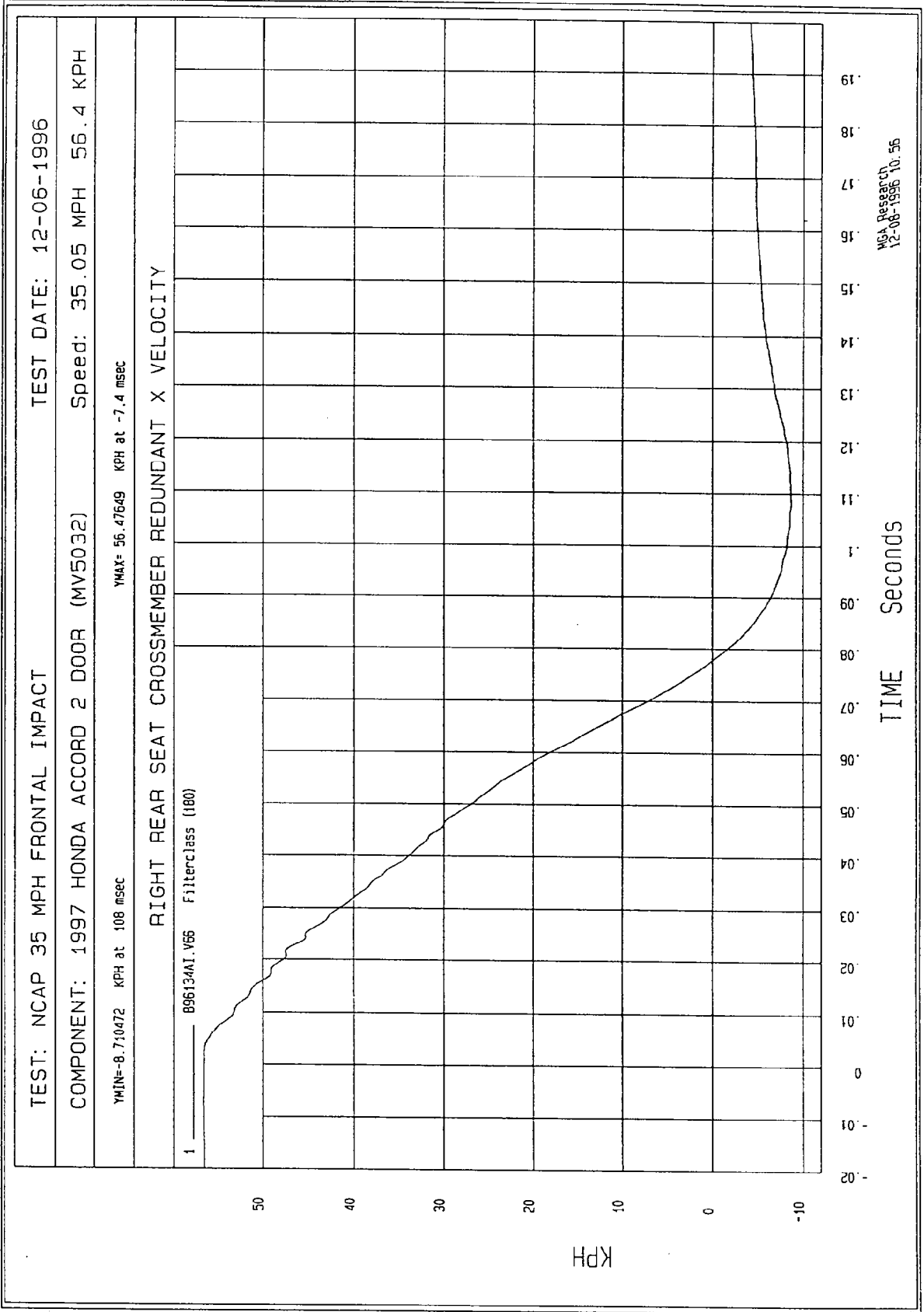


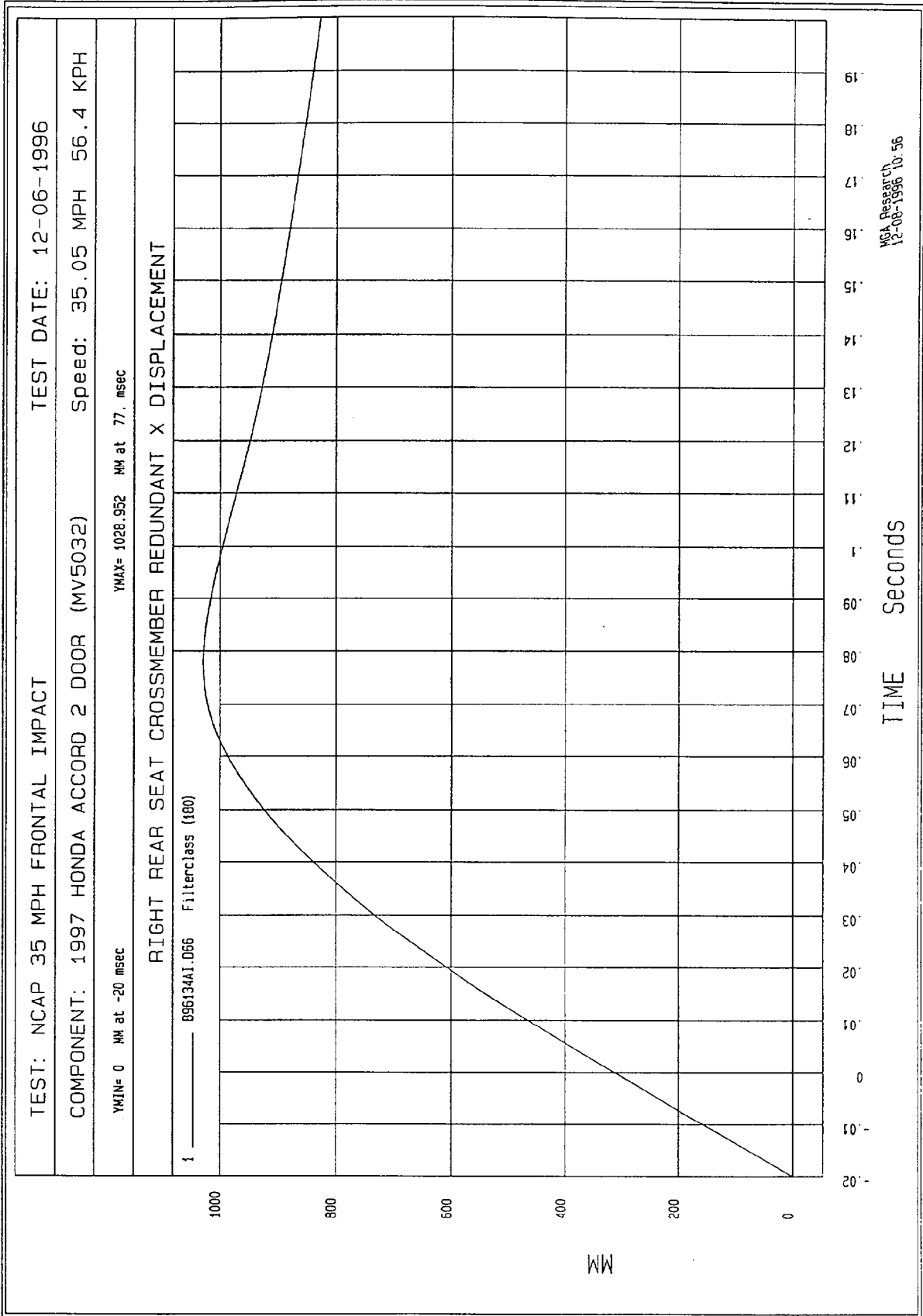


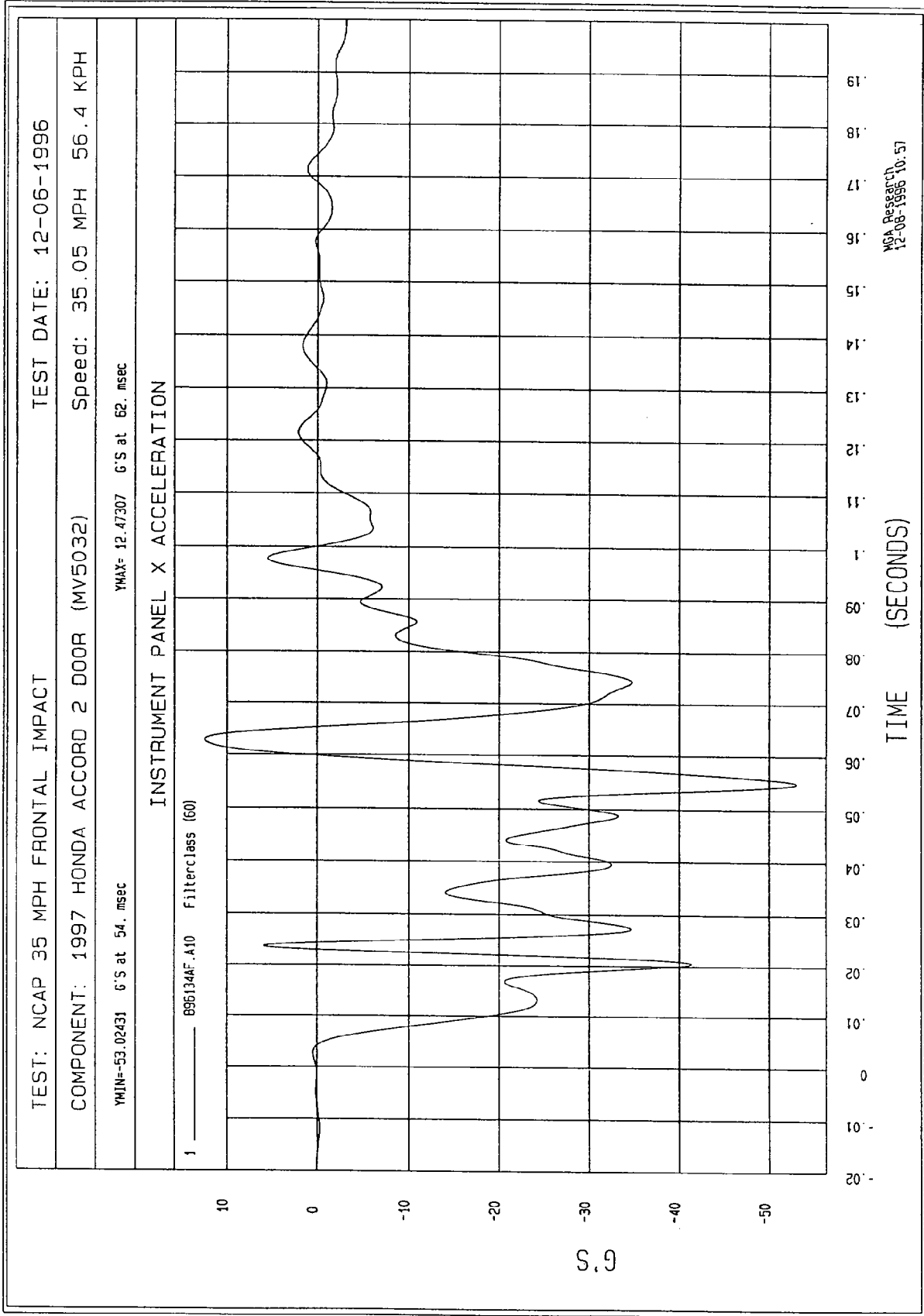


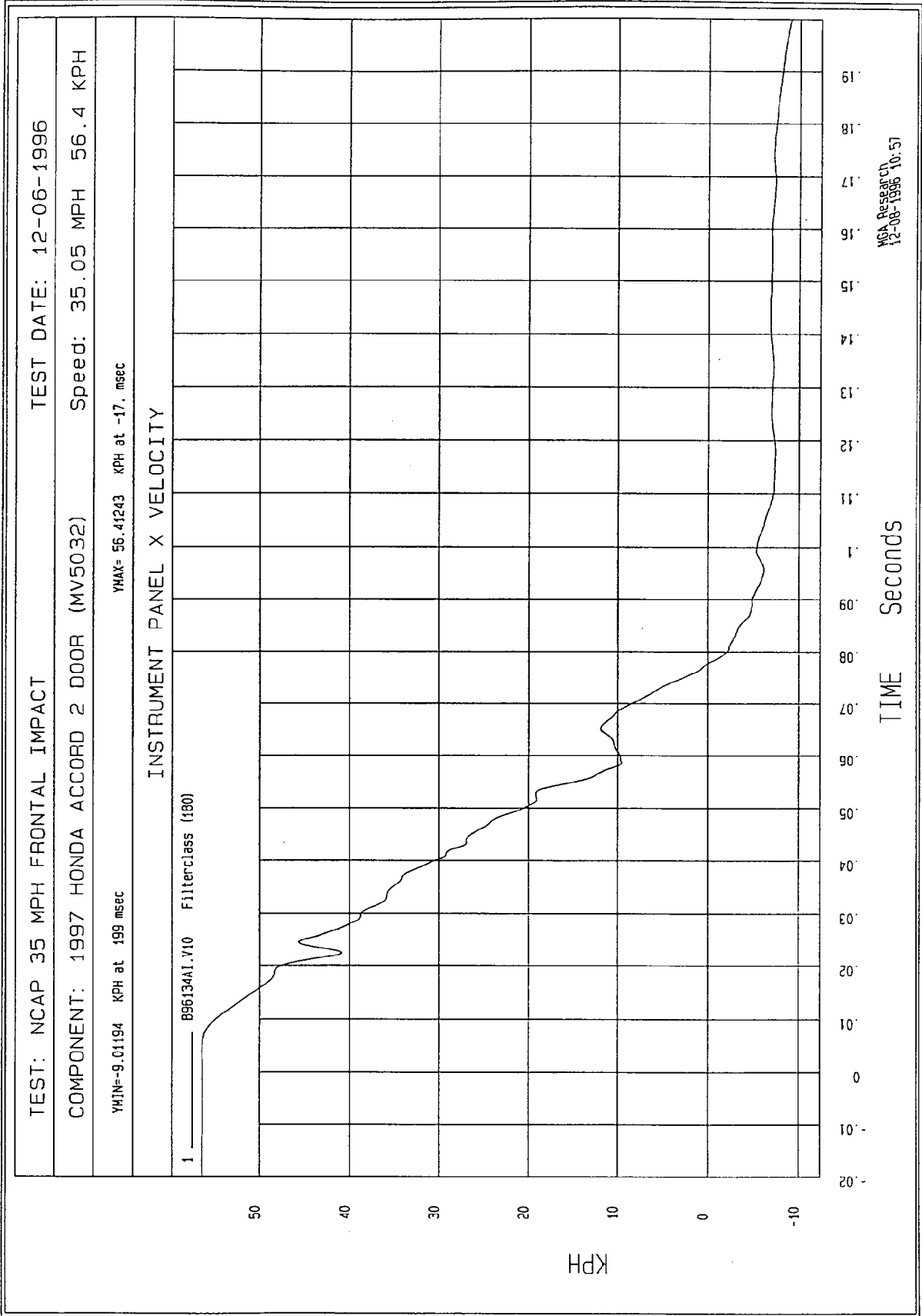


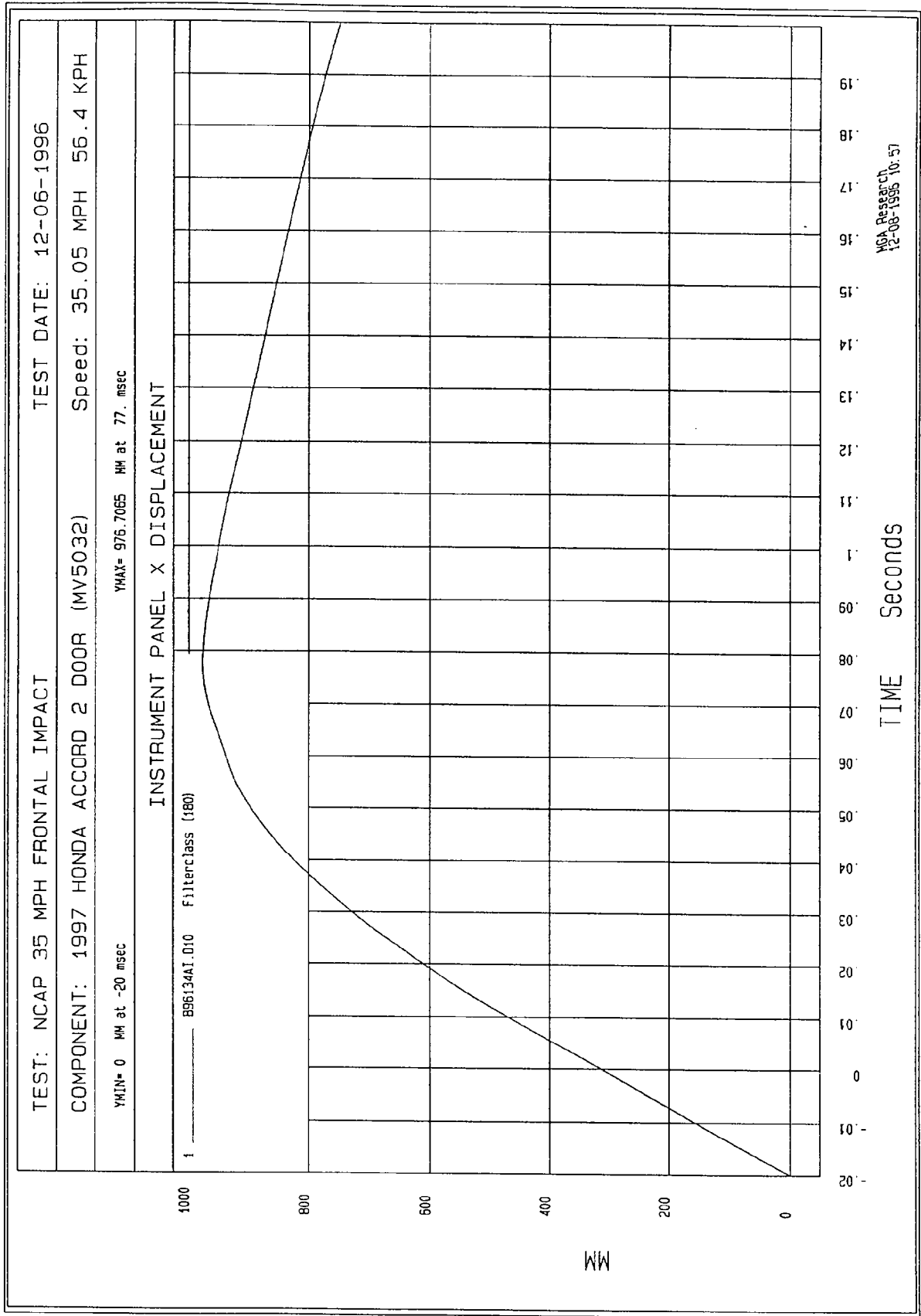










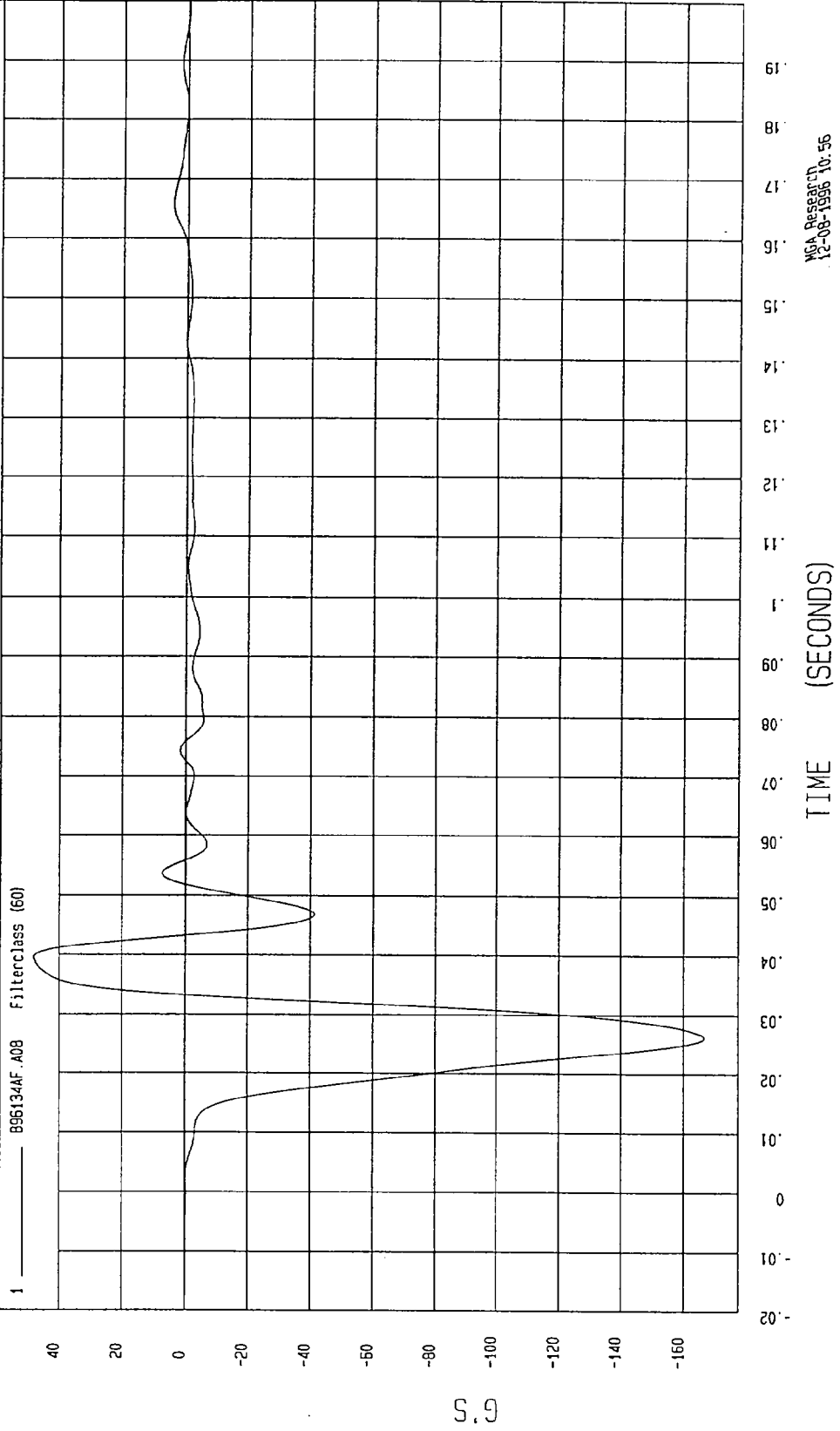


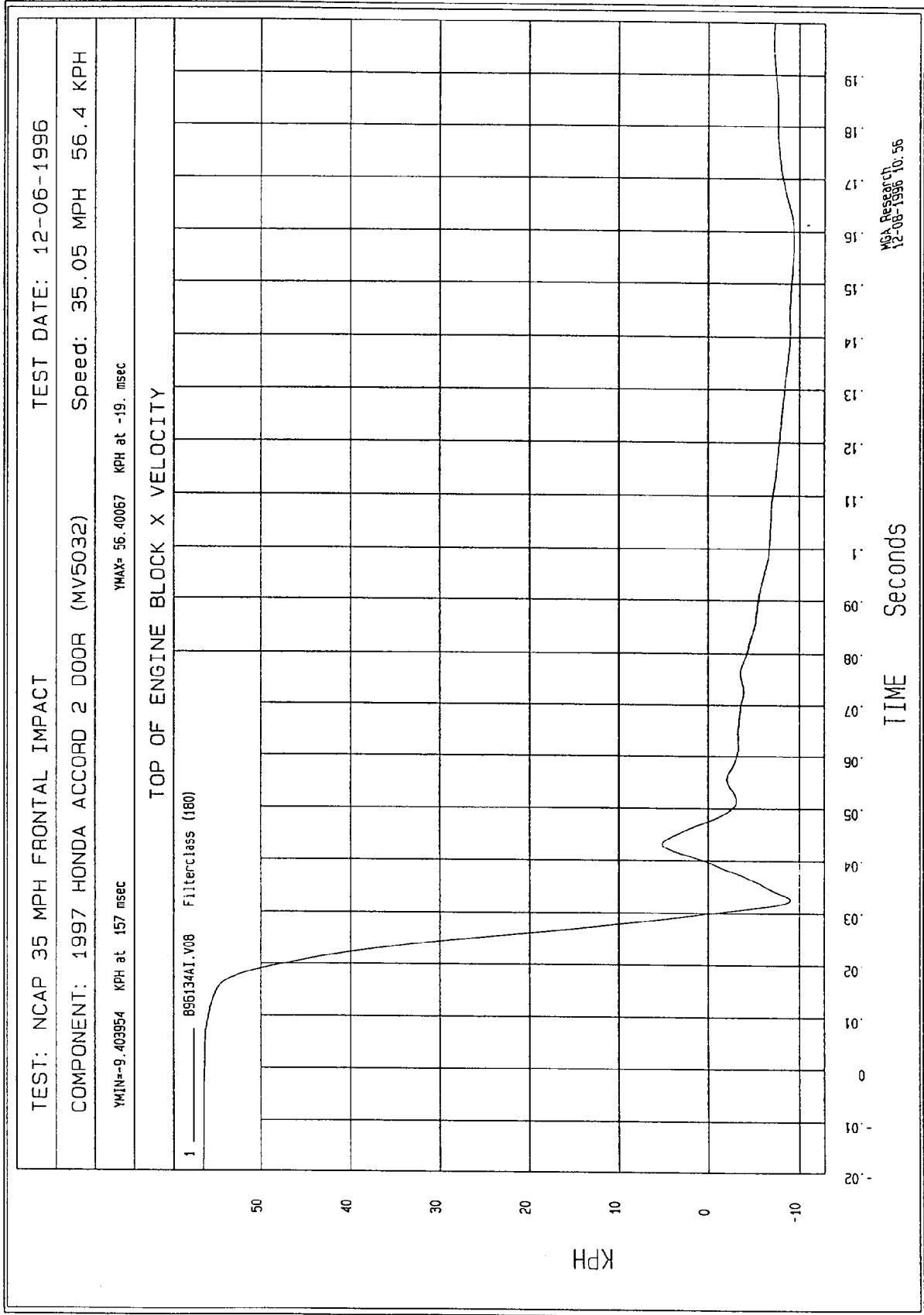
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-166.5376 G'S at 26. msec YMAX= 48.04537 G'S at 39. msec

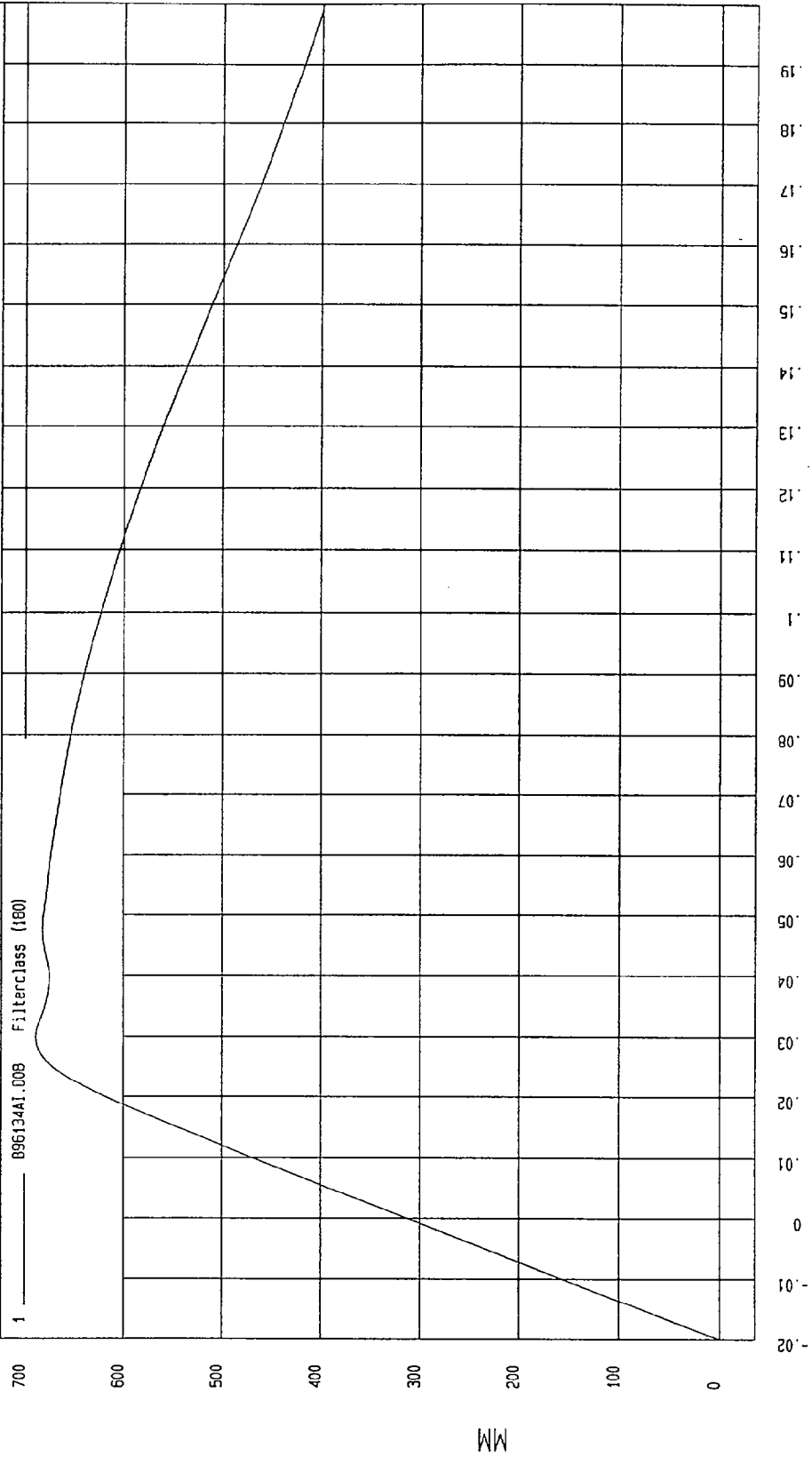
TOP OF ENGINE BLOCK X ACCELERATION



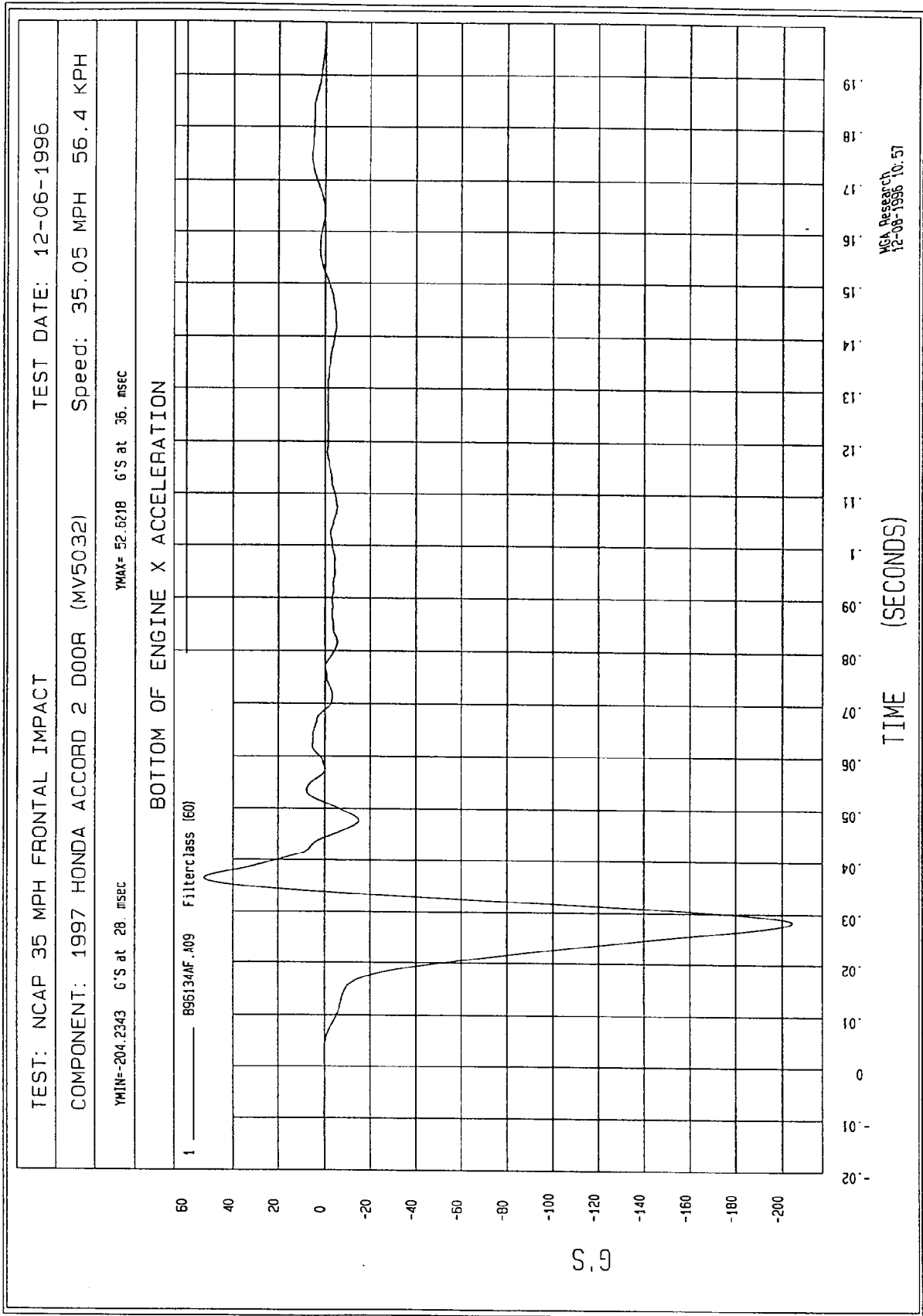


TEST: NCAP 35 MPH FRONTAL IMPACT	TEST DATE: 12-06-1996
COMPONENT: 1997 HONDA ACCORD 2 D00R (MV5032)	Speed: 35.05 MPH 56.4 KPH
YMIN= 0 MM at -20 msec	YMAX= 689.3364 MM at 29. msec

TOP OF ENGINE BLOCK X DISPLACEMENT



MOA Research
12-08-1996 10:57



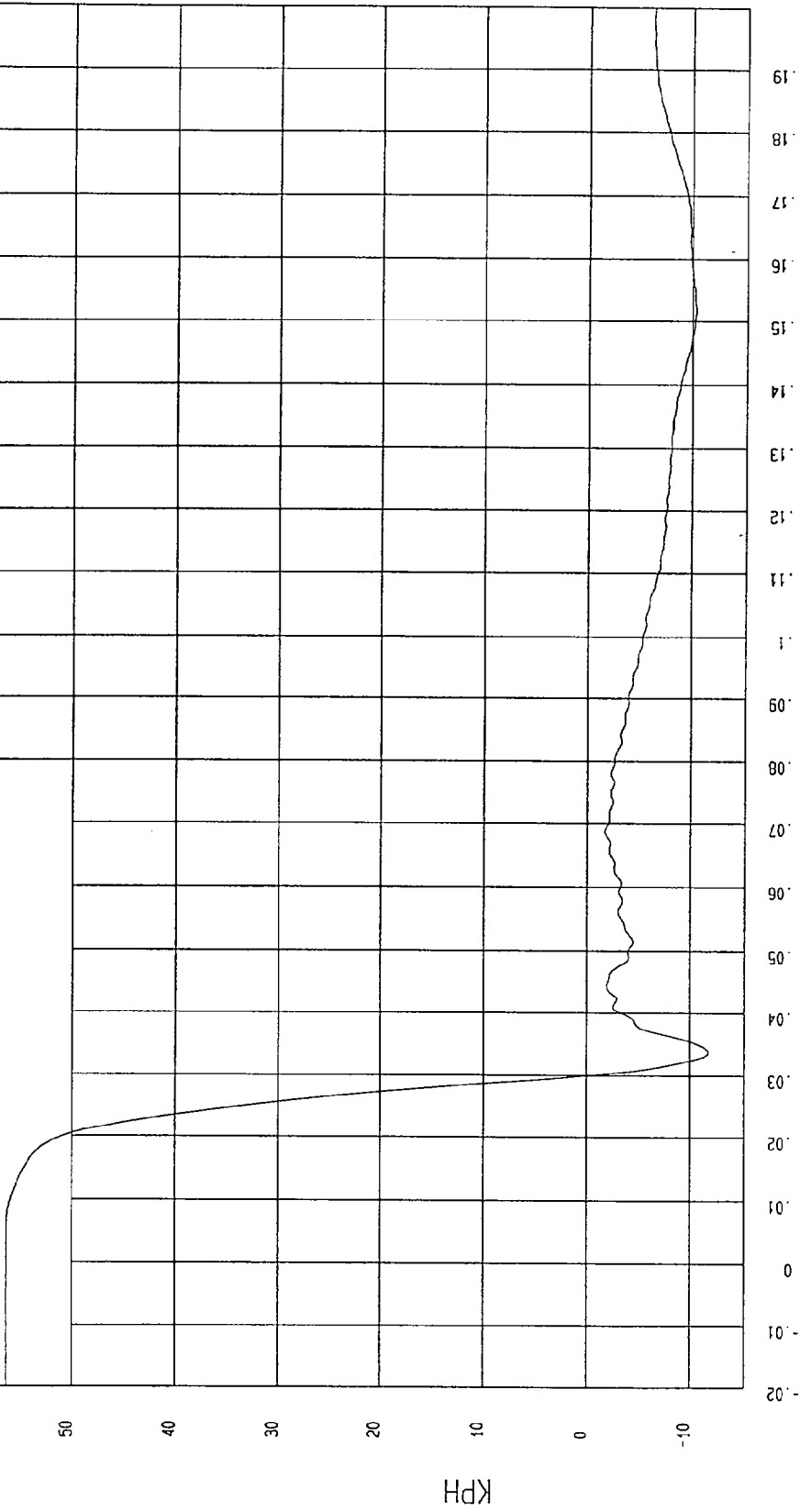
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 55.4 KPH

YMIN=-11.81072 KPH at 33. msec YMAX= 56.40221 KPH at -5.2 msec

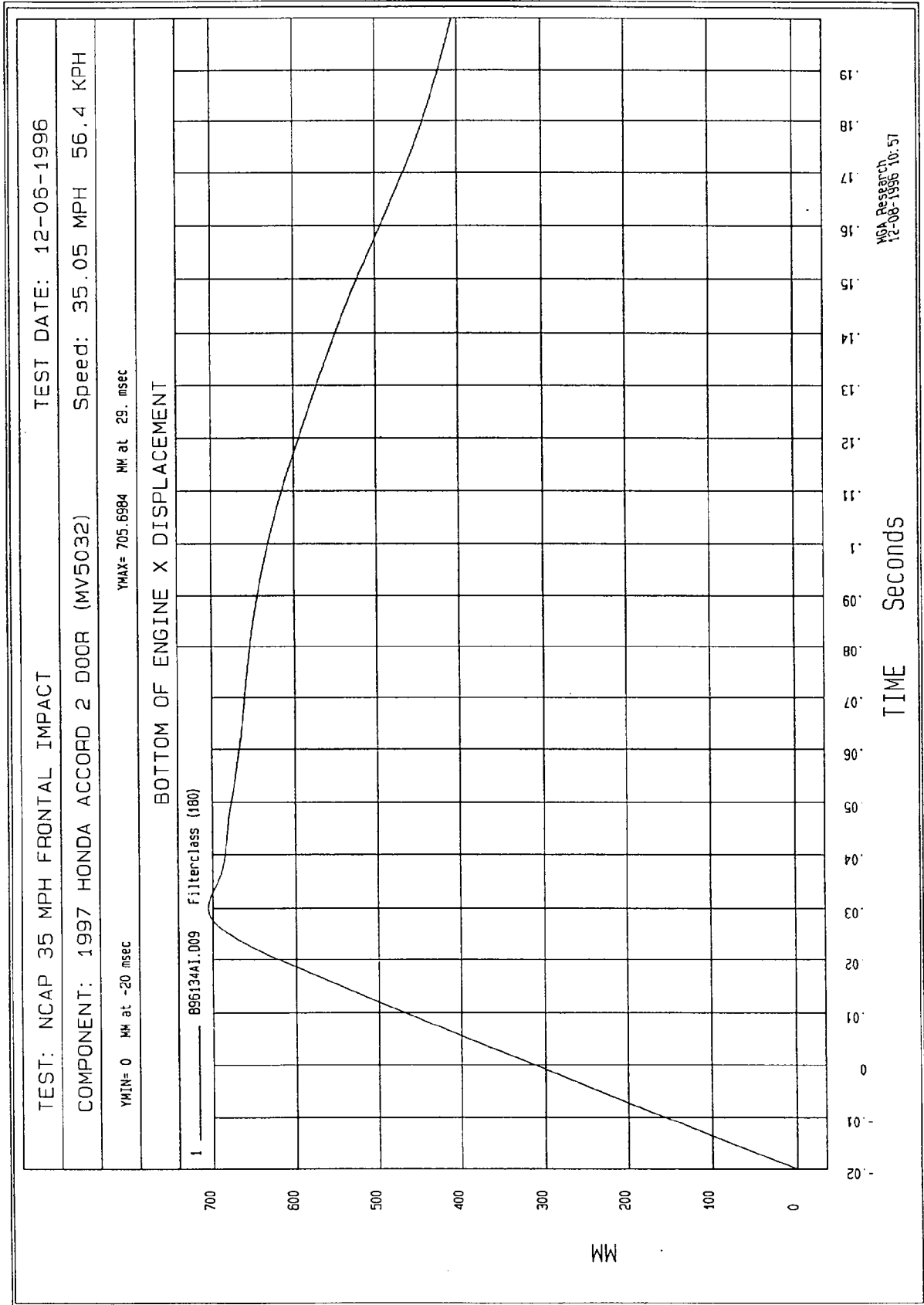
BOTTOM OF ENGINE X VELOCITY

1 ——— B96134A1.V09 Filterclass (180)



MCA Research
12-06-1996 10:57

TIME Seconds

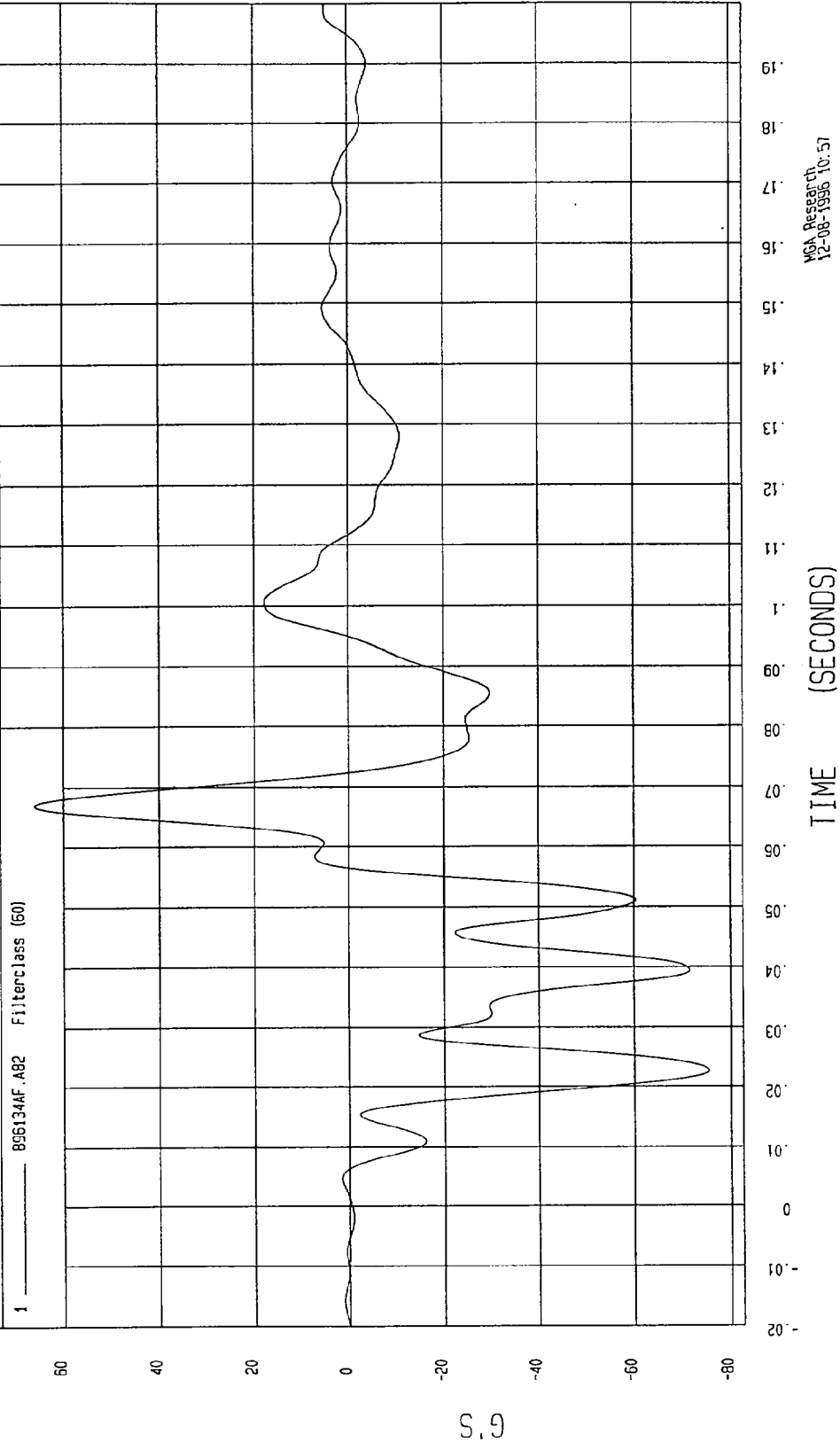


TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

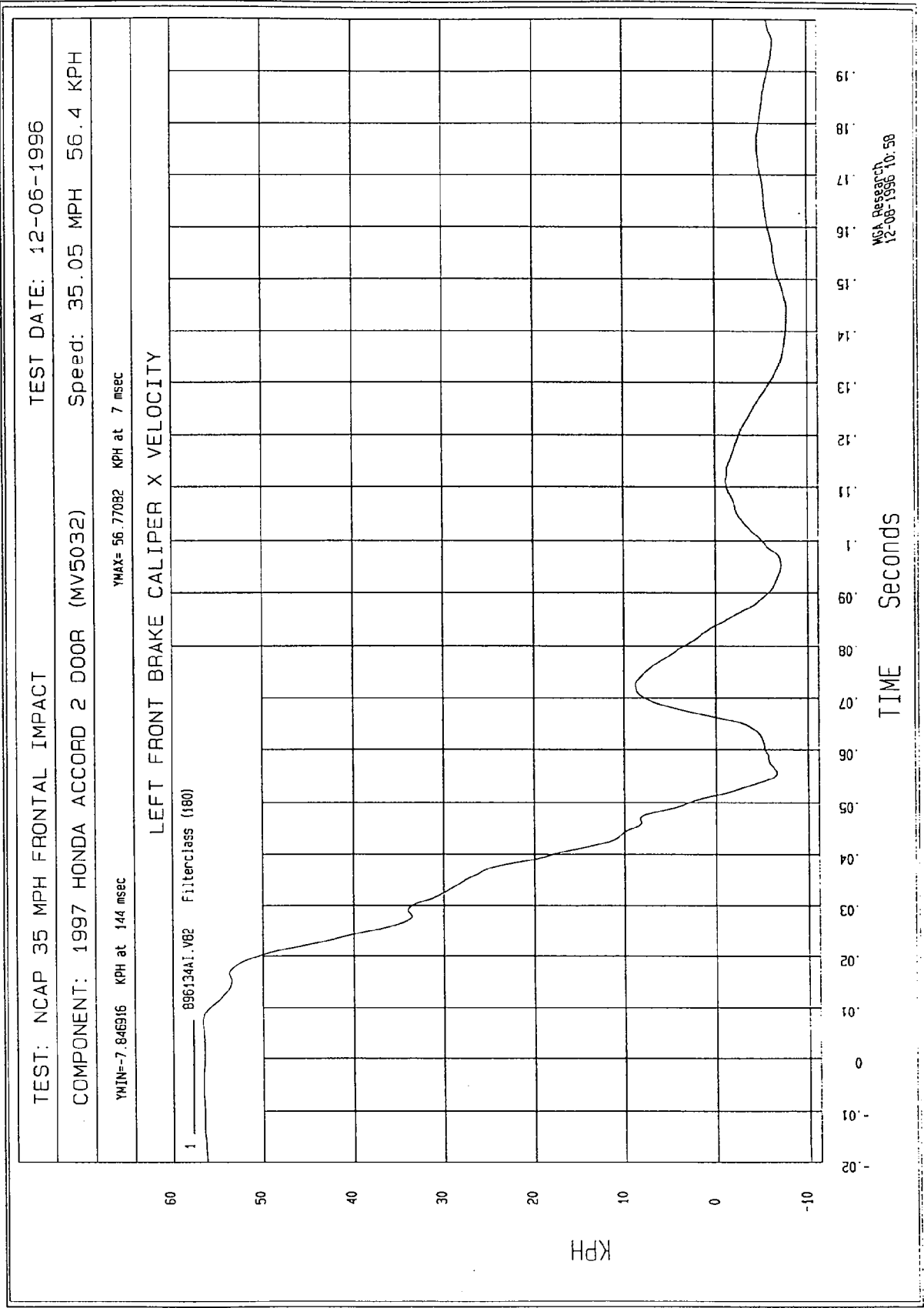
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

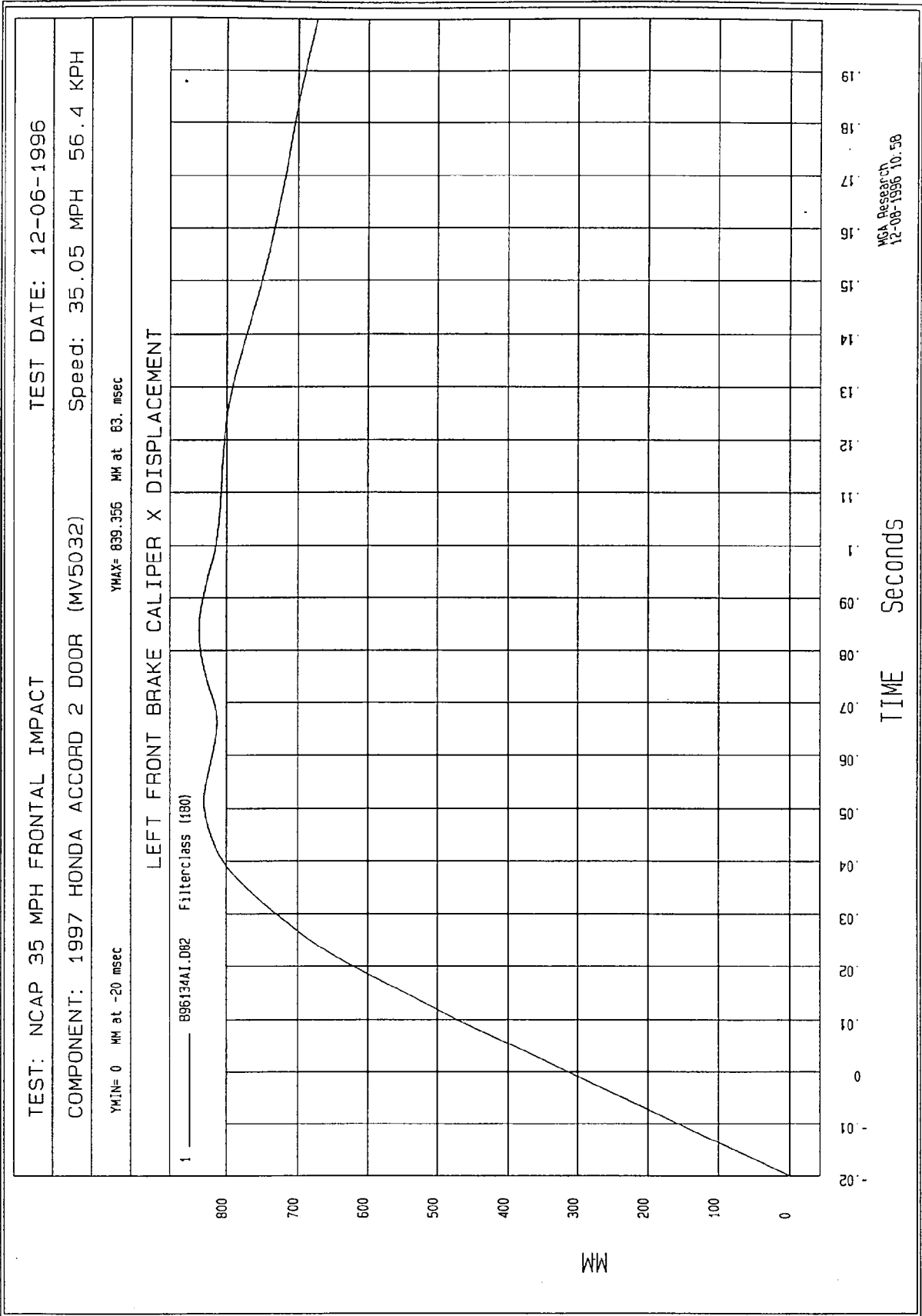
YMIN=-75.4966 6'S at 22 msec YMAX= 56.05768 6'S at 67 msec

LEFT FRONT BRAKE CALIPER X ACCELERATION



MCA Research
12-08-1996 10:57





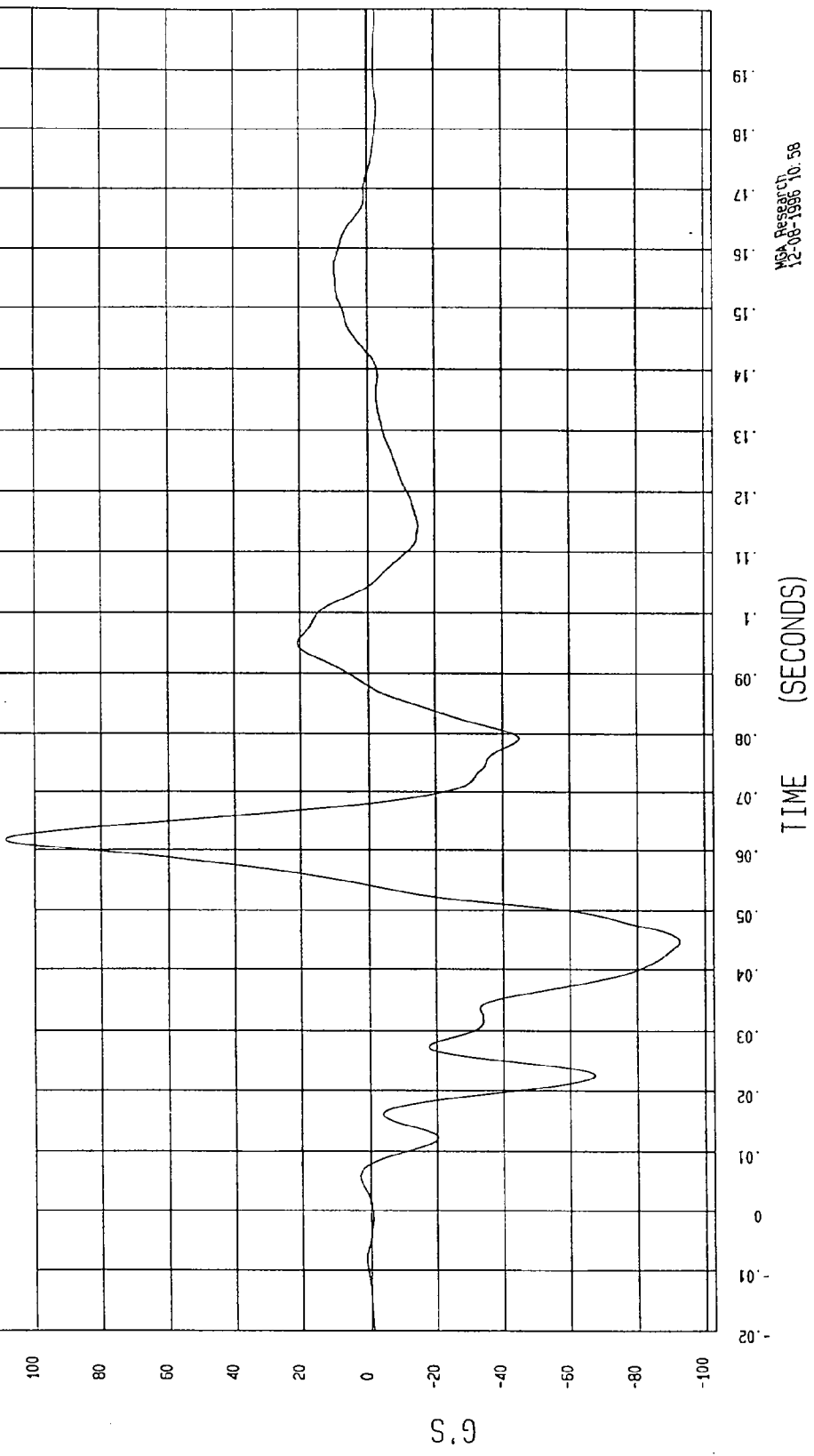
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-92.50652 G'S at 44. msec YMAX= 108.6409 G'S at 61. msec

RIGHT FRONT BRAKE CALIPER X ACCELERATION

1 B96134AF.AB1 Filterclass (60)



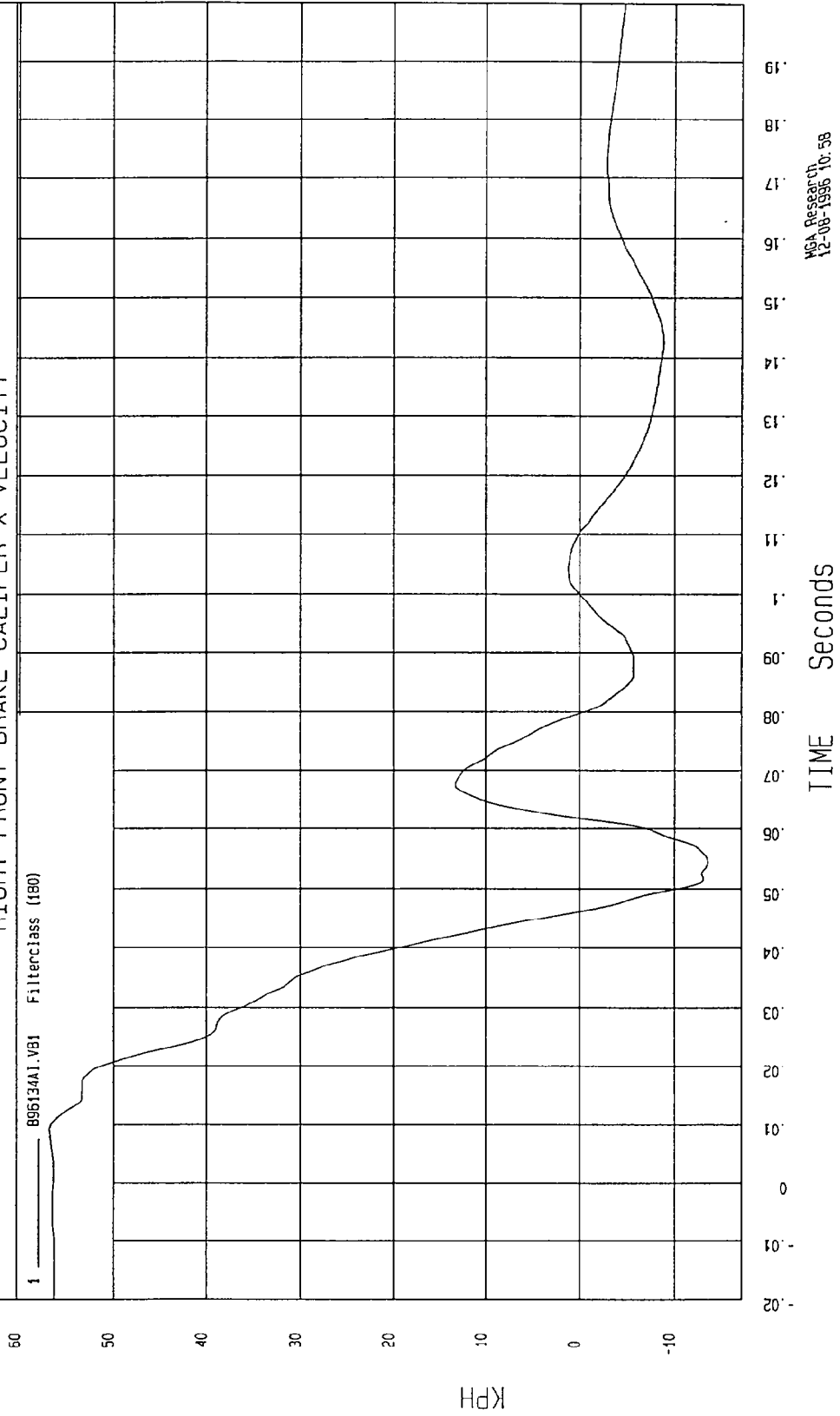
MSA Research
12-06-1996 10:58

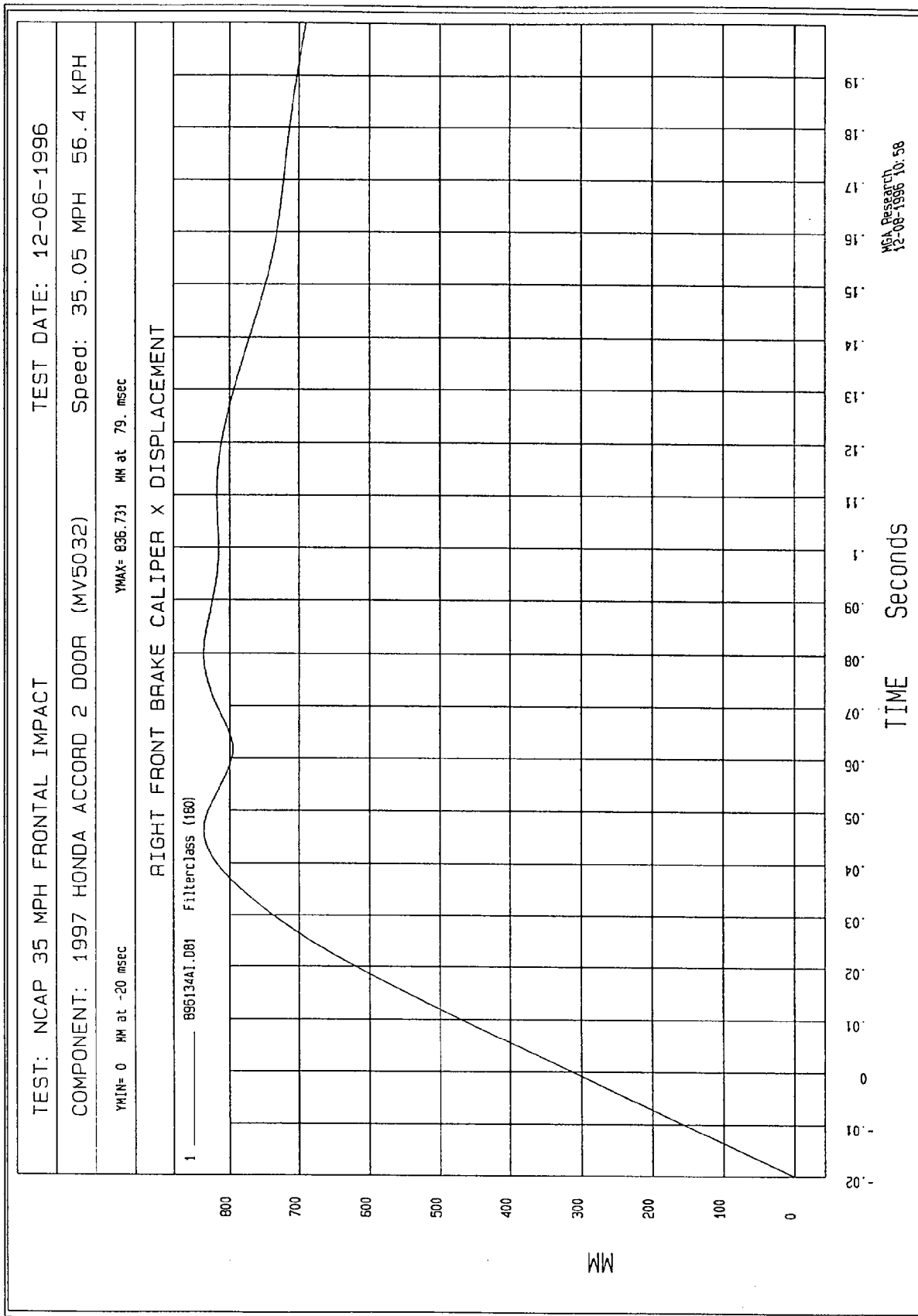
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-13.5472 KPH at 54. msec YMAX= 56.02882 KPH at 9.1 msec

RIGHT FRONT BRAKE CALIPER X VELOCITY



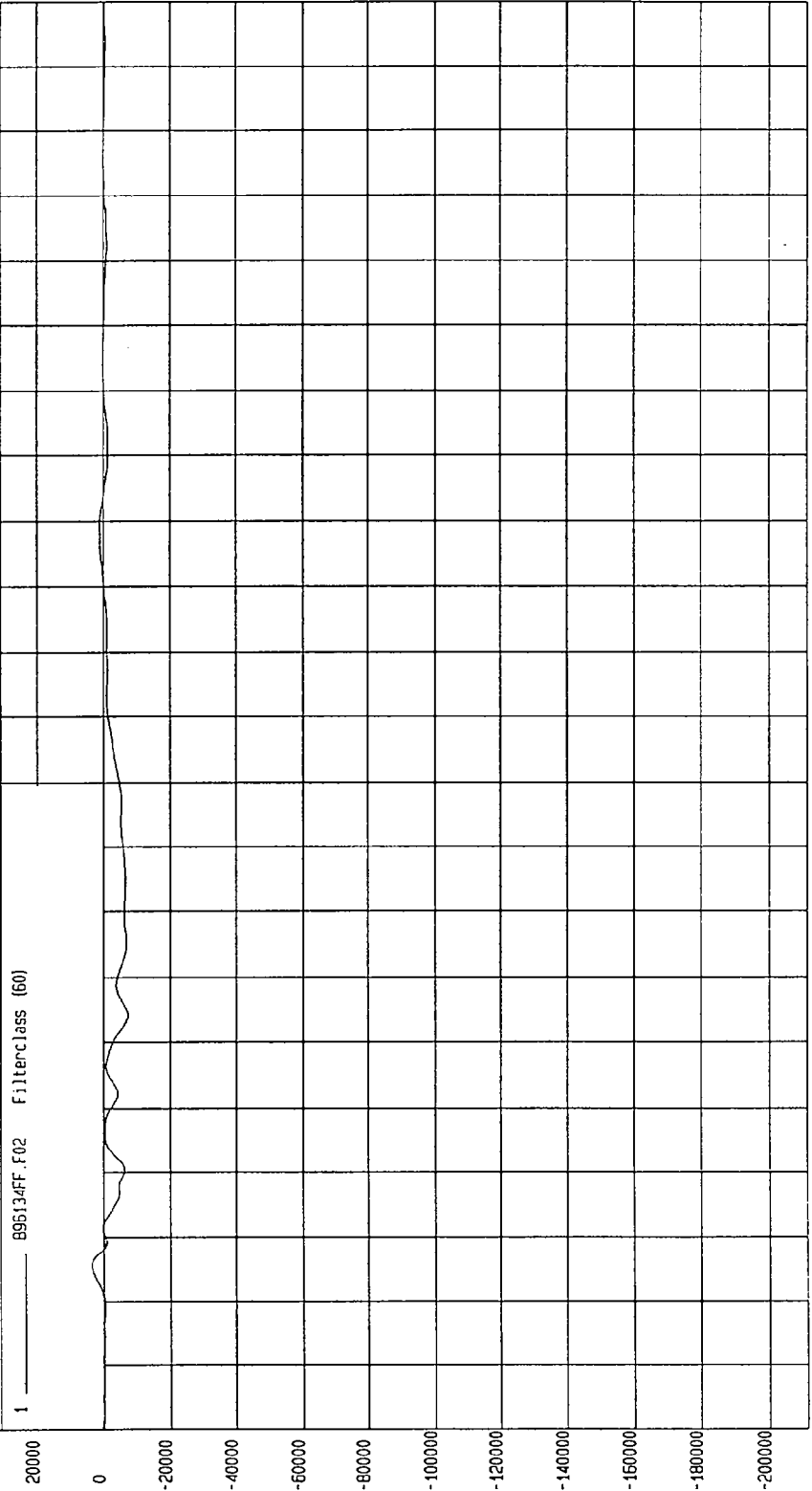


TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 D00R (MV5032) Speed: 35.05 MPH 56.4 KPH

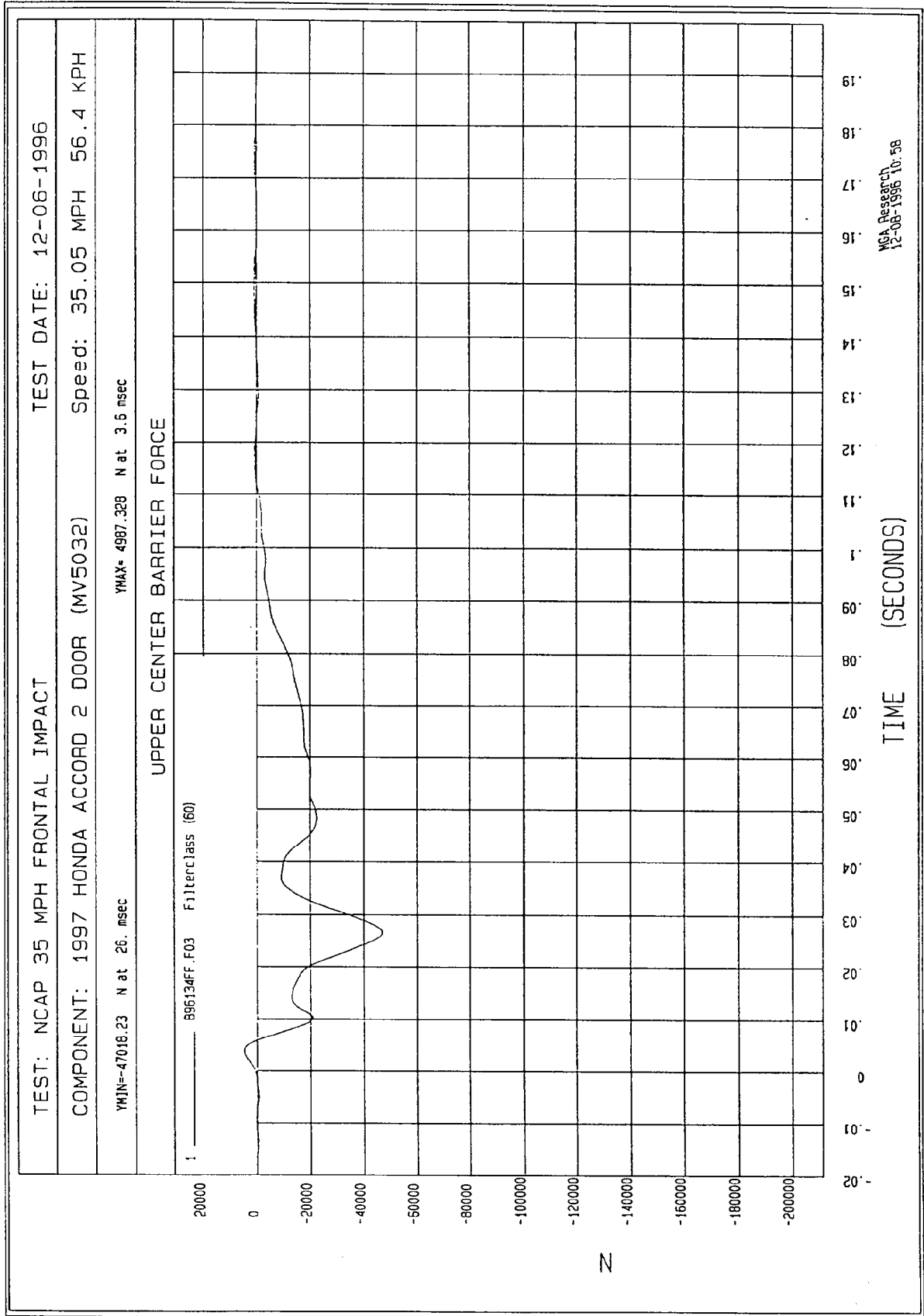
YMIN=-7319.031 N at 44. msec YMAX= 3767.079 N at 5.5 msec

UPPER LEFT BARRIER FORCE



TIME (SECONDS)

MSA Research
12-08-1996 10:58

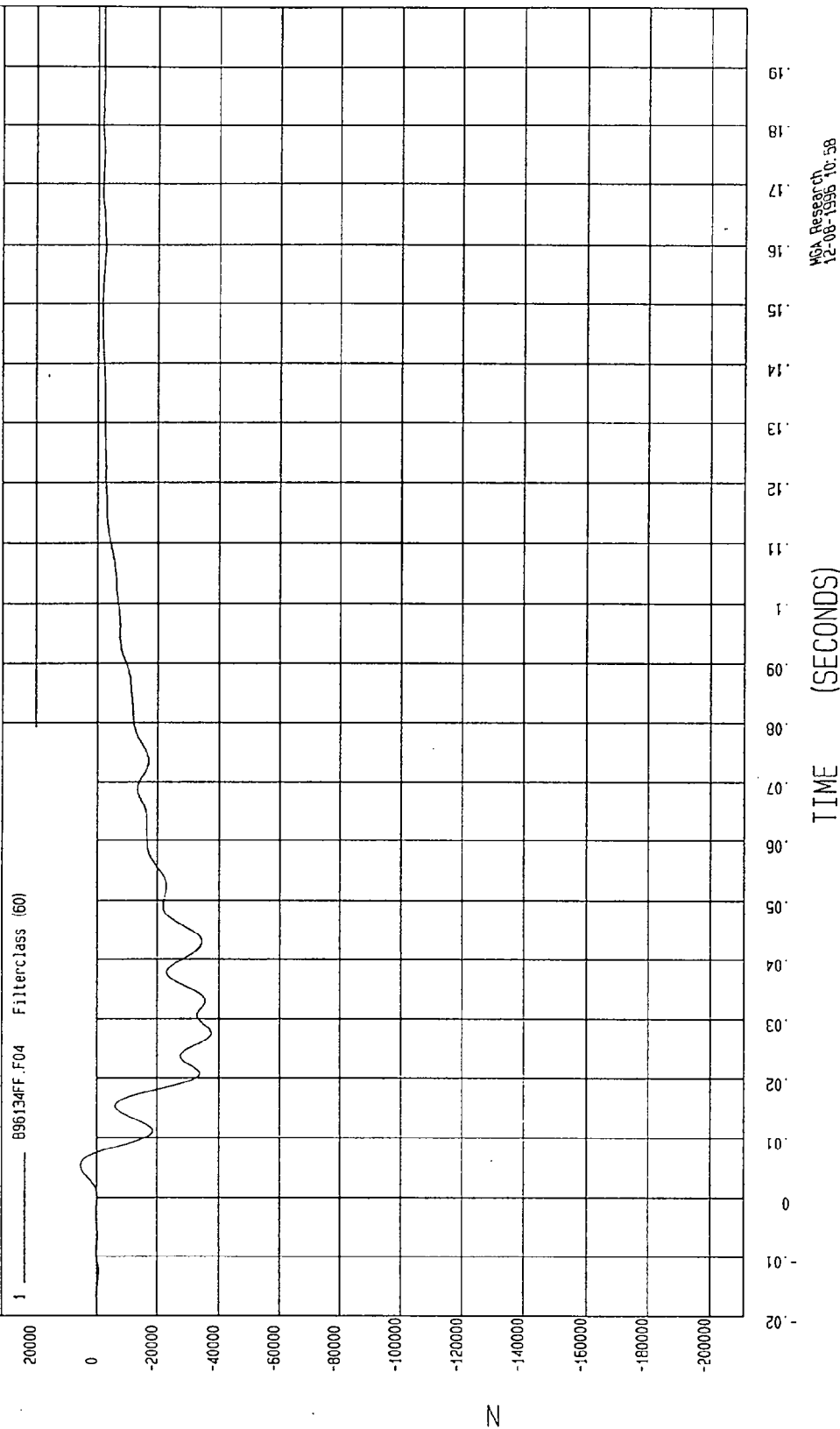


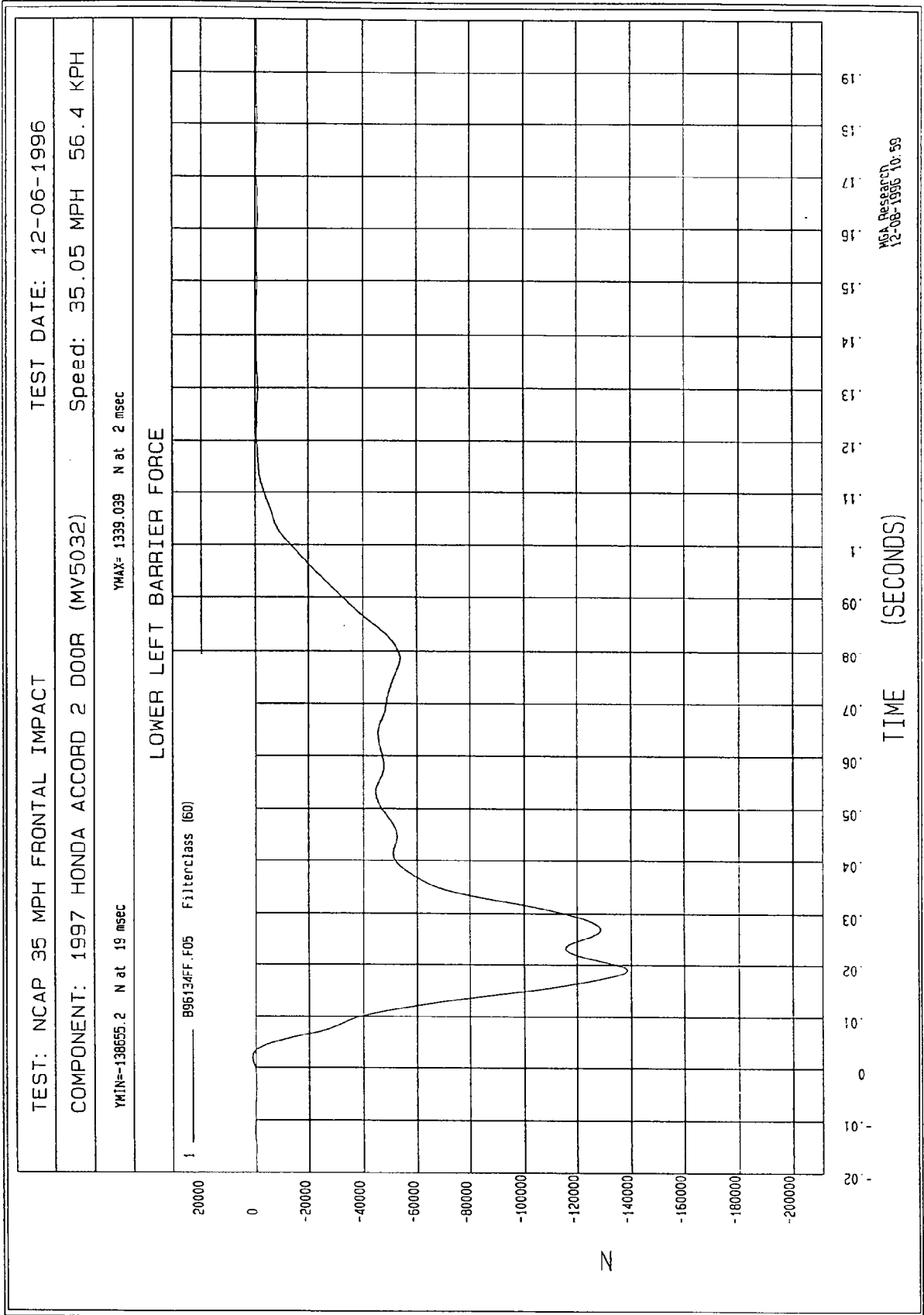
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-37444.25 N at 27. msec YMAX= 5380.586 N at 5.2 msec

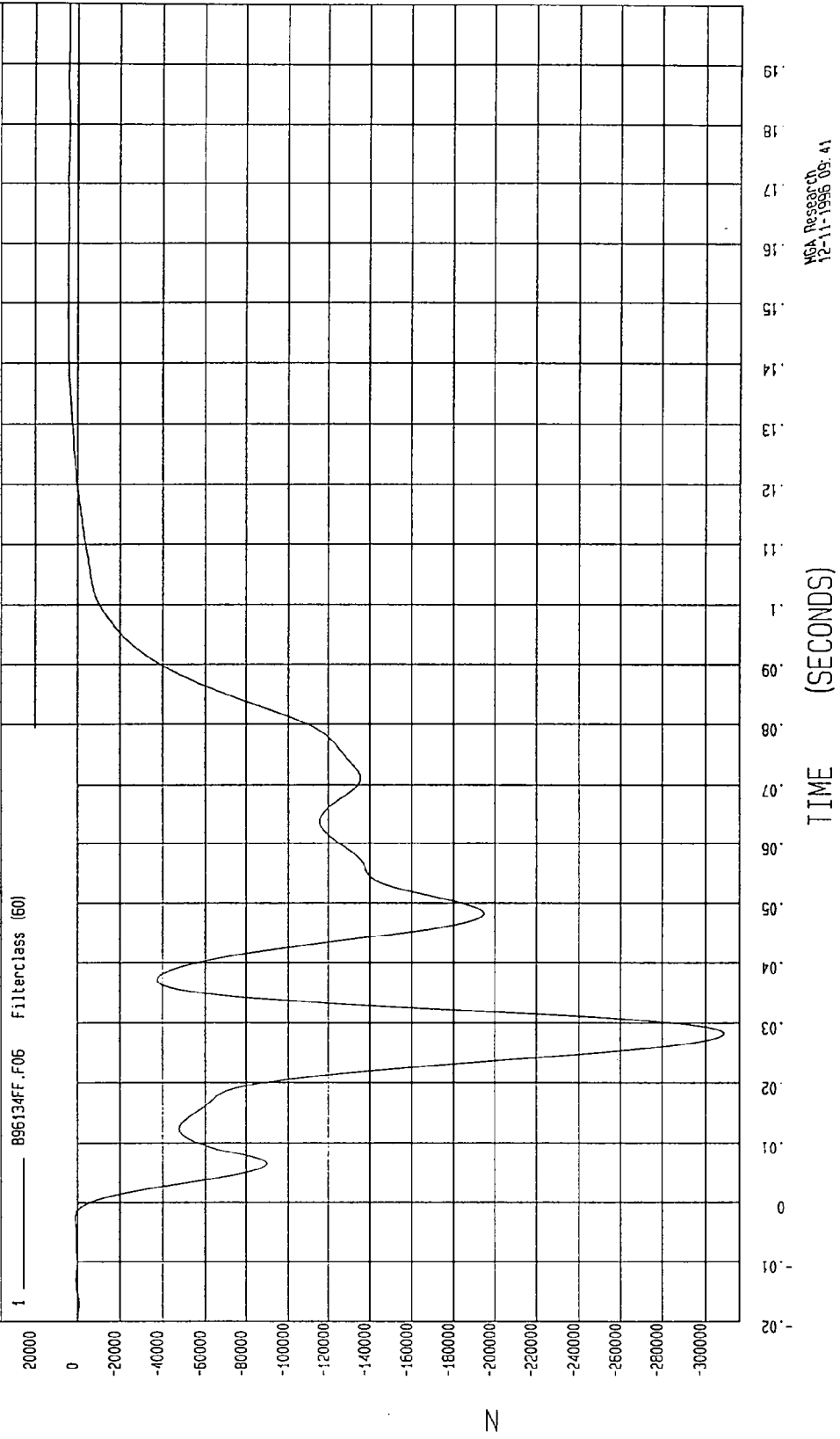
UPPER RIGHT BARRIER FORCE

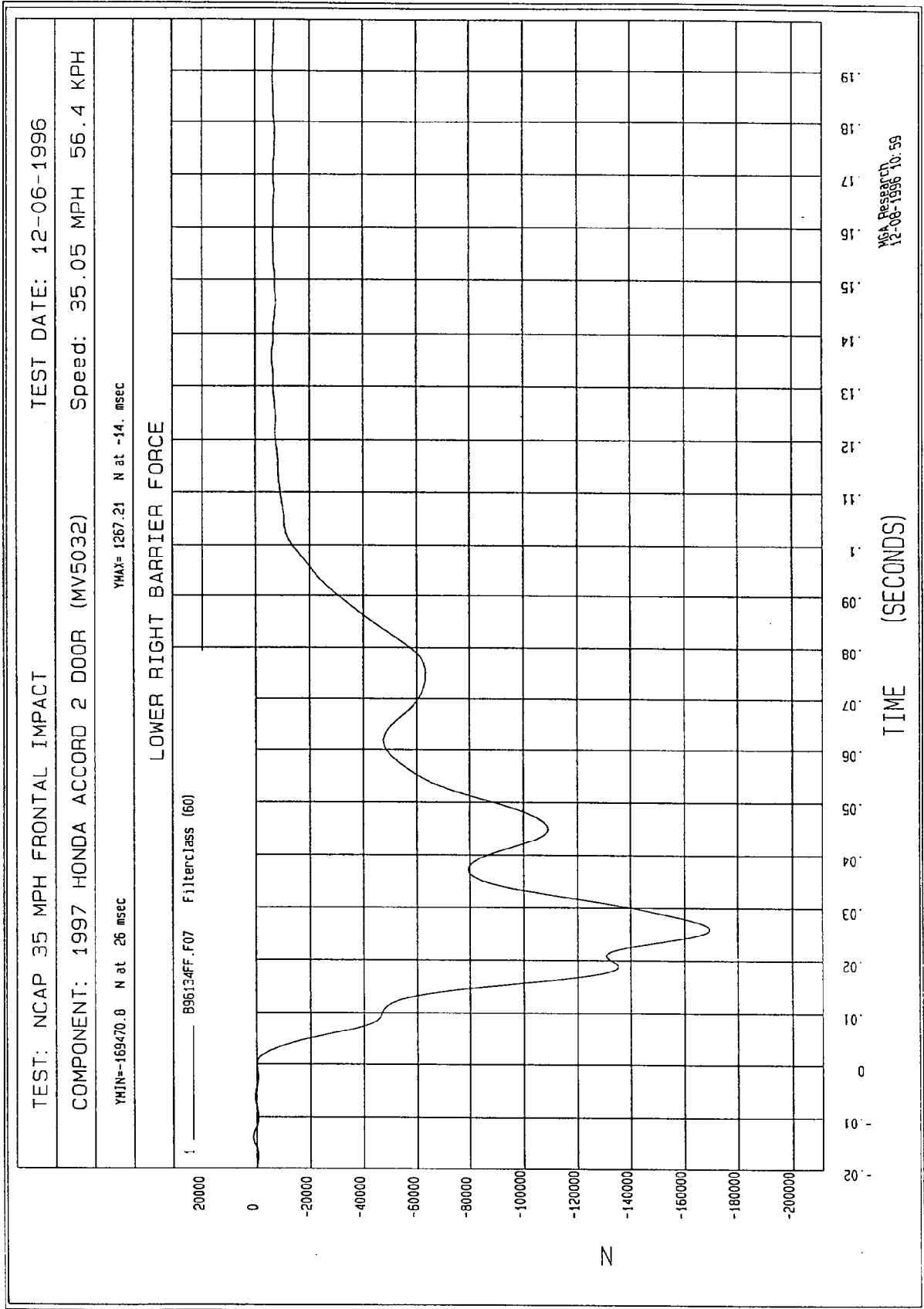




TEST: NCAP 35 MPH FRONTAL IMPACT	TEST DATE: 12-06-1996
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032)	Speed: 35.05 MPH 56.4 KPH
YMIN=-308540 N at 28. msec	YMAX= 4583 256 N at 153 msec

LOWER CENTER BARRIER FORCE





TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

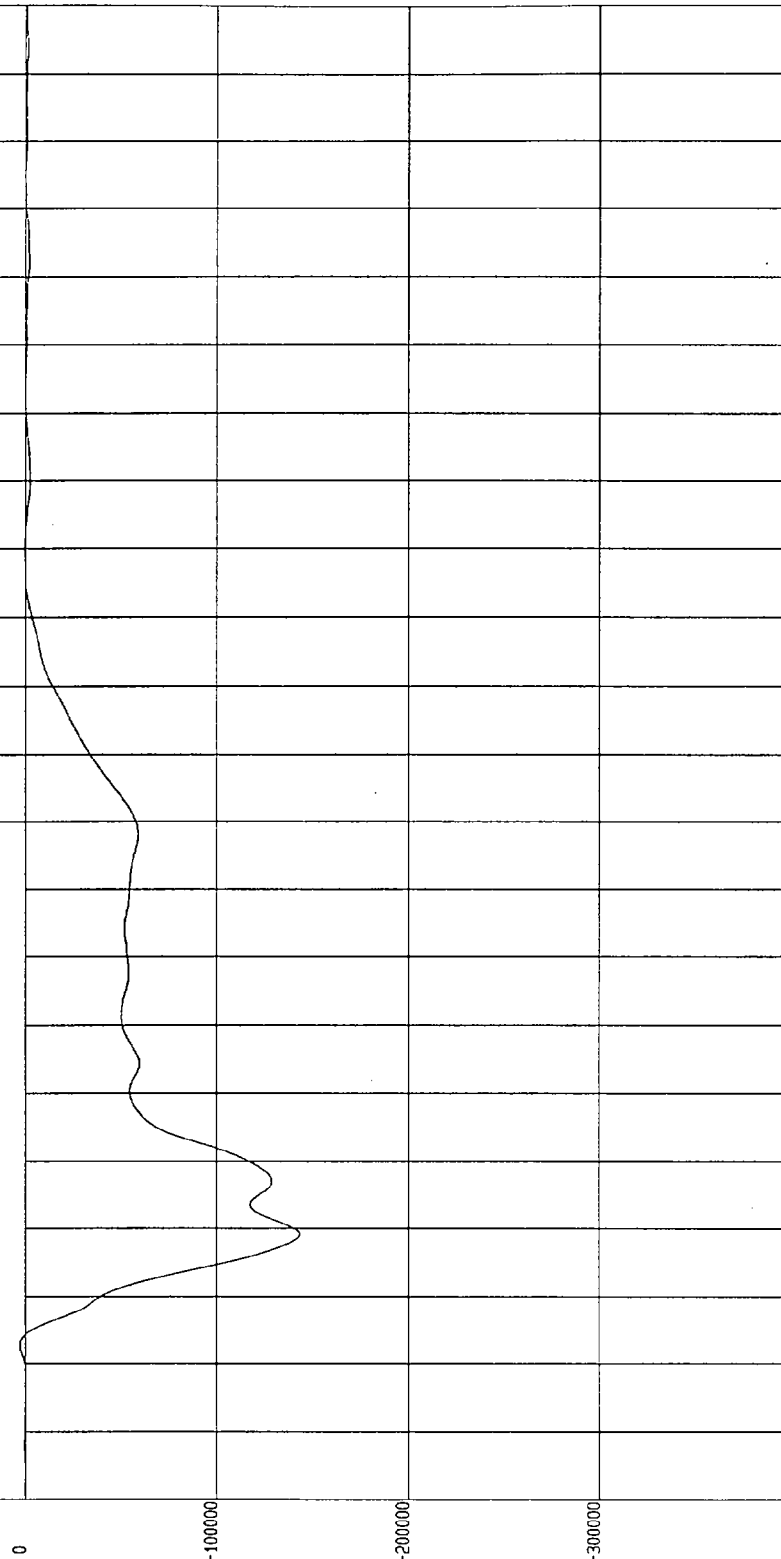
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-143921.3 N at 19. msec

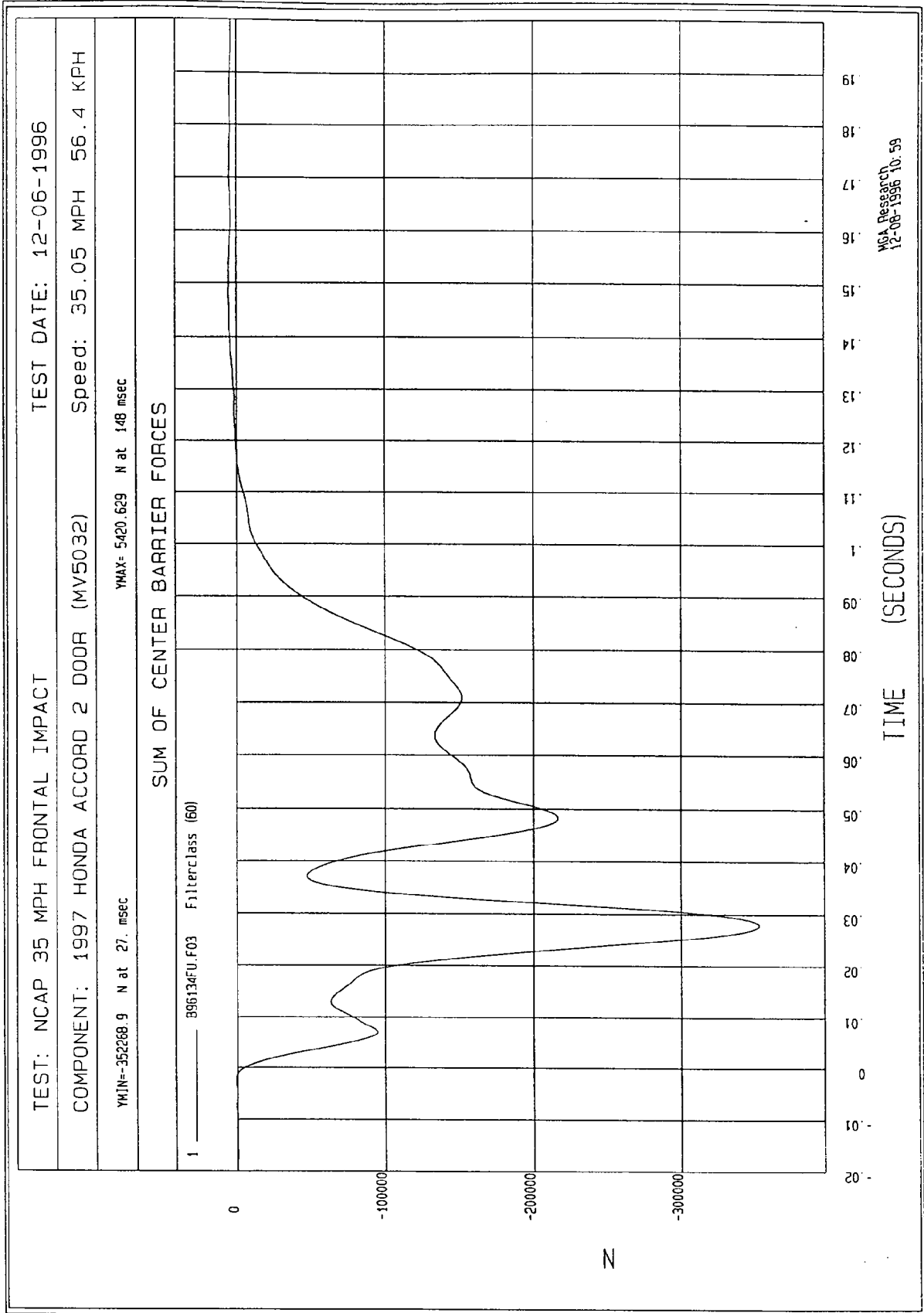
YMAX= 2632.668 N at 2.7 msec

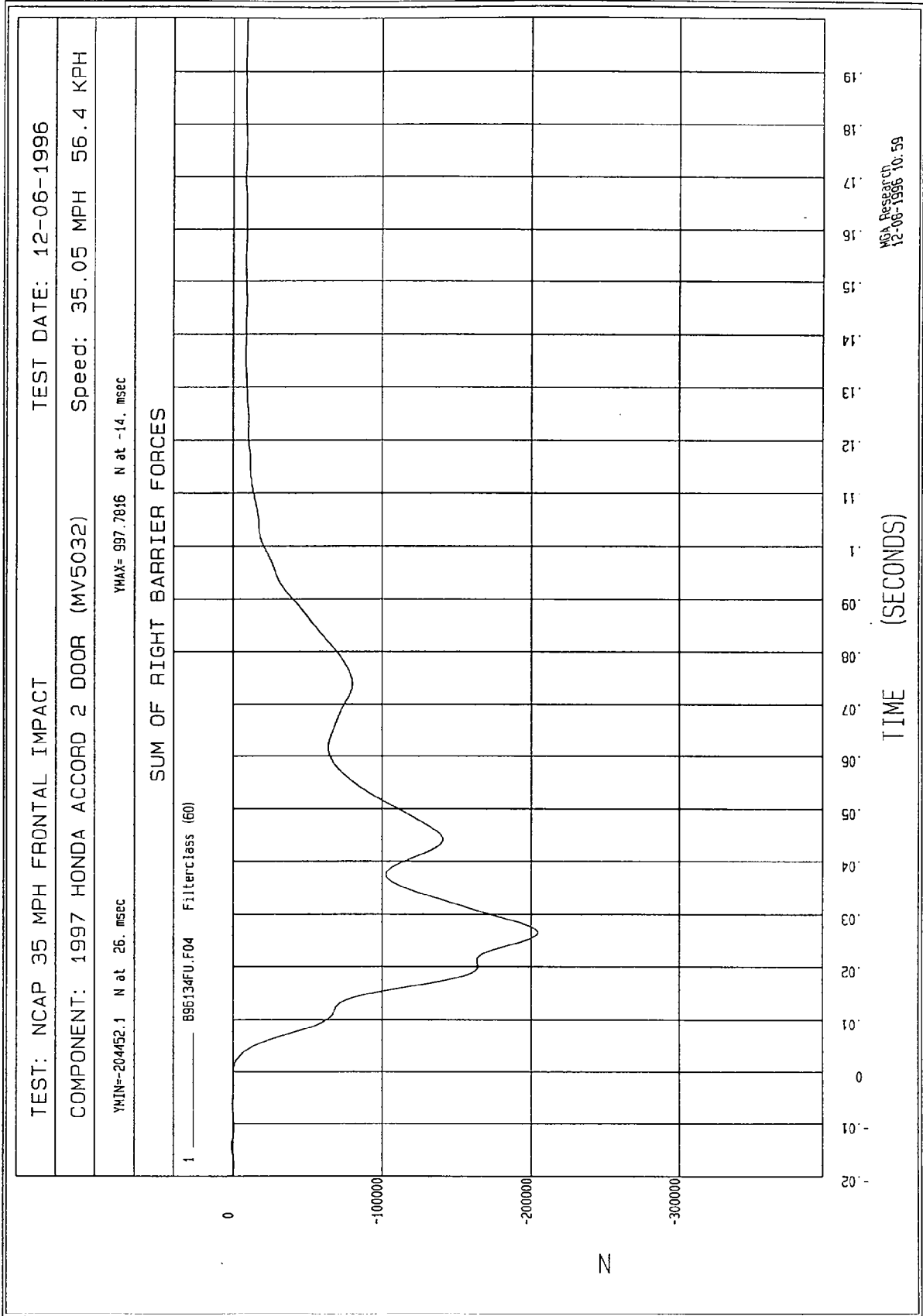
SUM OF LEFT BARRIER FORCES

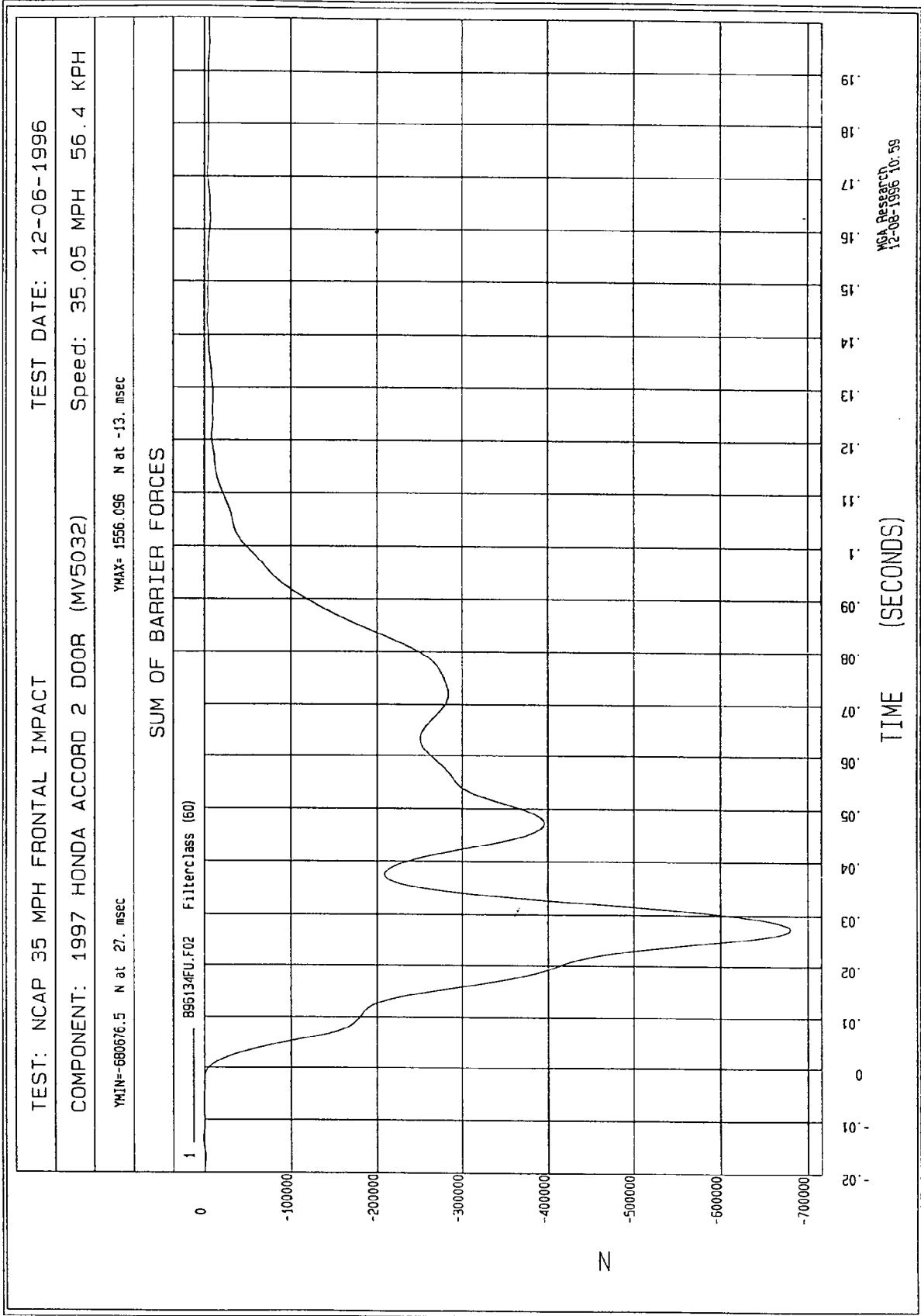
1 896134U.F02 Filterclass (60)



MCA Research
12-06-1996 10:59





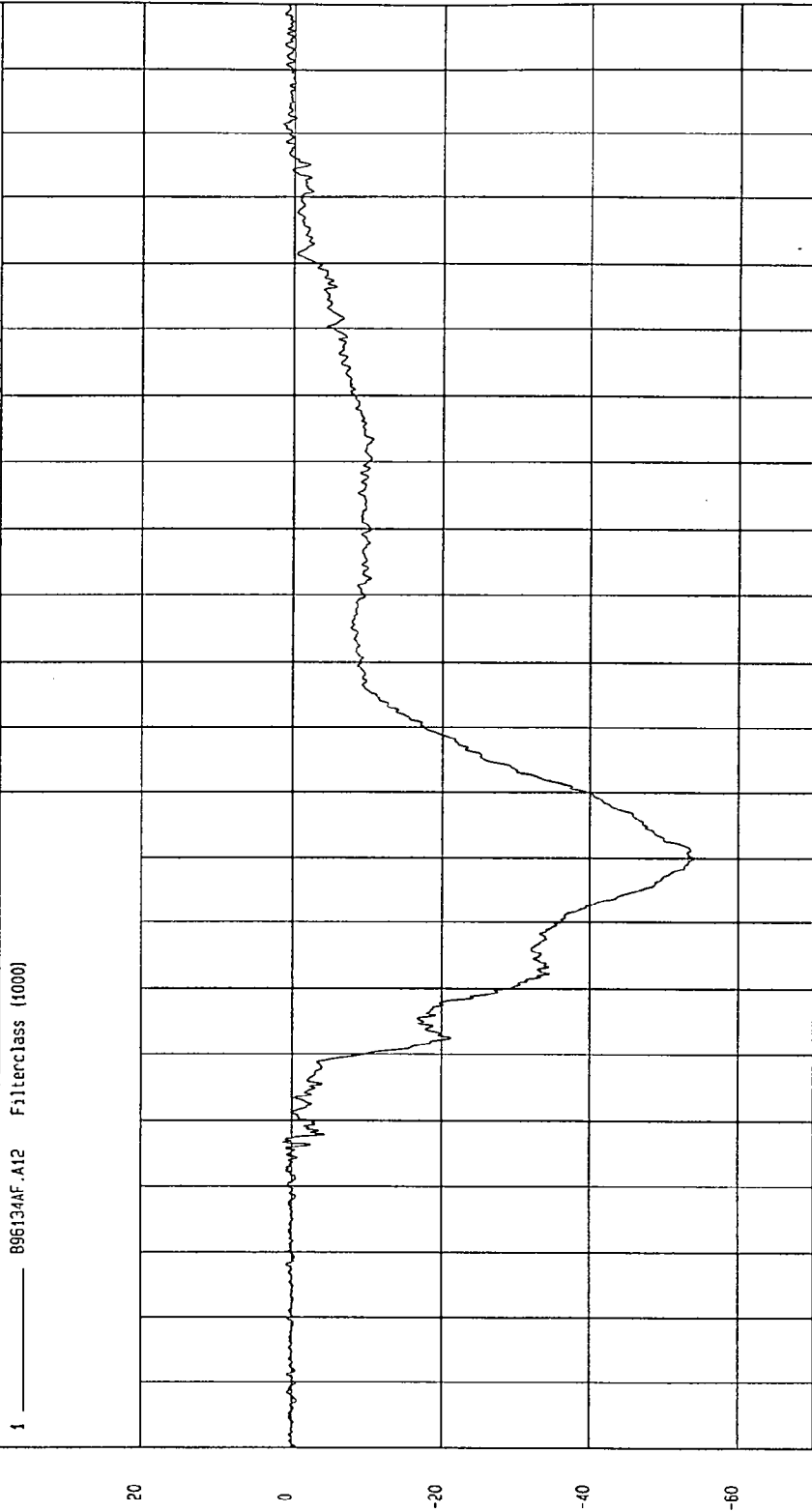


TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

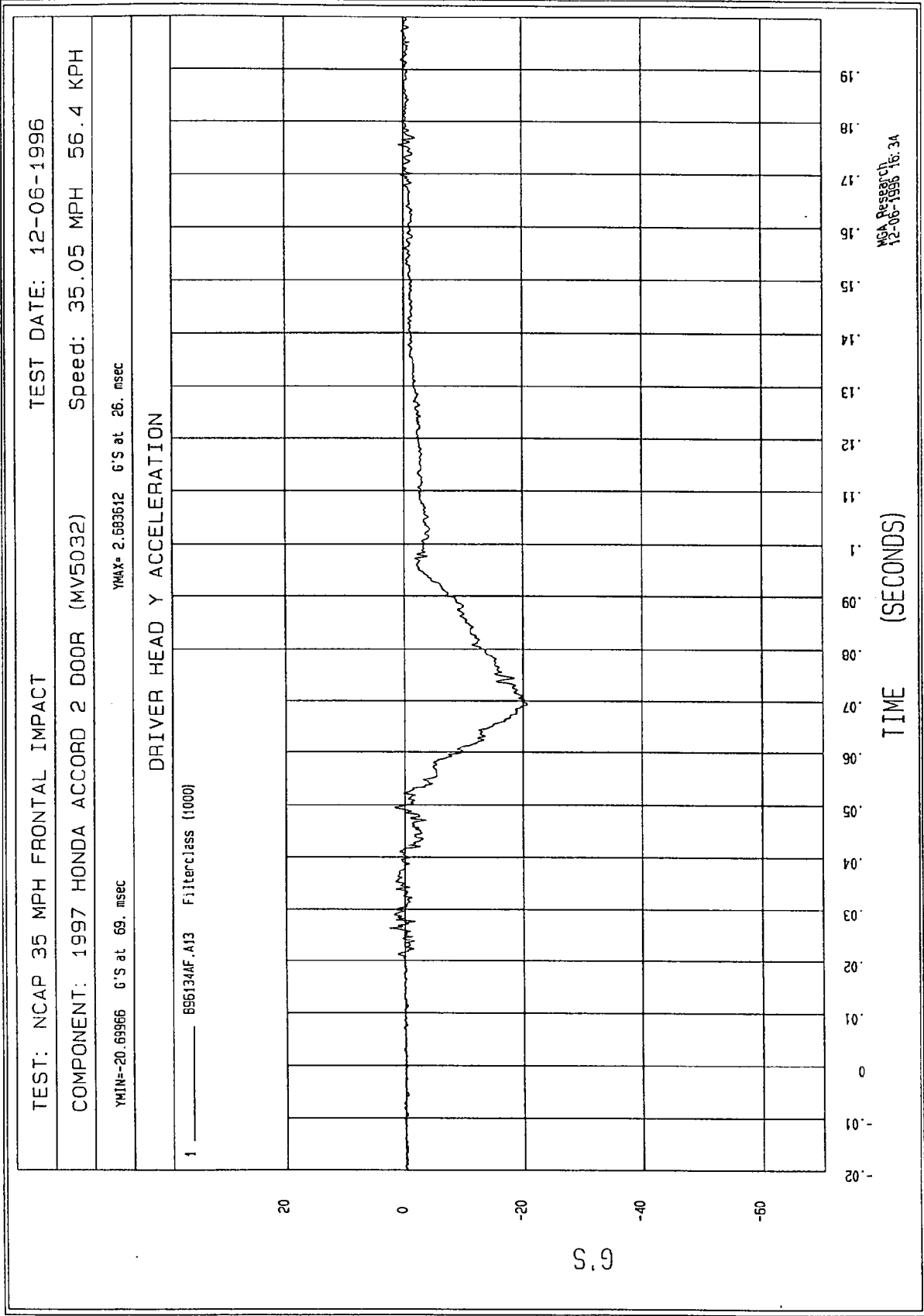
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-54.11264 G'S at 70 msec YMAX= 1.53797 G'S at 181 msec

DRIVER HEAD X ACCELERATION



MCA Research
12-06-1996 16:34



TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-18.2553 G'S at 48 msec YMAX= 6.236039 G'S at 79 msec

DRIVER HEAD Z ACCELERATION

1 _____ B96134NF.A14 Filterclass (1000)

20

0

-20

-40

-60

G.S

20

10

0

10

20

30

40

50

60

70

80

90

100

110

120

130

140

150

160

170

180

190

TIME (SECONDS)

HGA Research
12-06-1996 16:34

TEST DATE: 12-06-1996

TEST: NCAP 35 MPH FRONTAL IMPACT

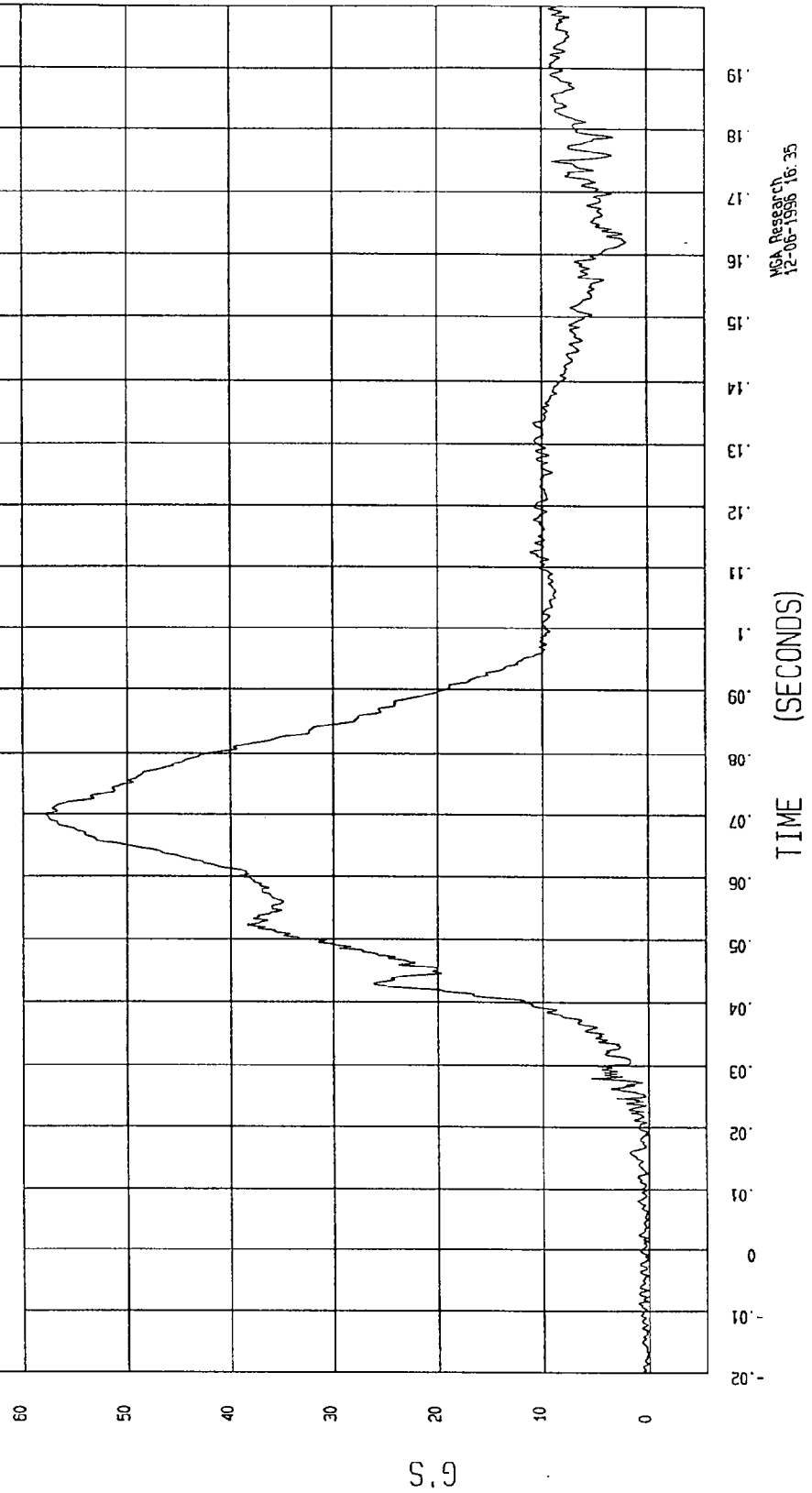
COMPONENT:	1997 HONDA ACCORD 2 DOOR (MV5032)	Speed:	35.05 MPH	56.4 KPH
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YMIN= 3.390579E-02 G'S at 6.2 msec

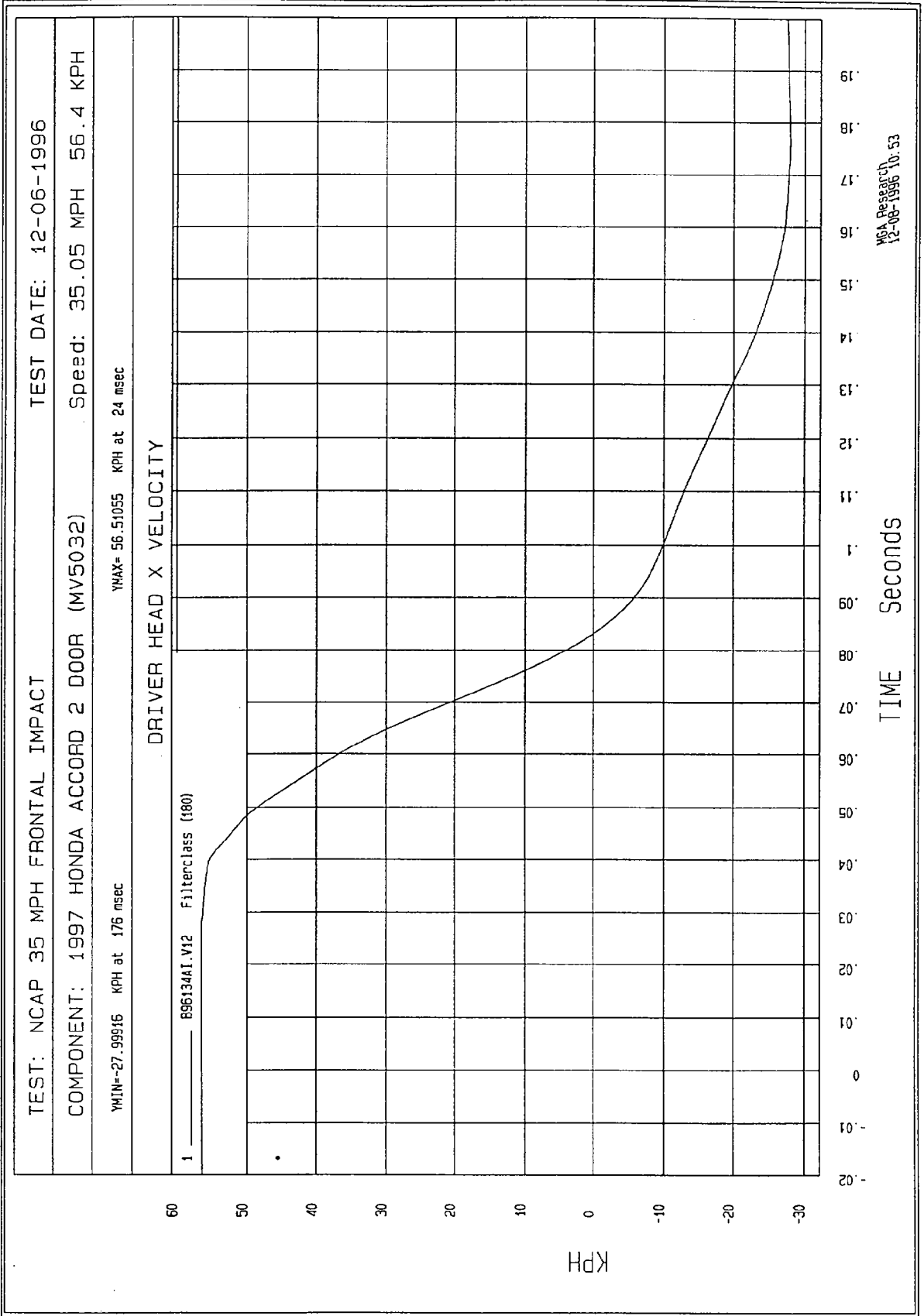
YMAX= 57.82946 G'S at 70 msec

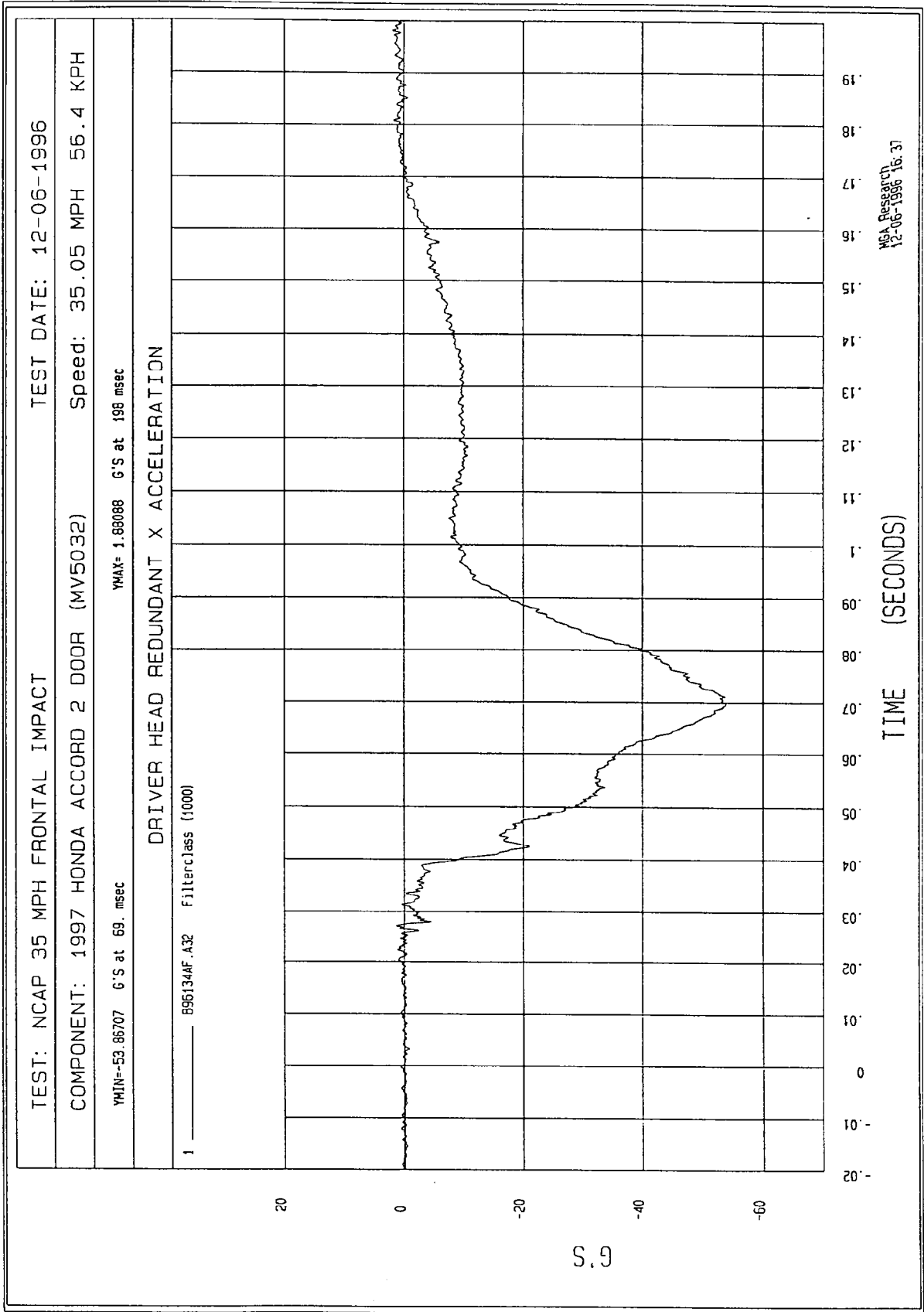
DRIVER HEAD RESULTANT ACCELERATION

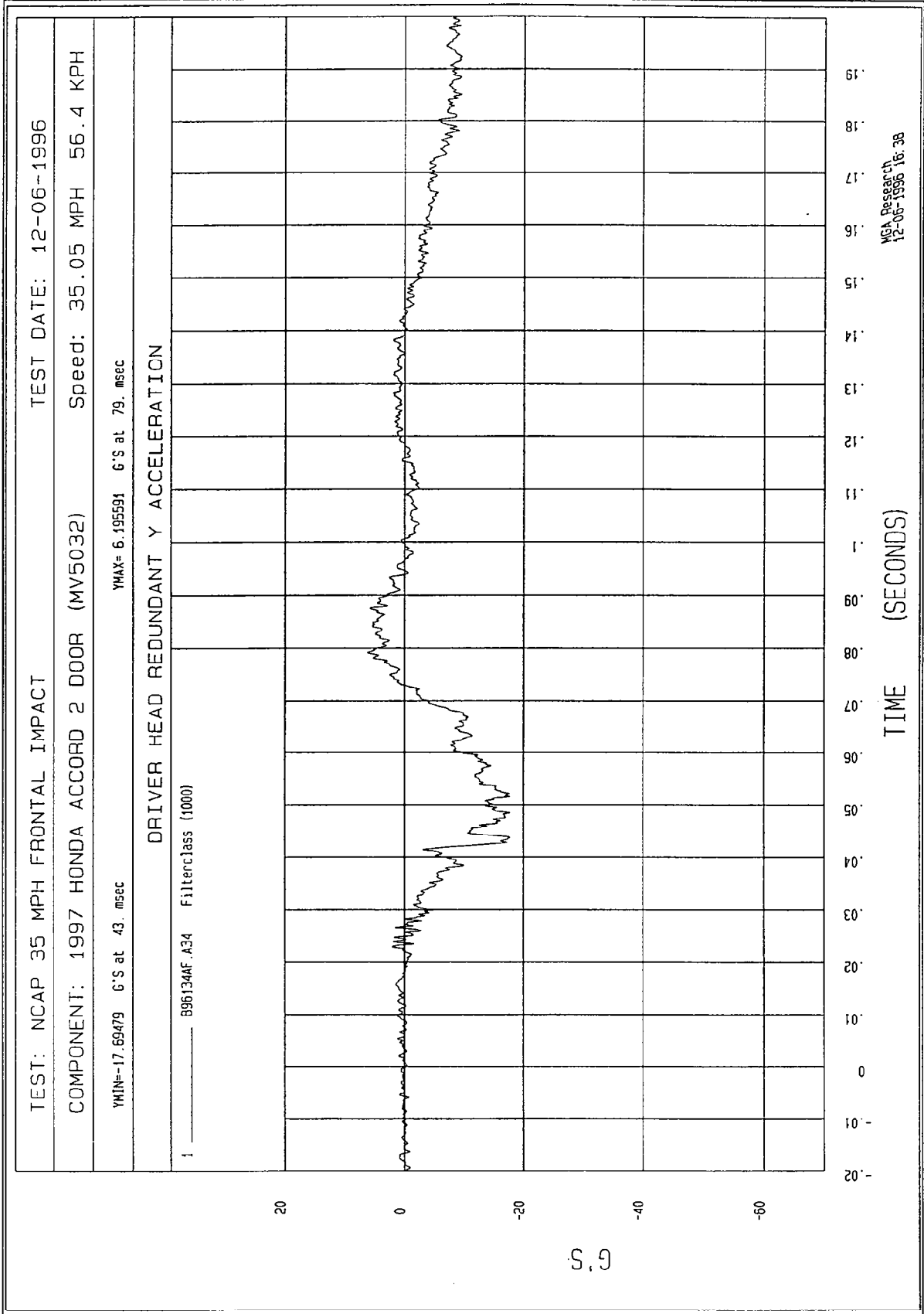
1	B96134AV.A12	Filterclass (1000)
1		

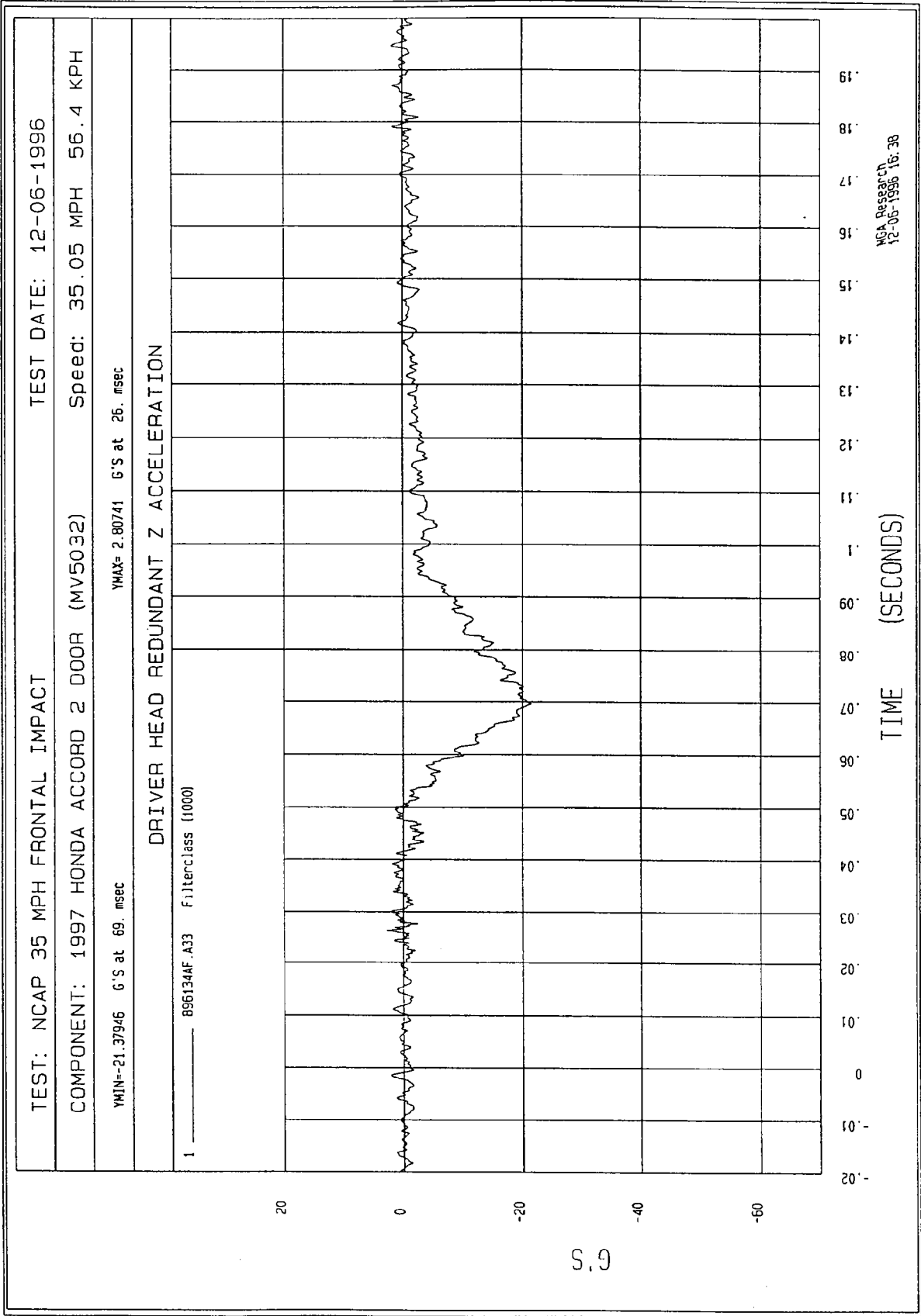


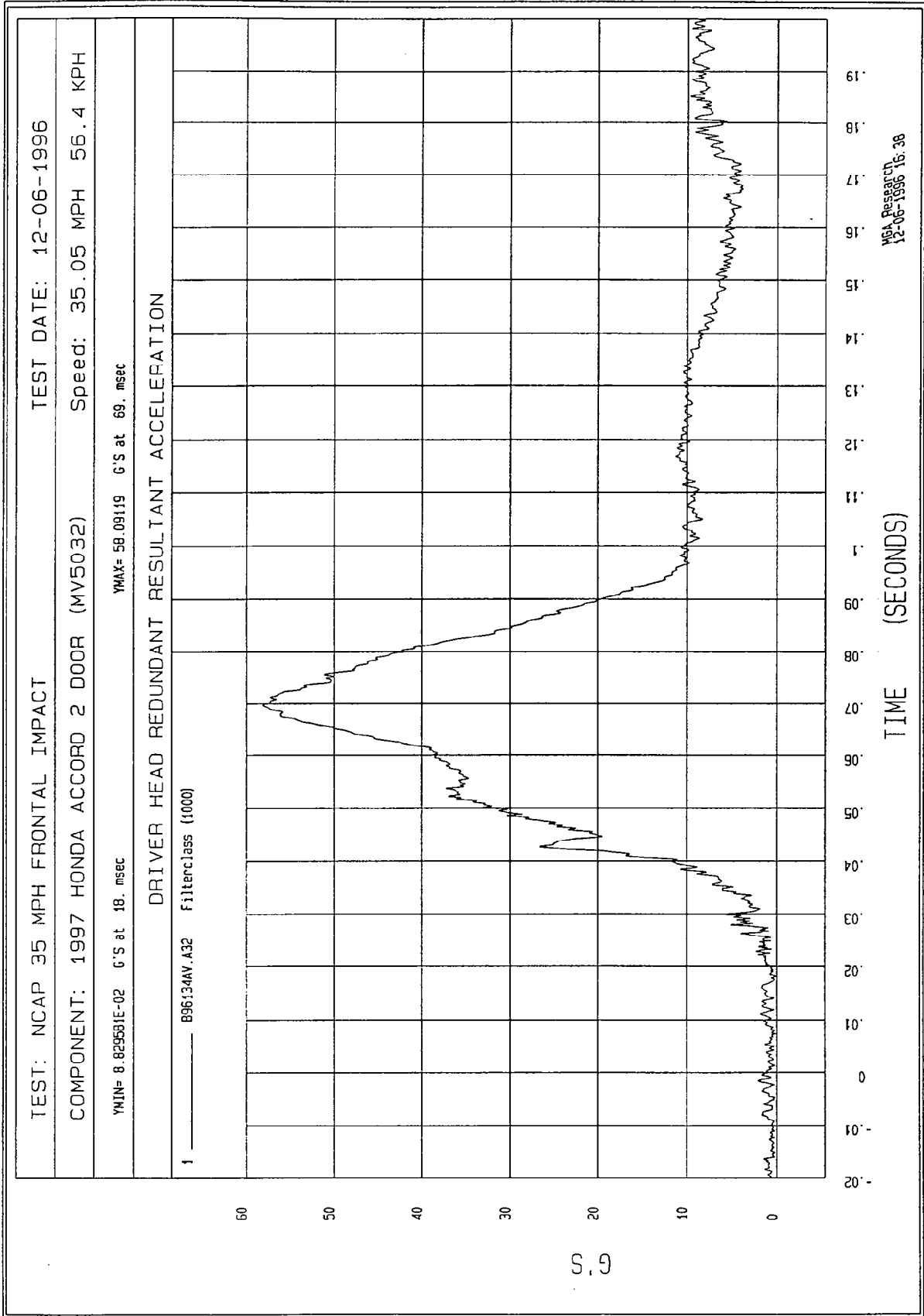
MGA Research
12-06-1996 16:35

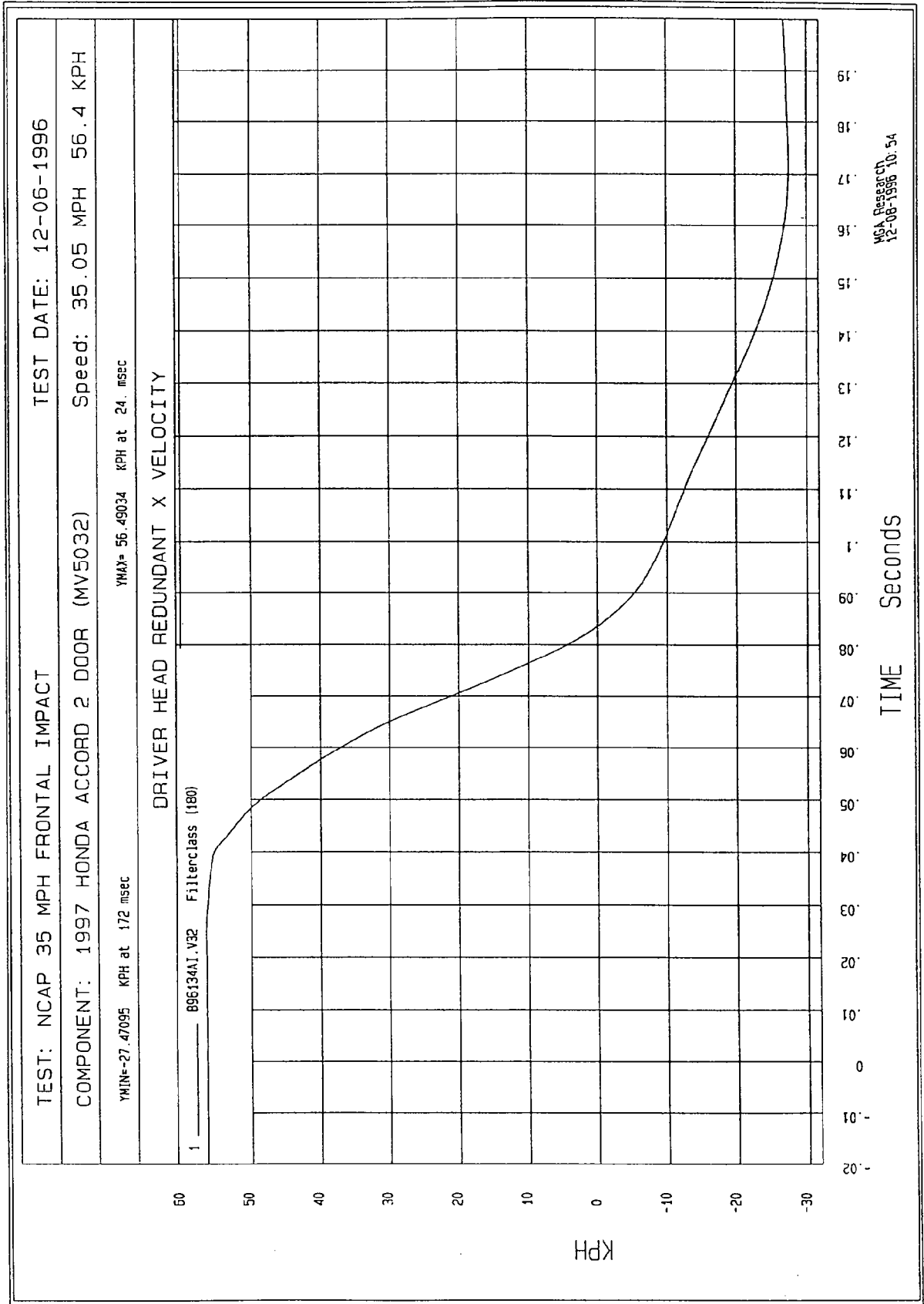


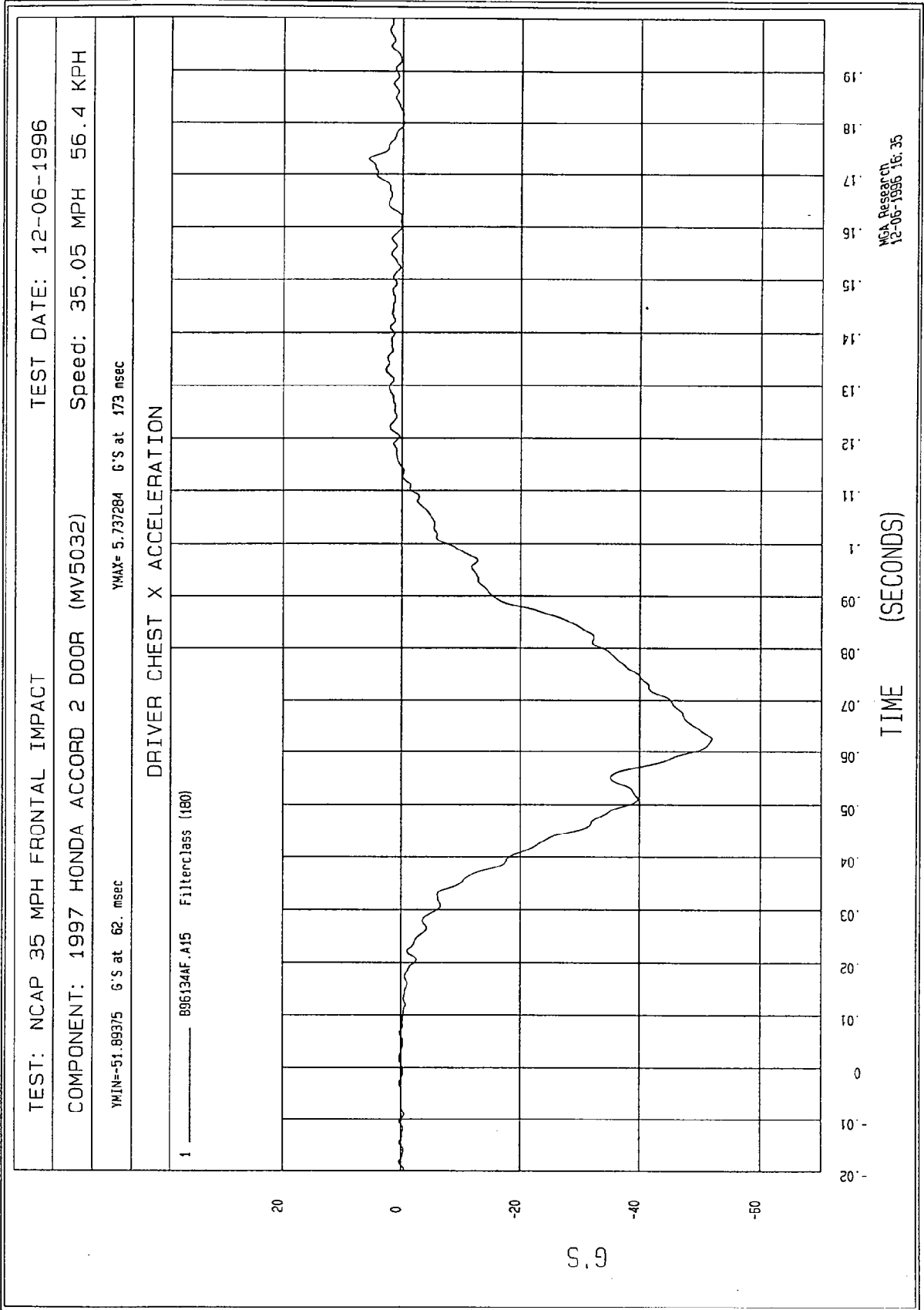


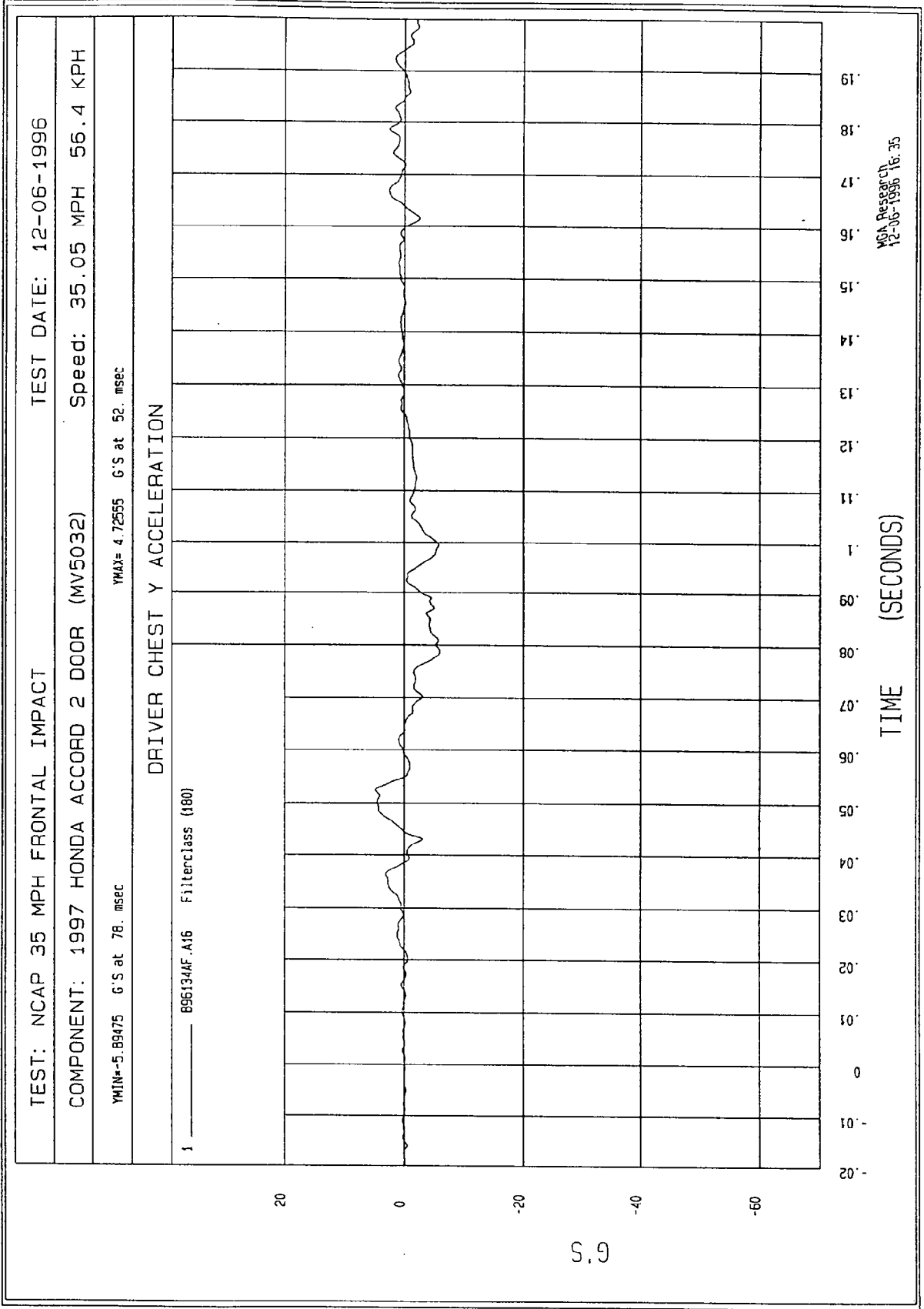












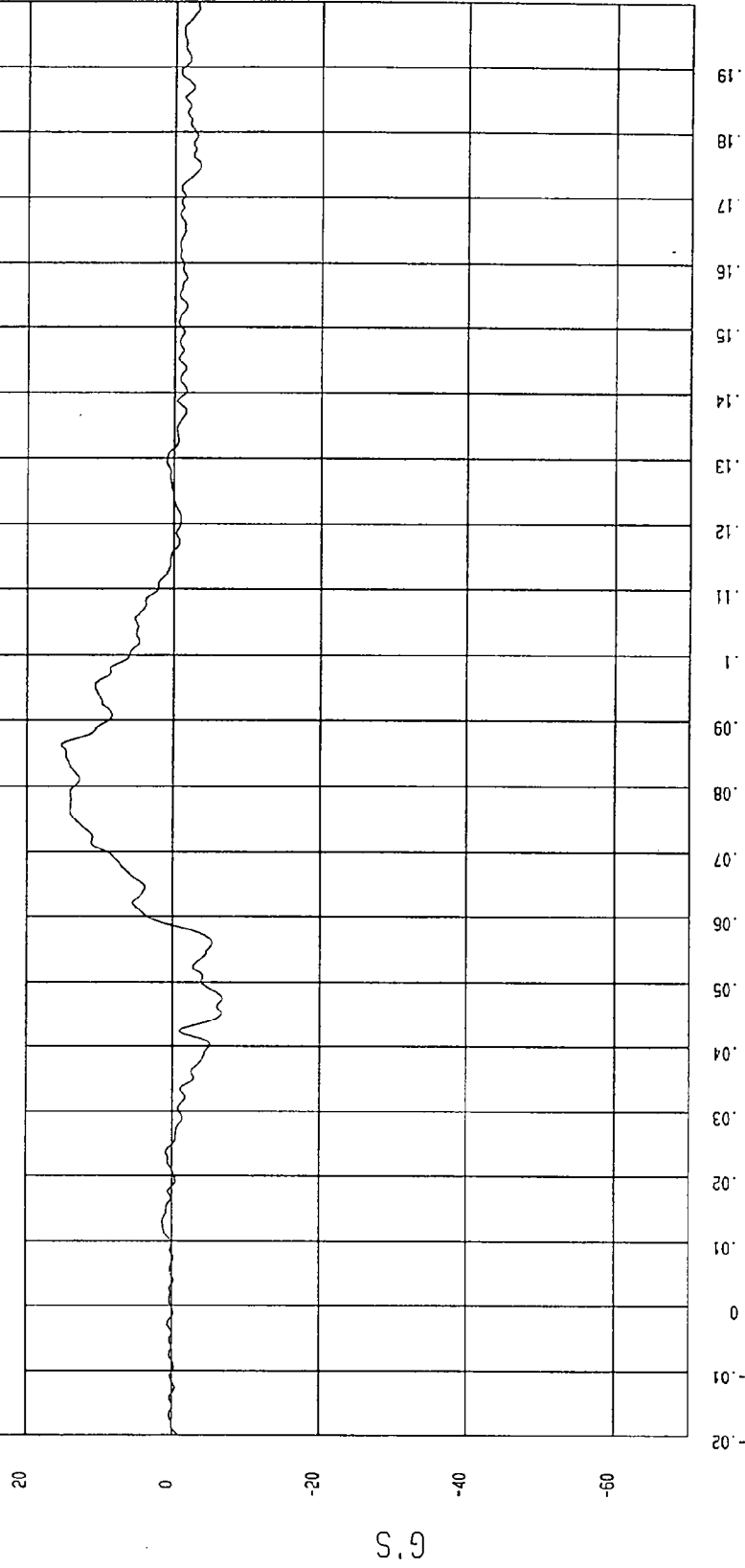
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 D00R (MV5032) Speed: 35.05 MPH 56.4 KPH

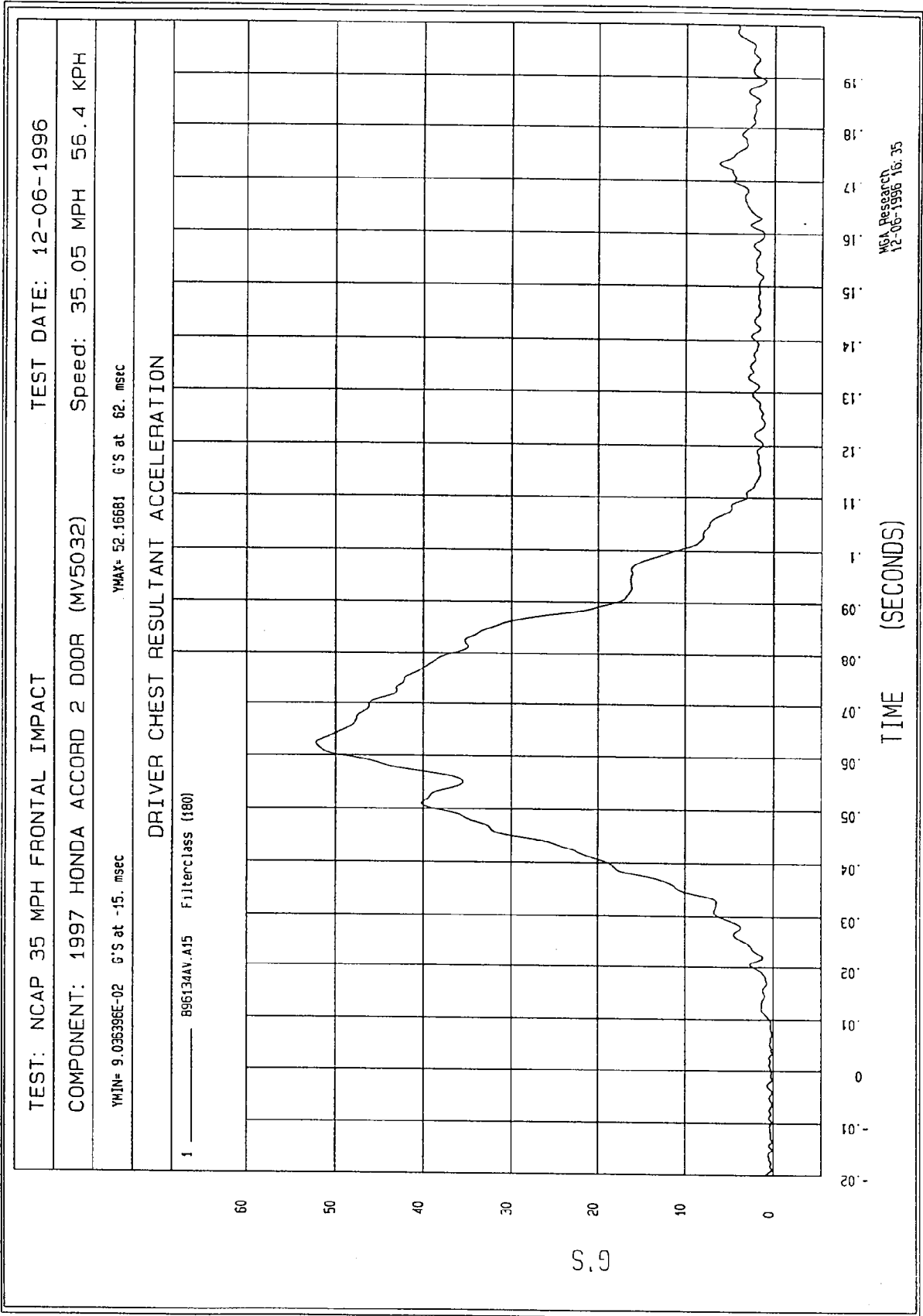
YMIN=-6.845697 G'S at 47. msec YMAX= 15.24972 G'S at 86. msec

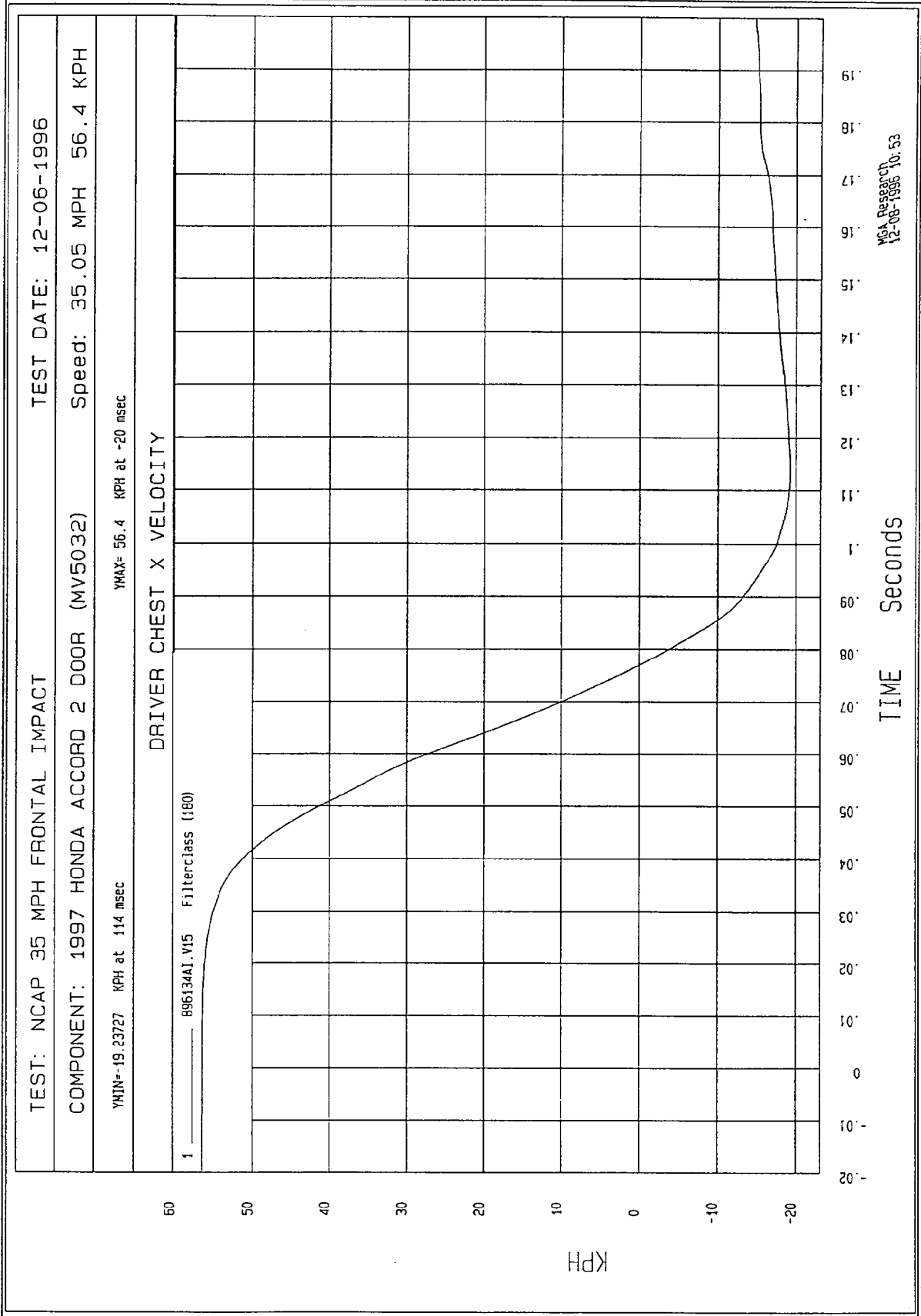
DRIVER CHEST Z ACCELERATION

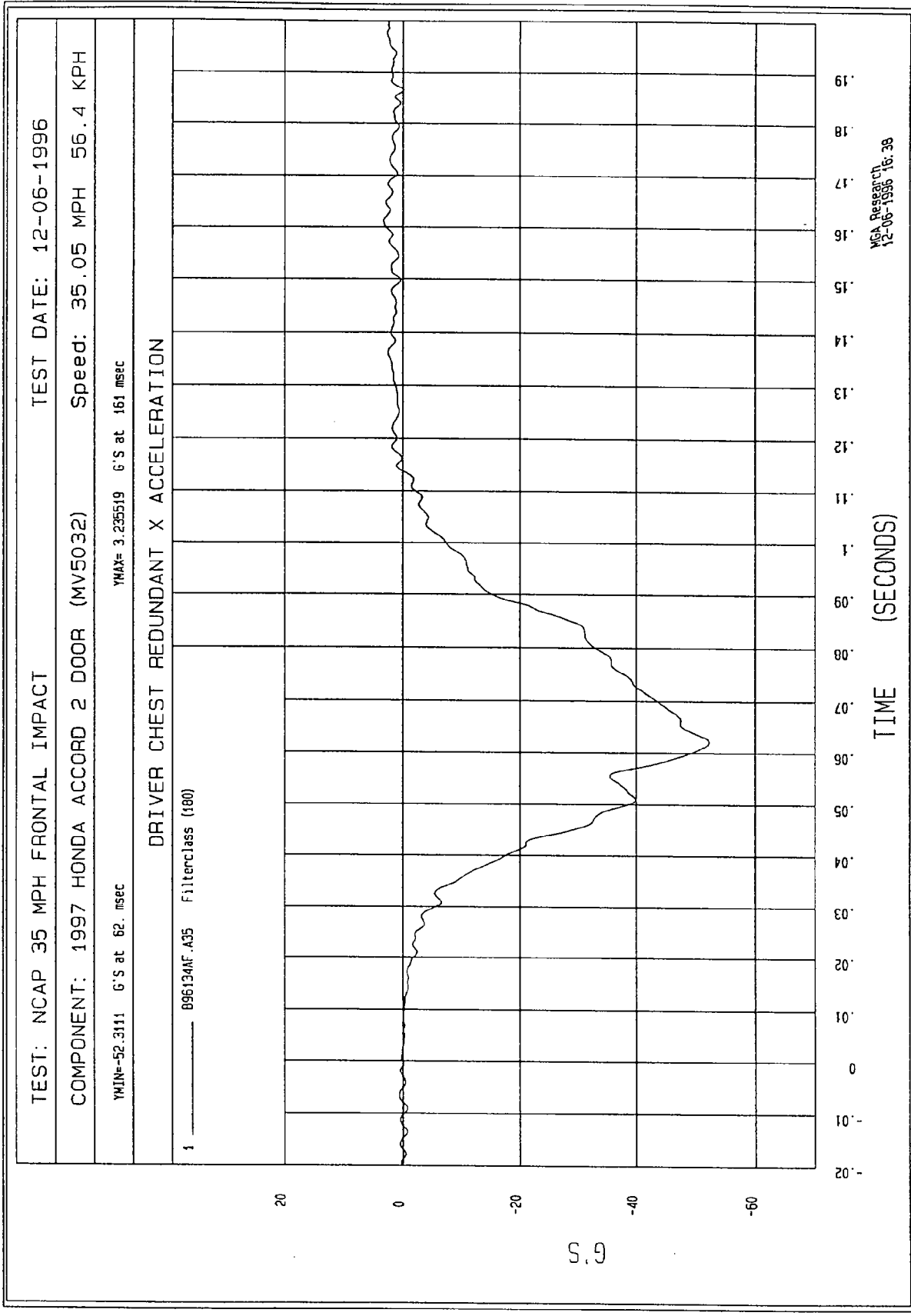
1 ——— B95134F.A17 Filterclass (180)

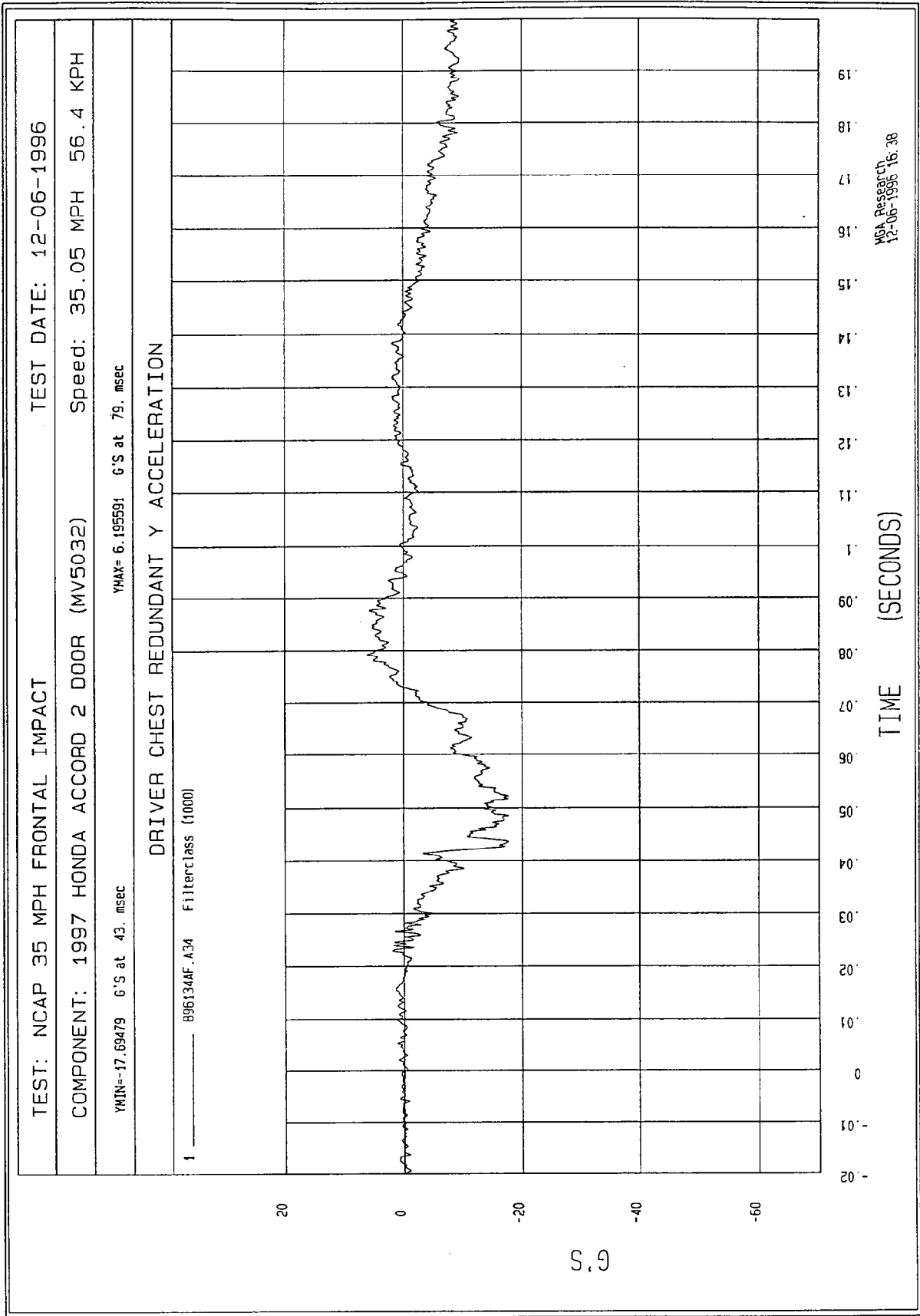


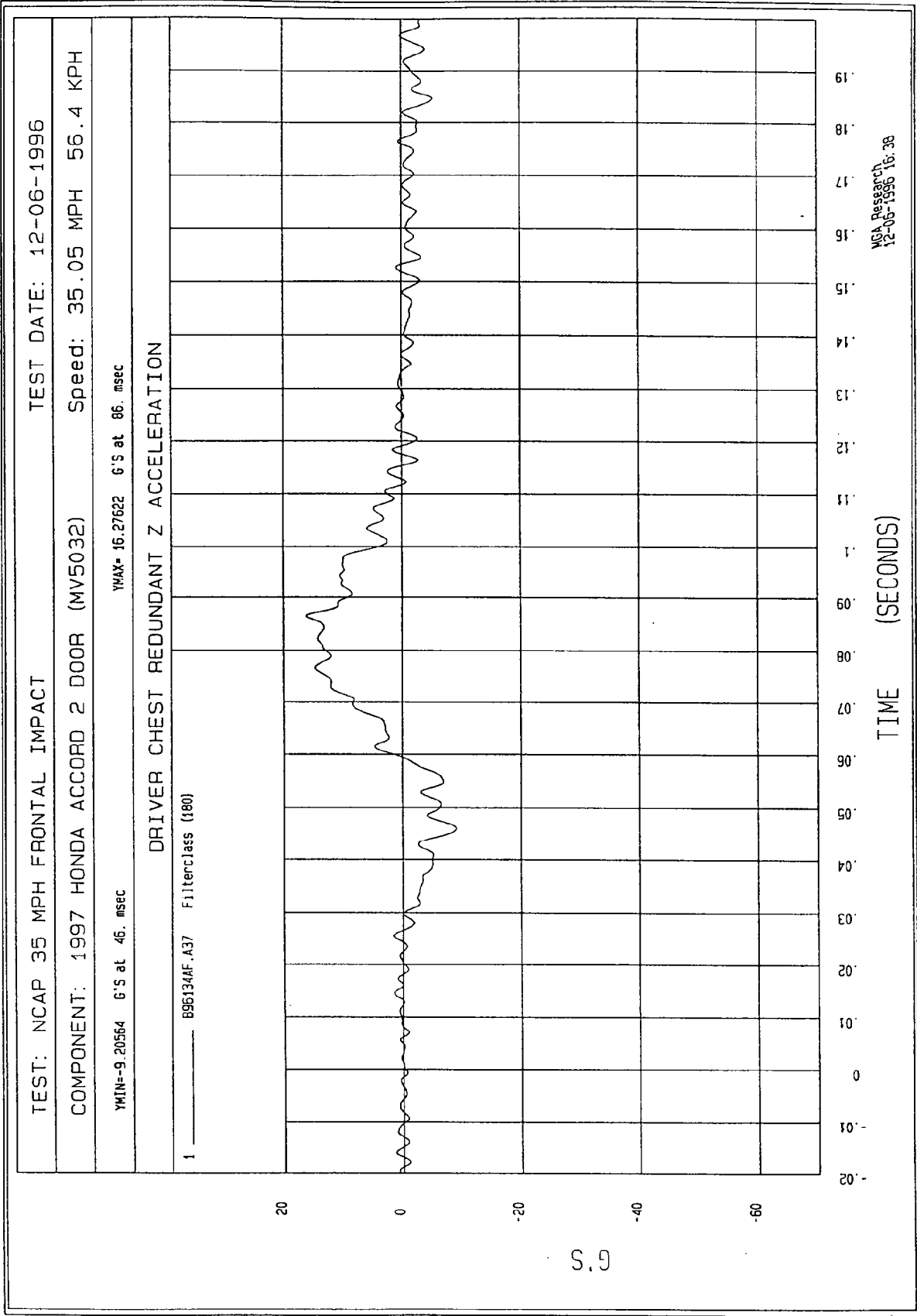
MCA Research
12-06-1996 16:35

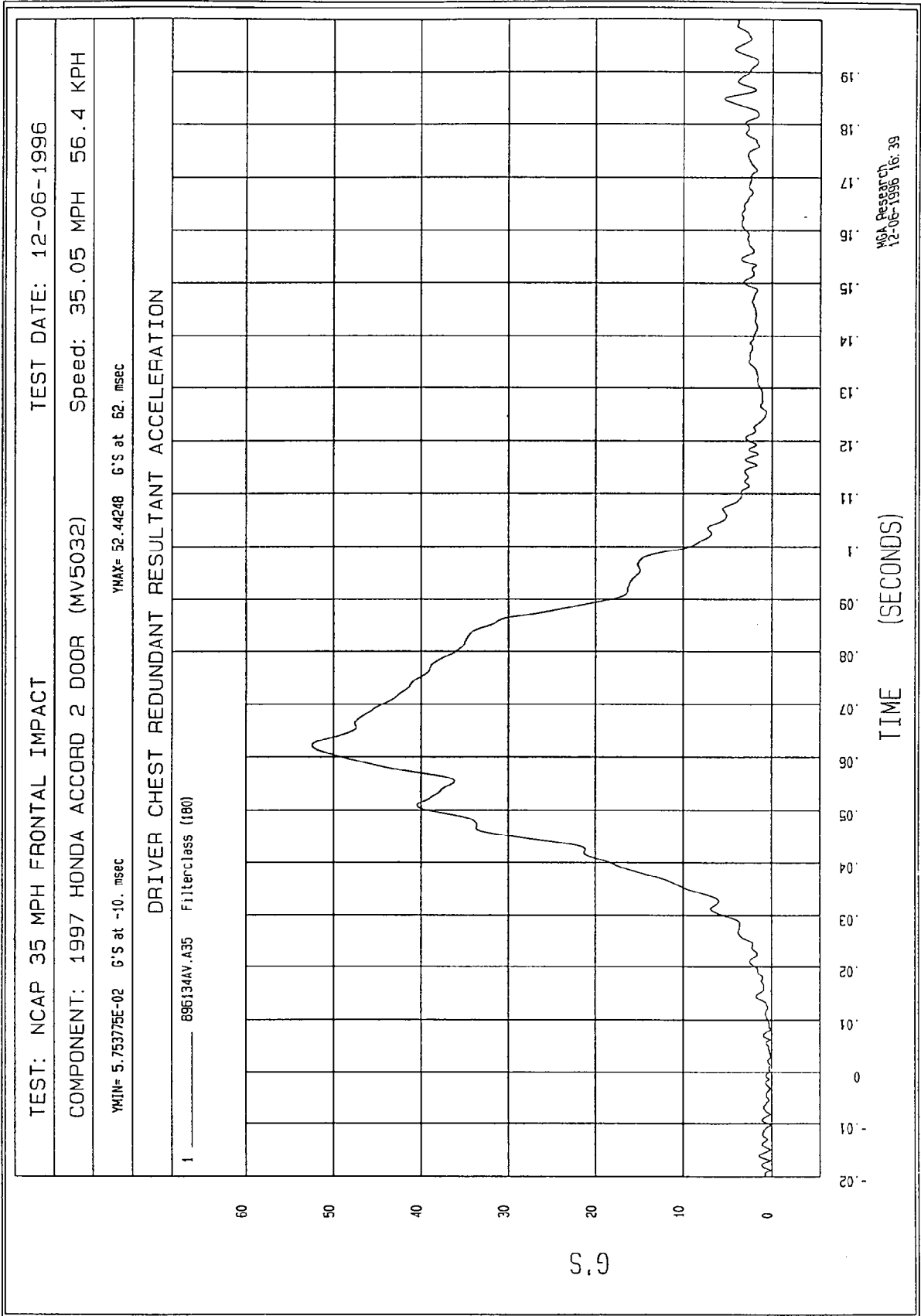












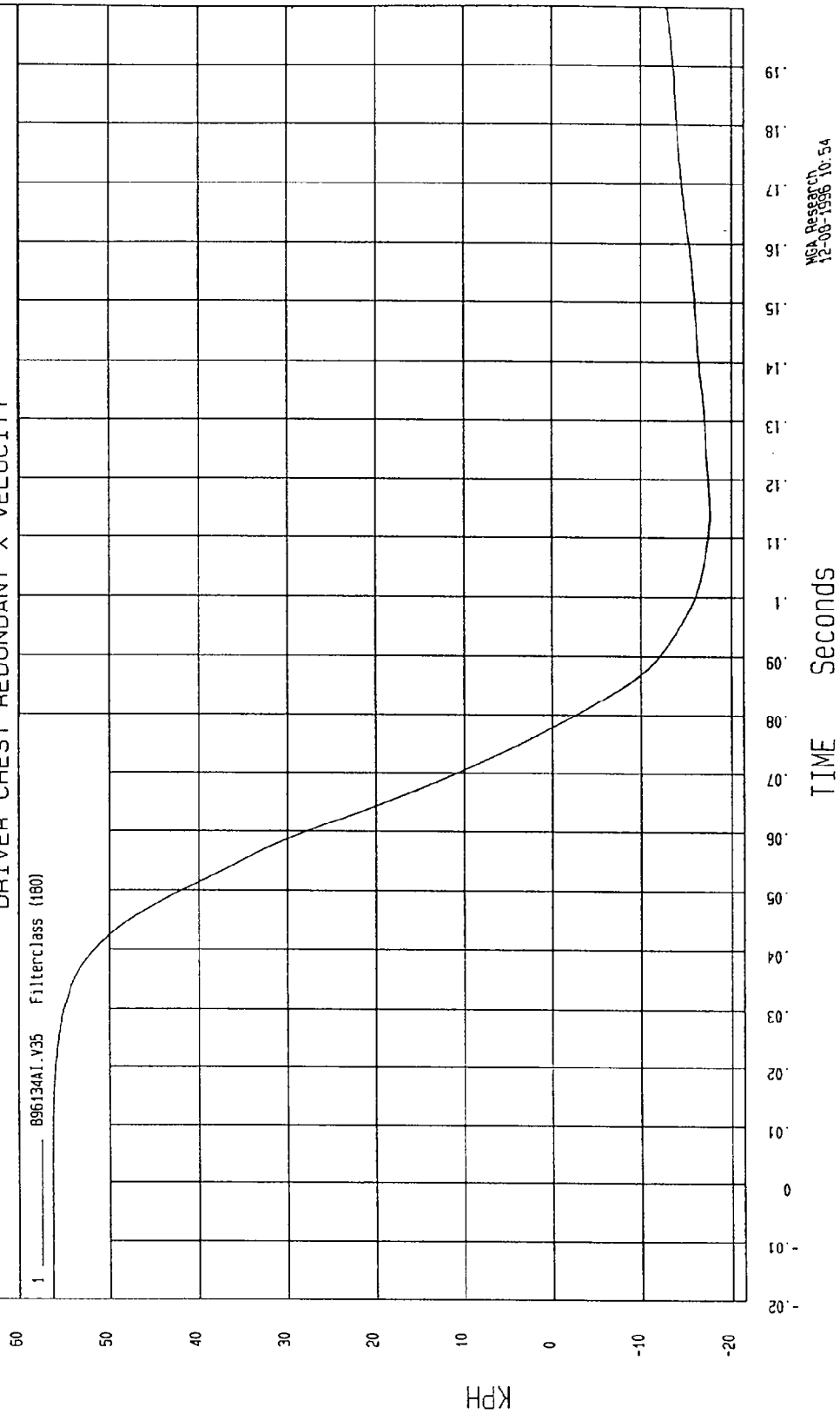
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-17.66351 KPH at 113 msec YMAX= 56.41482 KPH at -14 msec

DRIVER CHEST REDUNDANT X VELOCITY

1 896134A1.V35 Filterclass (160)



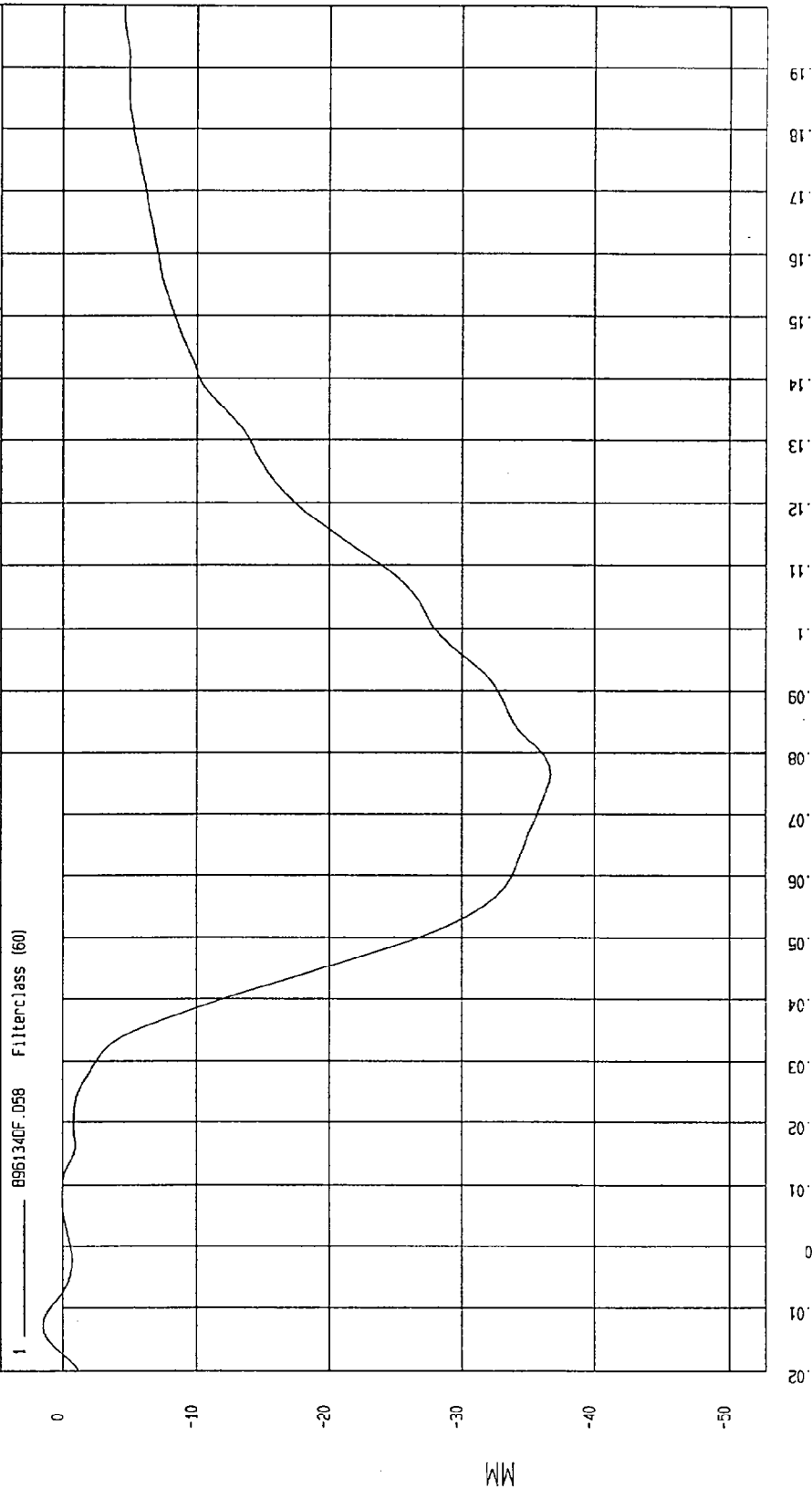
WCA Research
12-06-1996 10:54

TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

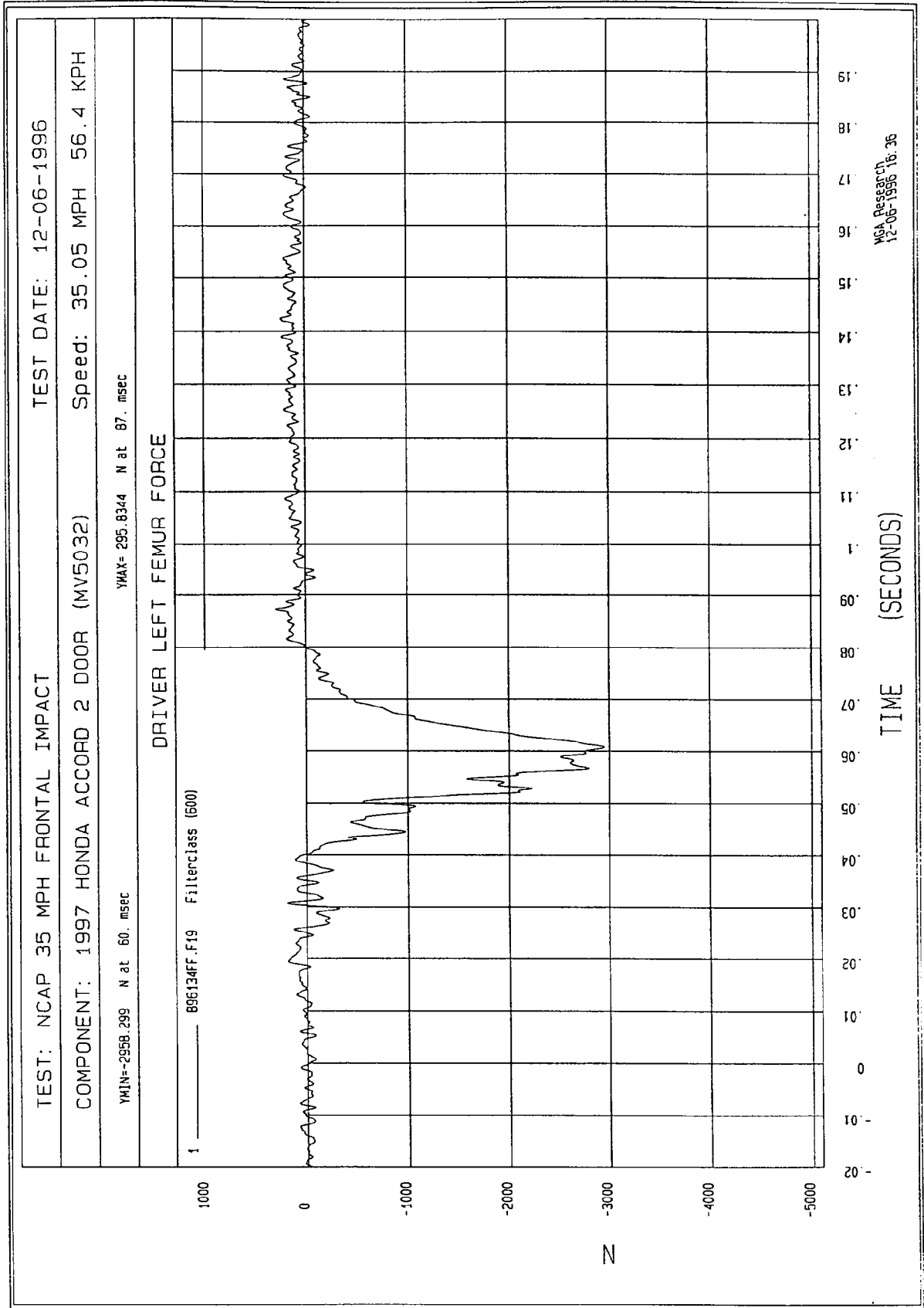
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-36.72878 MM at 76. msec YMAX= 1.483804 MM at -12. msec

DRIVER CHEST COMPRESSION



MCA Research
12-06-1996 16:35

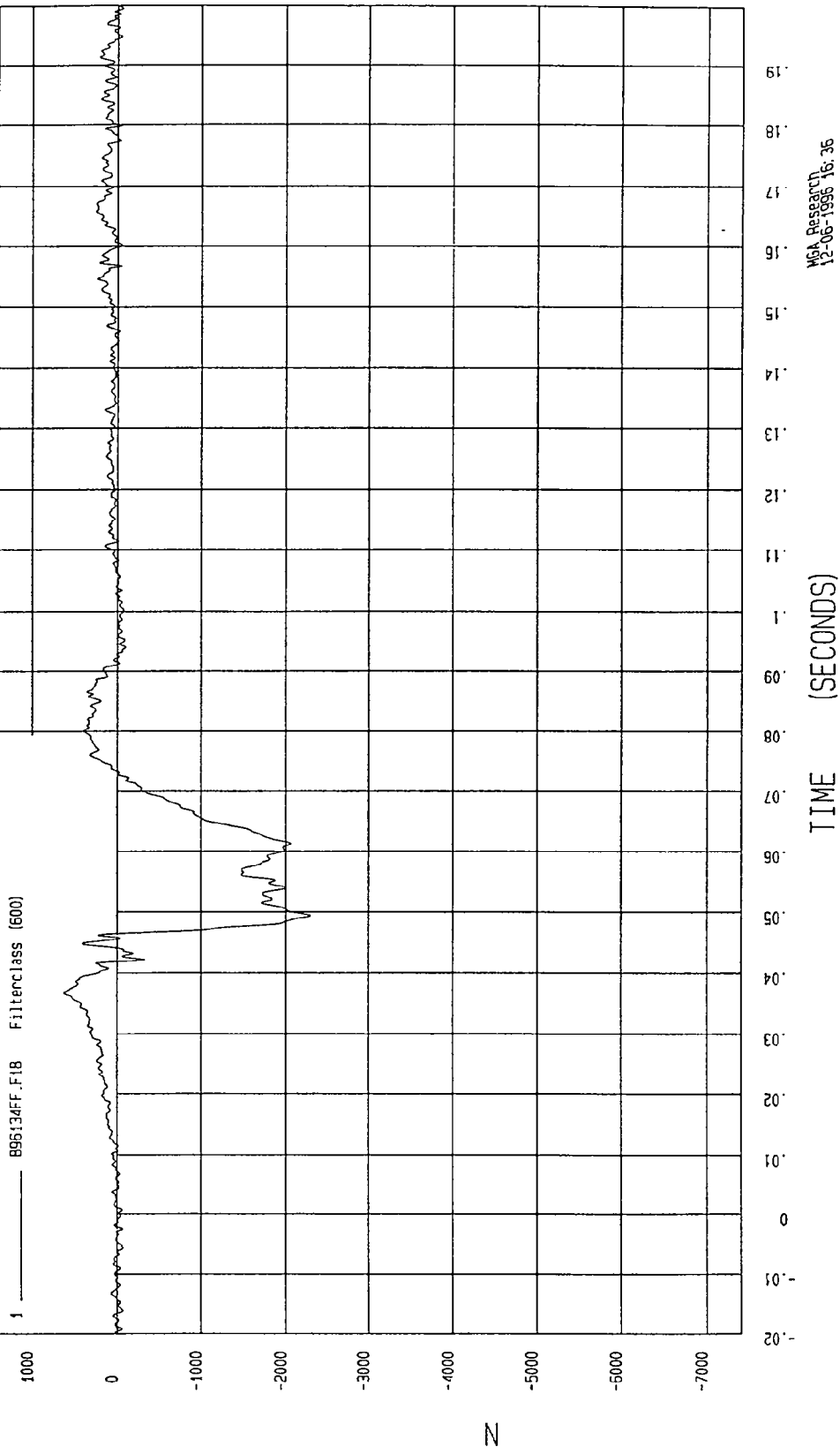


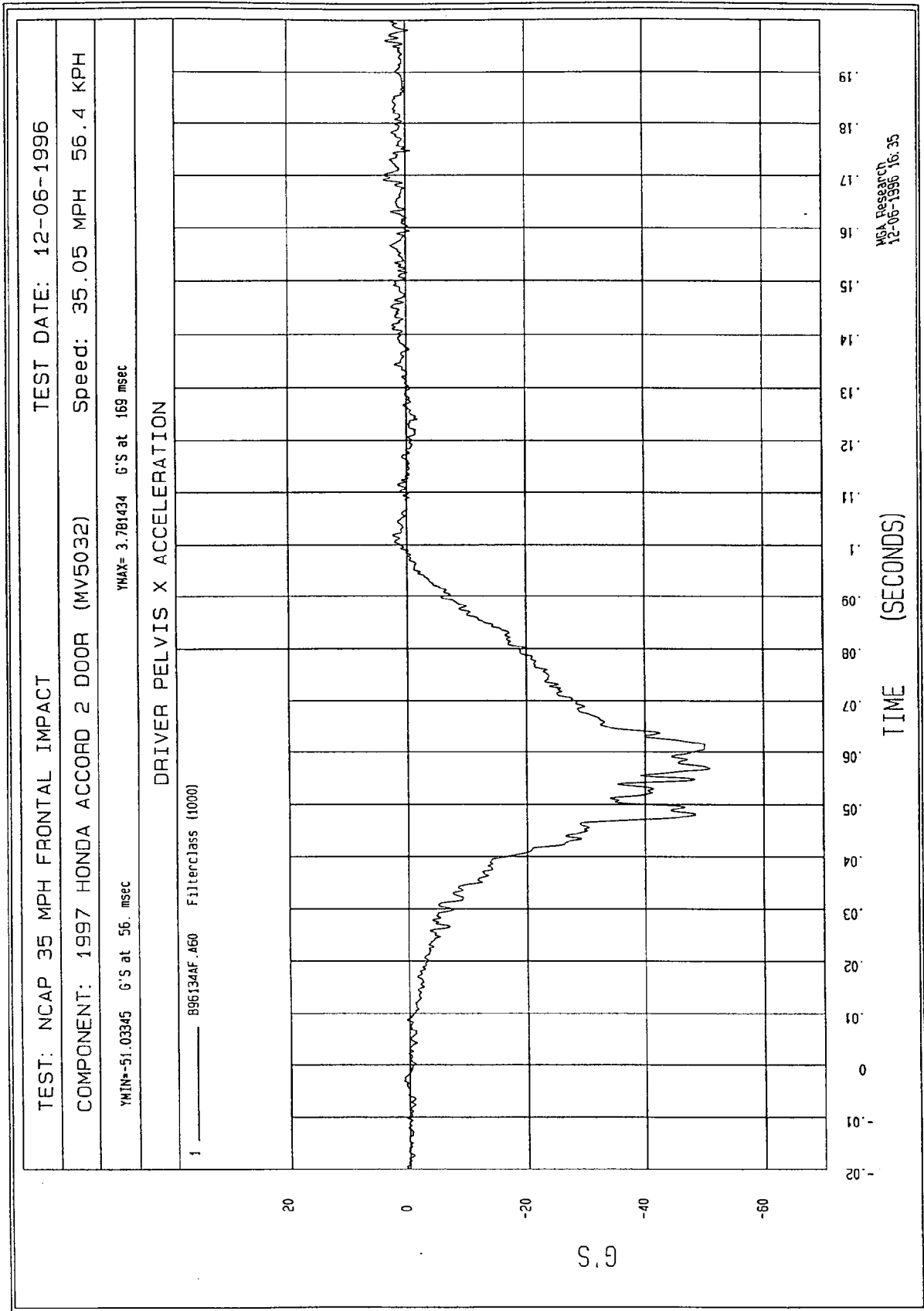
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

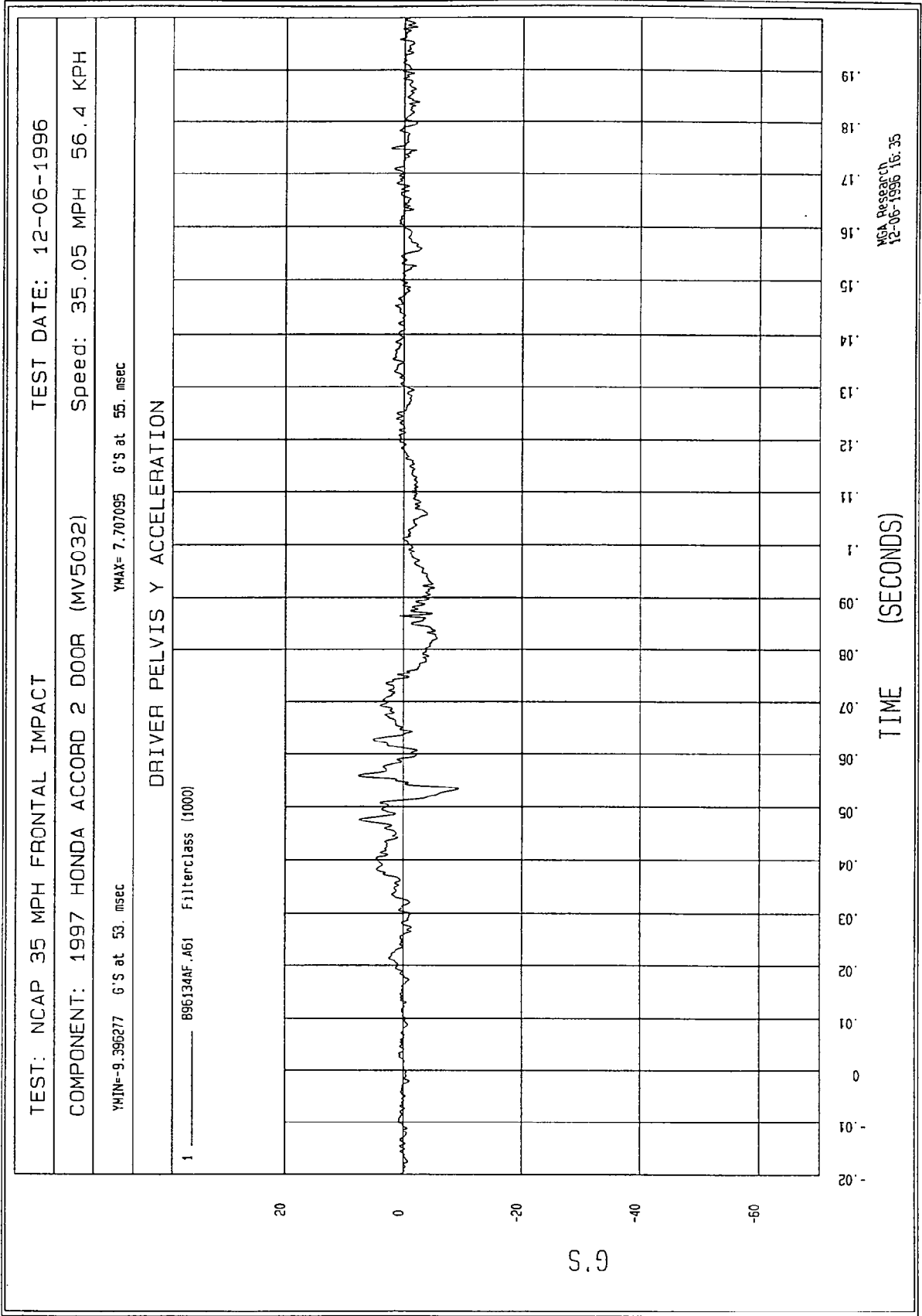
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-2300.148 N at 49. msec YMAX= 627.1579 N at 36. msec

DRIVER RIGHT FEMUR FORCE







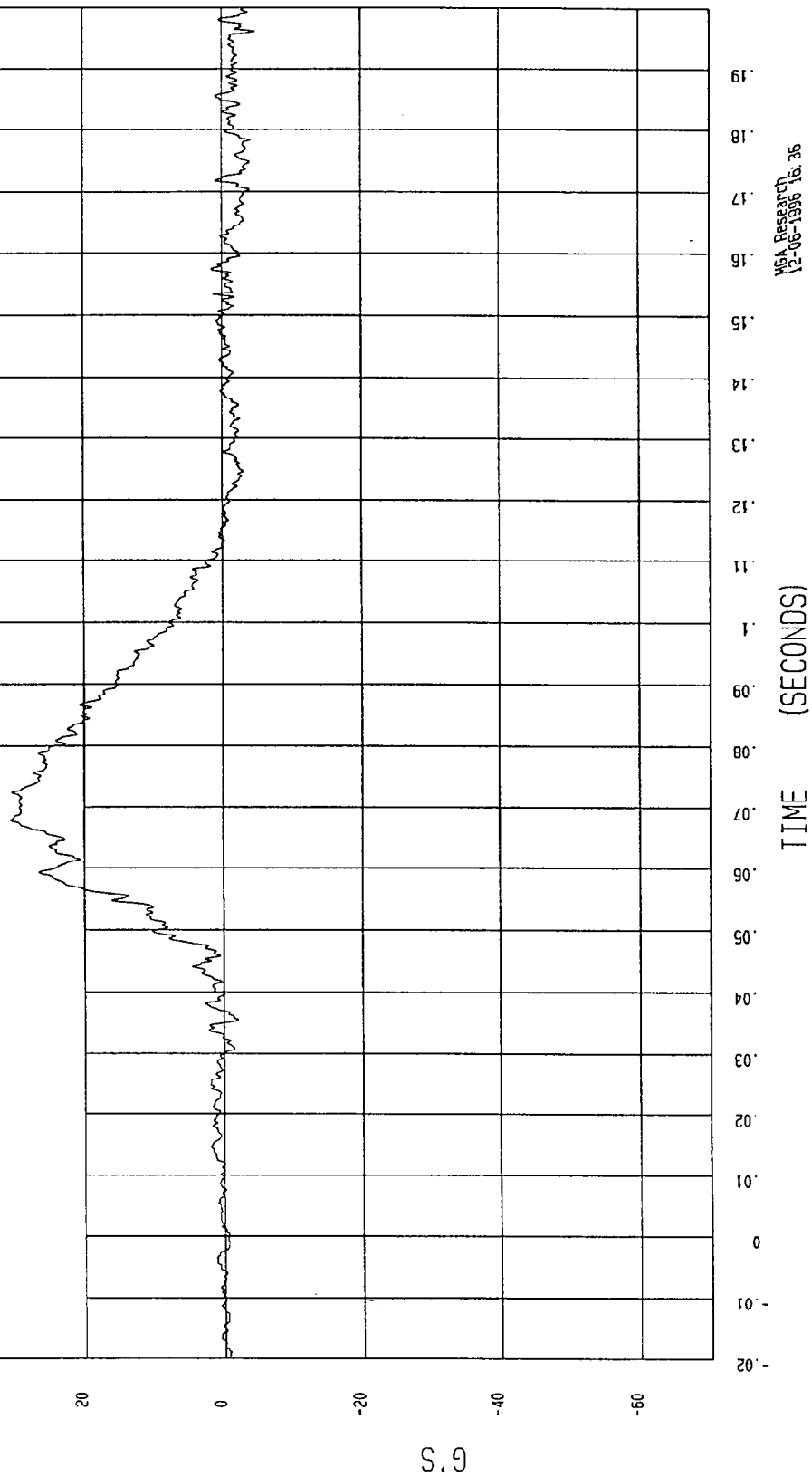
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-4.738506 G'S at 196 msec YMAX= 30.65672 G'S at 67. msec

DRIVER PELVIS Z ACCELERATION

1 896134AF.A62 Filterclass (1000)



NSA Research
12-06-1996 16:36

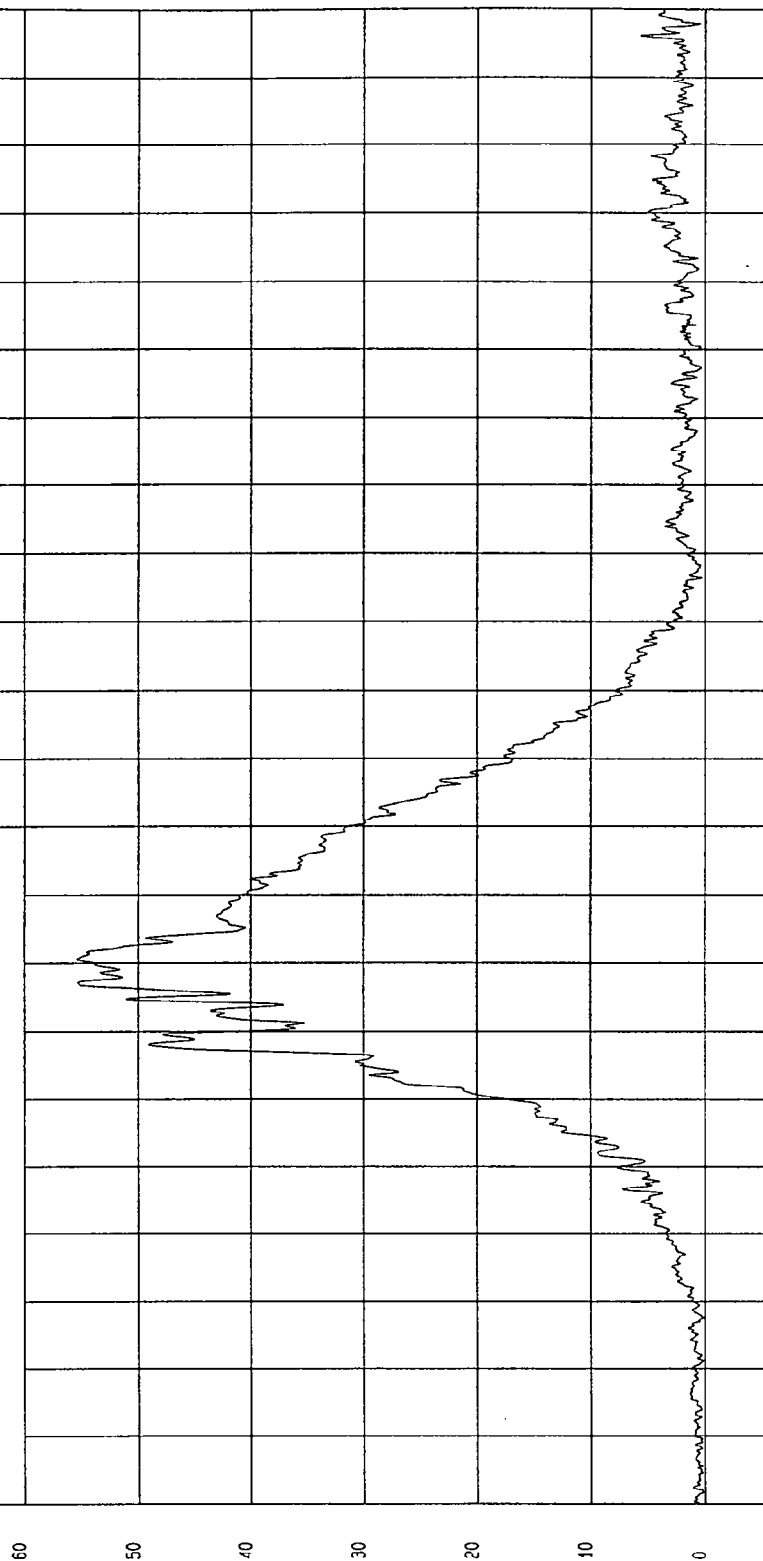
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN= .1467744 G'S at 7.5 msec YMAX= 55.35727 G'S at 60. msec

DRIVER PELVIS RESULTANT ACCELERATION

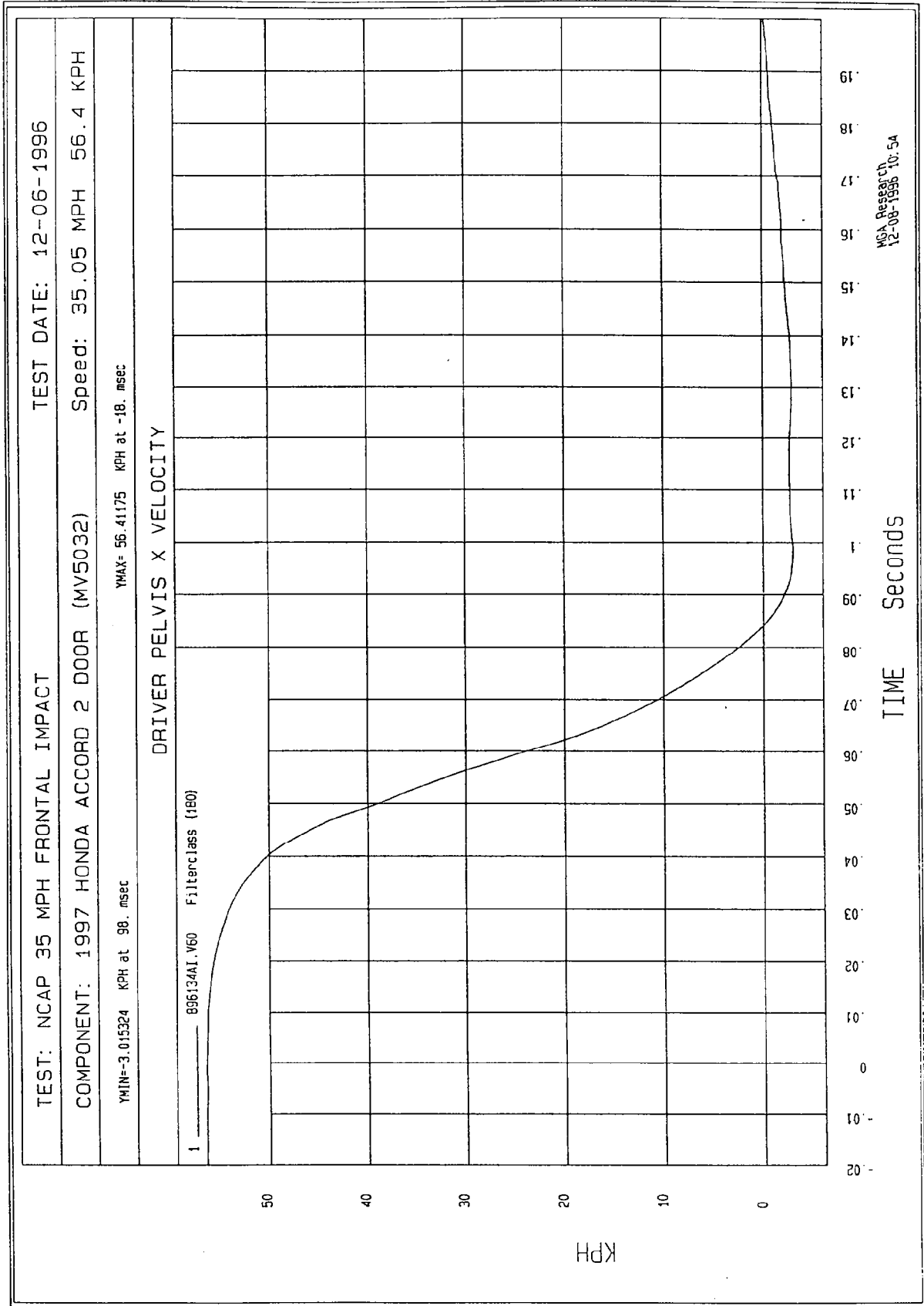
1 896134AV.A50 Filterclass (1000)

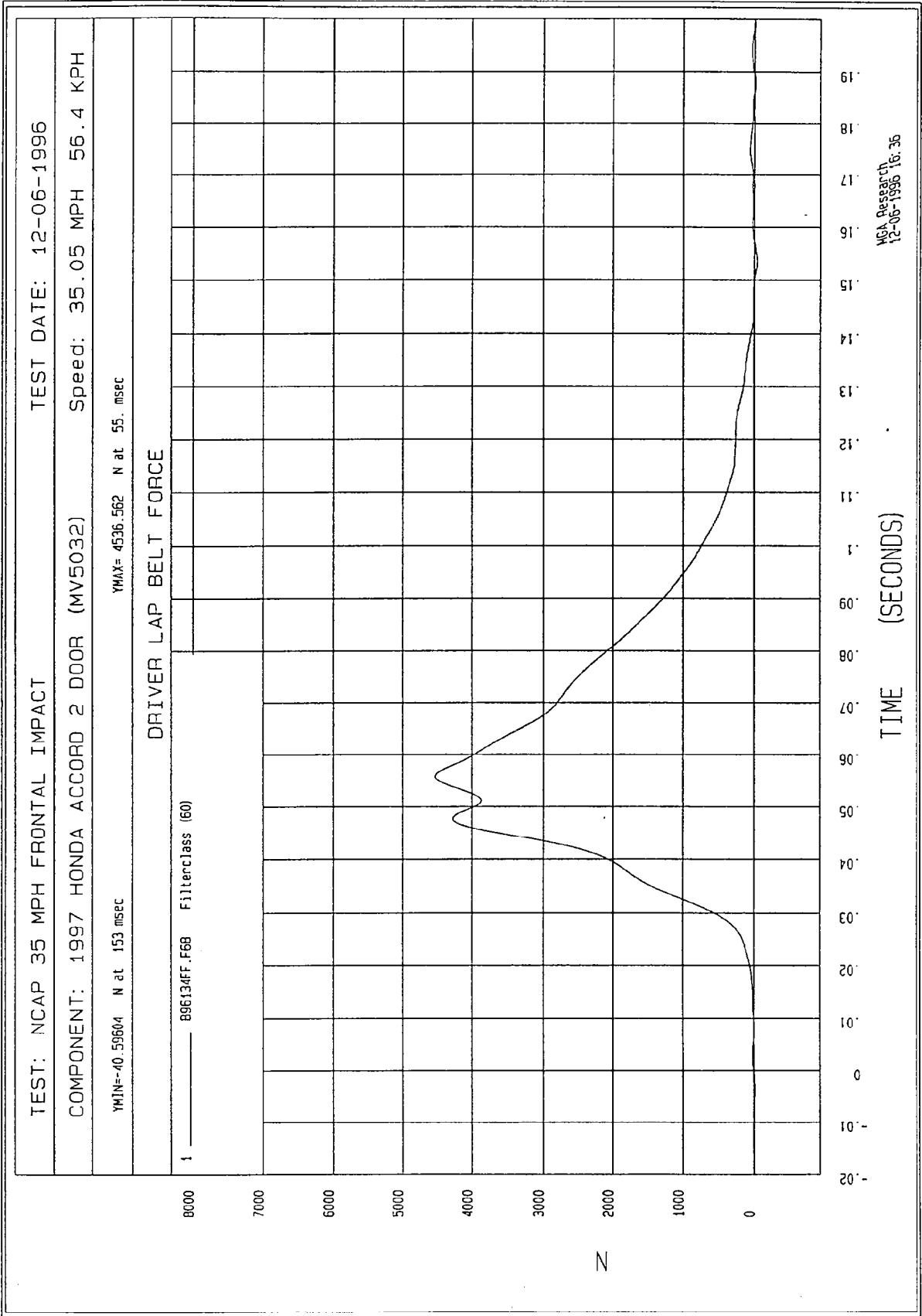


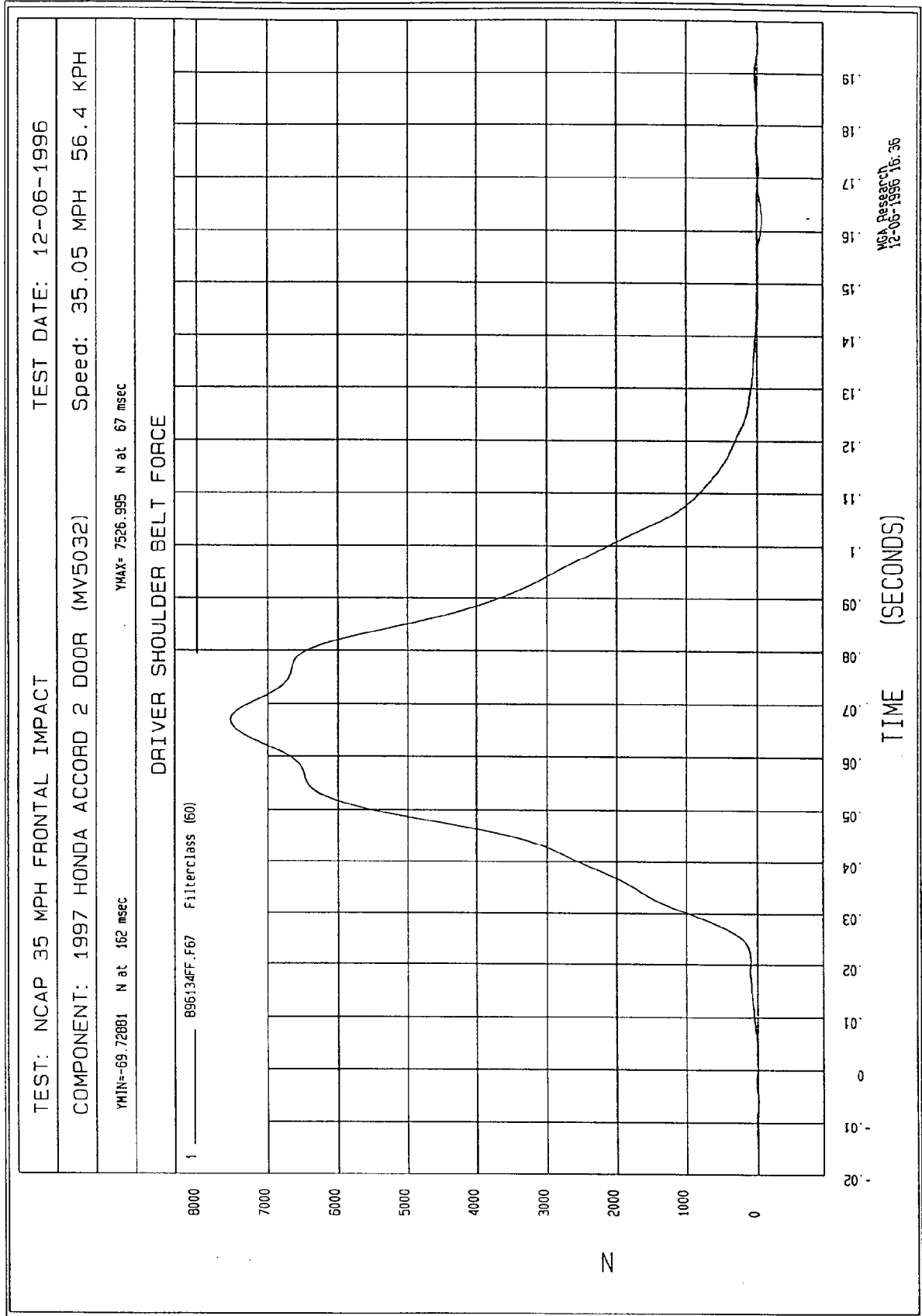
WEA Research
12-06-1996 16:36

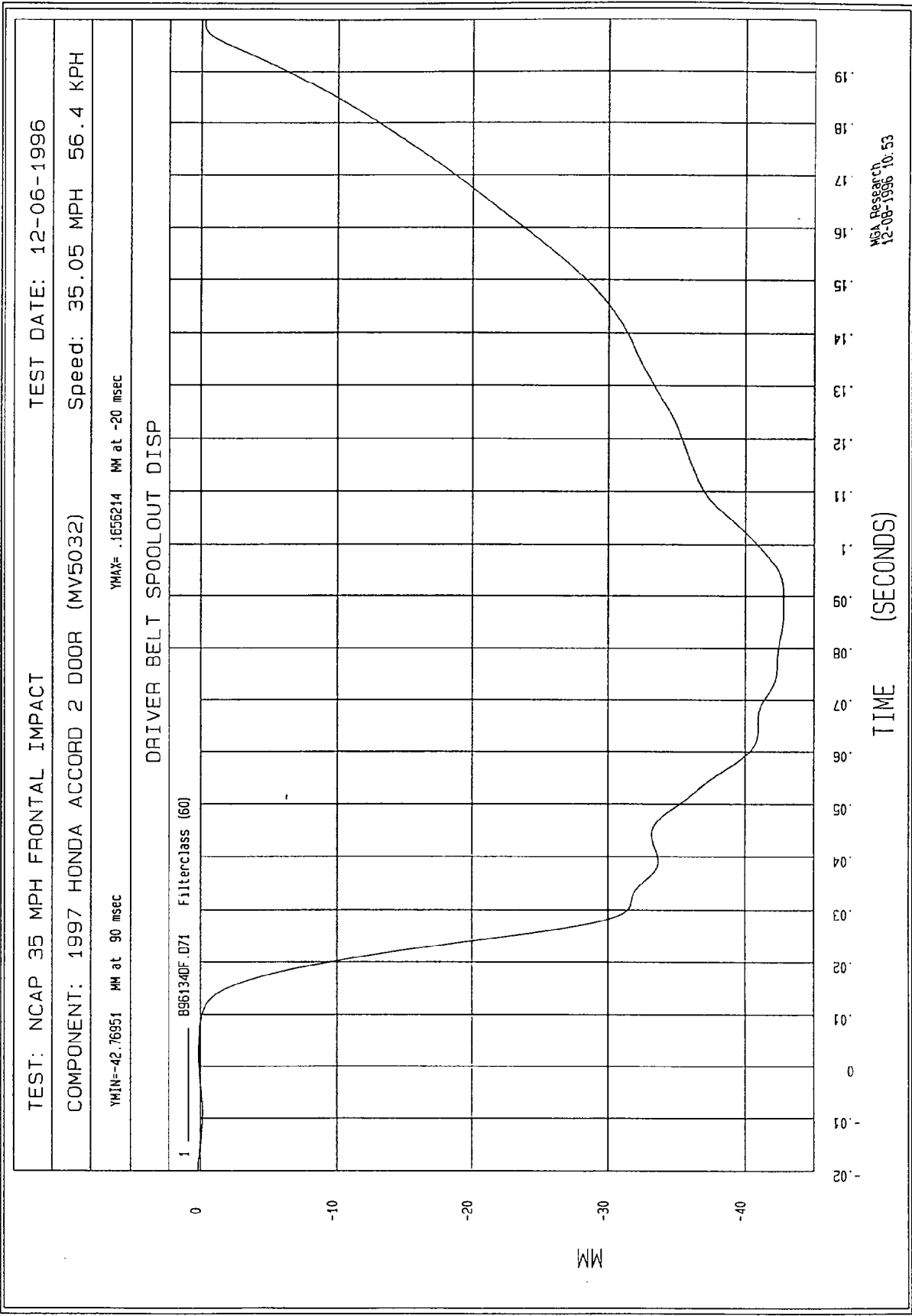
TIME (SECONDS)

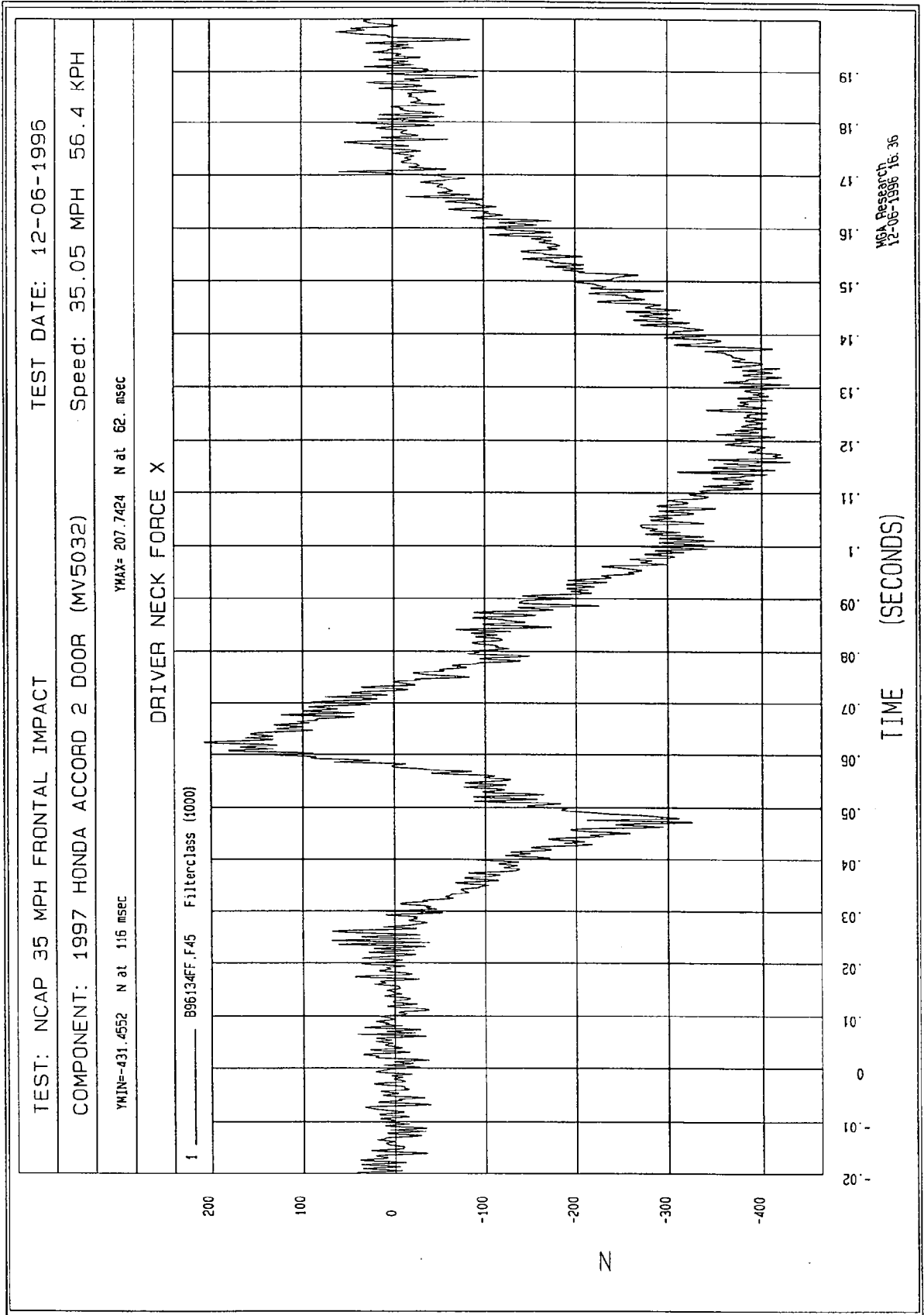
G.S

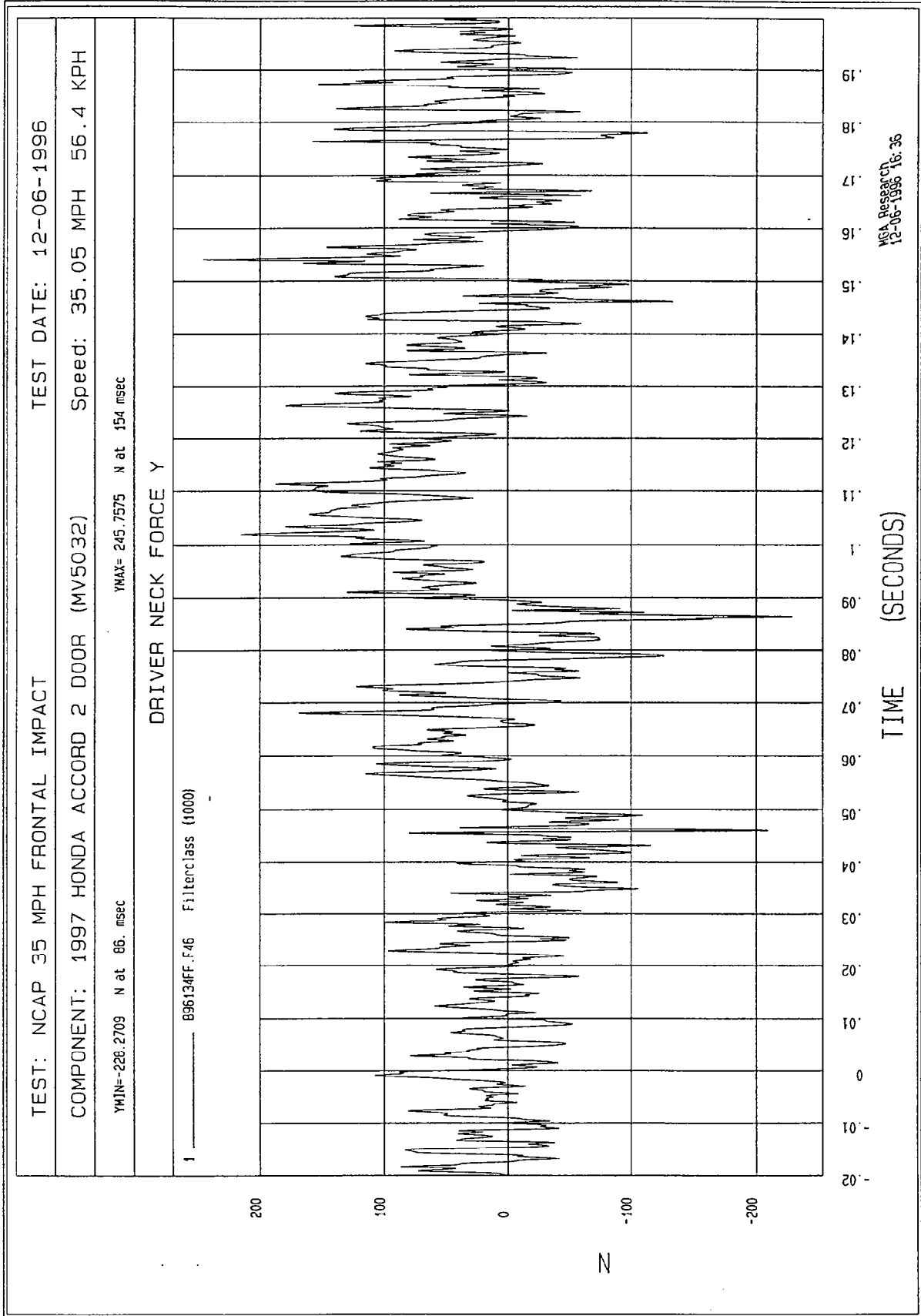










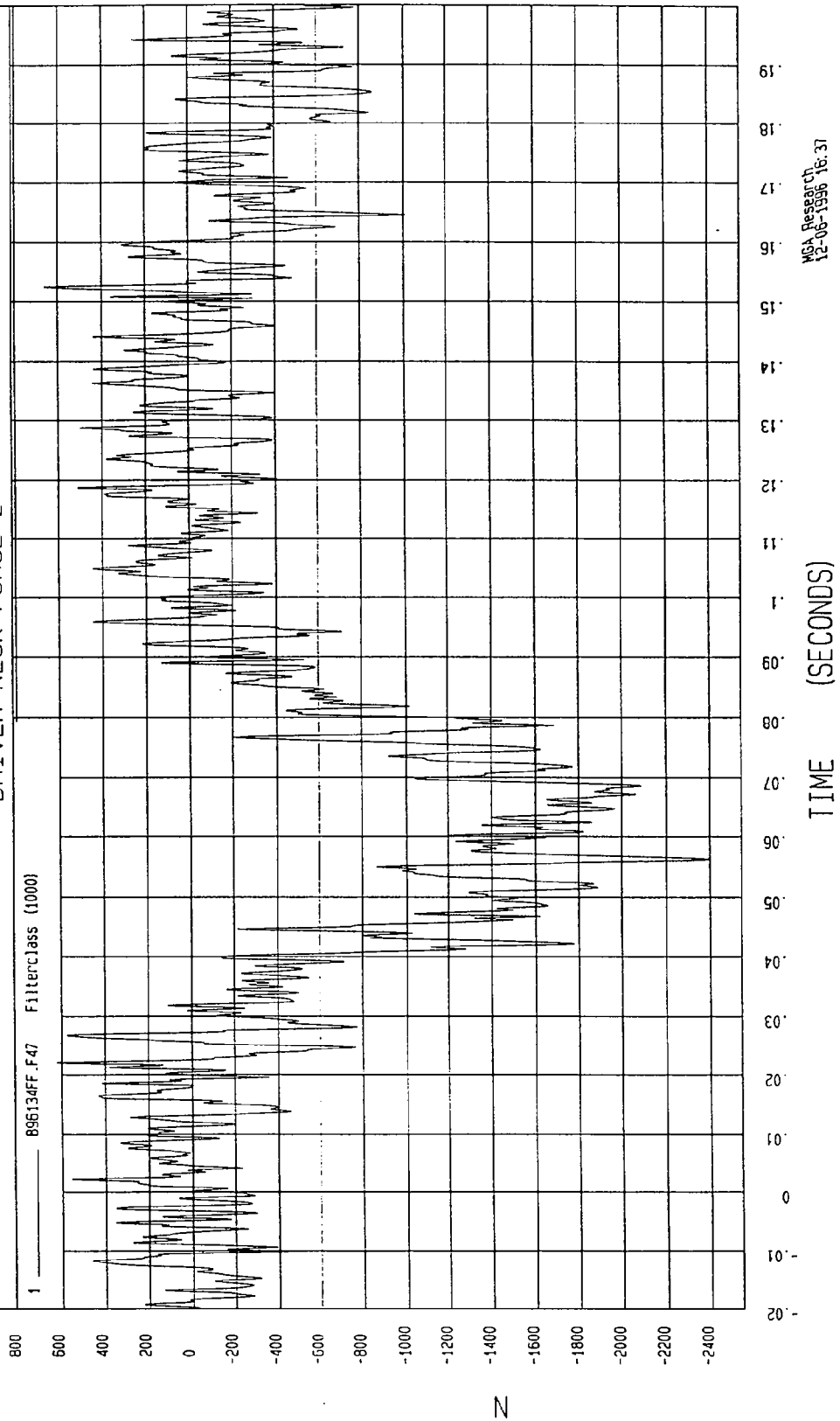


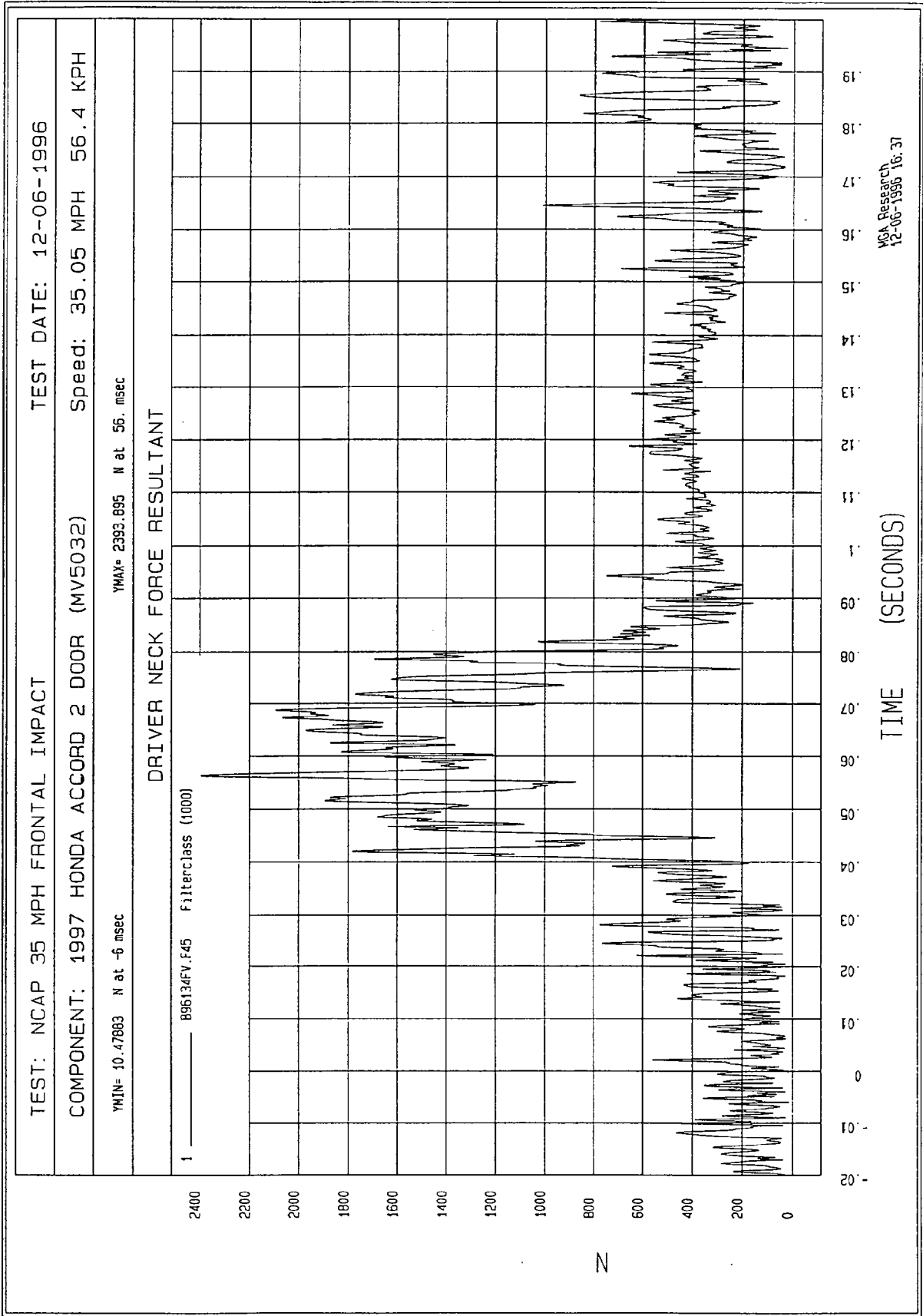
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

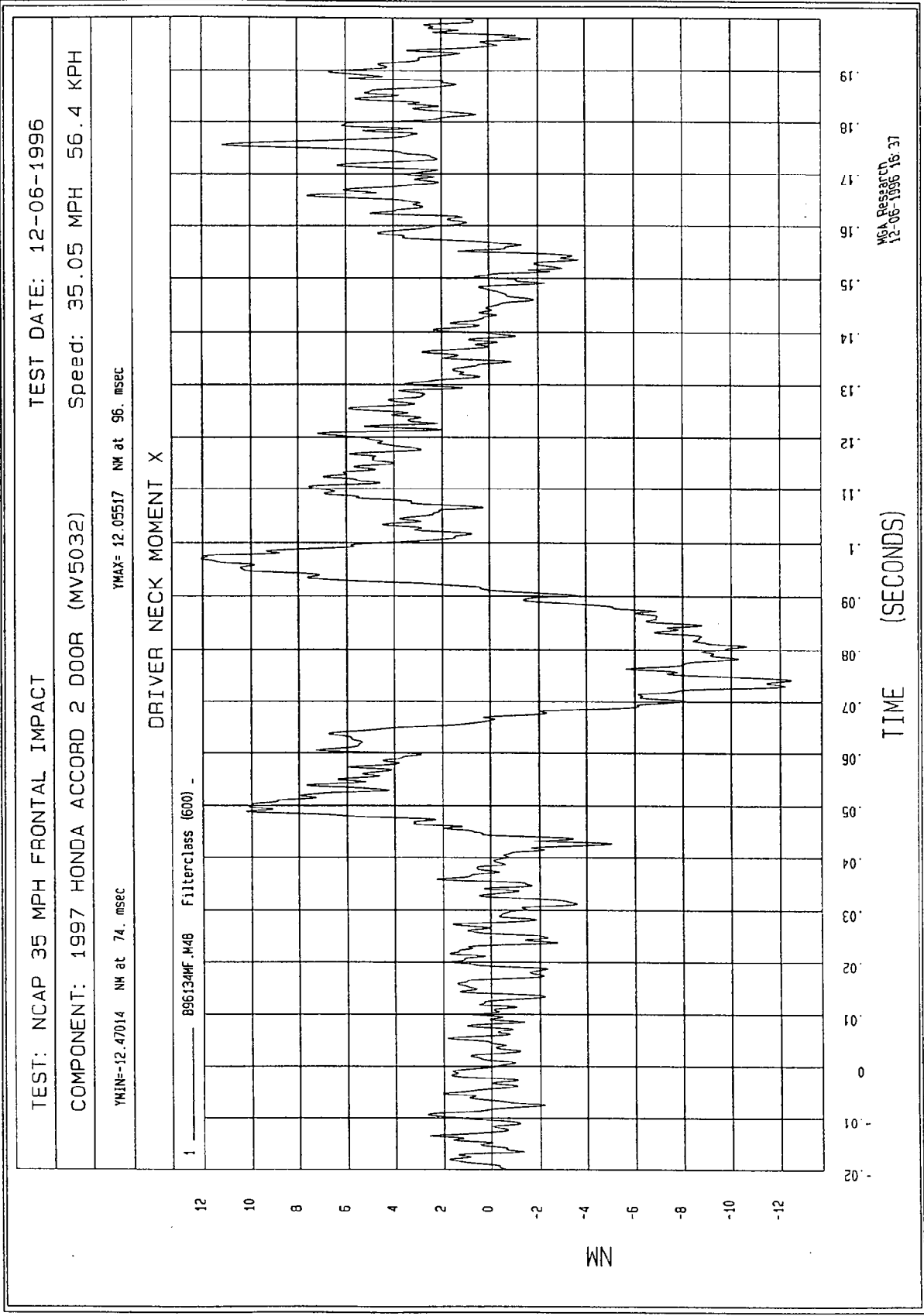
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

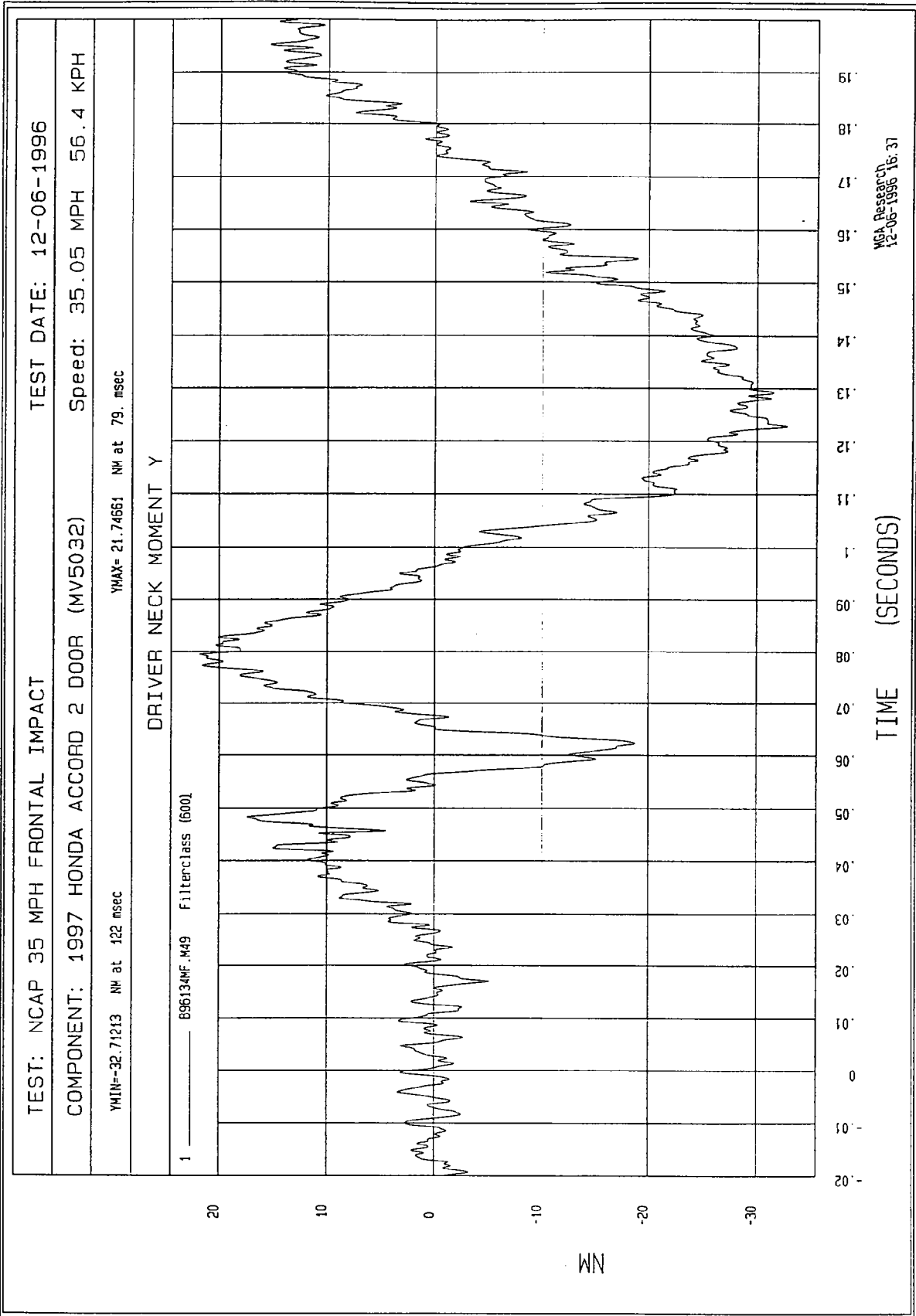
YMIN=-2391.138 N at 56. msec YMAX= 663.0906 N at 152 msec

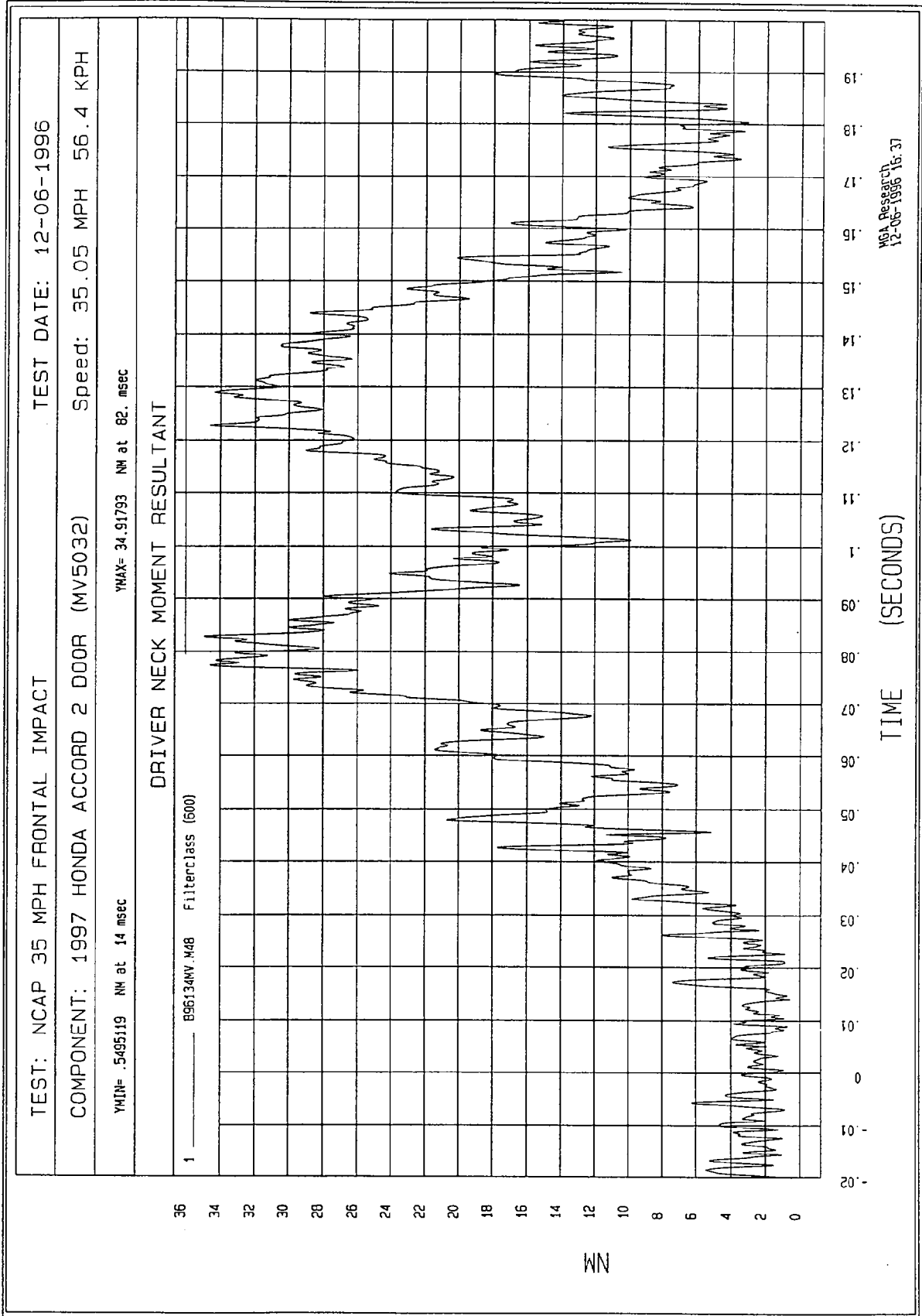
DRIVER NECK FORCE Z











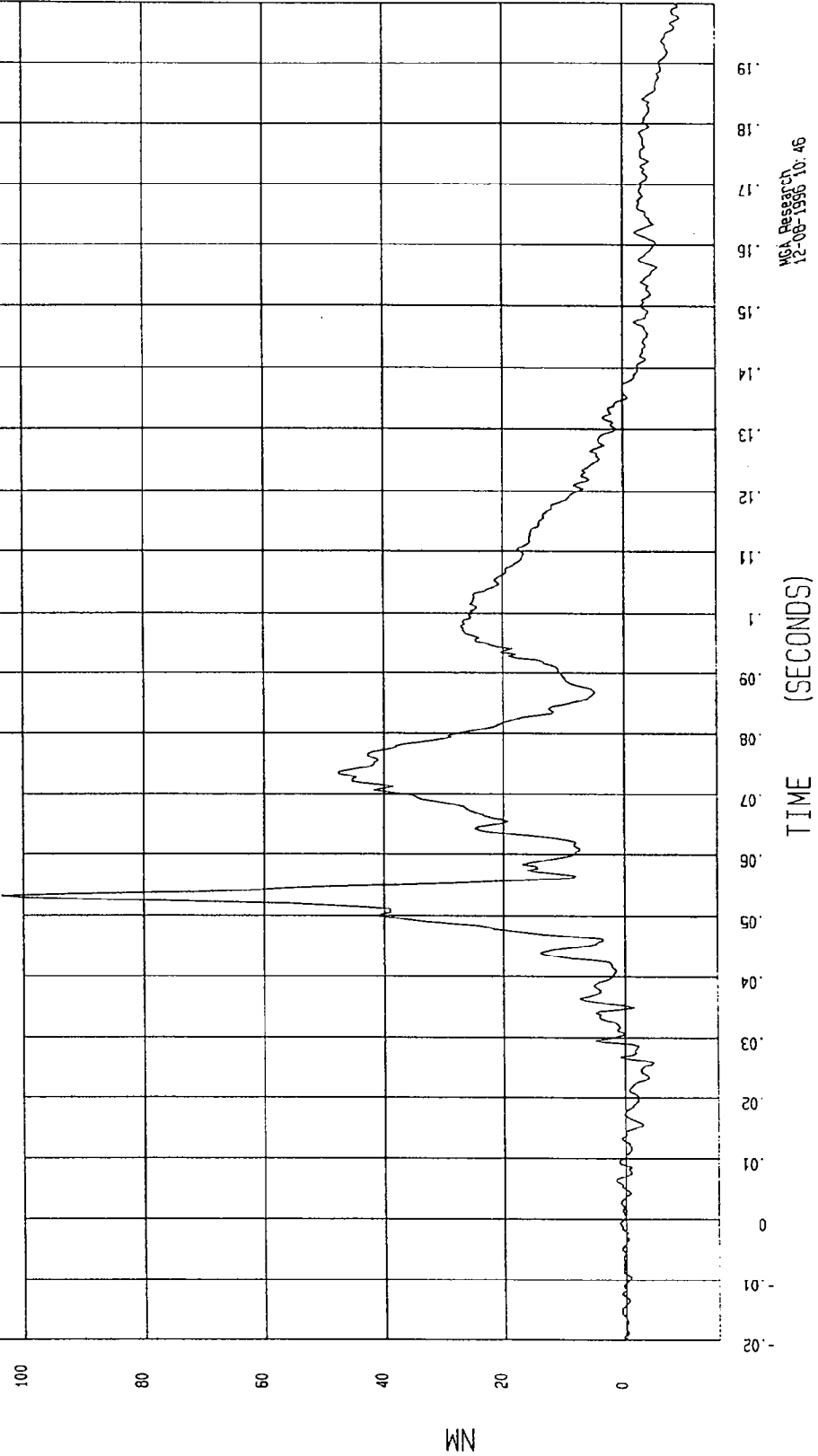
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

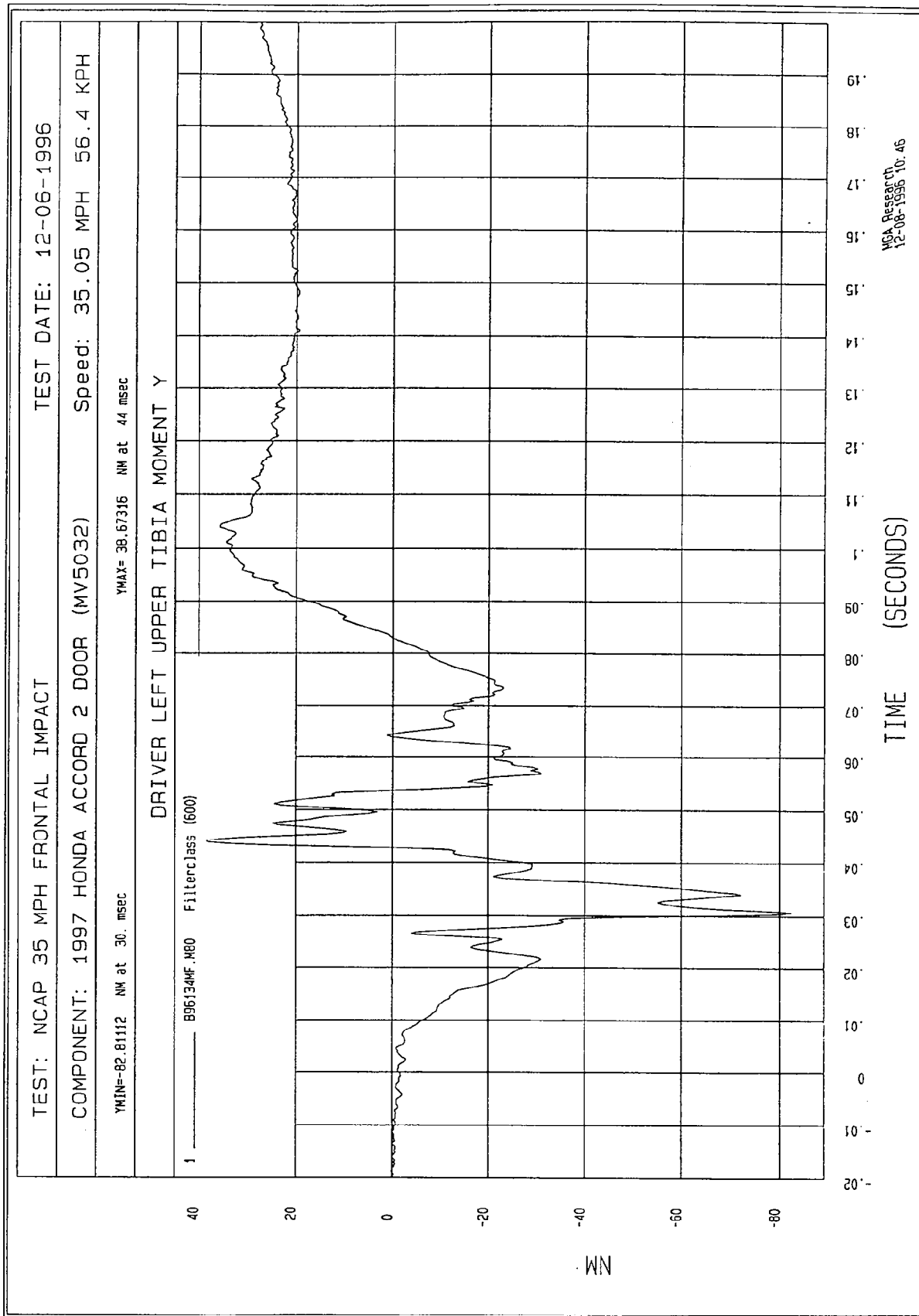
YMIN=-9.420749 NM at 197 msec YMAX= 103.8186 NM at 53. msec

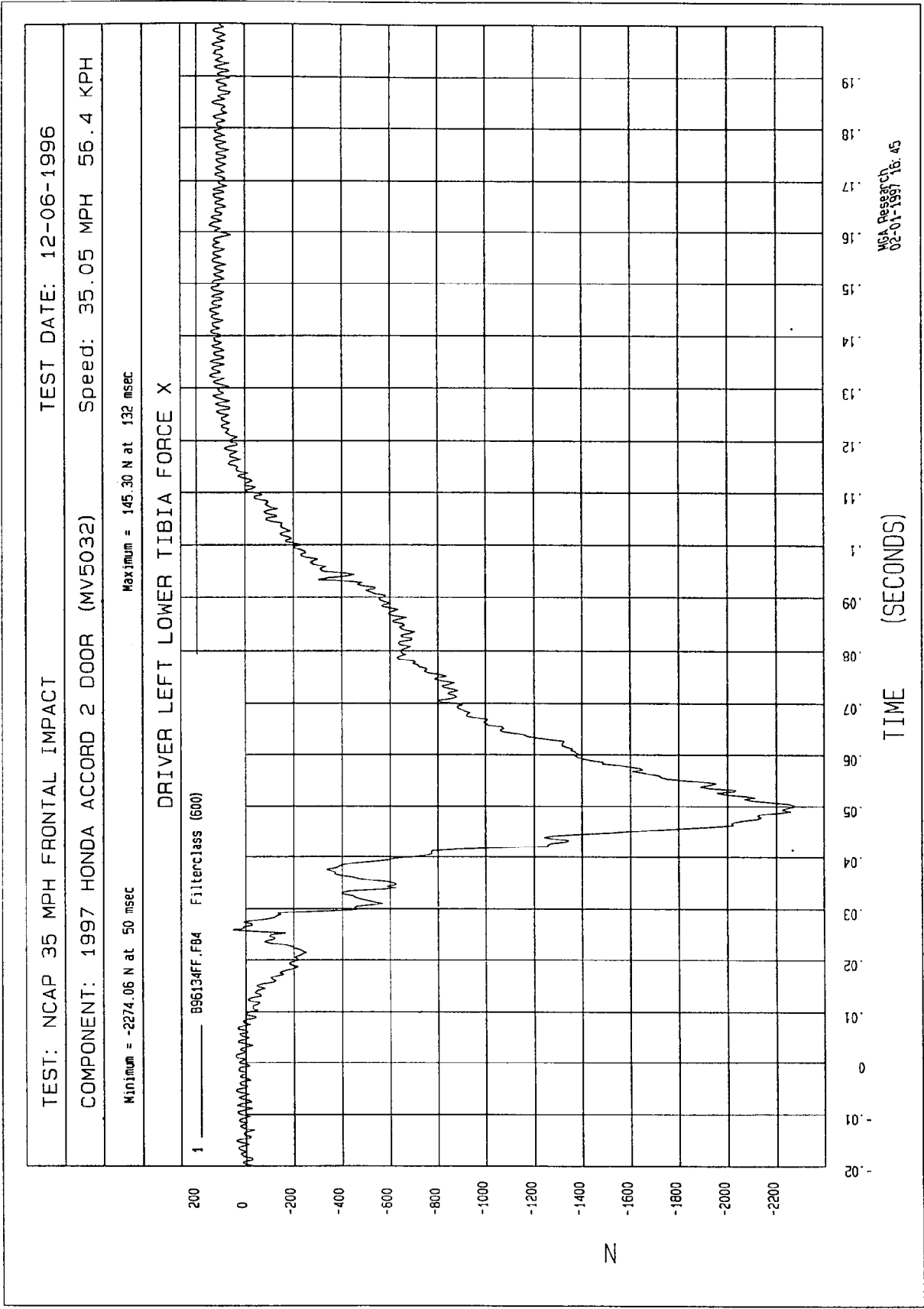
DRIVER LEFT UPPER TIBIA MOMENT X

1 896134MF M79 Filterclass (600)



W&A Research
12-06-1996 10:46



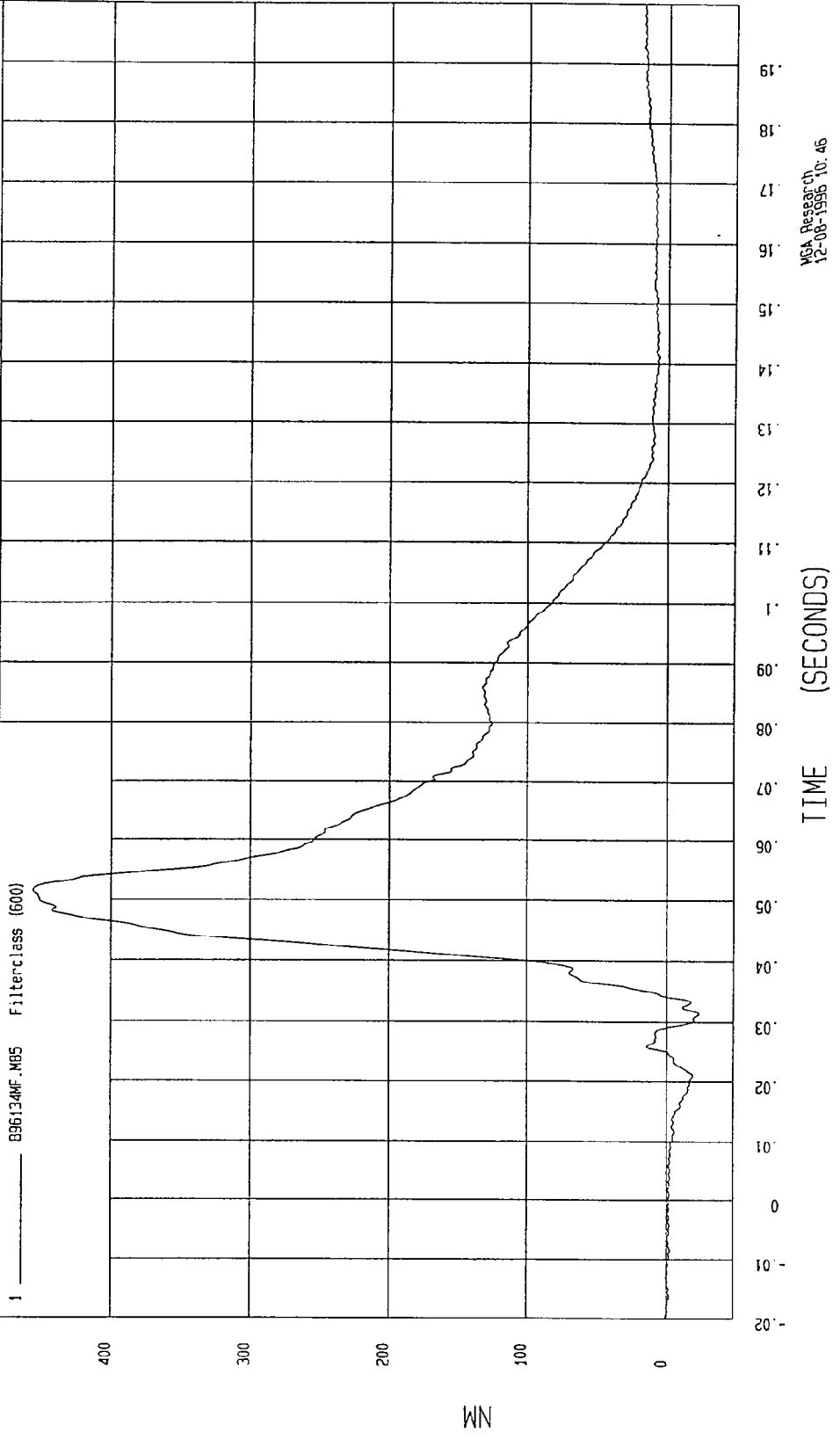


TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

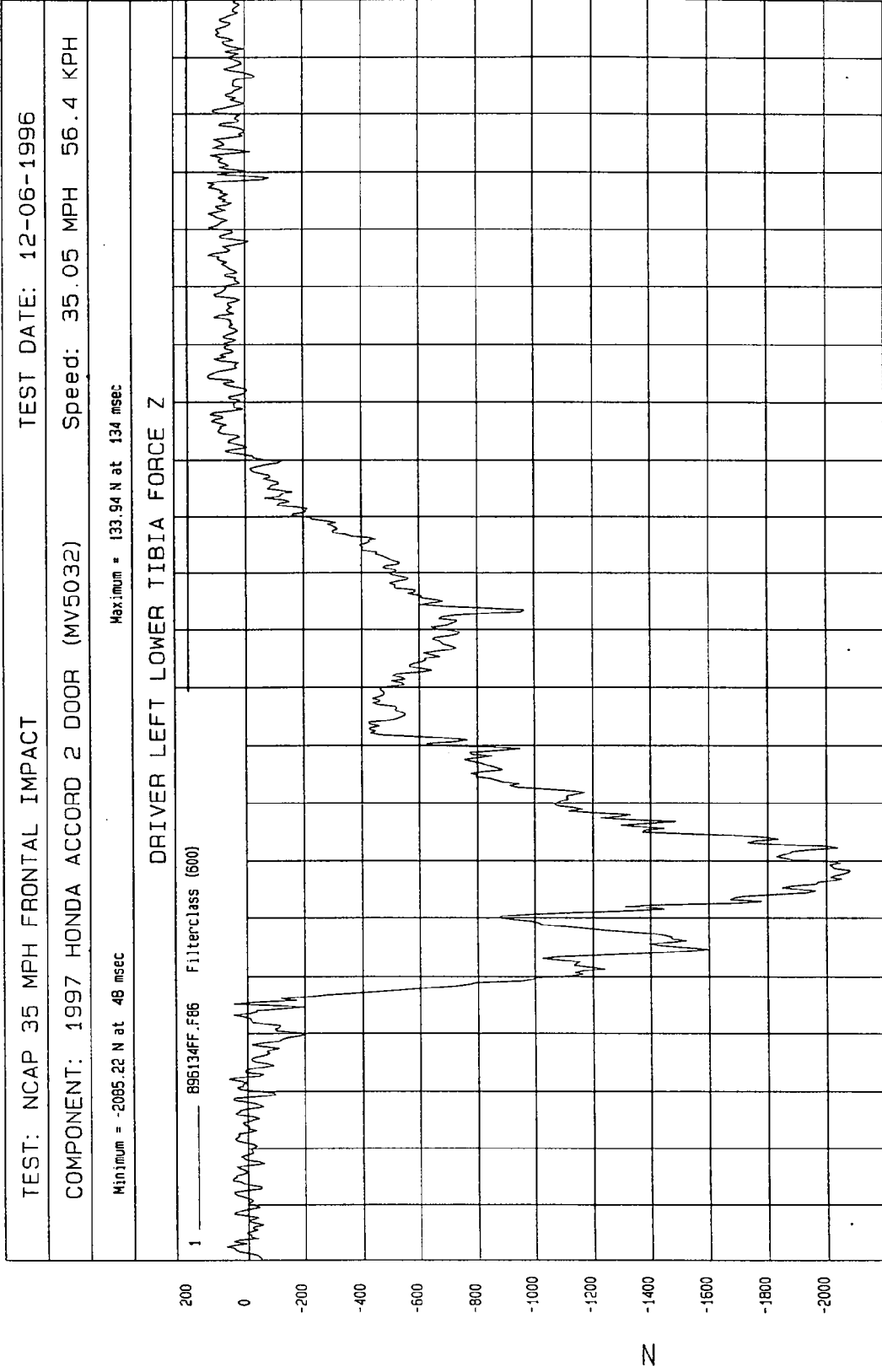
COMPONENT: 1997 HONDA ACCORD 2 D00R (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-22.93478 NM at 31. msec YMAX= 456.1109 NM at 51. msec

DRIVER LEFT LOWER TIBIA MOMENT Y



MOA Research
12-08-1996 10: 46



TIME (SECONDS)

19
18
17
16
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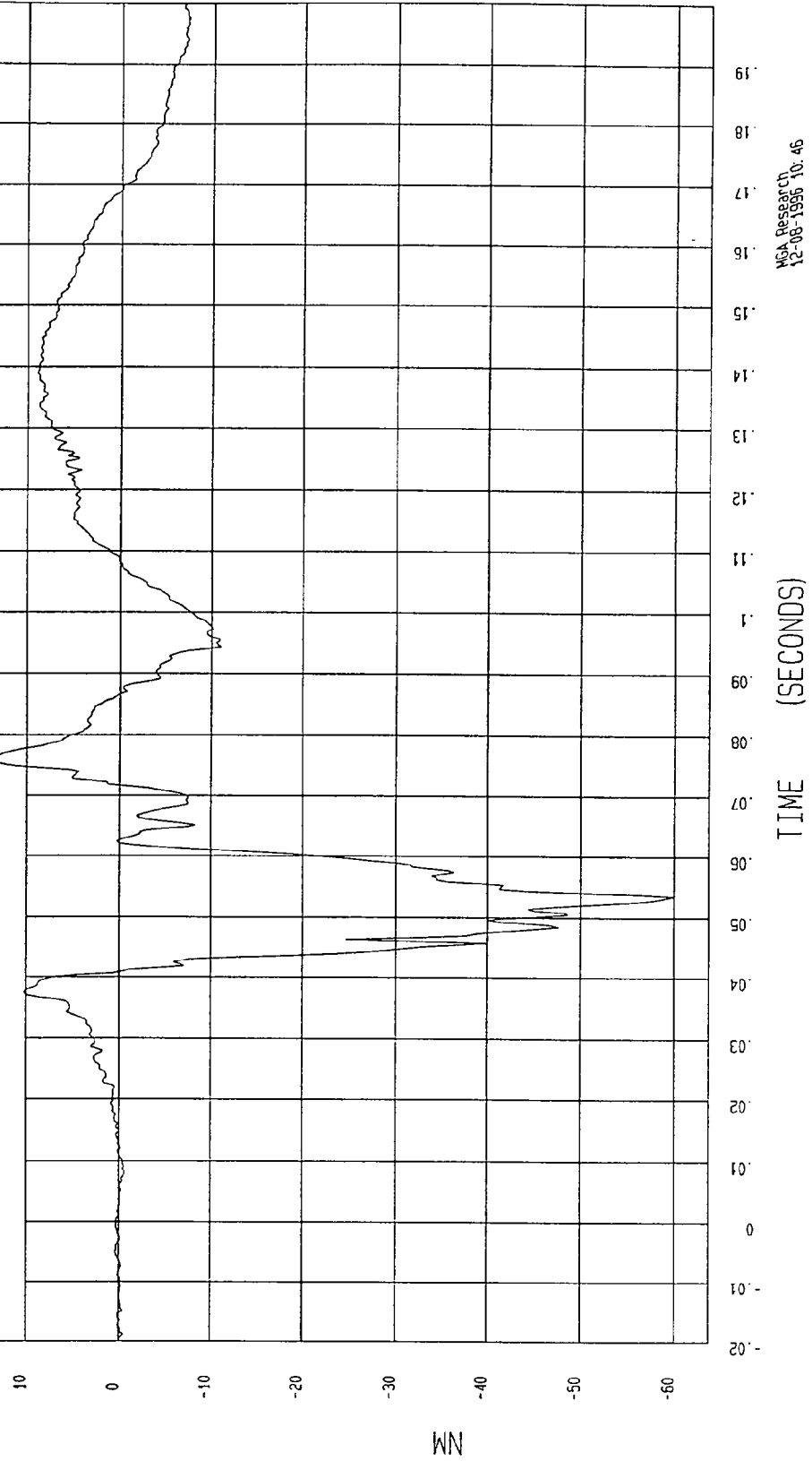
USA Research
02-01-1997 16:45

TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

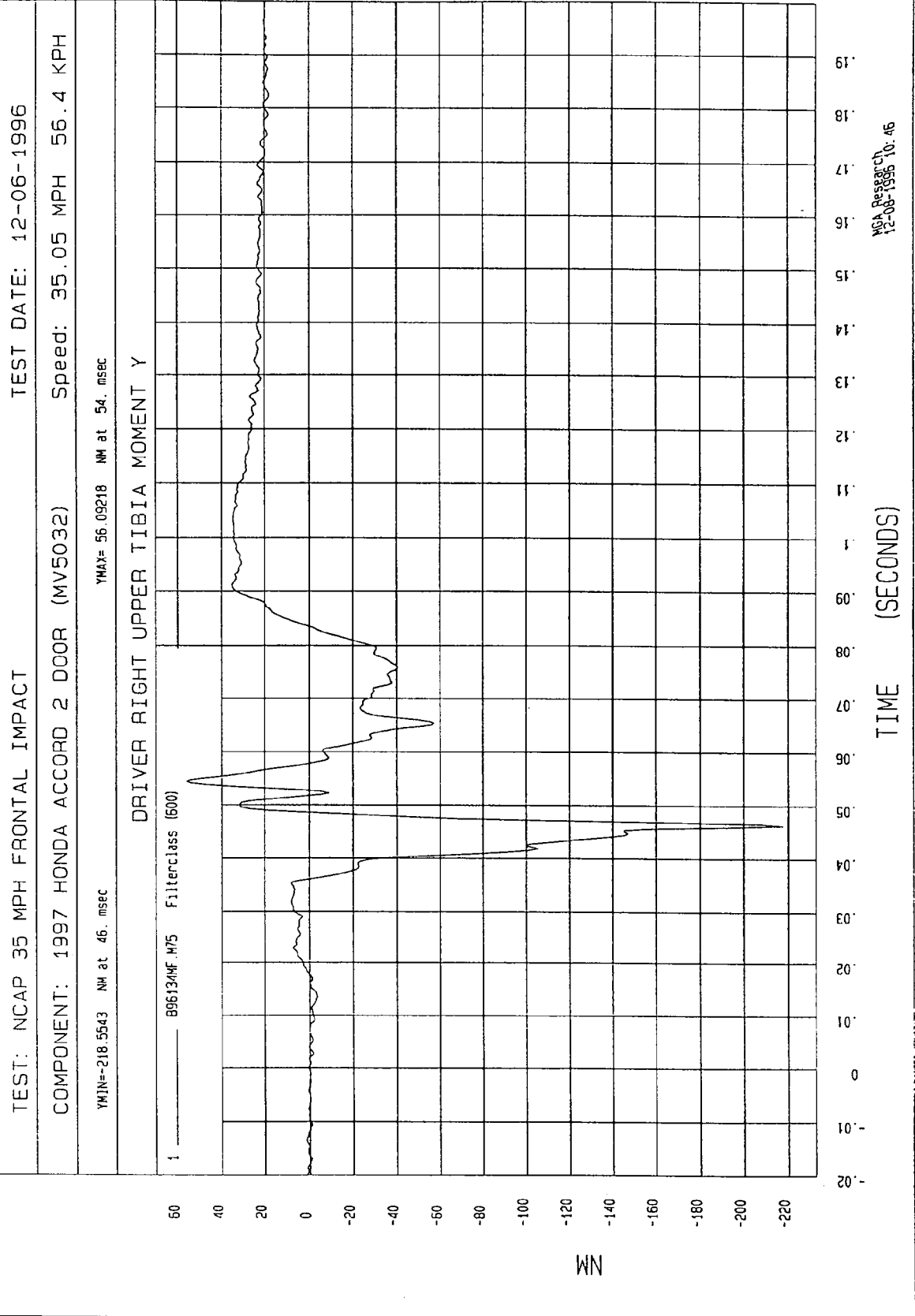
YMIN=-59.99963 NM at 53. msec YMAX= 13.46669 NM at 75. msec

DRIVER RIGHT UPPER TIBIA MOMENT X

1 ——— B96134MF.M74 Filterclass (600)

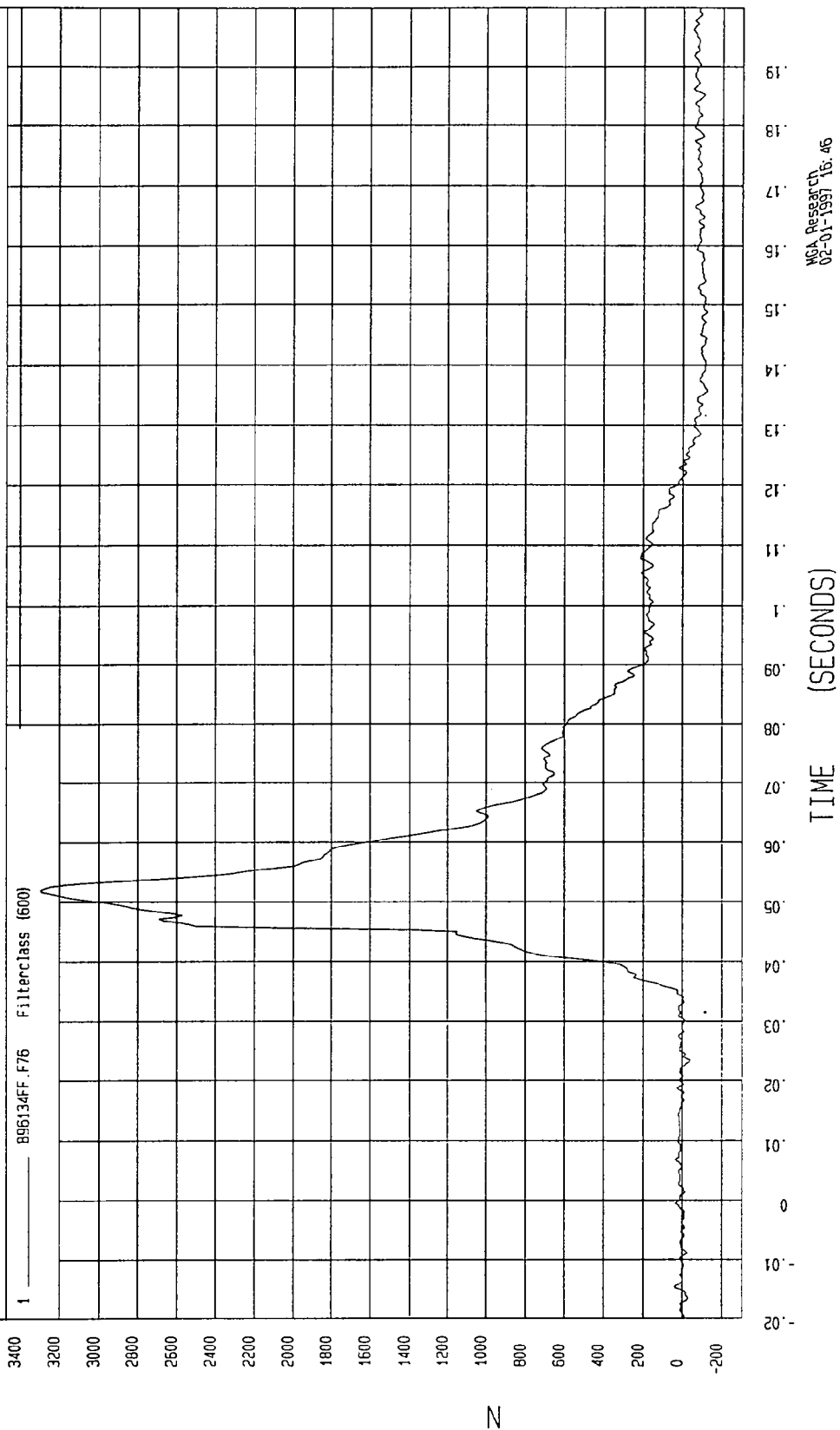


NGA Research
12-06-1996 10.46

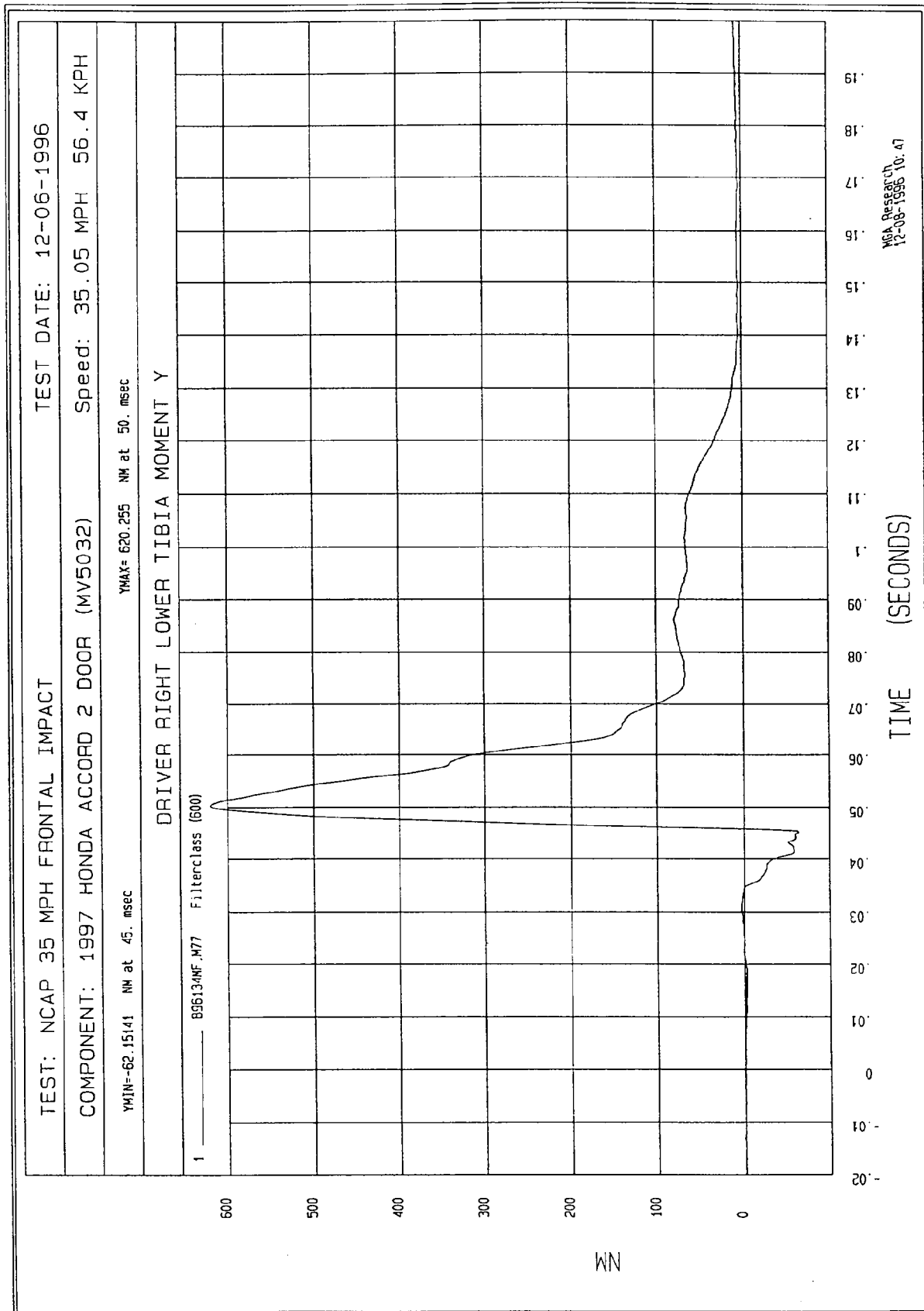


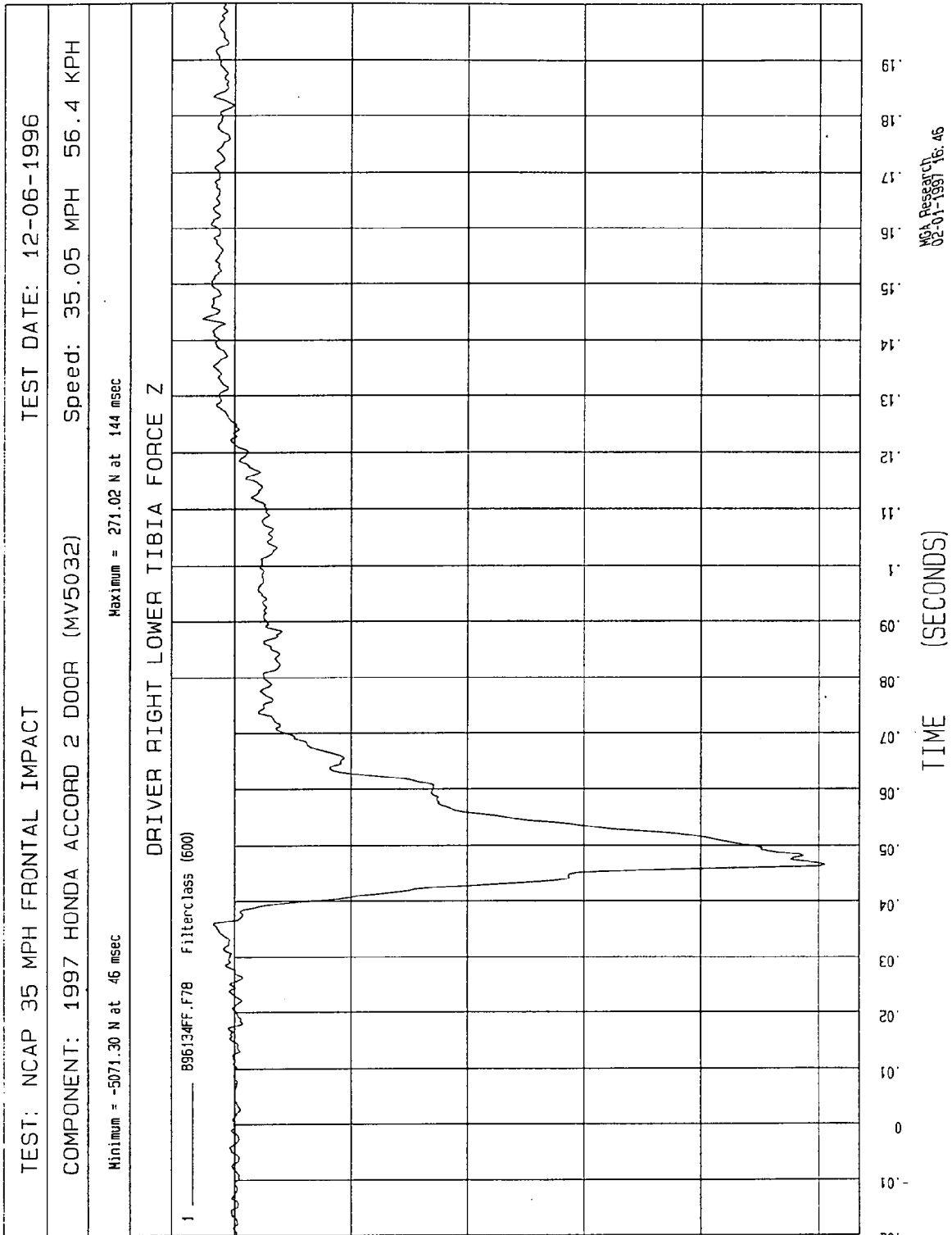
TEST: NCAP 35 MPH FRONTAL IMPACT	TEST DATE: 12-06-1996
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032)	Speed: 35.05 MPH 56.4 KPH
Minimum = -125.55 N at 136 msec Maximum = 3299.75 N at 52 msec	

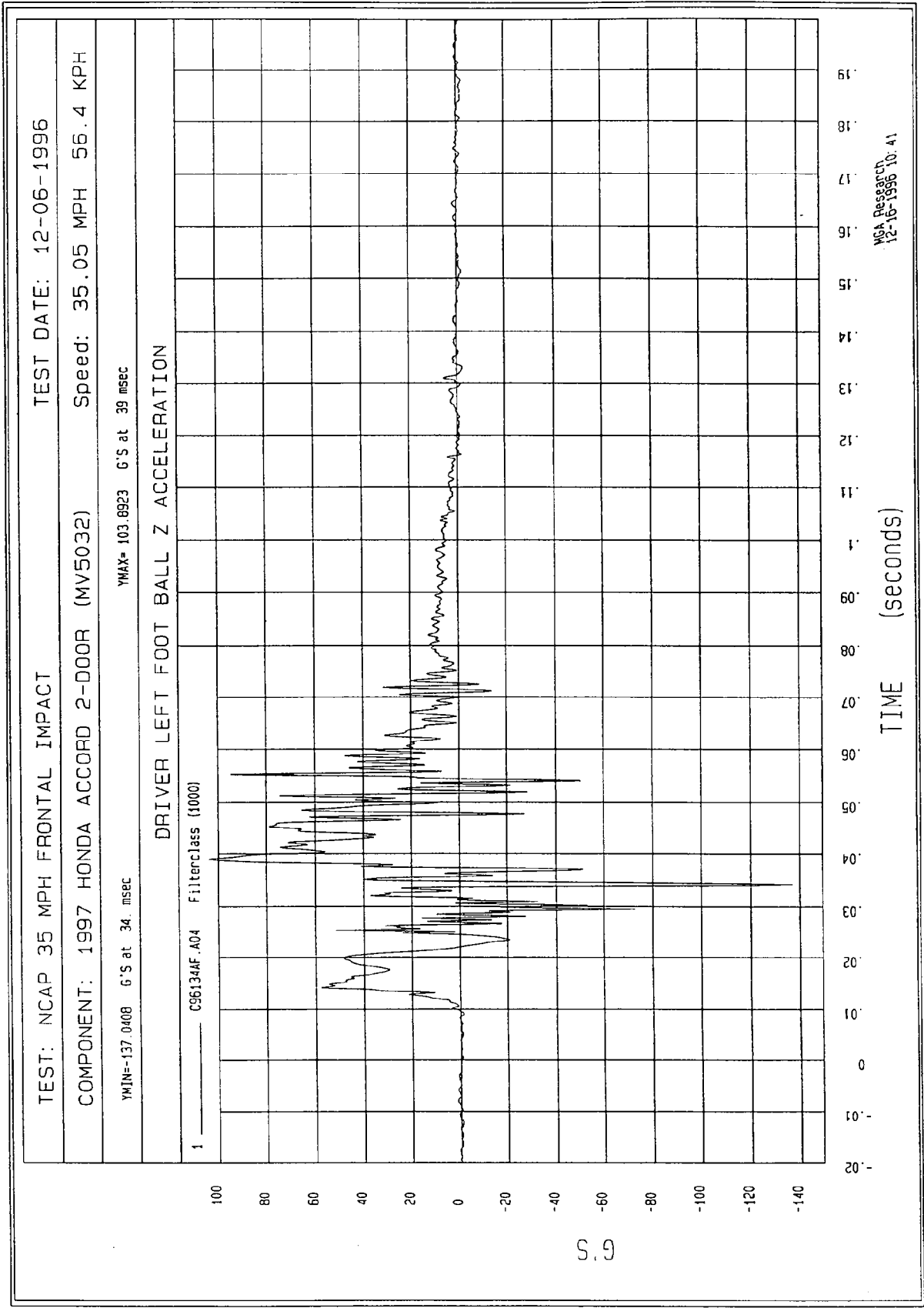
DRIVER RIGHT LOWER TIBIA FORCE X



MCA Research
02-01-1997 15:45







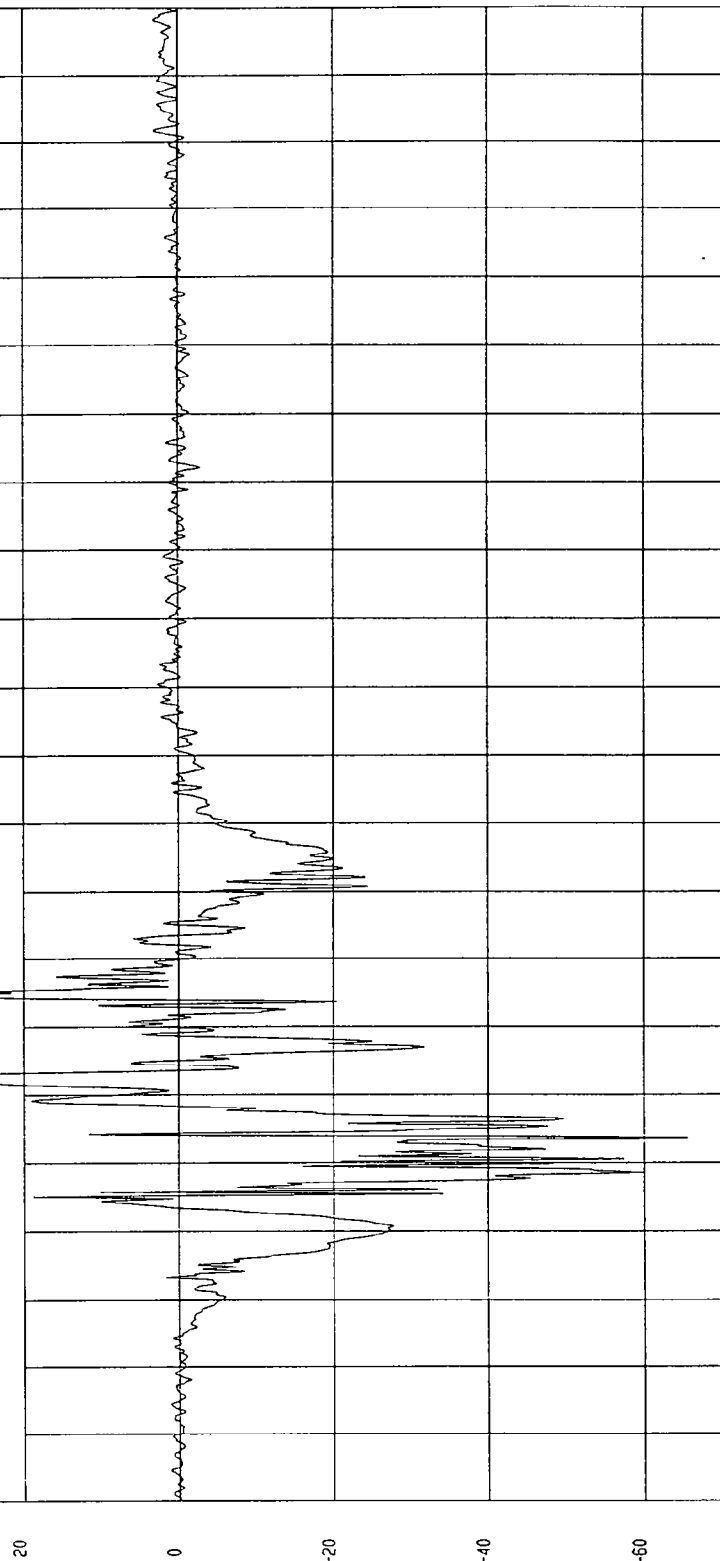
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2-DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-65.59314 G'S at 33. msec YMAX= 32.33187 G'S at 54. msec

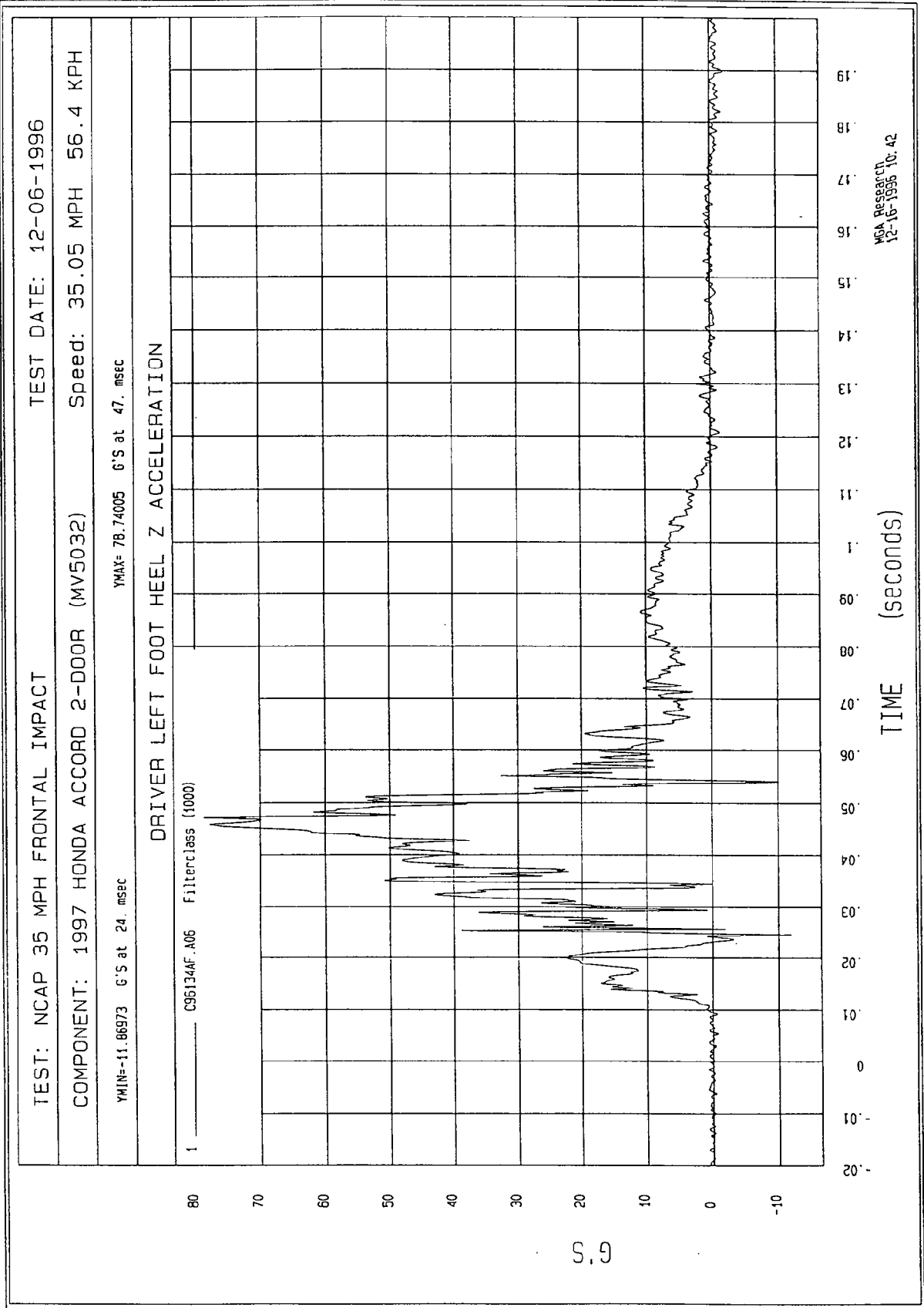
DRIVER LEFT FOOT HEEL X ACCELERATION

1 ——— C96134AF.A05 Filterclass (1000)



MSA Research
12-16-1996 10:42

TIME (seconds)



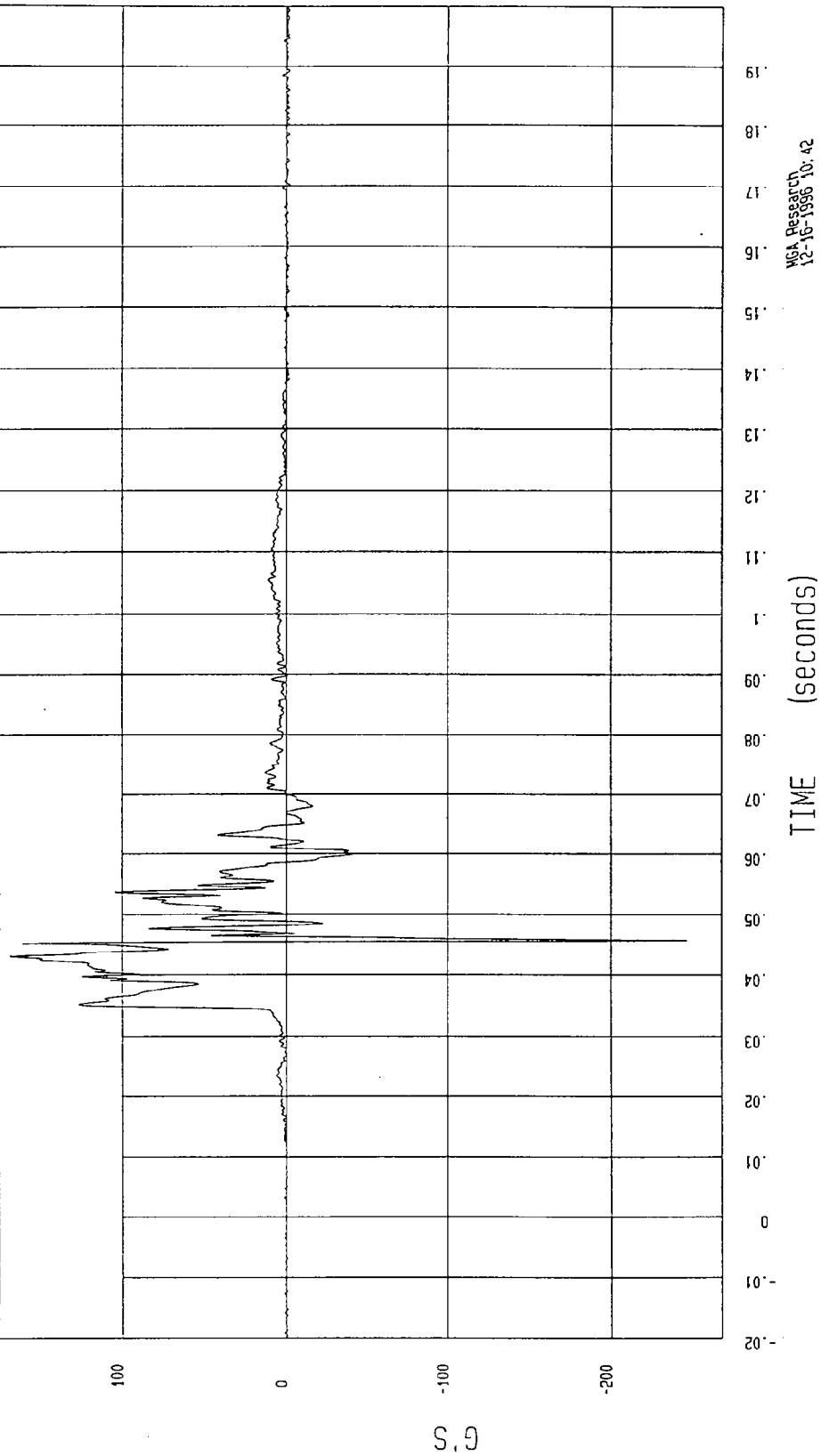
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

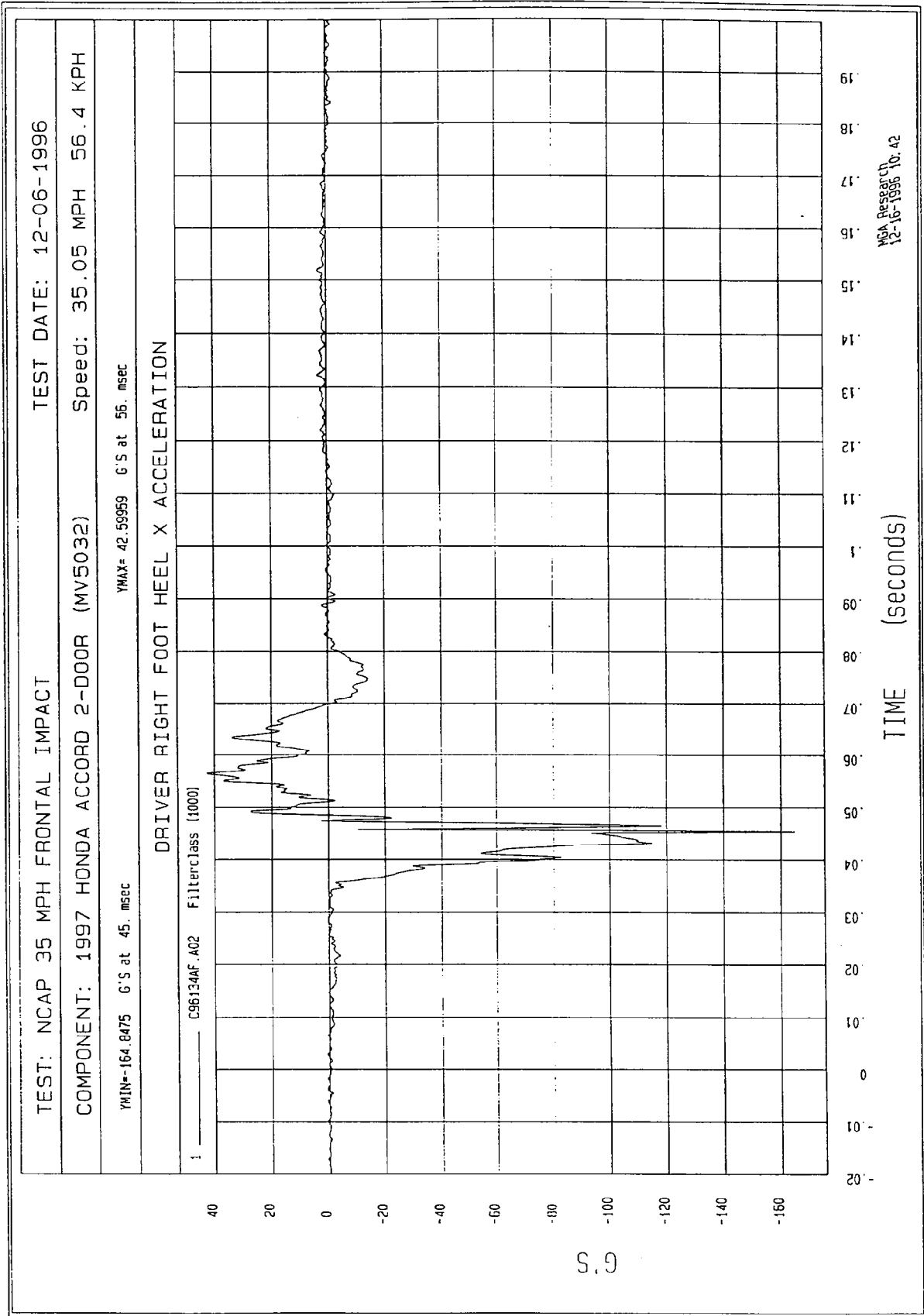
COMPONENT: 1997 HONDA ACCORD 2-DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-245.8107 G'S at 45. msec YMAX= 169.1754 G'S at 43. msec

DRIVER RIGHT FOOT BALL Z ACCELERATION

1 C96134F.A13 Filterclass (1000)





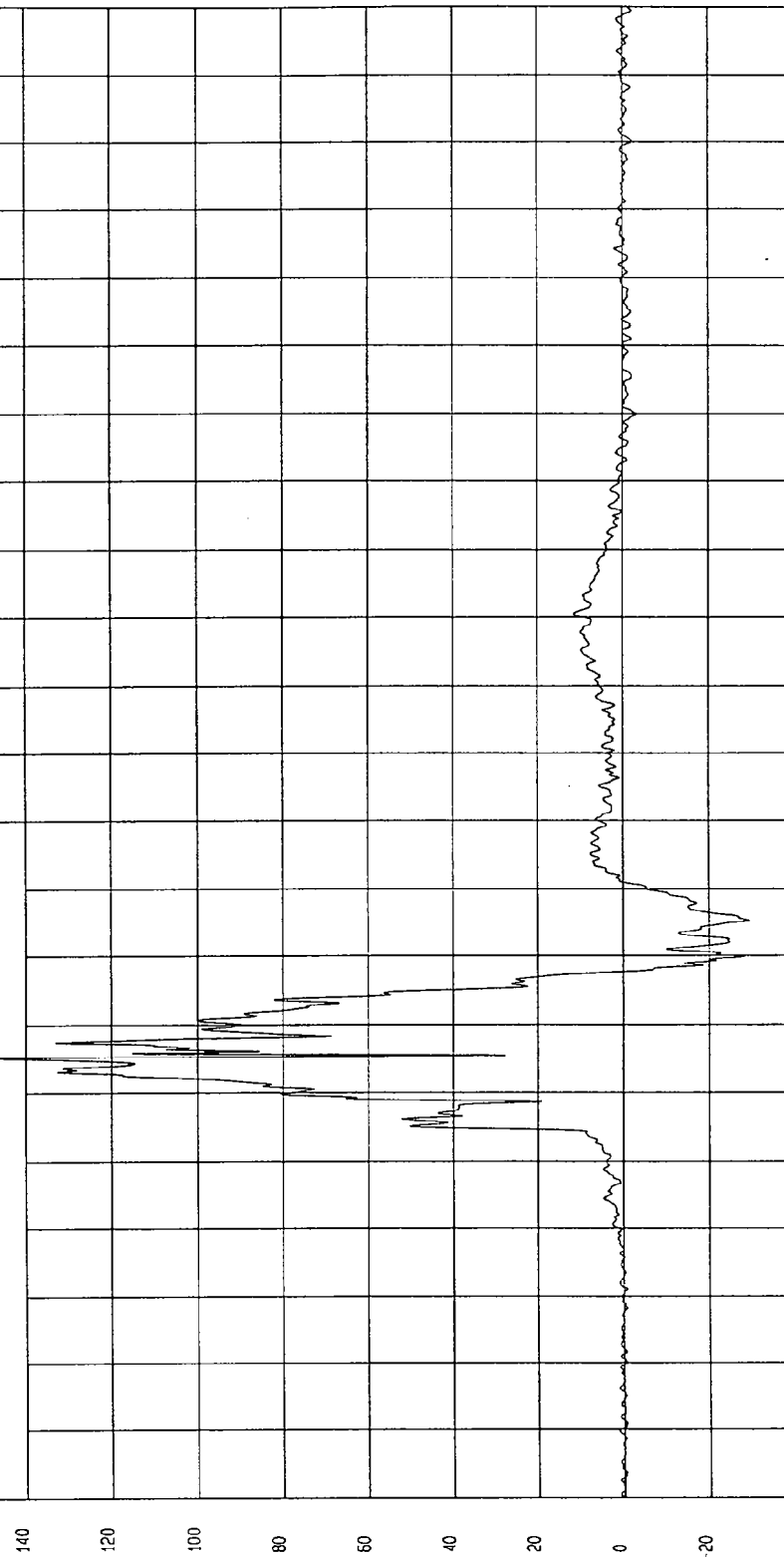
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2-DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

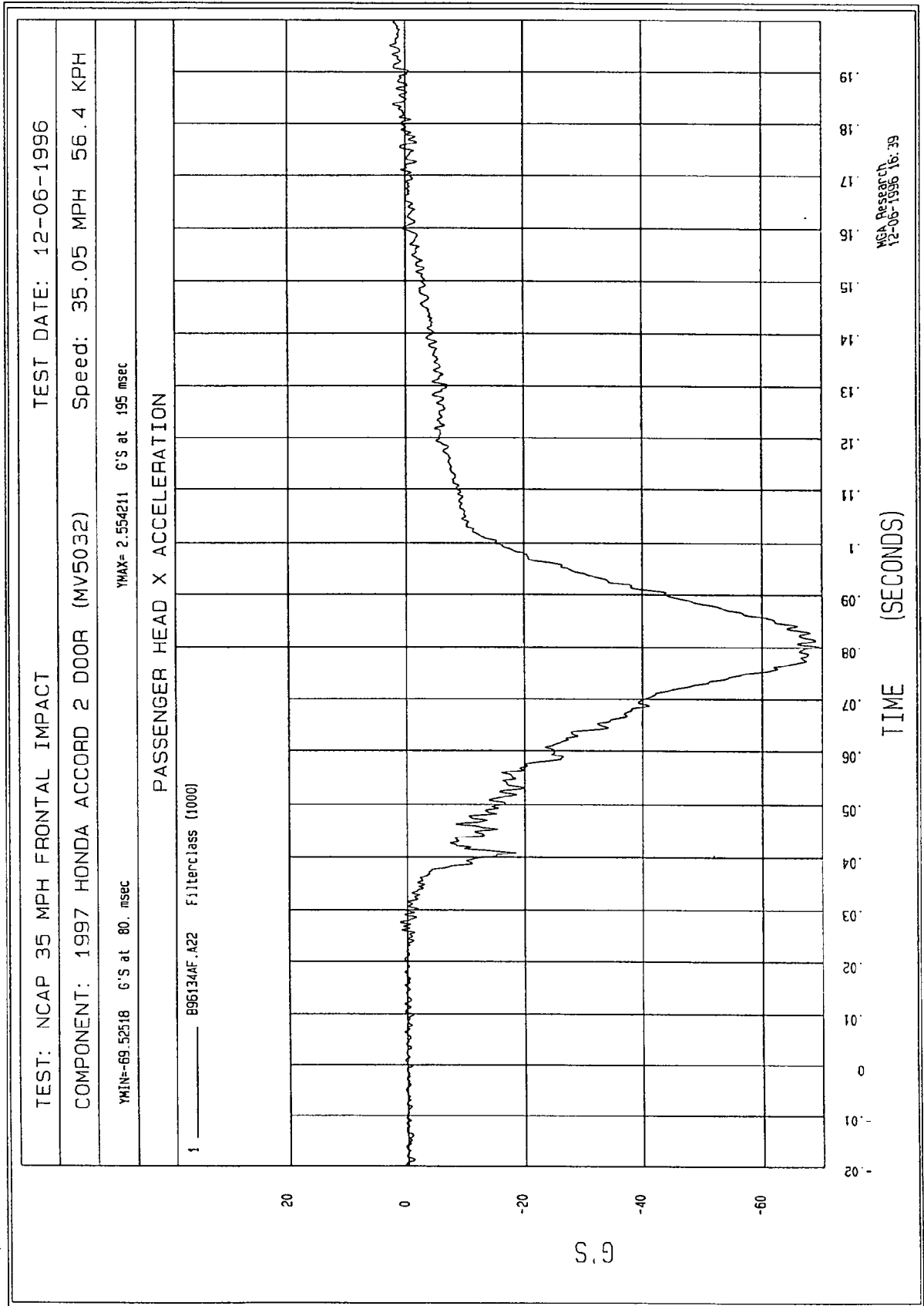
YMIN=-29.27761 G'S at 65. msec YMAX= 147.5728 G'S at 45. msec

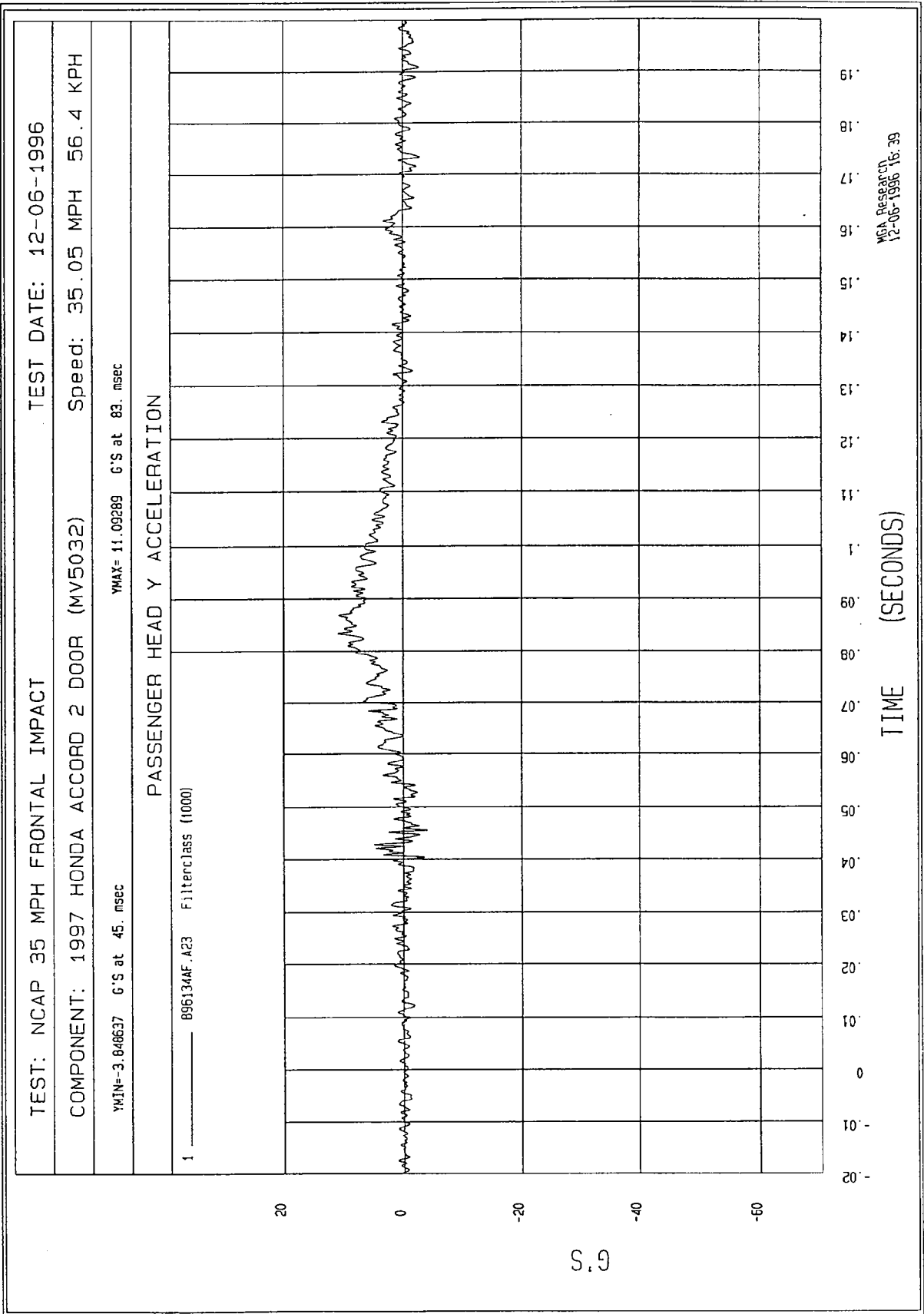
DRIVER RIGHT FOOT HEEL Z ACCELERATION

1 C96134AF.A03 Filterclass (1000)



MSA Research
12-16-1996 10:42





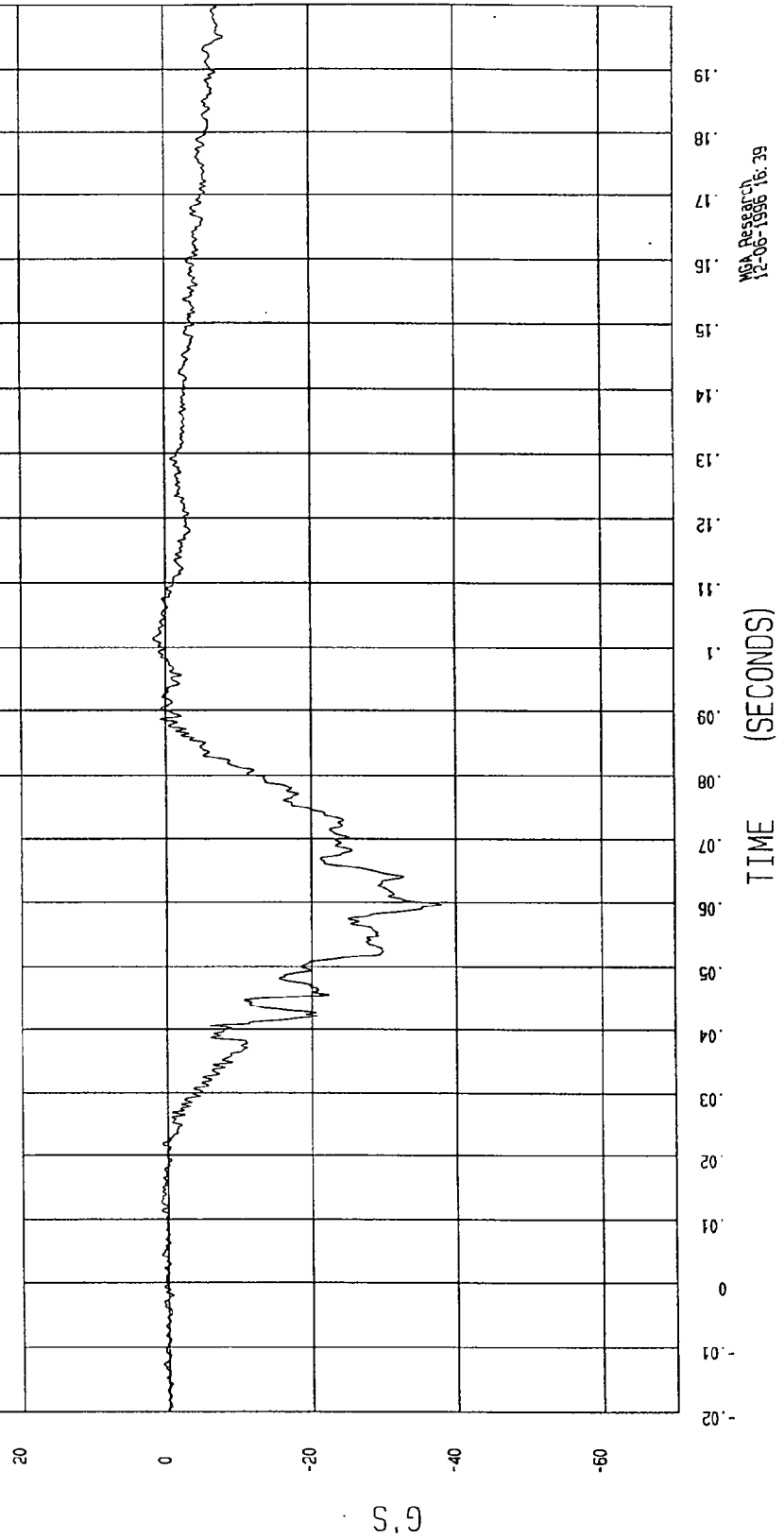
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-37.98938 G'S at 59. msec YMAX= 1.784678 G'S at 101 msec

PASSENGER HEAD Z ACCELERATION

1 856134AF.A24 Filterclass (1000)



MCA Research
12-06-1996 16:39

TEST: NCAP 35 MPH FRONTAL IMPACT

TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN= .1382752 6'S at -9.6 msec

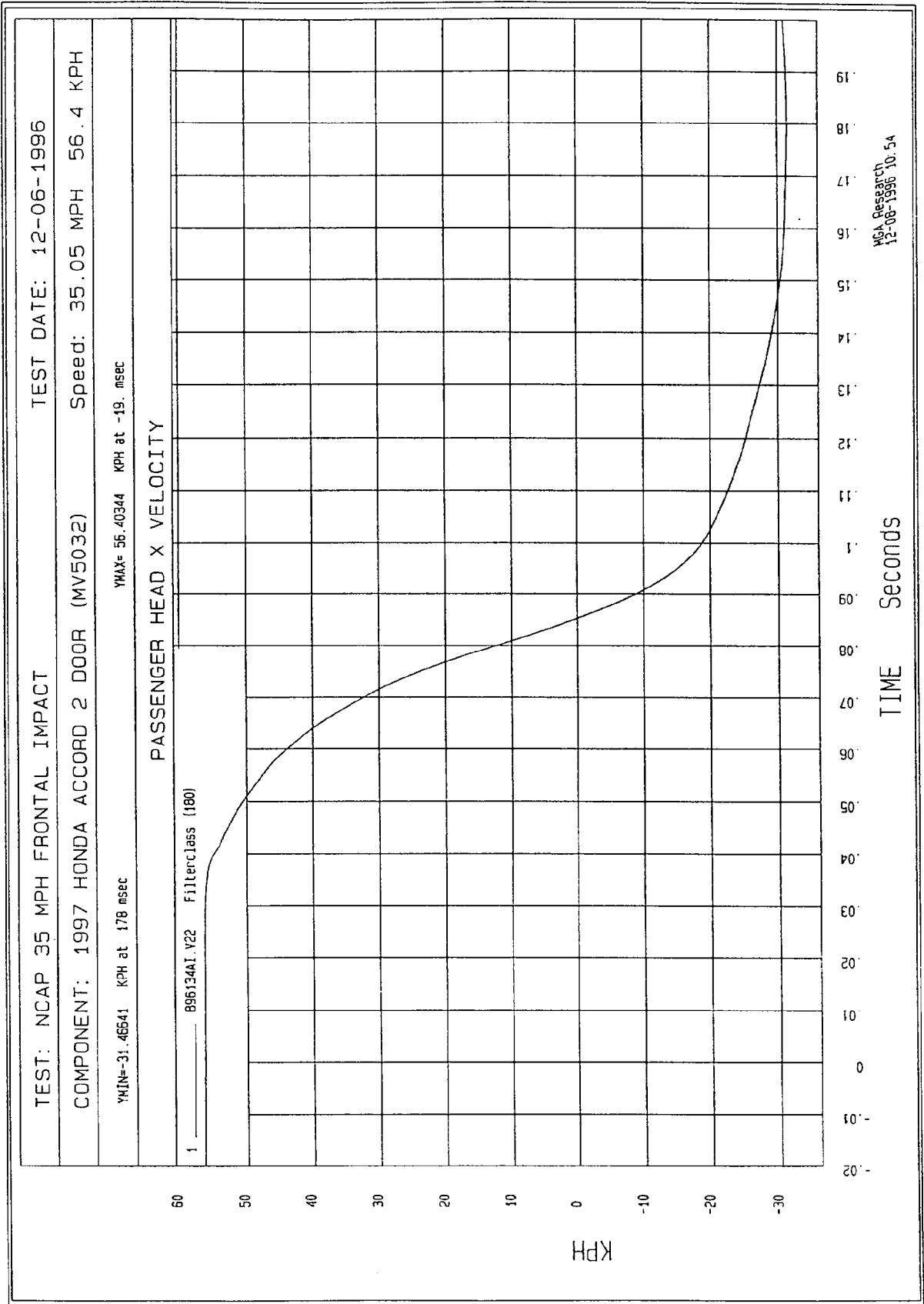
YMAX= 70.84563 6'S at 80. msec

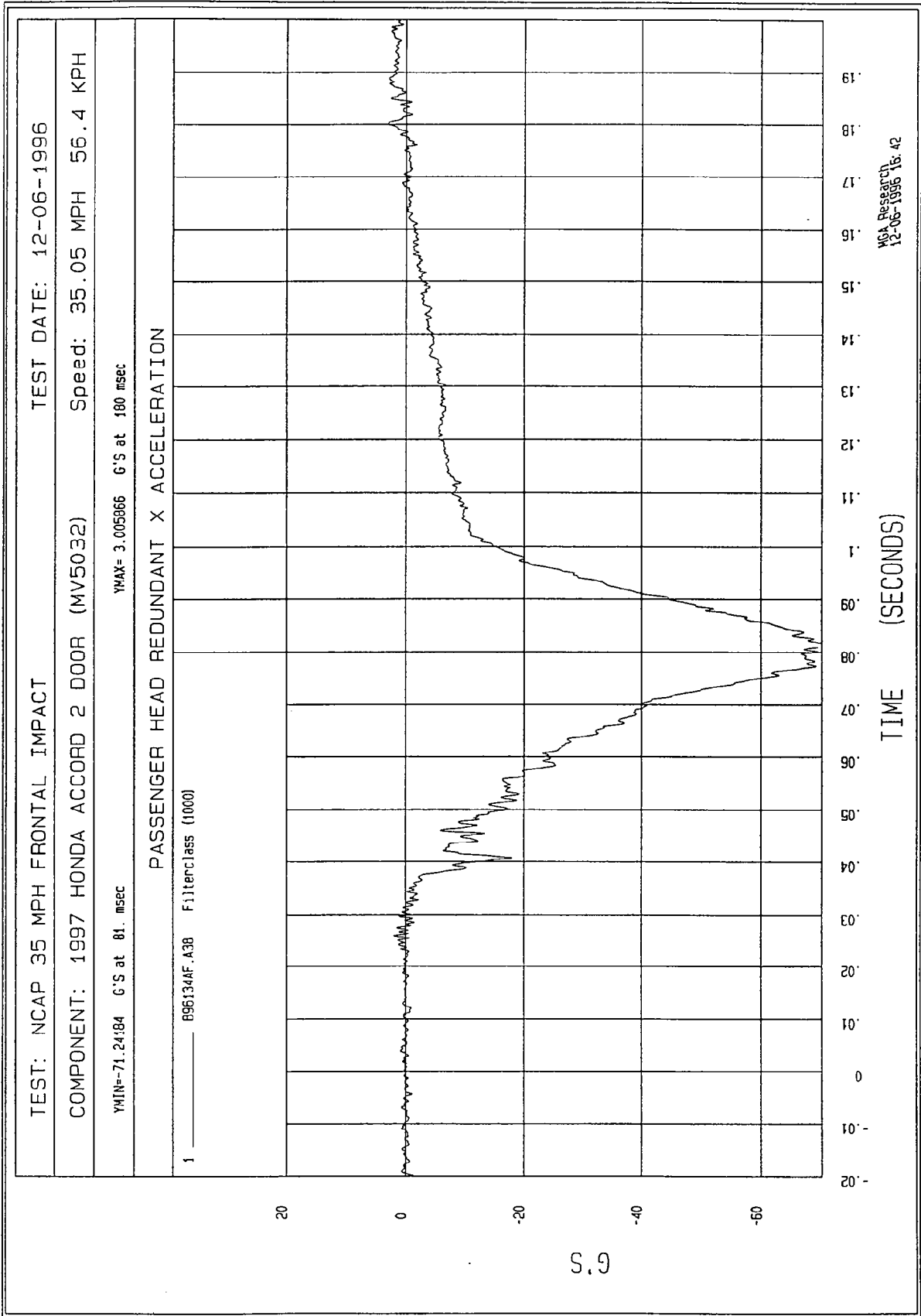
PASSENGER HEAD RESULTANT ACCELERATION

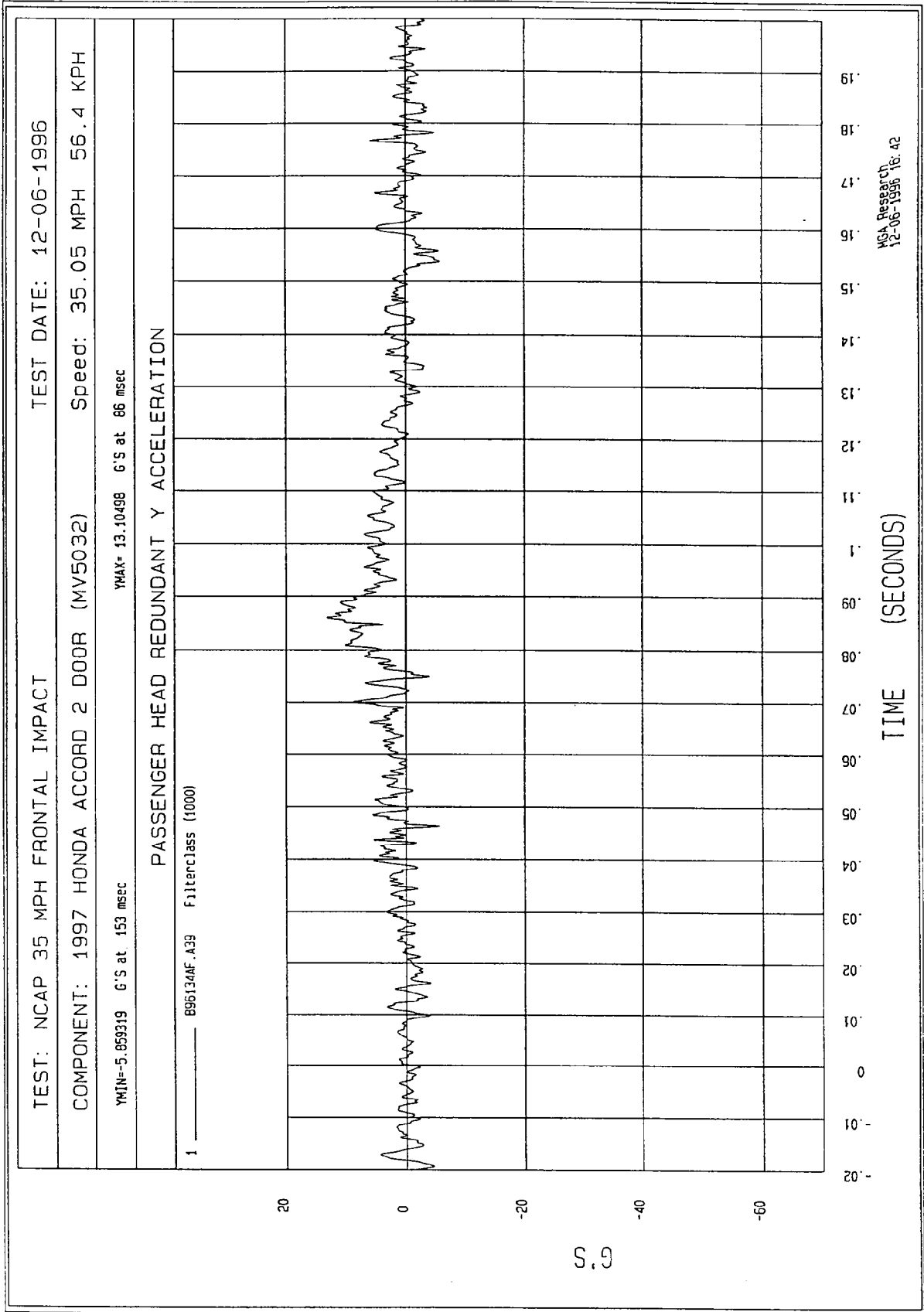
1 — 806134AV.A22 Filterclass (1000)

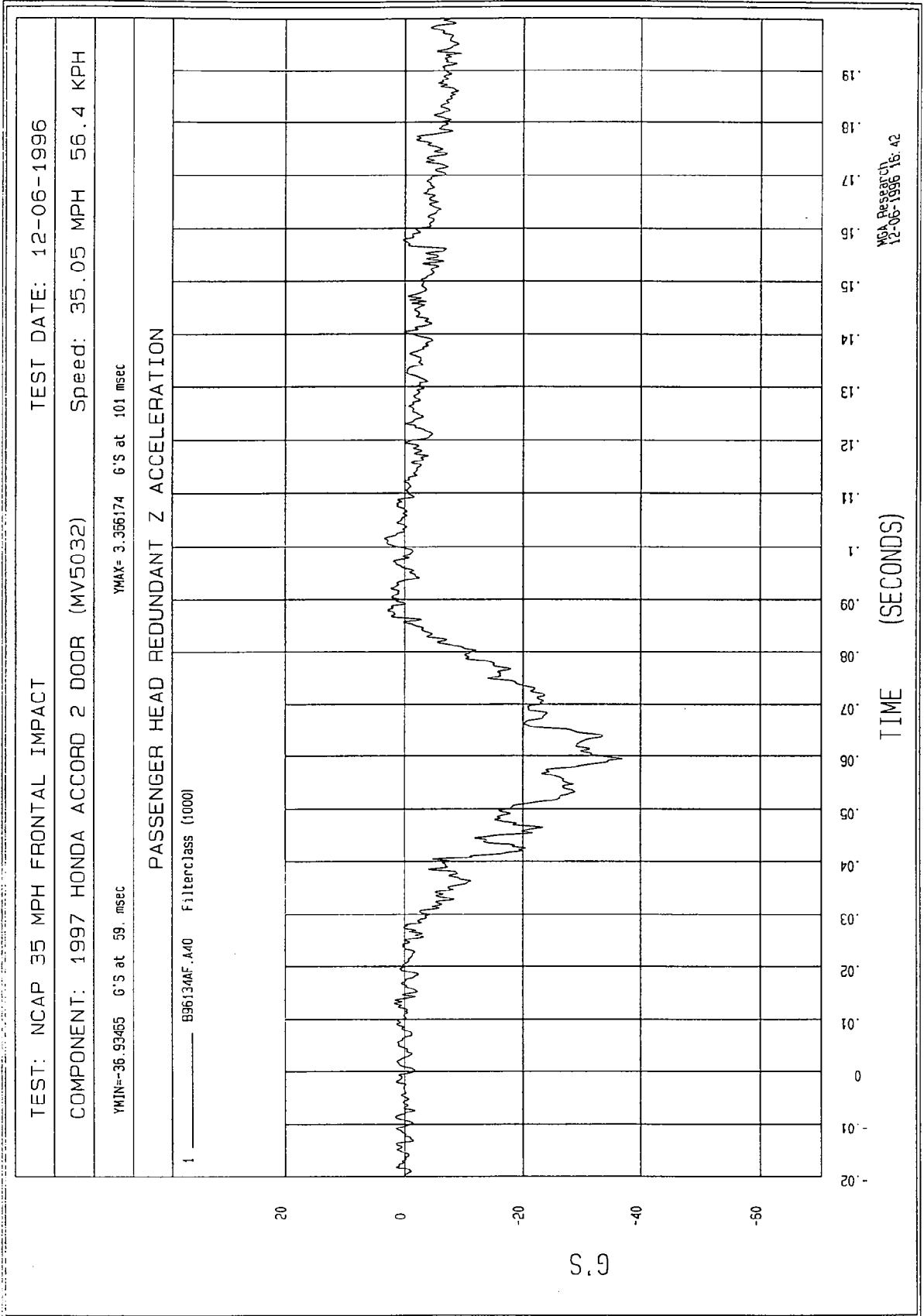


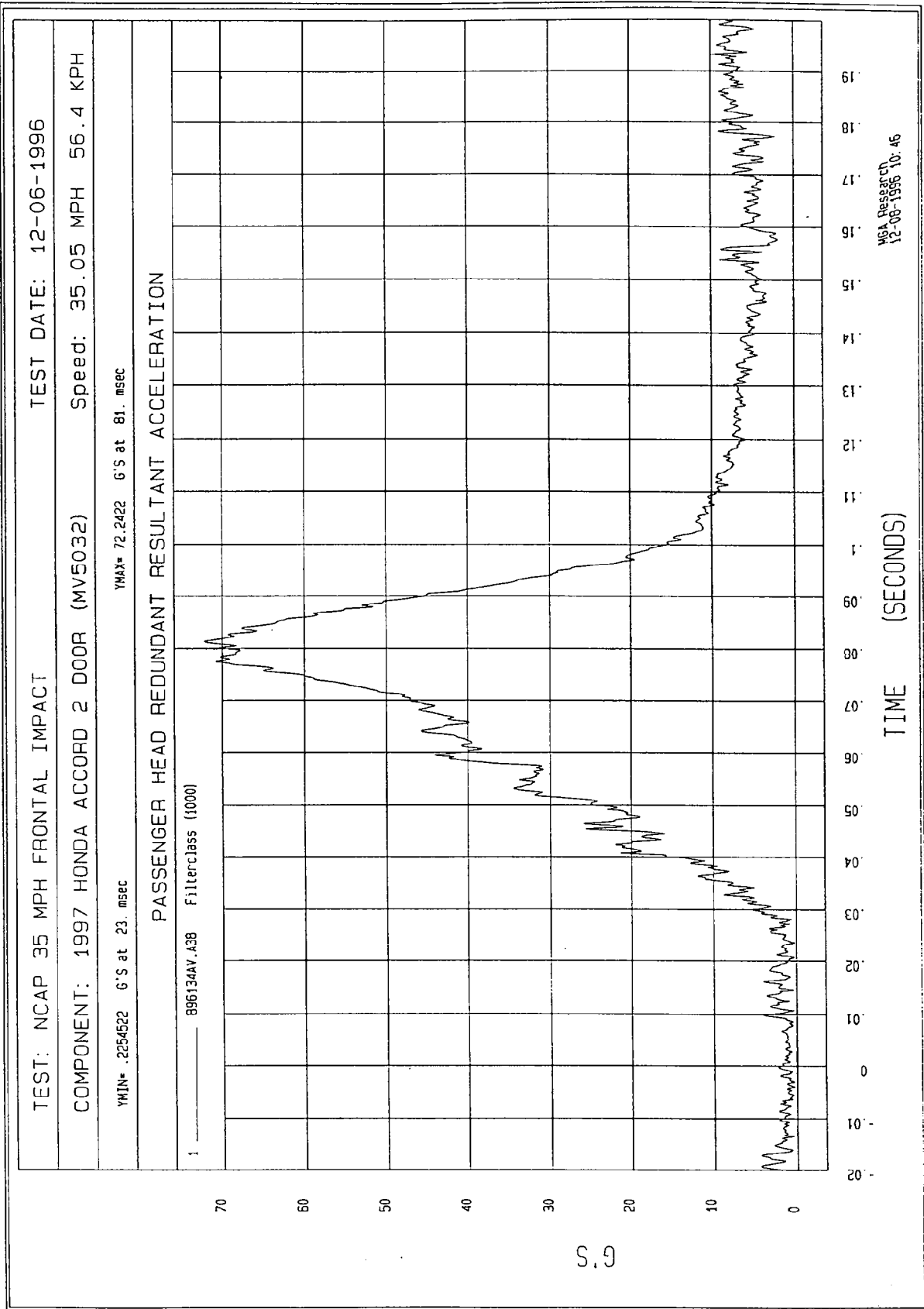
NCA Research
12-08-1996 10:44

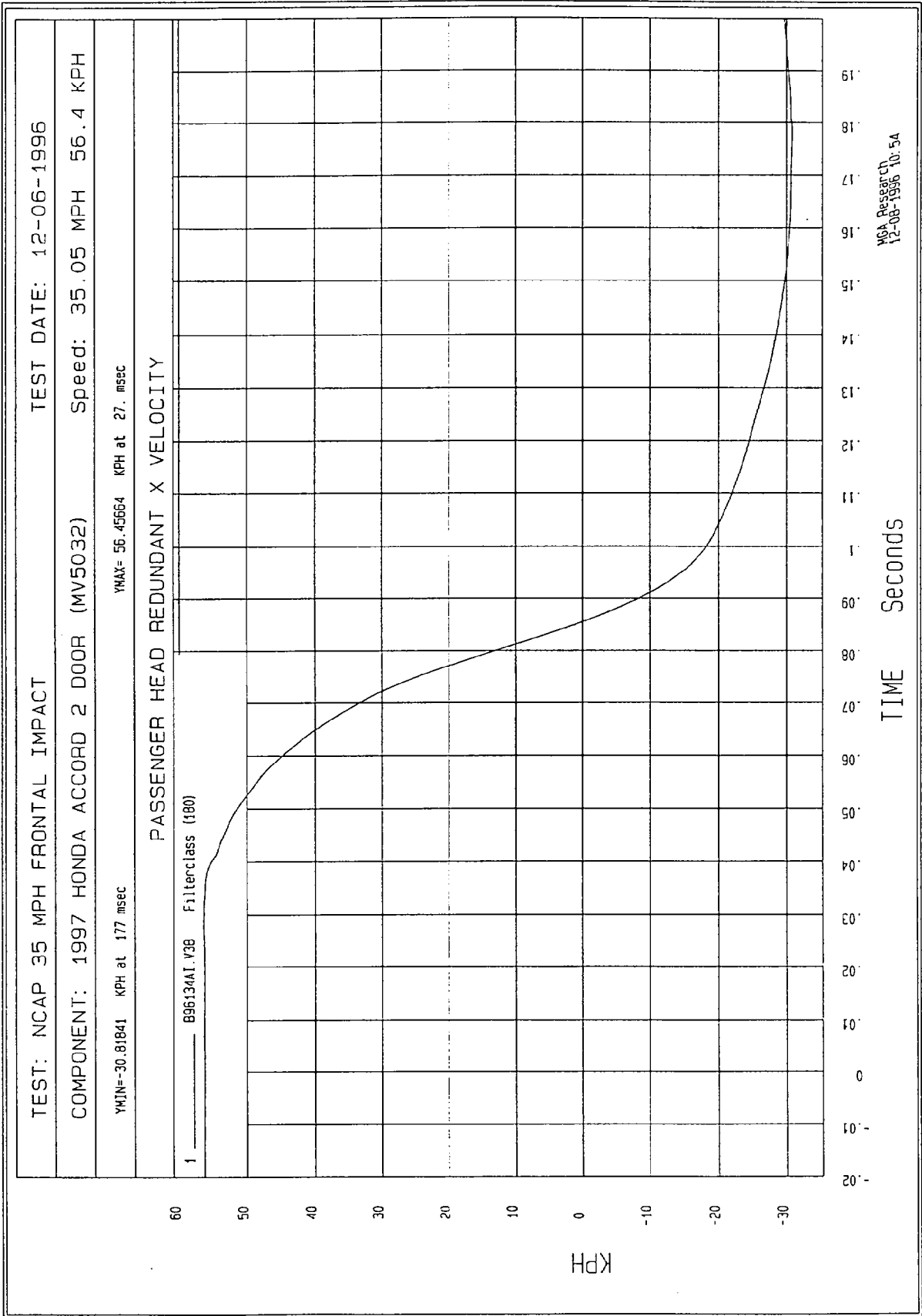


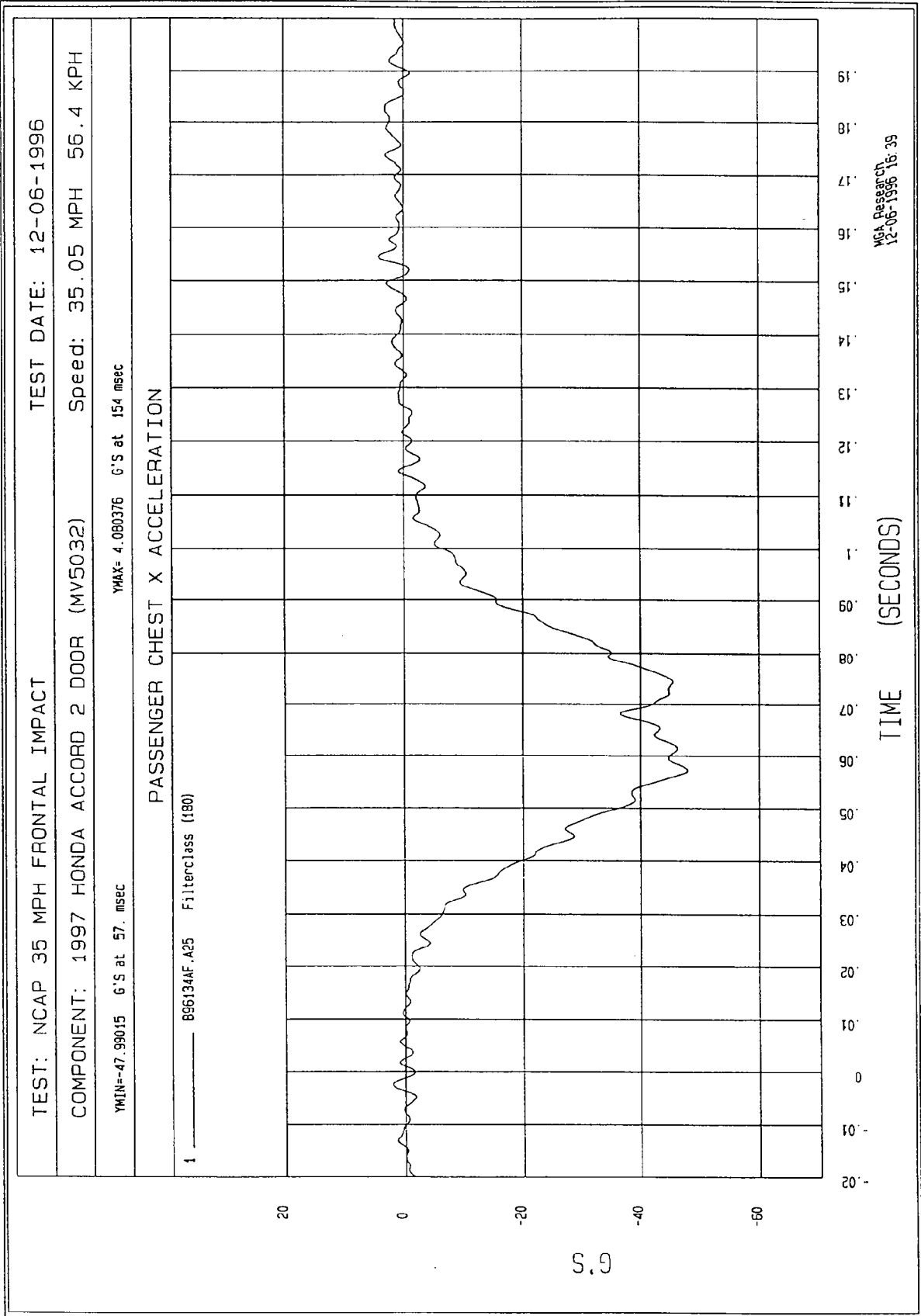












TEST: NCAP 35 MPH FRONTAL IMPACT

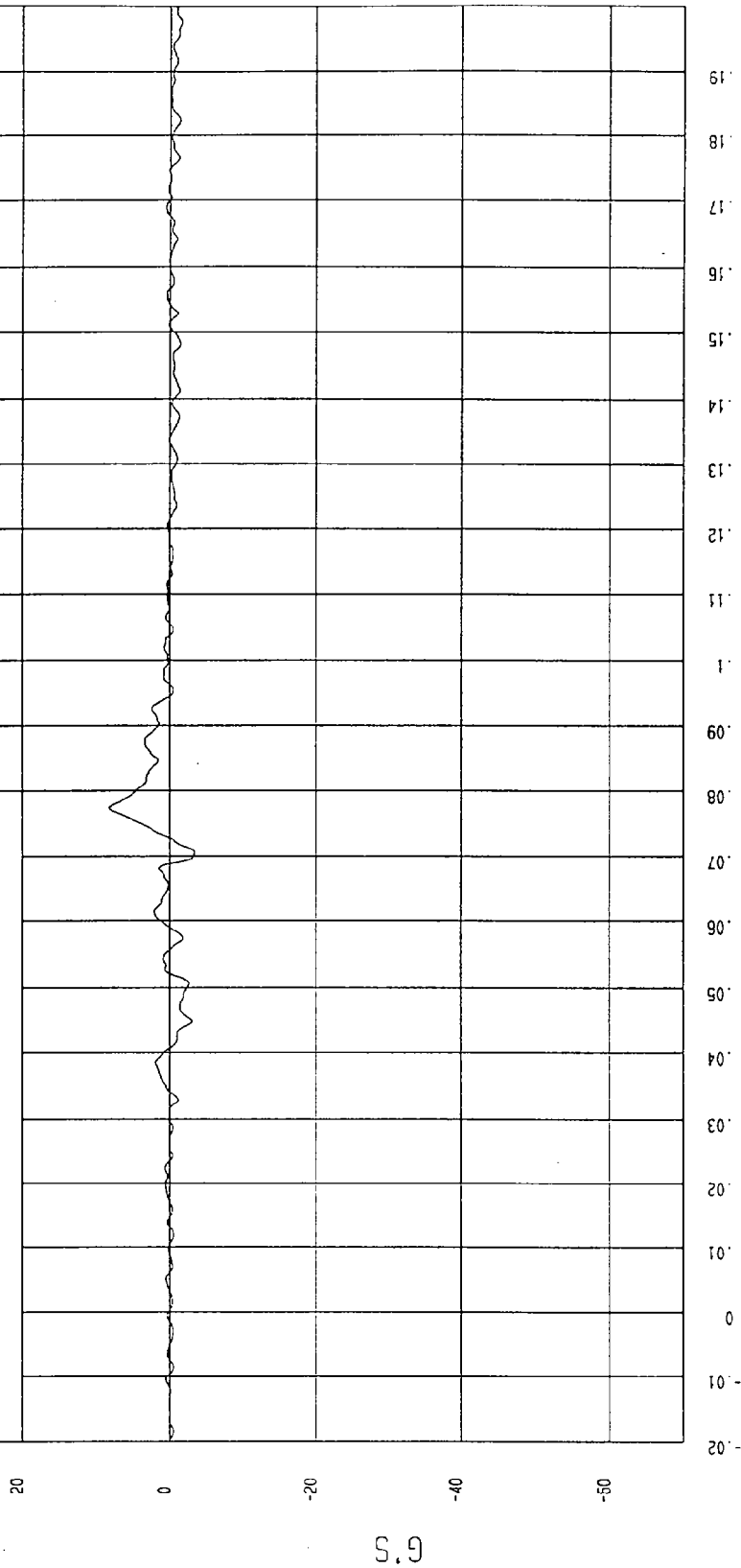
TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

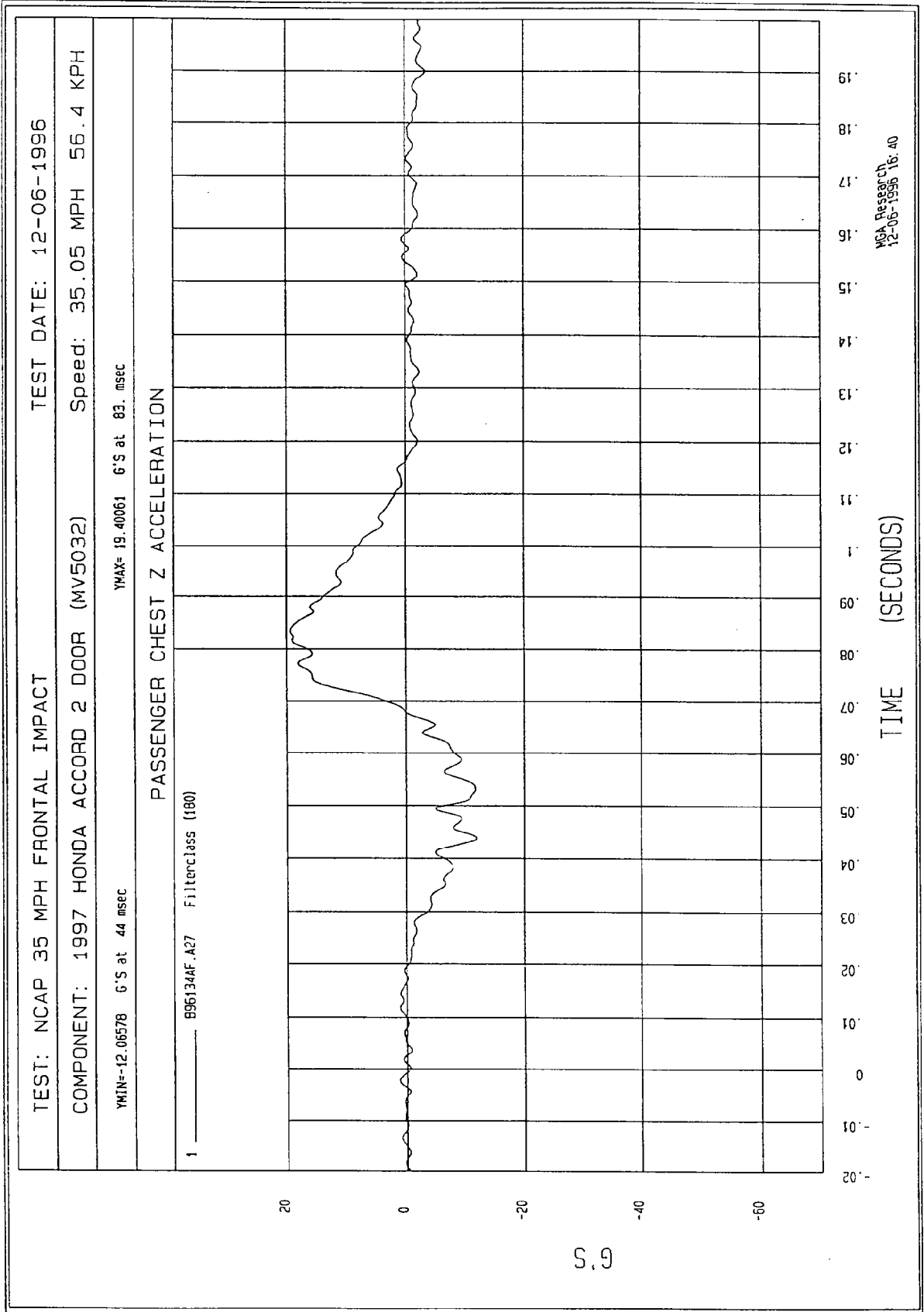
YMIN=-3.394932 G'S at 70. msec YMAX= 8.375957 G'S at 77. msec

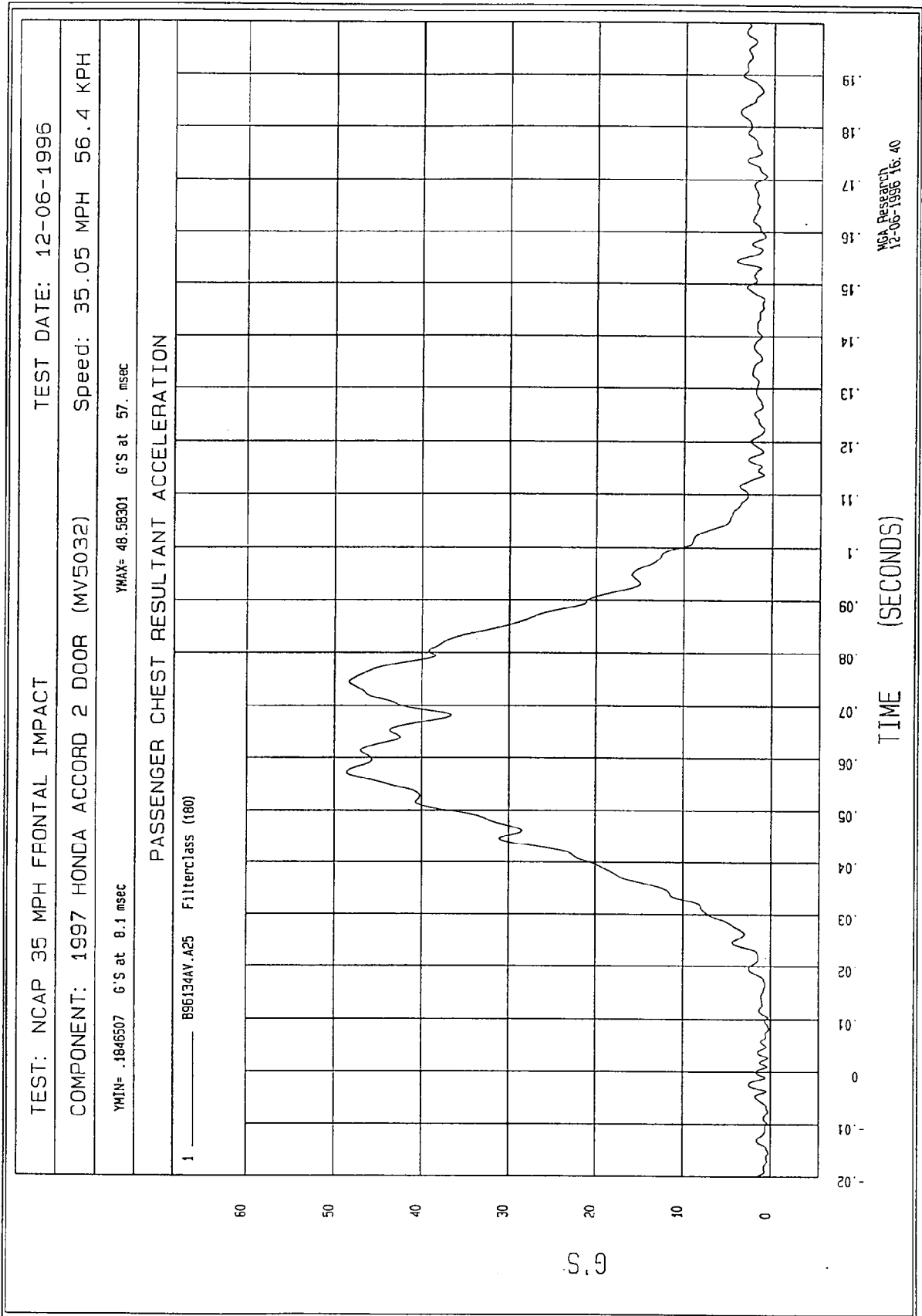
PASSENGER CHEST Y ACCELERATION

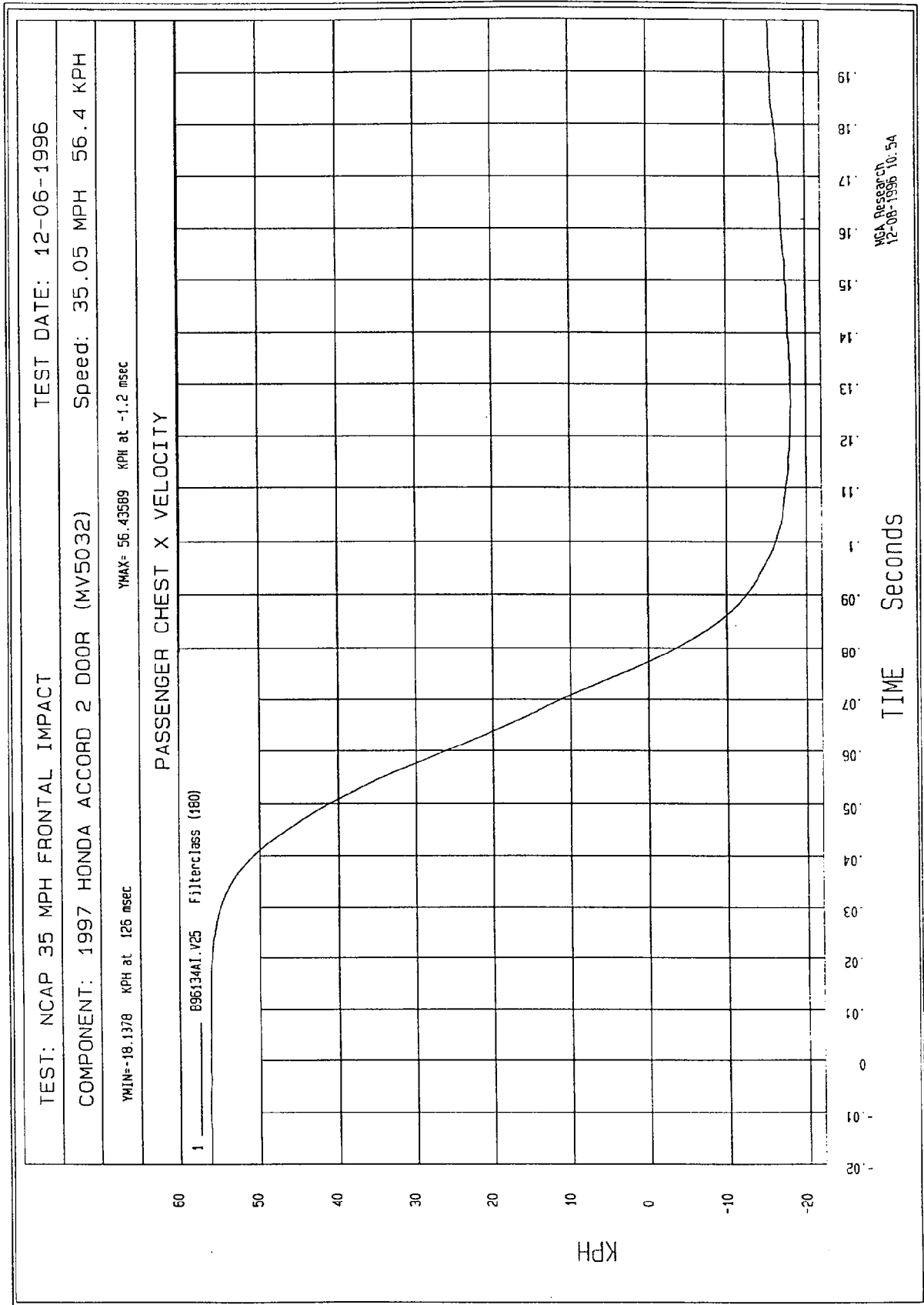
1 ——— B96134AF.A26 Filterclass (180)



WGA Research
12-06-1996 16:39







TEST DATE: 12-06-1996

TEST: NCAP 35 MPH FRONTAL IMPACT

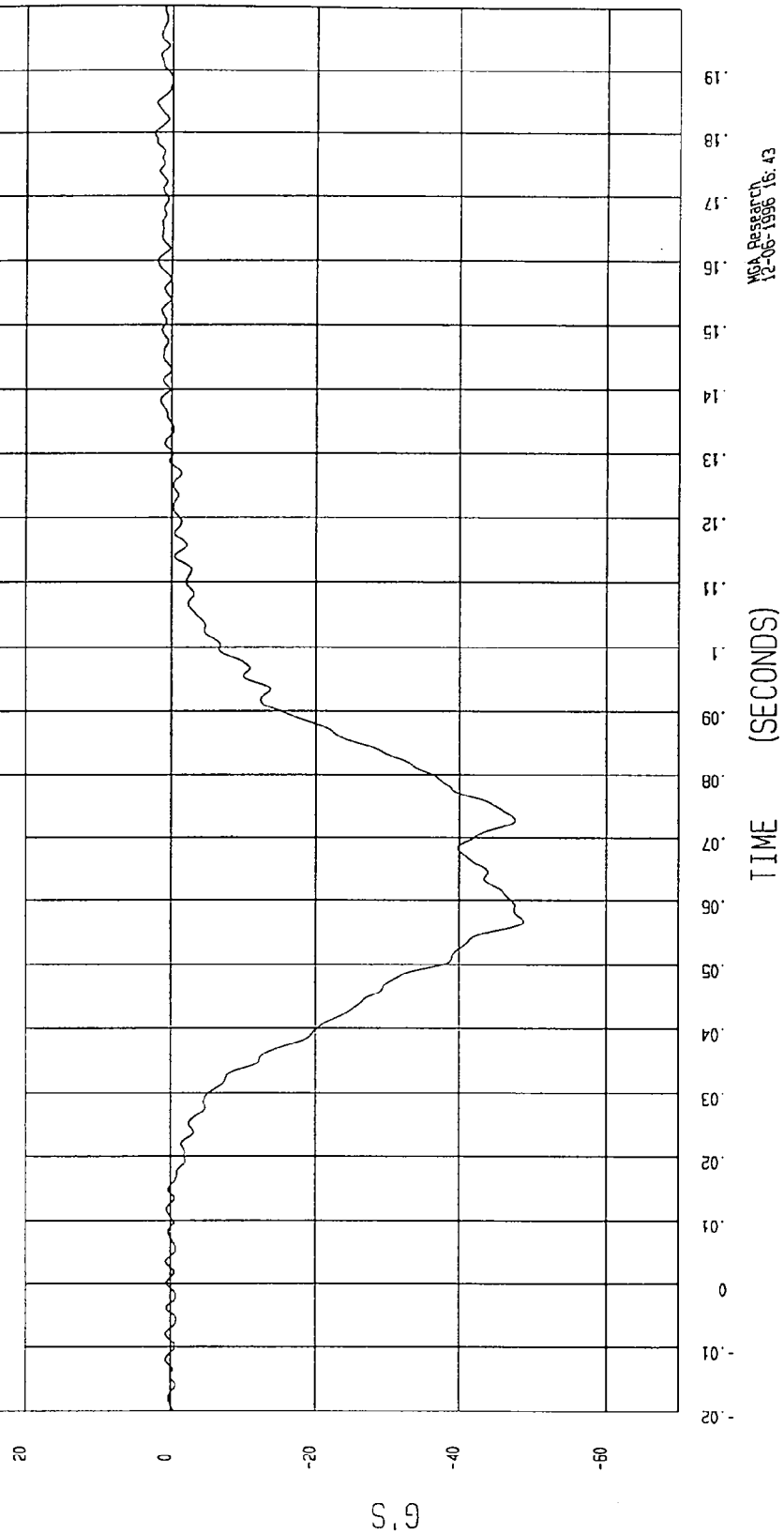
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-48.8598 G'S at 55. msec

YMAX= 2.385069 G'S at 179 msec

PASSENGER CHEST REDUNDANT X ACCELERATION

1	_____	896134AF.A42	Filterclass (180)
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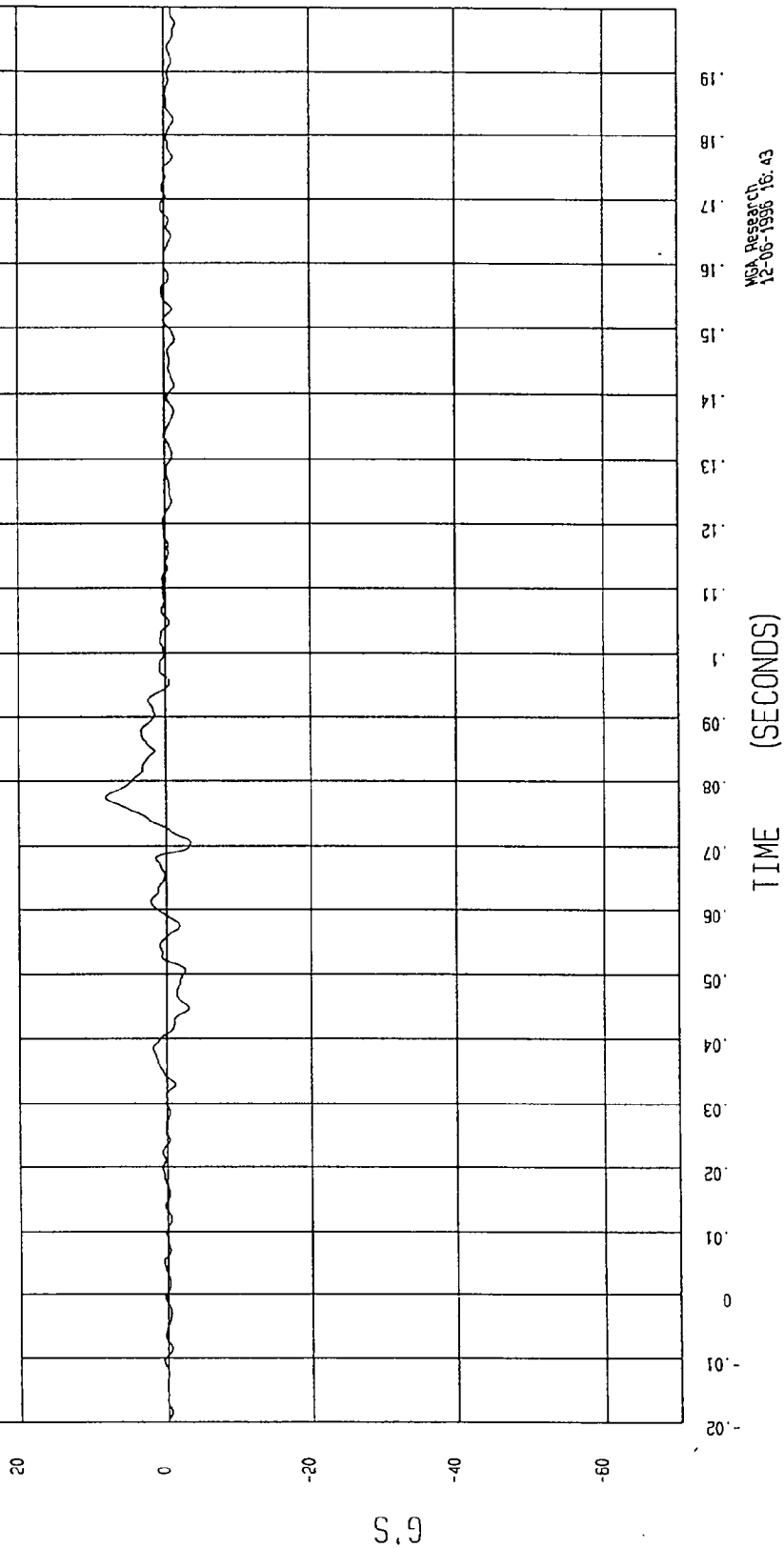


TEST: NCAP 35 MPH FRONTAL IMPACT	TEST DATE: 12-06-1996
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032)	Speed: 35.05 MPH 56.4 KPH

YMIN=-3.394932 G'S at 70. msec
YMAX= 8.375957 G'S at 77. msec

PASSENGER CHEST REDUNDANT Y ACCELERATION

1	B96134AF.A26	Filterclass (180)



MGA Research
12-06-1996 16:43

TEST: NCAP 35 MPH FRONTAL IMPACT

TEST DATE: 12-06-1996

Speed: 35.05 MPH 56.4 KPH

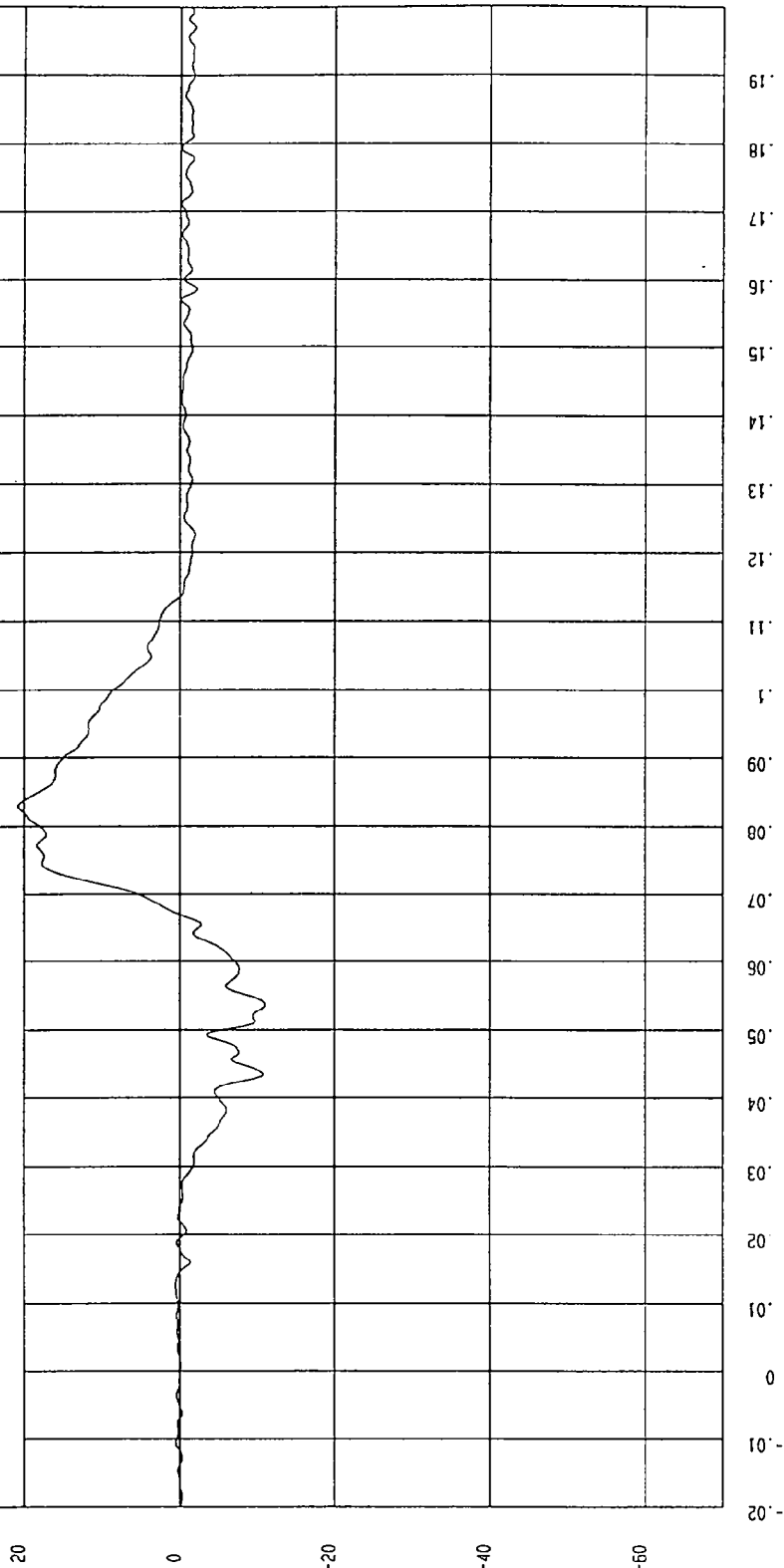
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032)

YMIN=-11.19219 G'S at 53. msec

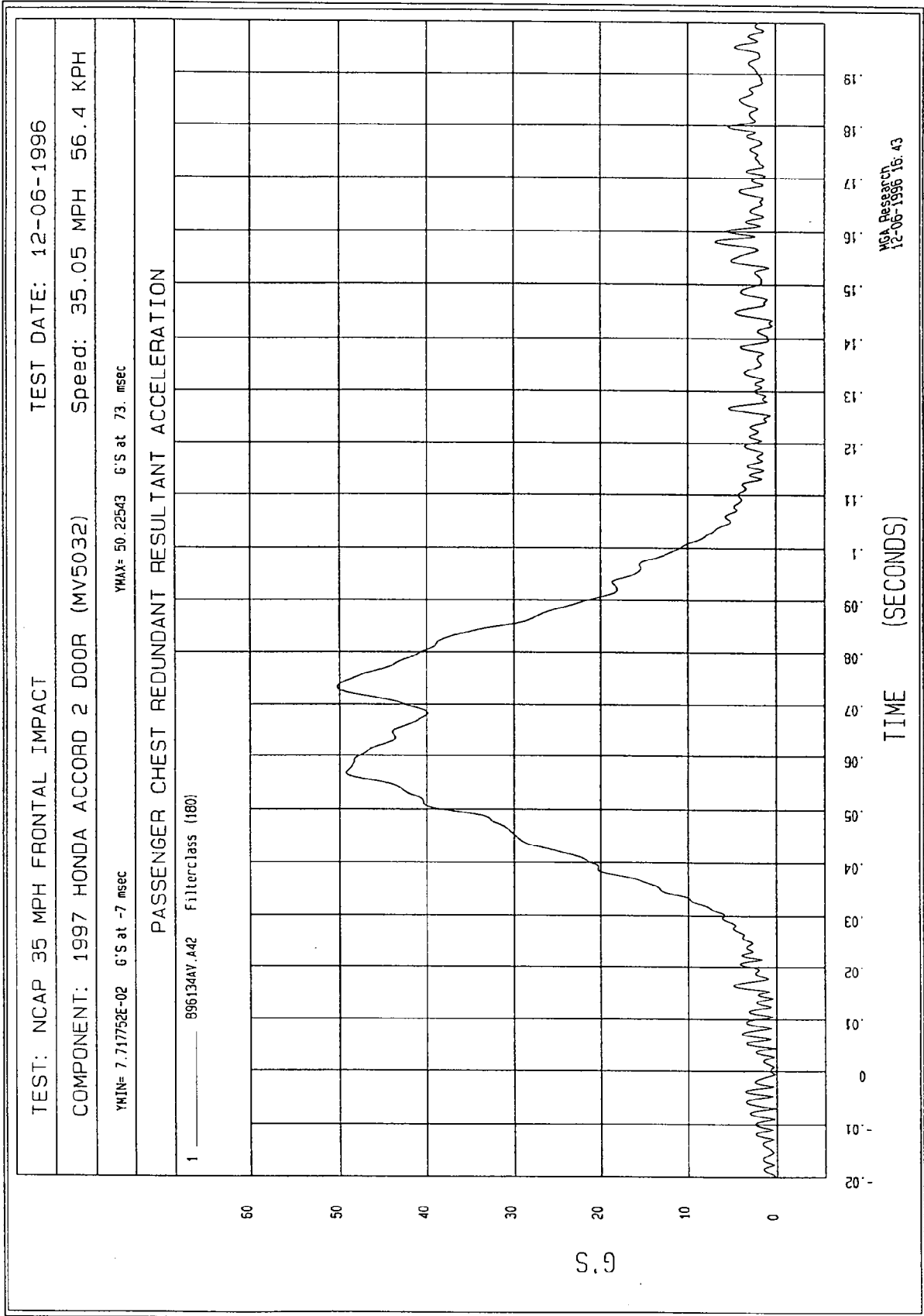
YMAX= 20.69998 G'S at 83 msec

PASSENGER CHEST REDUNDANT Z ACCELERATION

1 _____ B961344F.A44 Filterclass (180)



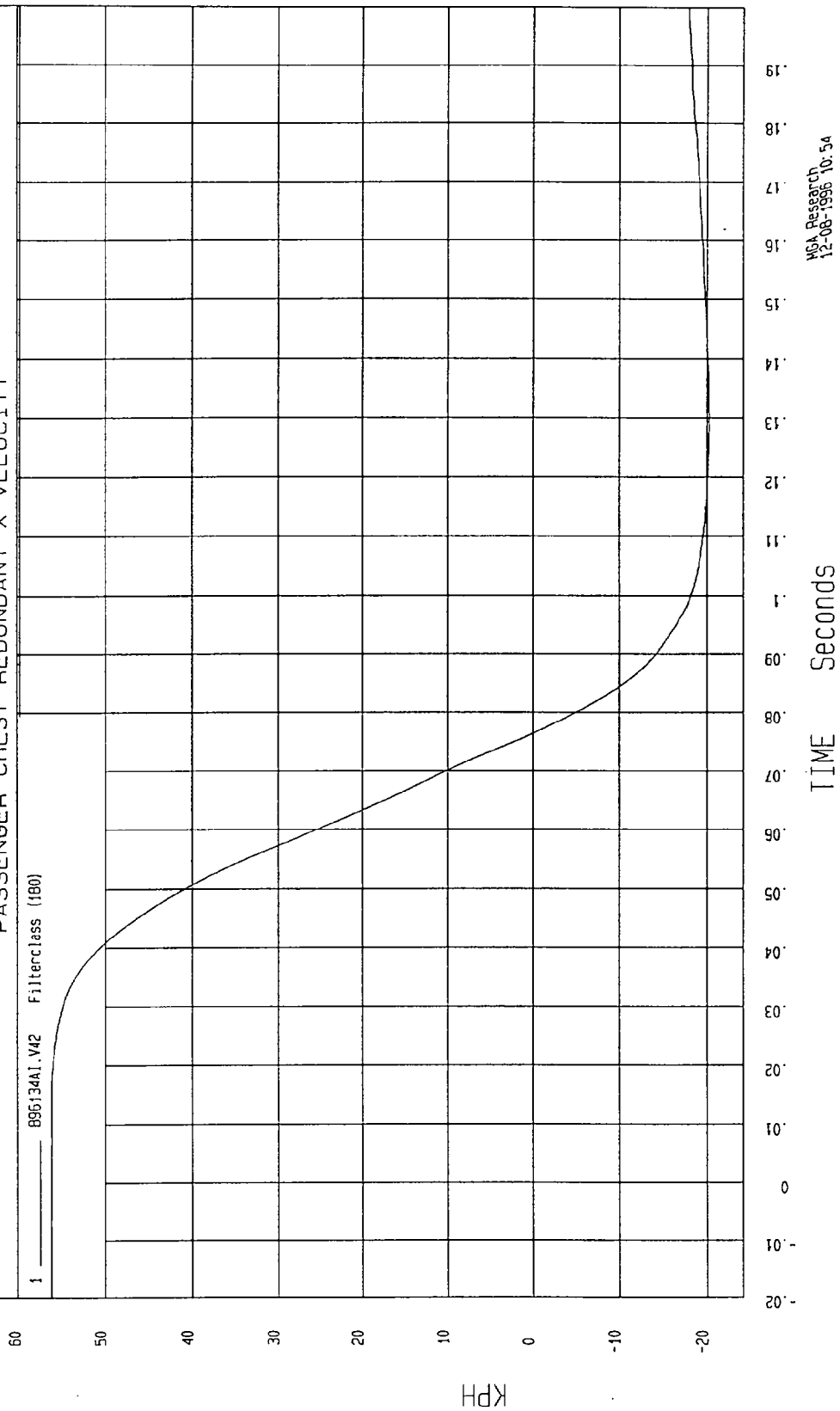
MGA Research
12-06-1996 16.43

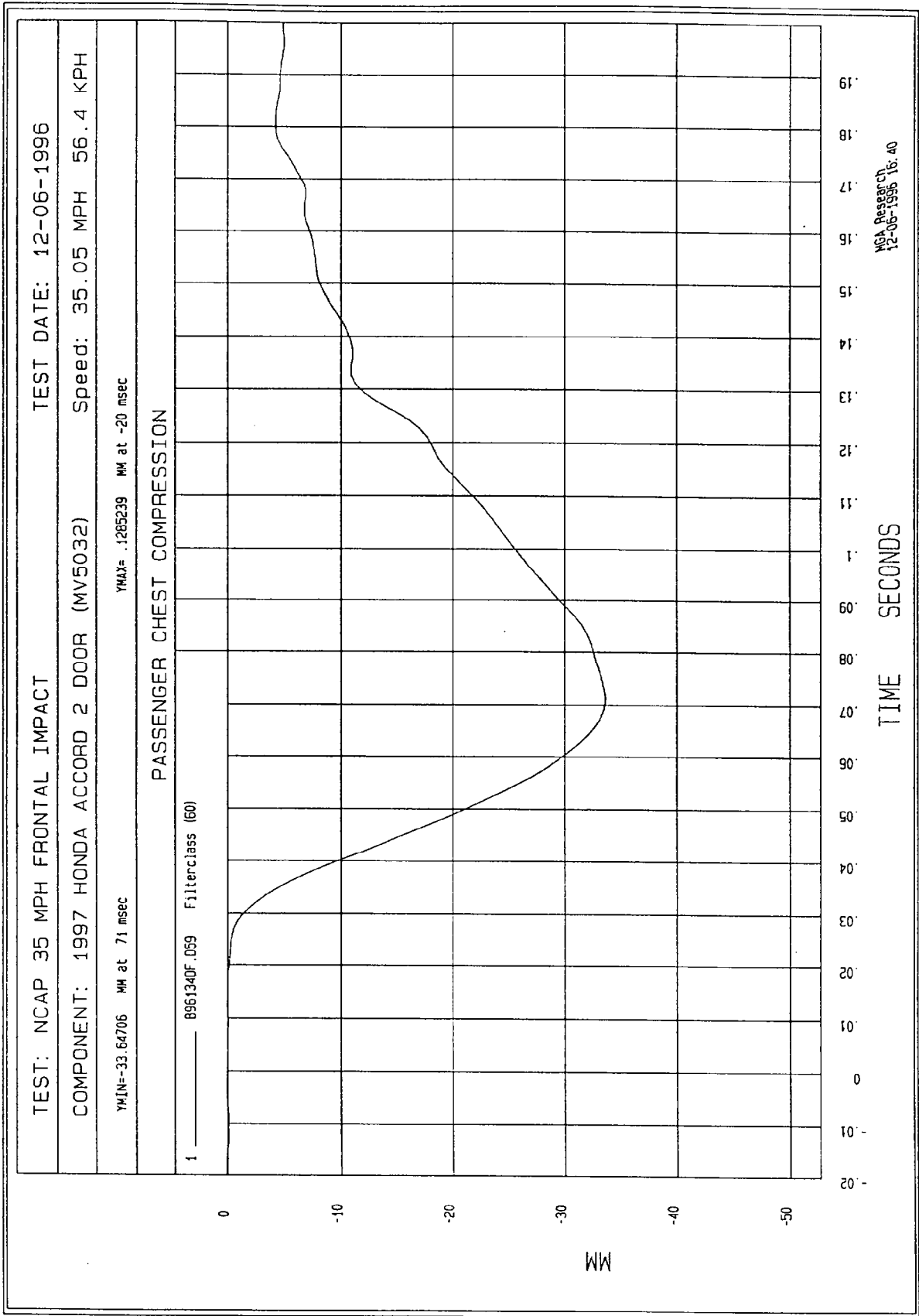


TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-20.27083 KPH at 128 msec YMAX= 56.41982 KPH at -6.9 msec

PASSENGER CHEST REDUNDANT X VELOCITY





TEST: NCAP 35 MPH FRONTAL IMPACT

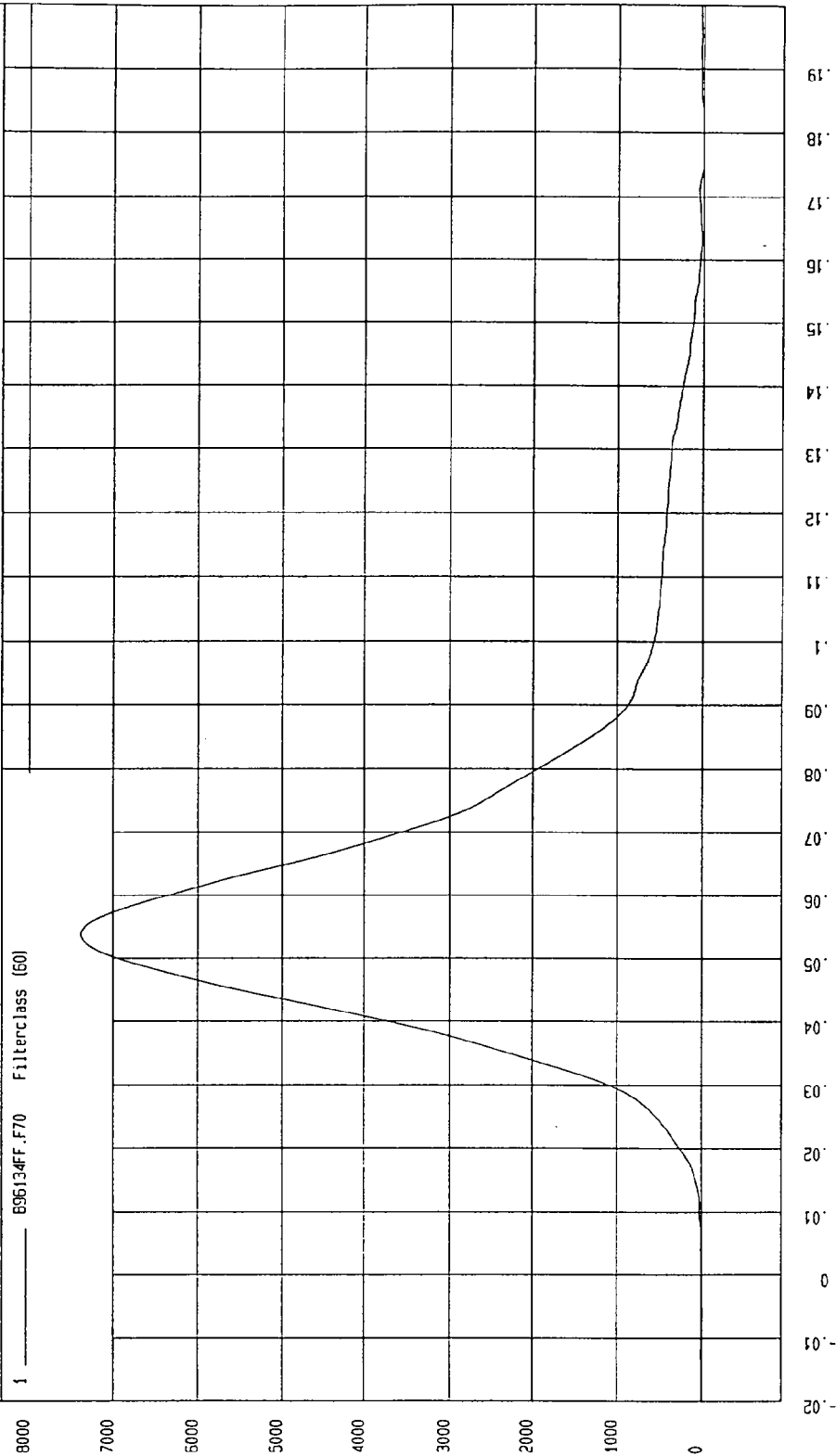
TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

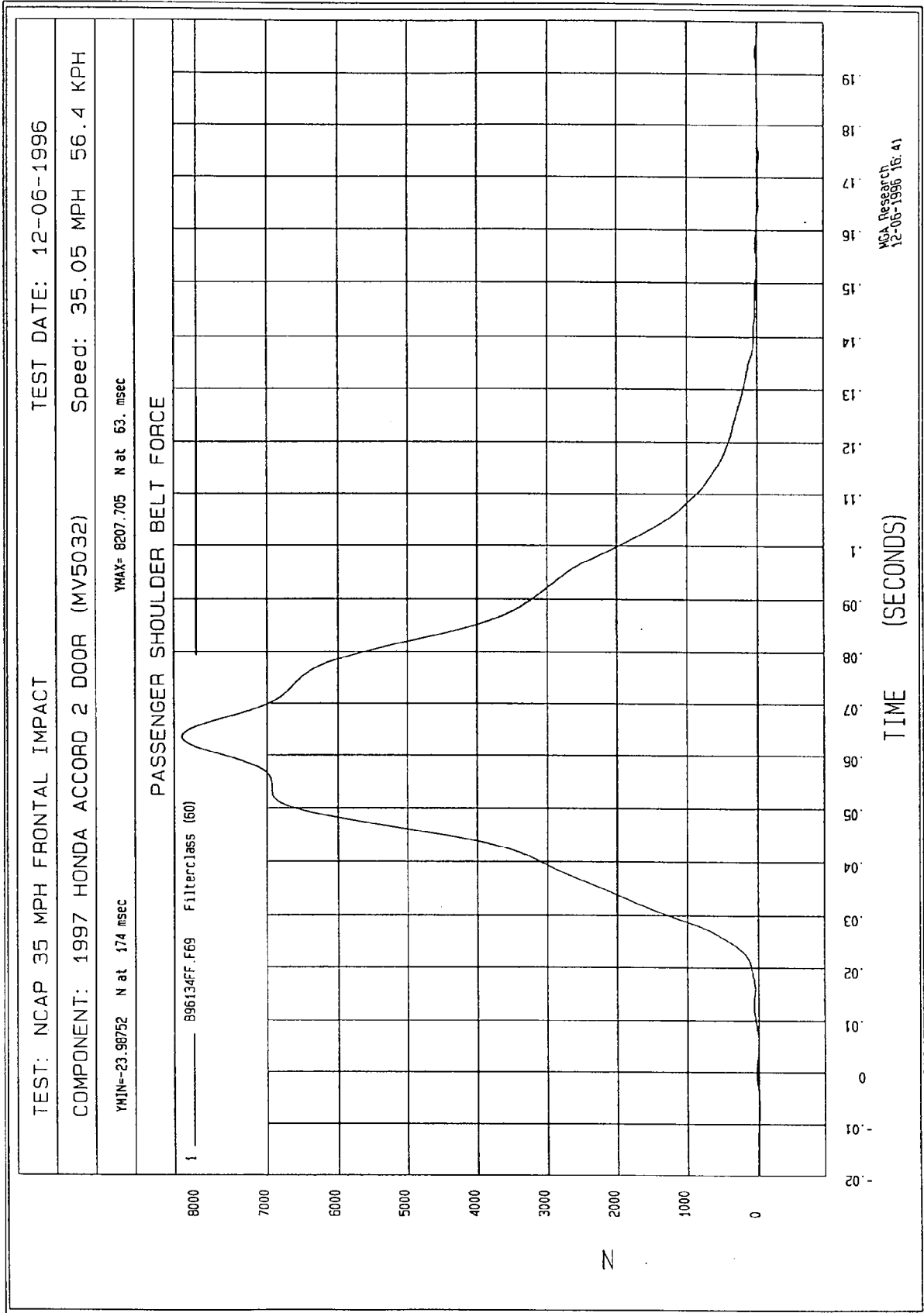
YMIN=-10.43411 N at -6.3 msec YMAX= 7384.837 N at 53. msec

PASSENGER LAP BELT FORCE

1 — 896134FF.F70 Filterclass (60)



MGA Research
12-11-1996 09: 44

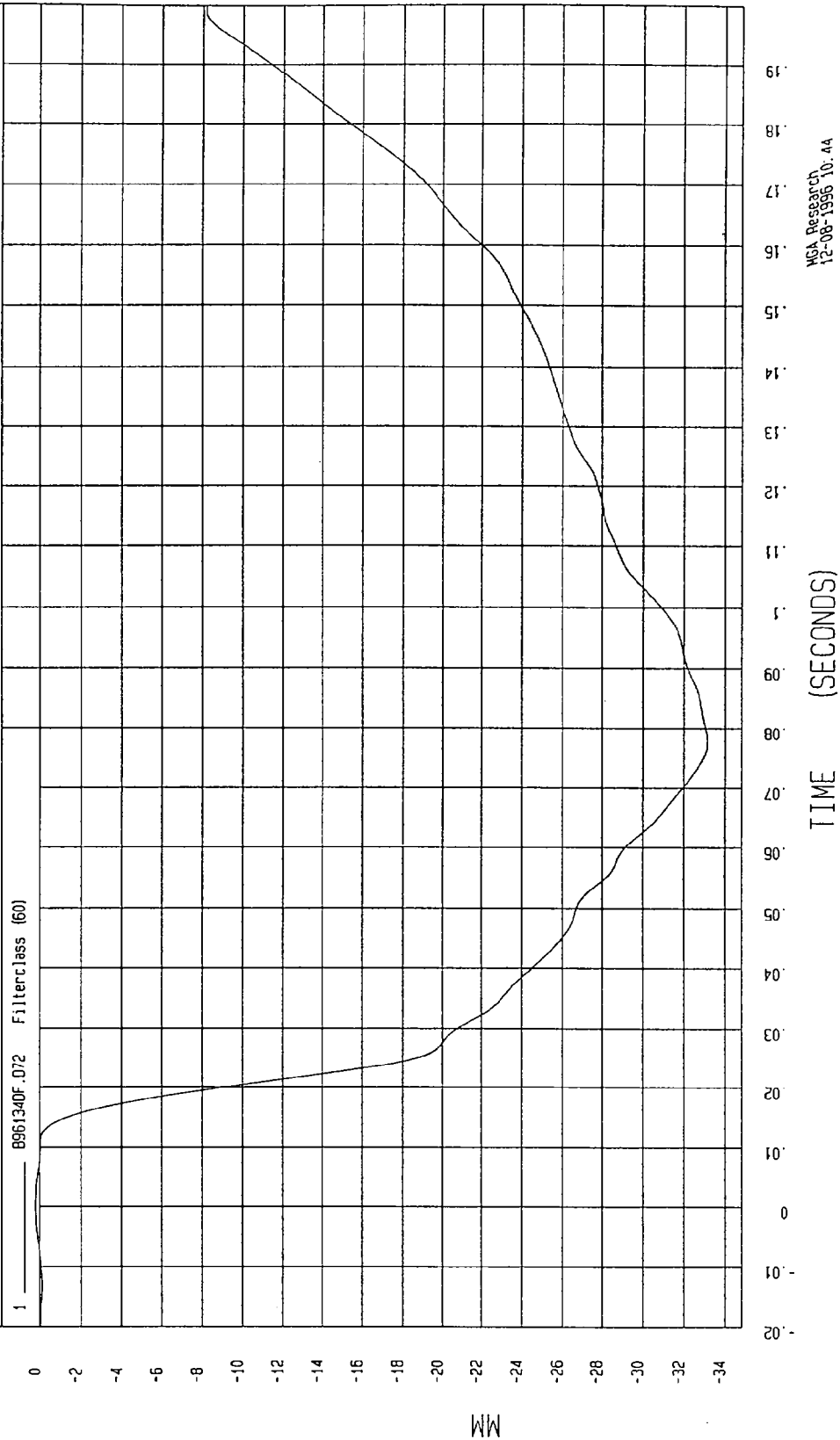


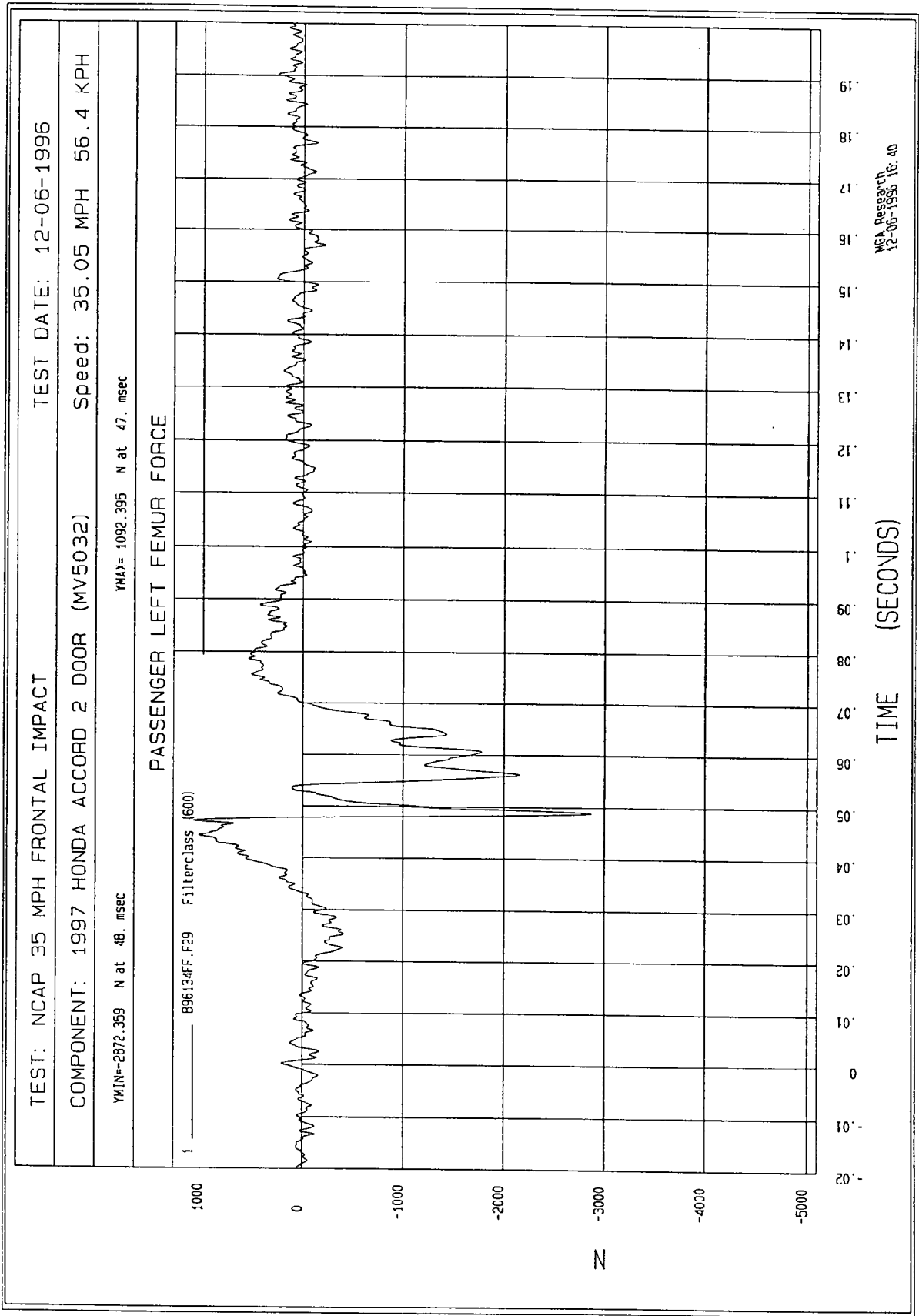
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-33.15065 MM at 77. msec YMAX= .225105 MM at .39 msec

PASSENGER BELT SPOOLOUT DISP



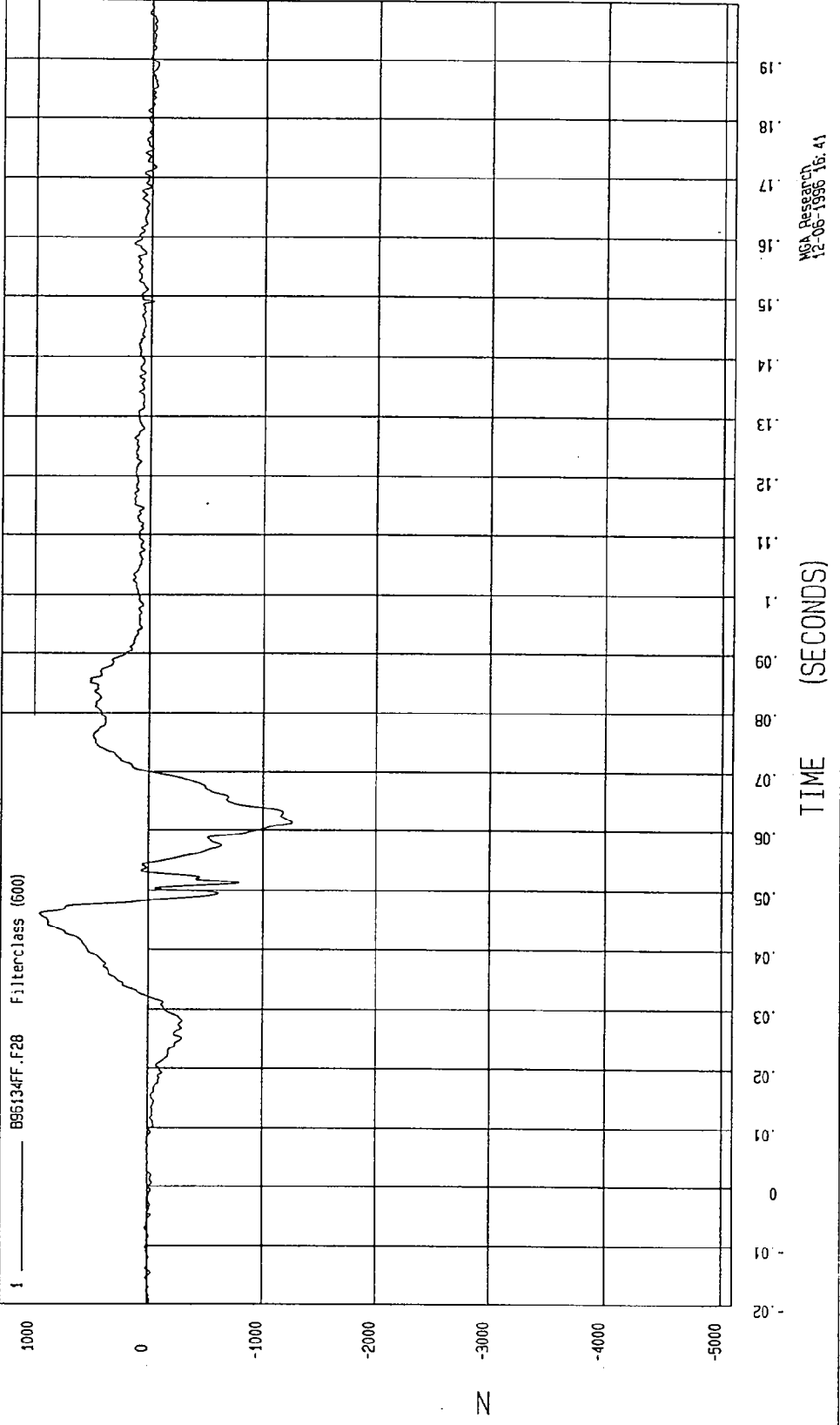


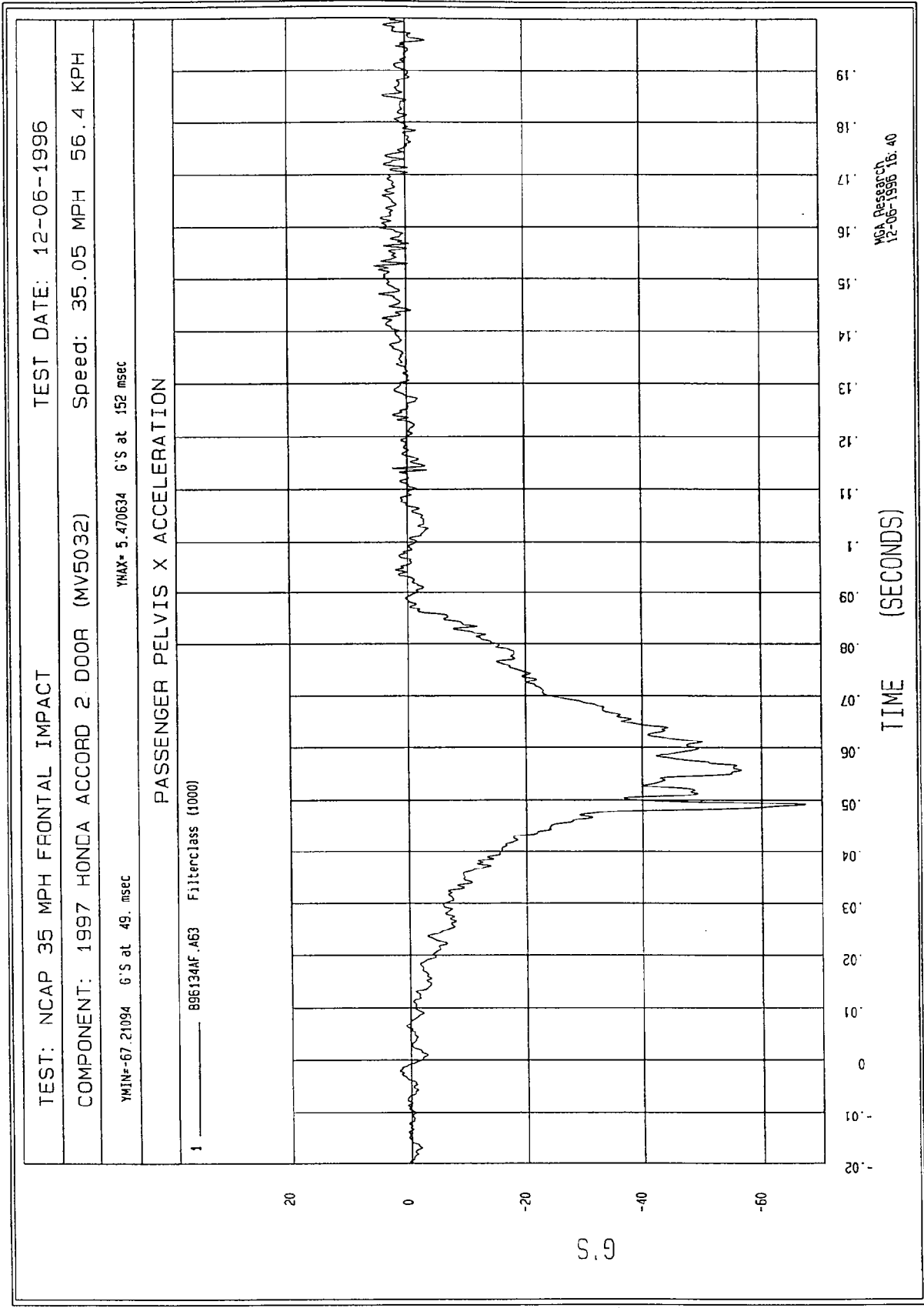
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-1254.917 N at 61. msec YMAX= 949.6968 N at 46. msec

PASSENGER RIGHT FEMUR FORCE



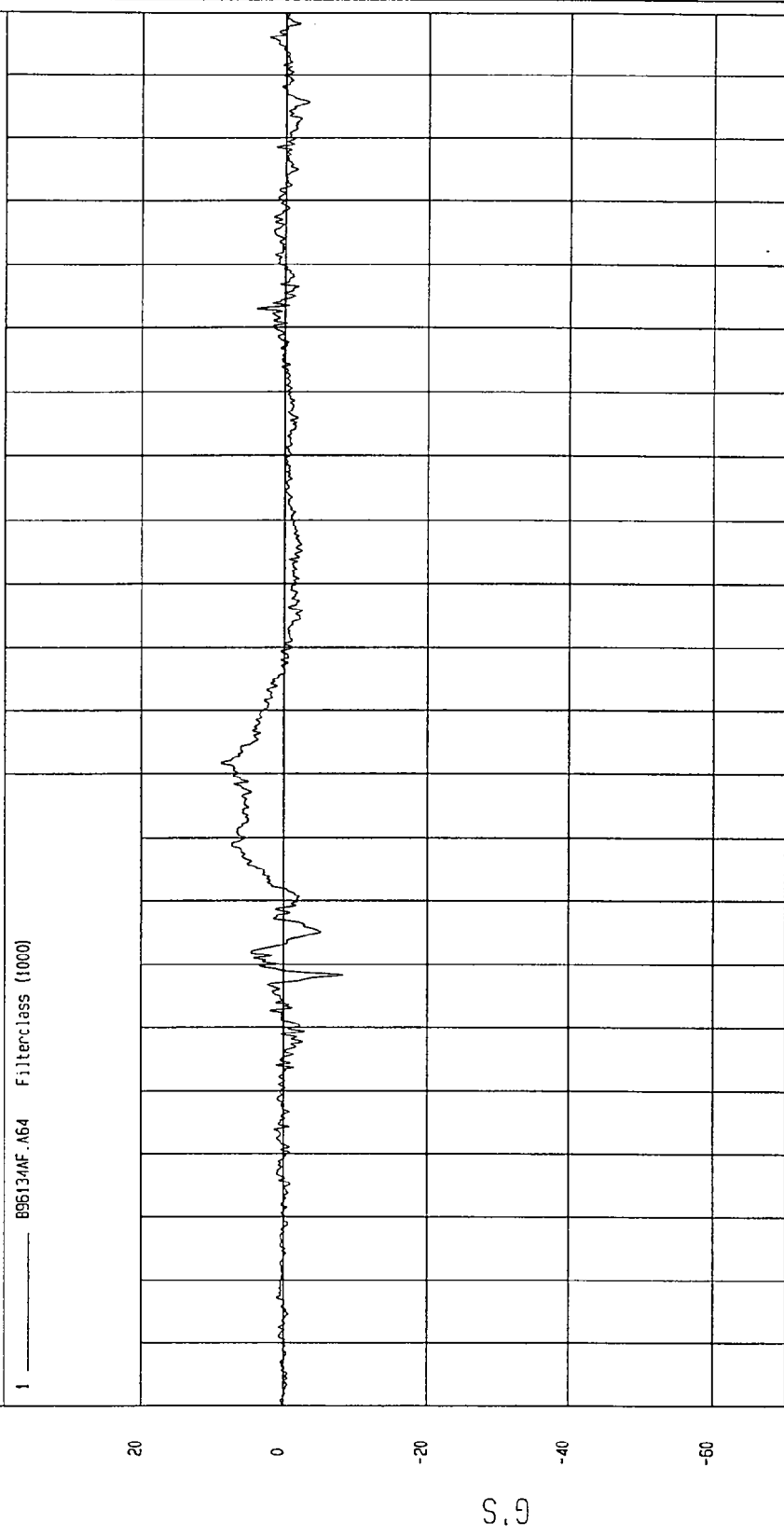


TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

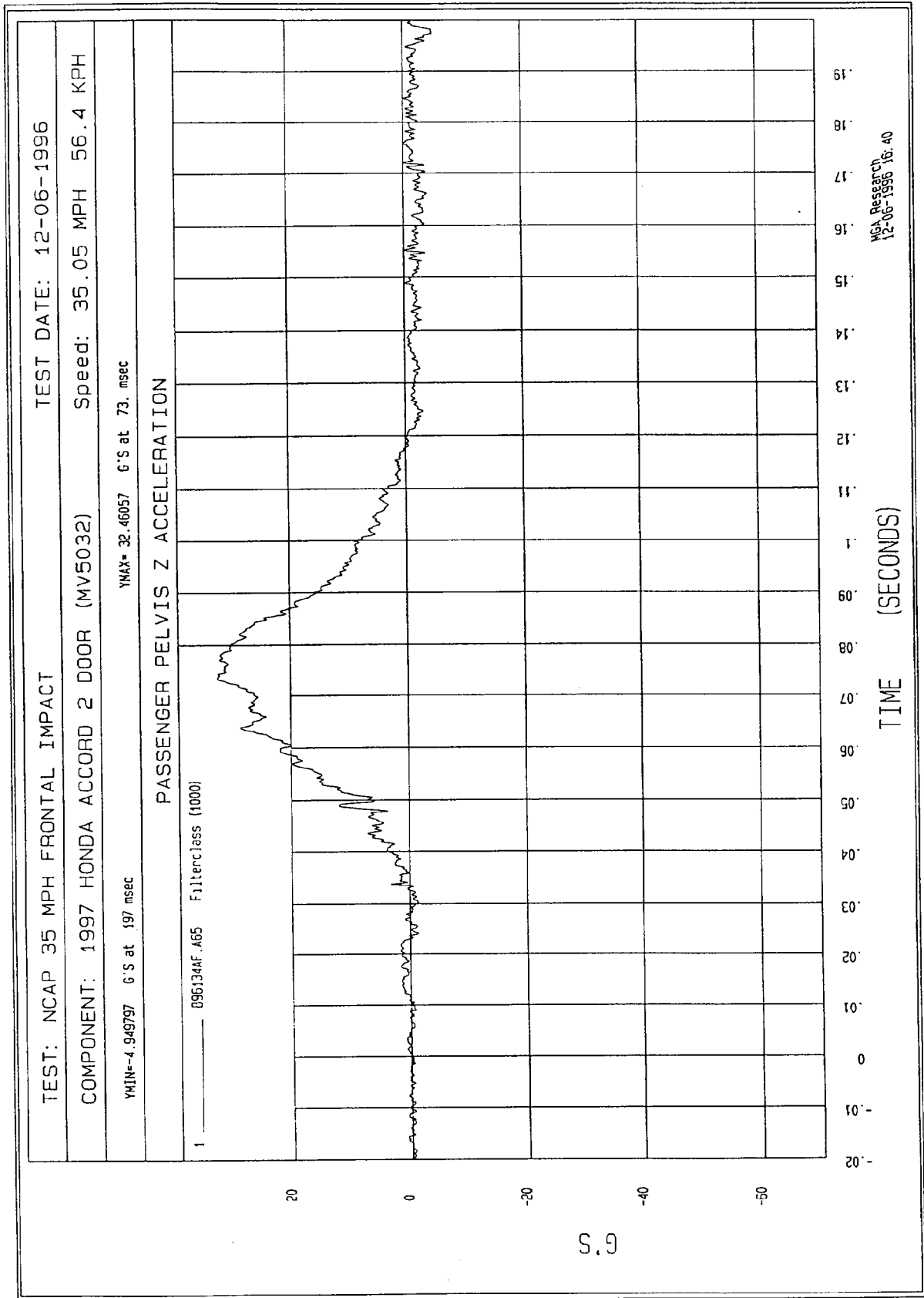
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-8.451261 G'S at 48. msec YMAX= 8.875953 G'S at 81. msec

PASSENGER PELVIS Y ACCELERATION



MOA Research
12-06-1996 16:40

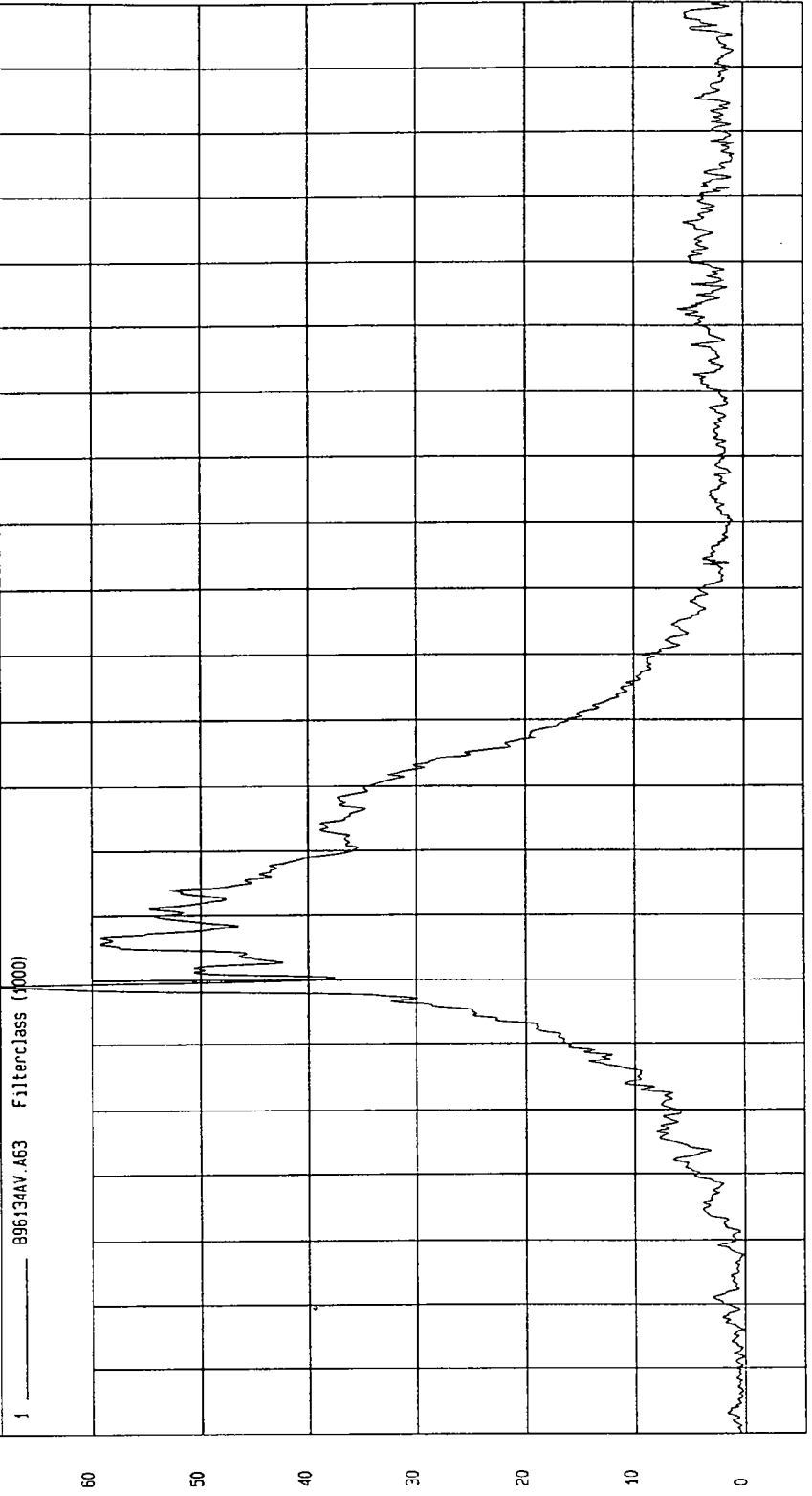


TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

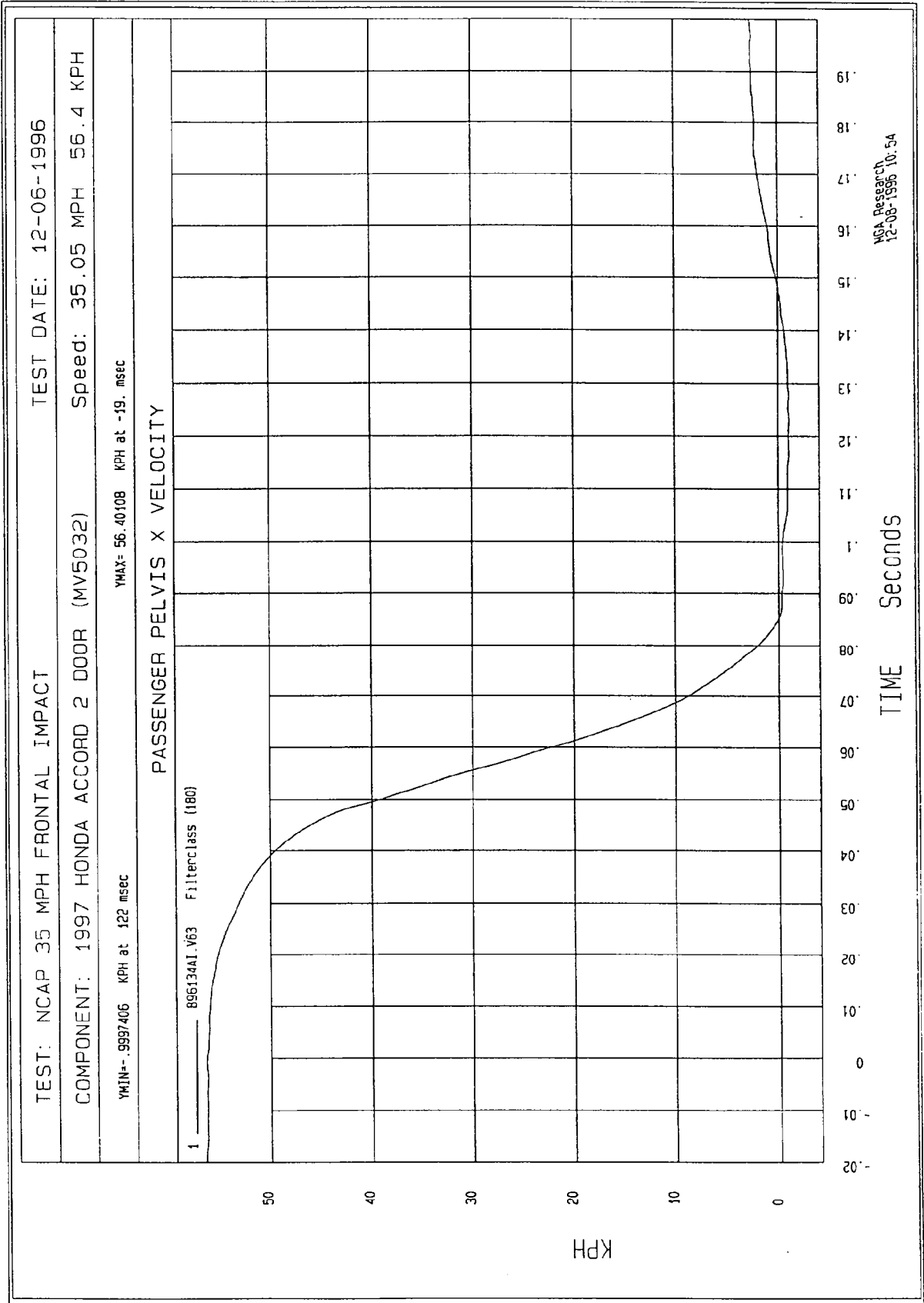
YMIN= 9.183761E-02 G'S at -3.9 msec YMAX= 68.25661 G'S at 49. msec

PASSENGER PELVIS RESULTANT ACCELERATION



TIME (SECONDS)

MGA Research
12-06-1996 16:40



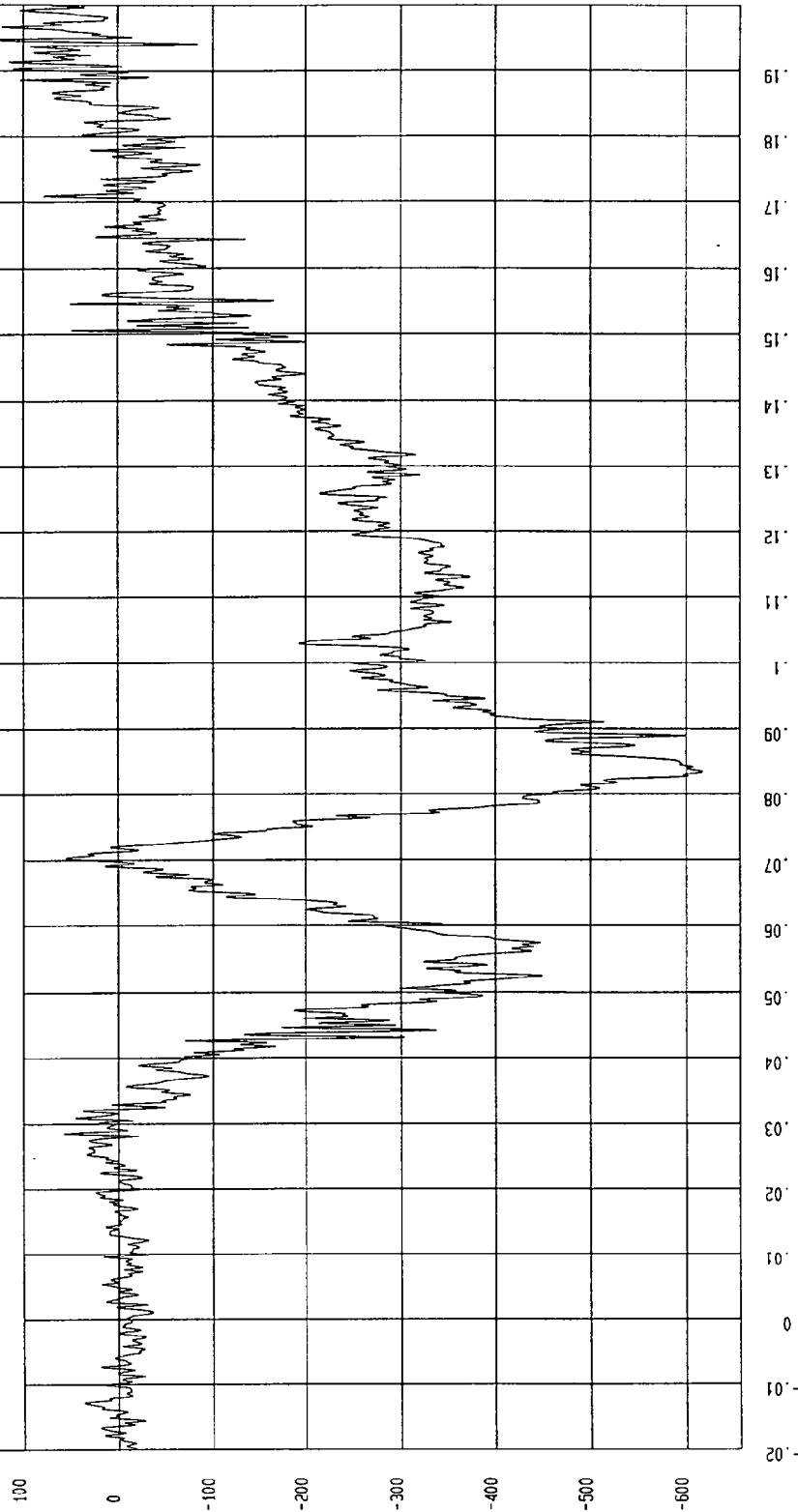
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-617.0744 N at 83. msec YMAX= 158.6452 N at 194 msec

PASSENGER NECK FORCE X

1 ——— B96134FF.F51 Filterclass (1000)

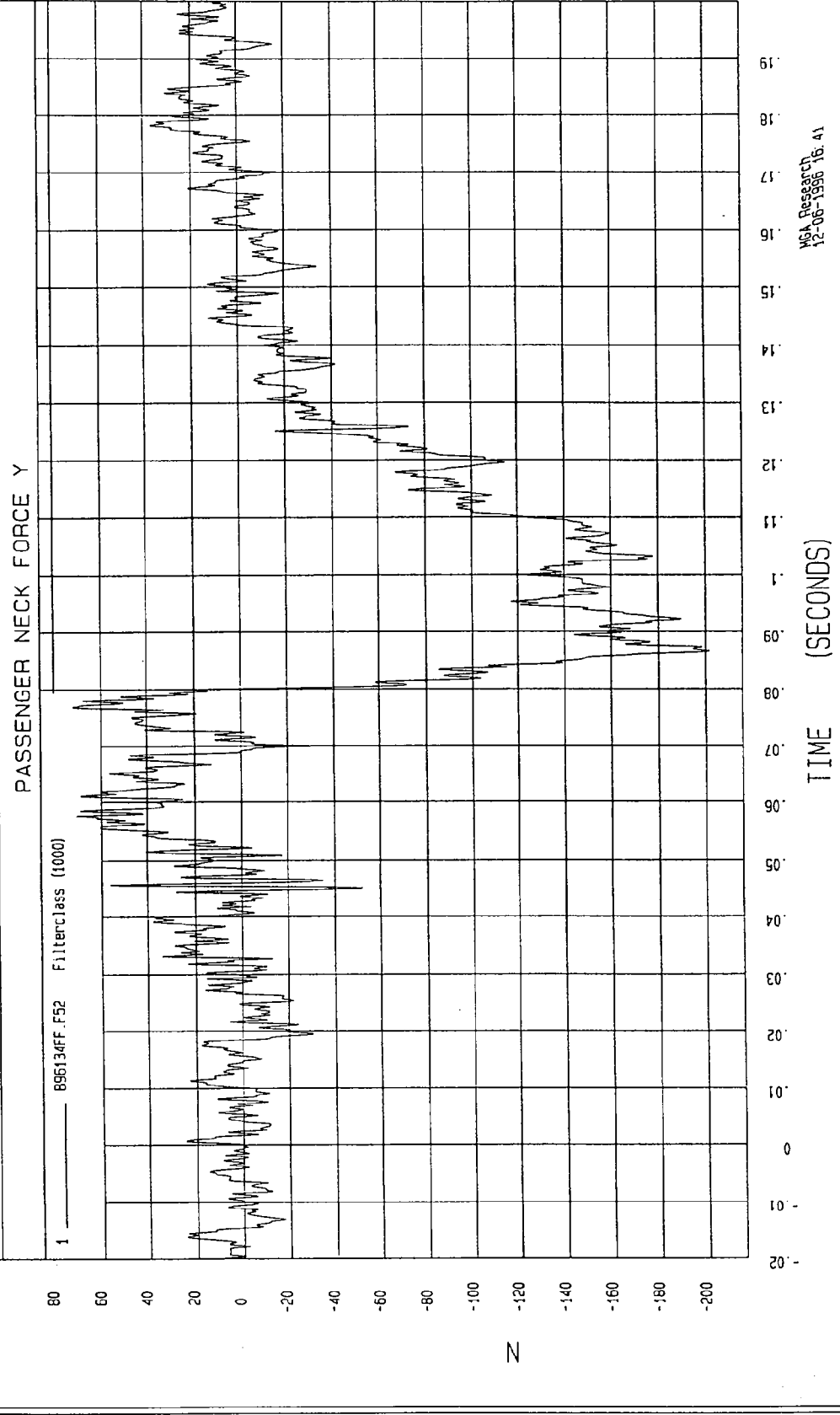


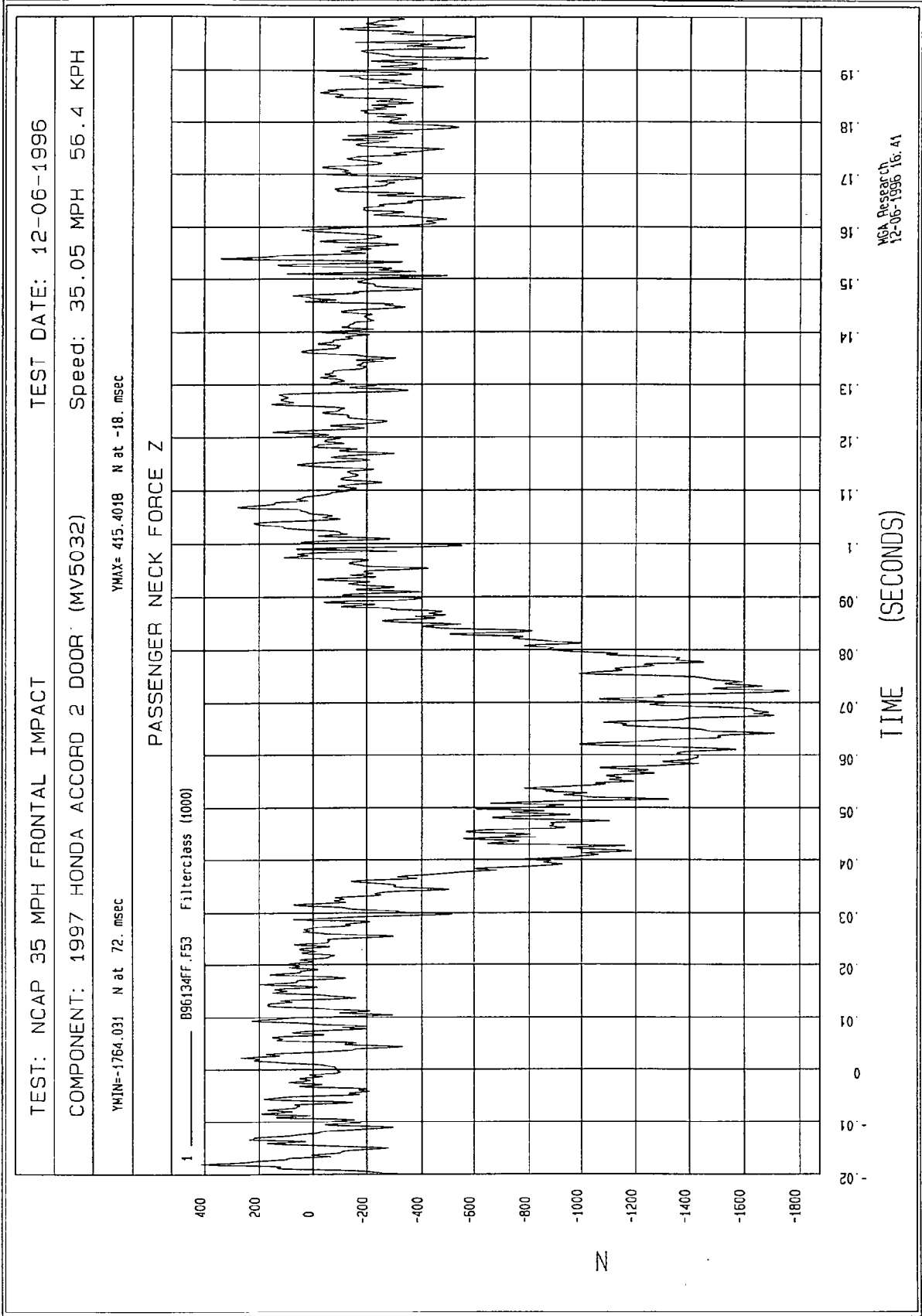
MGA Research
12-06-1996 16: 41

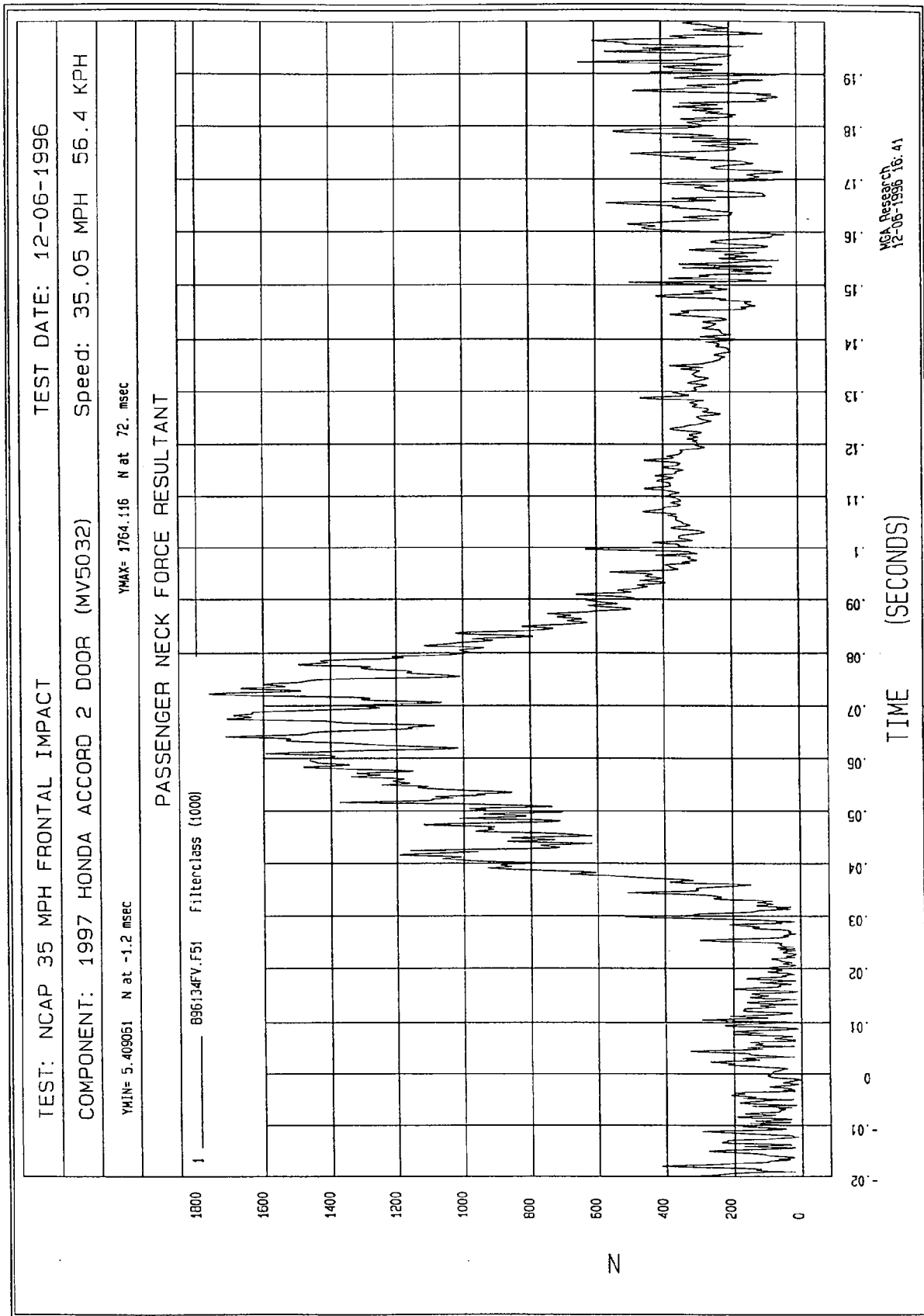
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-201.5269 N at 86. msec YMAX= 71.87869 N at 76. msec







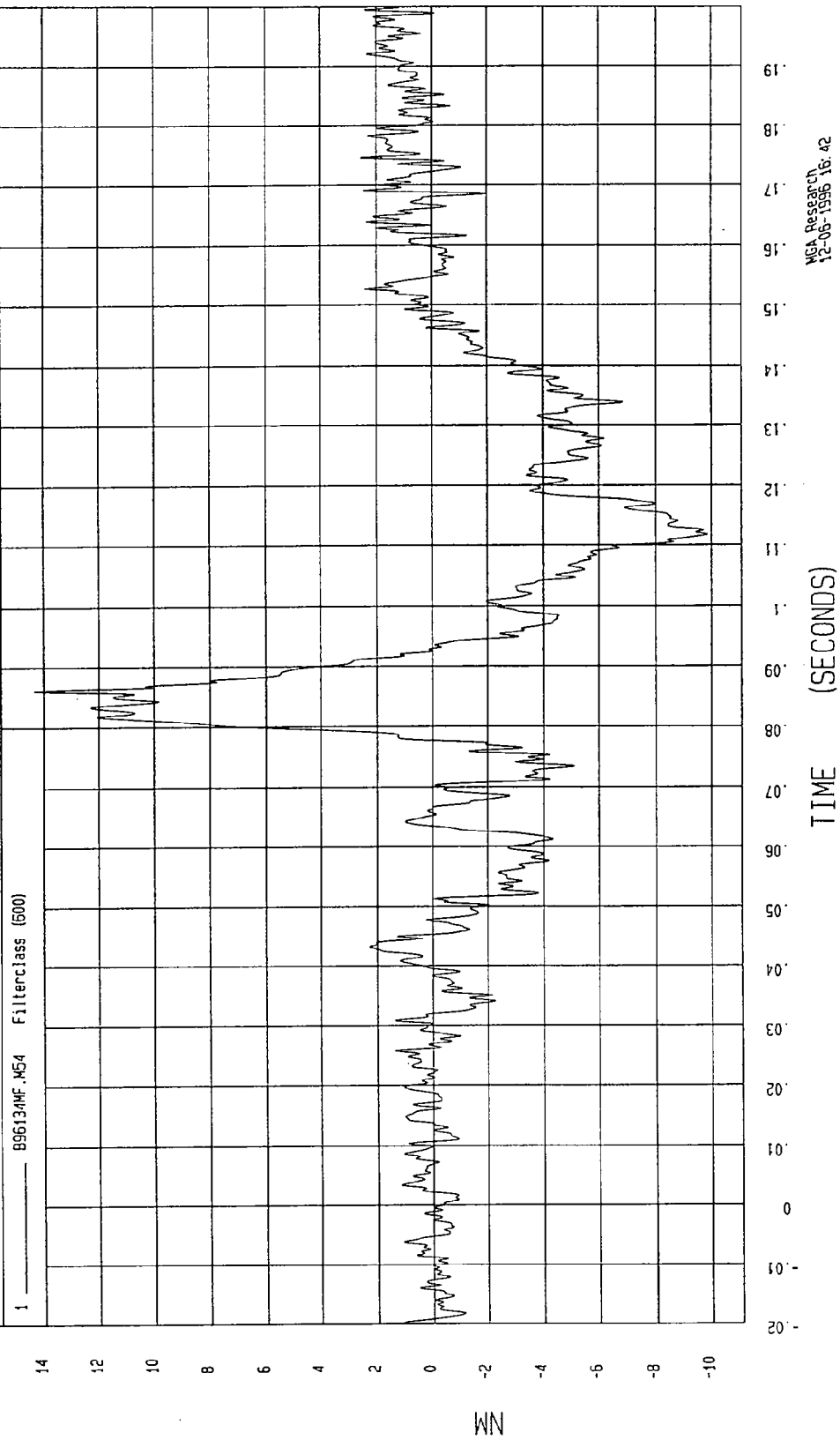
MGA Research
12-06-1996 16.41

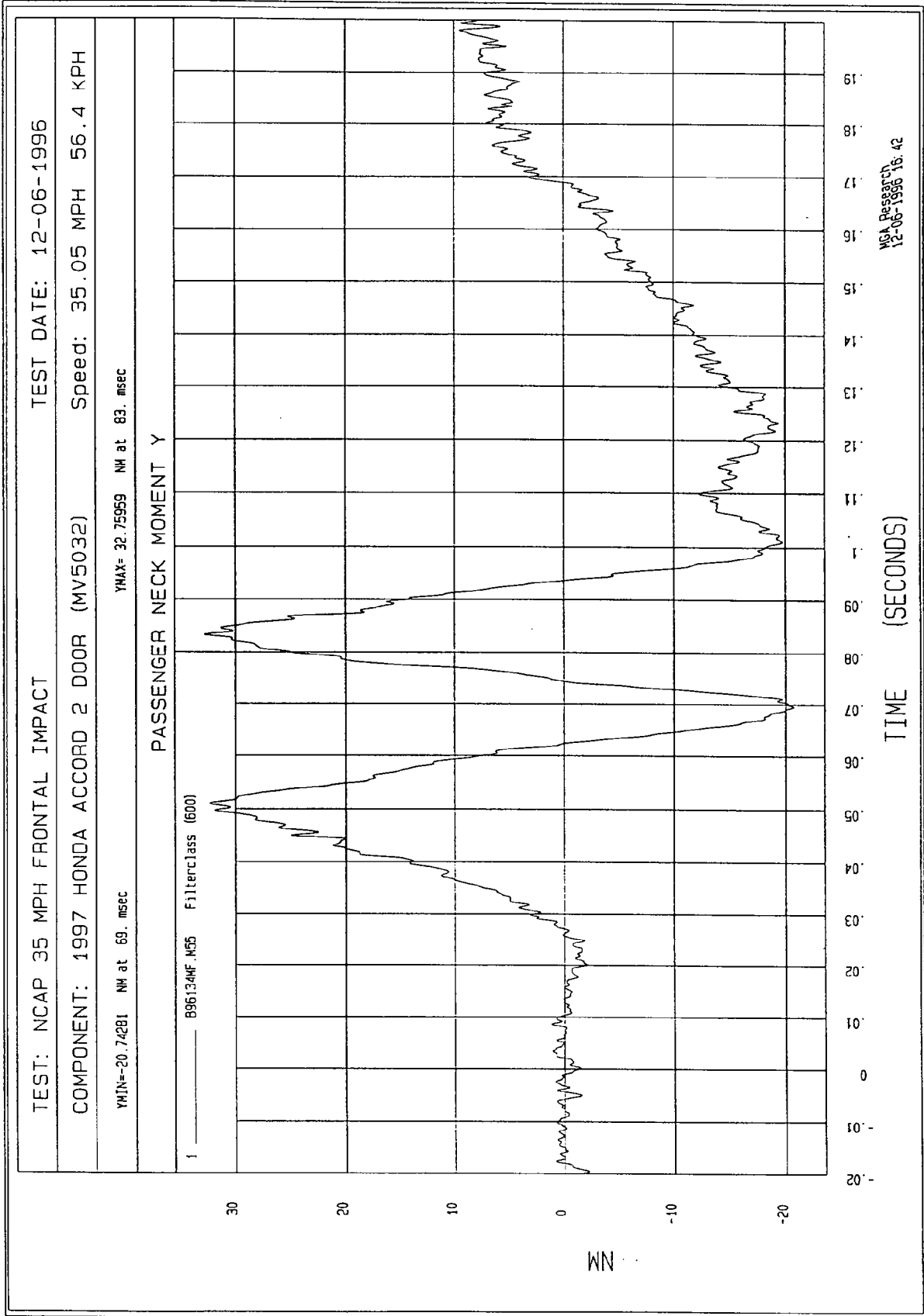
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

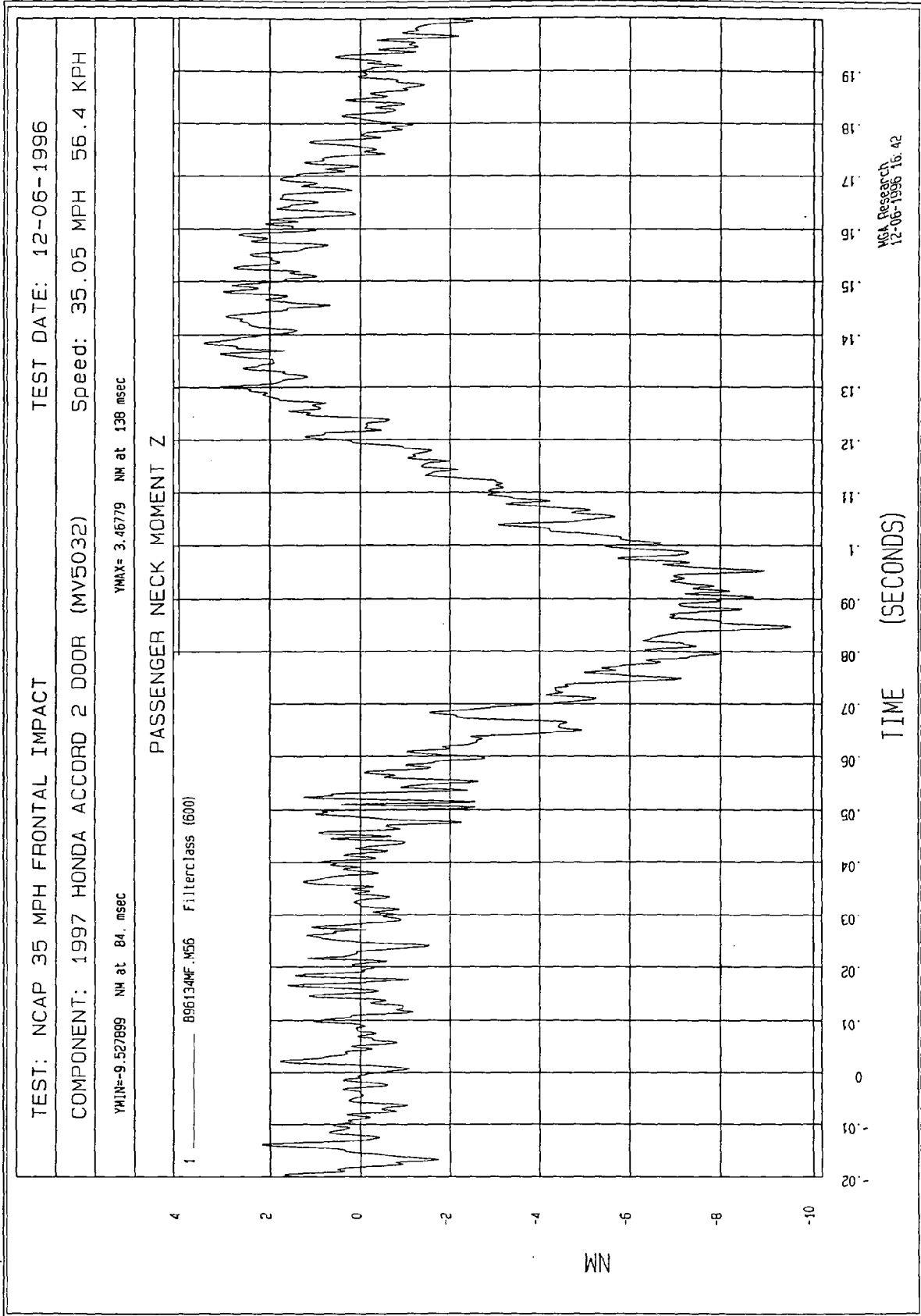
COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

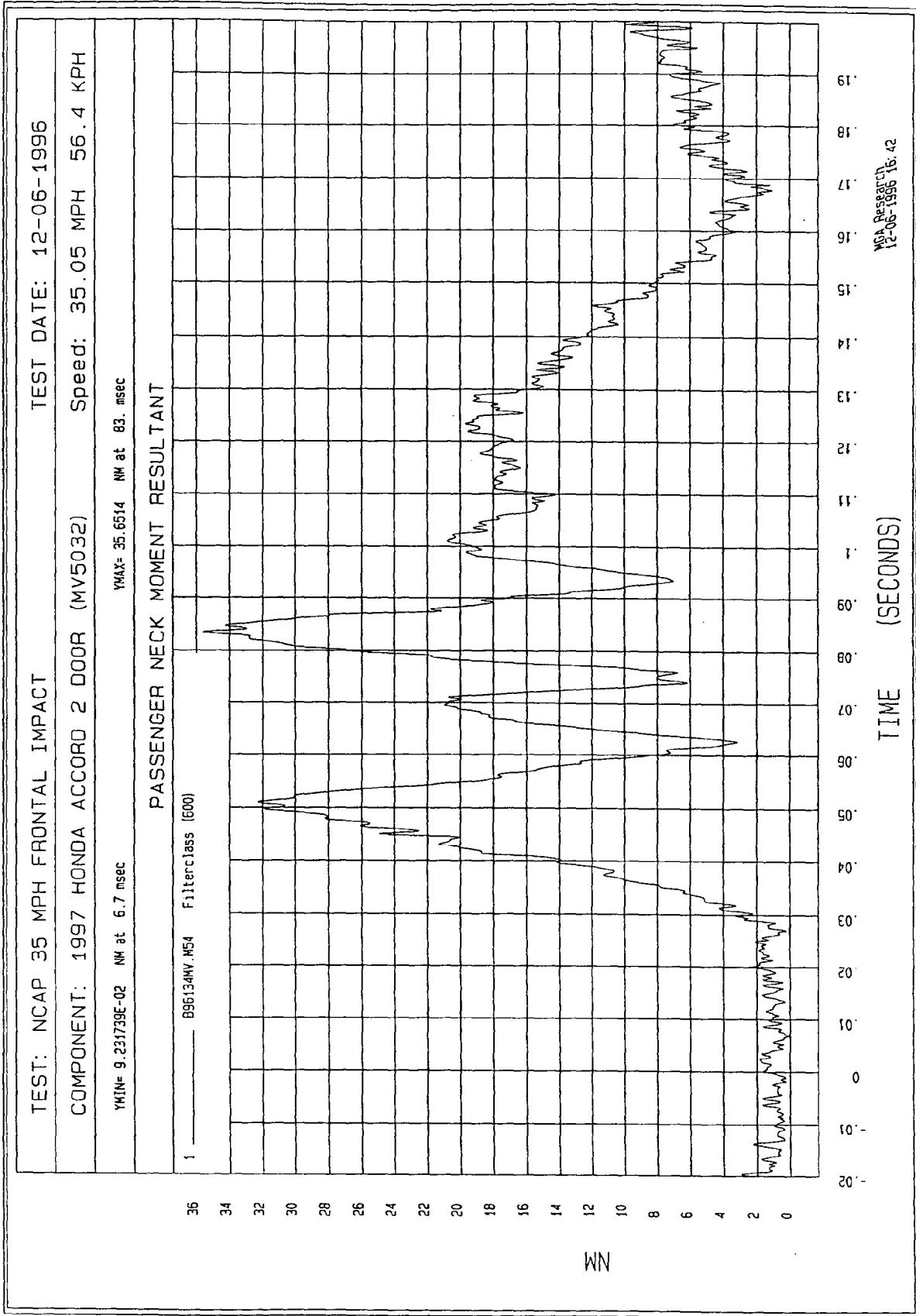
YMIN=-9.876147 NM at 111 msec YMAX=14.32421 NM at 86 msec

PASSENGER NECK MOMENT X







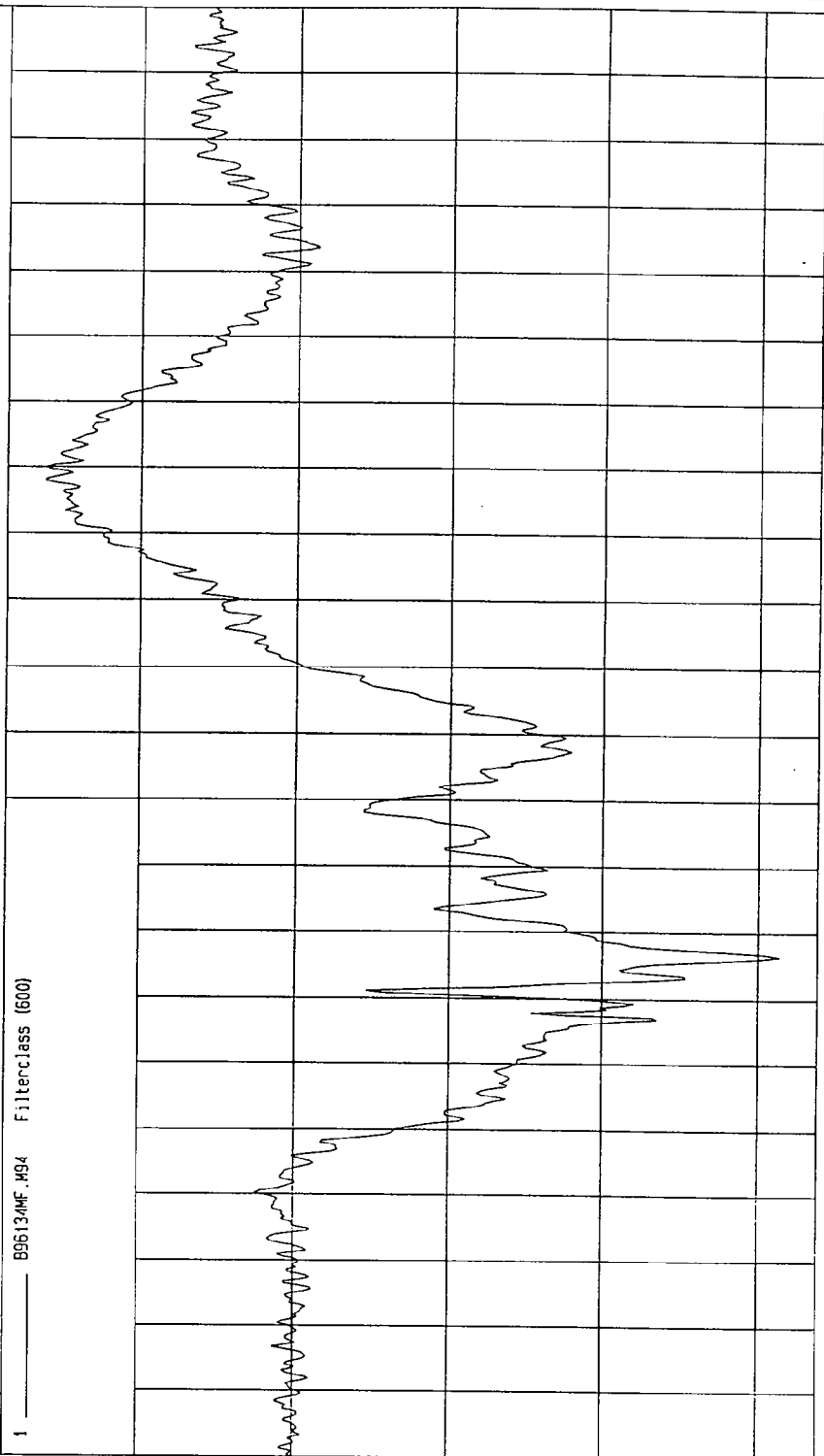


TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

YMIN=-62.6689 NM at 56. msec YMAX= 32.41608 NM at 128 msec

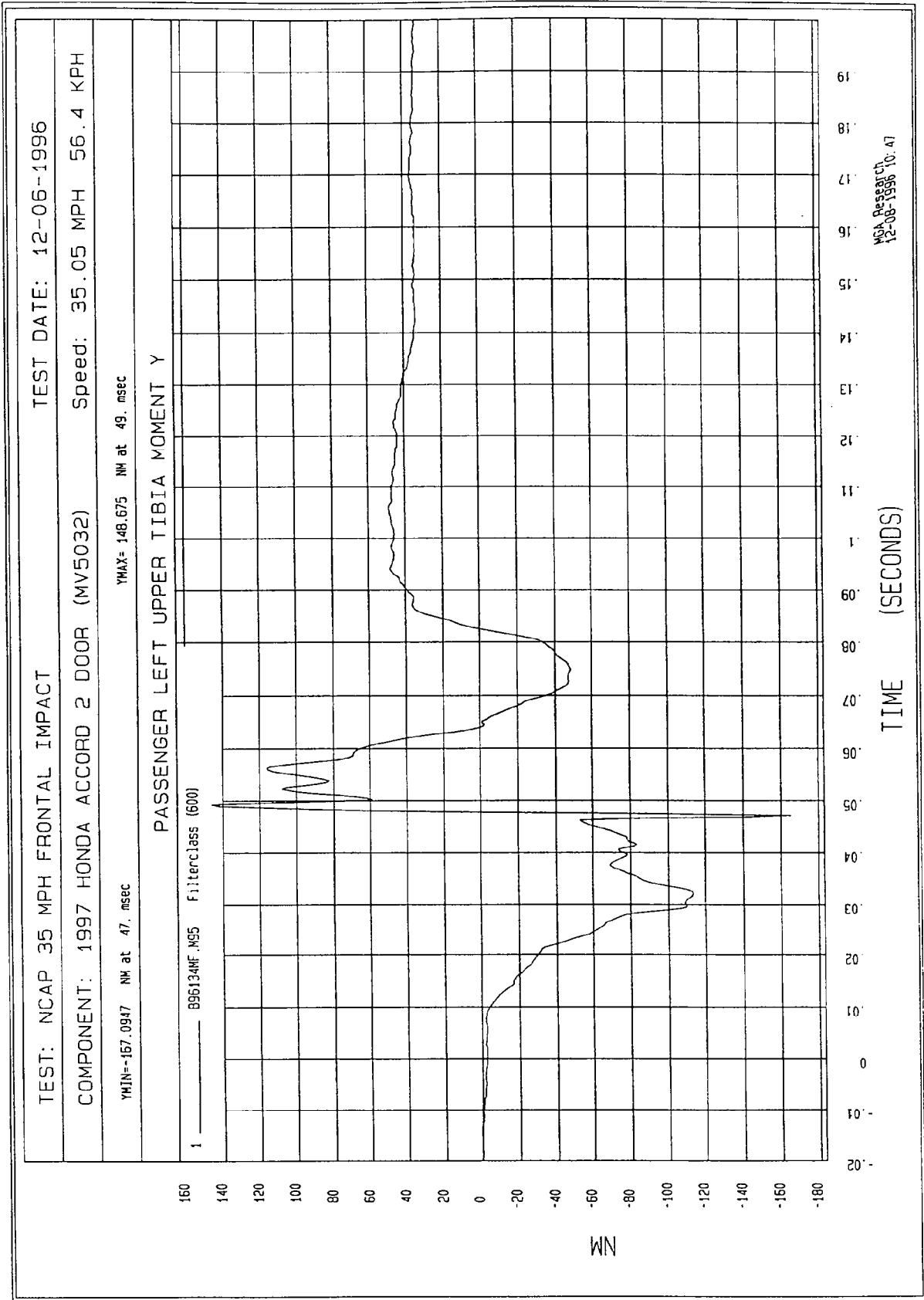
PASSENGER LEFT UPPER TIBIA MOMENT X

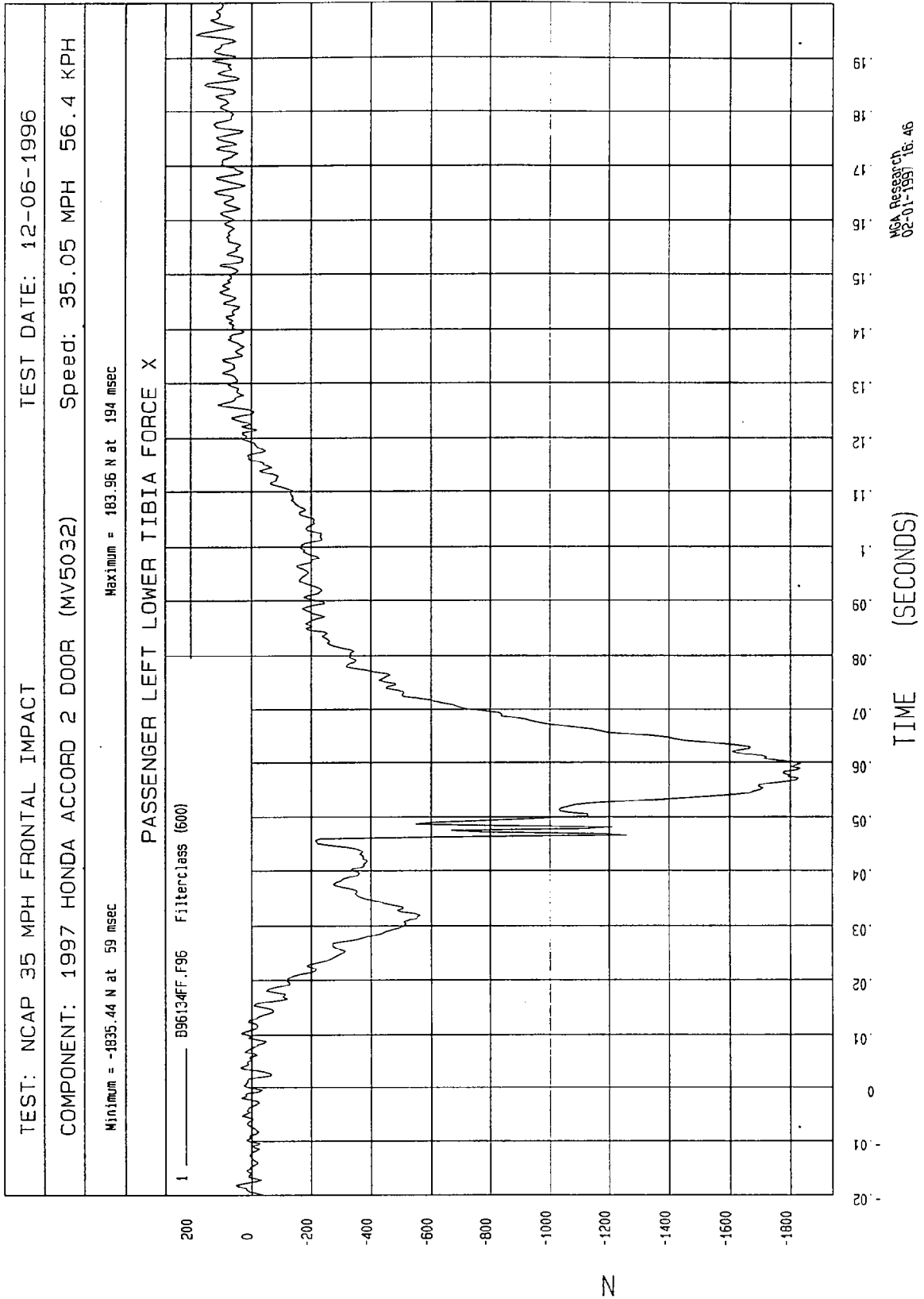


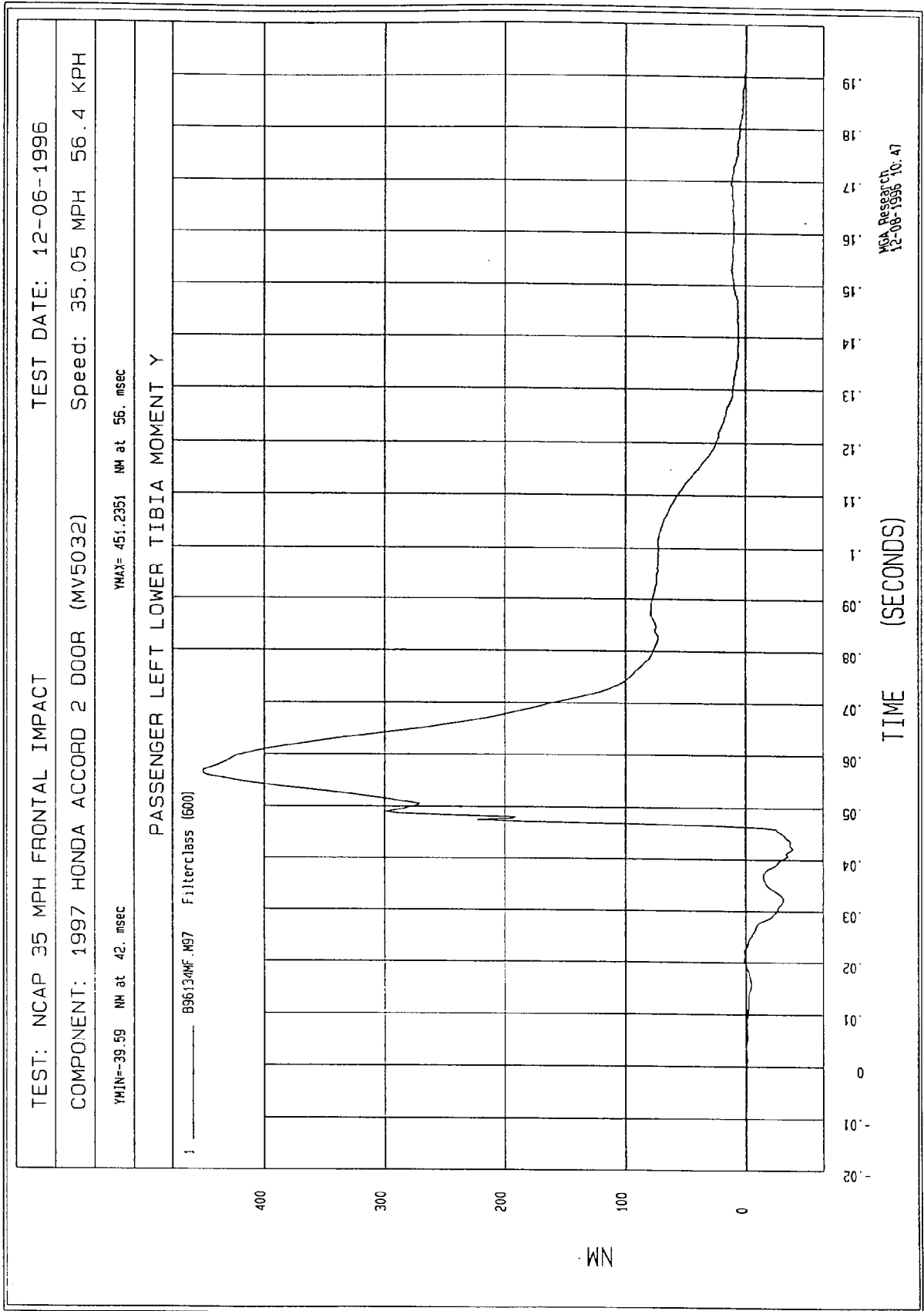
TIME (SECONDS)

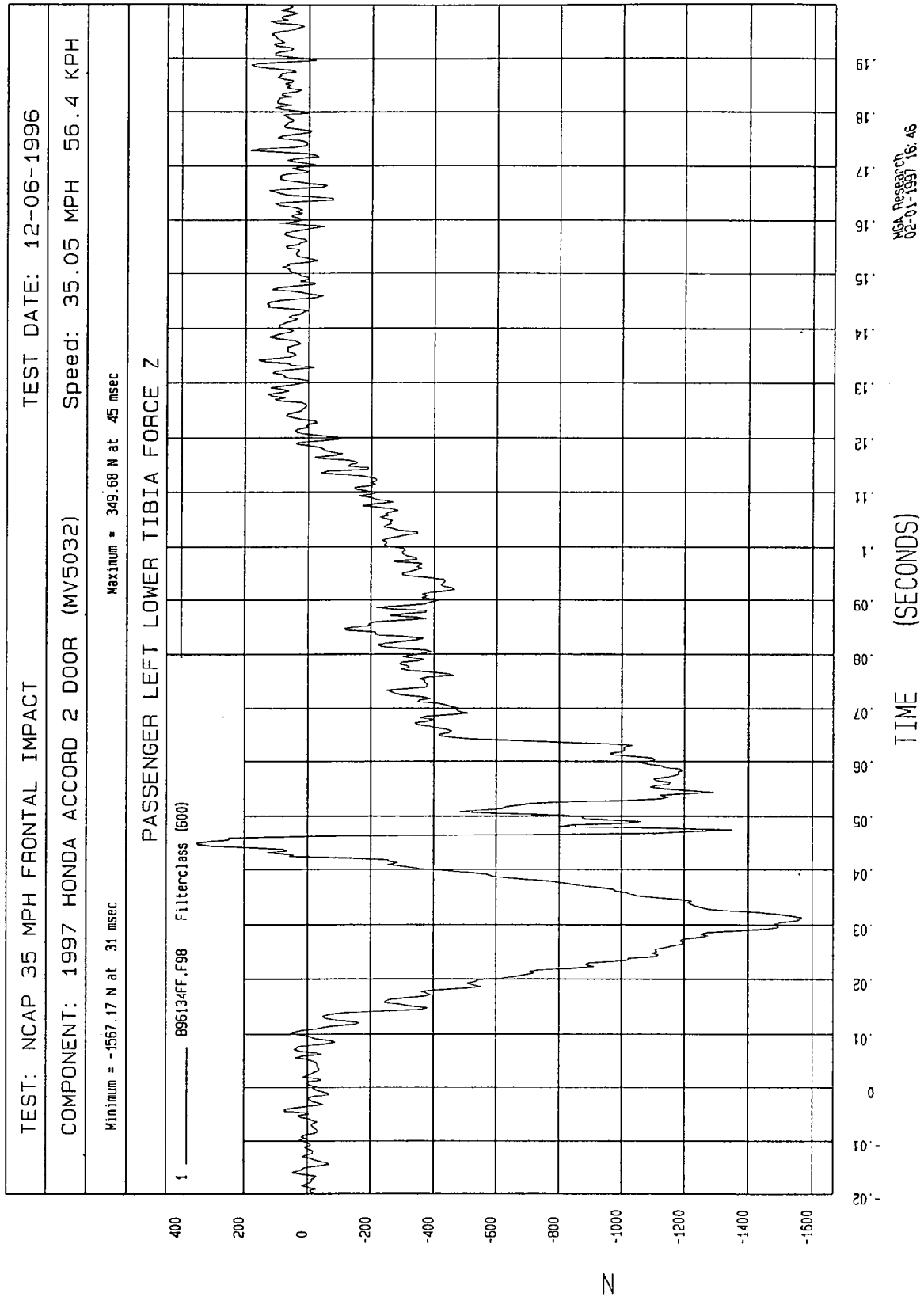
19. 18. 17. 16. 15. 14. 13. 12. 11. 10. 9. 8. 7. 6. 5. 4. 3. 2. 1. 0. -1. -2.

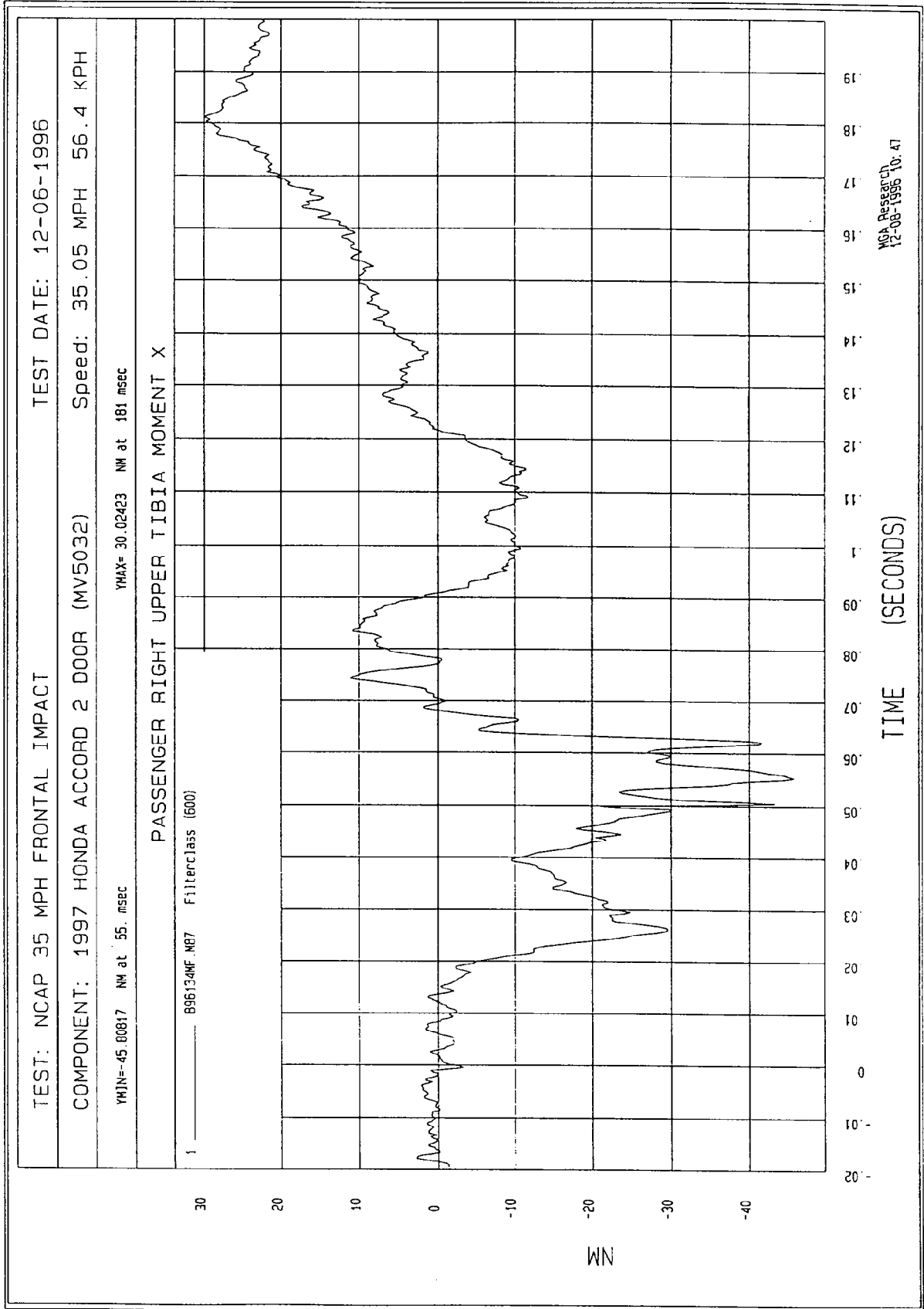
WCA Research
12-06-1996 10: 47

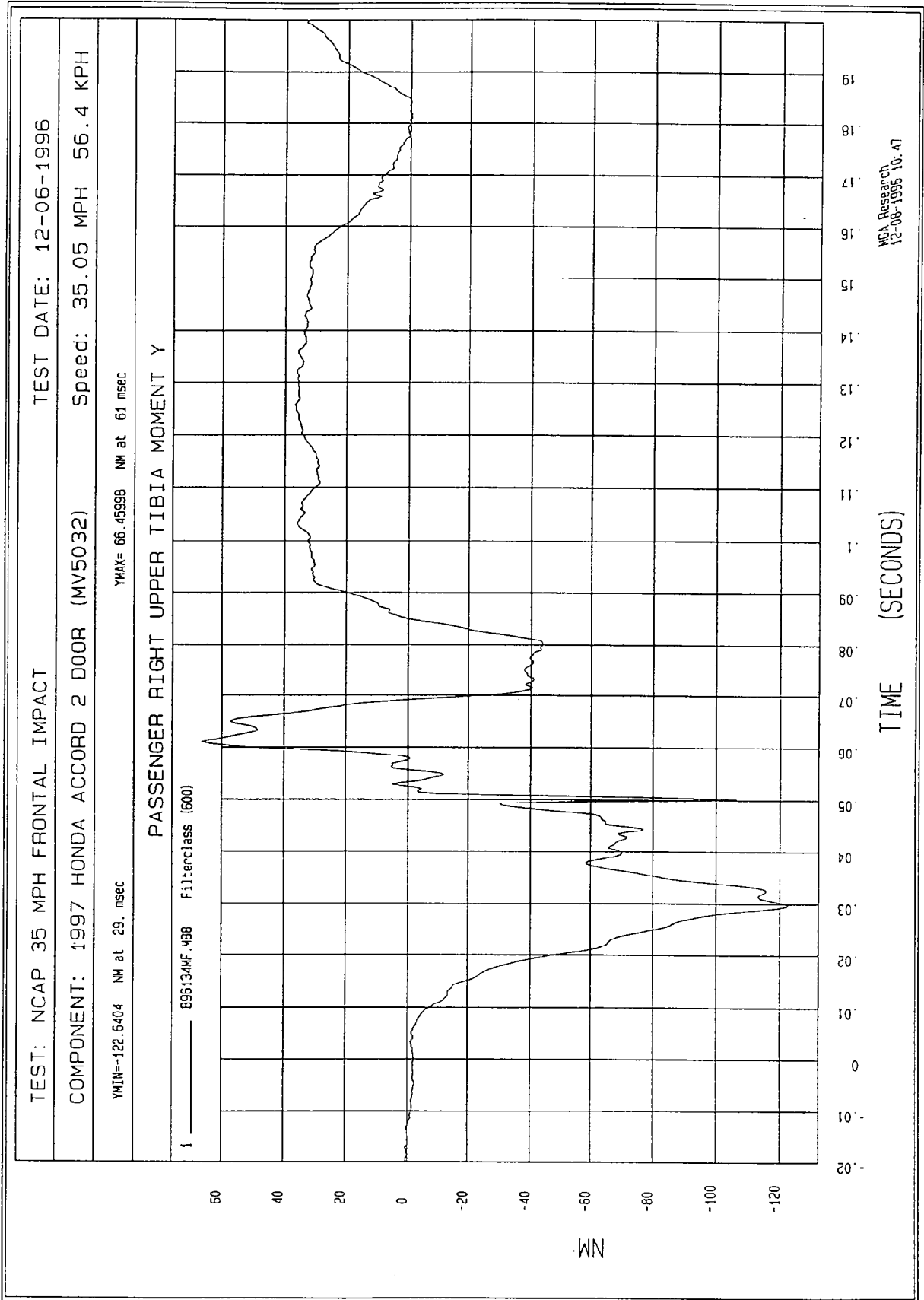


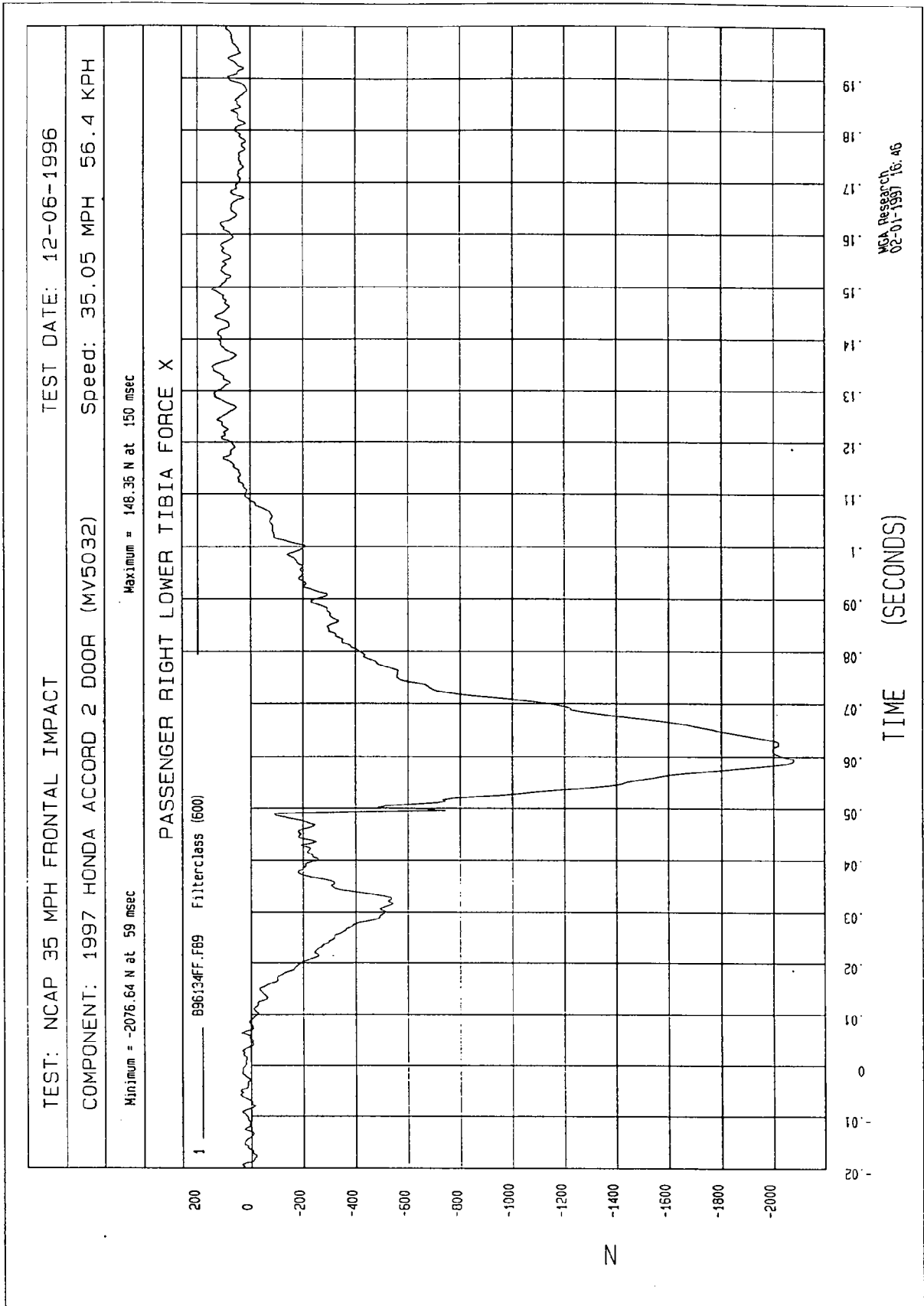


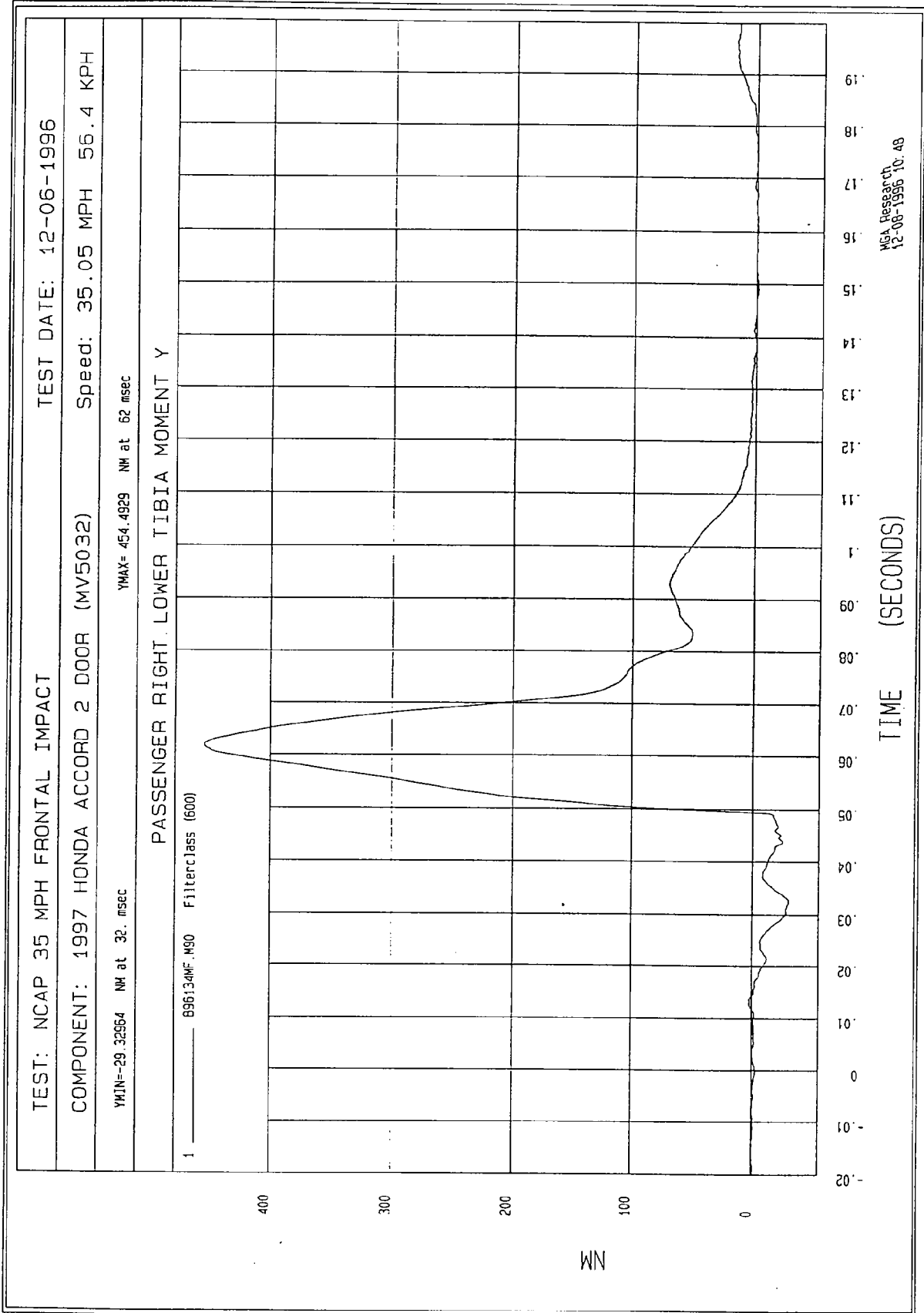












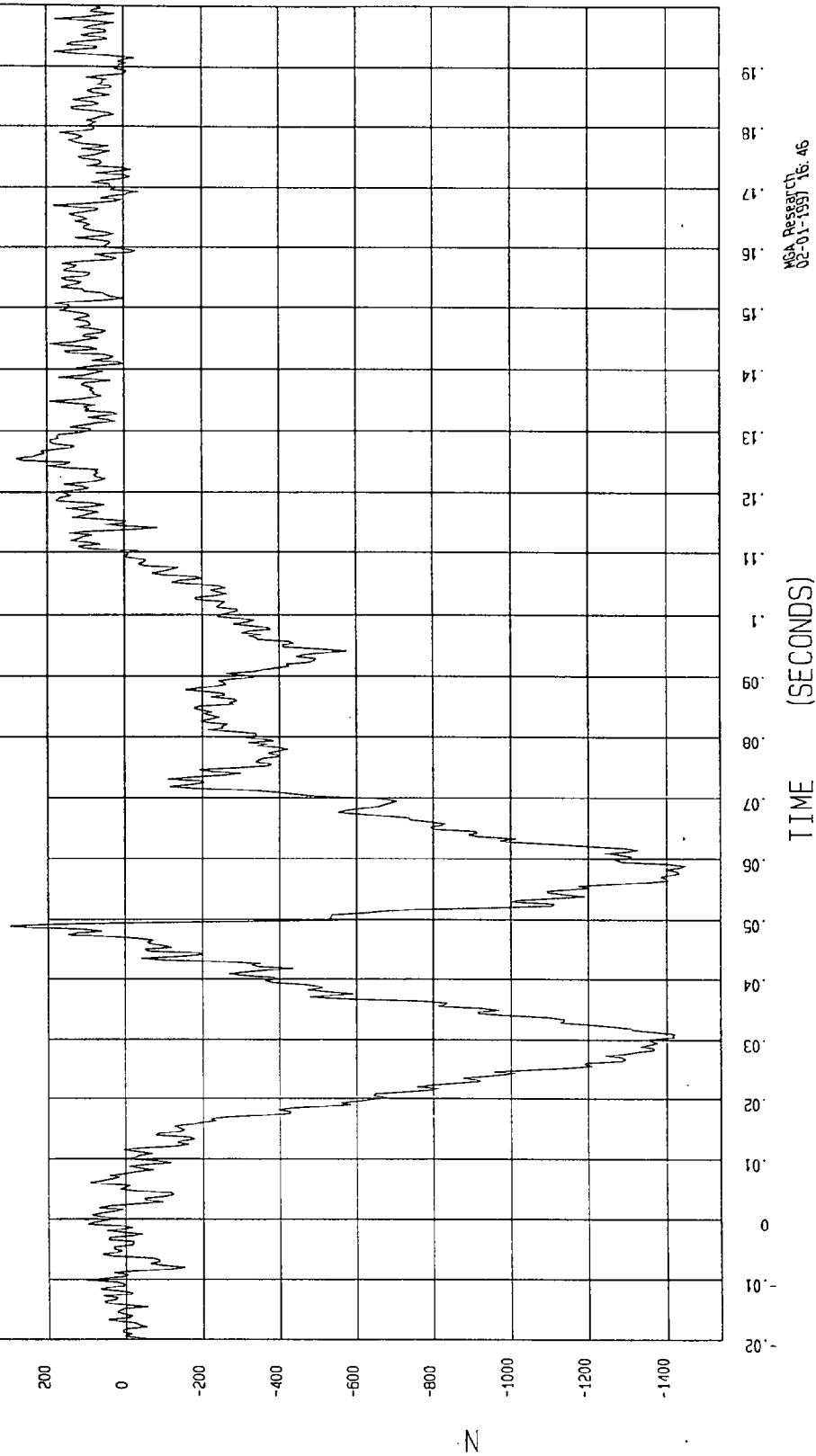
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

COMPONENT: 1997 HONDA ACCORD 2 DOOR (MV5032) Speed: 35.05 MPH 56.4 KPH

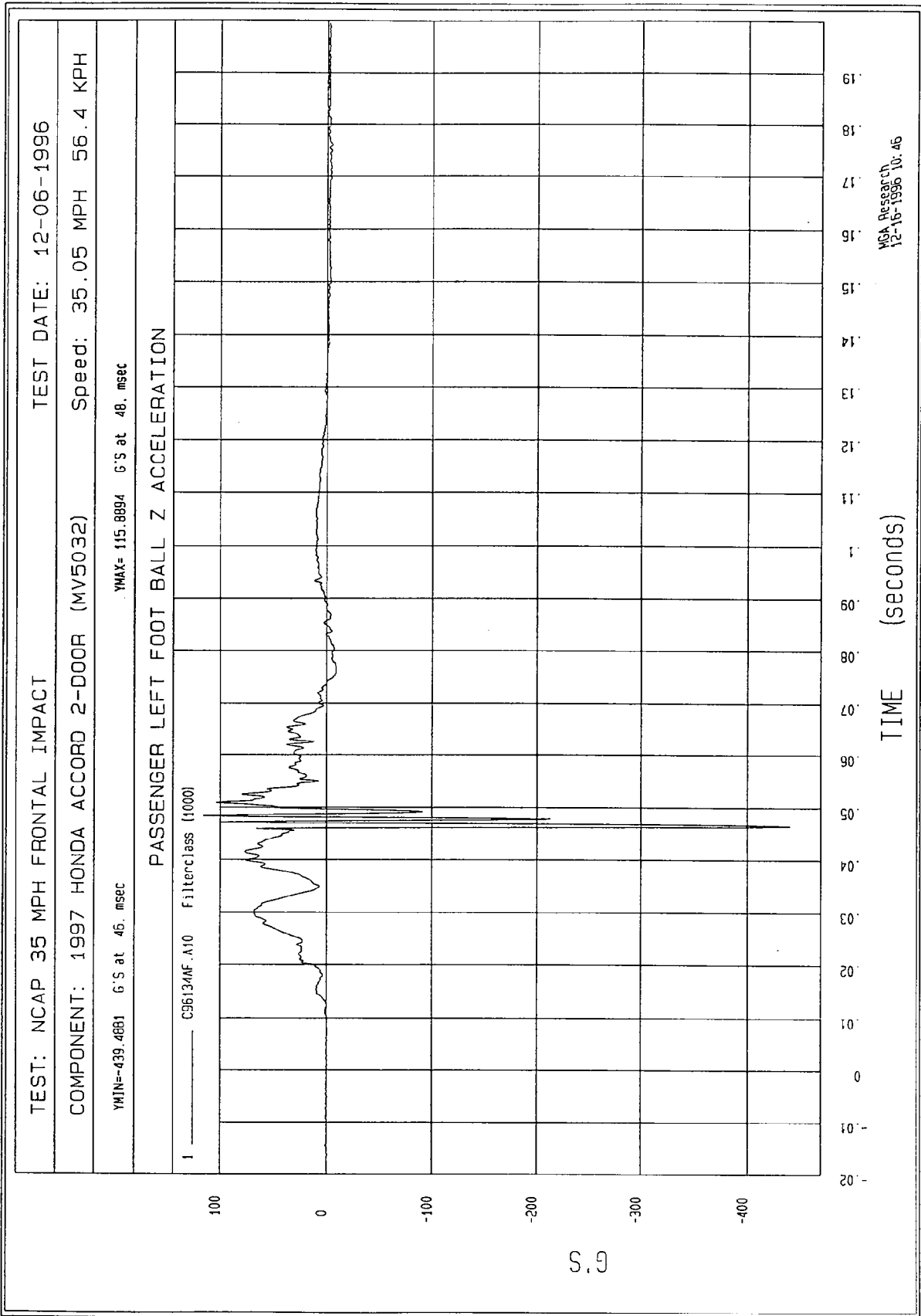
Minimum = -1450.21 N at 59 msec Maximum = 305.64 N at 49 msec

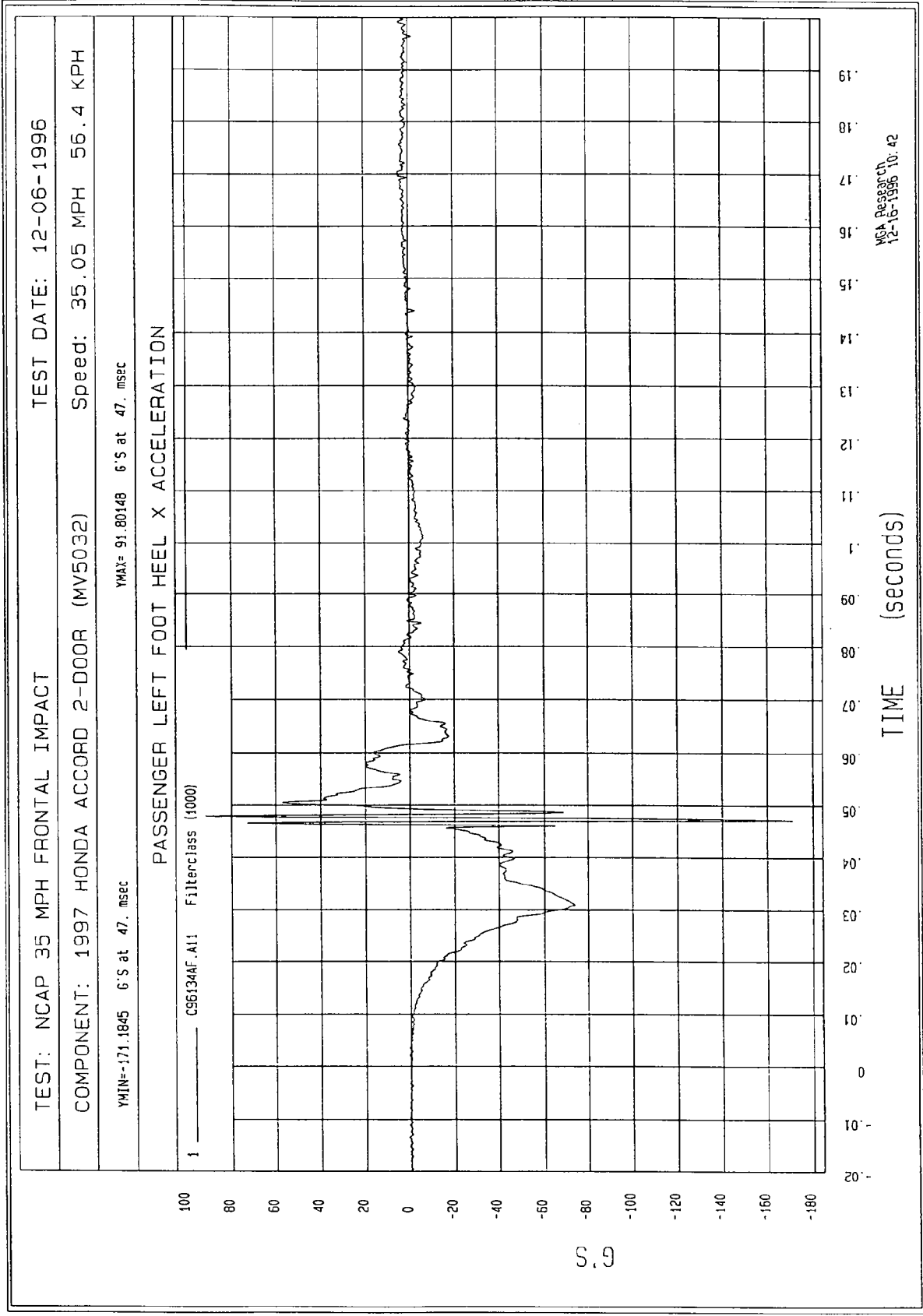
PASSENGER RIGHT LOWER TIBIA FORCE Z

1 896134FF.F91 Filterclass (600)



MGA Research
02-01-1997 16:46



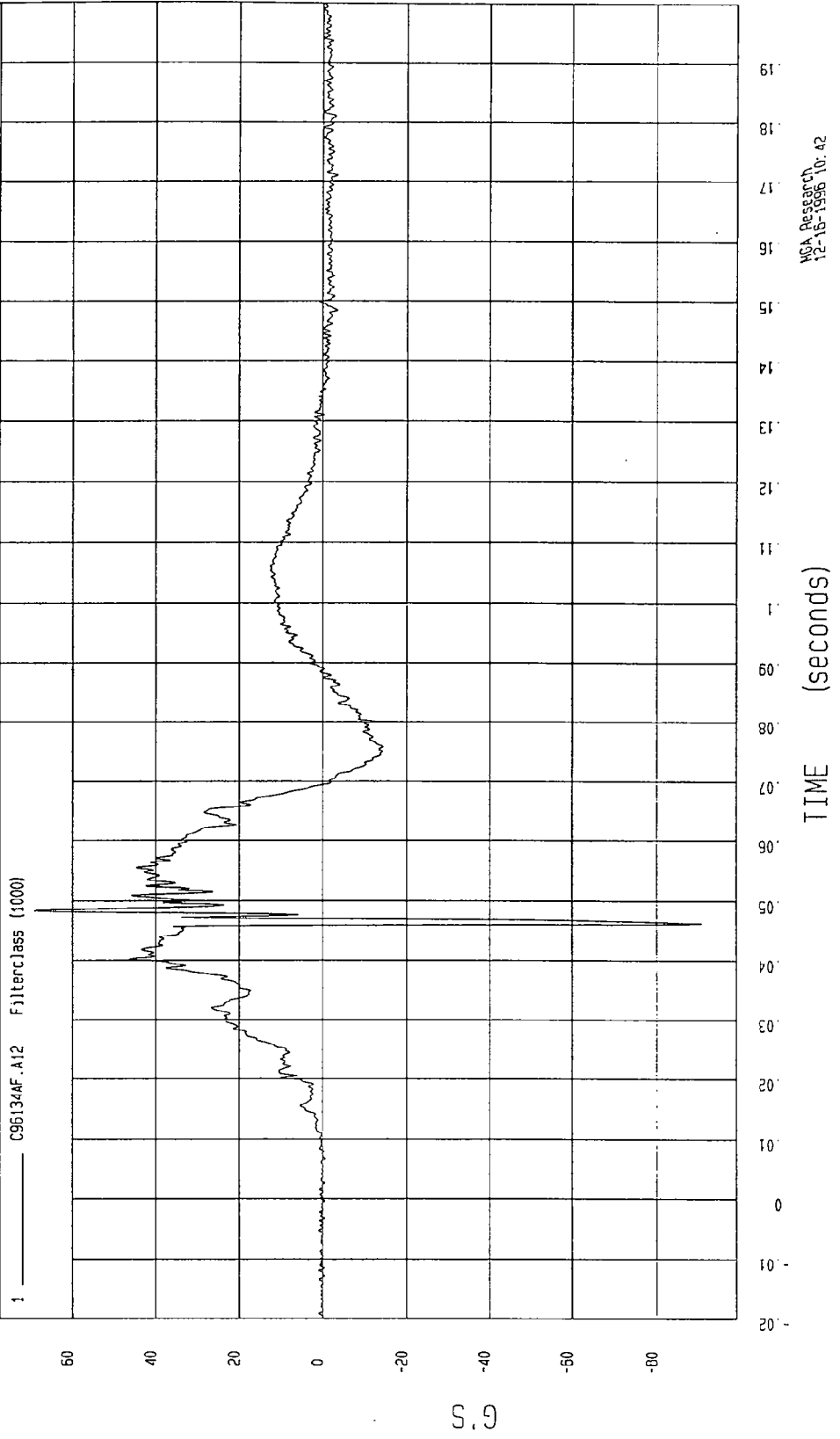


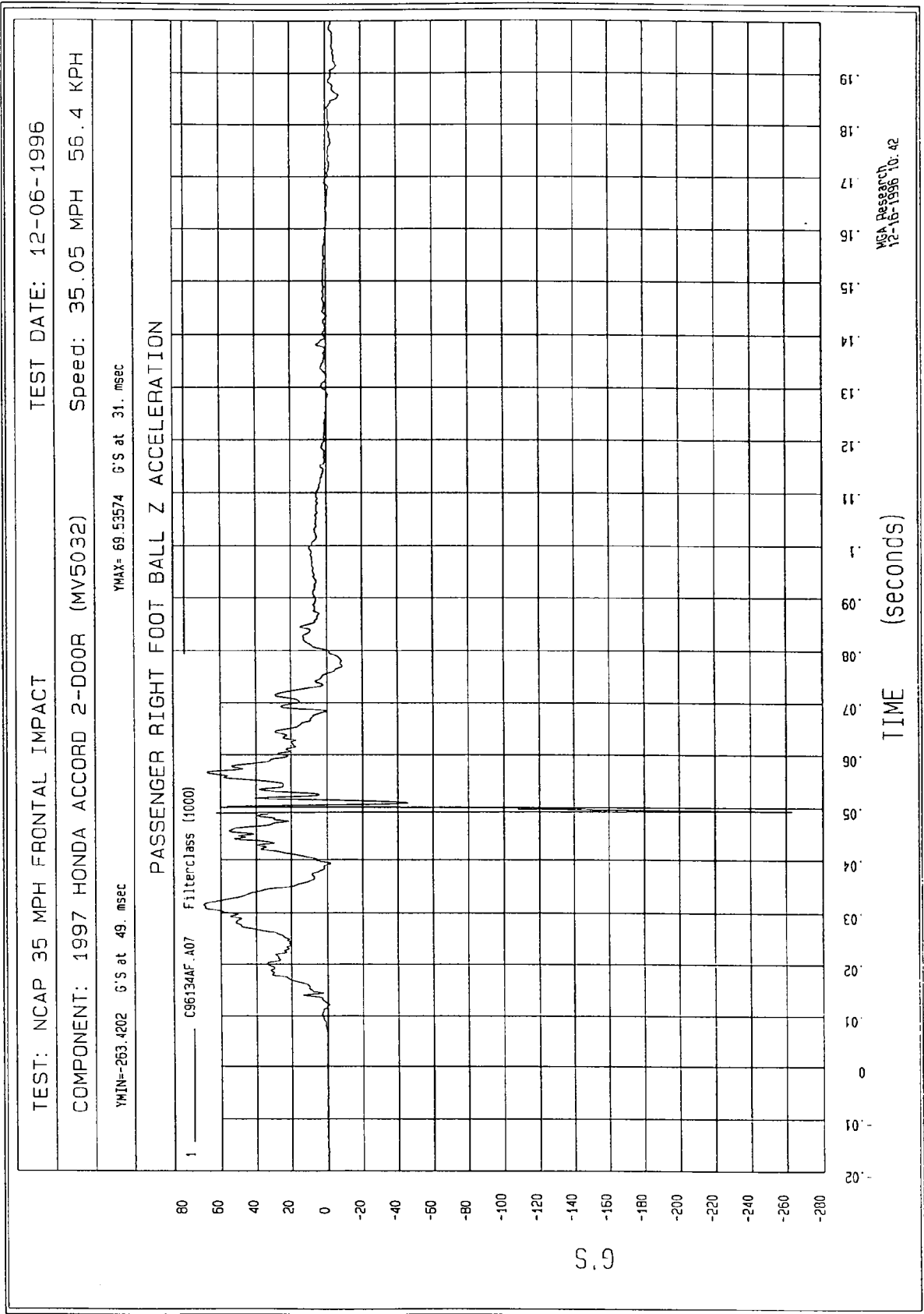
TEST: NCAP 35 MPH FRONTAL IMPACT TEST DATE: 12-06-1996

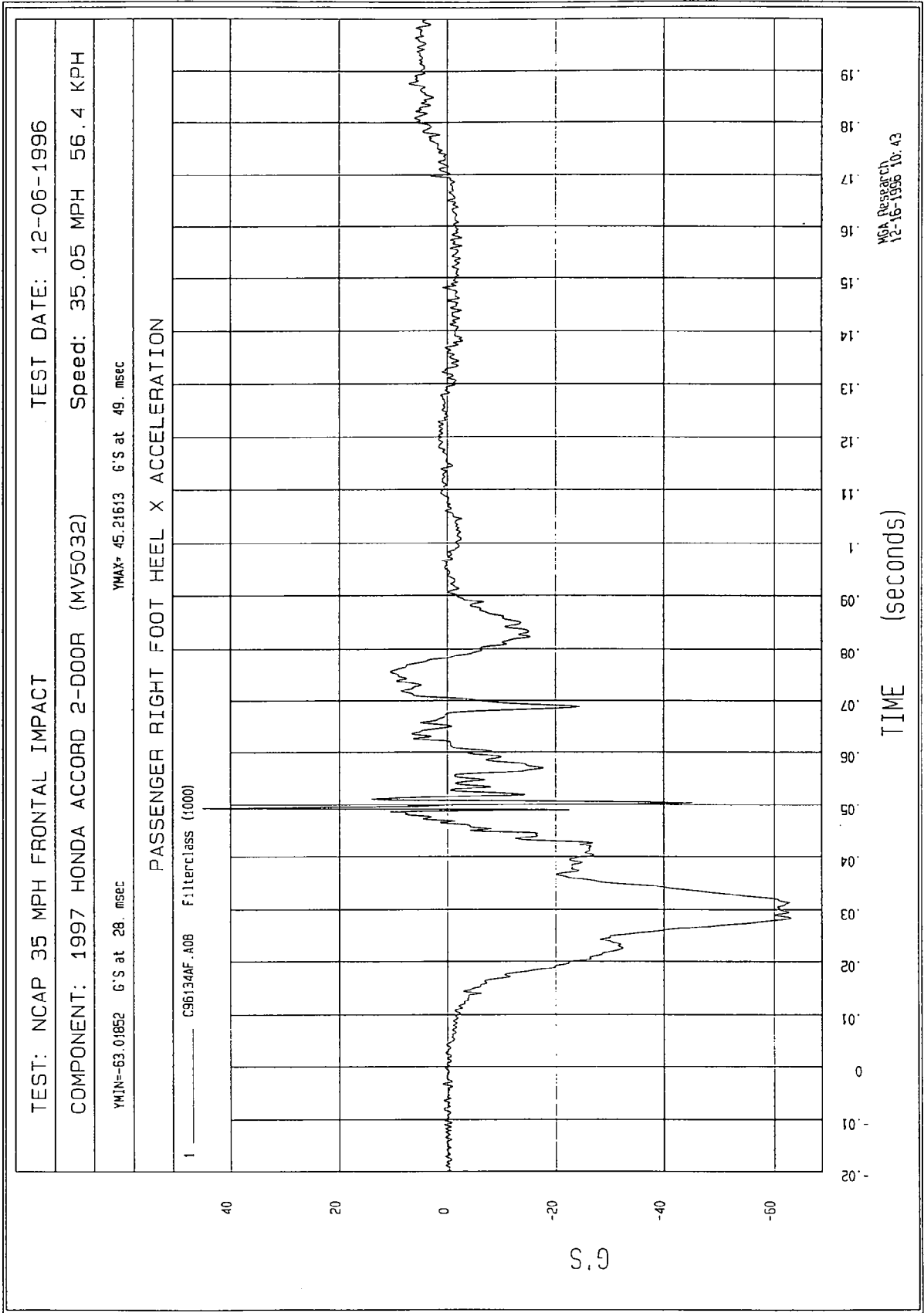
COMPONENT: 1997 HONDA ACCORD 2-D00R (MV5032) Speed: 35.05 MPH 56.4 KPH

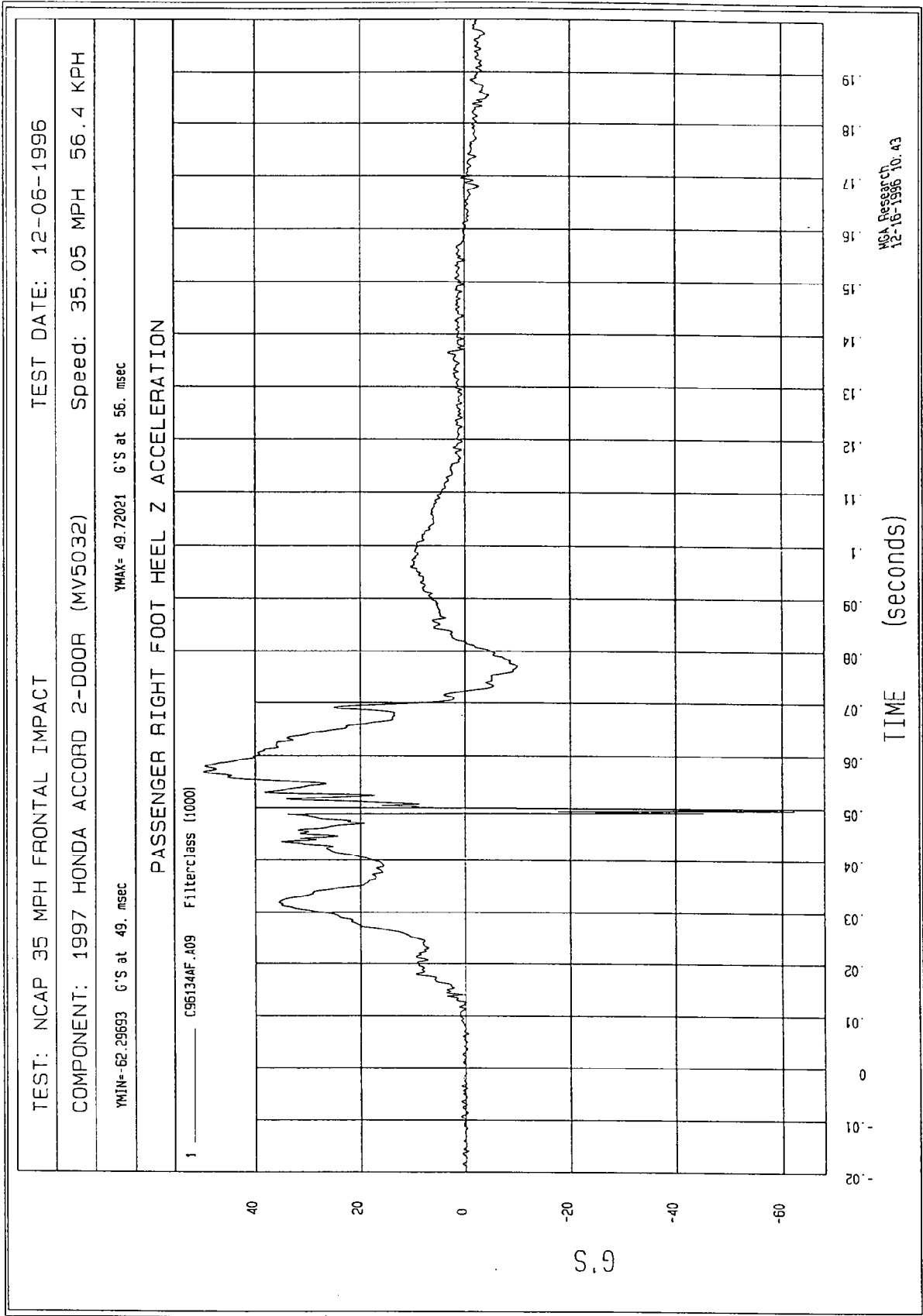
YMIN=-90.65912 G'S at 45. msec YMAX= 69.11568 G'S at 48. msec

PASSENGER LEFT FOOT HEEL Z ACCELERATION









APPENDIX C

Dummy Configuration & Performance Verification Data

HYBRID III DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

DUMMY NO.: 036 DUMMY CALIBRATION BY: Al Chalmers

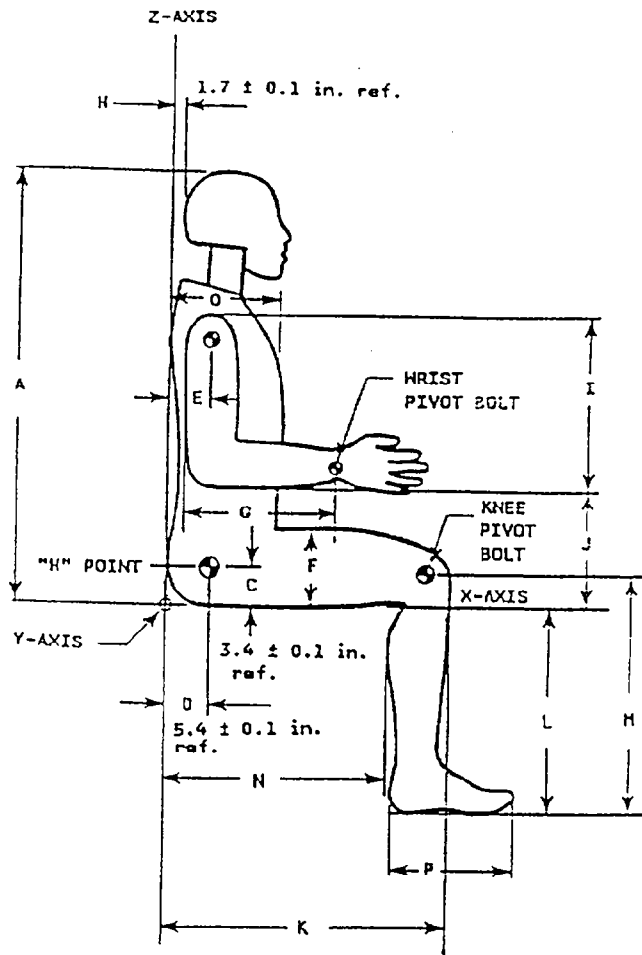
I. CONFIGURATION VERIFICATION DATA

DATE OF VERIFICATION: 5-8-96

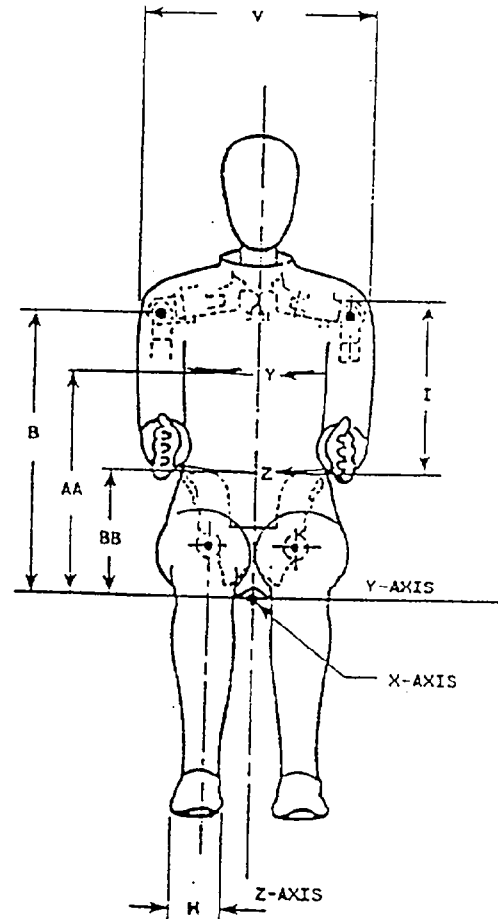
| DESCRIPTION | SPECIFICATION
(inches) | ACTUAL
MEASUREMENT
(inches) |
|----------------------------------|---------------------------|-----------------------------------|
| A - Total Sitting Height | 34.6 - 35.0 | 34.9 |
| B - Shoulder Pivot Height | 19.9 - 20.5 | 20.5 |
| C - "H" Point Height | 3.3 - 3.5 | 3.5 |
| D - "H" Point from Seat Back | 5.3 - 5.5 | 5.5 |
| E - Shoulder Pivot From Backline | 3.3 - 3.7 | 3.5 |
| F - Thigh Clearance | 5.5 - 6.1 | 6.1 |
| G - Back of Elbow to Wrist Pivot | 11.4 - 12.0 | 11.5 |
| H - Skull Cap Skin to Backline | 1.6 - 1.8 | 1.7 |
| I - Shoulder - Elbow Length | 13.0 - 13.6 | 13.0 |
| J - Elbow Rest Height | 7.5 - 8.3 | 8.0 |
| K - Buttock to Knee Length | 22.8 - 23.8 | 23.5 |
| L - Popliteal Height | 16.9 - 17.9 | 17.0 |
| M - Knee Pivot Height | 19.1 - 19.9 | 19.5 |
| N - Buttock Popliteal Length | 17.8 - 18.8 | 18.5 |
| O - Chest Depth at 3rd Rib | 8.4 - 9.0 | 8.8 |
| P - Foot Length | 9.9 - 10.5 | 10.3 |
| V - Shoulder Breadth | 16.6 - 17.2 | 16.8 |
| W - Foot Breadth | 3.6 - 4.2 | 4.0 |
| Y - Chest Circumference | 38.2 - 39.4 | 39.0 |
| Z - Waist Circumference | 32.9 - 34.1 | 33.5 |

Note: (See next page for external dimensions)

HYBRID III EXTERNAL DIMENSIONS



SIDE VIEW



FRONT VIEW

Note: Figure is referenced to the erect seated position. The curved lumbar does not allow the hybrid III to be positioned in a perfect erect attitude.

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET

DUMMY NO.: 036 DUMMY CALIBRATION BY: Al Chalmers

VERIFICATION DATE: 10-09-96

VERIFICATION LABORATORY TEMPERATURE (66° - 78°): 70°

1.0 HEAD DROP TEST

| | SPECIFICATION | MEASUREMENT |
|--------------------------------|--------------------|-------------|
| Peak Resultant Acceleration | 225 - 275 G | 255 |
| Peak Lateral Acceleration | 15 G. MAX | 3 |
| Is Acceleration Curve Unimodal | within 10% of peak | Yes |

2.0 NECK FLEXION TEST

| | | SPECIFICATION | MEASUREMENT |
|---|-------|--------------------|-------------|
| Pendulum Speed | | 22.6 - 23.4 FT/SEC | 23.0 |
| Pendulum Deceleration | 10 MS | 22.50 - 27.50 G | 22.62 |
| | 20 MS | 17.60 - 22.60 G | 19.16 |
| | 30 MS | 12.50 - 18.50 G | 13.47 |
| Max. Pendulum G Above 30 MS | | 29.0 G MAX | 13.7 |
| Deceleration - Time Curve Decay Time to 5 G | | 34 - 42 MS | 38 |
| D Plane Rotation | MAX | 64 - 78 DEG. | 78 |
| | TIME | 57 - 64 MS | 58 |
| Rotation Angle - Time Curve Decay Time to Zero | | 113 - 128 MS | 116 |
| Moment About Occipital Condyle | MIN. | 65 - 80 FT.LBS | 72 |
| | TIME | 47 - 58 MS | 51 |
| Positive Moment - Time Curve Decay Time to Zero | | 97 - 107 MS | 102 |

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET (CONT.)

3.0 NECK EXTENSION TEST

| | | SPECIFICATION | MEASUREMENT |
|---|-------|--------------------|-------------|
| Pendulum Speed | | 19.50 - 20.30 F/S | 20.00 |
| Pendulum Deceleration | 10 MS | 17.20 - 21.20 G | 17.54 |
| | 20 MS | 14.00 - 19.00 G | 15.80 |
| | 30 MS | 11.00 - 16.00 G | 12.24 |
| Max. Pendulum G Above 30 MS | | 22 G Max | 13 |
| Deceleration - Time Curve Decay Time to 5 G | | 38 - 46 MS | 40 |
| D Plane Rotation | MAX | 81 - 106 DEG. | 102 |
| | TIME | 72 - 82 MS | 77 |
| Rotation Angle - Time Curve Decay Time to Zero | | 147 - 174 MS | 162 |
| Moment About Occipital Condyle | MIN. | -59.0/-39.0 FT LBS | -51.9 |
| | TIME | 65 - 79 MS | 71 |
| Positive Moment - Time Curve Decay Time to Zero | | 120 - 148 MS | 142 |

4.0 CHEST IMPACT TESTS

| | SPECIFICATION | MEASUREMENT |
|----------------------|-------------------|-------------|
| Probe Speed | 21.6 to 22.4 F/S | 21.8 |
| Peak Deflection | 2.50 to 2.86 IN. | 2.77 |
| Peak Resistive Force | 1160 to 1325 LBS. | 1239 |
| Internal Hysteresis | 69 to 85% | 69 |

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET (CONT.)

5.0 KNEE IMPACT TESTS

| LEFT KNEE | SPECIFICATION | MEASUREMENT |
|---------------|------------------|-------------|
| Probe Speed | 6.8 to 7.0 F/S | 6.9 |
| Maximum Force | 1060 - 1300 LBS. | 1136 |

| RIGHT KNEE | SPECIFICATION | MEASUREMENT |
|---------------|------------------|-------------|
| Probe Speed | 6.8 to 7.0 F/S | 7.0 |
| Maximum Force | 1060 - 1300 LBS. | 1205 |

HYBRID III DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

DUMMY NO.: 037

DUMMY CALIBRATION BY: Al Chalmers

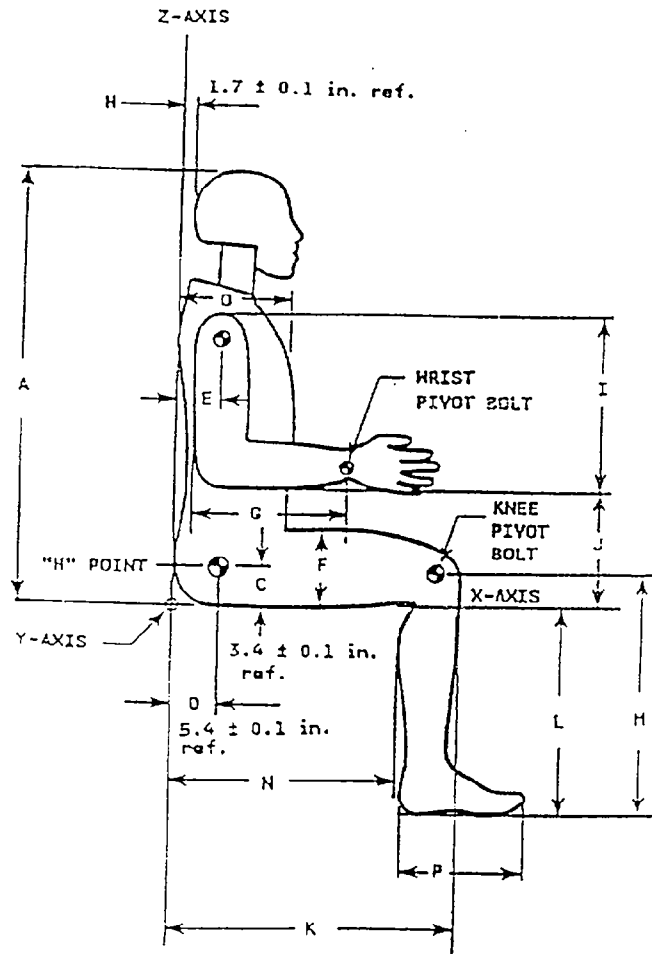
I. CONFIGURATION VERIFICATION DATA

DATE OF VERIFICATION: 5-30-96

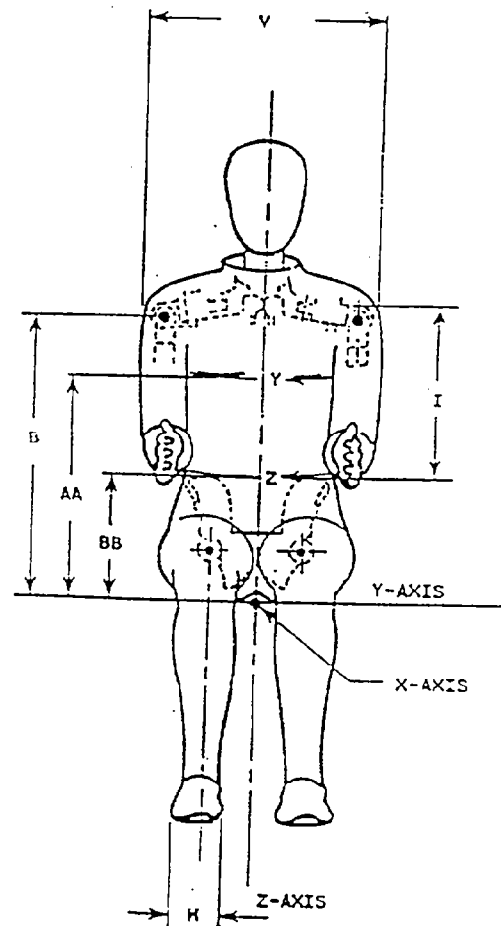
| DESCRIPTION | SPECIFICATION
(Inches) | ACTUAL
MEASUREMENT
(inches) |
|----------------------------------|---------------------------|-----------------------------------|
| A - Total Sitting Height | 34.6 - 35.0 | 34.8 |
| B - Shoulder Pivot Height | 19.9 - 20.5 | 20.5 |
| C - "H" Point Height | 3.3 - 3.5 | 3.5 |
| D - "H" Point from Seat Back | 5.3 - 5.5 | 5.5 |
| E - Shoulder Pivot From Backline | 3.3 - 3.7 | 3.5 |
| F - Thigh Clearance | 5.5 - 6.1 | 6.1 |
| G - Back of Elbow to Wrist Pivot | 11.4 - 12.0 | 11.5 |
| H - Skull Cap Skin to Backline | 1.6 - 1.8 | 1.7 |
| I - Shoulder Elbow Length | 13.0 - 13.6 | 13.0 |
| J - Elbow Rest Height | 7.5 - 8.3 | 8.0 |
| K - Buttock Knee Length | 22.8 - 23.8 | 23.5 |
| L - Popliteal Height | 16.9 - 17.9 | 17.0 |
| M - Knee Pivot Height | 19.1 - 19.9 | 19.5 |
| N - Buttock Popliteal Length | 17.8 - 18.8 | 18.5 |
| O - Chest Depth at 3rd Rib | 8.4 - 9.0 | 8.8 |
| P - Foot Length | 9.9 - 10.5 | 10.3 |
| V - Shoulder Breadth | 16.6 - 17.2 | 16.8 |
| W - Foot Breadth | 3.5 - 4.2 | 4.0 |
| Y - Chest Circumference | 38.2 - 39.4 | 39.0 |
| Z - Waist Circumference | 32.9 - 34.1 | 33.5 |

Note: (See next page for external dimensions)

HYBRID III EXTERNAL DIMENSIONS



SIDE VIEW



FRONT VIEW

Note: Figure is referenced to the erect seated position. The curved lumbar does not allow the hybrid III to be positioned in a perfect erect attitude.

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET (CONT.)

DUMMY NO.: 037 DUMMY CALIBRATION BY: Al Chalmers

VERIFICATION DATE: 10-16-96

VERIFICATION LABORATORY TEMPERATURE (66° - 78°): 70°

1.0 HEAD DROP TEST

| | SPECIFICATION | MEASUREMENT |
|--------------------------------|--------------------|-------------|
| Peak Resultant Acceleration | 225 - 275 G | 260 |
| Peak Lateral Acceleration | 15 G. MAX | 10 |
| Is Acceleration Curve Unimodal | within 10% of peak | Yes |

2.0 NECK FLEXION TEST

| | | SPECIFICATION | MEASUREMENT |
|---|-------|--------------------|-------------|
| Pendulum Speed | | 22.6 - 23.4 FT/SEC | 23.0 |
| Pendulum Deceleration | 10 MS | 22.50 - 27.50 G | 22.67 |
| | 20 MS | 17.60 - 22.60 G | 20.42 |
| | 30 MS | 12.50 - 18.50 G | 15.99 |
| Max. Pendulum G Above 30 MS | | 29.0 G MAX | 15.9 |
| Deceleration - Time Curve Decay Time to 5 G | | 34 - 42 MS | 37 |
| D Plane Rotation | MAX | 64 - 78 DEG. | 69 |
| | TIME | 57 - 64 MS | 60 |
| Rotation Angle - Time Curve Decay Time to Zero | | 113 - 128 MS | 118 |
| Moment About Occipital Condyle | MIN. | 65 - 80 FT.LBS | 71 |
| | TIME | 47 - 58 MS | 51 |
| Positive Moment - Time Curve Decay Time to Zero | | 97 - 107 MS | 105 |

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET (CONT.)

3.0 NECK EXTENSION TEST

| | | SPECIFICATION | MEASUREMENT |
|---|-------|--------------------|-------------|
| Pendulum Speed | | 19.50 - 20.30 F/S | 20.04 |
| Pendulum Deceleration | 10 MS | 17.20 - 21.20 G | 17.50 |
| | 20 MS | 14.00 - 19.00 G | 16.58 |
| | 30 MS | 11.00 - 16.00 G | 13.66 |
| Max. Pendulum G Above 30 MS | | 22 G Max | 14 |
| Deceleration - Time Curve Decay Time to 5 G | | 38 - 46 MS | 39 |
| D Plane Rotation | MAX | 81 - 106 DEG. | 96 |
| | TIME | 72 - 82 MS | 75 |
| Rotation Angle - Time Curve Decay Time to Zero | | 147 - 174 MS | 155 |
| Moment About Occipital Condyle | MIN. | -59.0/-39.0 FT LBS | -54.1 |
| | TIME | 65 - 79 MS | 70 |
| Positive Moment - Time Curve Decay Time to Zero | | 120 - 148 MS | 139 |

4.0 CHEST IMPACT TESTS

| | SPECIFICATION | MEASUREMENT |
|----------------------|-------------------|-------------|
| Probe Speed | 21.6 to 22.4 F/S | 21.8 |
| Peak Deflection | 2.50 to 2.86 IN. | 2.56 |
| Peak Resistive Force | 1160 to 1325 LBS. | 1298 |
| Internal Hysteresis | 69 to 85% | 69% |

HYBRID III DUMMY CALIBRATION DATA SUMMARY SHEET (CONT.)

5.0 KNEE IMPACT TESTS

| LEFT KNEE | SPECIFICATION | MEASUREMENT |
|---------------|------------------|-------------|
| Probe Speed | 6.8 to 7.0 F/S | 6.8 |
| Maximum Force | 1060 - 1300 LBS. | 1234 |

| RIGHT KNEE | SPECIFICATION | MEASUREMENT |
|---------------|------------------|-------------|
| Probe Speed | 6.8 to 7.0 F/S | 6.8 |
| Maximum Force | 1060 - 1300 LBS. | 1131 |

APPENDIX D

Dummy, Vehicle and Laboratory Calibration Data

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 036

| | DRIVER | | |
|-----------------------|------------|--------------|------------------|
| | SERIAL NO. | MANUFACTURER | CALIBRATION DATE |
| Head X | AAMN8 | Endevco | 12/04/96 |
| Head Y | ACCG1 | Endevco | 12/04/96 |
| Head Z | ACCW9 | Endevco | 12/04/96 |
| Head X Redundant | AJ621 | Endevco | 12/04/96 |
| Head Y Redundant | AJ619 | Endevco | 12/04/96 |
| Head Z Redundant | AHY54 | Endevco | 12/04/96 |
| Chest X | ACC78 | Endevco | 12/04/96 |
| Chest Y | ACCE6 | Endevco | 12/04/96 |
| Chest Z | ACCY3 | Endevco | 12/04/96 |
| Chest X Redundant | AJ9J7 | Endevco | 12/04/96 |
| Chest Y Redundant | AJ7A2 | Endevco | 12/04/96 |
| Chest Z Redundant | AJ819 | Endevco | 12/04/96 |
| Right Femur Load Cell | 259 | Denton | 8/28/96 |
| Left Femur Load Cell | 260 | Denton | 8/28/96 |
| Pelvis X | ALB87 | Endevco | 12/04/96 |
| Pelvis Y | AHRP5 | Endevco | 12/04/96 |
| Pelvis Z | AJ9T6 | Endevco | 12/04/96 |

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 036

| | DRIVER | | |
|------------------------|------------|--------------|------------------|
| | SERIAL NO. | MANUFACTURER | CALIBRATION DATE |
| Neck Load Cell X | 442 | Denton | 6/18/96 |
| Neck Load Cell Y | 442 | Denton | 6/18/96 |
| Neck Load Cell Z | 442 | Denton | 6/18/96 |
| Neck Moment X | 442 | Denton | 6/18/96 |
| Neck Moment Y | 442 | Denton | 6/18/96 |
| Neck Moment Z | 442 | Denton | 6/18/96 |
| Chest Deflection Gauge | 036 | Servo | 12/05/96 |
| Lap Belt Load Cell | 657 | Lebow | 11/06/96 |
| Torso Belt Load Cell | 625 | Lebow | 11/15/96 |

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 037

| | DRIVER | | |
|----------------------------|------------|--------------|------------------|
| | SERIAL NO. | MANUFACTURER | CALIBRATION DATE |
| Upper Right Tibia Moment X | 040 | Denton | 11/05/96 |
| Upper Right Tibia Moment Y | 040 | Denton | 11/05/96 |
| Lower Right Tibia Moment Y | 034 | Denton | 11/05/96 |
| Lower Right Tibia Force X | 034 | Denton | 11/05/96 |
| Lower Right Tibia Force Z | 034 | Denton | 11/05/96 |
| Upper Left Tibia Moment X | 023 | Denton | 11/05/96 |
| Upper Left Tibia Moment Y | 023 | Denton | 11/05/96 |
| Lower Left Tibia Moment Y | 019 | Denton | 11/05/96 |
| Lower Left Tibia Force X | 019 | Denton | 11/05/96 |
| Lower Left Tibia Force Z | 019 | Denton | 11/05/96 |
| Right Foot Ball Z | J11046 | Endevco | 12/02/96 |
| Right Foot Heel X | J11784 | Endevco | 12/02/96 |
| Right Foot Heel Z | J11047 | Endevco | 12/02/96 |
| Left Foot Ball Z | J11014 | Endevco | 12/02/96 |
| Left Foot Heel X | J10730 | Endevco | 12/02/96 |
| Left Foot Heel Z | J11625 | Endevco | 12/02/96 |

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 037

| | PASSENGER | | |
|-----------------------|------------|--------------|------------------|
| | SERIAL NO. | MANUFACTURER | CALIBRATION DATE |
| Head X | ACCY6 | Endevco | 12/04/96 |
| Head Y | ACCH1 | Endevco | 12/04/96 |
| Head Z | AAMW5 | Endevco | 12/04/96 |
| Head X Redundant | AJ9D2 | Endevco | 12/04/96 |
| Head Y Redundant | AH1E2 | Endevco | 12/04/96 |
| Head Z Redundant | AJ7K3 | Endevco | 12/04/96 |
| Chest X | ACCY1 | Endevco | 12/03/96 |
| Chest Y | ACCC8 | Endevco | 12/03/96 |
| Chest Z | ACCT7 | Endevco | 12/03/96 |
| Chest X Redundant | AJ9D4 | Endevco | 12/03/96 |
| Chest Y Redundant | AJ9F3 | Endevco | 12/03/96 |
| Chest Z Redundant | AJ9D9 | Endevco | 12/03/96 |
| Right Femur Load Cell | 261 | Denton | 8/28/96 |
| Left Femur Load Cell | 262 | Denton | 8/28/96 |
| Pelvis X | ALDY8 | Endevco | 12/03/96 |
| Pelvis Y | ALEK9 | Endevco | 12/03/96 |
| Pelvis Z | ALE80 | Endevco | 12/03/96 |

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 037

| | PASSENGER | | |
|------------------------|------------|--------------|------------------|
| | SERIAL NO. | MANUFACTURER | CALIBRATION DATE |
| Neck Load Cell X | 443 | Denton | 6/18/96 |
| Neck Load Cell Y | 443 | Denton | 6/18/96 |
| Neck Load Cell Z | 443 | Denton | 6/18/96 |
| Neck Moment X | 443 | Denton | 6/18/96 |
| Neck Moment Y | 443 | Denton | 6/18/96 |
| Neck Moment Z | 443 | Denton | 6/18/96 |
| Chest Deflection Gauge | 037 | Servo | 7/10/96 |
| Lap Belt Load Cell | 211 | GSE | 11/04/96 |
| Torso Belt Load Cell | 625 | Lebow | 11/06/96 |

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 037

| | PASSENGER | | |
|----------------------------|------------|--------------|------------------|
| | SERIAL NO. | MANUFACTURER | CALIBRATION DATE |
| Upper Right Tibia Moment X | 036 | Denton | 10/01/96 |
| Upper Right Tibia Moment Y | 036 | Denton | 10/01/96 |
| Lower Right Tibia Moment Y | 040 | Denton | 9/24/96 |
| Lower Right Tibia Force X | 040 | Denton | 9/24/96 |
| Lower Right Tibia Force Z | 040 | Denton | 9/24/96 |
| Upper Left Tibia Moment X | 039 | Denton | 10/01/96 |
| Upper Left Tibia Moment Y | 039 | Denton | 10/01/96 |
| Lower Left Tibia Moment Y | 033 | Denton | 9/24/96 |
| Lower Left Tibia Force X | 033 | Denton | 9/24/96 |
| Lower Left Tibia Force Z | 033 | Denton | 9/24/96 |
| Right Foot Ball Z | J13637 | Endevco | 12/05/96 |
| Right Foot Heel X | J13628 | Endevco | 12/05/96 |
| Right Foot Heel Z | J14006 | Endevco | 12/05/96 |
| Left Foot Ball Z | J13650 | Endevco | 12/05/96 |
| Left Foot Heel X | J13424 | Endevco | 12/05/96 |
| Left Foot Heel Z | J14007 | Endevco | 12/05/96 |

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

| VEHICLE ACCELEROMETERS | | |
|---|------------|------------------|
| | SERIAL NO. | CALIBRATION DATE |
| Left Rear Seat Crossmember X | L14-D16 | 12/03/96 |
| Right Rear Seat Crossmember X | B13-Z05 | 6/11/96 |
| Top of Engine Block X | A09-G06 | 6/11/96 |
| Bottom of Engine X | F10-D02 | 12/03/96 |
| Left Brake Caliper X | E25-G03 | 12/03/96 |
| Right Brake Caliper X | C25-A22 | 12/03/96 |
| Instrument Panel X | A09-G01 | 7/15/96 |
| Redundant Left Rear Seat Crossmember X | B02-G09 | 12/03/96 |
| Redundant Right Rear Seat Crossmember X | G19-G08 | 12/03/96 |

| LABORATORY INSTRUMENTS | | |
|--|------------|------------------|
| | SERIAL NO. | CALIBRATION DATE |
| Neck Bending Pendulum Accelerometer | AH5N9 | 5/08/95 |
| Neck Bending Head Rotary Potentiometer | 018 | 3/13/95 |
| Neck Bending Pendulum Rotary Potentiometer | 019 | 3/13/95 |
| Chest Probe Accelerometer | AN8A4 | 6/12/95 |
| Knee Impact Accelerometer | MGA001 | 4/21/95 |

APPENDIX E

Vehicle Owner's Occupant Restraint System Instructions

The Seat Belt System and How It Works

Why Wear Seat Belts

Wearing seat belts, and wearing them properly, is fundamental to your safety and the safety of your passengers.

During a crash or emergency stop, seat belts can help keep you from being thrown against the inside of the car, against other occupants, or out of the car.

Of course, seat belts cannot completely protect you in every crash. But, in most cases, seat belts reduce your chance of serious injury. They can even save your life. That is why many states and all Canadian provinces require you to wear seat belts.

WARNING

Not wearing a seat belt increases the chance of serious injury or death in a crash.

Be sure you and your passengers always wear seat belts and wear them properly.

Important Safety Reminders

Seat belts are designed for adults and larger children. All infants and small children must be properly restrained in child safety seats (see page 20).

A pregnant woman needs to wear a seat belt to protect herself and her unborn child (see page 10).

Two people should never use the same seat belt. If they do, they could be very seriously injured in a crash.

Do not place the shoulder portion of a lap/shoulder belt under your arm or behind your back. This could increase the chance of serious injuries in a crash.

Do not put shoulder belt pads or other accessories on seat belts. They can reduce the effectiveness of the belts and increase the chance of injury.

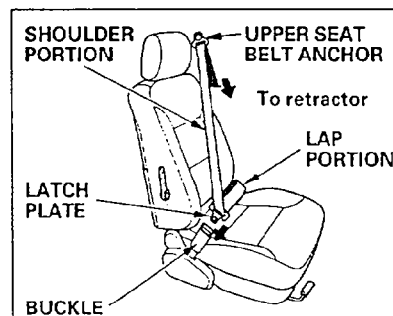
Seat Belt System Components

Your Honda has seat belts in all five seating positions. The front seats and the outside positions of the rear seat have lap/shoulder belts. The center position of the rear seat has a lap belt.

Your seat belt system also includes a light on the instrument panel to remind you to fasten your seat belt, and to make sure your passengers fasten theirs. This light comes on when you turn on the ignition if you have not fastened your seat belt. A beeper also sounds for several seconds (see page 34).

The following pages cover more about the seat belt components and how they work.

Lap/Shoulder Belt

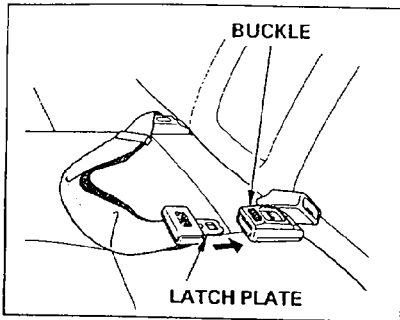


This style of seat belt has a single belt that goes over your shoulder, across your chest, and across your hips.

Each lap/shoulder belt has an emergency locking retractor. In normal driving, the retractor lets you move freely in your seat while it keeps some tension on the belt. During a collision or sudden stop, the retractor automatically locks the belt to help restrain your body.

The lap/shoulder belt retractor in each passenger seating position has an additional locking mechanism intended to secure a child seat (see page 24). If the shoulder part of the belt is pulled all the way out, this mechanism will engage. The belt will retract, but it will not allow the passenger to move freely. If the belt feels too tight, unlatch it, let it retract fully, then pull it out as far as needed.

Lap Belt



The lap belt has one manually-adjusted belt that fits across the hips. It is similar to safety belts used in airplanes.

Wearing Seat Belts Properly

You can increase the effectiveness of your seat belts if you take a little time to read the following pages and make sure you know how to wear seat belts properly.

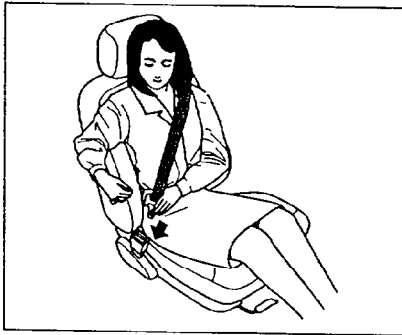
⚠ WARNING

Not wearing a seat belt properly increases the chance of serious injury or death in a crash.

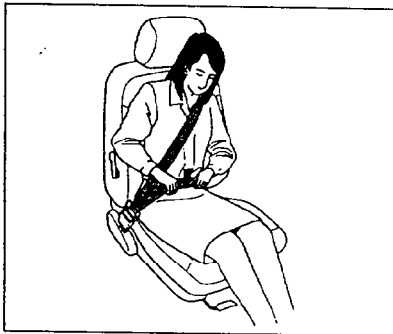
Be sure you and your passengers always wear seat belts and wear them properly.

Wearing a Lap/Shoulder Belt

Before putting on the seat belt, move the driver's seat as far back as is practical while still allowing you to maintain full control of the vehicle. Make sure the seat-back is upright (see page 18). The front seat passenger should move the seat as far back as possible.



1. Pull the latch plate across your body and insert it into the buckle. Tug on the belt to make sure the latch is securely locked.

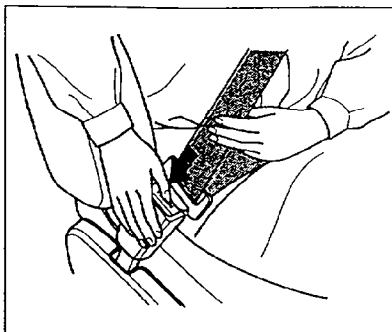


2. Check that the belt is not twisted.
3. Position the lap portion of the belt as low as possible across your hips, not across your stomach. This lets your strong pelvic bones take the force of a crash.



4. Pull up on the shoulder part of the belt to remove any slack. Make sure the belt goes over your collarbone and across your chest.

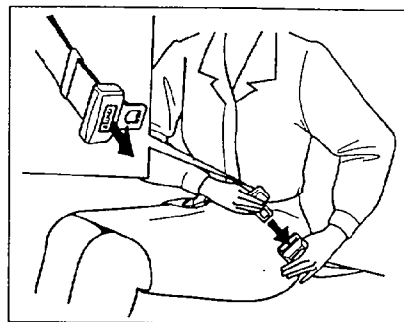
5. If the shoulder belt crosses your neck while you are sitting in one of the outside positions of the rear seat, you need to adjust your seating position. Move toward the center of the seat until the belt fits over your collarbone.



To unlatch the seat belt, push the red PRESS button on the buckle. Guide the belt across your body to the door pillar.

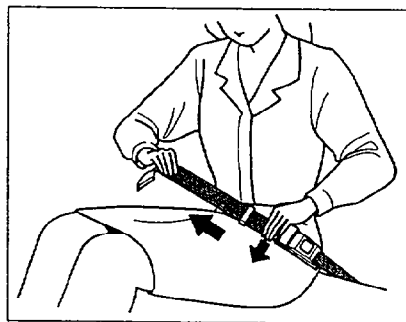
After you exit the vehicle, make sure the seat belt is out of the way and will not get closed in the door.

Wearing the Lap Belt

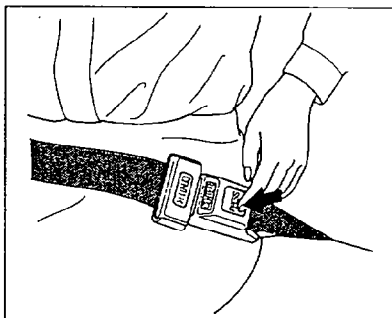


1. Pull the latch plate across your hips and insert it into the buckle marked CENTER.

If the belt is too short, hold the latch plate at a right angle and pull to extend the belt. Insert the latch plate into the buckle.

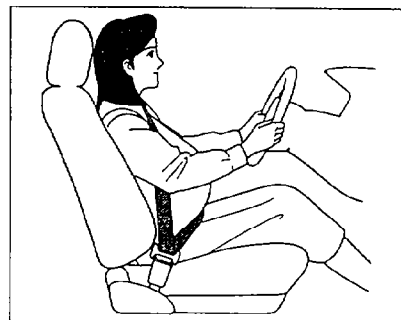


2. Position the belt as low as possible across your hips and pelvic bones, not across your stomach. Pull the loose end of the belt to adjust for a snug but comfortable fit.



To unlatch the belt, push the red PRESS button on the buckle.

Advice for Pregnant Women



Protecting the mother is the best way to protect her unborn child. Therefore, a pregnant woman should wear a properly-positioned seat belt whenever she drives or rides in a car.

If possible, use a lap/shoulder seat belt, remembering to keep the lap portion as low as possible (see page 8).

Each time you have a check-up, ask your doctor if it's okay for you to drive and how you should position a lap/shoulder seat belt.

Seat Belt Maintenance

For safety, you should check the condition of your seat belts regularly.

Pull out each belt fully and look for frays, cuts, burns, and wear. Check that the latches work smoothly and the lap/shoulder belts retract easily. Any belt not in good condition or not working properly should be replaced.

If a seat belt is worn during a crash, have your dealer replace the belt and inspect the anchors for damage.

For information on how to clean your seat belts, see page 211 .

Your car is equipped with a Supplemental Restraint System (SRS) to help protect the head and chest of the driver and front seat passenger during a severe frontal collision.

This system does not replace your seat belts. It supplements, or adds to, the protection offered by seat belts and other occupant protection features.

WARNING

Not wearing a seat belt increases the chance of serious injury or death in a crash, even if you have airbags.

Be sure you and your passenger always wear seat belts and wear them properly.

SRS Components

Your supplemental restraint system includes:

- One airbag in the steering wheel for the driver and another in the dashboard for the passenger.
- Sensors that can detect a severe frontal collision.
- A sophisticated electronic system that continually monitors the sensors, control unit, airbag activators, and all related wiring when the ignition is ON (II).
- An indicator light on the instrument panel to alert you to a possible problem with the system.
- Emergency backup power in case your car's electrical system is disconnected in a crash.

What Happens In a Crash

If you ever have a severe frontal collision, the sensors will detect rapid deceleration and signal the control unit to instantly inflate the airbags.

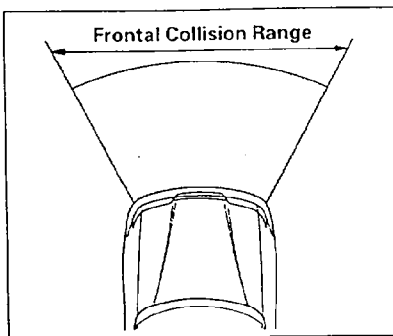
During a crash, your seat belts will help to restrain your lower body and torso. The airbags will provide a cushion to absorb crash energy and help keep the head and chest of the driver and front passenger from striking the interior of the car.

After inflating, the airbags will immediately deflate. The entire process, from detection to deflation, takes a fraction of a second. This process occurs so quickly that you may not hear the loud noise created by the airbag inflators, or realize what has happened.

After the crash, you may see what looks like smoke. This is actually powder from the airbag's surface. People with respiratory problems may experience some temporary discomfort from the chemicals used by the airbag's activators.

Important Facts About Airbags

Airbags inflate only when needed; in a **severe frontal collision**. A severe collision would be similar to a crash into a parked vehicle of similar size and weight at 25 mph (40 km/h). Airbags will not inflate in a moderate frontal collision, or during a rear impact, side impact, or rollover — even if the impact is severe.



Airbags inflate and deflate only once. They cannot protect you during any additional impacts that can occur during a crash sequence.

Injuries, including fatal injuries, can occur in a severe collision, even if seat belts are worn properly and the airbags inflate. No safety system can provide complete protection in a severe crash.

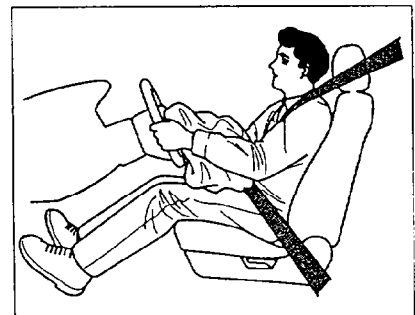
Just from viewing the vehicle damage after a crash, it is very difficult to accurately determine if the airbags should or should not have inflated. In some cases where the airbag did not inflate, extensive visible damage indicated that the car absorbed much of the crash energy, and the airbags were not needed. In other cases, a severe jolt, such as an impact to the undercarriage, may not cause extensive body damage but may still cause the airbags to inflate.

How the Driver's Airbag Works



If you ever have a severe frontal collision, your airbag will instantly inflate to help protect your head and chest.

To do its job, the airbag inflates with considerable force. So, while it can reduce serious injuries and even save your life, the airbag might cause some facial abrasions or other injuries. To reduce the possibility of injury, you should always sit back as far from the steering wheel as practical while still maintaining full vehicle control.



After the bag completely inflates, it immediately starts deflating so it won't interfere with your visibility, ability to steer, or ability to operate other controls. The total time for inflation and deflation is a fraction of a second. You may not even be aware that the airbag has been fully inflated.

The driver's airbag is stored in the center of the steering wheel. For your safety, do not attach any items to the steering wheel. They could interfere with the proper operation of the airbag. Or, if the airbag inflates, they could be propelled inside the car and hurt someone.

How the Passenger's Airbag Works



If you ever have a severe frontal collision, the passenger's airbag will inflate at the same time as the driver's airbag.

This airbag is quite large and inflates with considerable force. It can seriously hurt a front seat passenger who is not in the proper position and wearing the seat belt properly.

Front seat passengers should move the seat as far back as practical and sit well back in the seat.

We strongly recommend that you do not put an infant seat in the front passenger's seat. If the airbag inflates, it can hit the infant seat with great force. The infant seat can be dislodged or struck with enough force to cause very serious injury to the infant.

If a toddler seat is used in the front passenger's seat, the vehicle seat should be moved as far back as possible. If the passenger's bag inflates, it could seriously hurt a toddler who is not in the proper position or properly restrained.

The passenger's airbag is stored near the top of the dashboard, under a lid marked SRS. Do not place any objects on top of this lid. If the airbag inflates, those objects can be propelled inside the car and possibly hurt someone.

SRS

How the SRS Indicator Light Works

The purpose of the SRS light on your instrument panel is to alert you to a potential problem with your supplemental restraint system.

Have the system checked if:

- The light does not come on when you turn the ignition ON (II).
- The light stays on after the engine starts.
- The light comes on or flashes while you are driving.

If you see any of these indications, the airbag may not work when needed in an accident. Take the car to your dealer promptly for diagnosis and service.

System Service

Your supplemental restraint system is virtually maintenance-free. The only scheduled maintenance is an inspection of the system by the dealer when the car is ten years old. For your convenience, the car's production date is on a label on the driver's doorjamb.

If either of the following happens, you must have an authorized Honda dealer service the system. There are no parts you can safely service.

- If your airbags ever inflate, the airbags and control unit must be replaced. Do not try to remove or discard the airbags yourself. This must be done by a Honda dealer.

- If the SRS indicator light alerts you to a problem, have the supplemental restraint system inspected as soon as possible. If you ignore this indication, the airbags might not inflate when you need them.

System Service Precautions

Do not modify your steering wheel or any other part of the supplemental restraint system. Modifications could make the system ineffective.

Do not tamper with the system's components or wiring. This could cause the airbags to inflate inadvertently, possibly injuring someone very seriously.

Tell anyone who works on your car that you have a supplemental restraint system. Failure to follow the procedures and precautions in the official Honda service manual could result in personal injury or damage to the system.

Scrapping an entire car that has uninflated airbags can be dangerous. Get assistance from a Honda dealer if your car must be scrapped.

If you sell your car, please be sure to tell the new owner that the car has a supplemental restraint system. Alert them to the information and precautions in this part of the owner's manual.