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**National Highway
Traffic Safety
Administration**

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Final Report

October 1988

Final Report of Frontal Barrier Impacts of a 1985 Ford Escort 3-Door Hatchback in Support of Crash III Damage Algorithm Reformation

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16. Abstract Six 0° flat frontal barrier impact tests were conducted for research and development in support of the crash III damage algorithm reformulation. These tests were conducted on a 1985 Ford Escort 3-door hatchback, VIN 1FABP0446FW212463, at the Transportation Research Center of Ohio. The following six tests were conducted on one vehicle:																																								
<table border="1"> <thead> <tr> <th>TEST NO.</th> <th>DATE</th> <th>TIME</th> <th>SPEED (mph)</th> <th>AVERAGE CUMULATIVE CRUSH</th> </tr> </thead> <tbody> <tr> <td>880928-1</td> <td>9/28/88</td> <td>0910</td> <td>10.1</td> <td>2.5</td> </tr> <tr> <td>880928-2</td> <td>9/28/88</td> <td>1000</td> <td>19.8</td> <td>11.4</td> </tr> <tr> <td>880928-3</td> <td>9/28/88</td> <td>1050</td> <td>19.9</td> <td>17.0</td> </tr> <tr> <td>880928-4</td> <td>9/28/88</td> <td>1135</td> <td>18.2</td> <td>21.1</td> </tr> <tr> <td>880928-5</td> <td>9/28/88</td> <td>1305</td> <td>19.3</td> <td>28.2</td> </tr> <tr> <td>880928-6</td> <td>9/28/88</td> <td>1400</td> <td>30.0</td> <td>52.3</td> </tr> </tbody> </table>						TEST NO.	DATE	TIME	SPEED (mph)	AVERAGE CUMULATIVE CRUSH	880928-1	9/28/88	0910	10.1	2.5	880928-2	9/28/88	1000	19.8	11.4	880928-3	9/28/88	1050	19.9	17.0	880928-4	9/28/88	1135	18.2	21.1	880928-5	9/28/88	1305	19.3	28.2	880928-6	9/28/88	1400	30.0	52.3
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SECTION 1.0
PURPOSE AND TEST SUMMARY

The purpose of the six 0° frontal barrier impact tests was for research and development in support of the CRASH III damage algorithm reformulation.

The 1985 Ford Escort was equipped with a 1.6 liter, 4-cylinder, transverse, gas engine with a 3-speed automatic transmission. The intended total test weight of the vehicle was 2740 pounds. The actual weight was 2765 pounds, including 383 pounds of steel plate ballast secured in the trunk area.

The crash event was recorded by two (2) high-speed cameras.

SECTION 2.0
VEHICLE INFORMATION

TEST VEHICLE INFORMATION

VEHICLE MANUFACTURER: Ford Motor Company VIN: 1FABP0446FW212463
MAKE/MODEL: Ford Escort MODEL YEAR: 1985
BODY STYLE: 3-door hatchback COLOR: blue
ENGINE DATA: TYPE: transverse CYLINDERS: 4 DISPLACEMENT: 1.6 liter
 X GAS, DIESEL, TURBOCHARGE
TRANSMISSION DATA: 3 SPEED, MANUAL, X AUTOMATIC, X FWD, RWD, 4WD
DATE VEHICLE RECEIVED: 9/21/88 ODOMETER READING: 8094.0
DEALER'S NAME AND ADDRESS: NA

ACCESSORIES:

POWER STEERING	No	AUTOMATIC TRANSMISSION	Yes
POWER BRAKES	Yes	AUTOMATIC SPEED CONTROL	No
POWER SEATS	No	TILTING STEERING WHEEL	No
POWER WINDOWS	No	TELESCOPING STEERING WHEEL	No
TINTED GLASS	No	AIR CONDITIONING	Yes
RADIO	Yes	ANTI-SKID BRAKE	No
CLOCK	No	REAR WINDOW DEFROSTER	Yes
OTHER	None		

DATA FROM CERTIFICATION LABEL ON LEFT DOOR FACE OR "B" POST:

VEHICLE MANUFACTURED BY: Ford Motor Company
DATE OF MANUFACTURE: 12/84
GVWR: 3030 LBS.
CAWR: FRONT 1775 LBS.; REAR 1552 LBS.

The front of the vehicle was supported by a dolly.

TEST VEHICLE INFORMATION, CONT'D

WHEELBASE: 94.0

MAXIMUM WIDTH: 66.6

WEIGHT OF TEST VEHICLE WITH REQUIRED OCCUPANTS AND LUGGAGE:

RIGHT FRONT	1018 LBS.	RIGHT REAR	407 LBS.
LEFT FRONT	952 LBS.	LEFT REAR	388 LBS.
TOTAL FRONT WEIGHT	1970 LBS.	(71.2% OF TOTAL VEHICLE WEIGHT)	
TOTAL REAR WEIGHT	795 LBS.	(28.8% OF TOTAL VEHICLE WEIGHT)	
TOTAL TEST WEIGHT	2765 LBS.		

WEIGHT OF BALLAST SECURED IN VEHICLE TRUNK AREA: 383 LBS.

VEHICLE TIRE DATA:

TIRES ON VEHICLE (MFR. & LINE, SIZE): Michelin XH P175/80R13

RECOMMENDED COLD TIRE PRESSURE: FRONT: 35 psi; REAR: 35 psi

SIDEWALL PLY RATING: 1 ply

BIAS PLY, BELTED OR RADIAL? Radial

IS SPARE TIRE "SPACE SAVER"? Yes

IS SPARE TIRE STANDARD EQUIPMENT? No

VEHICLE ATTITUDES:

DELIVERED:	LF: 26.8;	RF: 27.1;	LR: 27.8;	RR: 28.0
PRE-TEST:	LF: 26.7;	RF: 27.1;	LR: 27.6;	RR: 27.8
POST-TEST:	LF: 28.1;	RF: 28.3;	LR: 24.2;	RR: 24.1

ALL DISTANCE MEASUREMENTS ARE IN INCHES.

TEST ANOMALIES

Noise in the form of spikes was observed in the plots for the contact switches OTH1, OTH2, OTH3, OTH4, OTH5. * The switches were used to record the time of vehicle contact with the wall, as well as the time of vehicle separation from the barrier wall. The switches were damaged by the crush of the vehicle's bumper against the rigid barrier. The switches were replaced following each test which contained spikes. This is not the standard use of such switches.

*CONTACT SWITCH MNEMONICS:

OTH1 Vehicle contact switch - Left
OTH2 Vehicle contact switch - Center
OTH3 Vehicle contact switch - Right
OTH4 Barrier contact switch - Left
OTH5 Barrier contact switch - Right

SECTION 3.0

TEST #880928-1 SUMMARY

TEST CONDITIONS:

TEST NUMBER: 880928-1

DATE OF TEST: 9/28/88

TIME OF TEST: 0910

AMBIENT TEMPERATURE AT IMPACT AREA: 71° F

SUBJECT VEHICLE DATA:

	<u>ACTUAL</u>	<u>INTENDED</u>
TEST WEIGHT (lbs.)	2765	2740
VEHICLE ORIENTATION (deg.)	0	0
VEHICLE VELOCITY (mph.)	10.1	10.0
MAXIMUM CRUSH (in.)	3.4	
AVERAGE CRUSH = $\frac{\{C1+C6+C2+C3+C4+C5\}}{5}$ (in.)	2.5	

TEST NUMBER 1

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

No.	LOCATION	X*	Y*	Z*	POSITIVE DIRECTION		NEGATIVE DIRECTION	
					MAX G	MSEC	MAX G	MSEC
1	VEHICLE FRONT FRAME CROSSMEMBER BOTTOM LONGITUDINAL	153.3	20.2	12.4	18.7	33.3	29.1	23.4
2	VEHICLE HOOD LATCH CROSSMEMBER LONGITUDINAL	157.9	0.9	28.8	23.0	36.0	45.2	25.0
3	VEHICLE LEFT FENDER WELL INSIDE LONGITUDINAL	143.9	20.0	25.7	18.9	33.5	27.8	23.8
4	VEHICLE SUSPENSION LONGITUDINAL	134.9	-18.8	34.0	5.9	33.5	23.8	25.9
5	VEHICLE REAR DECK PRIMARY LONGITUDINAL	49.2	0.0	17.8	1.0	150.0	11.1	27.4
6	VEHICLE REAR DECK REDUNDANT LONGITUDINAL	49.2	1.7	17.8	1.0	112.4	11.4	27.3

* ALL MEASUREMENTS OF ACCELEROMETER LOCATIONS ARE IN INCHES.

REFERENCE: X: + FORWARD FROM REAR BUMPER
Y: + LEFTWARD FROM VEHICLE CENTERLINE
Z: + UPWARD FROM GROUND LEVEL

TEST #880928-1

AIRBAG SENSOR LOCATIONS AND DATA SUMMARY

NO.	LOCATION	X	Y	Z	SWITCH CLOSURE TIME, (MSEC)
3	VEHICLE LEFT FENDER WELL INSIDE SENSOR #1	143.1	22.2	25.2	45.5
3	VEHICLE LEFT FENDER WELL INSIDE SENSOR #2	148.4	22.2	25.1	No indication of closure

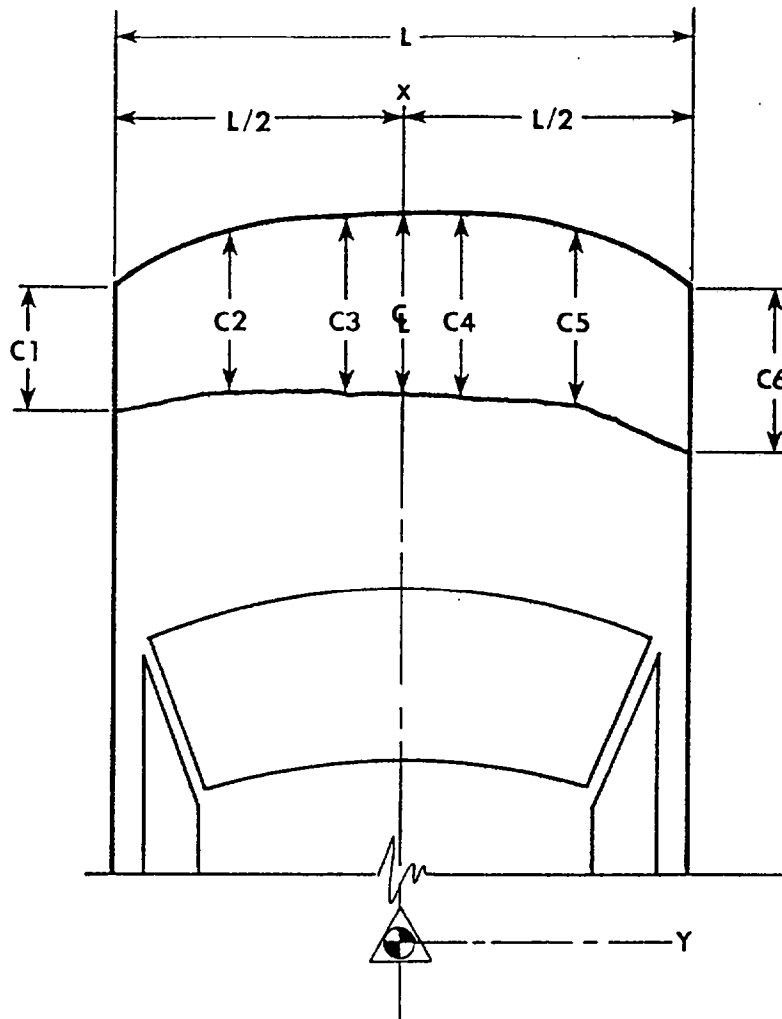
REFERENCE: X: + FORWARD FROM REAR BUMPER
Y: + LEFTWARD FROM VEHICLE CENTERLINE
Z: + UPWARD FROM GROUND LEVEL

SENSOR #1 TECHNAR, P/N 86009D001, S/N 27701-57

SENSOR #2 BREED, Model #F134, S/N 7953

CONTACT SWITCH LOCATIONS AND DATA SUMMARY

LOCATION	SEPARATION TIME (MSEC)
VEHICLE CONTACT SWITCH - LEFT	113.4
VEHICLE CONTACT SWITCH - CENTER	115.6
VEHICLE CONTACT SWITCH - RIGHT	116.0
BARRIER CONTACT SWITCH - LEFT	115.6
BARRIER CONTACT SWITCH - RIGHT	109.6



NOTE: L is pre-test length of contact surface.
 $C1$ through $C6$ are spaced equally apart.
 CL is taken at centerline of vehicle.
 All measurements are in inches.

Vehicle 1985 Ford Escort - Test #880928-1

PRE-TEST		POST-TEST		CRUSH	
L	<u>58.5</u>				
C1	<u>160.7</u>	C1	<u>158.1</u>	C1	<u>2.6</u>
C2	<u>163.0</u>	C2	<u>160.5</u>	C2	<u>2.5</u>
C3	<u>164.0</u>	C3	<u>161.1</u>	C3	<u>2.9</u>
C4	<u>164.0</u>	C4	<u>161.4</u>	C4	<u>2.6</u>
C5	<u>163.2</u>	C5	<u>161.0</u>	C5	<u>2.2</u>
C6	<u>160.8</u>	C6	<u>159.2</u>	C6	<u>1.6</u>
CL	<u>164.5</u>	CL	<u>161.1</u>	CL	<u>3.4</u>

TEST #880928-1

CAMERA INFORMATION

CAMERA NO.	LOCATION	TYPE	LENS (mm)	SPEED (fps)	PURPOSE OF CAMERA DATA
1	Right side wide	Photosonic 1B	25	499	Impact overall
2	Right side tight	Photosonic 1B	50	505	Impact closeup

SECTION 4.0

TEST #880928-2 SUMMARY

TEST CONDITIONS:

TEST NUMBER: 880928-2

DATE OF TEST: 9/28/88

TIME OF TEST: 1000

AMBIENT TEMPERATURE AT IMPACT AREA: 71° F

SUBJECT VEHICLE DATA:

	<u>ACTUAL</u>	<u>INTENDED</u>
TEST WEIGHT (lbs.)	2765	2740
VEHICLE ORIENTATION (deg.)	0	0
VEHICLE VELOCITY (mph.)	19.8	20.0
MAXIMUM CUMULATIVE CRUSH (in.)	12.1	
AVERAGE CUMULATIVE CRUSH $\frac{\{C1+C6+C2+C3+C4+C5\}}{5}$ (in.)	11.4	

VEHICLE ATTITUDES:

POST-TEST: LF: 28.4; RF: 29.8; LR: 23.4; RR: 24.1

TEST NUMBER 2

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

No.	LOCATION	X*	Y*	Z*	POSITIVE DIRECTION		NEGATIVE DIRECTION	
					MAX G	MSEC	MAX G	MSEC
1	VEHICLE FRONT FRAME CROSSMEMBER BOTTOM LONGITUDINAL	153.3	20.2	12.4	19.1	9.6	71.2	13.9
2	VEHICLE HOOD LATCH CROSSMEMBER LONGITUDINAL	157.9	0.9	28.8	89.0	17.5	170.6	13.1
3	VEHICLE LEFT FENDER WELL INSIDE LONGITUDINAL	143.9	20.0	25.7	11.0	41.6	73.5	13.6
4	VEHICLE SUSPENSION LONGITUDINAL	134.9	-18.8	34.0	17.0	20.9	27.0	31.3
5	VEHICLE REAR DECK PRIMARY LONGITUDINAL	49.2	0.0	17.8	2.0	103.1	25.6	51.9
6	VEHICLE REAR DECK REDUNDANT LONGITUDINAL	49.2	1.7	17.8	2.2	103.0	25.5	52.0

* ALL MEASUREMENTS OF ACCELEROMETER LOCATIONS ARE IN INCHES.

REFERENCE: X: + FORWARD FROM REAR BUMPER
Y: + LEFTWARD FROM VEHICLE CENTERLINE
Z: + UPWARD FROM GROUND LEVEL

TEST #880928-2

AIRBAG SENSOR LOCATIONS AND DATA SUMMARY

NO.	LOCATION	X	Y	Z	SWITCH CLOSURE TIME, (MSEC)
3	VEHICLE LEFT FENDER WELL INSIDE SENSOR #1	143.1	22.2	25.2	26.6
3	VEHICLE LEFT FENDER WELL INSIDE SENSOR #2	148.4	22.2	25.1	29.8

REFERENCE: X: + FORWARD FROM REAR BUMPER
Y: + LEFTWARD FROM VEHICLE CENTERLINE
Z: + UPWARD FROM GROUND LEVEL

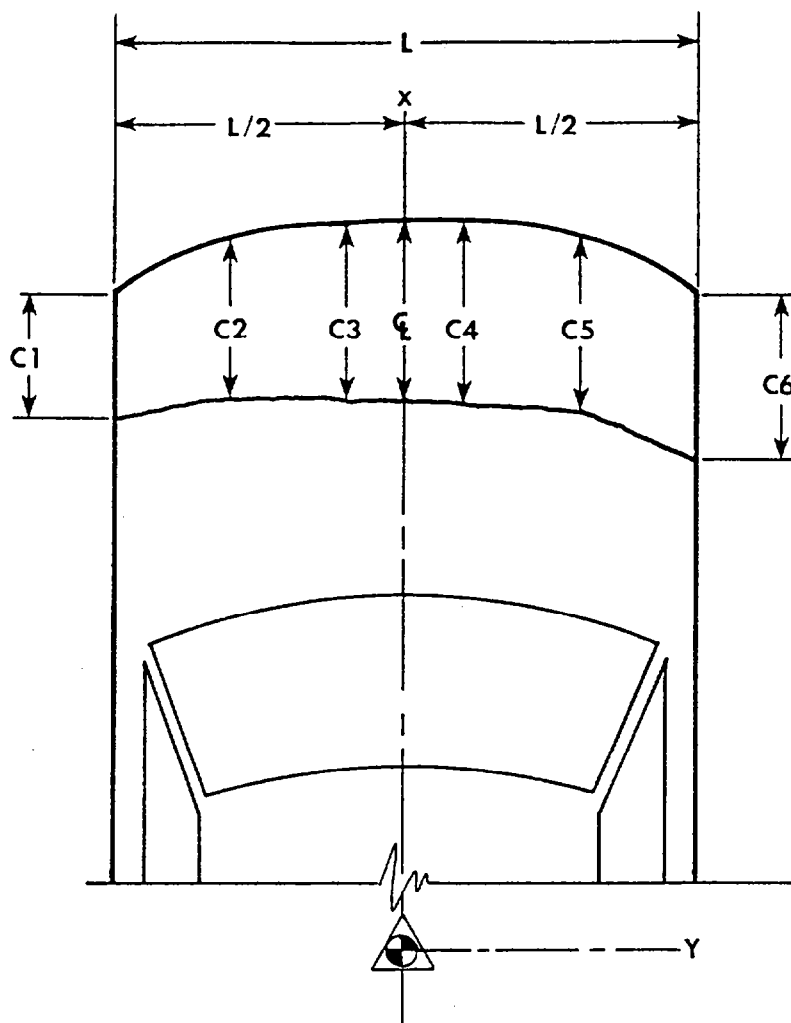
SENSOR #1 TECHNAR, P/N 86009D001, S/N 27701-57

SENSOR #2 BREED, Model #F134, S/N 7953

CONTACT SWITCH LOCATIONS AND DATA SUMMARY

LOCATION	SEPARATION TIME (MSEC)
VEHICLE CONTACT SWITCH - LEFT	80.5
VEHICLE CONTACT SWITCH - CENTER	Y
VEHICLE CONTACT SWITCH - RIGHT	92.2
BARRIER CONTACT SWITCH - LEFT	103.4
BARRIER CONTACT SWITCH - RIGHT	108.2

Y See TEST ANOMALIES



NOTE: L is pre-test length of contact surface.
 C1 through C6 are spaced equally apart.
 CL is taken at centerline of vehicle.
 All measurements are in inches.

Vehicle 1985 Ford Escort - Test #880928-2

	PRE-TEST*	POST-TEST	CUMULATIVE CRUSH
L	<u>58.5</u>		
C1	<u>160.7</u>	C1 <u>148.7</u>	C1 <u>12.0</u>
C2	<u>163.0</u>	C2 <u>150.9</u>	C2 <u>12.1</u>
C3	<u>164.0</u>	C3 <u>151.9</u>	C3 <u>12.1</u>
C4	<u>164.0</u>	C4 <u>152.5</u>	C4 <u>11.5</u>
C5	<u>163.2</u>	C5 <u>152.6</u>	C5 <u>10.6</u>
C6	<u>160.8</u>	C6 <u>151.2</u>	C6 <u>9.6</u>
CL	<u>164.5</u>	CL <u>152.4</u>	CL <u>12.1</u>

*Pre-test measurements taken from test #880928-1.

TEST #880928-2

CAMERA INFORMATION

CAMERA NO.	LOCATION	TYPE	LENS (mm)	SPEED (fps)	PURPOSE OF CAMERA DATA
1	Right side wide	Photosonic 1B	25	499	Impact overall
2	Right side tight	Photosonic 1B	50	505	Impact closeup

SECTION 5.0

TEST #880928-3 SUMMARY

TEST CONDITIONS:

TEST NUMBER: 880928-3

DATE OF TEST: 9/28/88

TIME OF TEST: 1050

AMBIENT TEMPERATURE AT IMPACT AREA: 72° F

SUBJECT VEHICLE DATA:

	<u>ACTUAL</u>	<u>INTENDED</u>
TEST WEIGHT (lbs.)	2765	2740
VEHICLE ORIENTATION (deg.)	0	0
VEHICLE VELOCITY (mph.)	19.9	20.0
MAXIMUM CUMULATIVE CRUSH (in.)	18.0	
AVERAGE CUMULATIVE CRUSH $\frac{\{C1+C6+C2+C3+C4+C5\}}{5}$ (in.)	17.0	

VEHICLE ATTITUDES:

POST-TEST: LF: 29.5; RF: 29.8; LR: 29.4; RR: 23.6

TEST NUMBER 3

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

No.	LOCATION	X*	Y*	Z*	POSITIVE DIRECTION		NEGATIVE DIRECTION	
					MAX G MSEC		MAX G MSEC	
5	VEHICLE REAR DECK PRIMARY LONGITUDINAL	49.2	0.0	17.8	1.8	125.9	26.1	48.6
6	VEHICLE REAR DECK REDUNDANT LONGITUDINAL	49.2	1.7	17.8	1.5	127.1	26.5	48.9

* ALL MEASUREMENTS OF ACCELEROMETER LOCATIONS ARE IN INCHES.

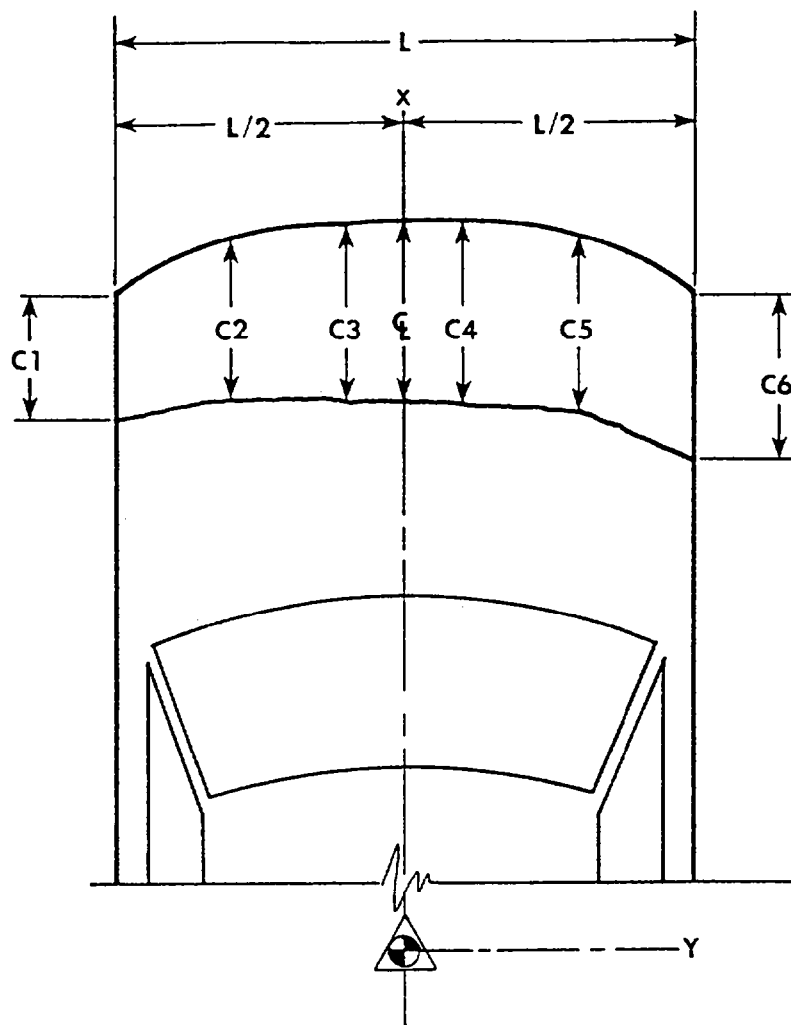
REFERENCE: X: + FORWARD FROM REAR BUMPER
Y: + LEFTWARD FROM VEHICLE CENTERLINE
Z: + UPWARD FROM GROUND LEVEL

TEST #880928-3

CONTACT SWITCH LOCATIONS AND DATA SUMMARY

LOCATION	SEPARATION TIME (MSEC)
VEHICLE CONTACT SWITCH - LEFT	80.0
VEHICLE CONTACT SWITCH - CENTER	Y
VEHICLE CONTACT SWITCH - RIGHT	91.1
BARRIER CONTACT SWITCH - LEFT	101.1
BARRIER CONTACT SWITCH - RIGHT	103.8

Y See TEST ANOMALIES



NOTE: L is pre-test length of contact surface.
 C1 through C6 are spaced equally apart.
 CL is taken at centerline of vehicle.
 All measurements are in inches.

Vehicle 1985 Ford Escort - Test #880928-3

PRE-TEST*		POST-TEST	CUMULATIVE CRUSH
L	<u>58.5</u>		
C1	<u>160.7</u>	C1 <u>143.6</u>	C1 <u>17.1</u>
C2	<u>163.0</u>	C2 <u>145.8</u>	C2 <u>17.2</u>
C3	<u>164.0</u>	C3 <u>146.4</u>	C3 <u>17.6</u>
C4	<u>164.0</u>	C4 <u>146.8</u>	C4 <u>17.2</u>
C5	<u>163.2</u>	C5 <u>146.5</u>	C5 <u>16.7</u>
C6	<u>160.8</u>	C6 <u>145.1</u>	C6 <u>15.7</u>
CL	<u>164.5</u>	CL <u>146.5</u>	CL <u>18.0</u>

*Pre-test measurements taken from test #880928-1.

TEST #880928-3

CAMERA INFORMATION

CAMERA NO.	LOCATION	TYPE	LENS (mm)	SPEED (fps)	PURPOSE OF CAMERA DATA
1	Right side wide	Photosonic 1B	25	501	Impact overall
2	Right side tight	Photosonic 1B	50	503	Impact closeup

SECTION 6.0

TEST #880928-4 SUMMARY

TEST CONDITIONS:

TEST NUMBER: 880928-4

DATE OF TEST: 9/28/88

TIME OF TEST: 1135

AMBIENT TEMPERATURE AT IMPACT AREA: 72° F

SUBJECT VEHICLE DATA:

	<u>ACTUAL</u>	<u>INTENDED</u>
TEST WEIGHT (lbs.)	2765	2740
VEHICLE ORIENTATION (deg.)	0	0
VEHICLE VELOCITY (mph.)	18.2	18.3
MAXIMUM CUMULATIVE CRUSH (in.)	22.0	
AVERAGE CUMULATIVE CRUSH $\frac{\{C1+C6+C2+C3+C4+C5\}}{5}$ (in.)	21.1	

VEHICLE ATTITUDES:

POST-TEST: LF: 29.0; RF: 30.1; LR: 22.9; RR: 23.6

TEST NUMBER 4

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

No.	LOCATION	X*	Y*	Z*	POSITIVE DIRECTION		NEGATIVE DIRECTION	
					MAX G	MSEC	MAX G	MSEC
5	VEHICLE REAR DECK PRIMARY LONGITUDINAL	49.2	0.0	17.8	4.9	295.5	29.4	26.9
6	VEHICLE REAR DECK REDUNDANT LONGITUDINAL	49.2	1.7	17.8	4.0	295.6	29.0	26.9

* ALL MEASUREMENTS OF ACCELEROMETER LOCATIONS ARE IN INCHES.

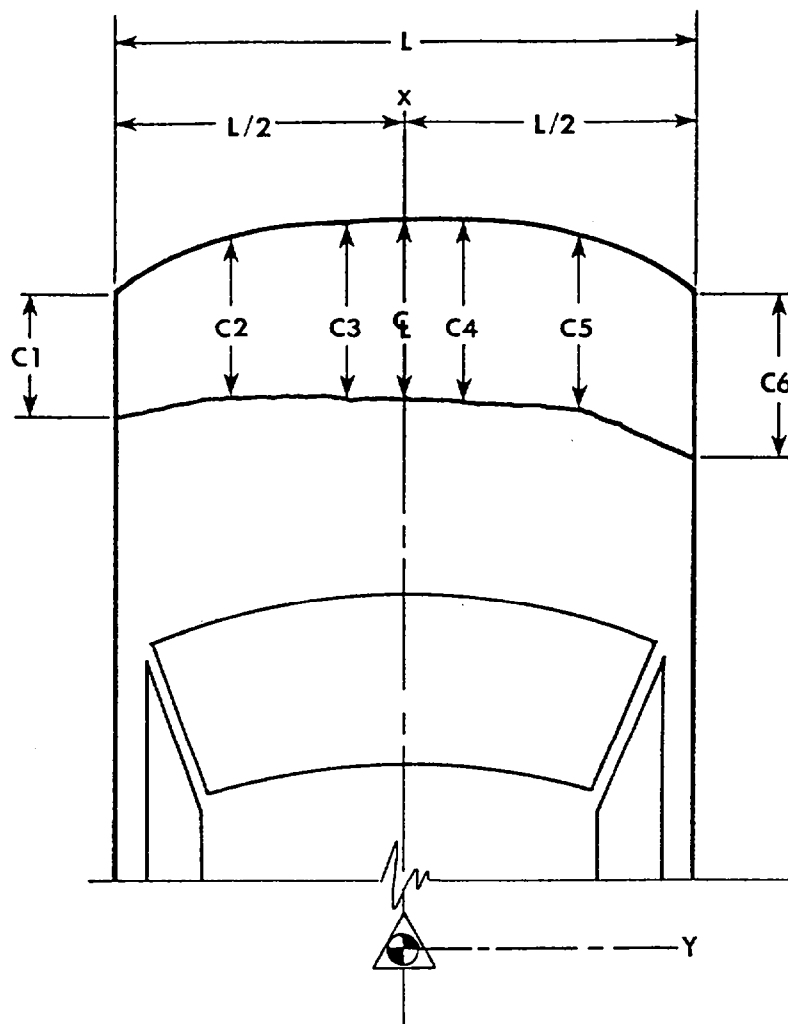
REFERENCE: X: + FORWARD FROM REAR BUMPER
Y: + LEFTWARD FROM VEHICLE CENTERLINE
Z: + UPWARD FROM GROUND LEVEL

TEST #880928-4

CONTACT SWITCH LOCATIONS AND DATA SUMMARY

LOCATION	SEPARATION TIME (MSEC)
VEHICLE CONTACT SWITCH - LEFT	109.4
VEHICLE CONTACT SWITCH - CENTER	Y
VEHICLE CONTACT SWITCH - RIGHT	122.1
BARRIER CONTACT SWITCH - LEFT	106.1
BARRIER CONTACT SWITCH - RIGHT	115.0

Y See TEST ANOMALIES



NOTE: L is pre-test length of contact surface.
 C1 through C6 are spaced equally apart.
 CL is taken at centerline of vehicle.
 All measurements are in inches.

Vehicle 1985 Ford Escort - Test #880928-4

PRE-TEST*	POST-TEST	CUMULATIVE CRUSH
L <u>58.5</u>		
C1 <u>160.7</u>	C1 <u>139.5</u>	C1 <u>21.2</u>
C2 <u>163.0</u>	C2 <u>141.4</u>	C2 <u>21.6</u>
C3 <u>164.0</u>	C3 <u>142.2</u>	C3 <u>21.8</u>
C4 <u>164.0</u>	C4 <u>142.5</u>	C4 <u>21.5</u>
C5 <u>163.2</u>	C5 <u>142.6</u>	C5 <u>20.6</u>
C6 <u>160.8</u>	C6 <u>141.9</u>	C6 <u>18.9</u>
CL <u>164.5</u>	CL <u>142.5</u>	CL <u>22.0</u>

*Pre-test measurements taken from test #880928-1.

TEST #880928-4

CAMERA INFORMATION

CAMERA NO.	LOCATION	TYPE	LENS (mm)	SPEED (fps)	PURPOSE OF CAMERA DATA
1	Right side wide	Photosonic 1B	25	500	Impact overall
2	Right side tight	Photosonic 1B	50	512	Impact closeup

SECTION 7.0

TEST #880928-5 SUMMARY

TEST CONDITIONS:

TEST NUMBER: 880928-5

DATE OF TEST: 9/28/88

TIME OF TEST: 1305

AMBIENT TEMPERATURE AT IMPACT AREA: 72° F

SUBJECT VEHICLE DATA:

	<u>ACTUAL</u>	<u>INTENDED</u>
TEST WEIGHT (lbs.)	2765	2740
VEHICLE ORIENTATION (deg.)	0	0
VEHICLE VELOCITY (mph.)	19.3	19.4
MAXIMUM CUMULATIVE CRUSH (in.)	29.0	
AVERAGE CUMULATIVE CRUSH $\frac{\{C1+C6+C2+C3+C4+C5\}}{5}$ (in.)	28.2	

VEHICLE ATTITUDES:

POST-TEST: LF: 27.4; RF: 30.8; LR: 24.7; RR: 27.8

TEST NUMBER 5

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

No.	LOCATION	X*	Y*	Z*	POSITIVE DIRECTION		NEGATIVE DIRECTION	
					MAX G	MSEC	MAX G	MSEC
5	VEHICLE REAR DECK PRIMARY LONGITUDINAL	49.2	0.0	17.8	2.1	179.8	24.4	25.8
6	VEHICLE REAR DECK REDUNDANT LONGITUDINAL	49.2	1.7	17.8	1.9	111.9	24.6	25.4

* ALL MEASUREMENTS OF ACCELEROMETER LOCATIONS ARE IN INCHES.

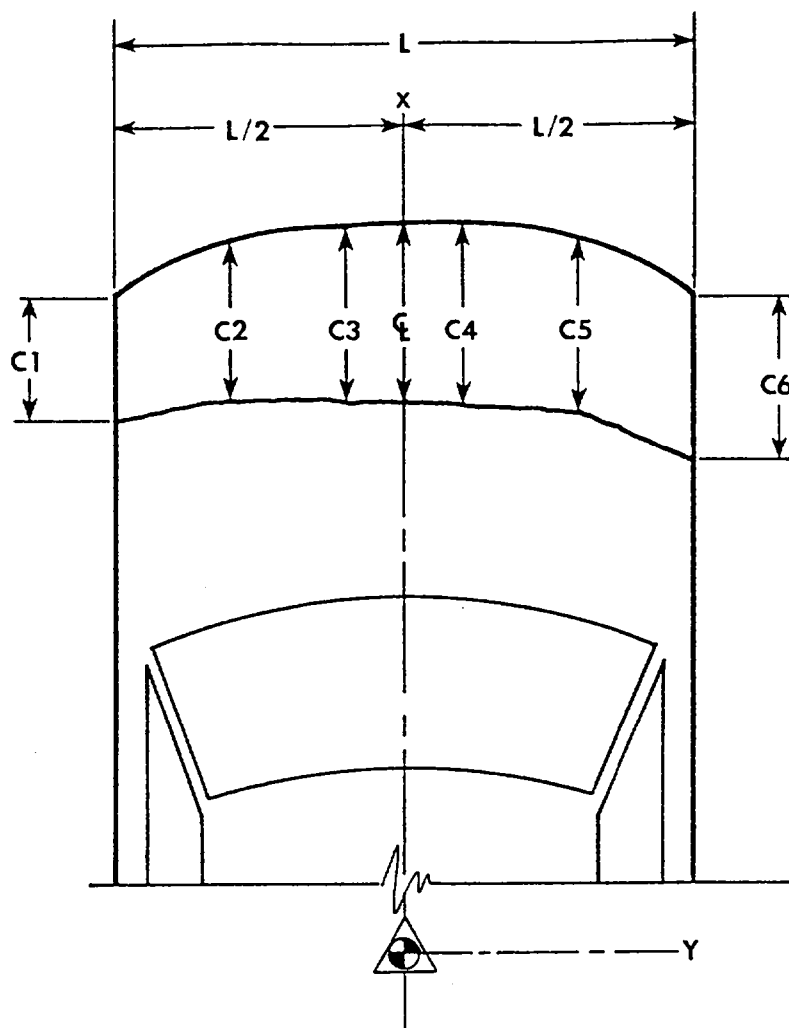
REFERENCE: X: + FORWARD FROM REAR BUMPER
Y: + LEFTWARD FROM VEHICLE CENTERLINE
Z: + UPWARD FROM GROUND LEVEL

TEST #880928-5

CONTACT SWITCH LOCATIONS AND DATA SUMMARY

LOCATION	SEPARATION TIME (MSEC)
VEHICLE CONTACT SWITCH - LEFT	153.9γ
VEHICLE CONTACT SWITCH - CENTER	125.0γ
VEHICLE CONTACT SWITCH - RIGHT	151.2
BARRIER CONTACT SWITCH - LEFT	138.9
BARRIER CONTACT SWITCH - RIGHT	134.0

γ See TEST ANOMALIES



NOTE: L is pre-test length of contact surface.
 C1 through C6 are spaced equally apart.
 CL is taken at centerline of vehicle.
 All measurements are in inches.

Vehicle 1985 Ford Escort - Test #880928-5

PRE-TEST*		POST-TEST	CUMULATIVE CRUSH
L	<u>58.5</u>		
C1	<u>160.7</u>	C1 <u>132.0</u>	C1 <u>28.7</u>
C2	<u>163.0</u>	C2 <u>134.4</u>	C2 <u>28.6</u>
C3	<u>164.0</u>	C3 <u>135.1</u>	C3 <u>28.9</u>
C4	<u>164.0</u>	C4 <u>135.5</u>	C4 <u>28.5</u>
C5	<u>163.2</u>	C5 <u>135.6</u>	C5 <u>27.6</u>
C6	<u>160.8</u>	C6 <u>135.1</u>	C6 <u>25.7</u>
CL	<u>164.5</u>	CL <u>135.5</u>	CL <u>29.0</u>

*Pre-test measurements taken from test #880928-1.

TEST #880928-5

CAMERA INFORMATION

CAMERA NO.	LOCATION	TYPE	LENS (mm)	SPEED (fps)	PURPOSE OF CAMERA DATA
1	Right side wide	Photosonic 1B	25	500	Impact overall
2	Right side tight	Photosonic 1B	50	507	Impact closeup

SECTION 8.0

TEST #880928-6 SUMMARY

TEST CONDITIONS:

TEST NUMBER: 880928-6

DATE OF TEST: 9/28/88

TIME OF TEST: 1400

AMBIENT TEMPERATURE AT IMPACT AREA: 71° F

SUBJECT VEHICLE DATA:

	<u>ACTUAL</u>	<u>INTENDED</u>
TEST WEIGHT (lbs.)	2765	2740
VEHICLE ORIENTATION (deg.)	0	0
VEHICLE VELOCITY (mph.)	30.0	30.0
MAXIMUM CUMULATIVE CRUSH (in.)	53.6	
AVERAGE CUMULATIVE CRUSH $\frac{C1+C6+C2+C3+C4+C5}{5}$ (in.)	52.3	

VEHICLE ATTITUDES:

POST-TEST: LF: 22.4; RF: 27.2; LR: 22.4; RR: 24.1

TEST NUMBER 6

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

No.	LOCATION	X*	Y*	Z*	POSITIVE DIRECTION		NEGATIVE DIRECTION	
					MAX	G MSEC	MAX	G MSEC
5	VEHICLE REAR DECK PRIMARY LONGITUDINAL	49.2	0.0	17.8	5.4	189.9	25.2	90.5
6	VEHICLE REAR DECK REDUNDANT LONGITUDINAL	49.2	1.7	17.8	6.1	189.9	26.1	92.9

* ALL MEASUREMENTS OF ACCELEROMETER LOCATIONS ARE IN INCHES.

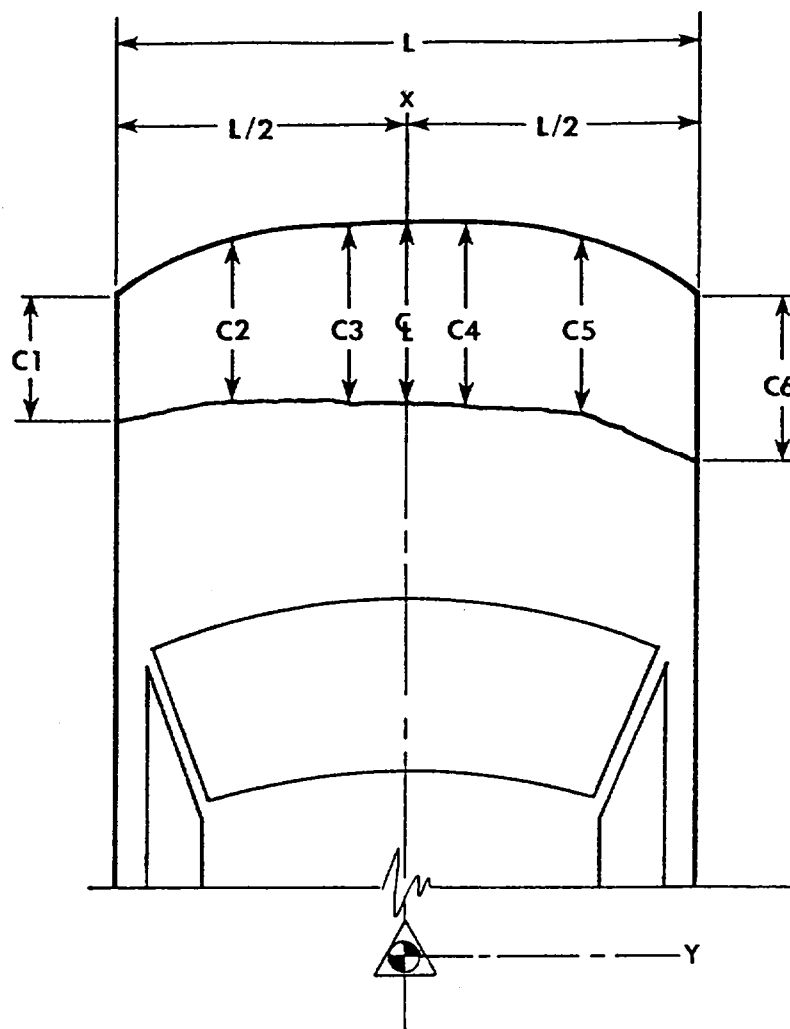
REFERENCE: X: + FORWARD FROM REAR BUMPER
Y: + LEFTWARD FROM VEHICLE CENTERLINE
Z: + UPWARD FROM GROUND LEVEL

TEST #880928-6

CONTACT SWITCH LOCATIONS AND DATA SUMMARY

LOCATION	SEPARATION TIME (MSEC)
VEHICLE CONTACT SWITCH - LEFT	188.4
VEHICLE CONTACT SWITCH - CENTER	193.5
VEHICLE CONTACT SWITCH - RIGHT	Y
BARRIER CONTACT SWITCH - LEFT	189.0
BARRIER CONTACT SWITCH - RIGHT	167.1

Y See TEST ANOMALIES



NOTE: L is pre-test length of contact surface.
 C1 through C6 are spaced equally apart.
 CL is taken at centerline of vehicle.
 All measurements are in inches.

Vehicle 1985 Ford Escort - Test #880928-6

PRE-TEST*		POST-TEST	CUMULATIVE CRUSH
L	<u>58.5</u>		
C1	<u>160.7</u>	C1 <u>110.6</u>	C1 <u>50.1</u>
C2	<u>163.0</u>	C2 <u>112.2</u>	C2 <u>50.8</u>
C3	<u>164.0</u>	C3 <u>111.4</u>	C3 <u>52.6</u>
C4	<u>164.0</u>	C4 <u>110.9</u>	C4 <u>53.1</u>
C5	<u>163.2</u>	C5 <u>109.8</u>	C5 <u>53.4</u>
C6	<u>160.8</u>	C6 <u>107.9</u>	C6 <u>52.9</u>
CL	<u>164.5</u>	CL <u>110.9</u>	CL <u>53.6</u>

*Pre-test measurements taken from test #880928-1.

TEST #880928-6

CAMERA INFORMATION

CAMERA NO.	LOCATION	TYPE	LENS (mm)	SPEED (fps)	PURPOSE OF CAMERA DATA
1	Right side wide	Photosonic 1B	25	500	Impact overall
2	Right side tight	Photosonic 1B	50	507	Impact closeup

APPENDIX A
PHOTOGRAPHS

TEST #880928-1

LIST OF PHOTOGRAPHS

1. PRE-TEST OVERALL LEFT SIDE VIEW
2. POST-TEST OVERALL LEFT SIDE VIEW
3. PRE-TEST OVERALL RIGHT SIDE VIEW
4. POST-TEST OVERALL RIGHT SIDE VIEW
5. PRE-TEST OVERALL FRONT VIEW
6. POST-TEST OVERALL FRONT VIEW
7. PRE-TEST LEFT FRONT VIEW
8. POST-TEST LEFT FRONT VIEW
9. PRE-TEST RIGHT FRONT VIEW
10. POST-TEST RIGHT FRONT VIEW
11. PRE-TEST BARRIER CONTACT SWITCH
12. POST-TEST BARRIER CONTACT SWITCH



Figure A-1. PRE-TEST OVERALL LEFT SIDE VIEW



Figure A-2. POST-TEST OVERALL LEFT SIDE VIEW



Figure A-3. PRE-TEST OVERALL RIGHT SIDE VIEW



Figure A-4. POST-TEST OVERALL RIGHT SIDE VIEW



Figure A-5. PRE-TEST OVERALL FRONT VIEW



Figure A-6. POST-TEST OVERALL FRONT VIEW



Figure A-7. PRE-TEST LEFT FRONT VIEW



Figure A-8. POST-TEST LEFT FRONT VIEW



Figure A-9. PRE-TEST RIGHT FRONT VIEW



Figure A-10. POST-TEST RIGHT FRONT VIEW



Figure A-11. PRE-TEST BARRIER CONTACT SWITCH

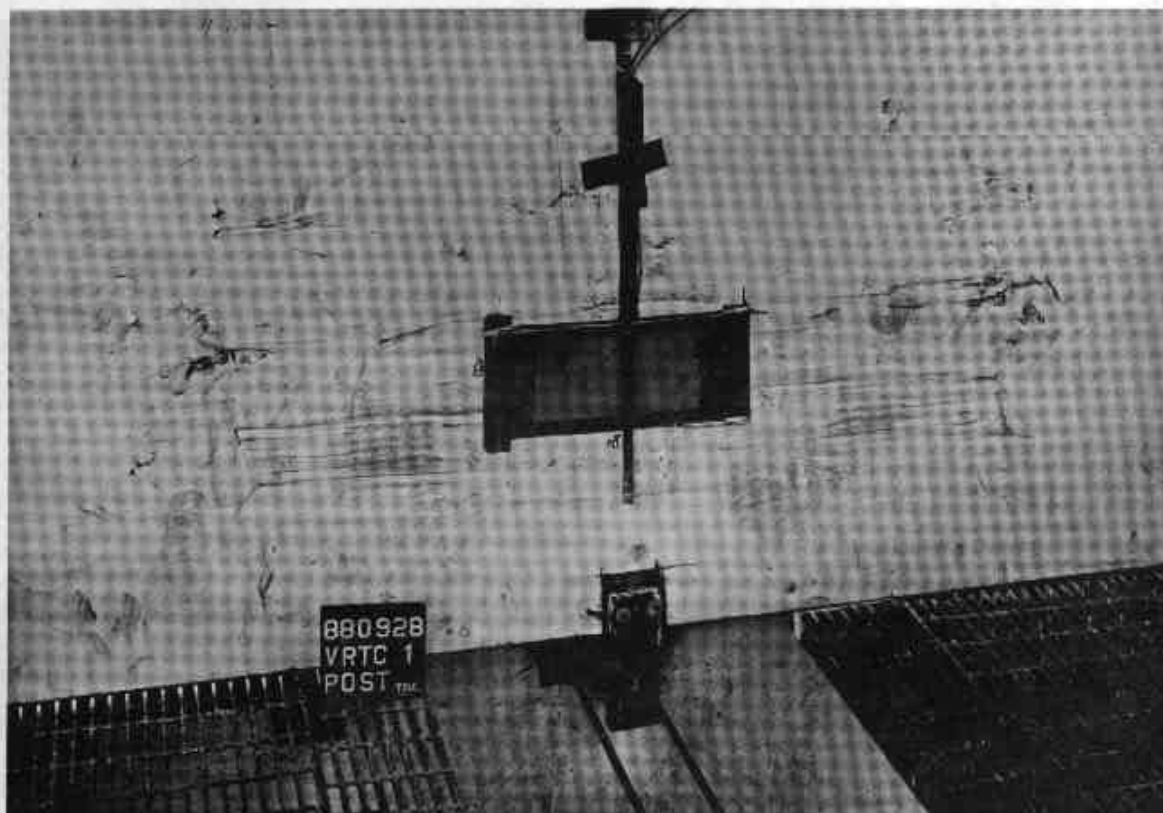


Figure A-12. POST-TEST BARRIER CONTACT SWITCH

TEST #880928-2

LIST OF PHOTOGRAPHS

13. POST-TEST OVERALL LEFT SIDE VIEW
14. POST-TEST OVERALL RIGHT SIDE VIEW
15. POST-TEST OVERALL FRONT VIEW
16. POST-TEST LEFT FRONT VIEW
17. POST-TEST RIGHT FRONT VIEW
18. POST-TEST BARRIER CONTACT SWITCH



Figure A-13. POST-TEST OVERALL LEFT SIDE VIEW



Figure A-14. POST-TEST OVERALL RIGHT SIDE VIEW



Figure A-15. POST-TEST OVERALL FRONT VIEW



Figure A-16. POST-TEST LEFT FRONT VIEW



Figure A-17. POST-TEST RIGHT FRONT VIEW

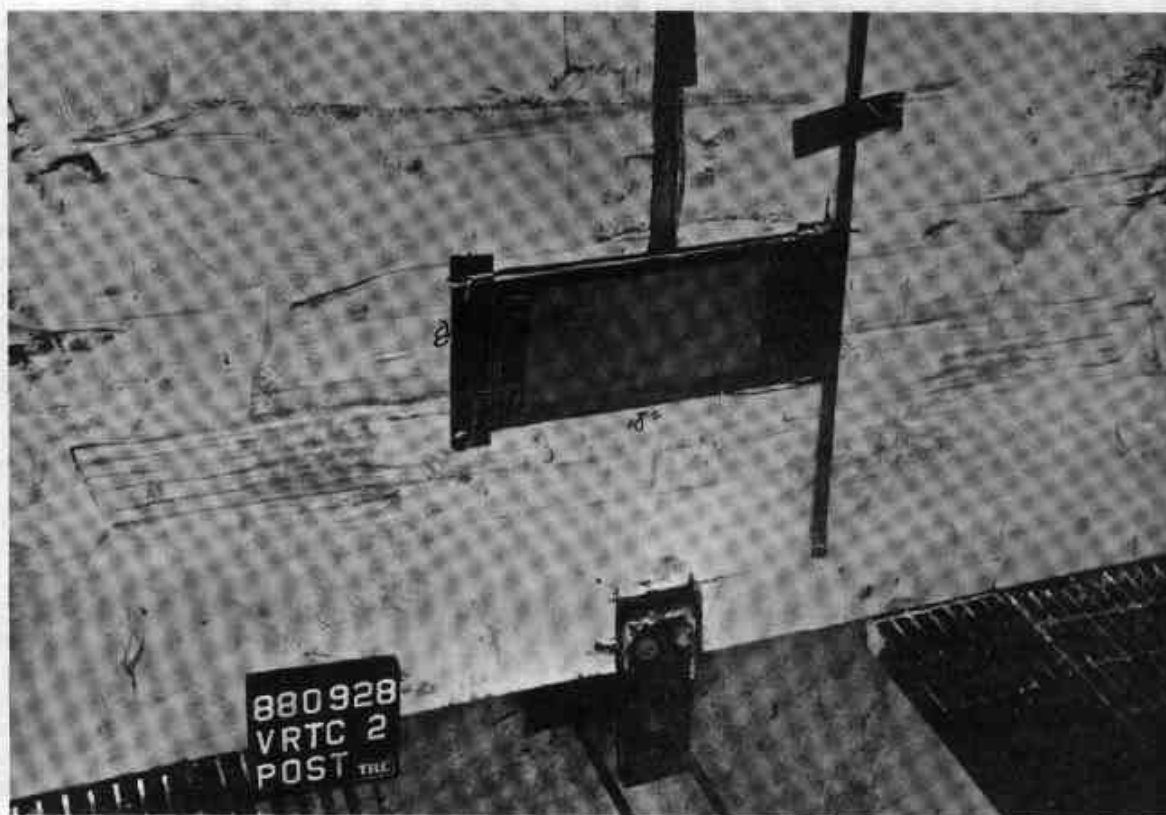


Figure A-18. POST-TEST BARRIER CONTACT SWITCH

TEST #880928-3

LIST OF PHOTOGRAPHS

- 19. POST-TEST OVERALL LEFT SIDE VIEW
- 20. POST-TEST OVERALL RIGHT SIDE VIEW
- 21. POST-TEST OVERALL FRONT VIEW
- 22. POST-TEST LEFT FRONT VIEW
- 23. POST-TEST RIGHT FRONT VIEW
- 24. POST-TEST BARRIER CONTACT SWITCH



Figure A-19. POST-TEST OVERALL LEFT SIDE VIEW



Figure A-20. POST-TEST OVERALL RIGHT SIDE VIEW



Figure A-21. POST-TEST OVERALL FRONT VIEW



Figure A-22. POST-TEST LEFT FRONT VIEW



Figure A-23. POST-TEST RIGHT FRONT VIEW

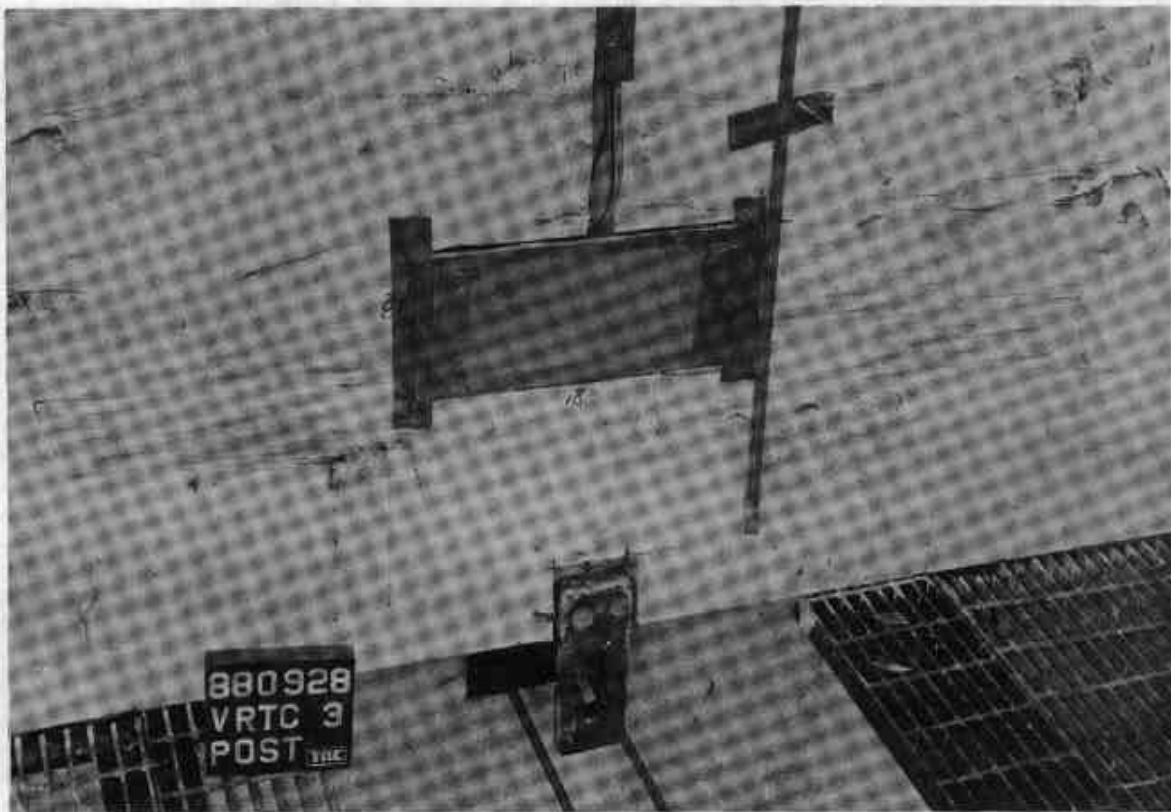


Figure A-24. POST-TEST BARRIER CONTACT SWITCH

TEST #880928-4
LIST OF PHOTOGRAPHS

- 25. POST-TEST OVERALL LEFT SIDE VIEW
- 26. POST-TEST OVERALL RIGHT SIDE VIEW
- 27. POST-TEST OVERALL FRONT VIEW
- 28. POST-TEST LEFT FRONT VIEW
- 29. POST-TEST RIGHT FRONT VIEW
- 30. POST-TEST BARRIER CONTACT SWITCH



Figure A-25. POST-TEST OVERALL LEFT SIDE VIEW



Figure A-26. POST-TEST OVERALL RIGHT SIDE VIEW

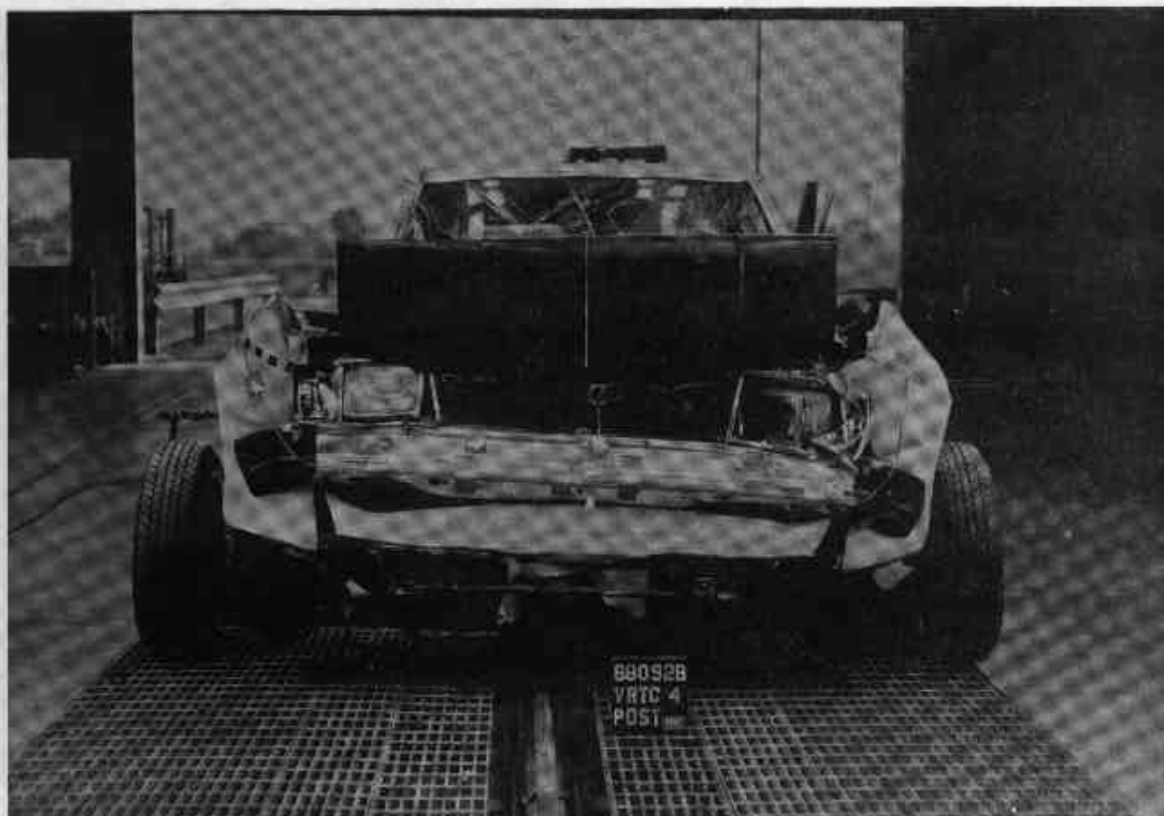


Figure A-27. POST-TEST OVERALL FRONT VIEW



Figure A-28. POST-TEST LEFT FRONT VIEW



Figure A-29. POST-TEST RIGHT FRONT VIEW

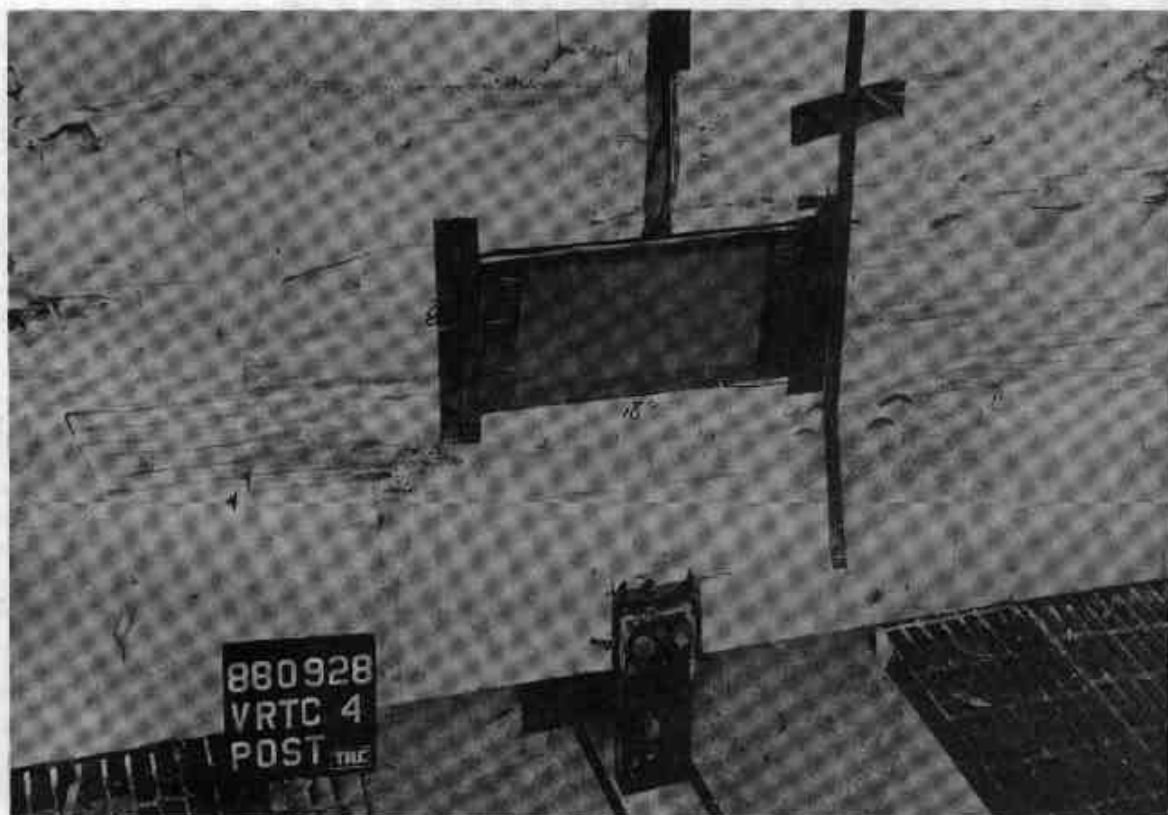


Figure A-30. POST-TEST BARRIER CONTACT SWITCH

TEST #880928-5
LIST OF PHOTOGRAPHS

- 31. POST-TEST OVERALL LEFT SIDE VIEW
- 32. POST-TEST OVERALL RIGHT SIDE VIEW
- 33. POST-TEST OVERALL FRONT VIEW
- 34. POST-TEST LEFT FRONT VIEW
- 35. POST-TEST RIGHT FRONT VIEW
- 36. POST-TEST BARRIER CONTACT SWITCH
- 37. POST-TEST VEHICLE CLOSEUP - VIEW 1
- 38. POST-TEST VEHICLE CLOSEUP - VIEW 2
- 39. POST-TEST VEHICLE CLOSEUP - VIEW 3
- 40. POST-TEST VEHICLE CLOSEUP - VIEW 4
- 41. POST-TEST VEHICLE CLOSEUP - VIEW 5



Figure A-31. POST-TEST OVERALL LEFT SIDE VIEW



Figure A-32. POST-TEST OVERALL RIGHT SIDE VIEW

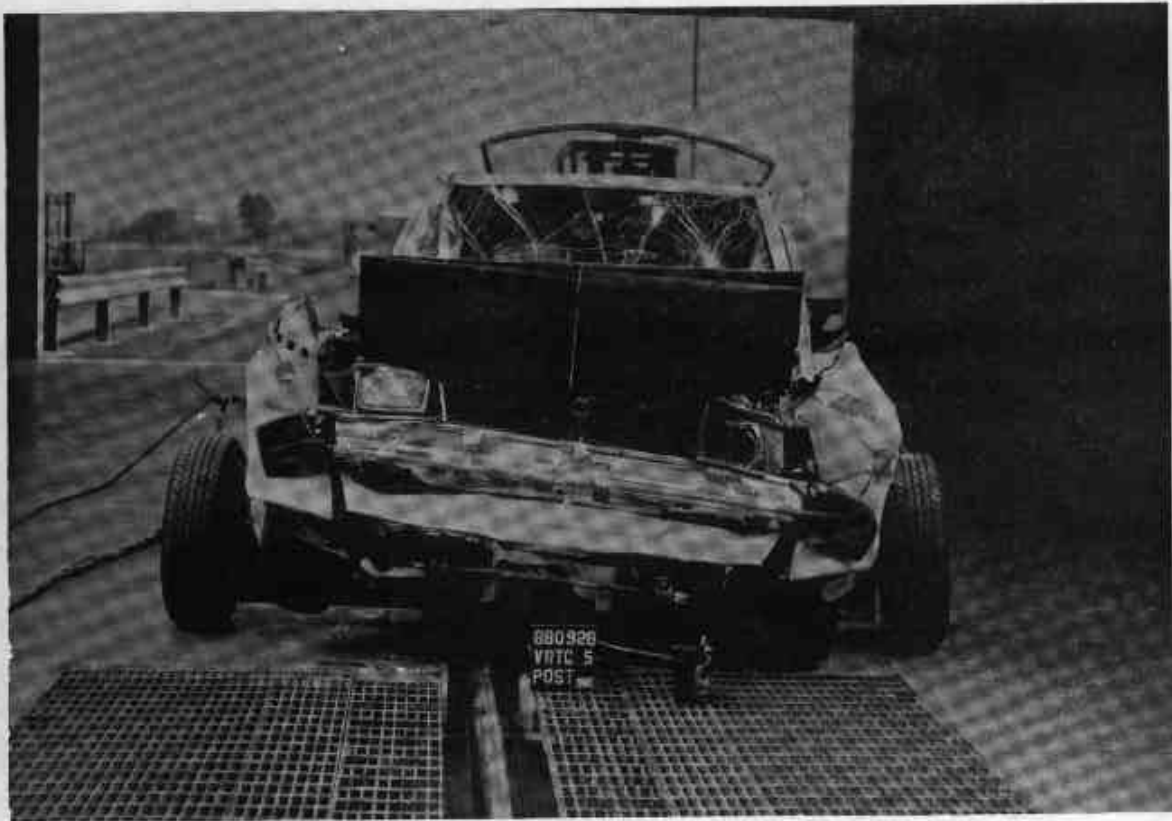


Figure A-33. POST-TEST OVERALL FRONT VIEW



Figure A-34. POST-TEST LEFT FRONT VIEW



Figure A-35. POST-TEST RIGHT FRONT VIEW

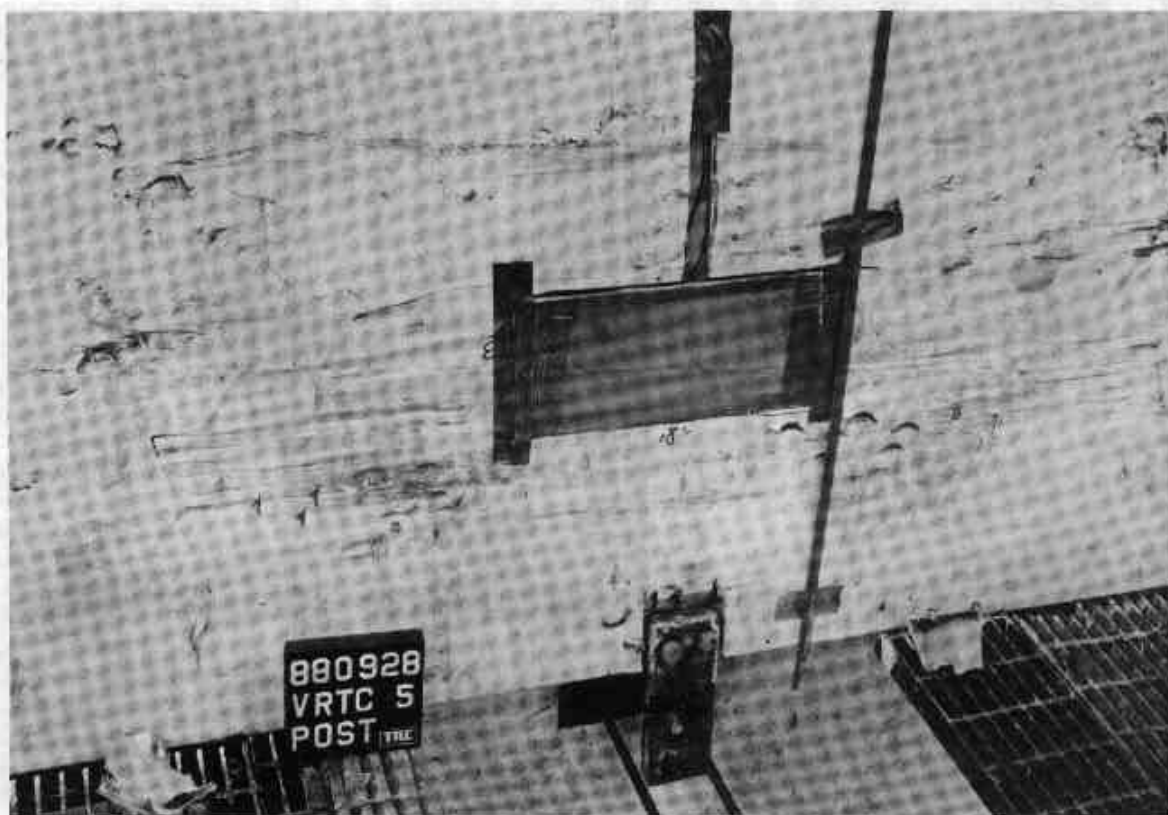


Figure A-36. POST-TEST BARRIER CONTACT SWITCH



Figure A-37. POST-TEST VEHICLE CLOSEUP - VIEW 1



Figure A-38. POST-TEST VEHICLE CLOSEUP - VIEW 2



Figure A-39. POST-TEST VEHICLE CLOSEUP - VIEW 3



Figure A-40. POST-TEST VEHICLE CLOSEUP - VIEW 4



Figure A-41. POST-TEST VEHICLE CLOSEUP - VIEW 5

TEST #880928-6

LIST OF PHOTOGRAPHS

- 42. POST-TEST OVERALL LEFT SIDE VIEW
- 43. POST-TEST OVERALL RIGHT SIDE VIEW
- 44. POST-TEST OVERALL FRONT VIEW
- 45. POST-TEST LEFT FRONT VIEW
- 46. POST-TEST RIGHT FRONT VIEW
- 47. POST-TEST BARRIER CONTACT SWITCH
- 48. POST-TEST VEHICLE CLOSEUP - VIEW 1
- 49. POST-TEST VEHICLE CLOSEUP - VIEW 2
- 50. POST-TEST VEHICLE CLOSEUP - VIEW 3
- 51. POST-TEST VEHICLE CLOSEUP - VIEW 4
- 52. POST-TEST VEHICLE CLOSEUP - VIEW 5
- 53. POST-TEST VEHICLE CLOSEUP - VIEW 6
- 54. POST-TEST VEHICLE CLOSEUP - VIEW 7
- 55. POST-TEST VEHICLE CLOSEUP - VIEW 8



Figure A-42. POST-TEST OVERALL LEFT SIDE VIEW



Figure A-43. POST-TEST OVERALL RIGHT SIDE VIEW



Figure A-44. POST-TEST OVERALL FRONT VIEW



Figure A-45. POST-TEST LEFT FRONT VIEW



Figure A-46. POST-TEST RIGHT FRONT VIEW



Figure A-47. POST-TEST BARRIER CONTACT SWITCH



Figure A-48. POST-TEST VEHICLE CLOSEUP - VIEW 1



Figure A-49. POST-TEST VEHICLE CLOSEUP - VIEW 2



Figure A-50. POST-TEST VEHICLE CLOSEUP - VIEW 3



Figure A-51. POST-TEST VEHICLE CLOSEUP - VIEW 4



Figure A-52. POST-TEST VEHICLE CLOSEUP - VIEW 5



Figure A-53. POST-TEST VEHICLE CLOSEUP - VIEW 6



Figure A-54. POST-TEST VEHICLE CLOSEUP - VIEW 7



Figure A-55. POST-TEST VEHICLE CLOSEUP - VIEW 8

APPENDIX B
DATA PLOTS

VRTC-1 , 880928

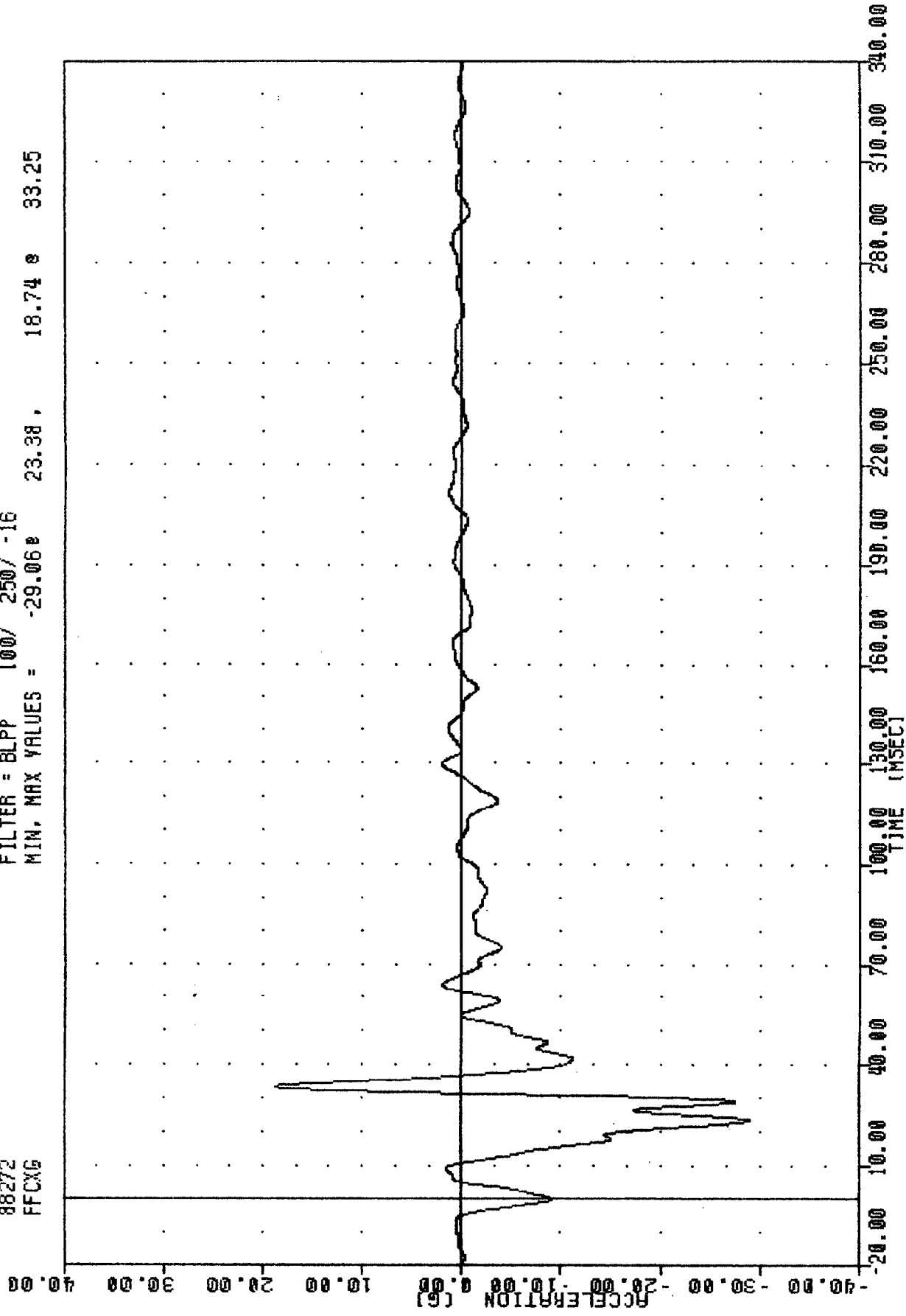
DAMAGE ALGORITHM REFORMULATION

88272

FILTER = BLPP 100/ 250/ -16

FFCXG

MIN, MAX VALUES = -29.06 23.38 , 18.74 33.25



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE FRONT FRAME CROSSMEMBER BOTTOM X AXIS ACCELERATION

VRTC-1 , 880928

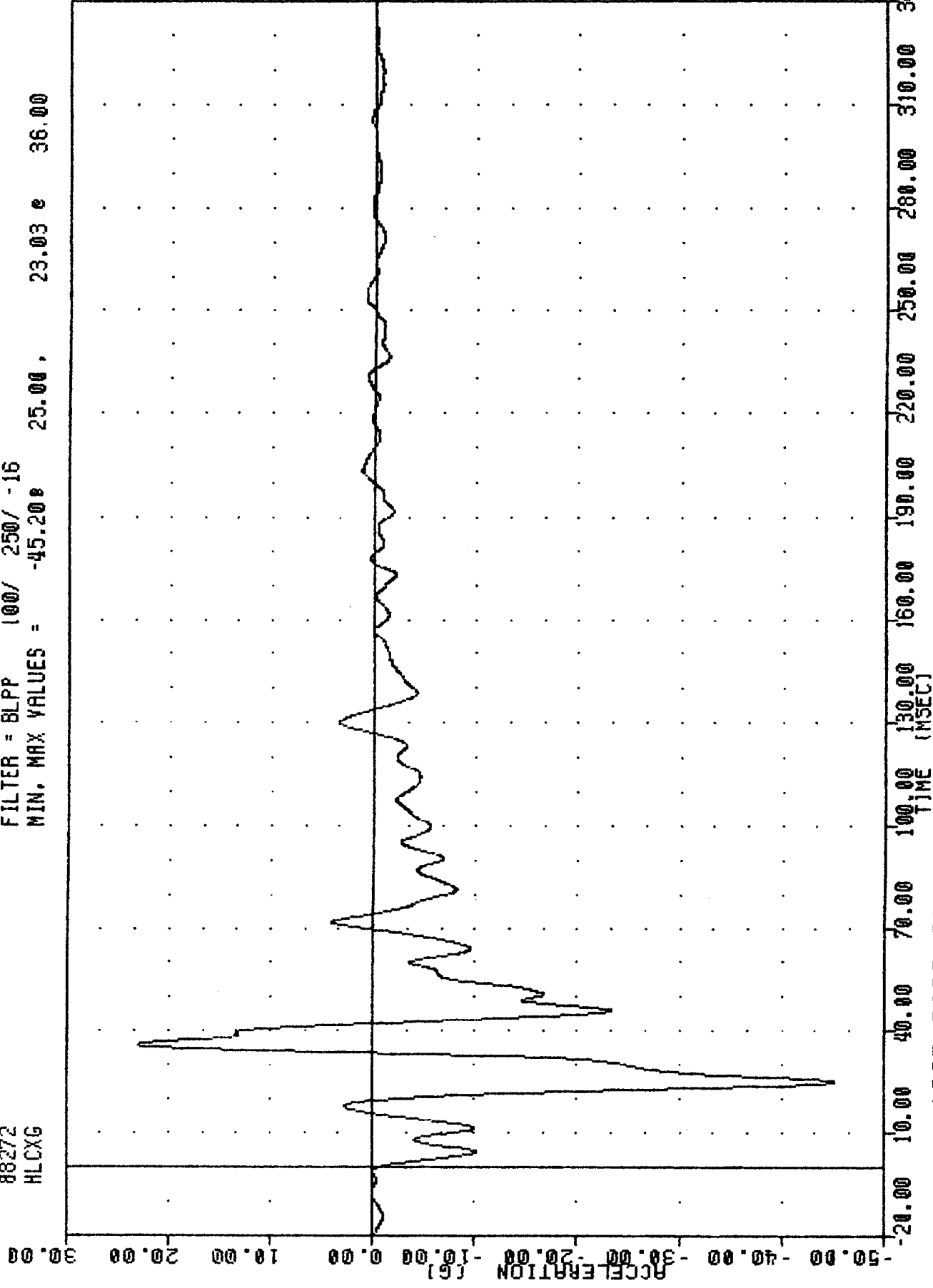
DAMAGE ALGORITHM REFORMULATION

88272

HLCXG

FILTER = BLPP 100/ 250/ -16

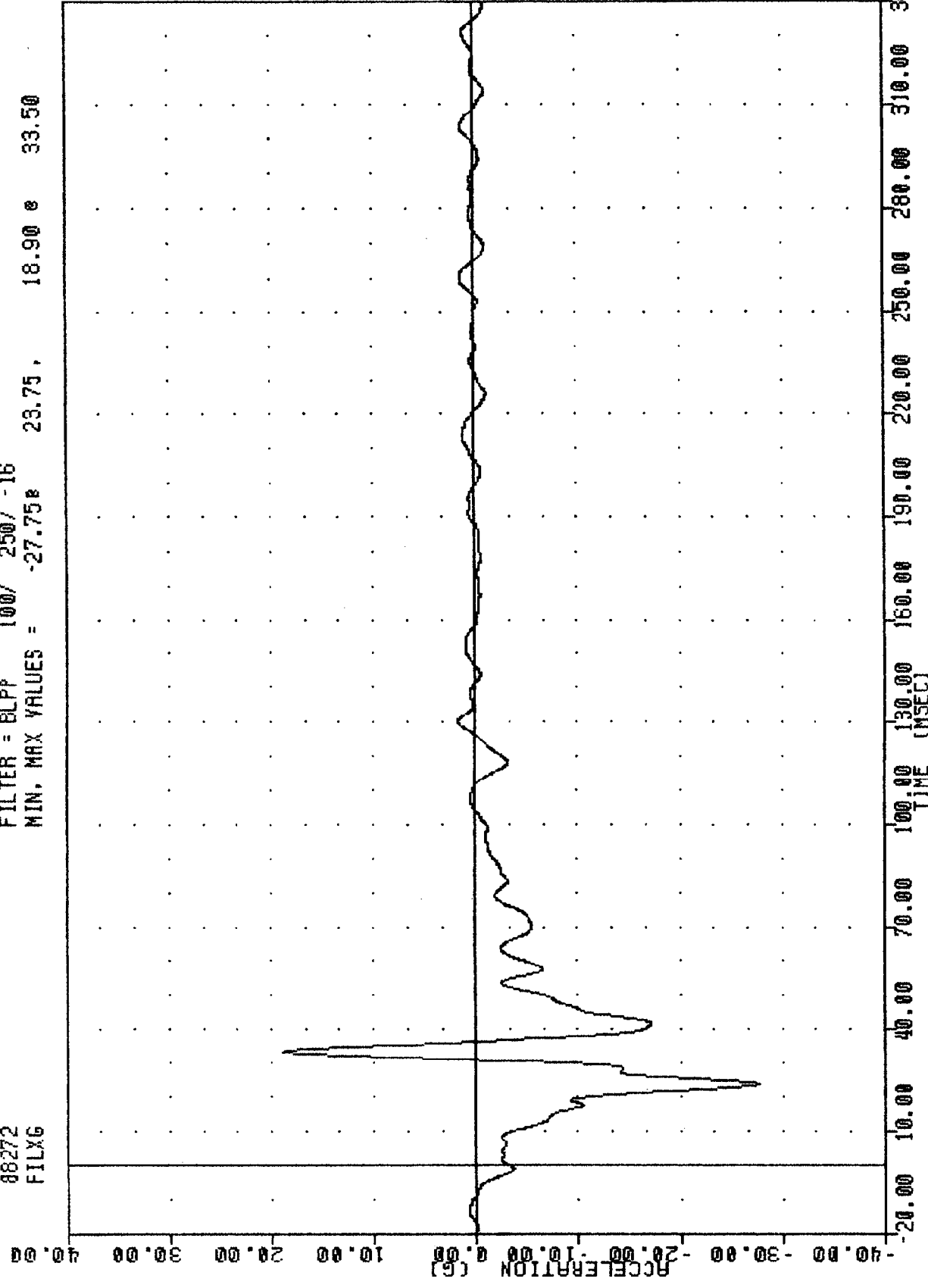
MIN, MAX VALUES = -45.200 25.00 , 23.03 e 36.00



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE HOOD LATCH CROSSMEMBER X AXIS ACCELERATION

VRTC-1 , 880928
DAMAGE ALGORITHM REFORMULATION
88272
FILXG

FILTER = BLPP 100/ 250/ -16
MIN, MAX VALUES = -27.75 23.75 , 18.90 33.50



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE LEFT FENDER WELL INSIDE X AXIS ACCELERATION

VRTC-1 . 880928

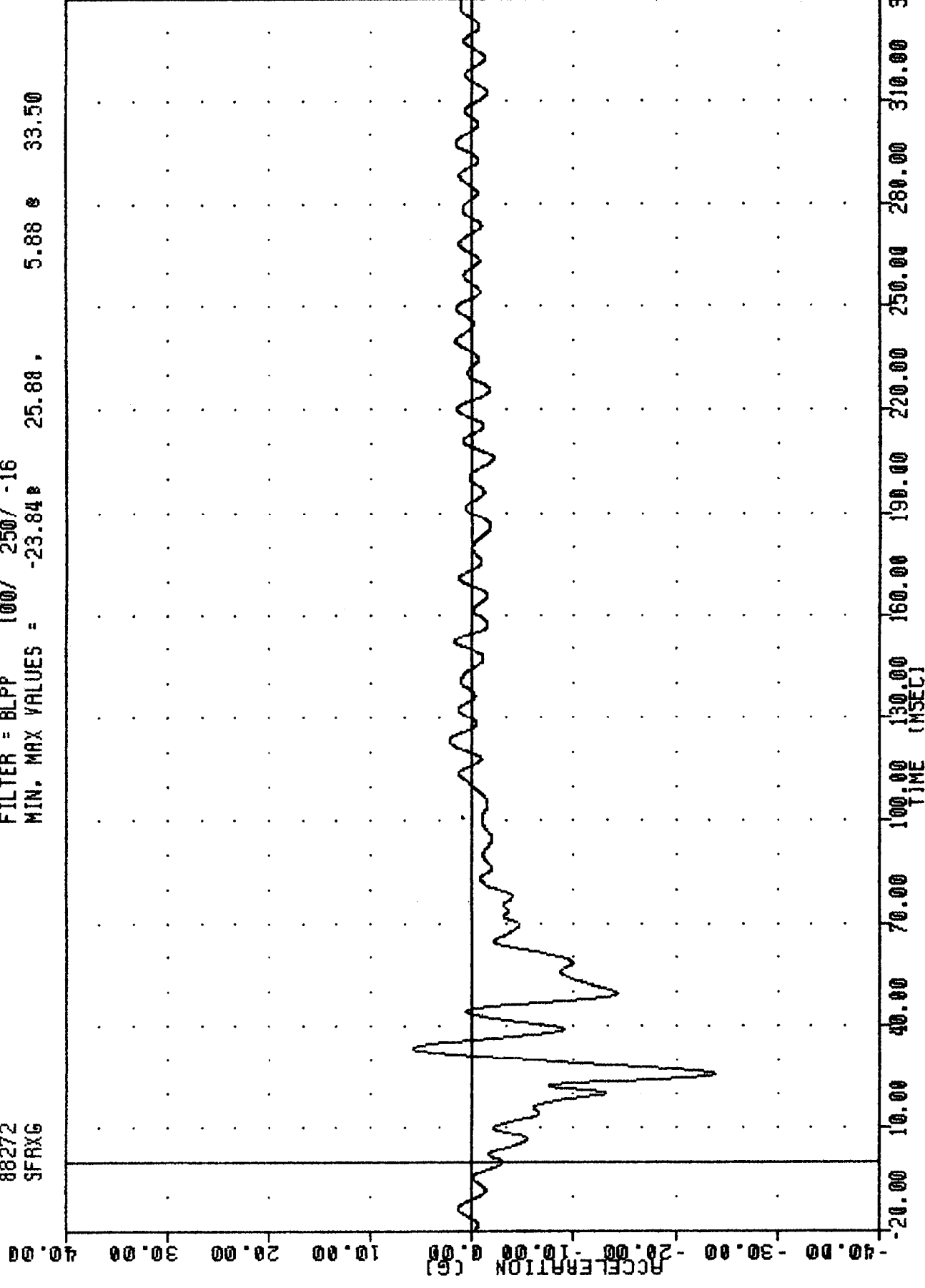
DAMAGE ALGORITHM REFORMULATION

88272

SFRXG

FILTER = BLPP 100/ 250/ -16

MIN. MAX VALUES = -23.84 25.88 5.88 33.50



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE SUSPENSION FRONT RIGHT X AXIS ACCELERATION

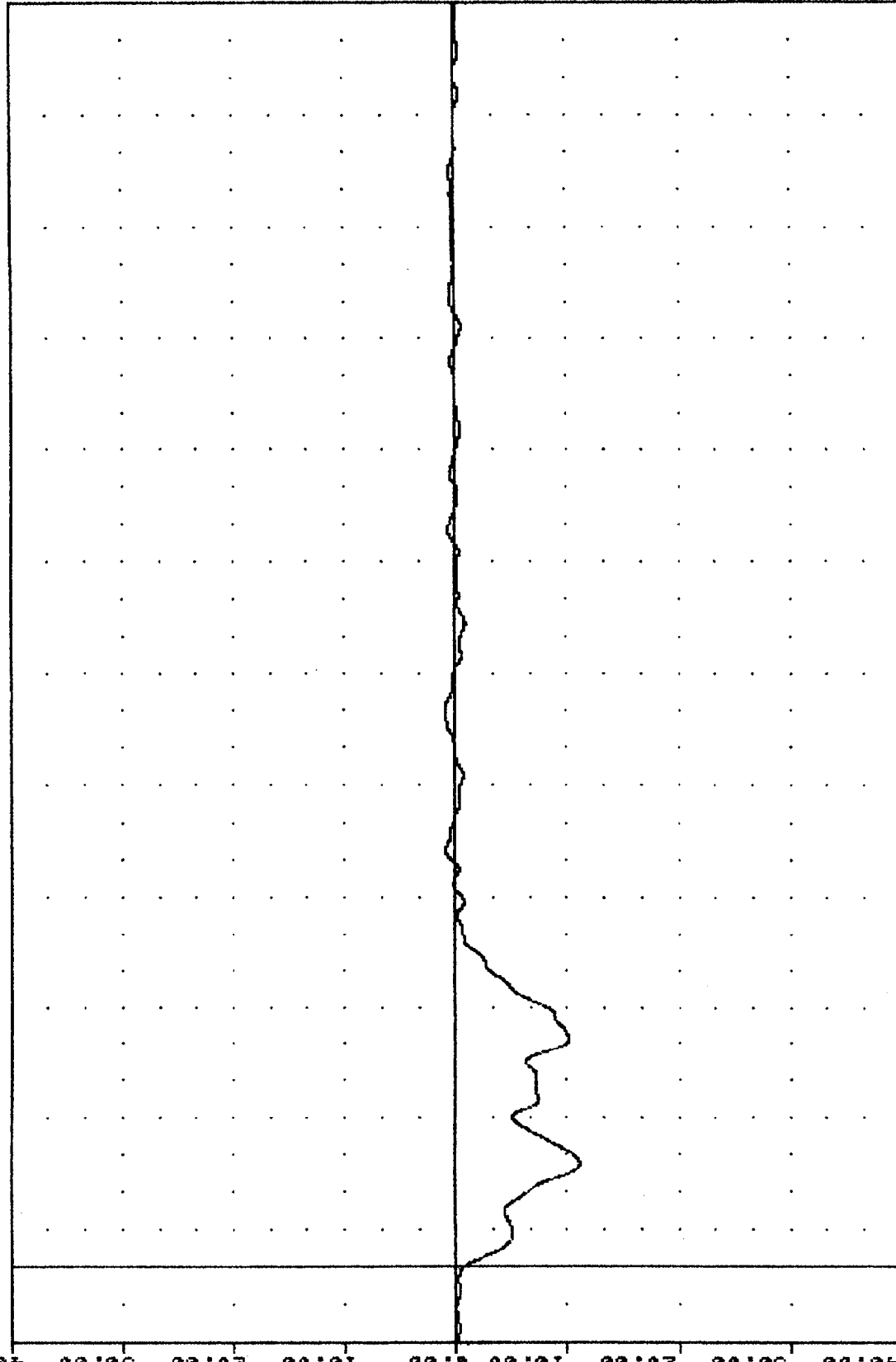
VRTC-1
DAMAGE ALGORITHM REFORMULATION
88272
ADKXG1

, 880928

FILTER = BLPP 100/ 250/ -16

MIN, MAX VALUES = -11.13 27.38, 0.98 150.00

ACCELERATION [G]

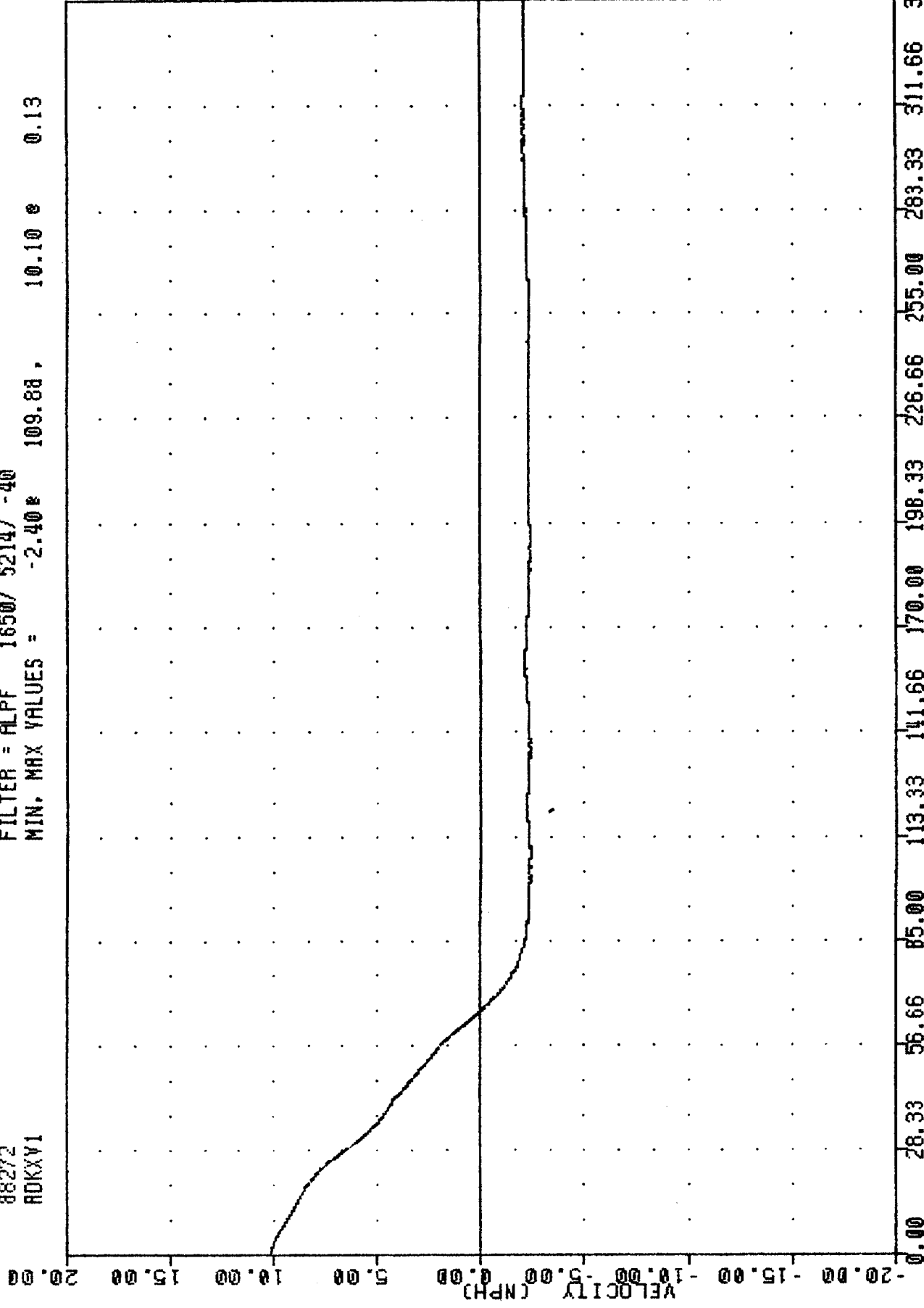


-20.00 10.00 40.00 70.00 100.00 130.00 160.00 190.00 220.00 250.00 280.00 310.00 340.00

1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE REAR DECK X AXIS ACCELERATION

VRTC-1 , 880928
 DAMAGE ALGORITHM REFORMULATION
 88272
 ADKXV1

FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = -2.40 109.88 , 10.10 0.13

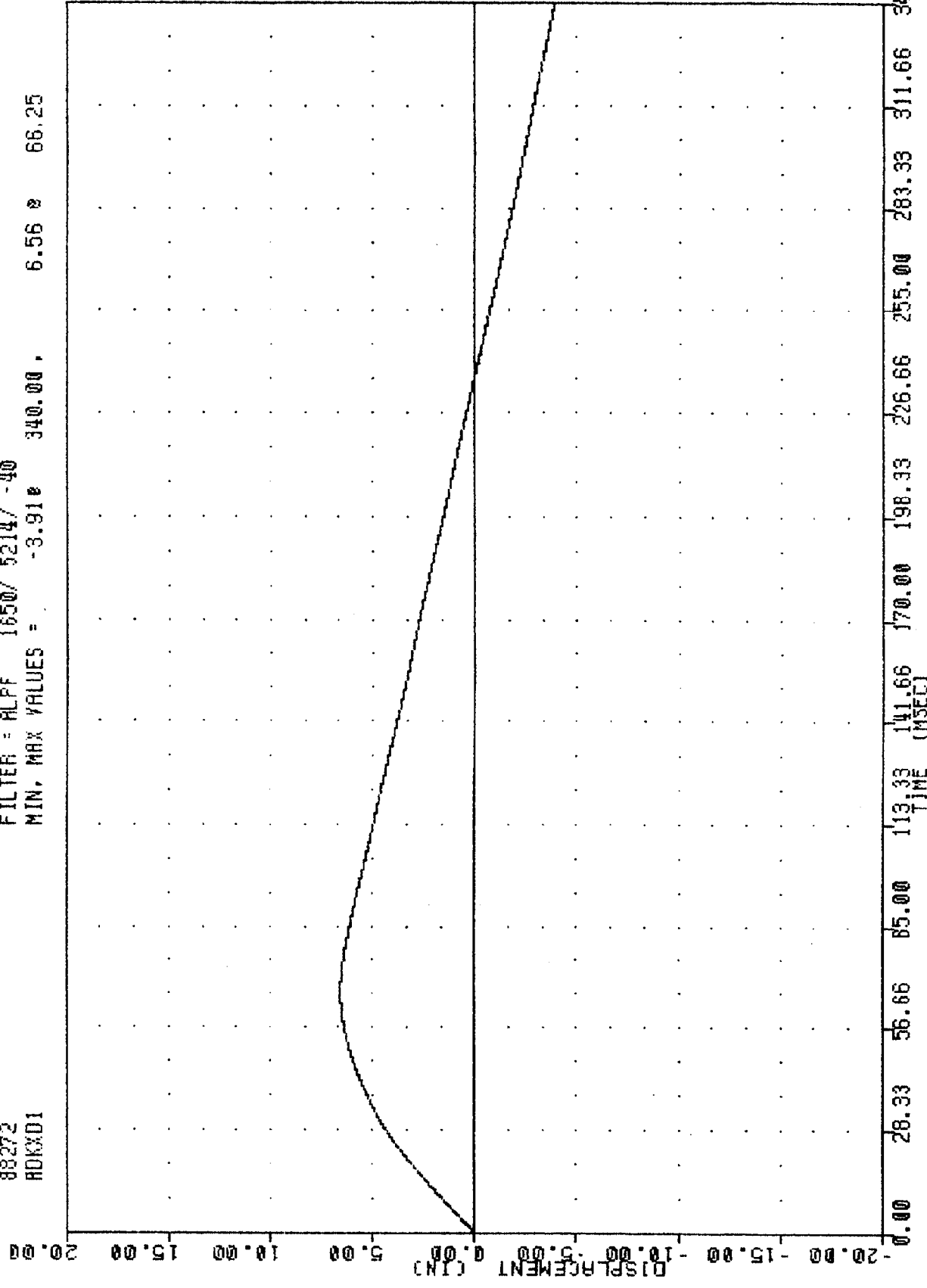


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
 VEHICLE REAR DECK X AXIS VELOCITY

VRTC-1 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

ADKXD1 MIN, MAX VALUES = -3.91e 340.00 , 6.56 e 66.25



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE REAR DECK X AXIS DISPLACEMENT

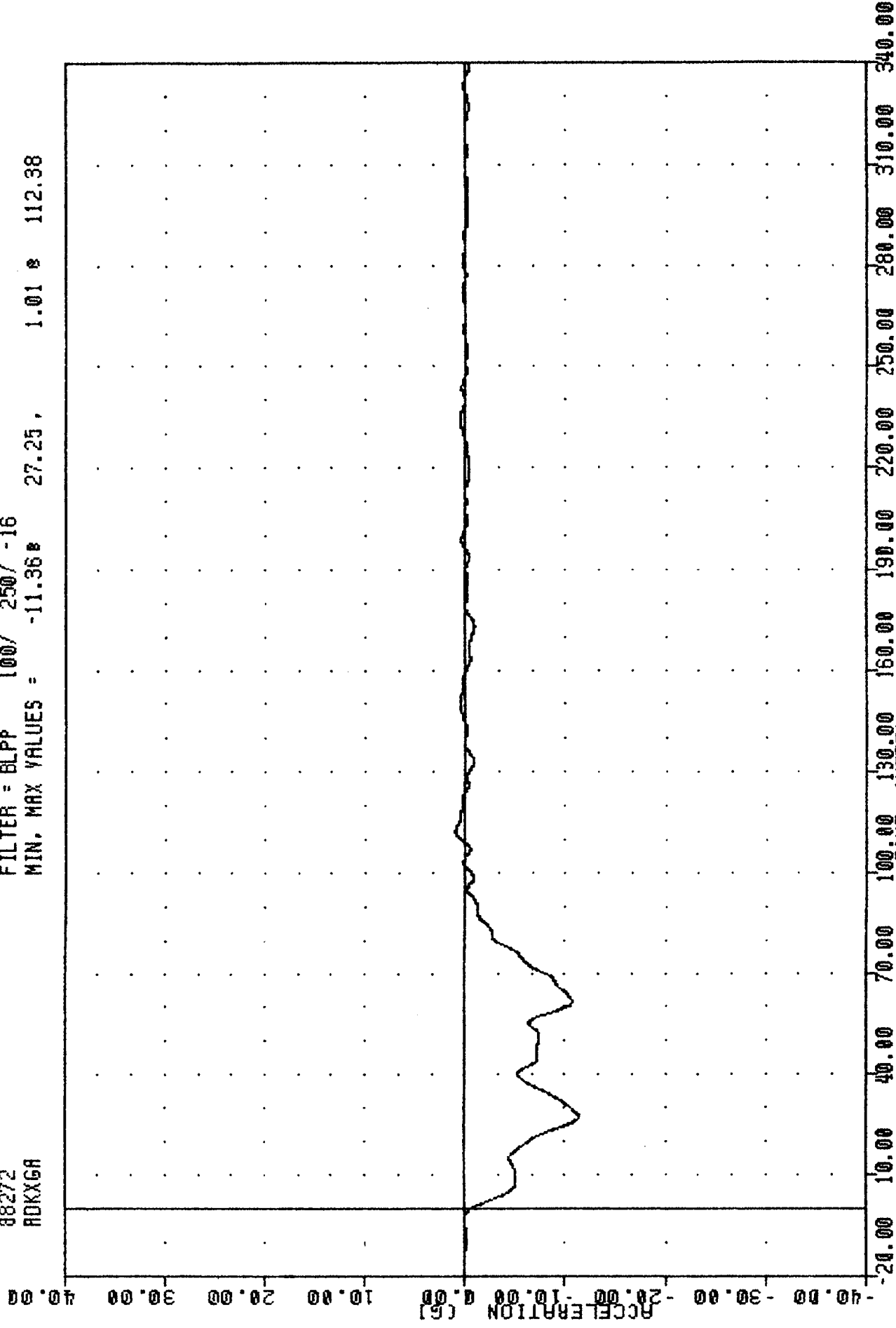
VRTC-1 , 880928
DAMAGE ALGORITHM REFORMULATION

88272

ADKXGA

FILTER = BLPP 100/ 250/ -16

MIN. MAX VALUES = -11.36 27.25 , 1.01 112.38



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE REAR DECK X AXIS REDUNDANT ACCELERATION

NRTC-1
DAMAGE ALGORITHM REFORMULATION

880928

88272

ADKXVA

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -2.89E 228.00, 10.10E 0.13

20.00

15.00

10.00

5.00

0.00

-5.00

-10.00

-15.00

-20.00

VELOCITY (MPH)

0.00

28.33

56.66

85.00

113.33

141.66

170.00

198.33

226.66

255.00

283.33

311.66

340.00

TIME

(MSEC)

1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE REAR DECK X AXIS VELOCITY REDUNDANT

VRTC-1
DAMAGE ALGORITHM REFORMULATION

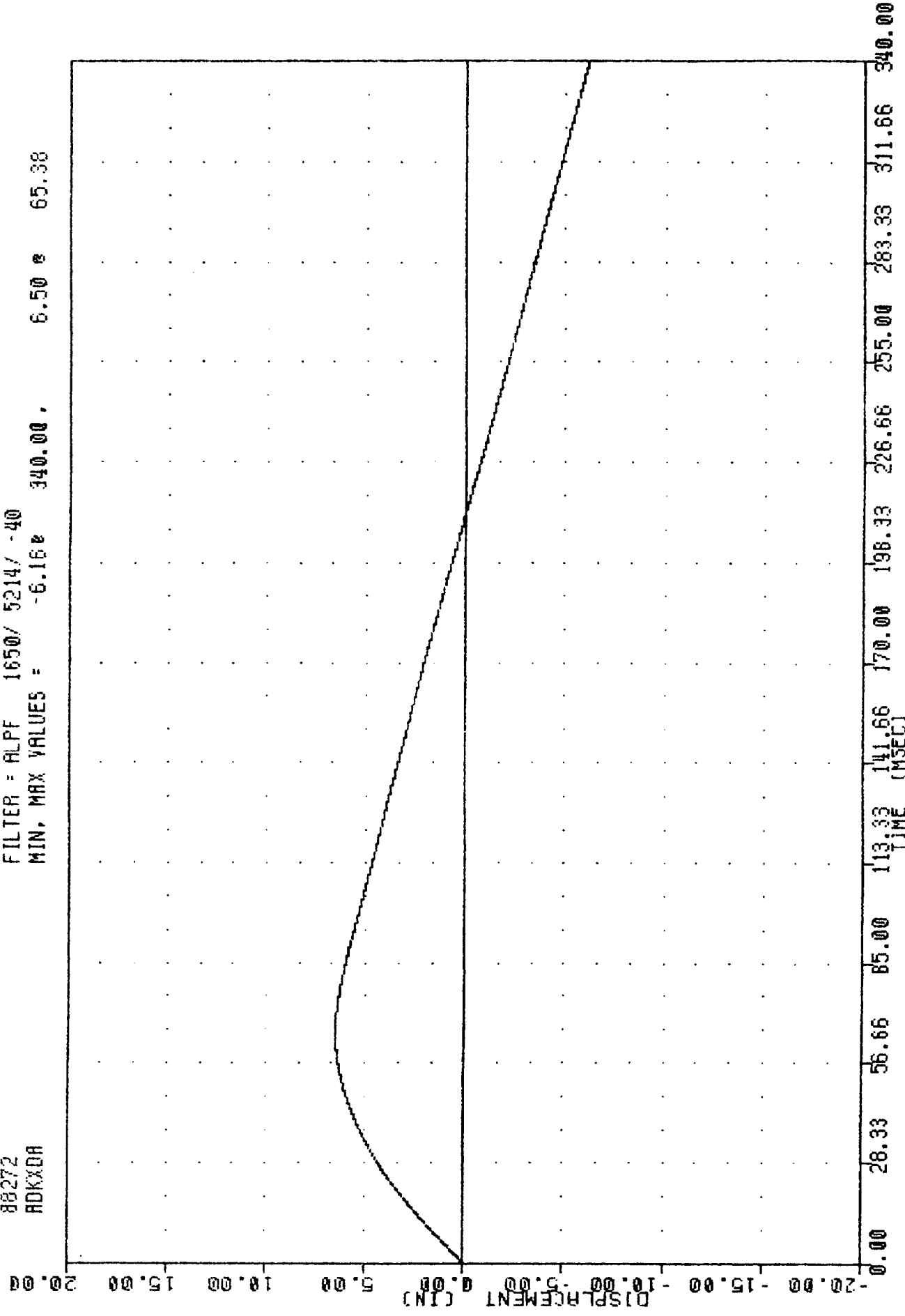
880928

88272

ADKXDA

FILTER = ALPF 1650/ 5214/ -40

MIN, MAX VALUES = -6.16e 340.00, 6.50 e 65.38



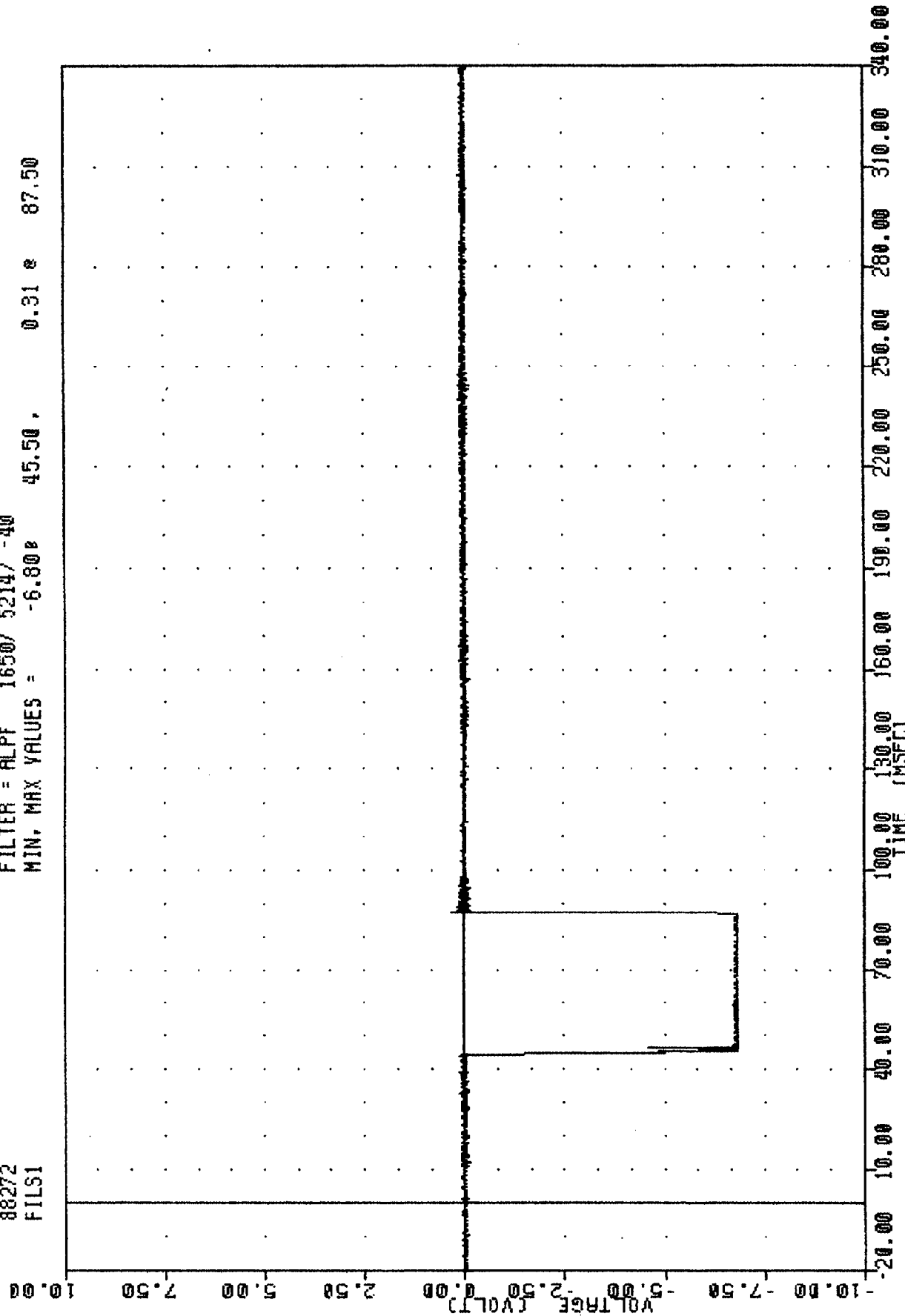
1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE REAR DECK X AXIS DISPLACEMENT REDUNDANT

VRTC-1 , 880928

DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

FILS1 MIN, MAX VALUES = -6.80V 45.50 , 0.31 e 87.50



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE LEFT FENDER WELL INSIDE SENSOR #1

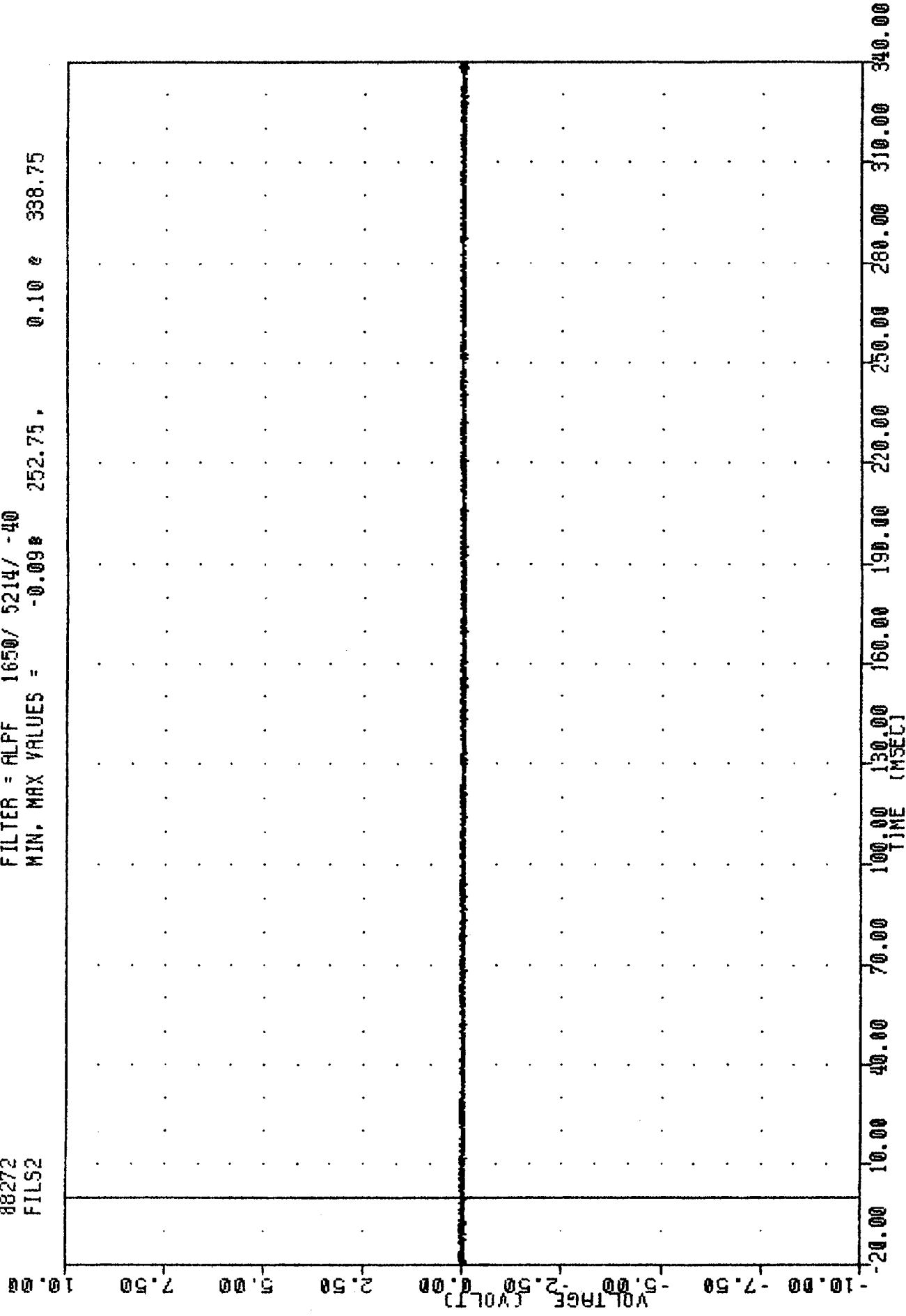
VRTC-1 , 880928
DAMAGE ALGORITHM REFORMULATION

88272

FILS2

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -0.098 252.75 , 0.10 e 338.75



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE LEFT FENDER WELL INSIDE SENSOR 2

DAMAGE ALGORITHM REFORMULATION

FILTER = ALPF 1650/ 5214/ -40

QTHI

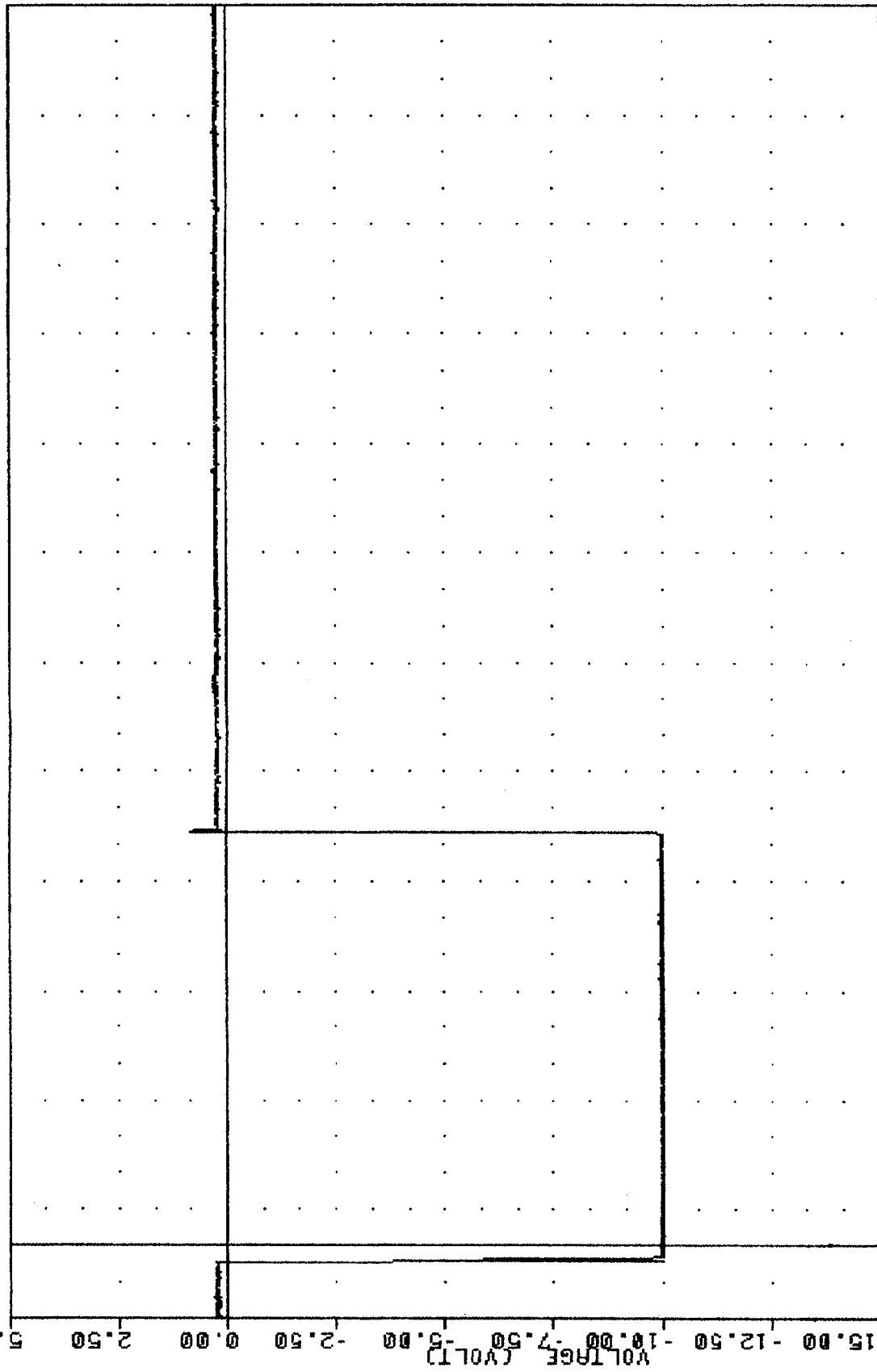
MIN. MAX VALUES =

-10.022

-4.33-

0.83

115.38



	00	40.00	70.00	100.00 TIME (MSEC)	130.00	160.00	190.00	220.00	250.00	280.00	310.00	340.00
1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST												
VEHICLE CONTACT SWITCH - LEFT												

VRTC-1 , 880928

DAMAGE ALGORITHM REFORMULATION

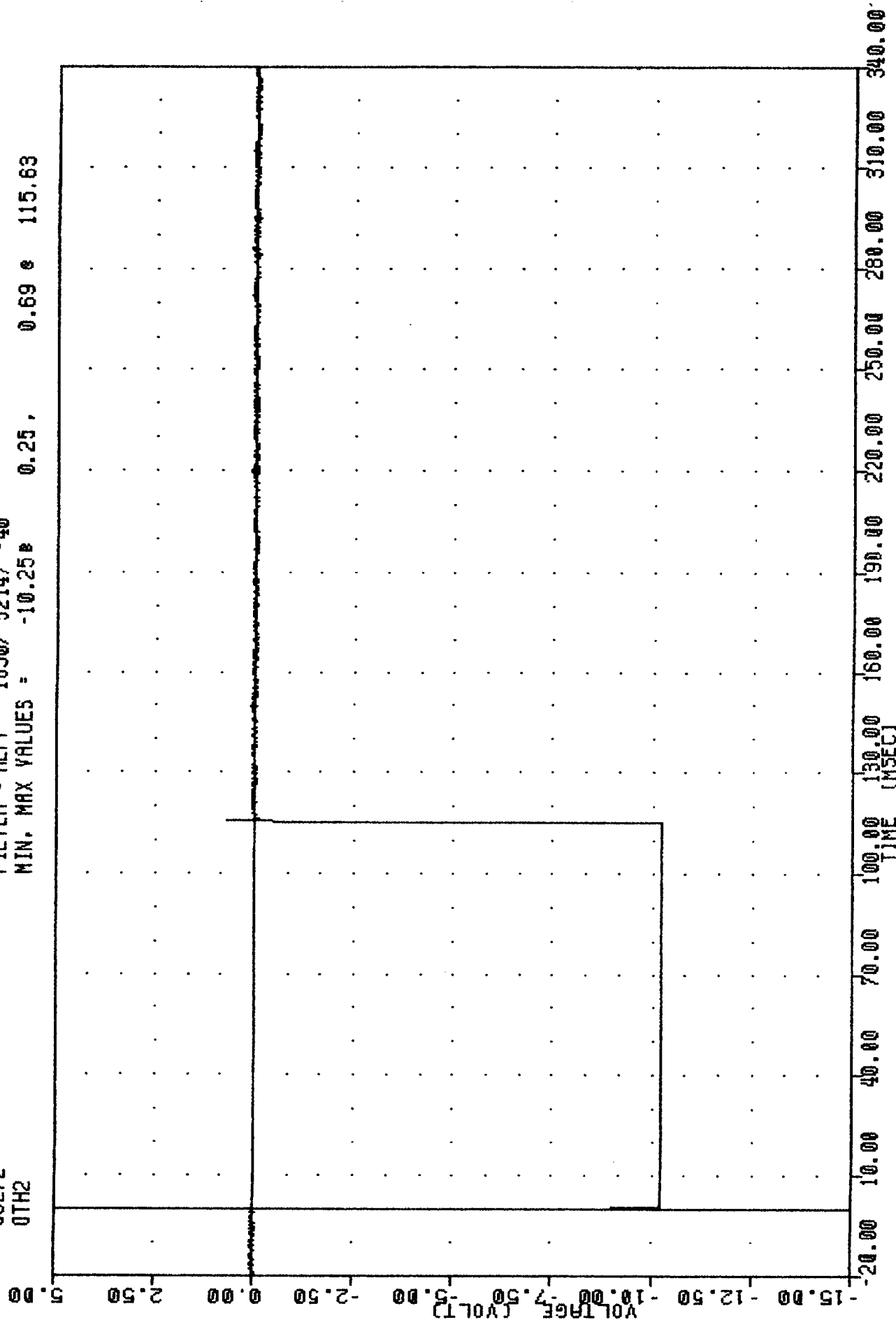
88272

0TH2

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -10.25 0.25 ,

0.69 e 115.63



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE CONTACT SWITCH - CENTER

VRTC-1 , 880928

DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

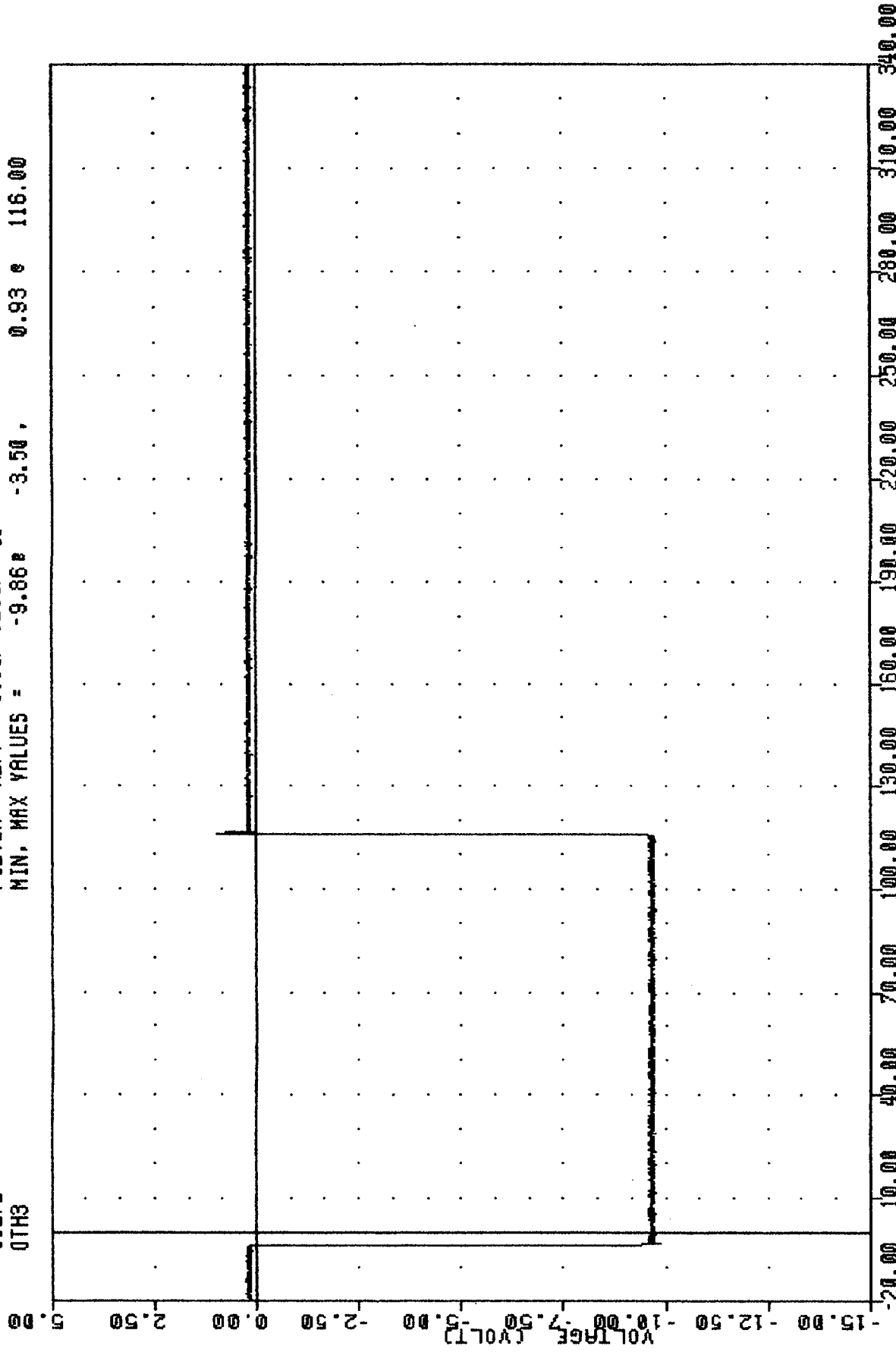
0TH3

MIN, MAX VALUES = -9.86 0.93 116.00

-3.50 ,

0.93 0

116.00

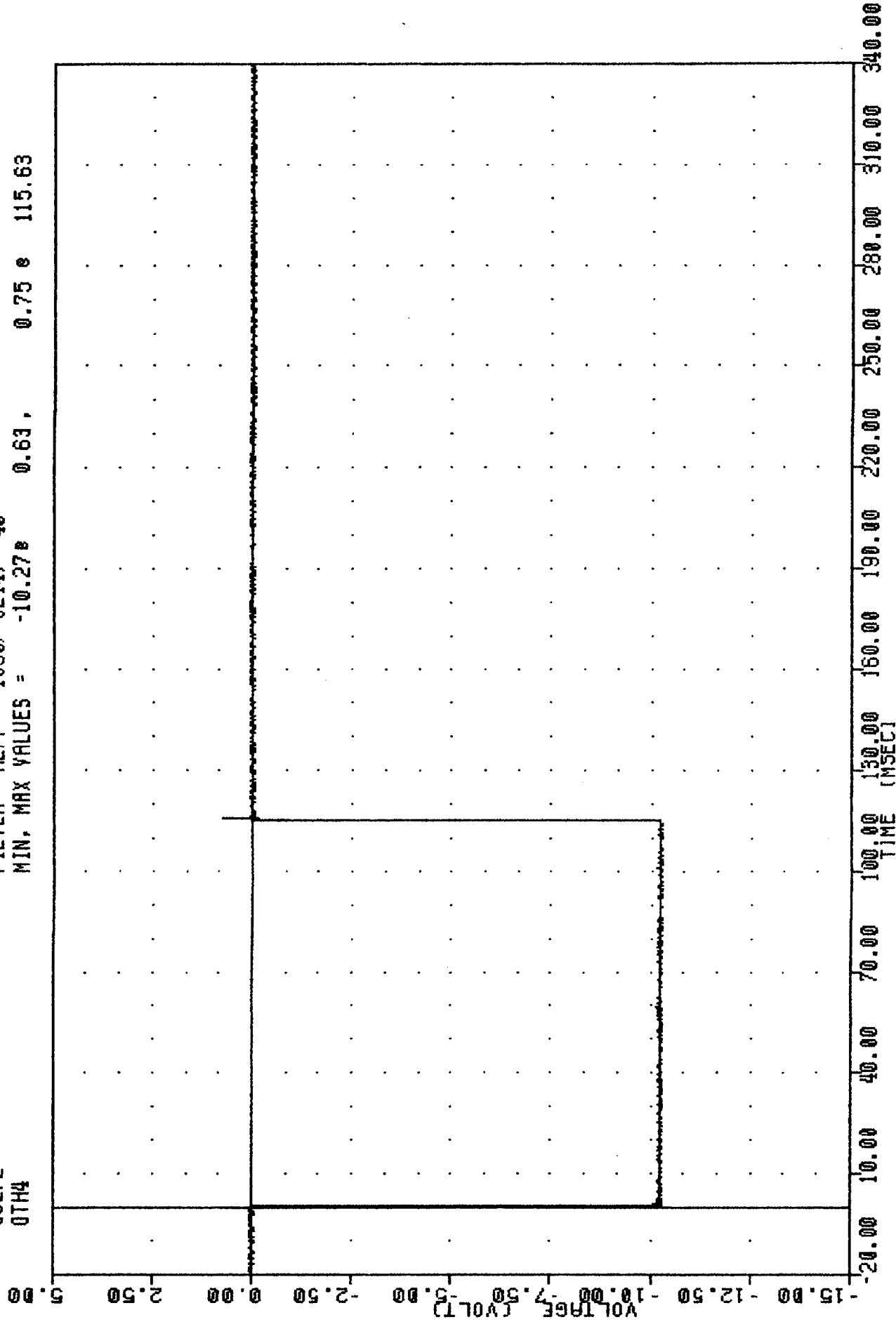


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
VEHICLE CONTACT SWITCH - RIGHT

VRTC-1 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

0TH4 MIN, MAX VALUES = -10.27e 0.63 , 0.75 e 115.63



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 10 MPH FIRST TEST
BARRIER CONTACT SWITCH - LEFT

VRTC-1 , 880928
DAMAGE ALGORITHM REFORMULATION

FILTER = ALPF 1650/ 5214/ -40

88272

0TH5

MIN, MAX VALUES = -10.49 0.59 109.63

-0.50 ,

340.00

310.00

280.00

250.00

220.00

190.00

160.00

130.00

100.00

70.00

40.00

10.00

-20.00

-5.00

-2.50

0.00

2.50

5.00

10.00

15.00

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365.00

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375.00

380.00

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390.00

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410.00

415.00

420.00

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430.00

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445.00

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455.00

460.00

465.00

470.00

475.00

480.00

485.00

490.00

495.00

500.00

505.00

510.00

515.00

520.00

525.00

530.00

535.00

540.00

545.00

550.00

555.00

560.00

565.00

570.00

575.00

580.00

585.00

590.00

595.00

600.00

605.00

610.00

615.00

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625.00

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635.00

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645.00

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655.00

660.00

665.00

670.00

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685.00

690.00

695.00

700.00

705.00

710.00

715.00

720.00

725.00

730.00

735.00

740.00

745.00

750.00

755.00

760.00

765.00

770.00

775.00

780.00

785.00

790.00

795.00

800.00

805.00

810.00

815.00

820.00

825.00

830.00

835.00

840.00

845.00

850.00

855.00

860.00

865.00

870.00

875.00

880.00

885.00

890.00

895.00

900.00

905.00

910.00

915.00

920.00

925.00

930.00

935.00

940.00

945.00

950.00

955.00

960.00

965.00

970.00

975.00

980.00

985.00

990.00

995.00

1000.00

1005.00

1010.00

1015.00

1020.00

1025.00

1030.00

1035.00

1040.00

1045.00

1050.00

1055.00

1060.00

1065.00

1070.00

1075.00

1080.00

1085.00

1090.00

1095.00

1100.00

1105.00

1110.00

1115.00

1120.00

1125.00

1130.00

1135.00

1140.00

1145.00

1150.00

1155.00

1160.00

1165.00

1170.00

1175.00

1180.00

1185.00

1190.00

1195.00

1200.00

1205.00

1210.00

1215.00

1220.00

1225.00

1230.00

1235.00

1240.00

1245.00

1250.00

1255.00

1260.00

1265.00

1270.00

1275.00

1280.00

1285.00

1290.00

1295.00

1300.00

1305.00

1310.00

1315.00

1320.00

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1335.00

1340.00

1345.00

1350.00

1355.00

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1365.00

1370.00

1375.00

1380.00

1385.00

1390.00

1395.00

1400.00

1405.00

1410.00

1415.00

1420.00

1425.00

1430.00

1435.00

1440.00

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1460.00

1465.00

1470.00

1475.00

1480.00

1485.00

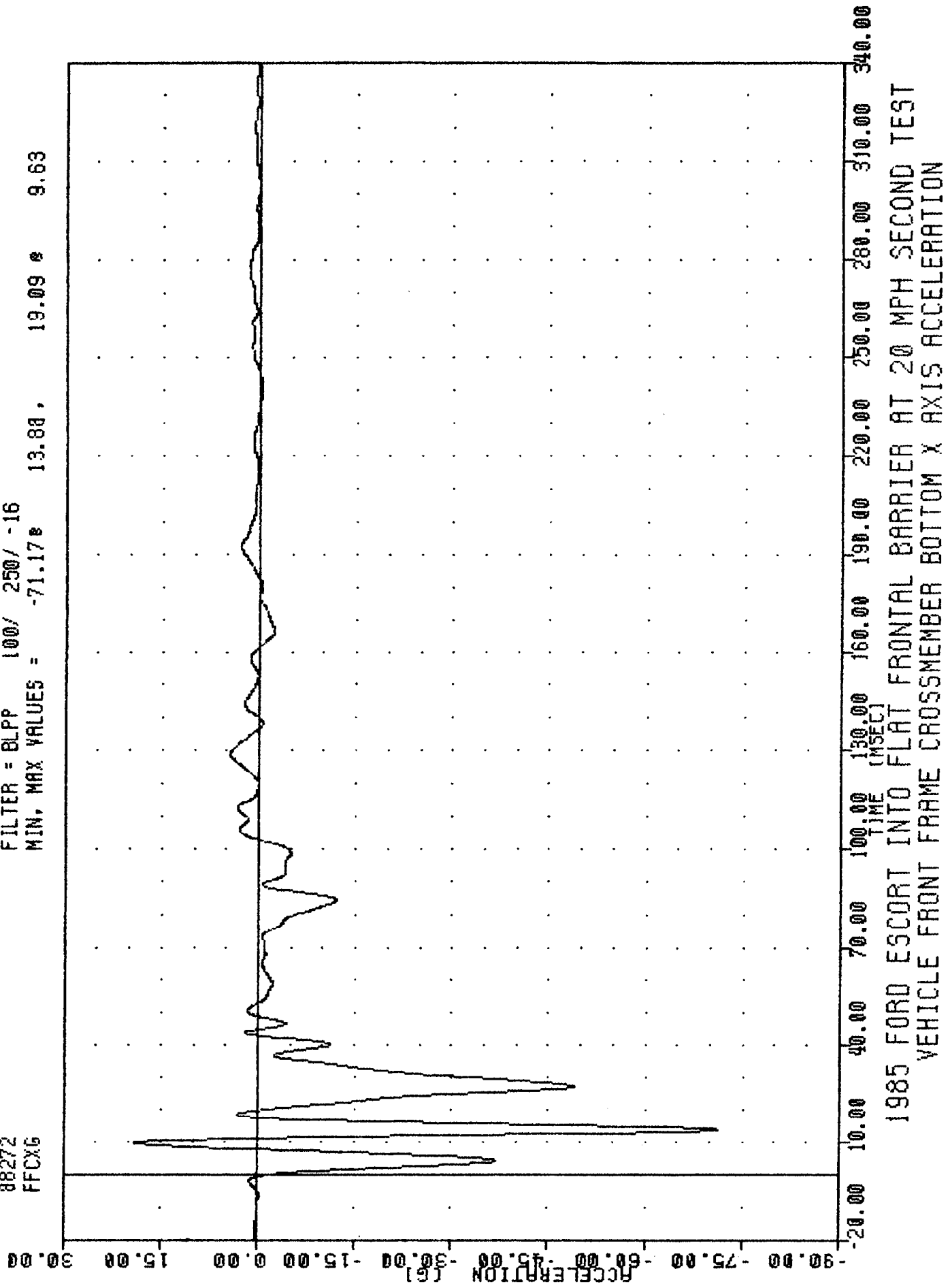
1490.00

1495.00

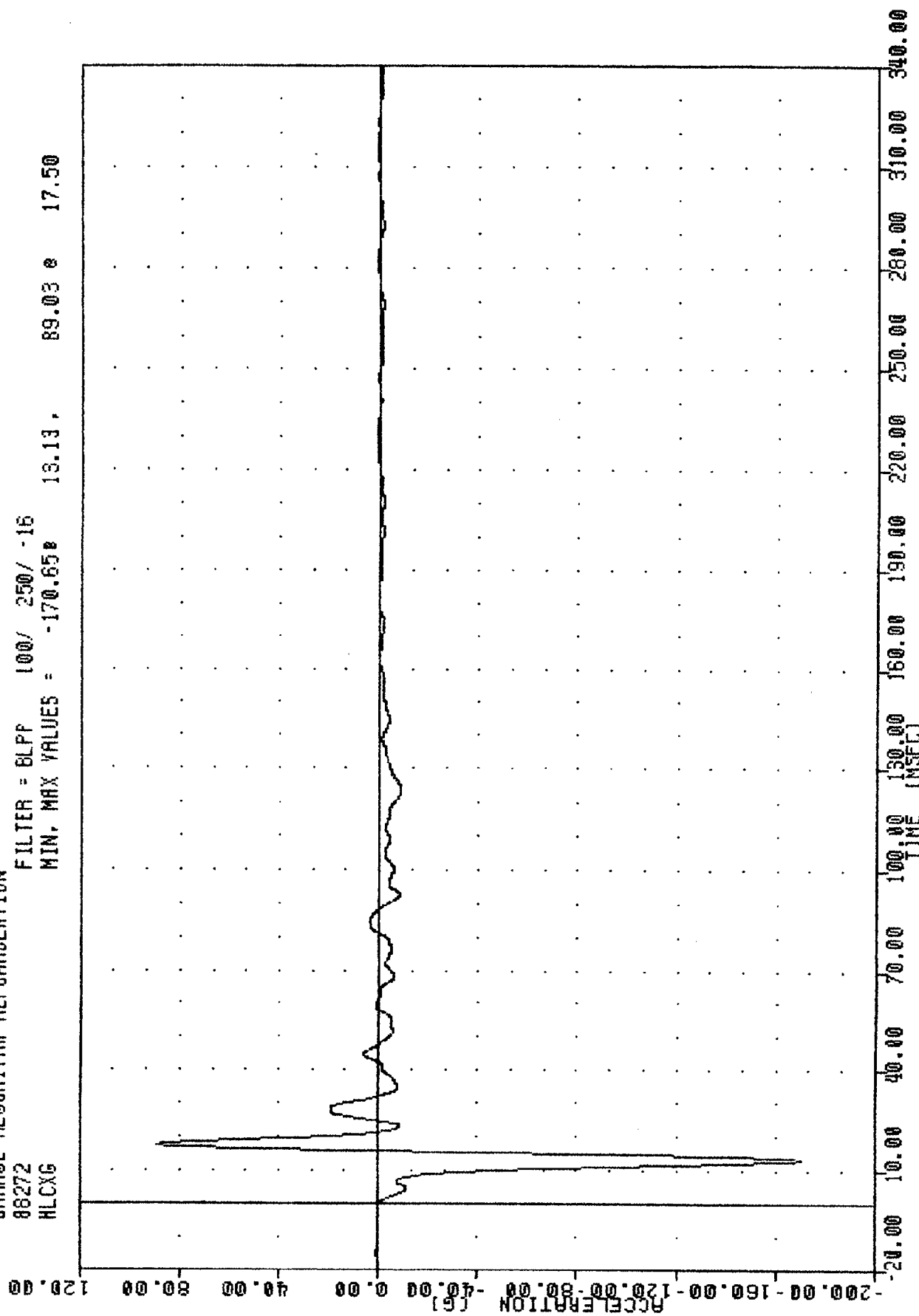
1500.00</

VRTC-2 • 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = BLPP 100/ 250/ -16
FFCXG MIN, MAX VALUES = -71.17 13.88, 19.09 9.63



VRTC-2 , 880928
 DAMAGE ALGORITHM REFORMULATION
 88272
 HLCXG
 FILTER = BLPF 100/ 250/ -15
 MIN, MAX VALUES = -170.65 13.13 , 89.03 17.50



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
 VEHICLE HOOD LATCH CROSSMEMBER X AXIS ACCELERATION

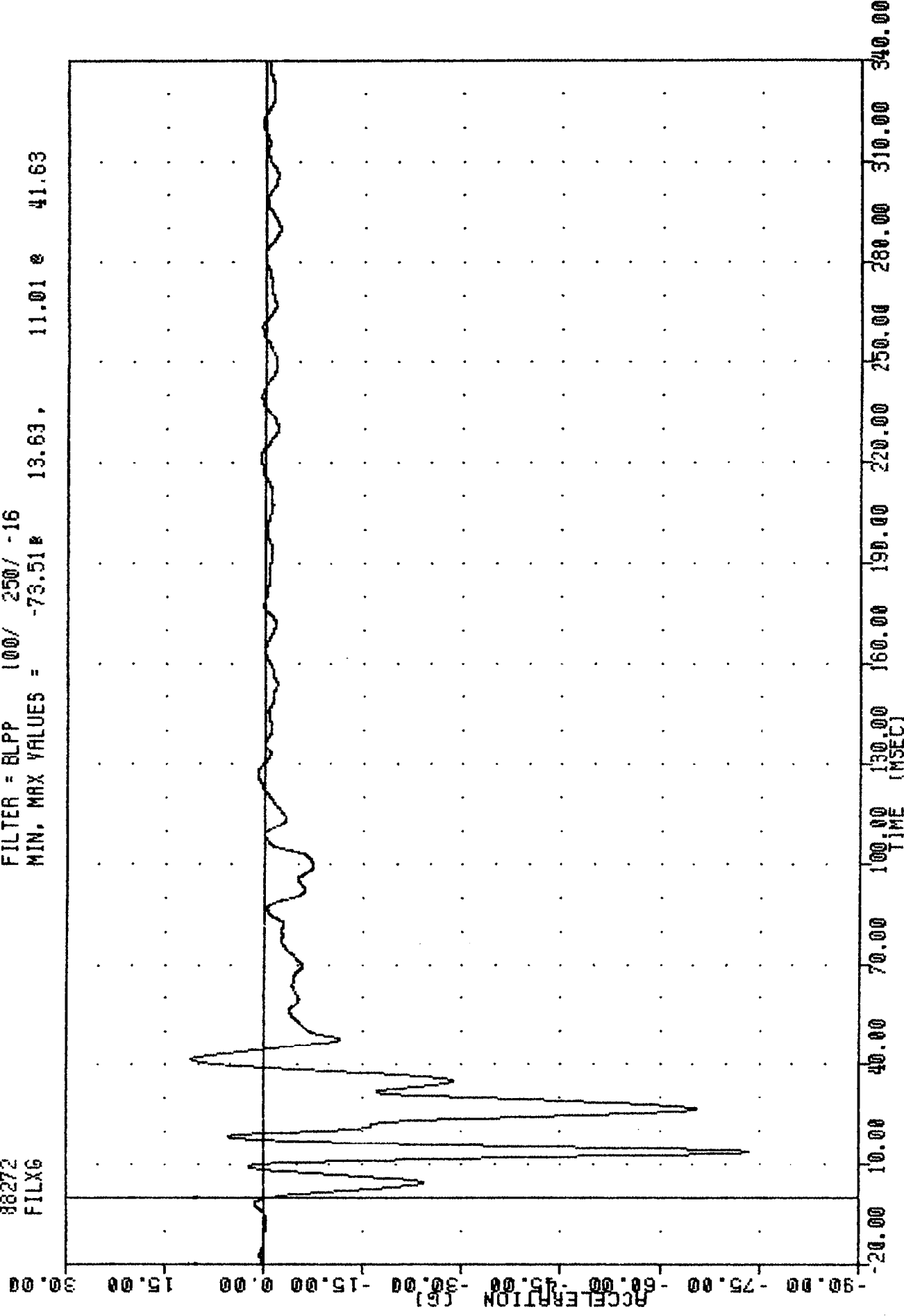
VRTC-2 . 880928
DAMAGE ALGORITHM REFORMULATION

88272

FILX6

FILTER = BLPP 100/ 250/ -16

MIN. MAX VALUES = -73.51 13.63, 11.01 41.63



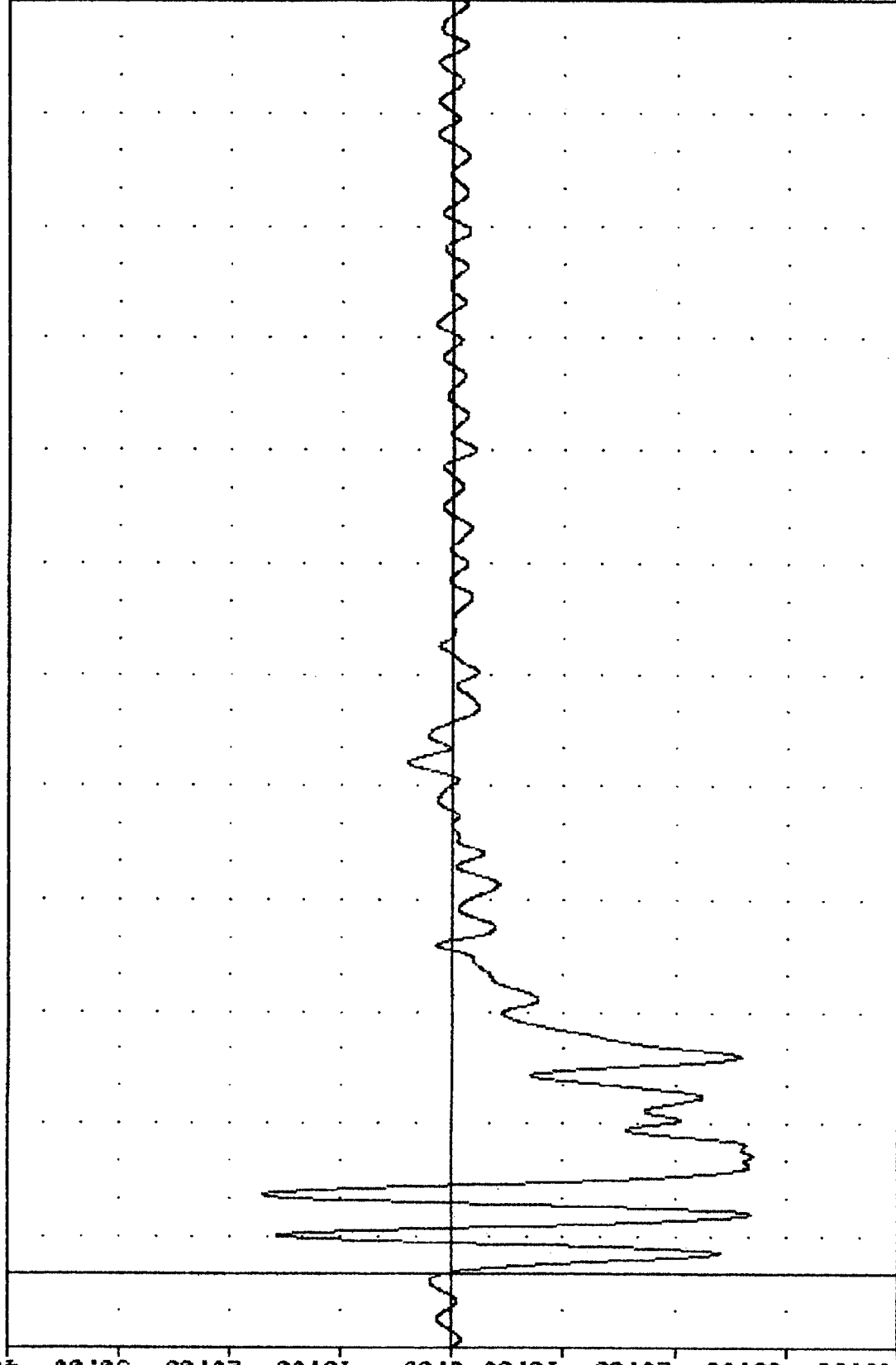
1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
VEHICLE LEFT FENDER WELL INSIDE X AXIS ACCELERATION

VRTC-2 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = BLPP 100/ 250/ -16

SFBXG MIN, MAX VALUES = -26.99* 31.25, 16.96 * 20.88

ACCELERATION (G)

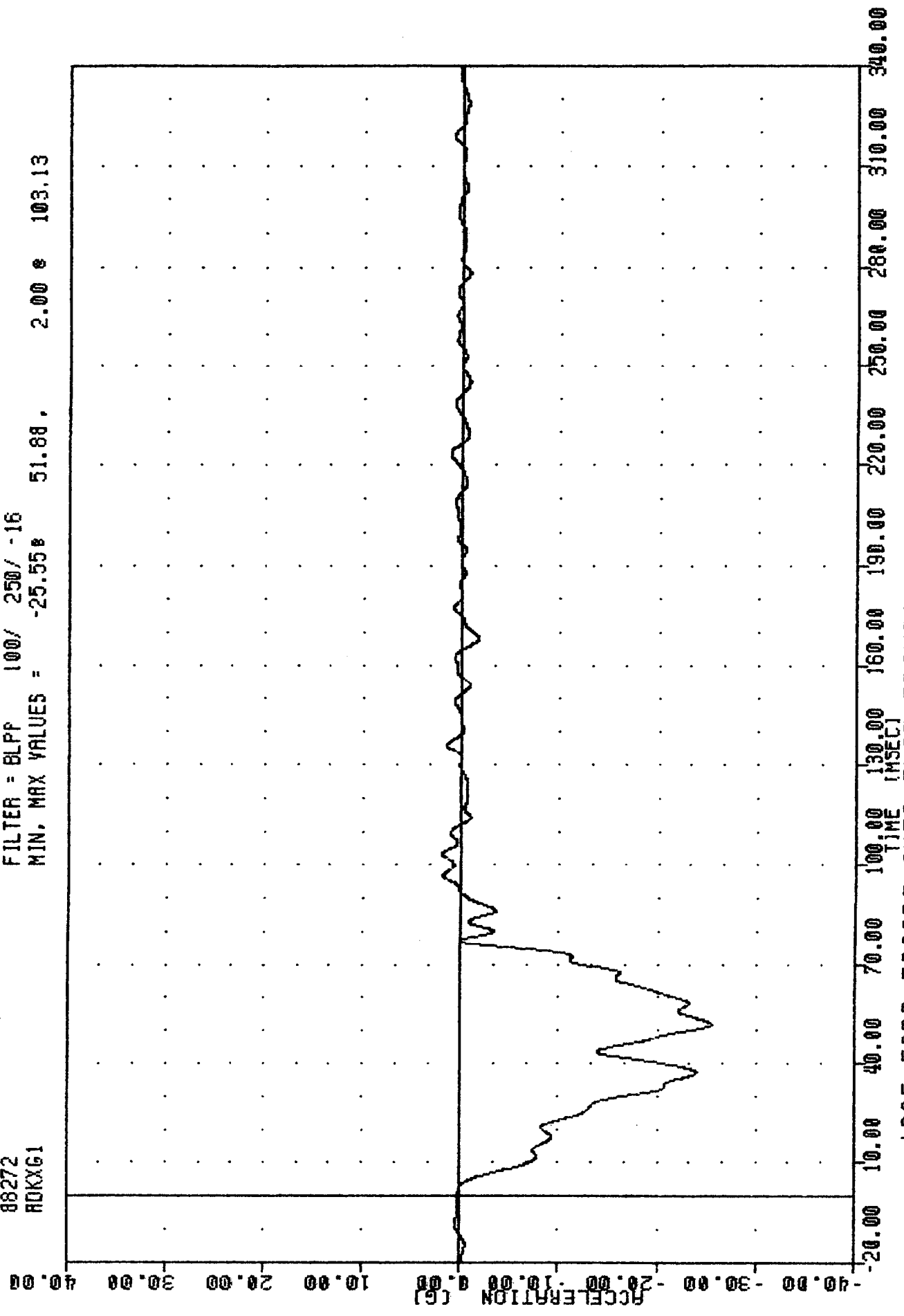


TIME (msec)

1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
VEHICLE SUSPENSION FRONT RIGHT X AXIS ACCELERATION

VRTC-2 , 880928
DAMAGE ALGORITHM REFORMULATION
88272
RDKXG1

FILTER = BLPP 100/ 250/ -16
MIN, MAX VALUES = -25.55 51.88, 2.00 103.13



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
VEHICLE REAR DECK X AXIS ACCELERATION

VRTC-2 , 880928

DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

RDXXV1 MIN. MAX VALUES = -4.40e 90.75 , 19.82 e 1.00

25.00

20.00

15.00

10.00

5.00

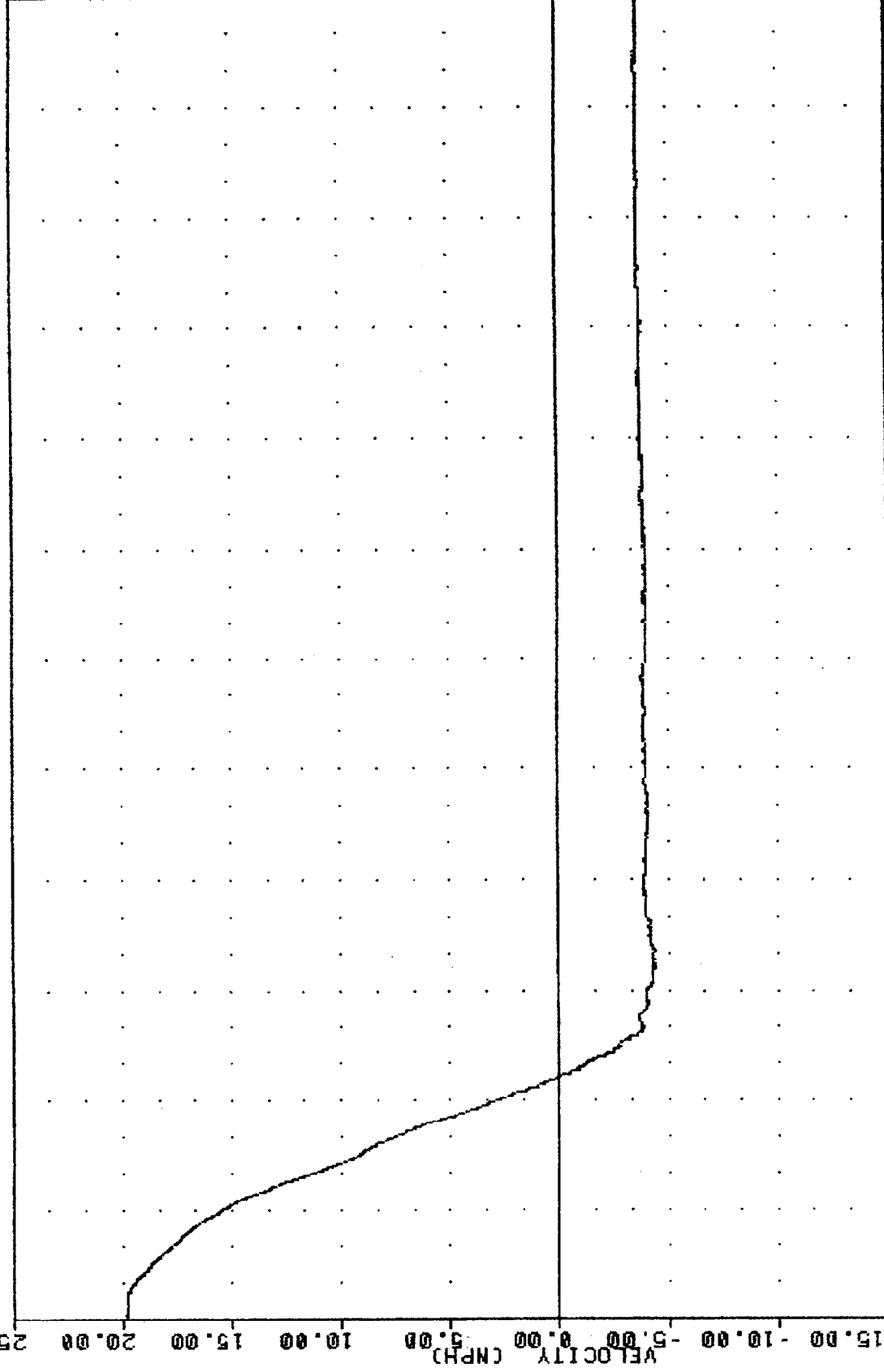
0.00

-5.00

-10.00

-15.00

VELOCITY (MPH)

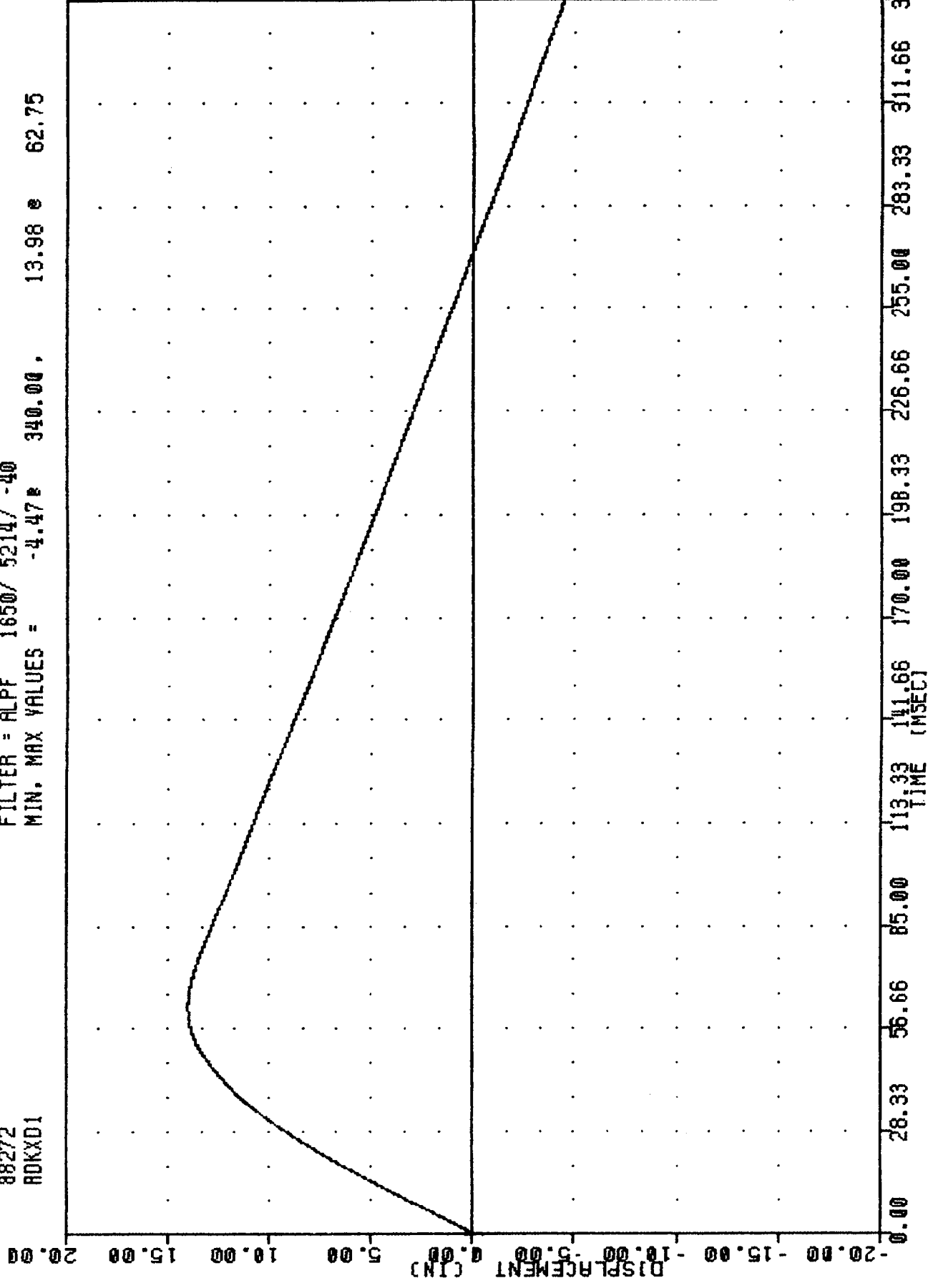


0.00 28.33 56.66 85.00 113.33 141.66 170.00 198.33 226.66 255.00 283.33 311.66 340.00

1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
VEHICLE REAR DECK X AXIS VELOCITY

YRTC-2 , 880928
 DAMAGE ALGORITHM REFORMULATION
 88272
 RDKXD1

FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = -4.47 340.00 , 13.98 e 62.75



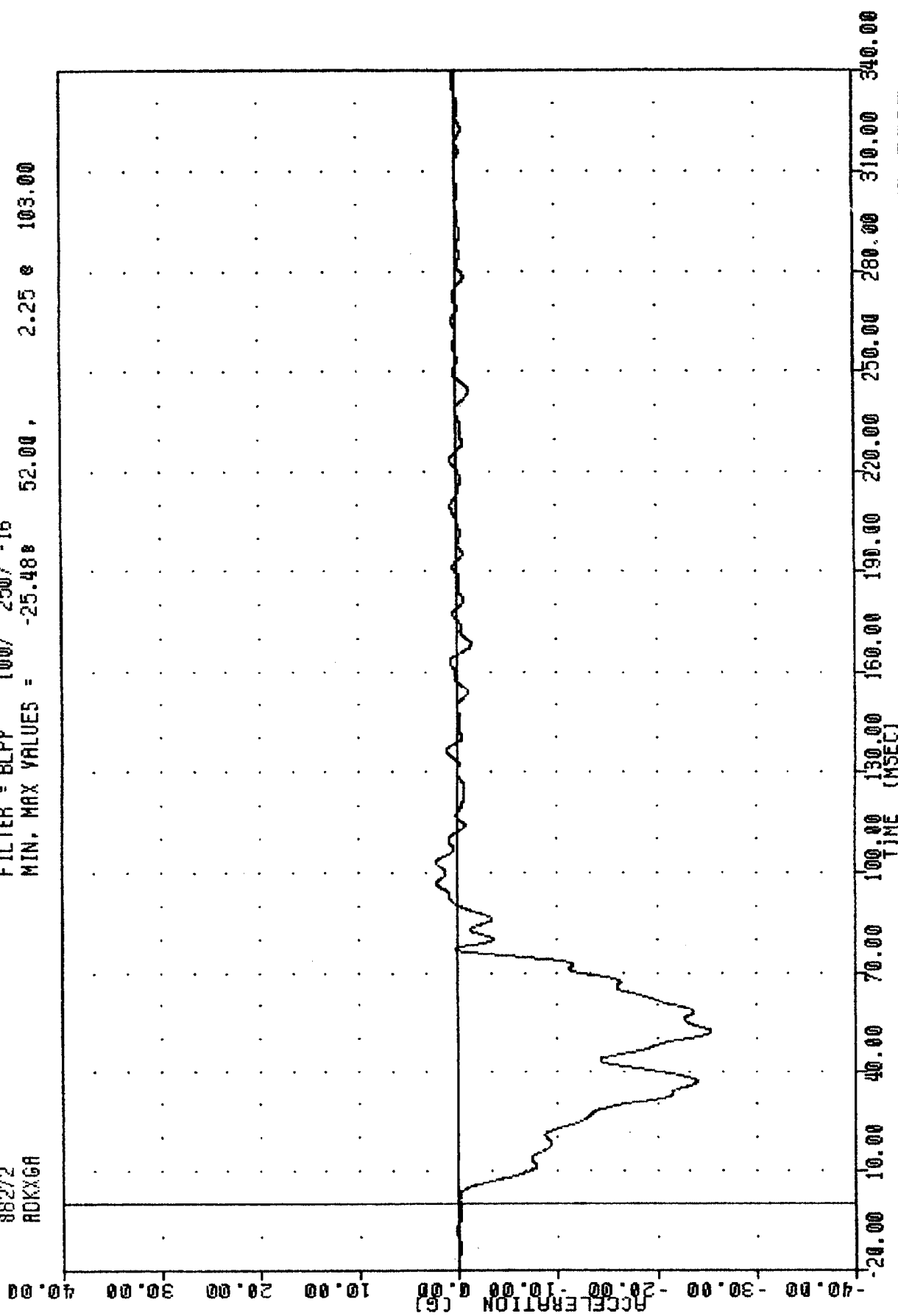
1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
 VEHICLE REAR DECK X AXIS DISPLACEMENT

VRTC-2 , 880928

DAMAGE ALGORITHM REFORMULATION

88272 FILTER = BLPP 100/ 250/ -16

ADKXGA MIN, MAX VALUES = -25.48 52.00 , 2.25 103.00



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
VEHICLE REAR DECK X AXIS REDUNDANT ACCELERATION

VRTC-2
DAMAGE ALGORITHM REFORMULATION

88272

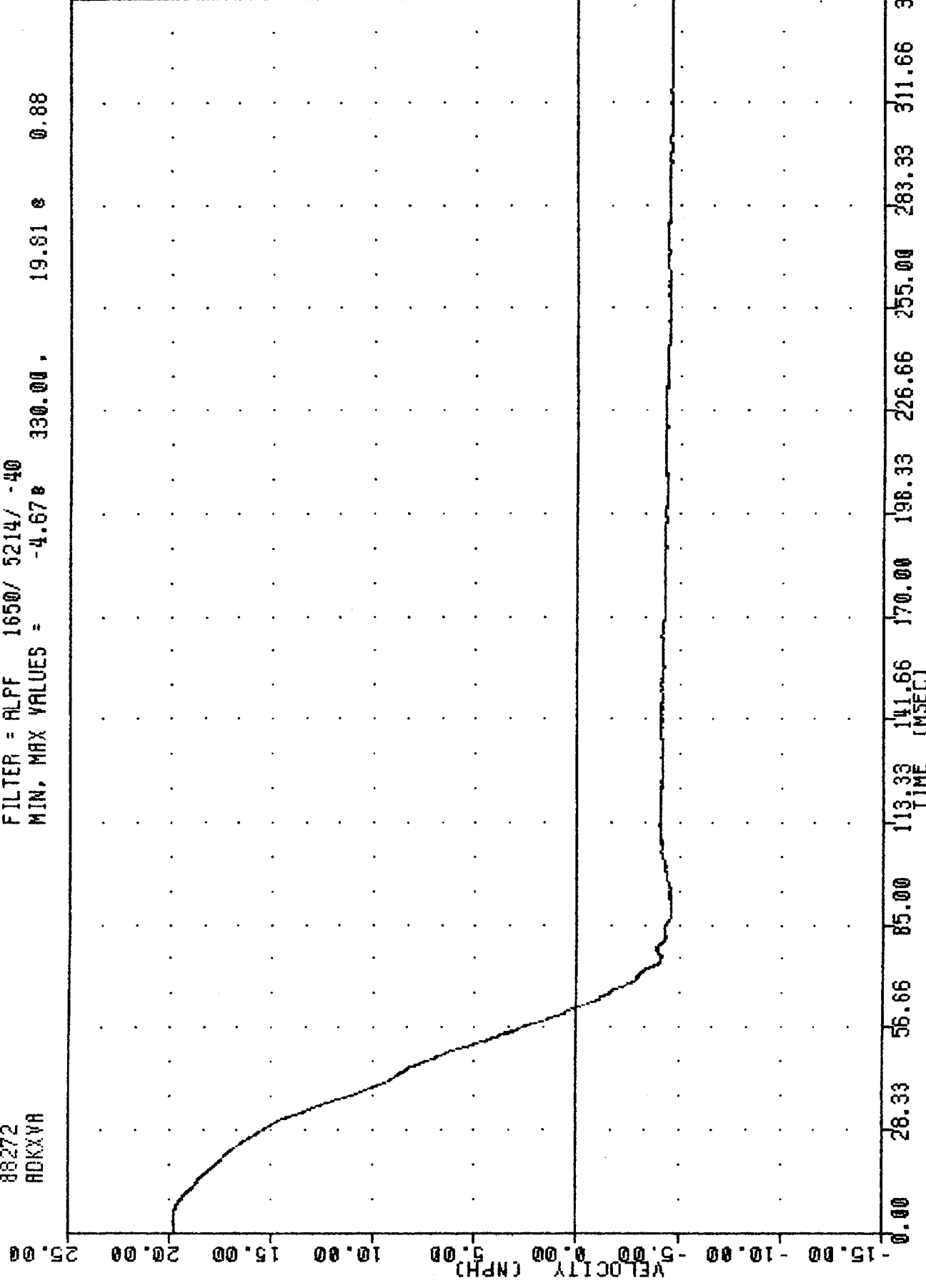
ADKXVA

880928

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -4.67 330.00

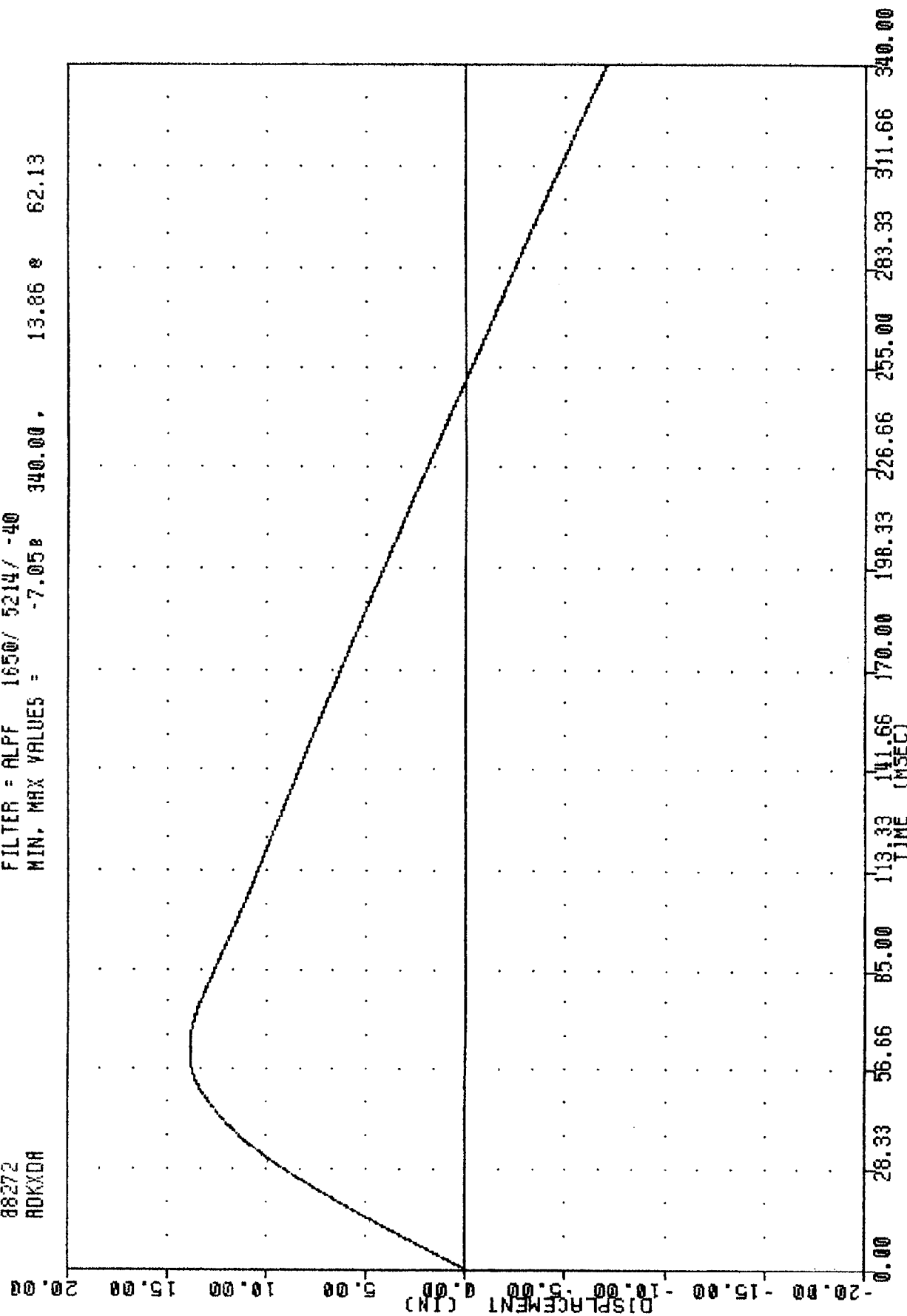
19.61 0.88



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
VEHICLE REAR DECK X AXIS VELOCITY REDUNDANT

VRIC-2 , 880928
 DAMAGE ALGORITHM REFORMULATION
 88272
 ROKXDA

FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = -7.058 340.00, 13.868 62.13



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
 VEHICLE REAR DECK X AXIS DISPLACEMENT REDUNDANT

VRTC-2
DAMAGE ALGORITHM REFORMULATION

88272

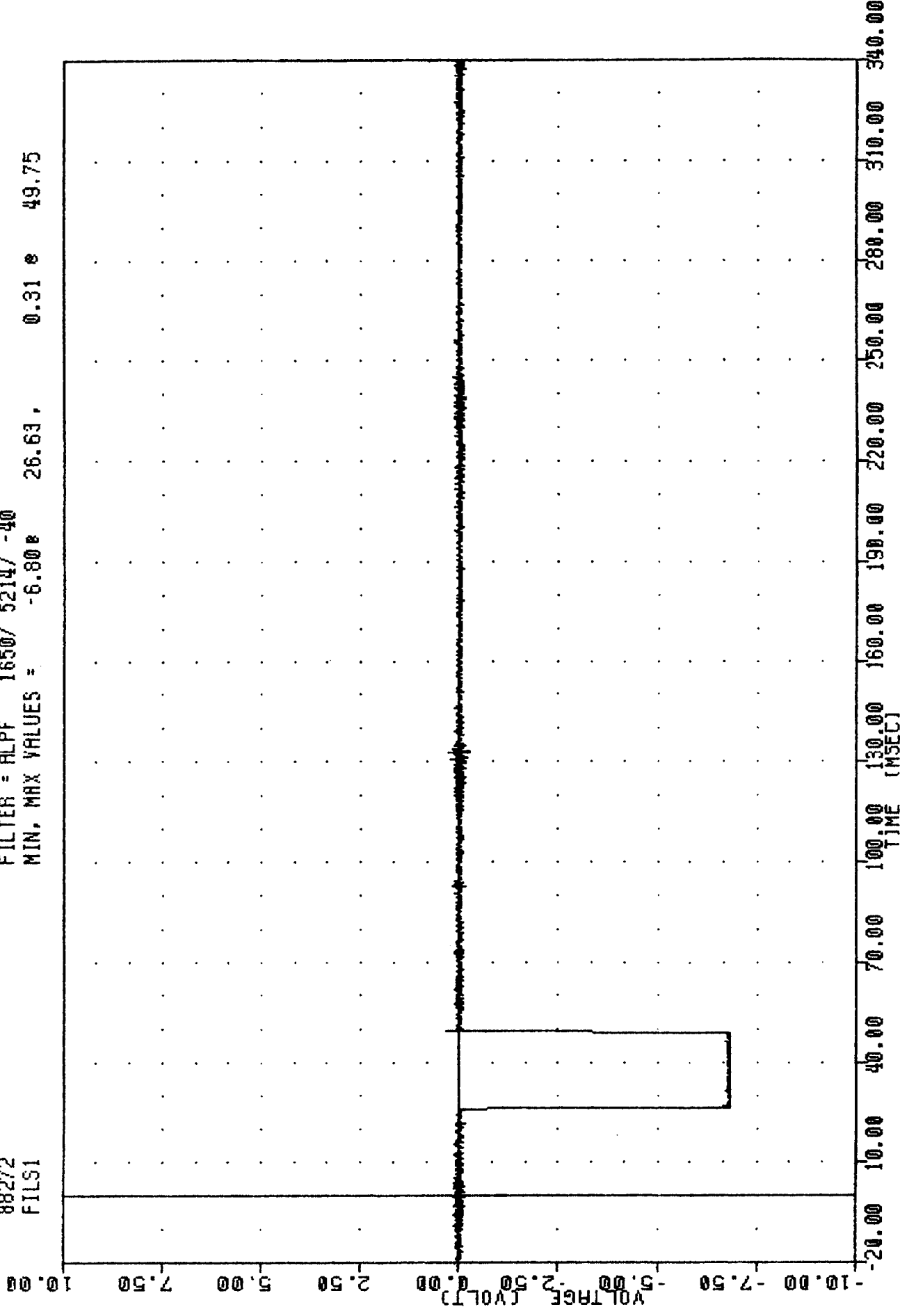
FILS1

• 880928

FILTER = ALPF 1650/ 5214/ -40

MIN, MAX VALUES = -6.80 0

26.63, 0.31 0 49.75



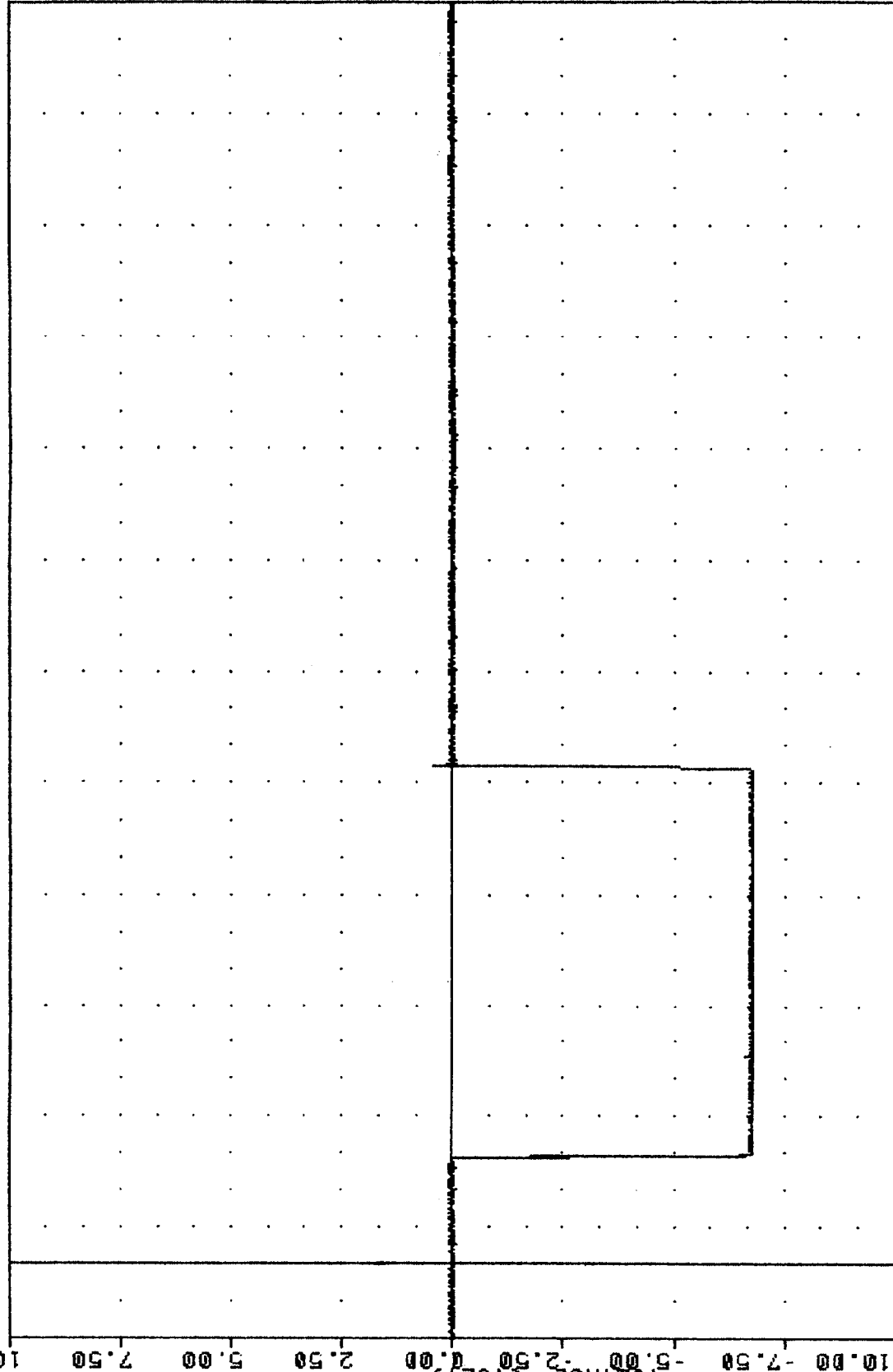
1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
VEHICLE LEFT FENDER WELL INSIDE SENSOR #1

VRTC-2 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

FIL52 MIN, MAX VALUES = -6.77 29.75 , 0.46 134.38

VOLTAGE (VOLTS)

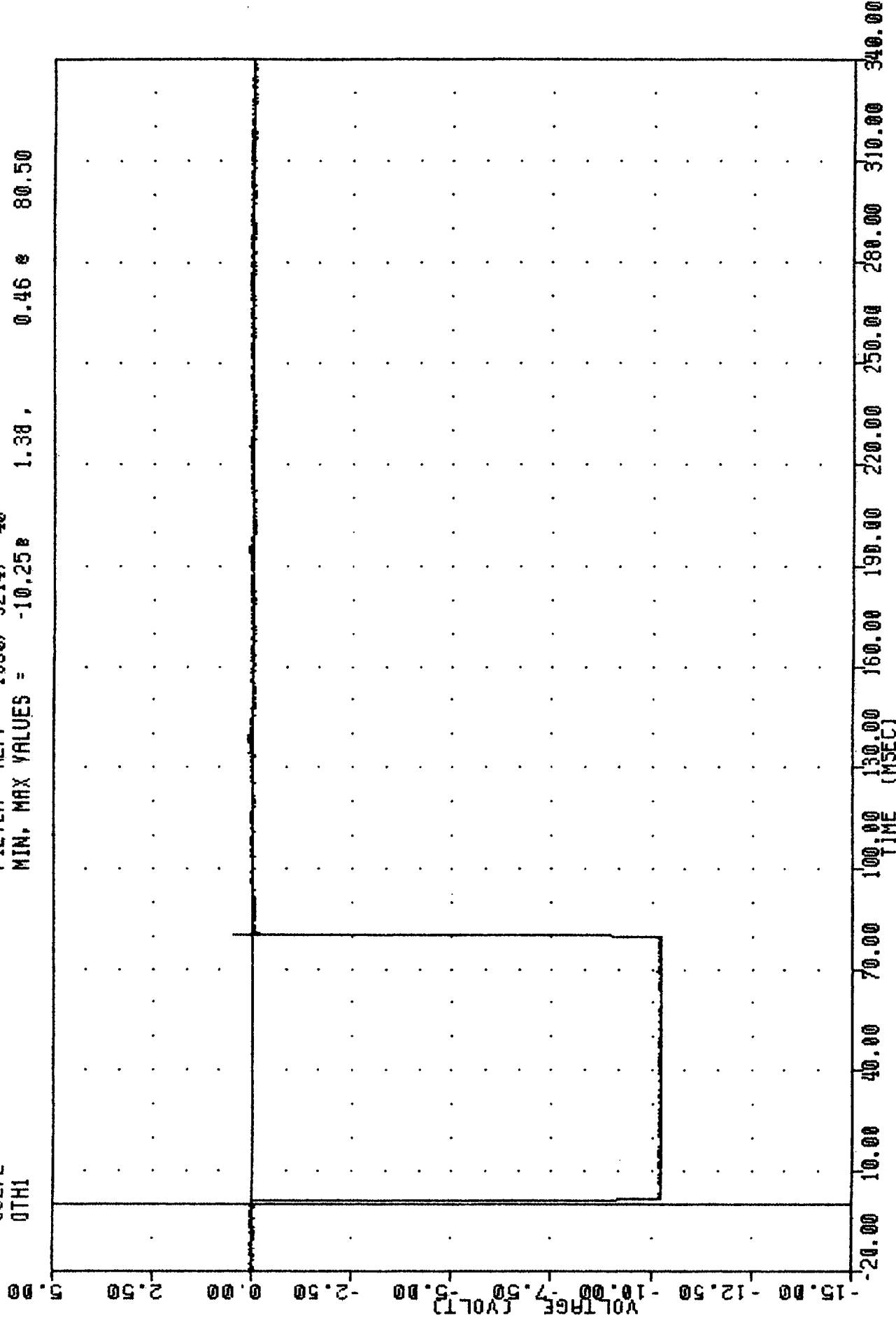


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
VEHICLE LEFT FENDER WELL INSIDE SENSOR -2

VRTC-2 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

0TH1 MIN. MAX VALUES = -10.25 1.38 , 0.46 80.50

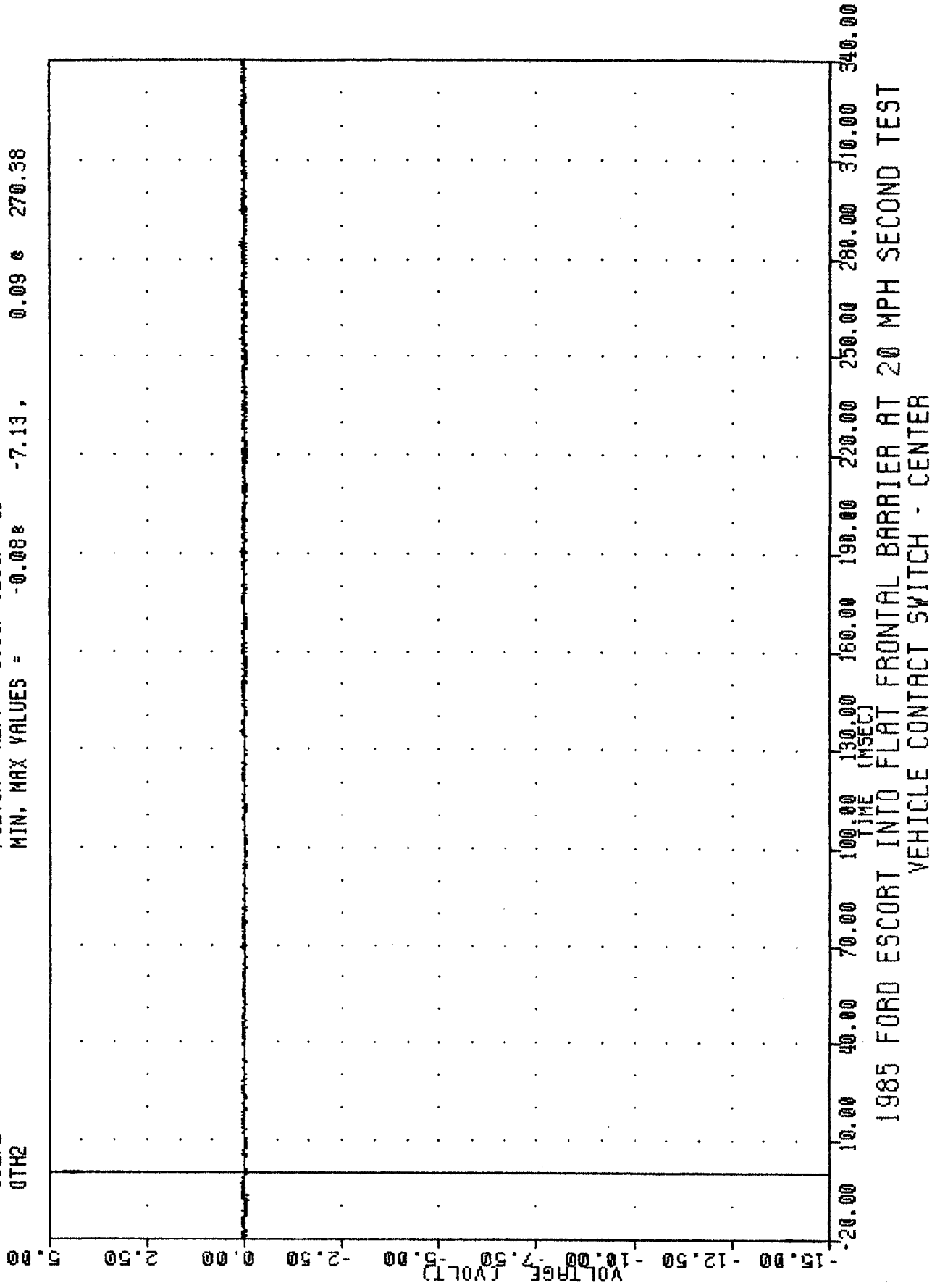


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
VEHICLE CONTACT SWITCH - LEFT

VRTC-2 , 800928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

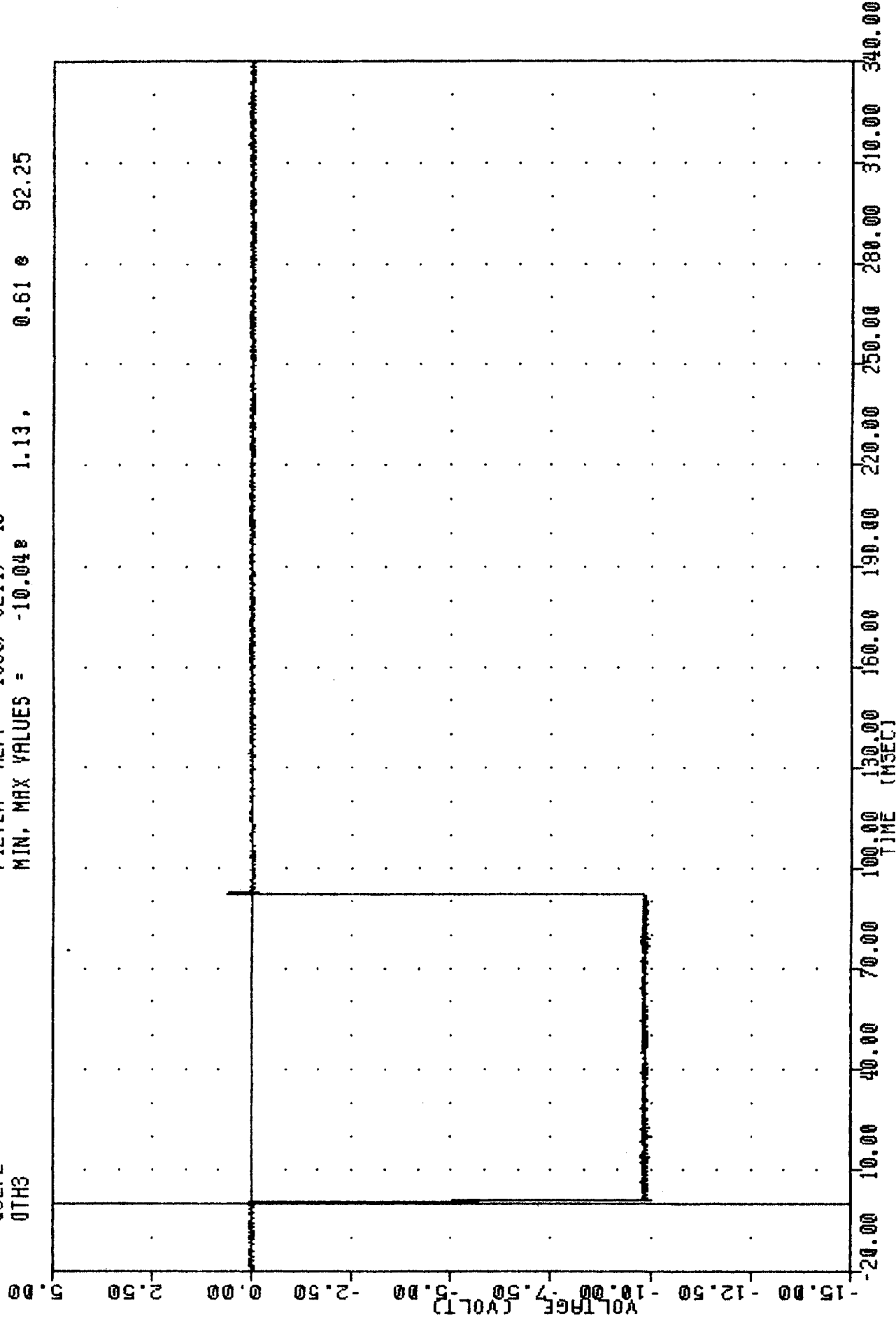
0TH2 MIN, MAX VALUES = -0.08% -7.13, 0.09 & 270.38



VRTC-2 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

0TH3 MIN, MAX VALUES = -10.048 1.13, 0.61 e 92.25



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
VEHICLE CONTACT SWITCH - RIGHT

VRTC-2 , 880928

DAMAGE ALGORITHM REFORMULATION

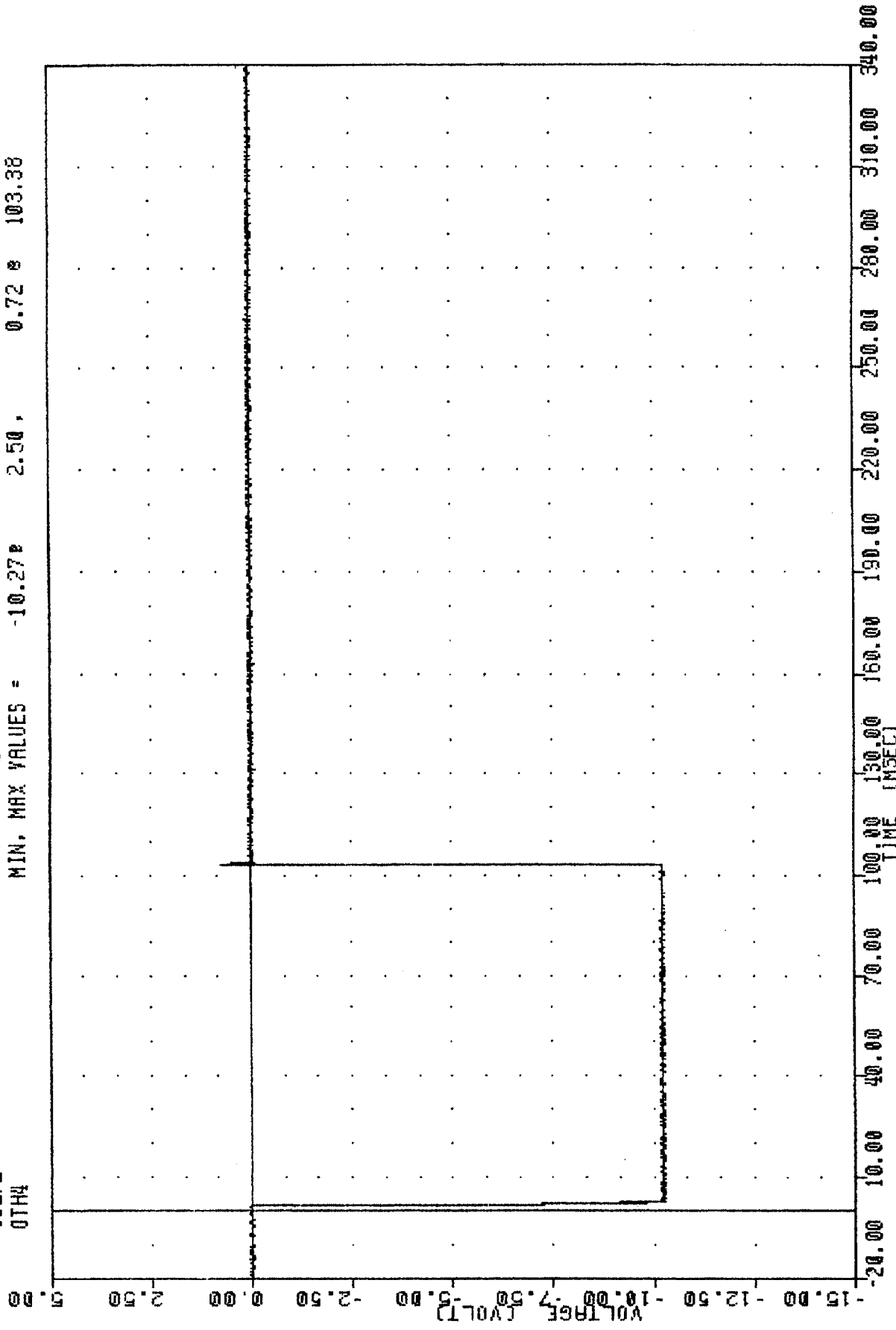
88272

0TH4

FILTER = ALPF 1650/ 5214/ -40

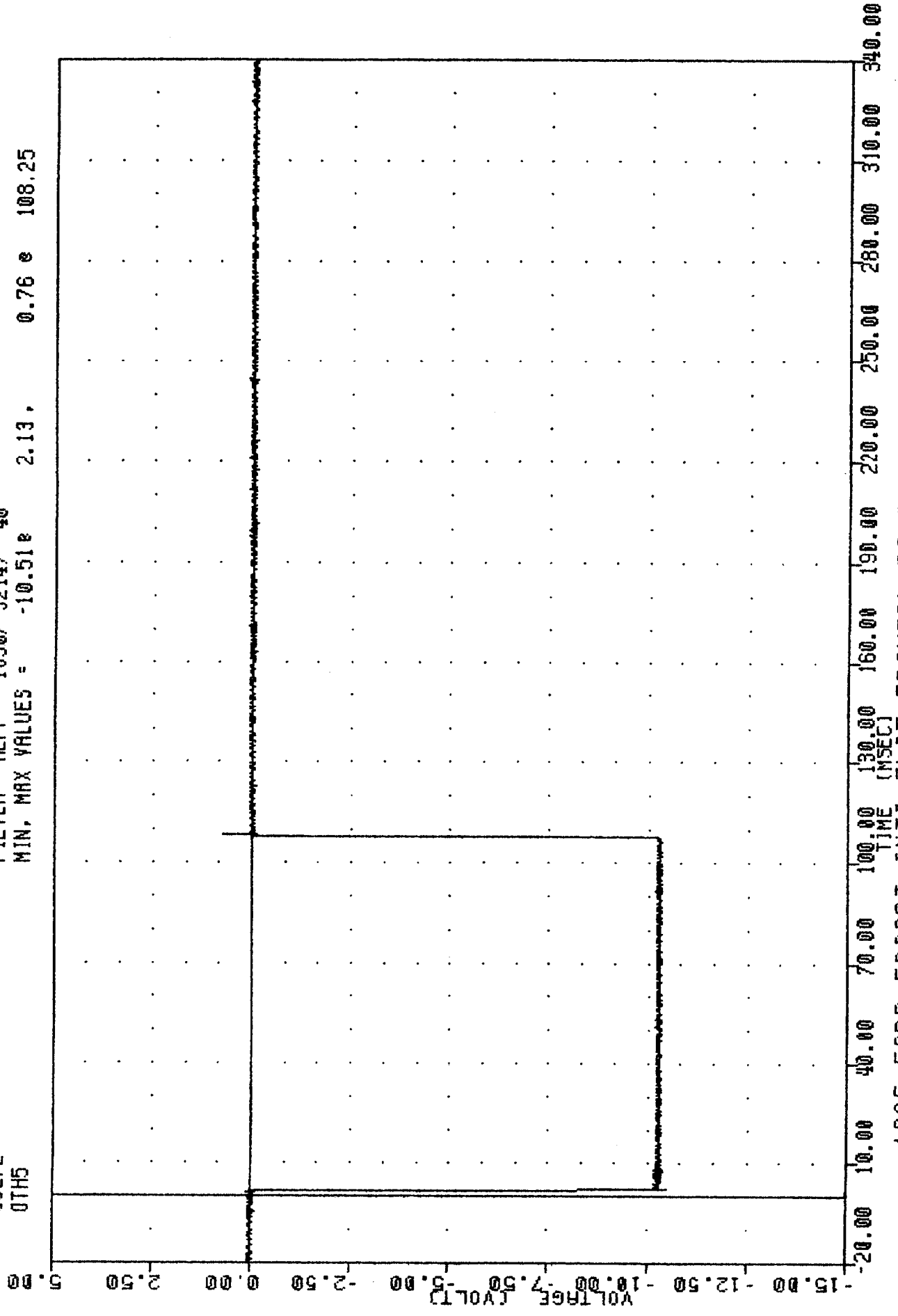
MIN, MAX VALUES = -10.27 2.50 ,

0.72 103.38



VRTC-2 , 880928
 DAMAGE ALGORITHM REFORMULATION
 88272
 0TH5

FILTER = ALPF 1650/ 5214/ -40
 MIN, MAX VALUES = -10.51e 2.13, 0.76 e 108.25



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH SECOND TEST
 BARRIER CONTACT SWITCH - RIGHT

VRTC-3 , 880928

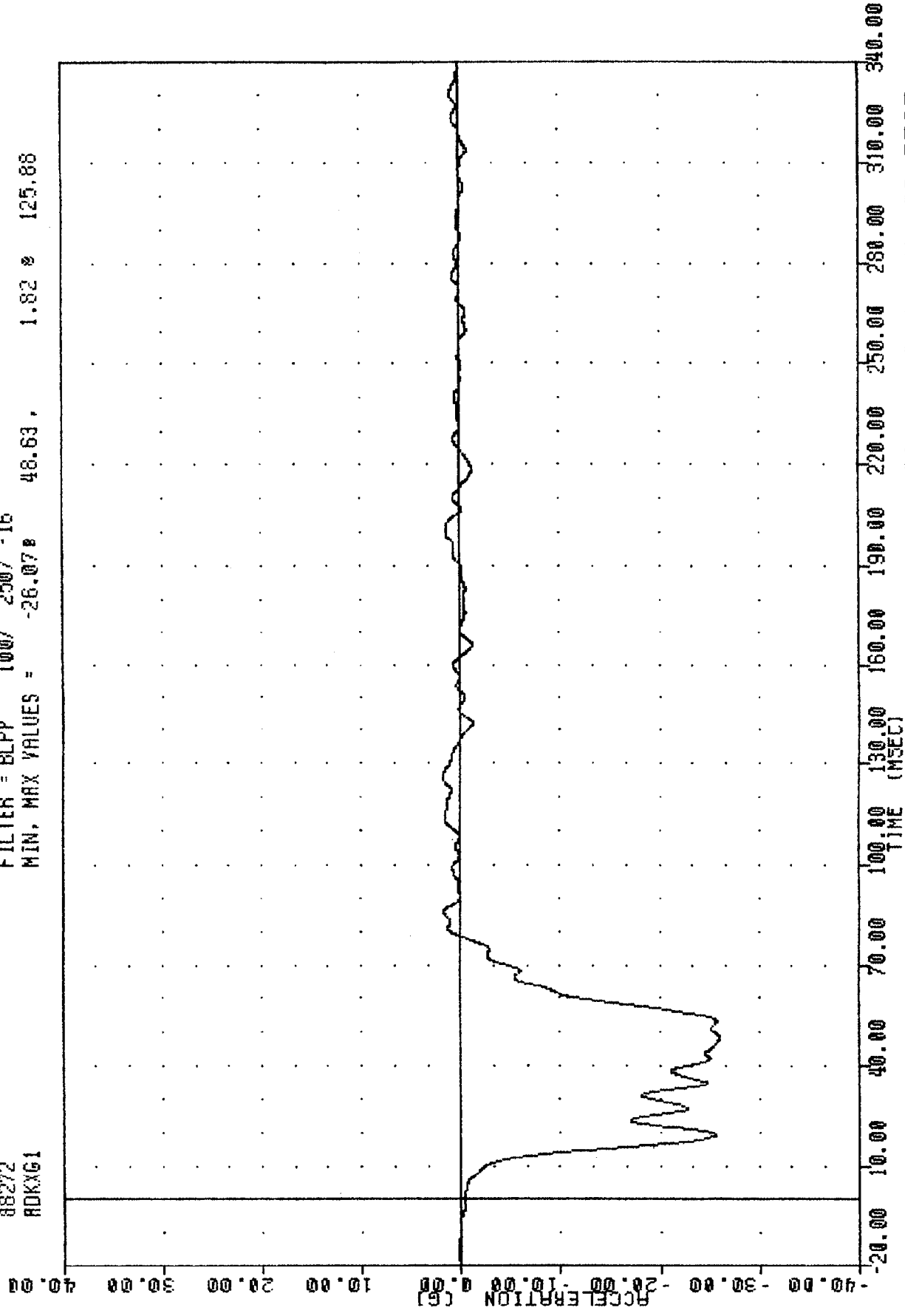
DAMAGE ALGORITHM REFORMULATION

88272

ADKXG1

FILTER = BLPP 100/ 250/ -16

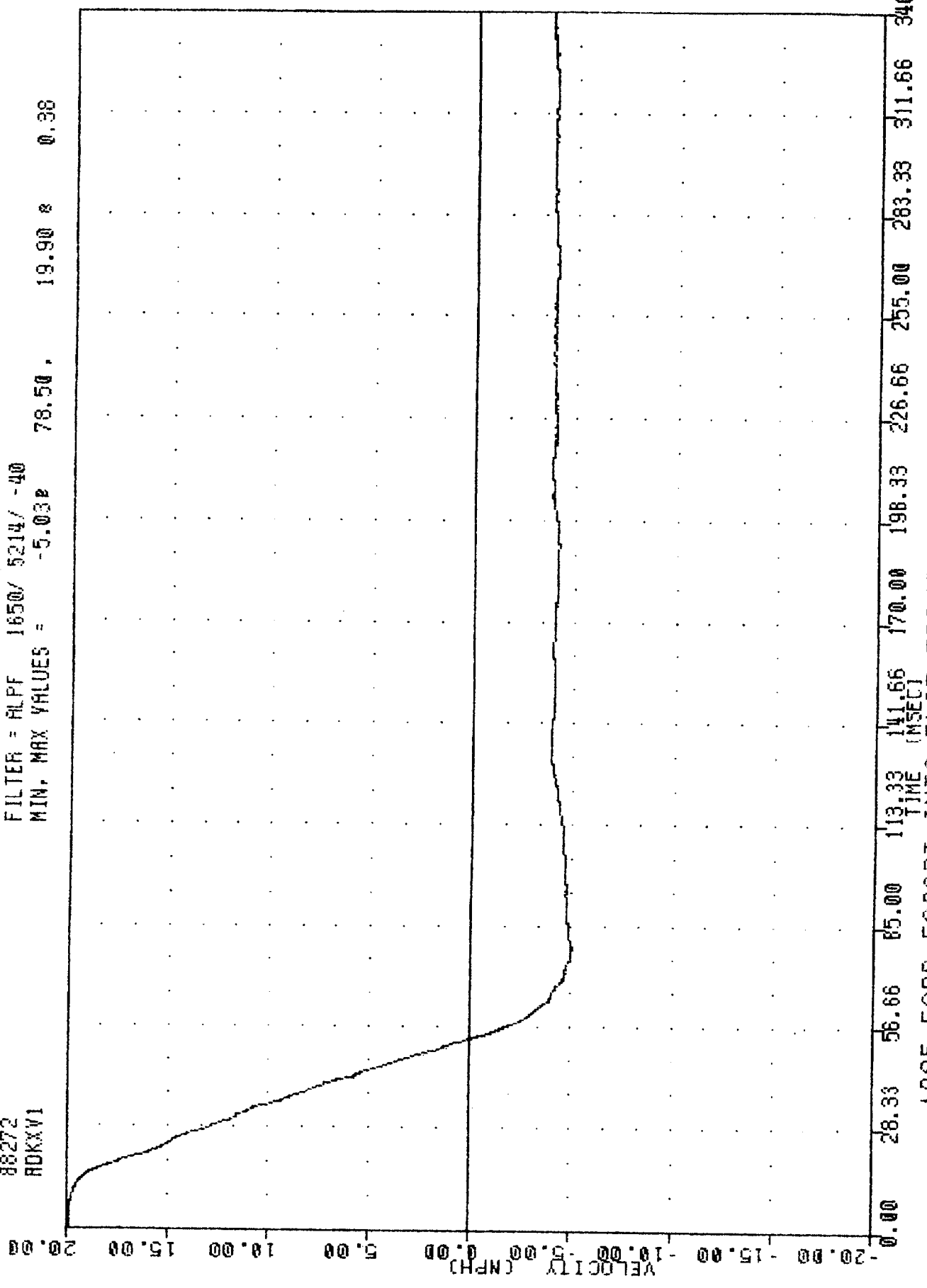
MIN. MAX VALUES = -26.07 48.63 , 1.82 125.88



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH THIRD TEST
VEHICLE REAR DECK X AXIS ACCELERATION

VRIC-3 , 880928
 DAMAGE ALGORITHM REFORMULATION
 88272
 RDKXV1

FILTER = ALPF 1650/ 5214/ -40
 MIN, MAX VALUES = -5.032 78.50 19.90 0.38

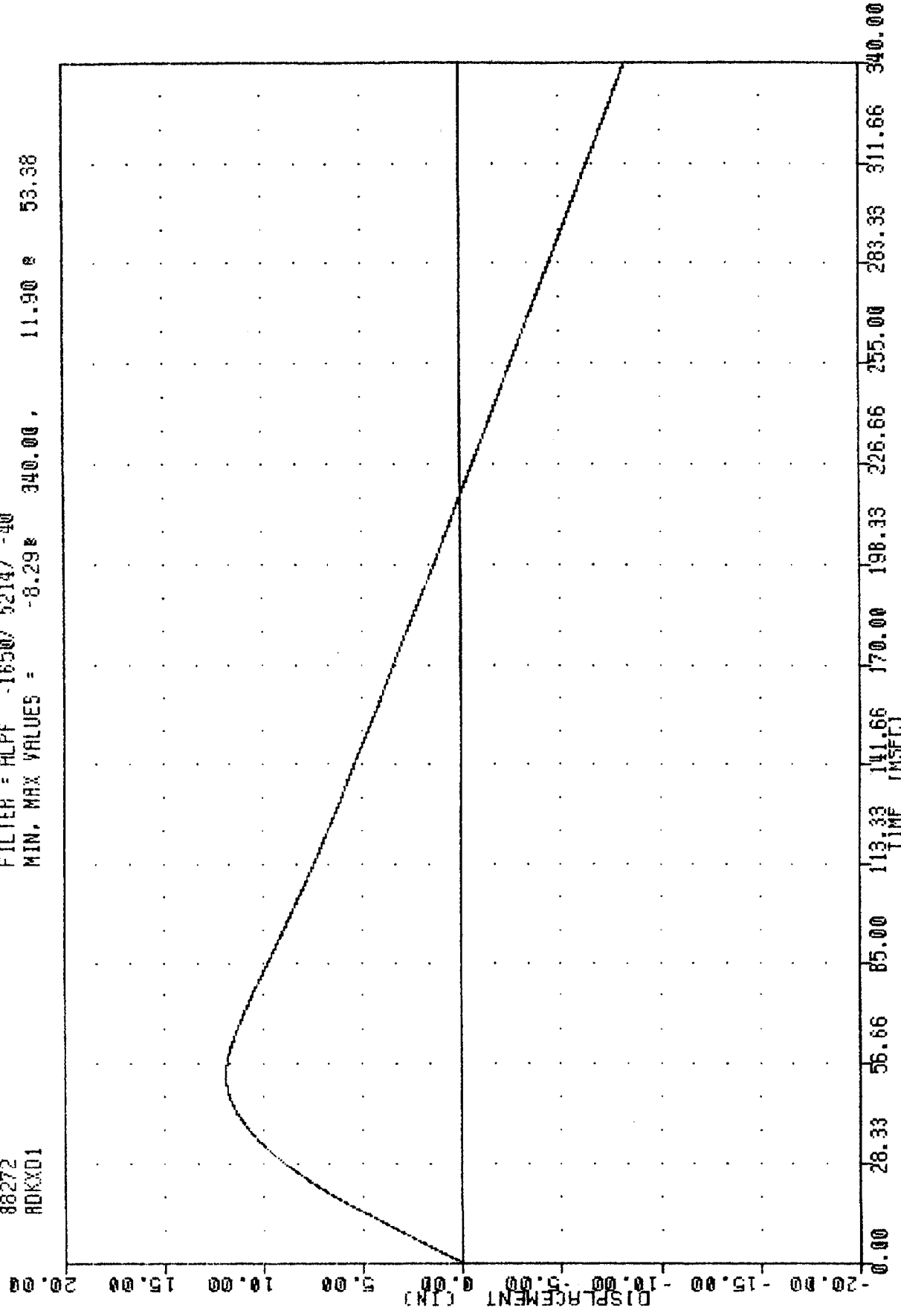


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH THIRD TEST
 VEHICLE REAR DECK X AXIS VELOCITY

VRTC-3 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF -1650/ 5214/ -40

ADKXD1 MIN. MAX VALUES = -8.29* 340.00 , 11.90 * 53.38



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH THIRD TEST
VEHICLE REAR DECK X AXIS DISPLACEMENT

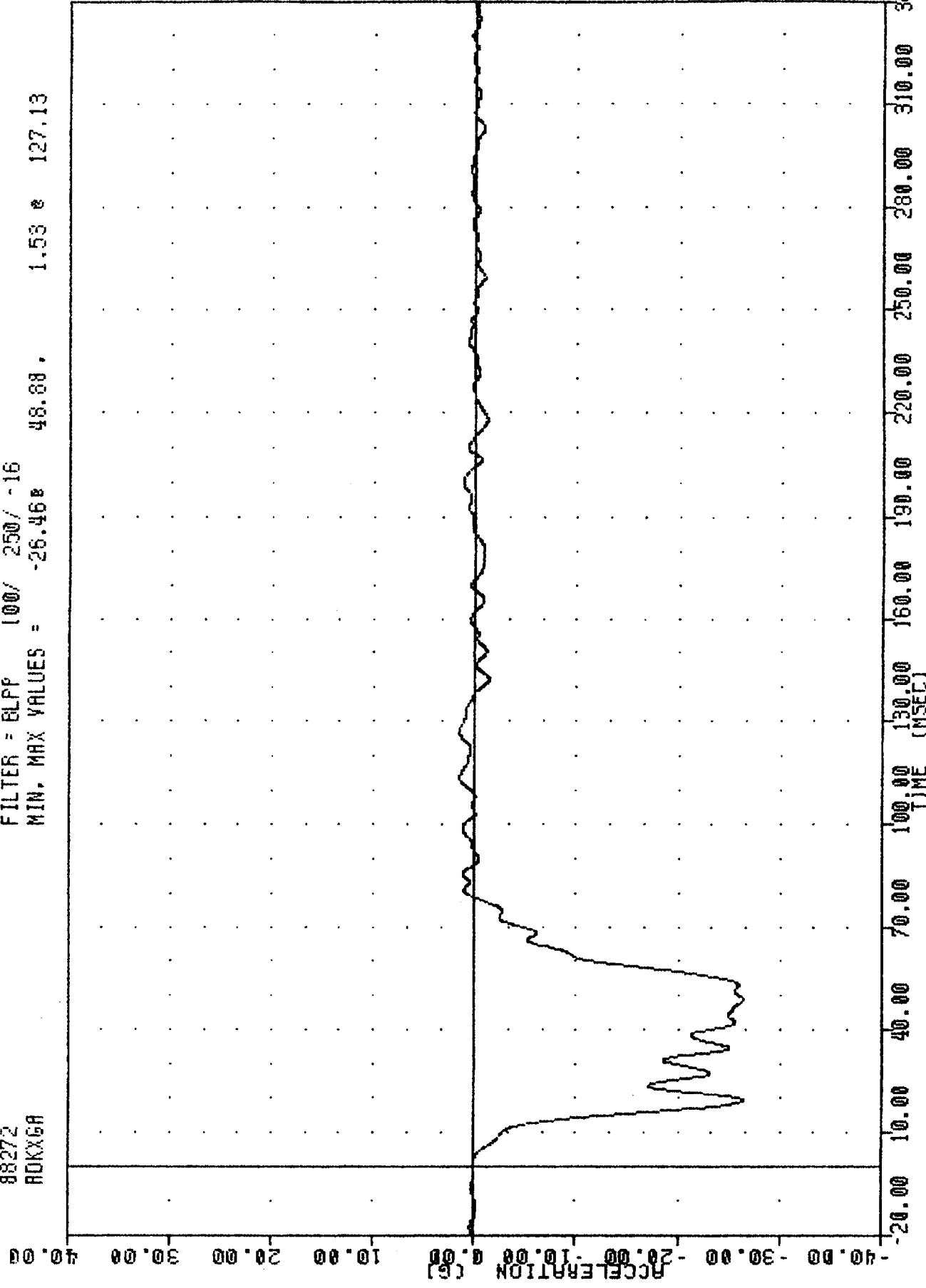
VRTC-3
DAMAGE ALGORITHM REFORMULATION

88272

ROKXGA

FILTER = BLPP 100/ 250/ -16

MIN. MAX VALUES = -26.46 48.88 1.53 127.13



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH THIRD TEST
VEHICLE REAR DECK X AXIS REDUNDANT ACCELERATION

NRIC-1 , 880928
DAMAGE ALGORITHM REFORMULATION

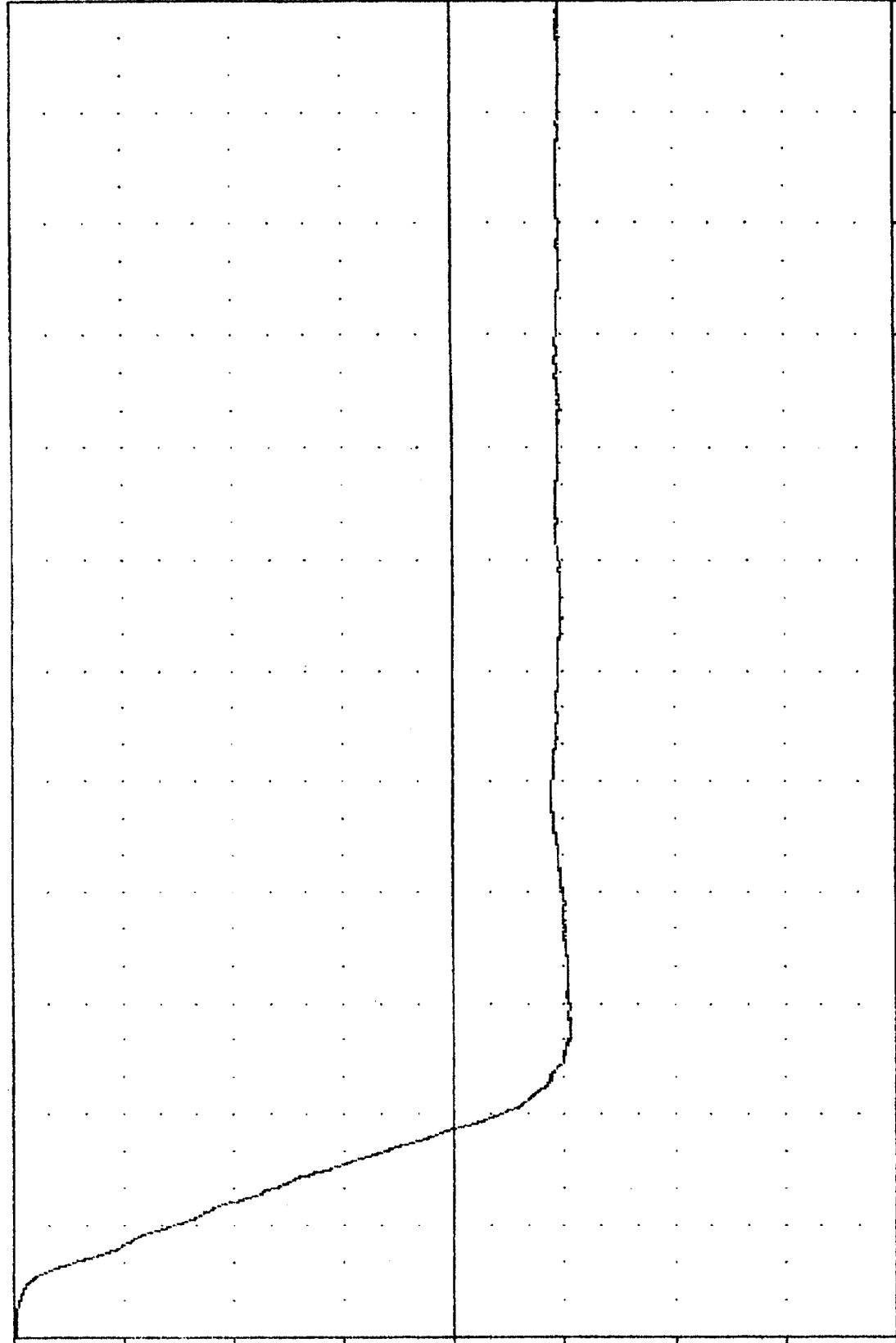
FILTER = ALPF 1650/ 5214/ -40

88272

MIN, MAX VALUES = -5.33e 78.38, 19.91 e 1.88

ADKXVA

20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH THIRD TEST
VEHICLE REAR DECK X AXIS VELOCITY REDUNDANT

VRTC-3 , 880928

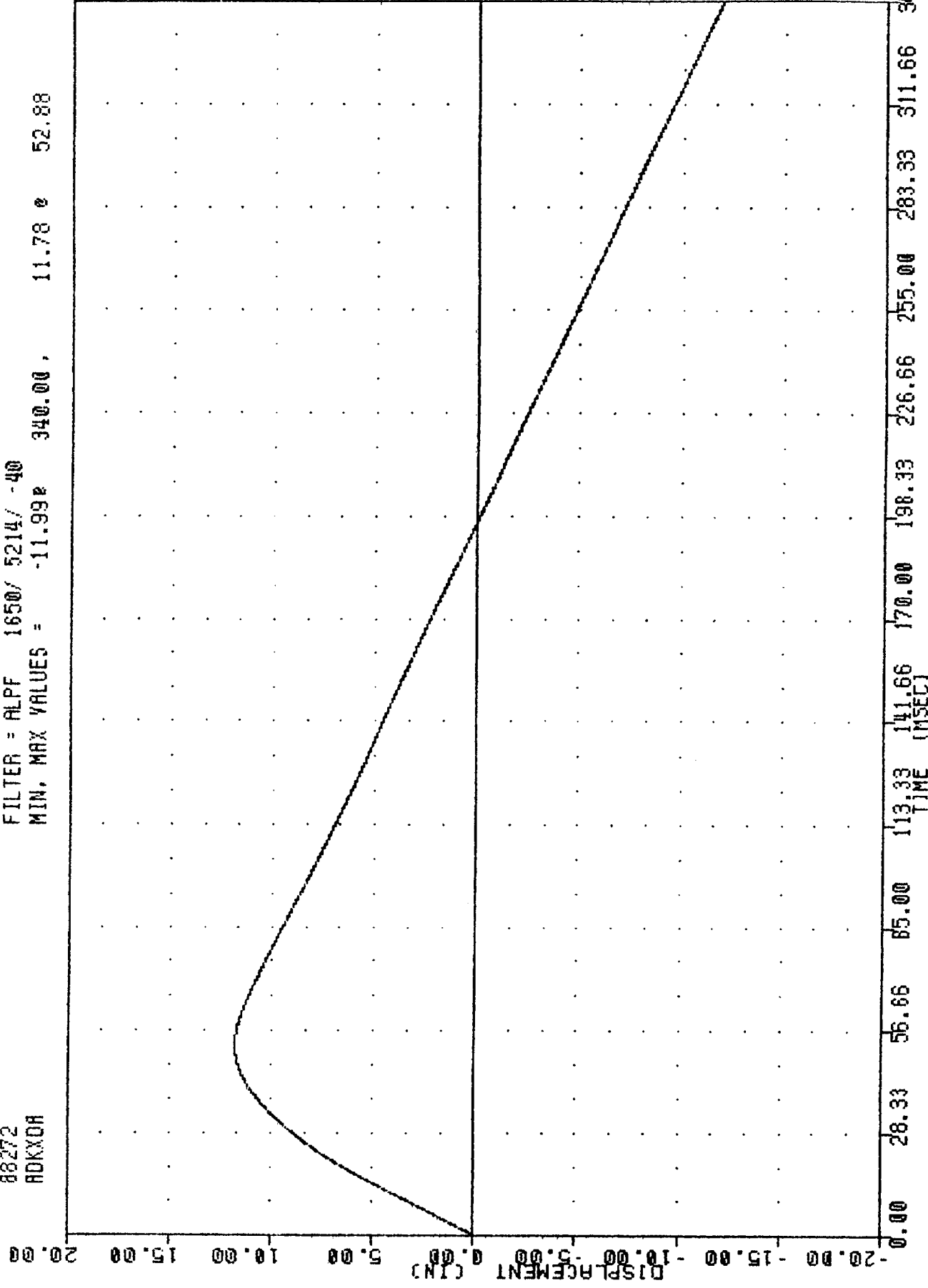
DAMAGE ALGORITHM REFORMULATION

88272

ADKXDR

FILTER = ALPF 1650/ 5214/ -40

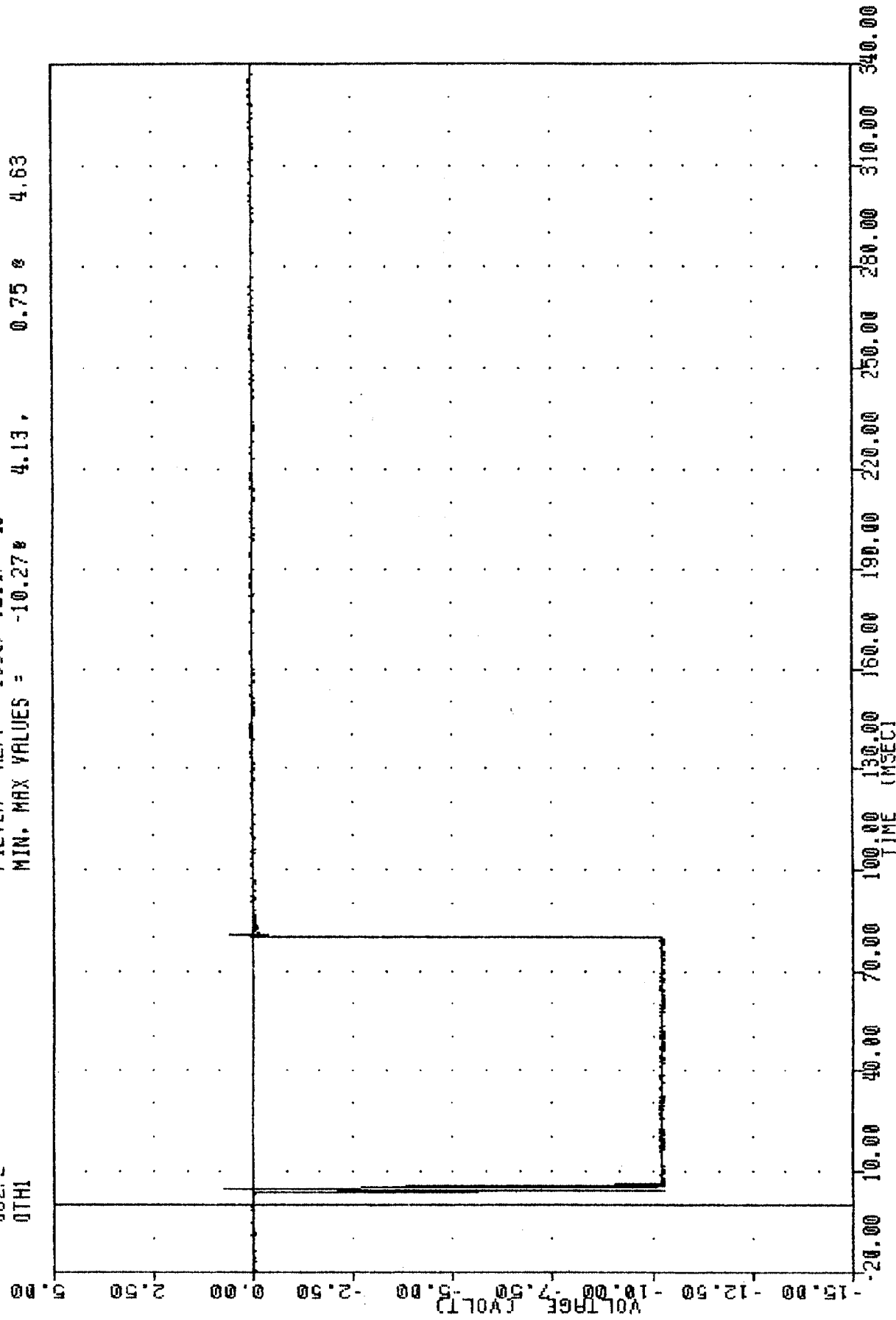
MIN, MAX VALUES = -11.99e 340.00, 11.78 e 52.88



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH THIRD TEST
VEHICLE REAR DECK X AXIS DISPLACEMENT REDUNDANT

VRTC-3 , 880928
DAMAGE ALGORITHM REFORMULATION
88272
0TH1

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -10.27 4.13 , 0.75 4.63



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH THIRD TEST
VEHICLE CONTACT SWITCH - LEFT

VRTC-3 , 880928

DAMAGE ALGORITHM REFORMULATION

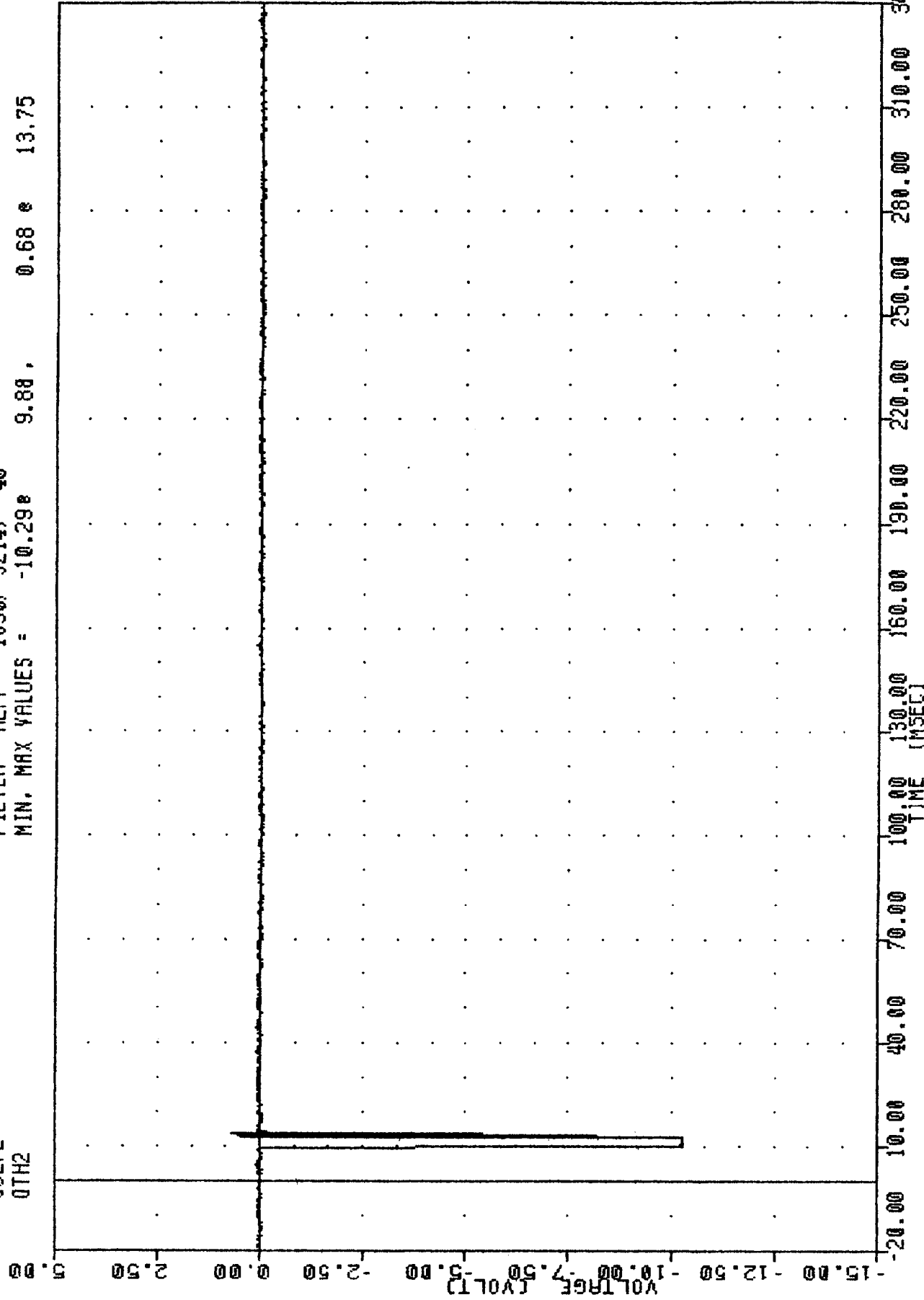
88272

QTH2

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -10.29 9.88 ,

0.68 13.75



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH THIRD TEST
VEHICLE CONTACT SWITCH - CENTER

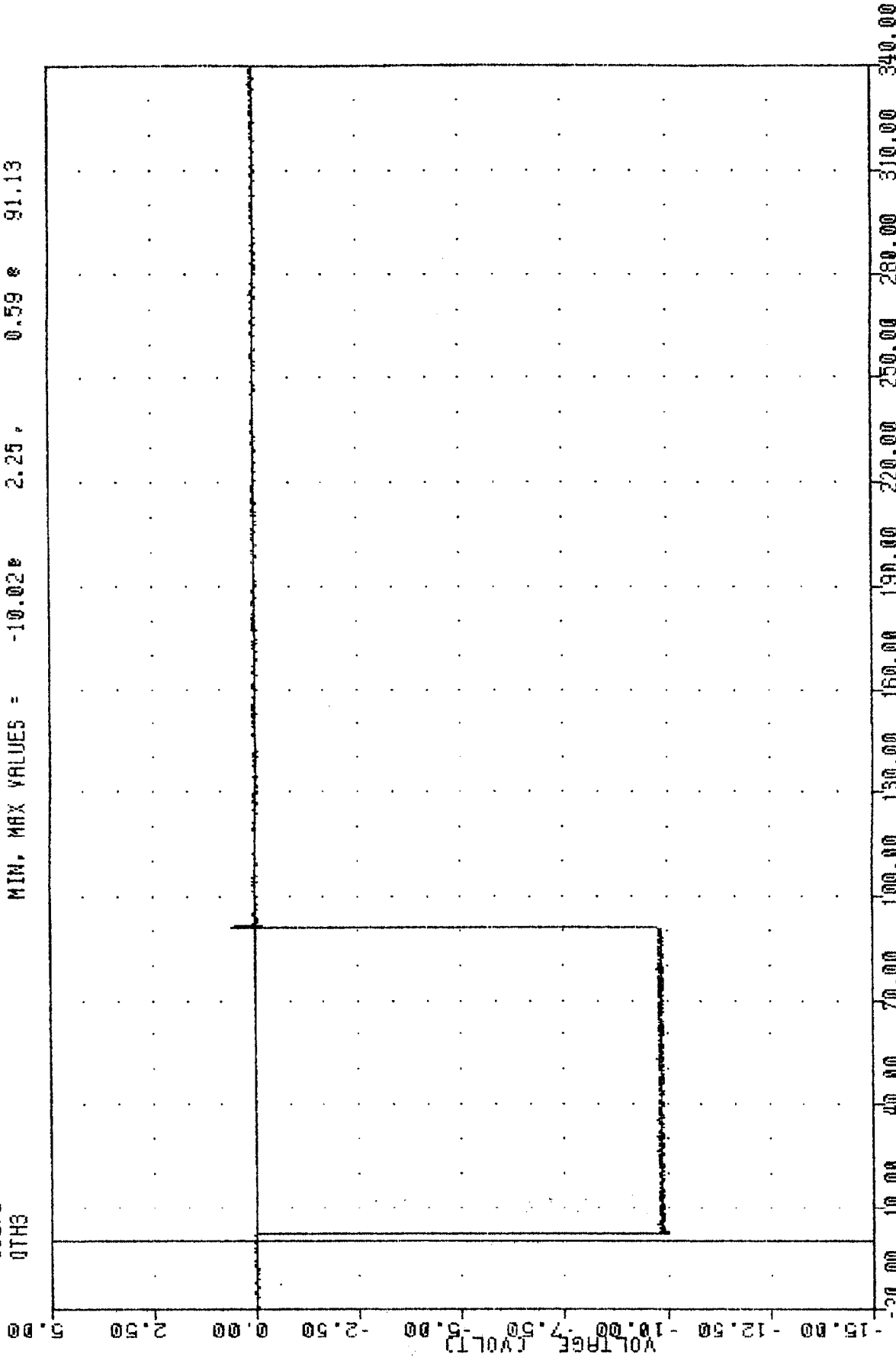
VRTC-3 , 880928
DAMAGE ALGORITHM REFORMULATION

FILTER = ALPF 1650/ 5214/ -40

88272

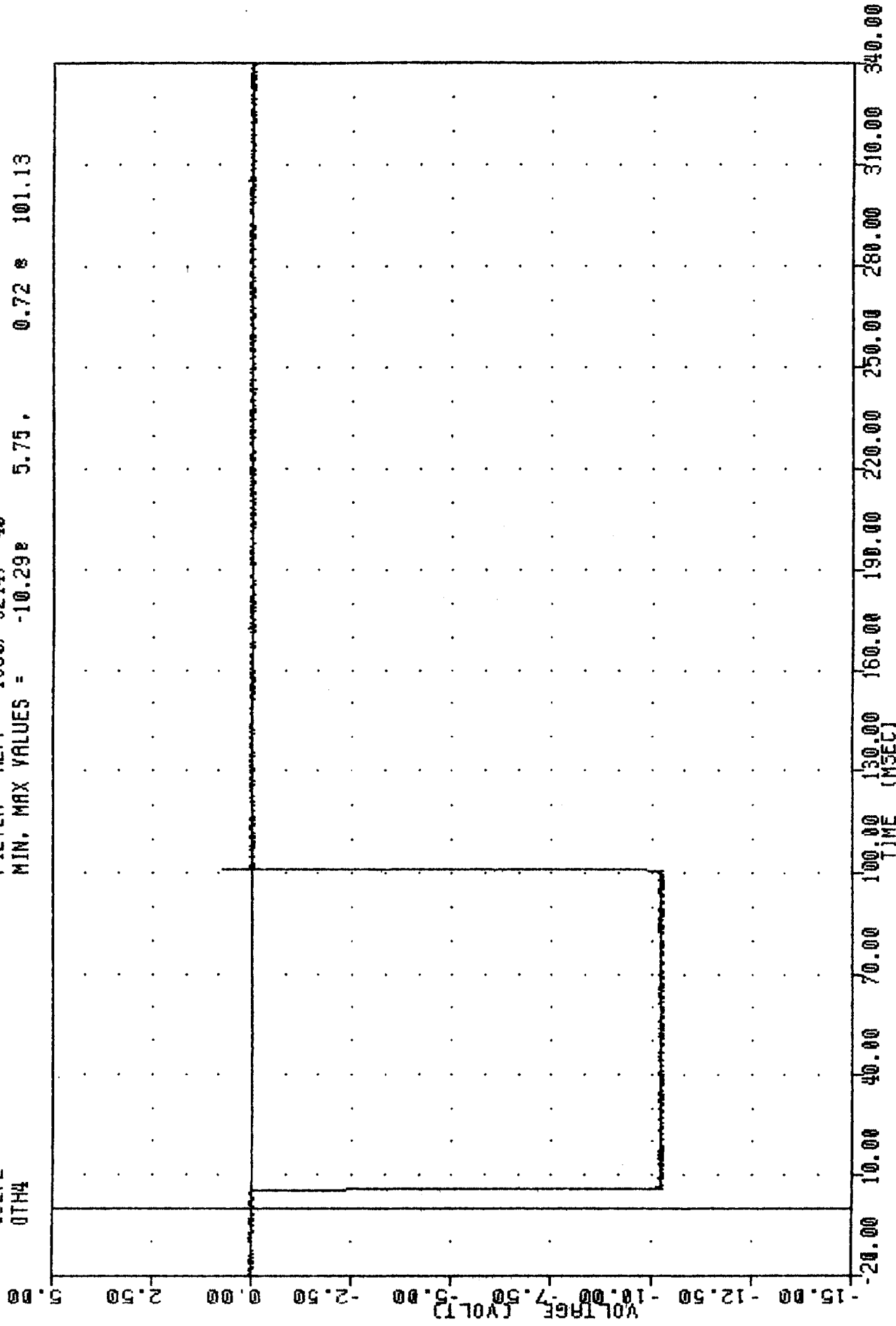
MIN, MAX VALUES = -10.02 0.59 91.13

QTH3



VRTC-3 , 880928
DAMAGE ALGORITHM REFORMULATION
88272
QTH4

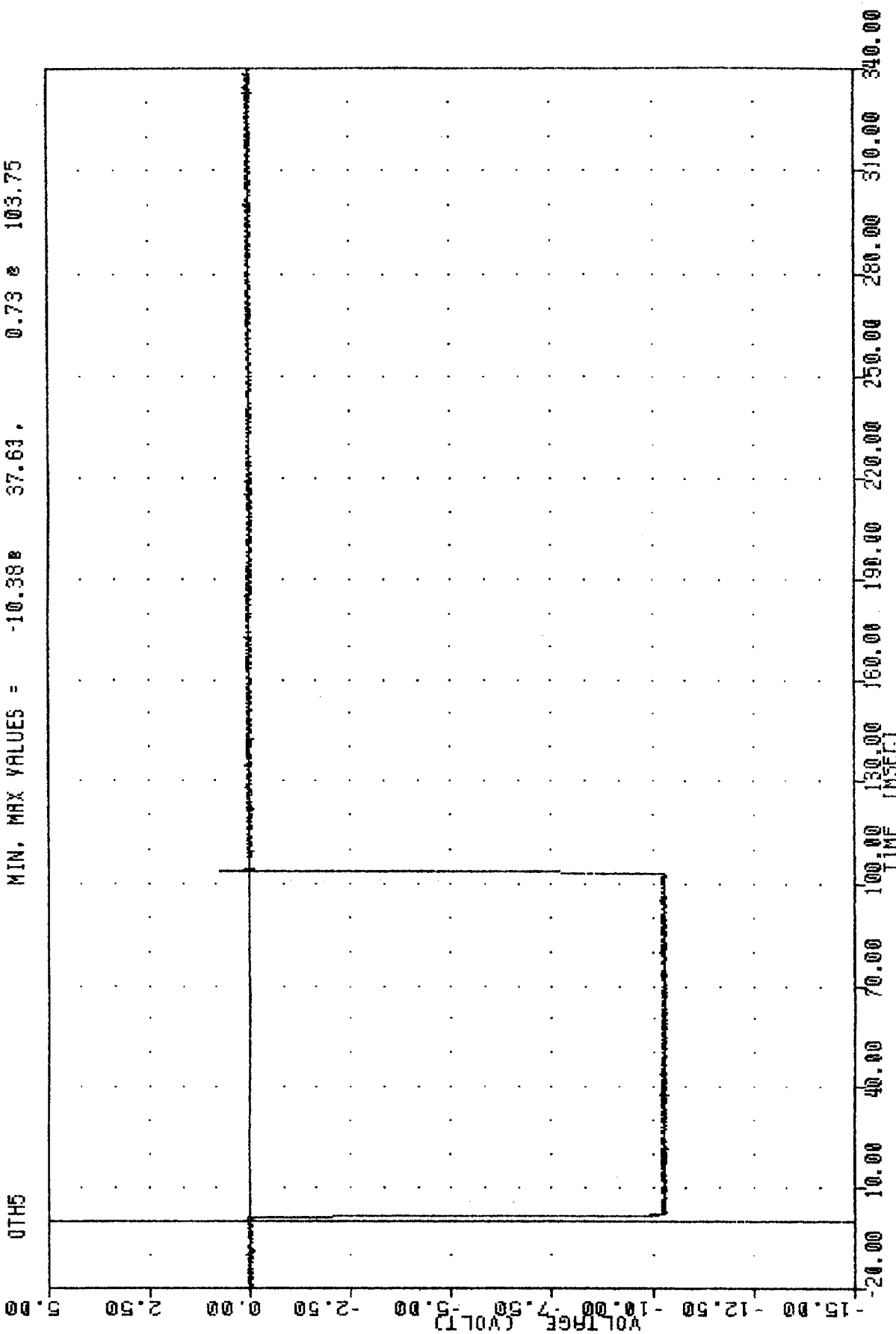
FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -10.29e 5.75. 0.72 s 101.13



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH THIRD TEST
BARRIER CONTACT SWITCH - LEFT

VRTC-3 , 880928
 DAMAGE ALGORITHM REFORMULATION
 88272
 OTH5

FILTER = ALPF 1650/ 5214/ -40
 MIN, MAX VALUES = -10.38 37.61, 0.73 103.75



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH THIRD TEST
 BARRIER CONTACT SWITCH - RIGHT

VRTC-4 , 880928

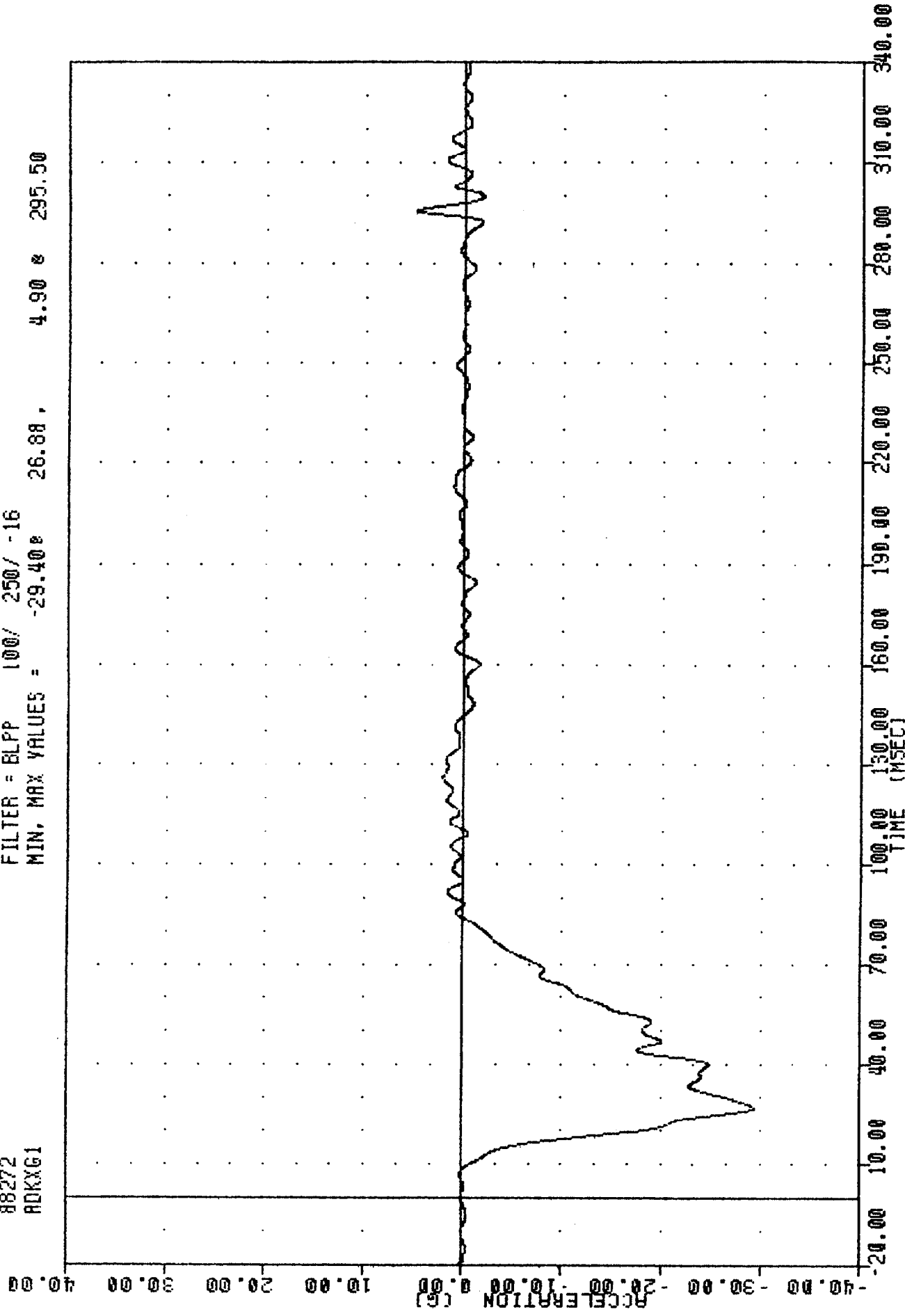
DAMAGE ALGORITHM REFORMULATION

88272

ADKXG1

FILTER = BLPP 100/ 250/ -16

MIN, MAX VALUES = -29.40e 26.88 , 4.90 e 295.50



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 18 MPH FOURTH TEST
VEHICLE REAR DECK X AXIS ACCELERATION

VRTC-4 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

ROKXV1 MIN. MAX VALUES = -5.268 84.63 , 18.21 1.50

20.00

15.00

10.00

5.00

0.00

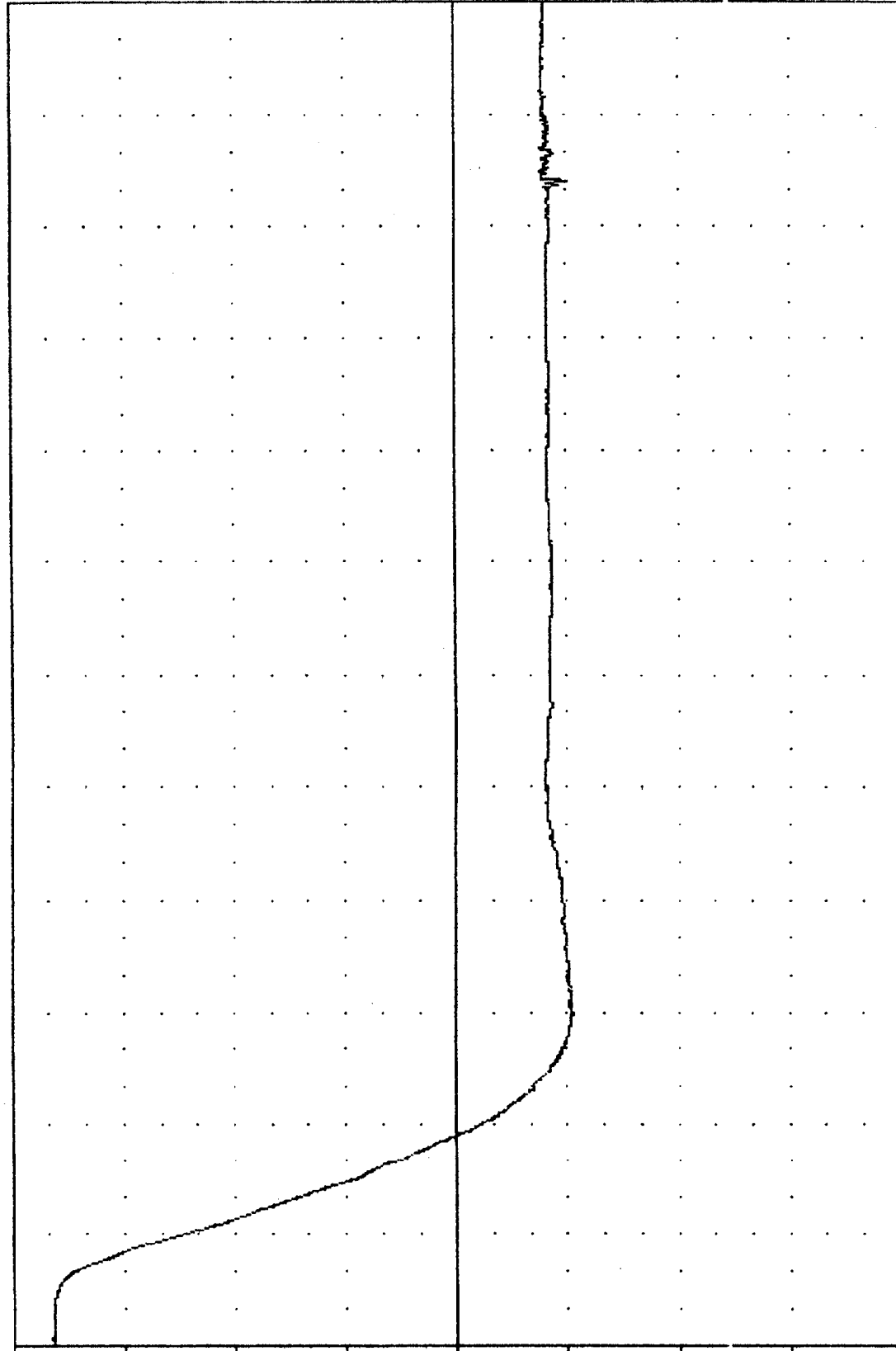
-5.00

-10.00

-15.00

-20.00

VELOCITY (MPH)



0.00 28.33 56.66 85.00 113.33 141.66 170.00 198.33 226.66 255.00 283.33 311.66 340.00
TIME (msec)

1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 18 MPH FOURTH TEST
VEHICLE REAR DECK X AXIS VELOCITY

VRTC-4 , 880928

DAMAGE ALGORITHM REFORMULATION

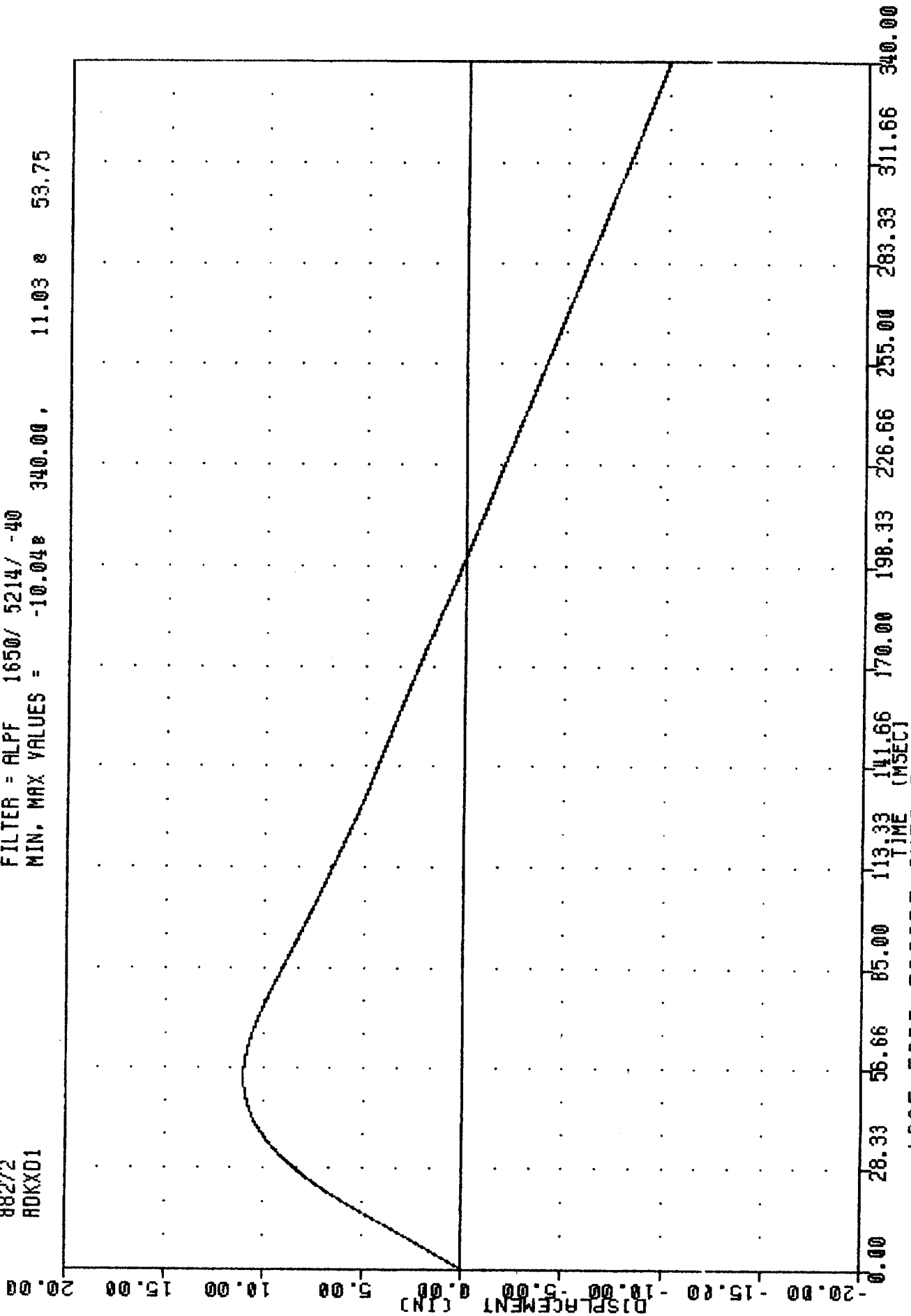
88272

ADKXD1

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -10.048 340.00 ,

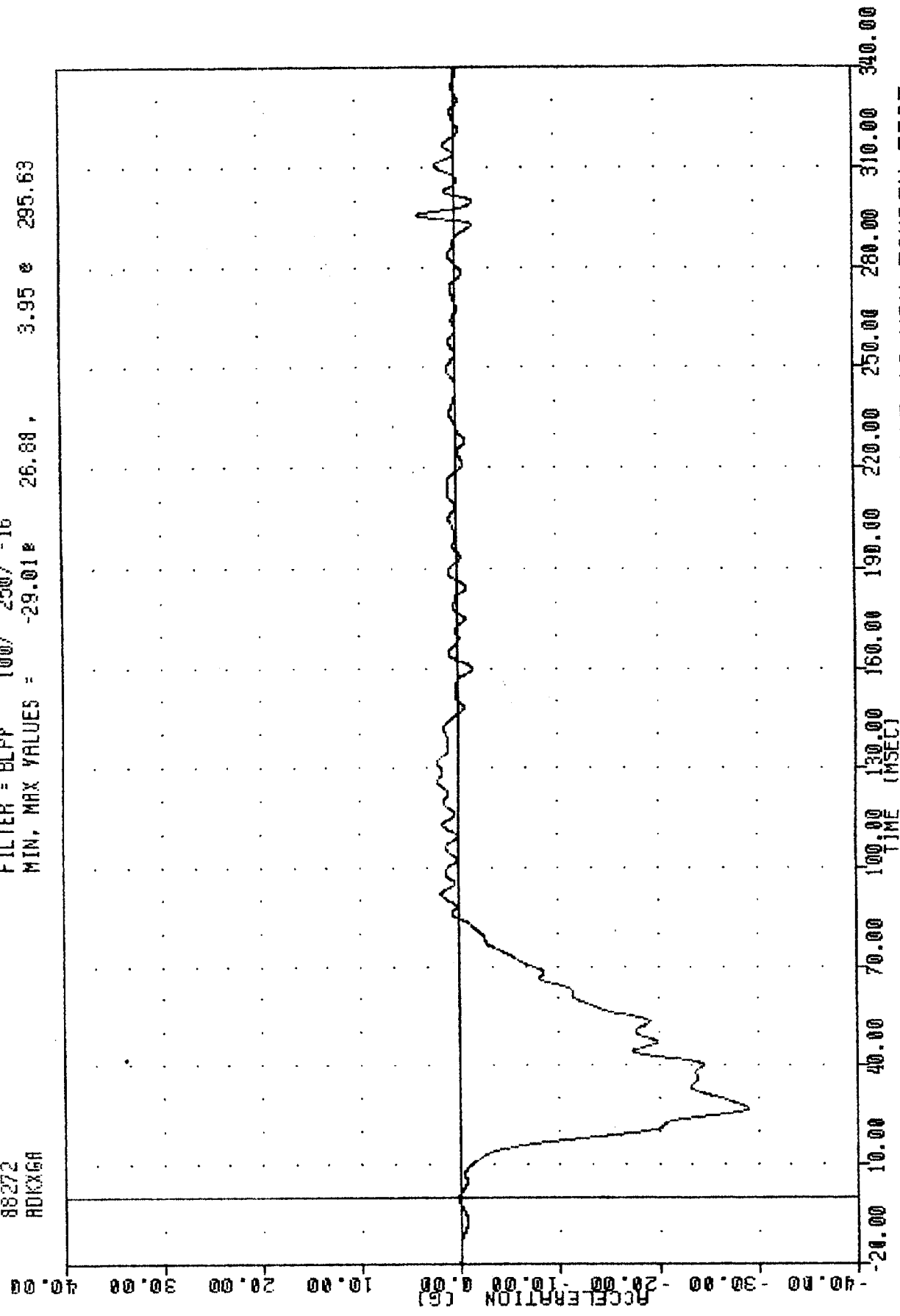
11.03 e 53.75



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 18 MPH FOURTH TEST
VEHICLE REAR DECK X AXIS DISPLACEMENT

VRTC-4 , 880928
DAMAGE ALGORITHM REFORMULATION
88272
ADKXGA

FILTER = BLPP 100/ 250/ -16
MIN. MAX VALUES = -29.01E 26.88 , 3.95 E 285.63



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 18 MPH FOURTH TEST
VEHICLE REAR DECK X AXIS REDUNDANT ACCELERATION

VRTC-4 , 880928

DAMAGE ALGORITHM REFORMULATION

88272

ADKXVA

FILTER = ALPF 1650/ 5214/ -40

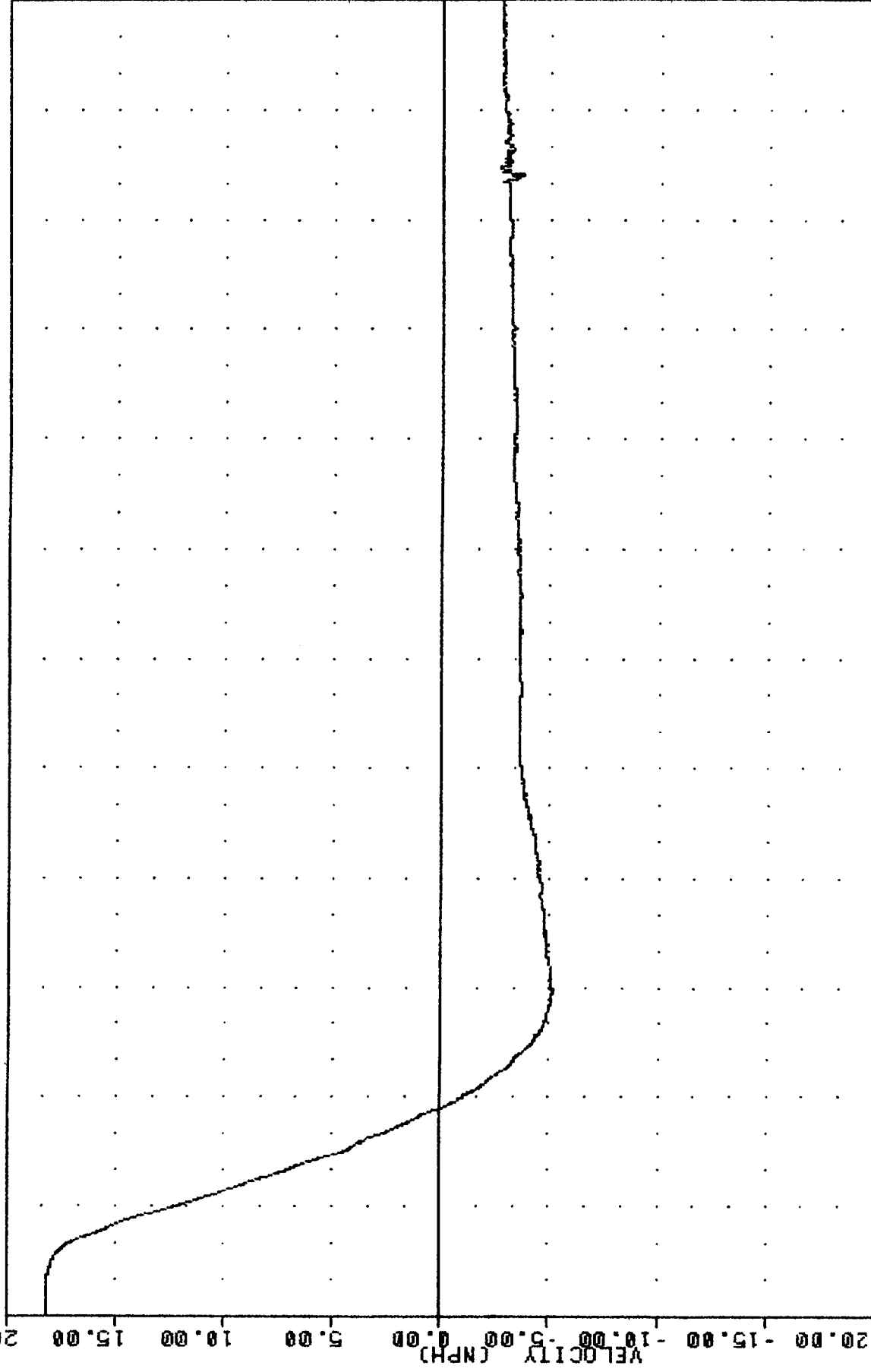
MIN, MAX VALUES = -5.18*

84.00 ,

18.21 *

1.63

20.00



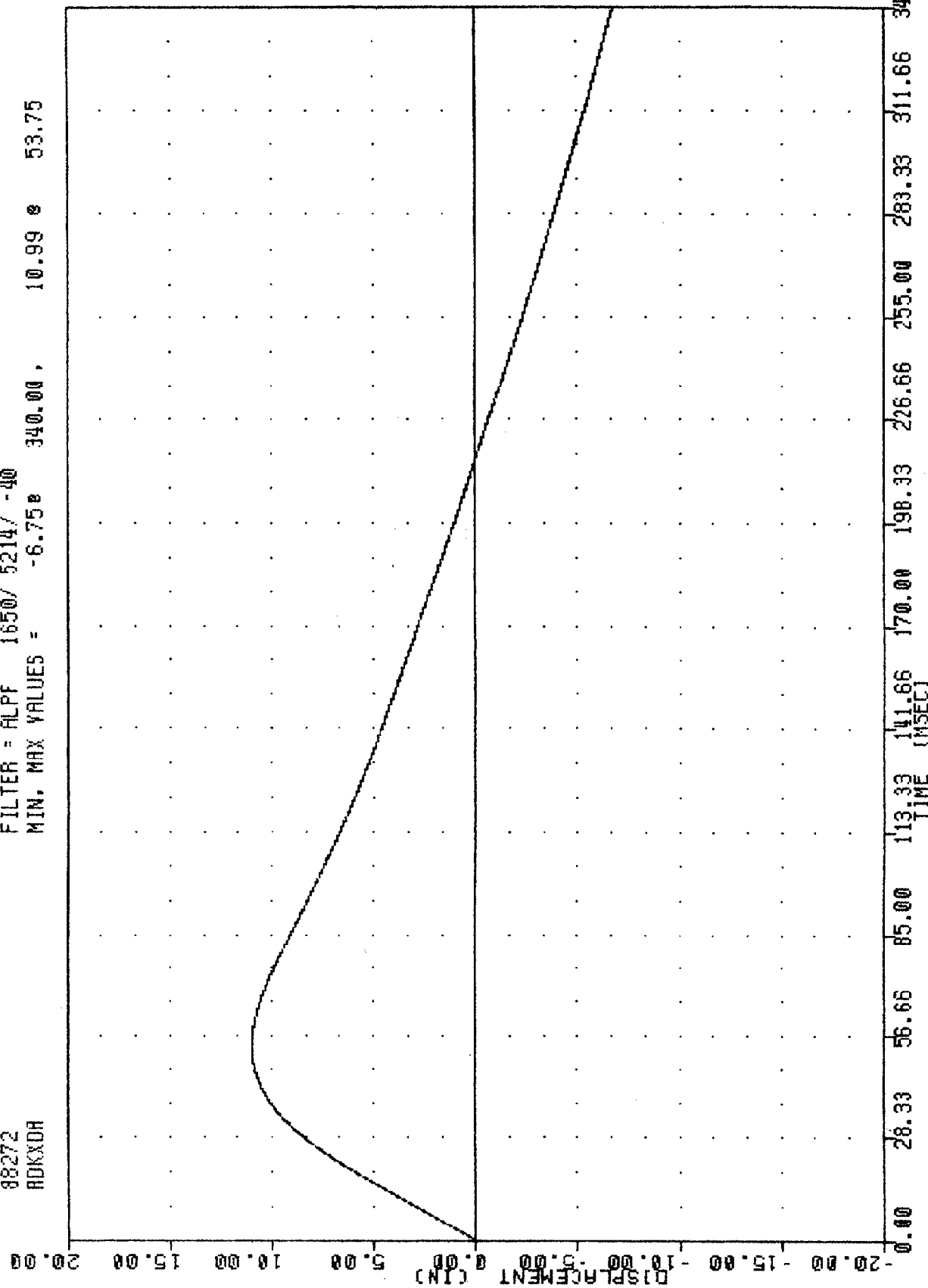
0.00 28.33 56.66 85.00 113.33 141.66 170.00 198.33 226.66 255.00 283.33 311.66 340.00

1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 18 MPH FOURTH TEST
VEHICLE REAR DECK X AXIS VELOCITY REDUNDANT

VRTC-4 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

ADKXDH MIN. MAX VALUES = -6.75 340.00 , 10.99 53.75



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 18 MPH FOURTH TEST
VEHICLE REAR DECK X AXIS DISPLACEMENT REDUNDANT

VRTC-4 , 880928

DAMAGE ALGORITHM REFORMULATION

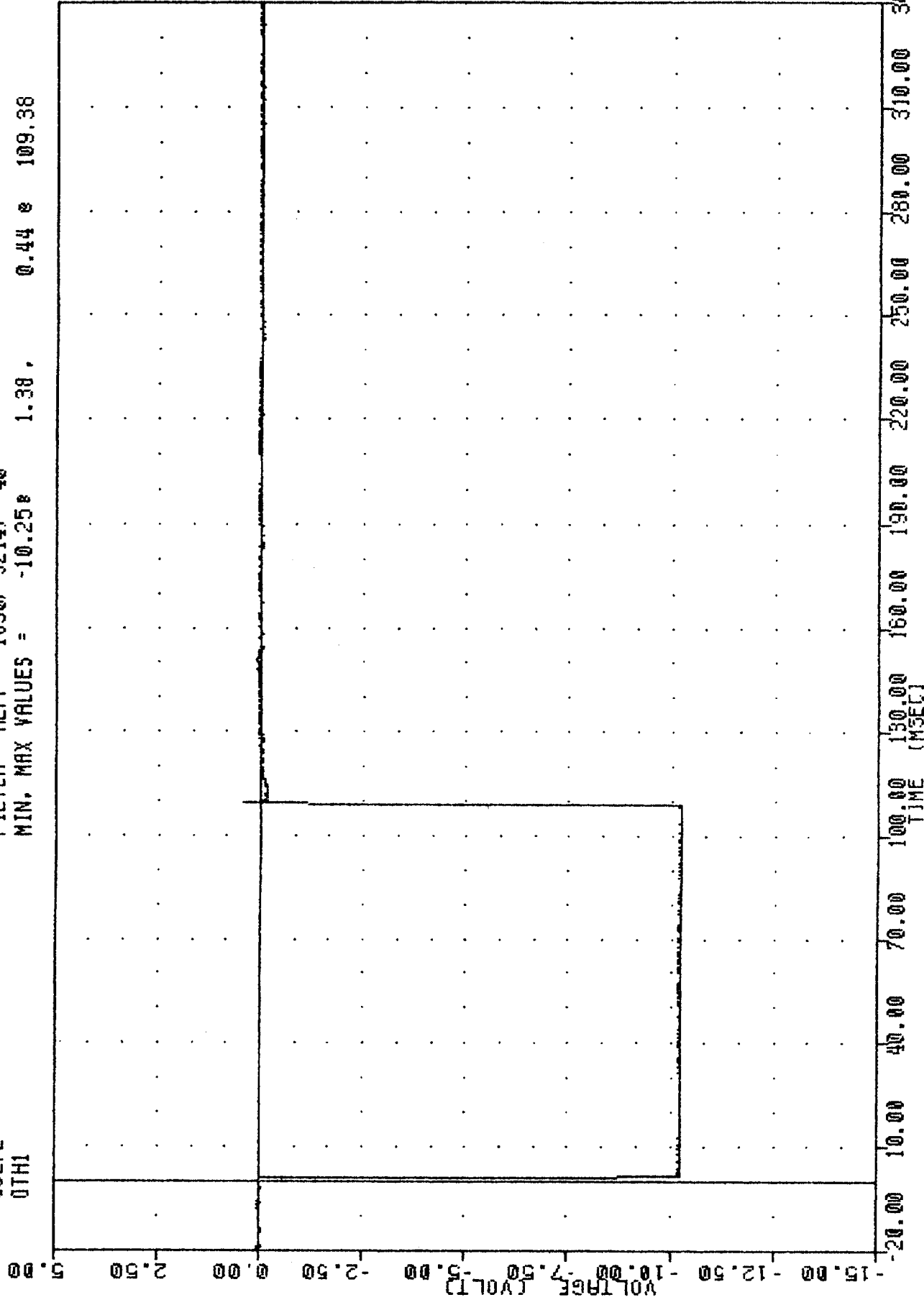
88272

FILTER = ALPF 1650/ 5214/ -40

0TH1

MIN. MAX VALUES = -10.25%

1.38, 0.44 e 109.38

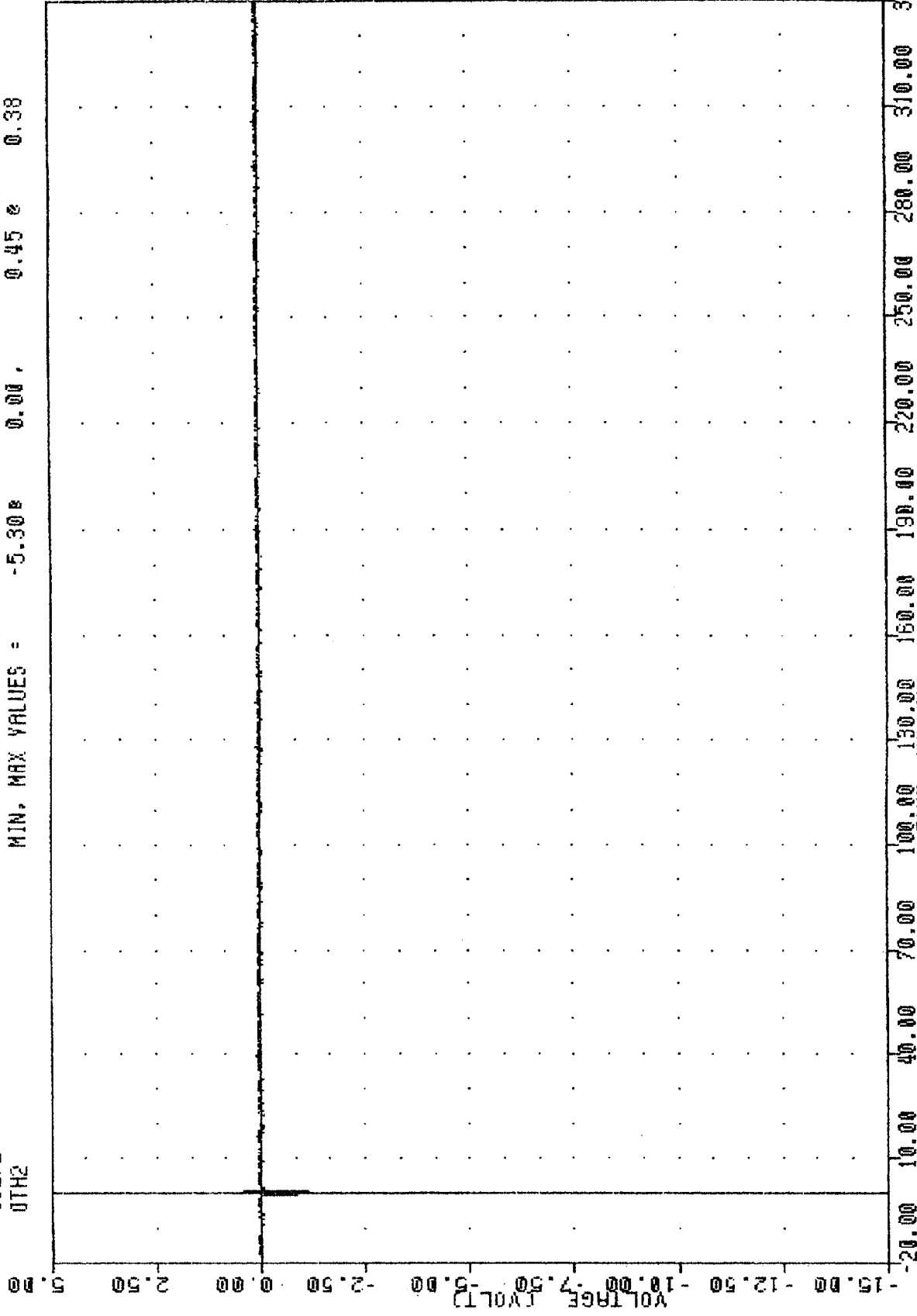


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 18 MPH FOURTH TEST
VEHICLE CONTACT SWITCH - LEFT

VRTC-4 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

0TH2 MIN, MAX VALUES = -5.30 0.00 , 0.45 0.38



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 18 MPH FOURTH TEST
VEHICLE CONTACT SWITCH - CENTER

VRTC-4 , 880928

DAMAGE ALGORITHM REFORMULATION

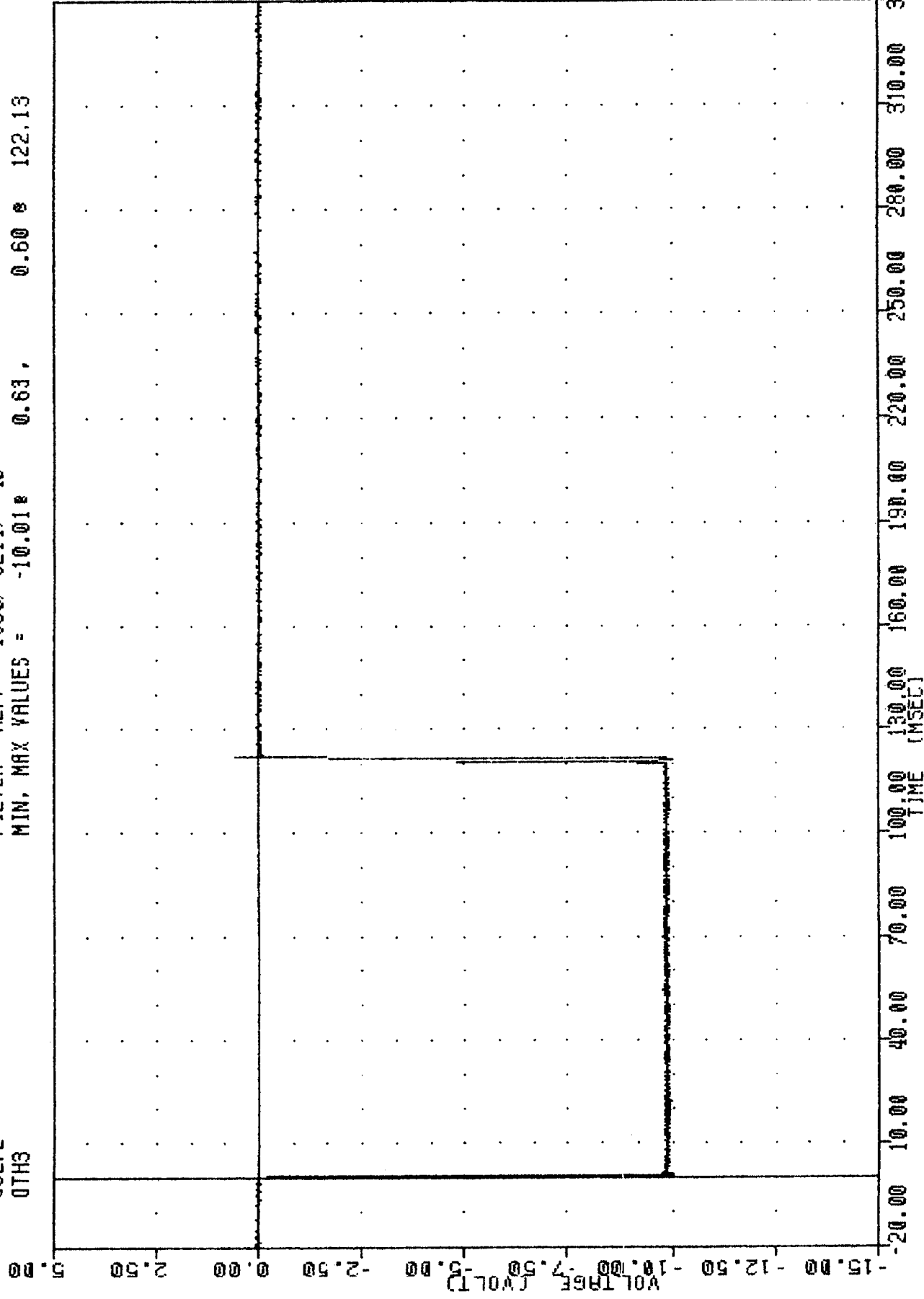
88272

OTH3

FILTER = ALPF 1650/ 5214/ -40

MIN, MAX VALUES = -10.018

0.63 , 0.60 s 122.13

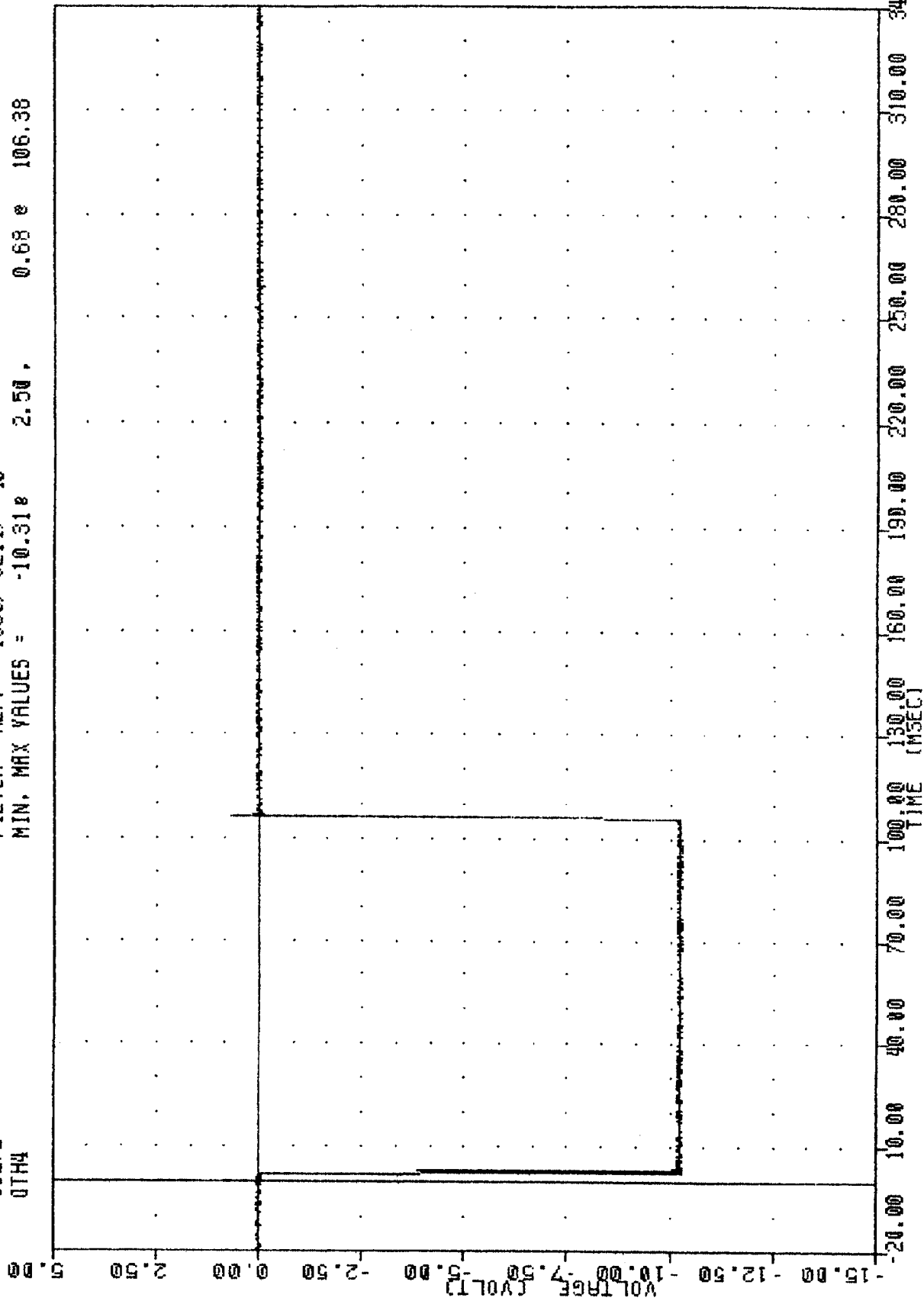


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 18 MPH FOURTH TEST
VEHICLE CONTACT SWITCH - RIGHT

VRIC-4 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

QTH4 MIN. MAX VALUES = -10.31e 2.50 , 0.68 e 106.38

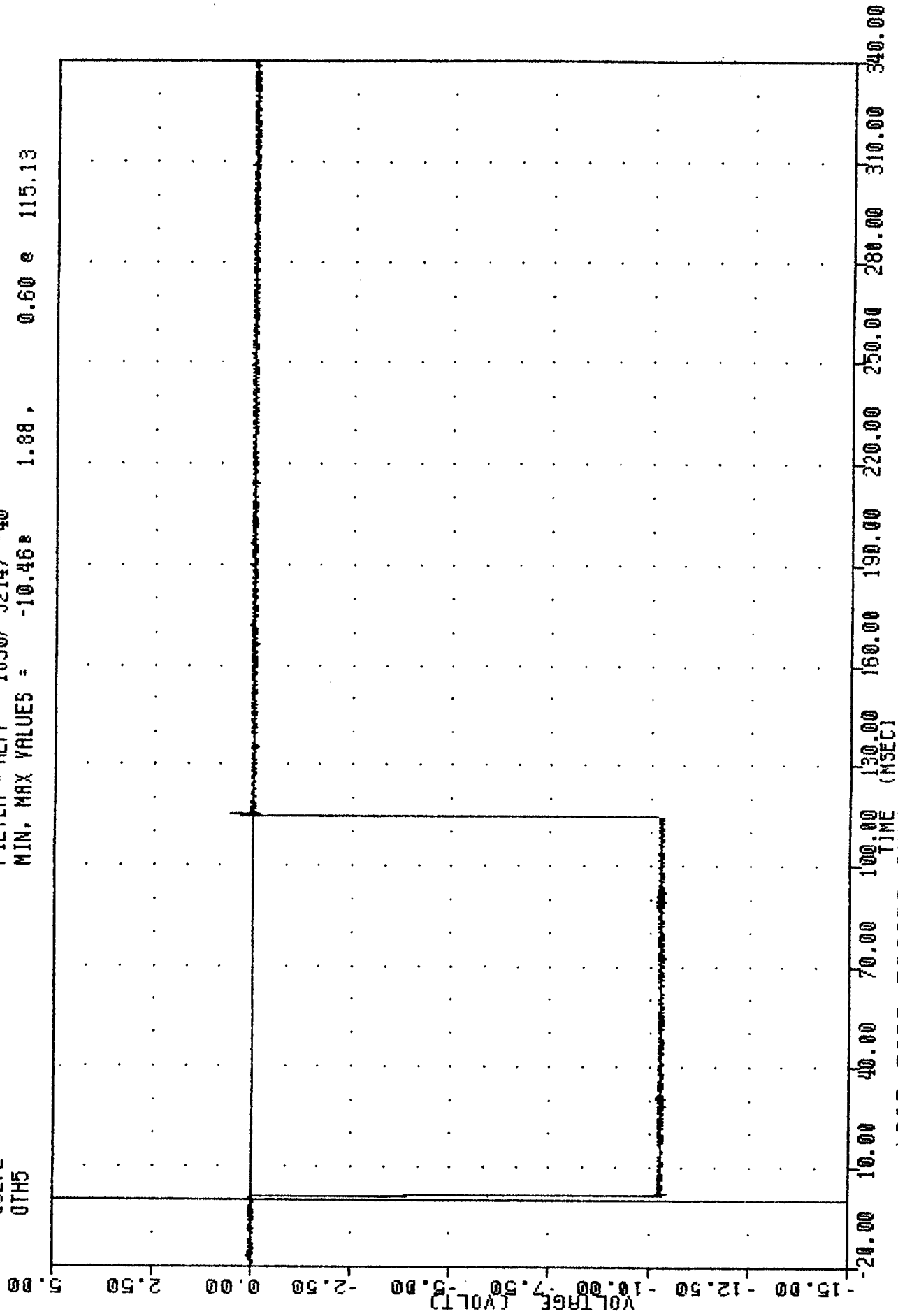


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 18 MPH FOURTH TEST
BARRIER CONTACT SWITCH - LEFT

VRTC-4 , 280928
DAMAGE ALGORITHM REFORMULATION
88272
0TH5

FILTER = ALPF 1650/ 5214/ -40
MIN, MAX VALUES = -10.46 1.88 ,

0.60 e 115.13



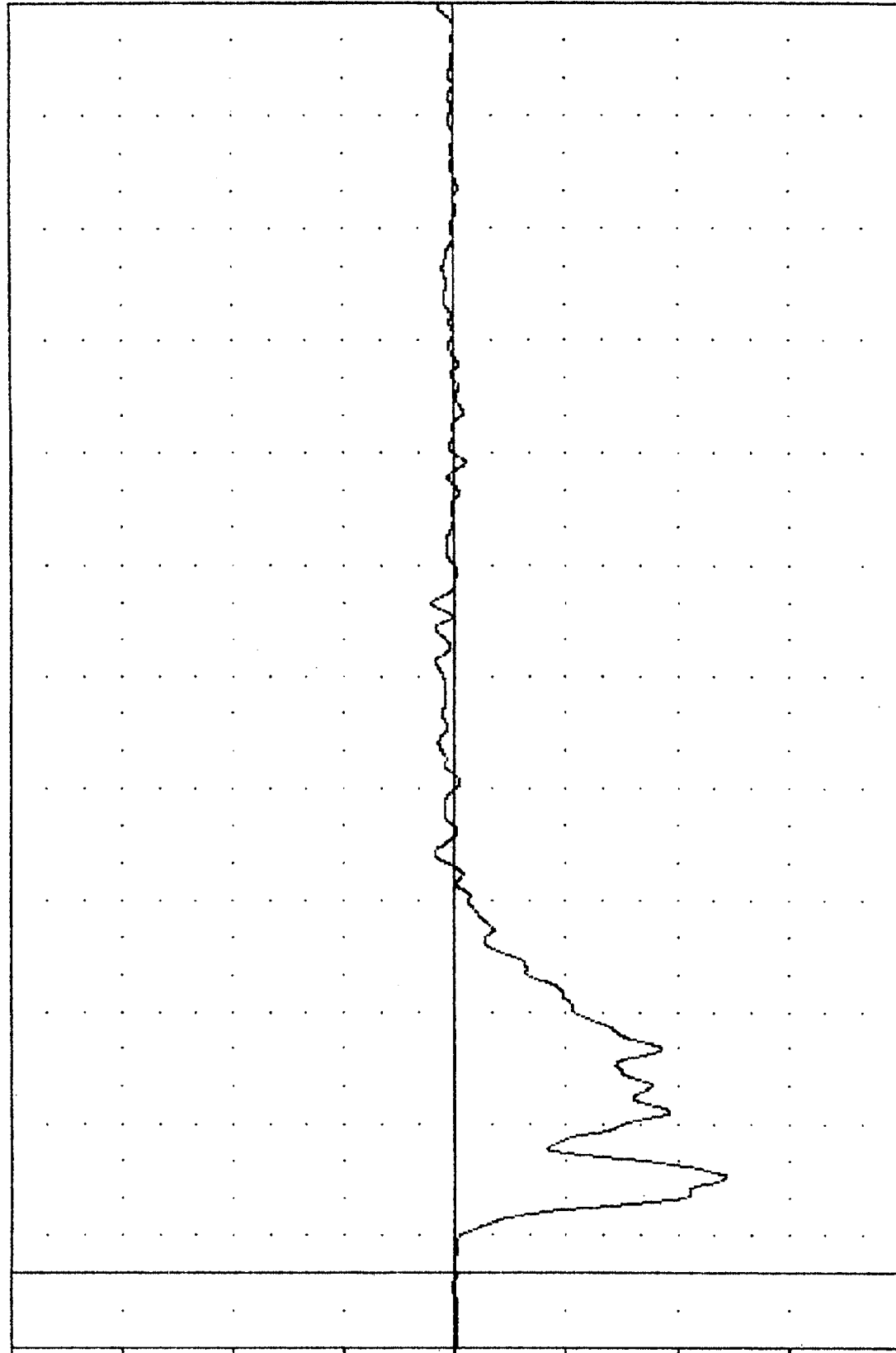
1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 18 MPH FOURTH TEST
BARRIER CONTACT SWITCH - RIGHT

VRIC-5 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = BLPP 100/ 250/ -16

ADKXG1 MIN, MAX VALUES = -24.37 25.75 , 2.14 179.75

ACCELERATION (G)

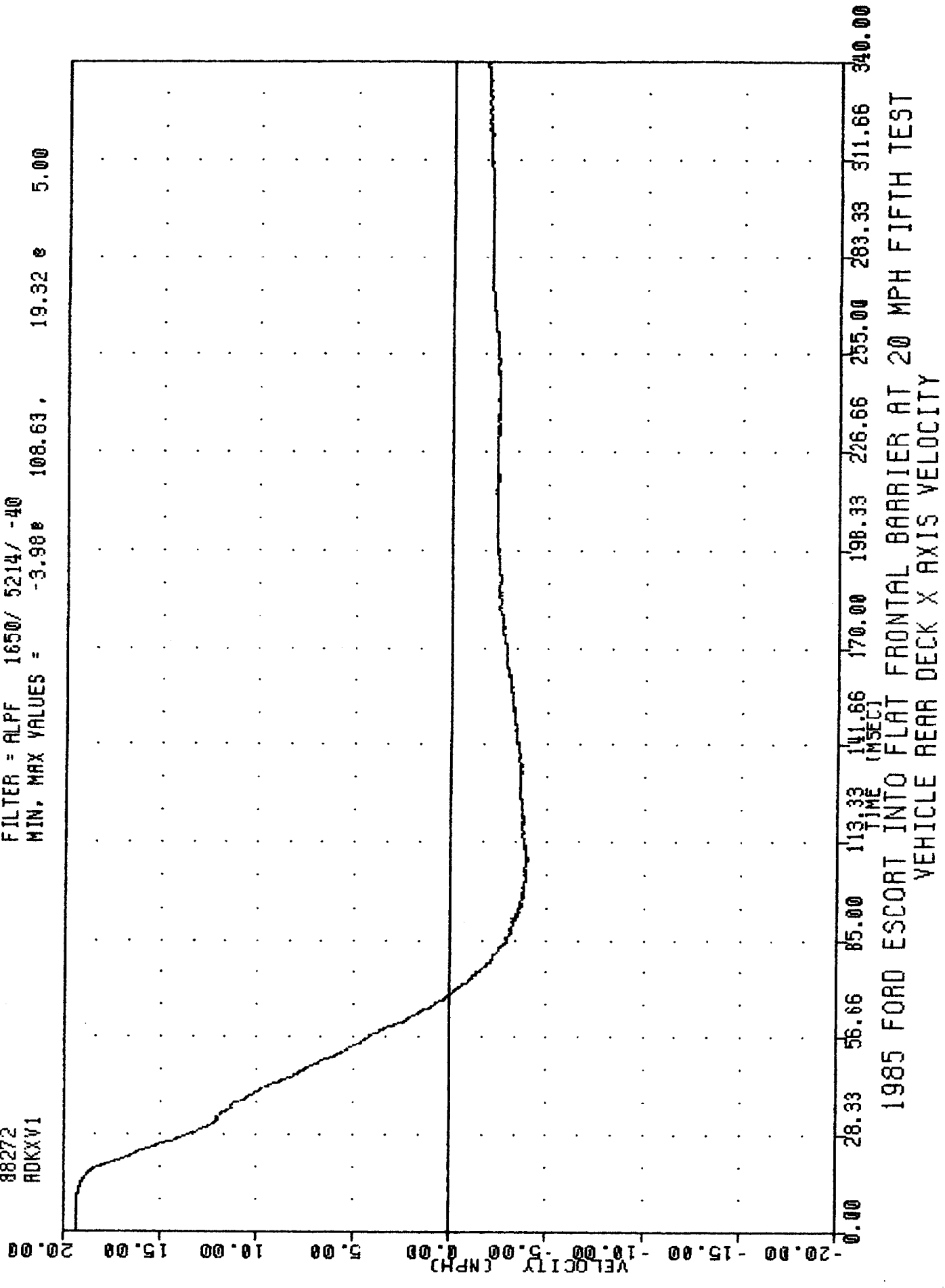


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH FIFTH TEST

VEHICLE REAR DECK X AXIS ACCELERATION

VRIC-5 , 880928
 DAMAGE ALGORITHM REFORMULATION

38272 FILTER = ALPF 1650/ 5214/ -40
 ADKXV1 MIN, MAX VALUES = -3.98e 108.63, 19.32 e 5.00



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH FIFTH TEST
 VEHICLE REAR DECK X AXIS VELOCITY

VRTC-5 . 880928

DAMAGE ALGORITHM REFORMULATION

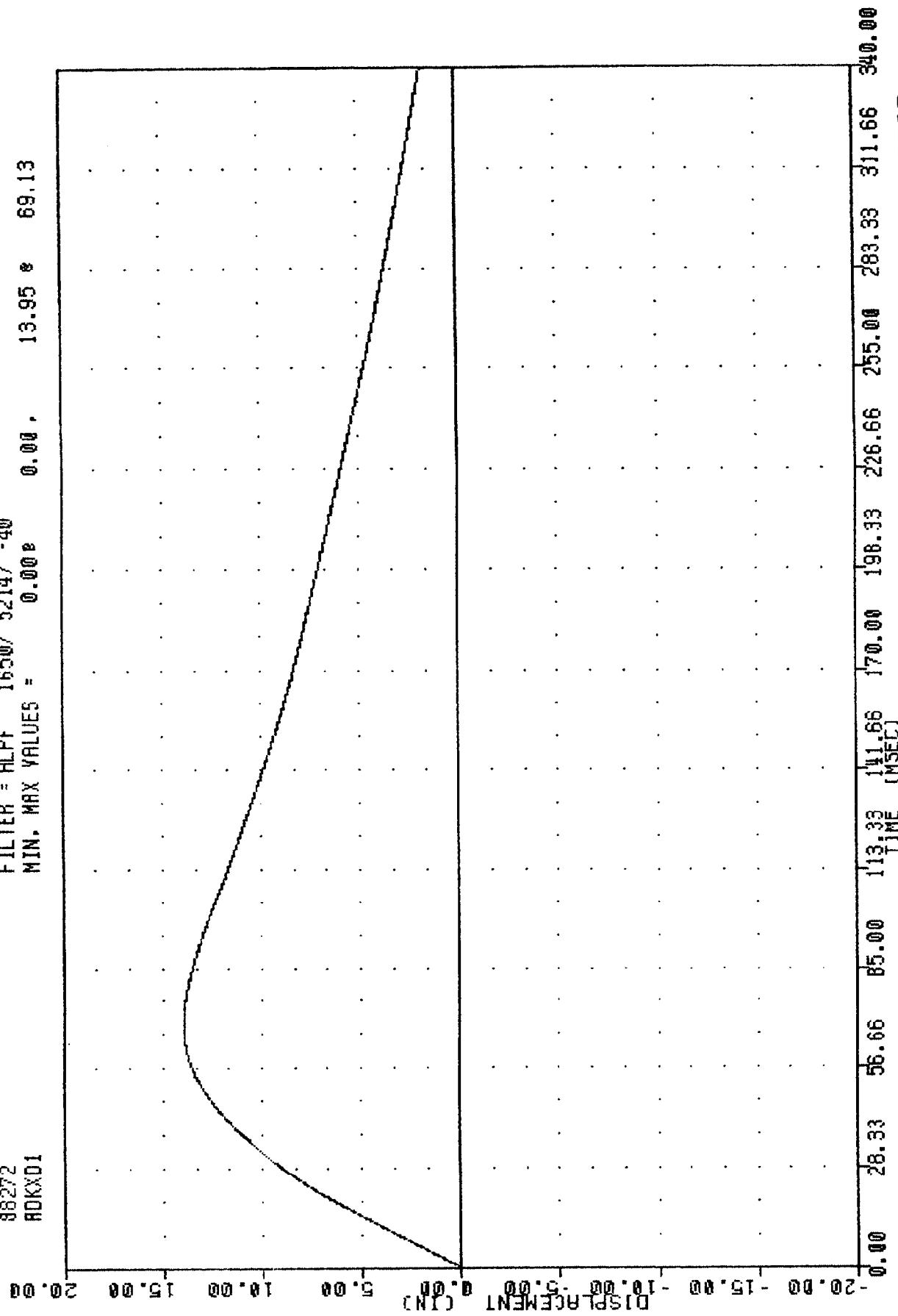
FILTER = ALPF 1650/ 5214/ -40

88272

MIN. MAX VALUES = 0.00 0.00

0.00 , 13.95 * 69.13

ADKXD1

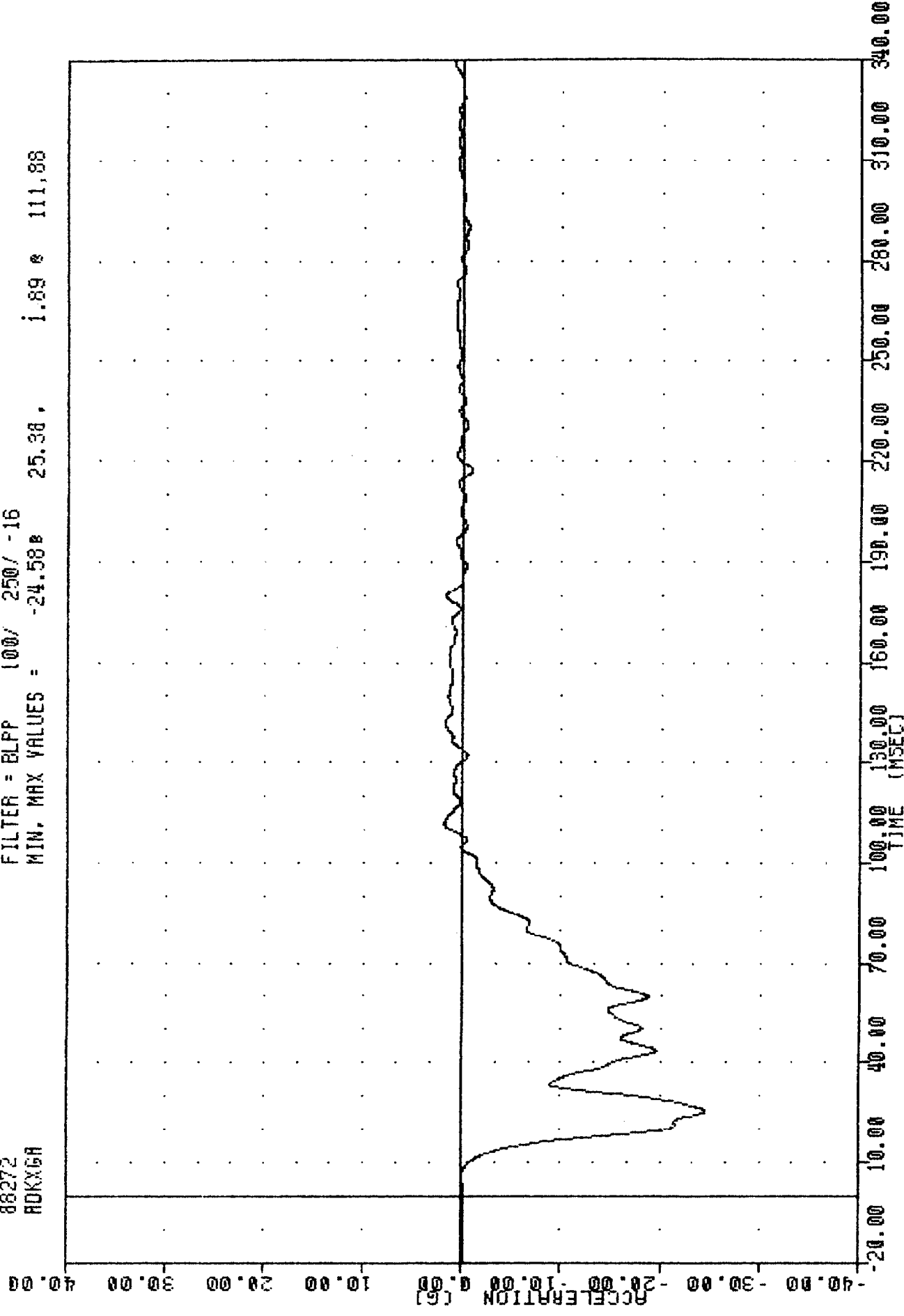


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH FIFTH TEST
VEHICLE REAR DECK X AXIS DISPLACEMENT

VRTC-5
DAMAGE ALGORITHM REFORMULATION
88272
RDKXGA

* 880928

FILTER = BLPP 100/ 250/ -16
MIN, MAX VALUES = -24.588 25.38, 1.89 111.88



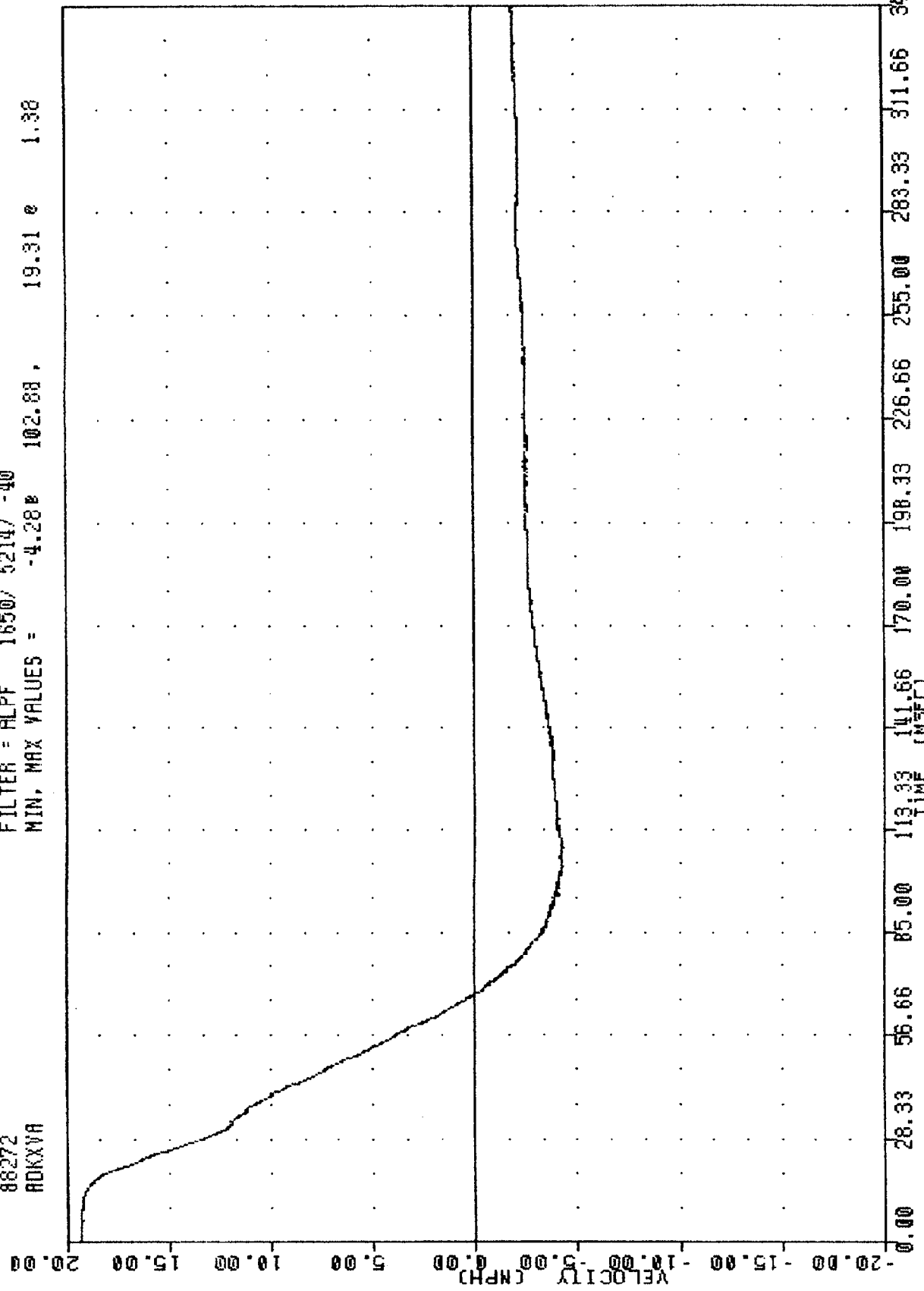
1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH FIFTH TEST
VEHICLE REAR DECK X AXIS REDUNDANT ACCELERATION

VRTC-5 , 880928

DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

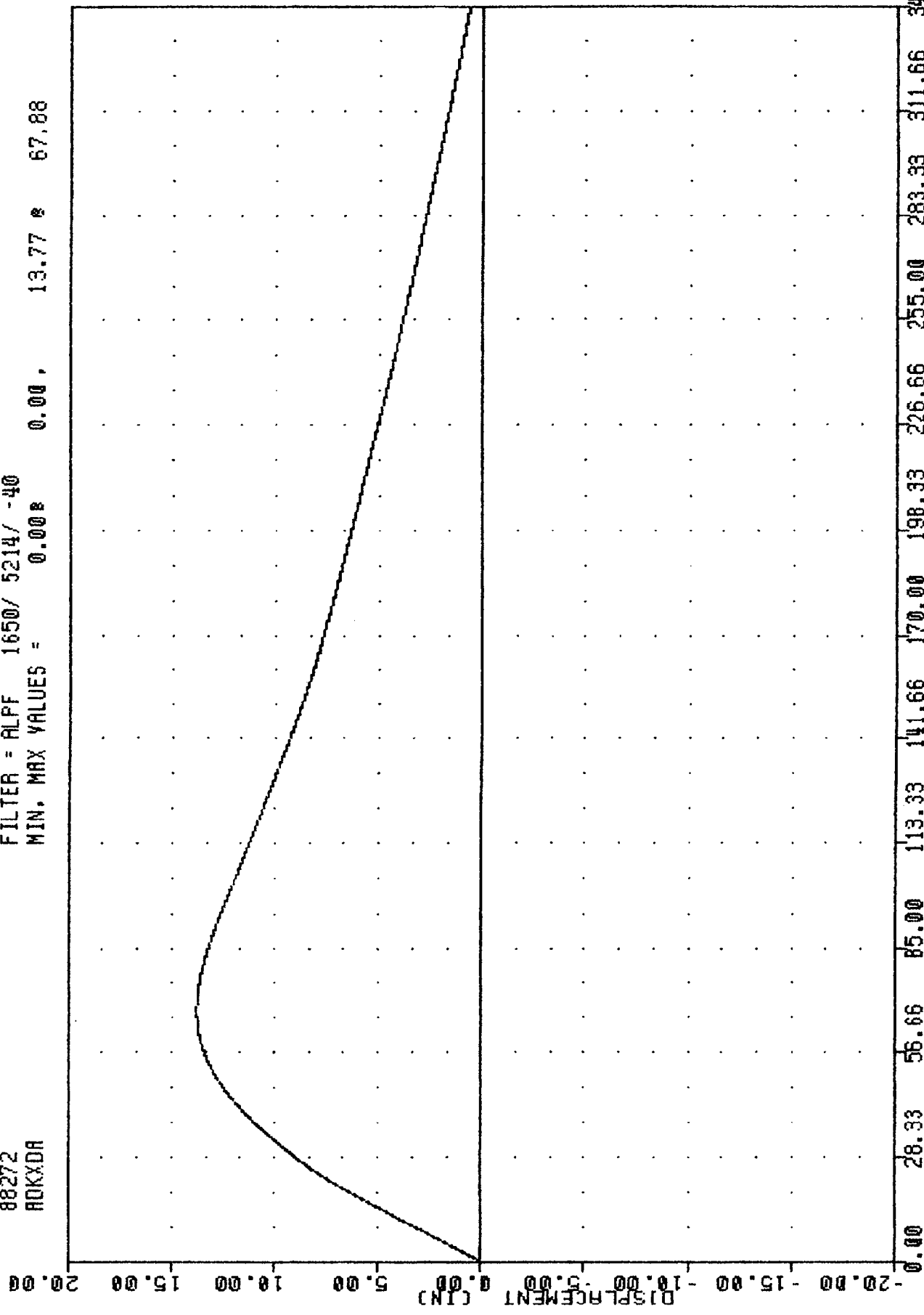
ADKXVA MIN, MAX VALUES = -4.28 102.88, 19.31 1.38



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH FIFTH TEST
VEHICLE REAR DECK X AXIS VELOCITY REDUNDANT

VRTC-5 , 880928
 DAMAGE ALGORITHM REFORMULATION
 88272
 ROKXDA

FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = 0.00 0.00 , 13.77 67.88



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH FIFTH TEST
 VEHICLE REAR DECK X AXIS DISPLACEMENT REDUNDANT

VRTC-5 , 880928

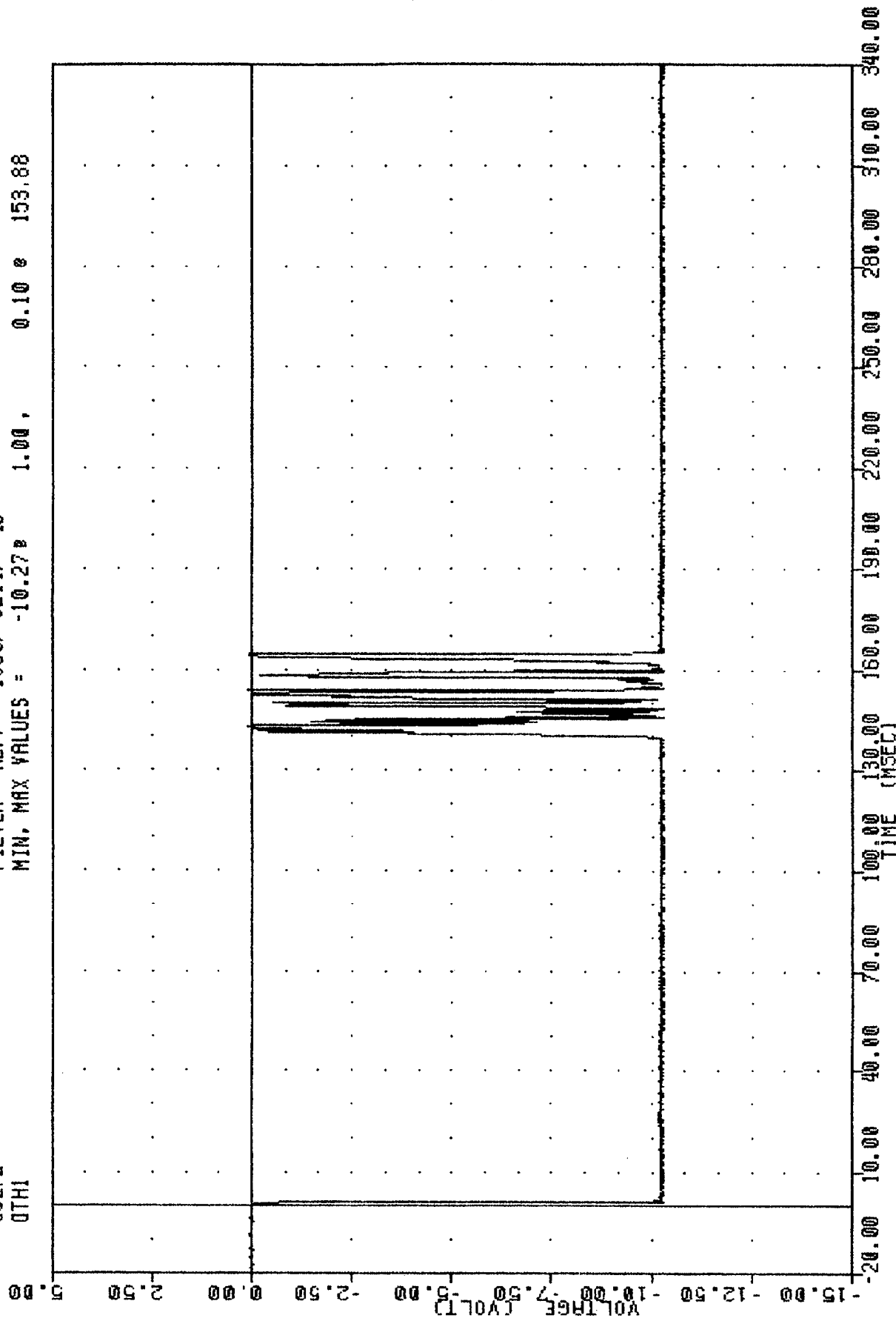
DAMAGE ALGORITHM REFORMULATION

88272

FILTER = ALPF 1650/ 5214/ -40

QTH1

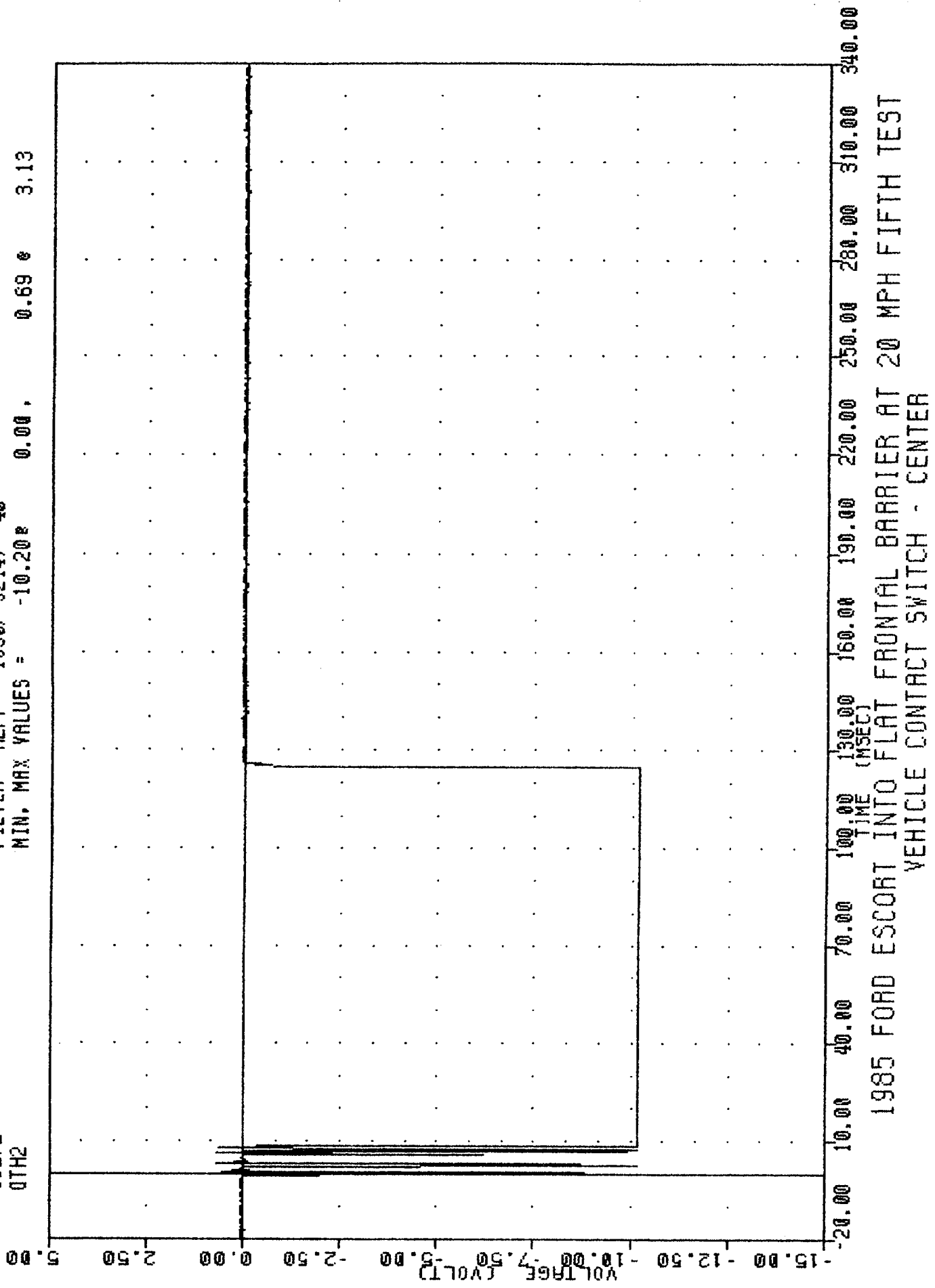
MIN, MAX VALUES = -10.27 1.00 , 0.10 153.88



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH FIFTH TEST
VEHICLE CONTACT SWITCH - LEFT

VRTC-5 , 880928
DAMAGE ALGORITHM REFORMULATION

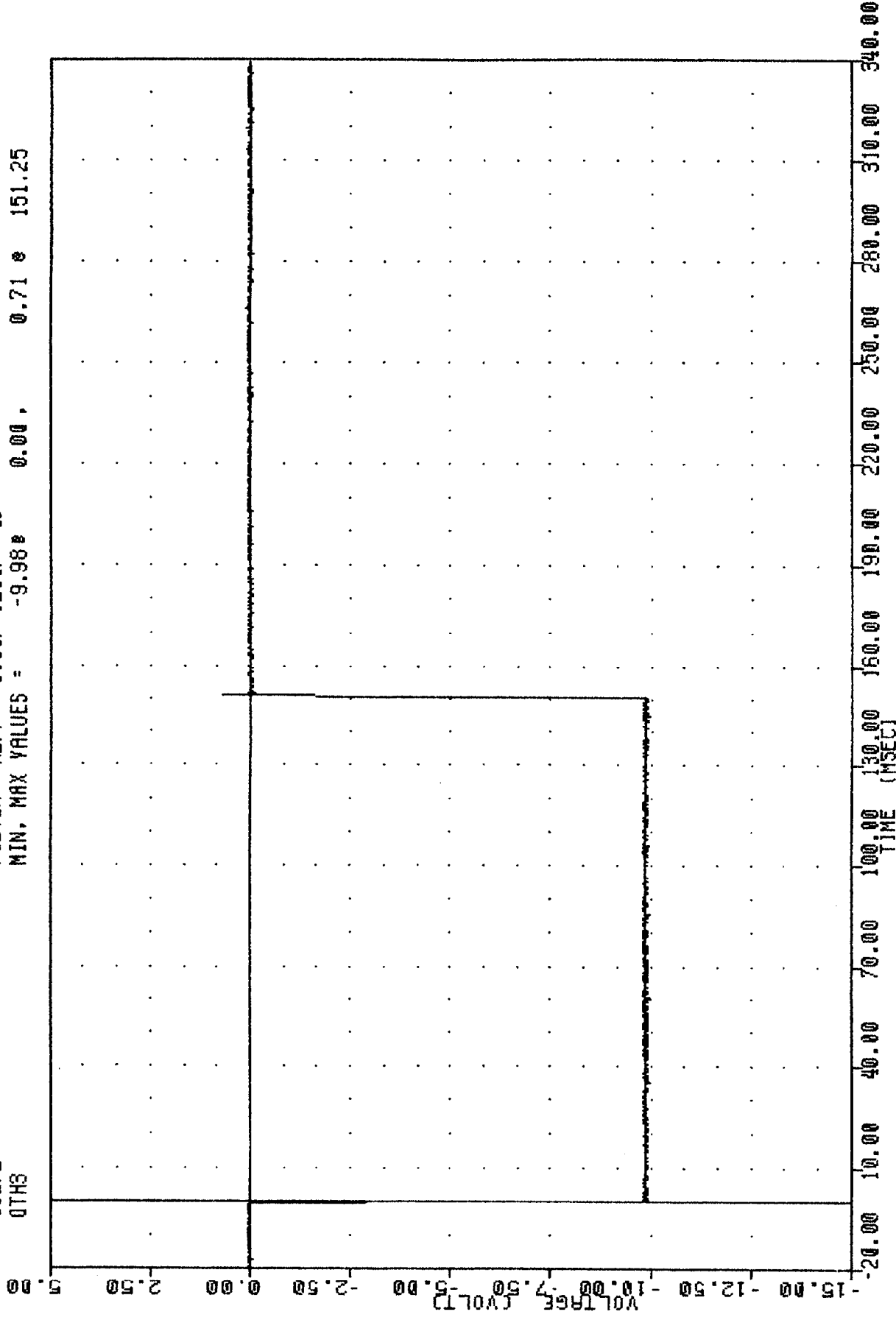
88272 FILTER = ALPF 1650/ 5214/ -40
QTH2 MIN. MAX VALUES = -10.20 0.00 0.69 3.13



VRTC-5 , 880928
 DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

QTH3 MIN. MAX VALUES = -9.98 0.00, 0.71 151.25

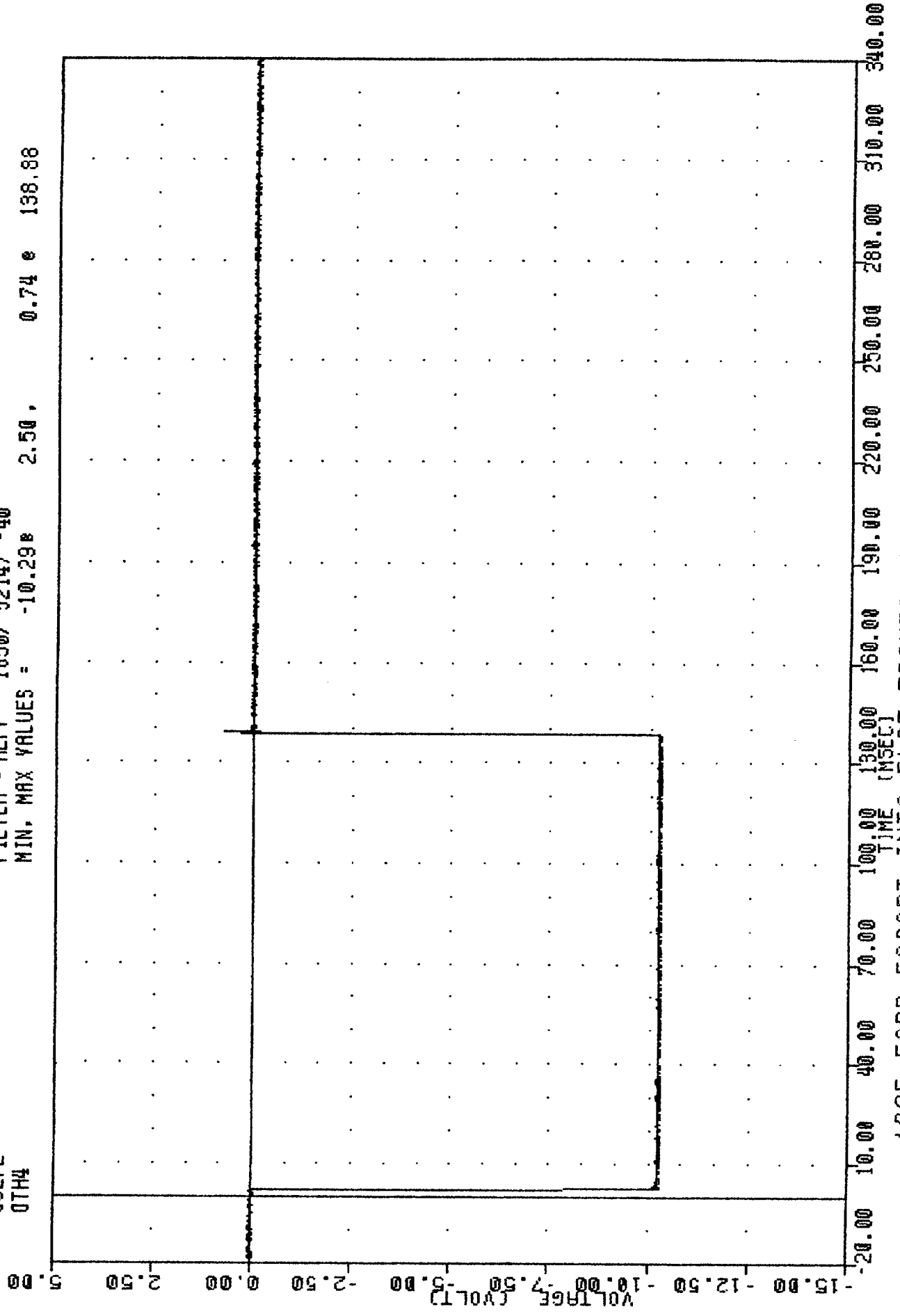


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH FIFTH TEST
 VEHICLE CONTACT SWITCH - RIGHT

VRTC-5 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

0TH4 MIN, MAX VALUES = -10.29 2.50, 0.74 e 138.88



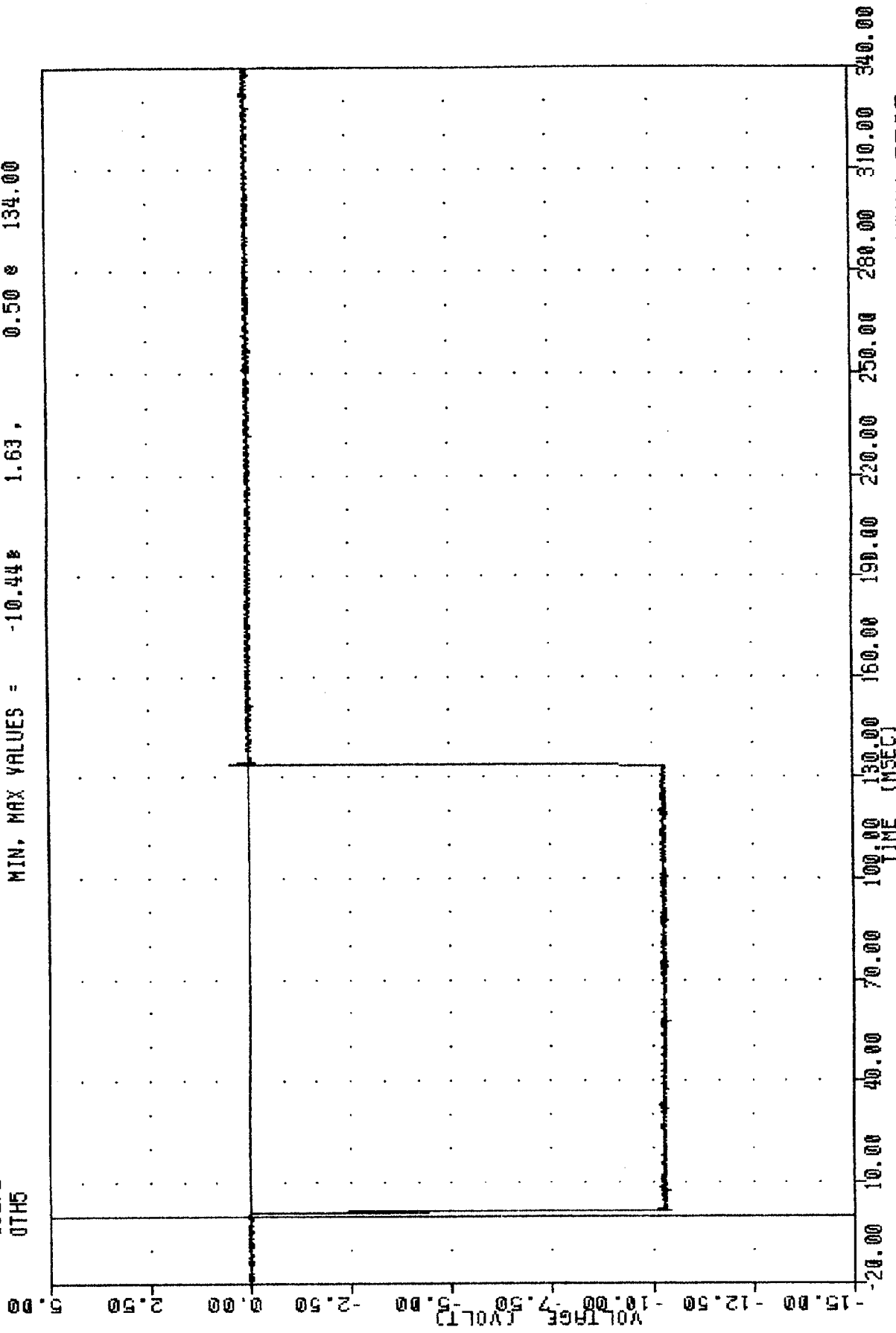
1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH FIFTH TEST
BARRIER CONTACT SWITCH - LEFT

VRTC-5
DAMAGE ALGORITHM REFORMULATION

88272
0TH5

880928

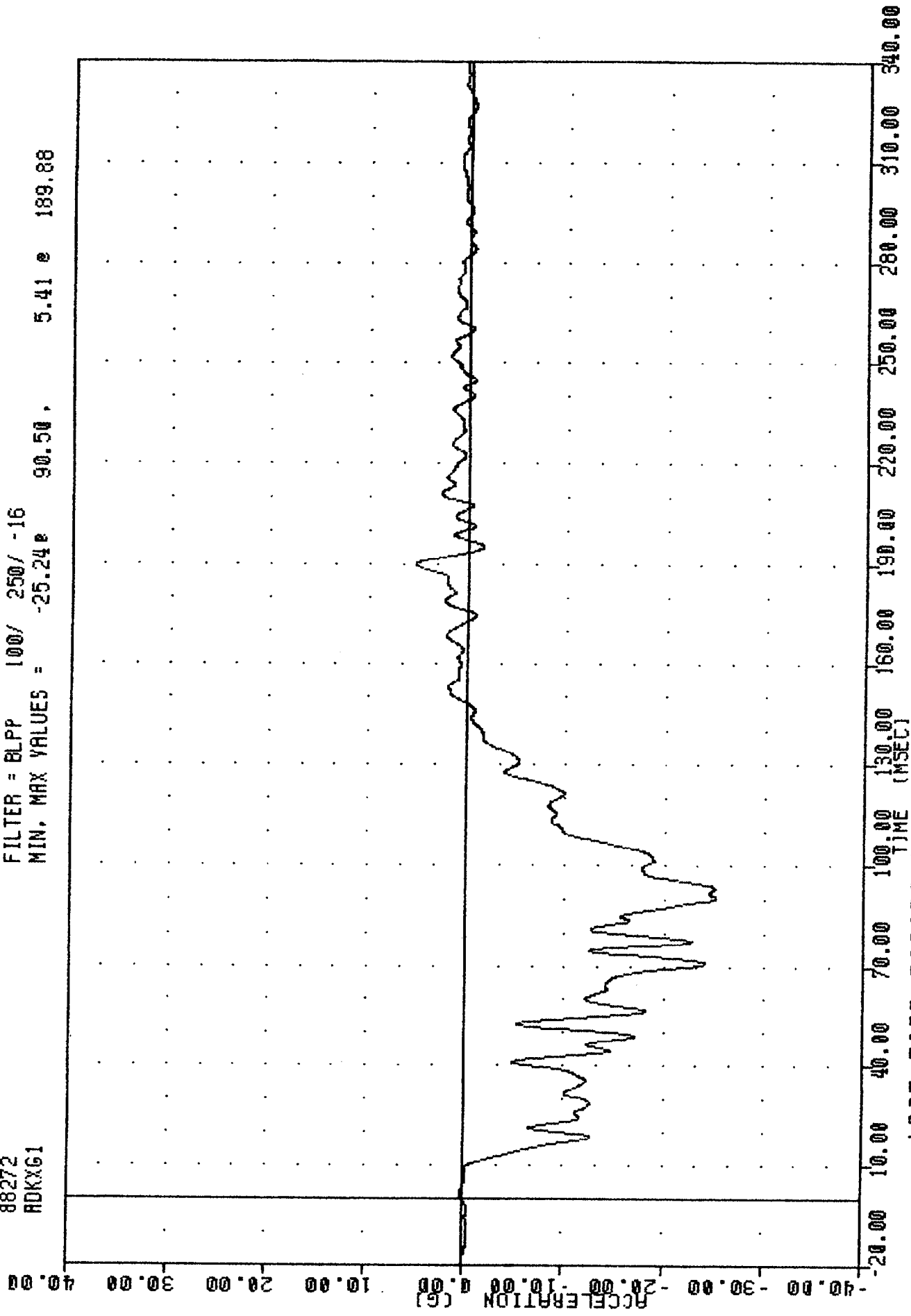
FILTER = ALPF 1650/ 5214/ -40
MIN, MAX VALUES = -10.448 1.63, 0.50 e 134.00



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 20 MPH FIFTH TEST
BARRIER CONTACT SWITCH - RIGHT

VRTC-6 , 880928
DAMAGE ALGORITHM REFORMULATION
88272
ADKXG1

FILTER = BLPP 100/ 250/ -16
MIN. MAX VALUES = -25.24 90.50 , 5.41 e 189.88



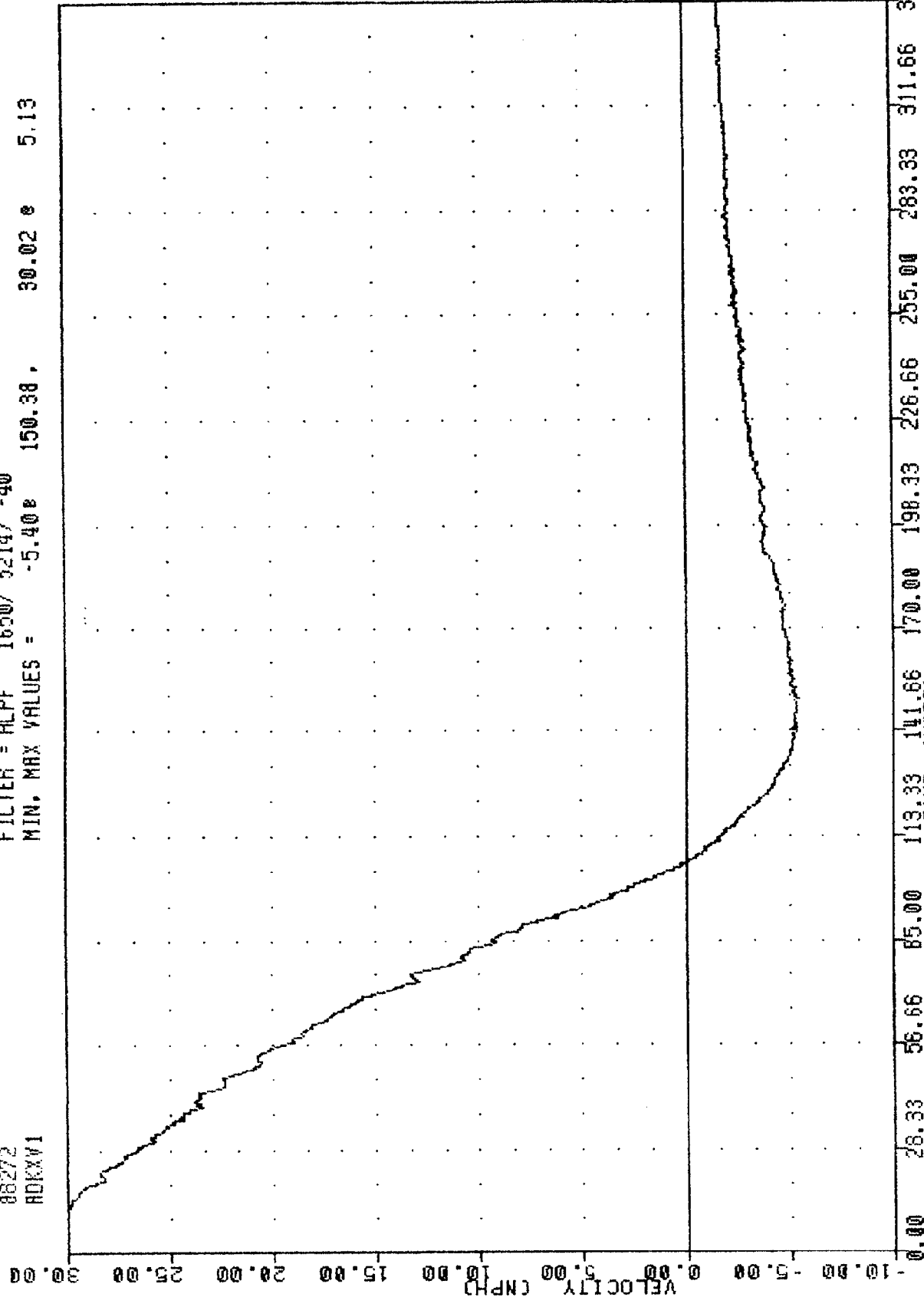
1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 30 MPH SIXTH TEST
VEHICLE REAR DECK X AXIS ACCELERATION

VRTC-6 , 880928

DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

ROKXV1 MIN. MAX VALUES = -5.40% 150.38 , 30.02 % 5.13



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 30 MPH SIXTH TEST
VEHICLE REAR DECK X AXIS VELOCITY

VRTC-6
 DAMAGE ALGORITHM REFORMULATION
 88272
 ROKXD1

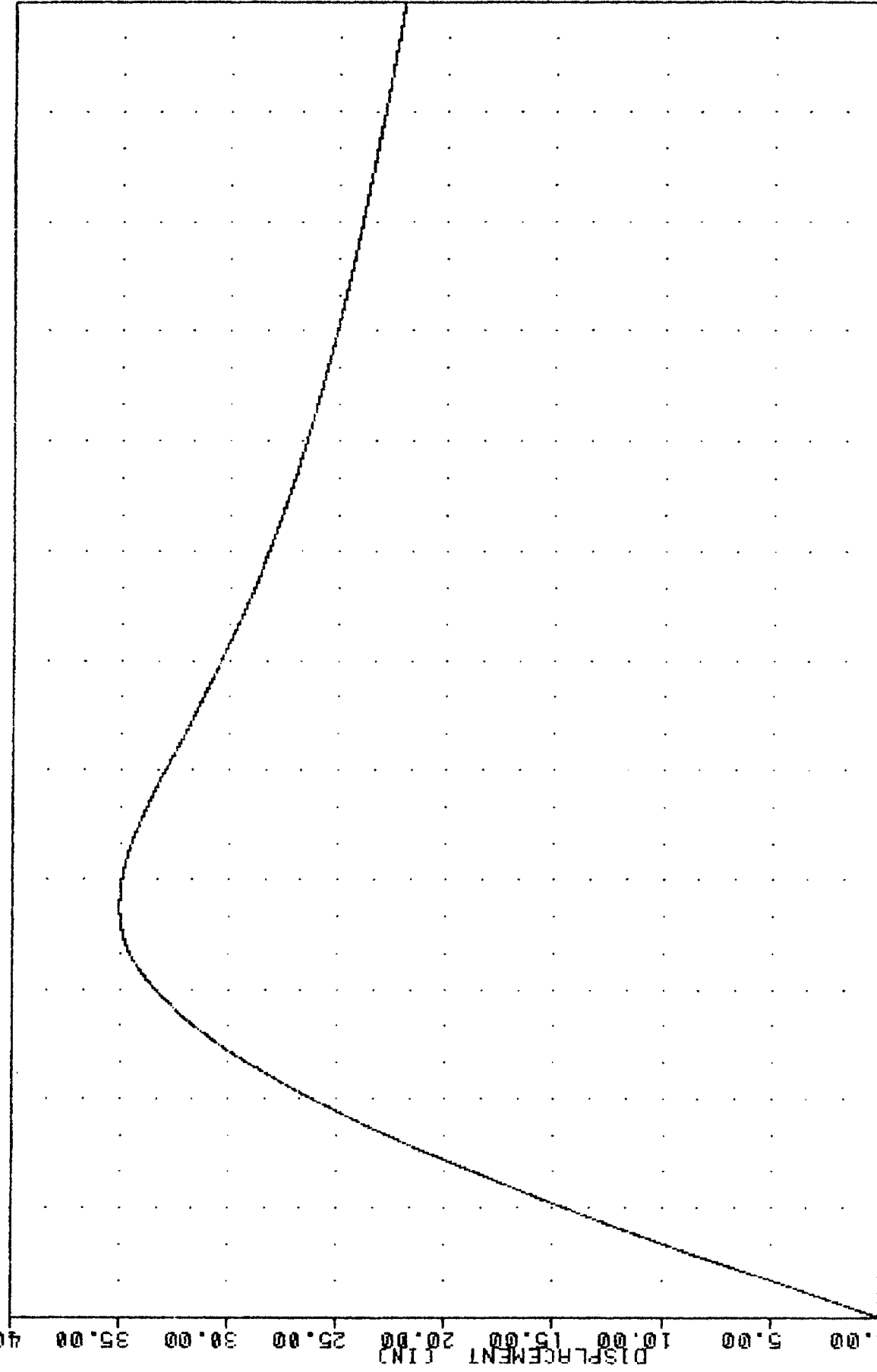
* 880928

FILTER = ALPF 1650/ 5214/ -40

MIN, MAX VALUES = 0.00E

0.00, 35.04 e 106.00

40.00



0.00 28.33 56.66 85.00 113.33 141.66 170.00 198.33 226.66 255.00 283.33 311.66 340.00

1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 30 MPH SIXTH TEST
 VEHICLE REAR DECK X AXIS DISPLACEMENT

VRTC-6 880928

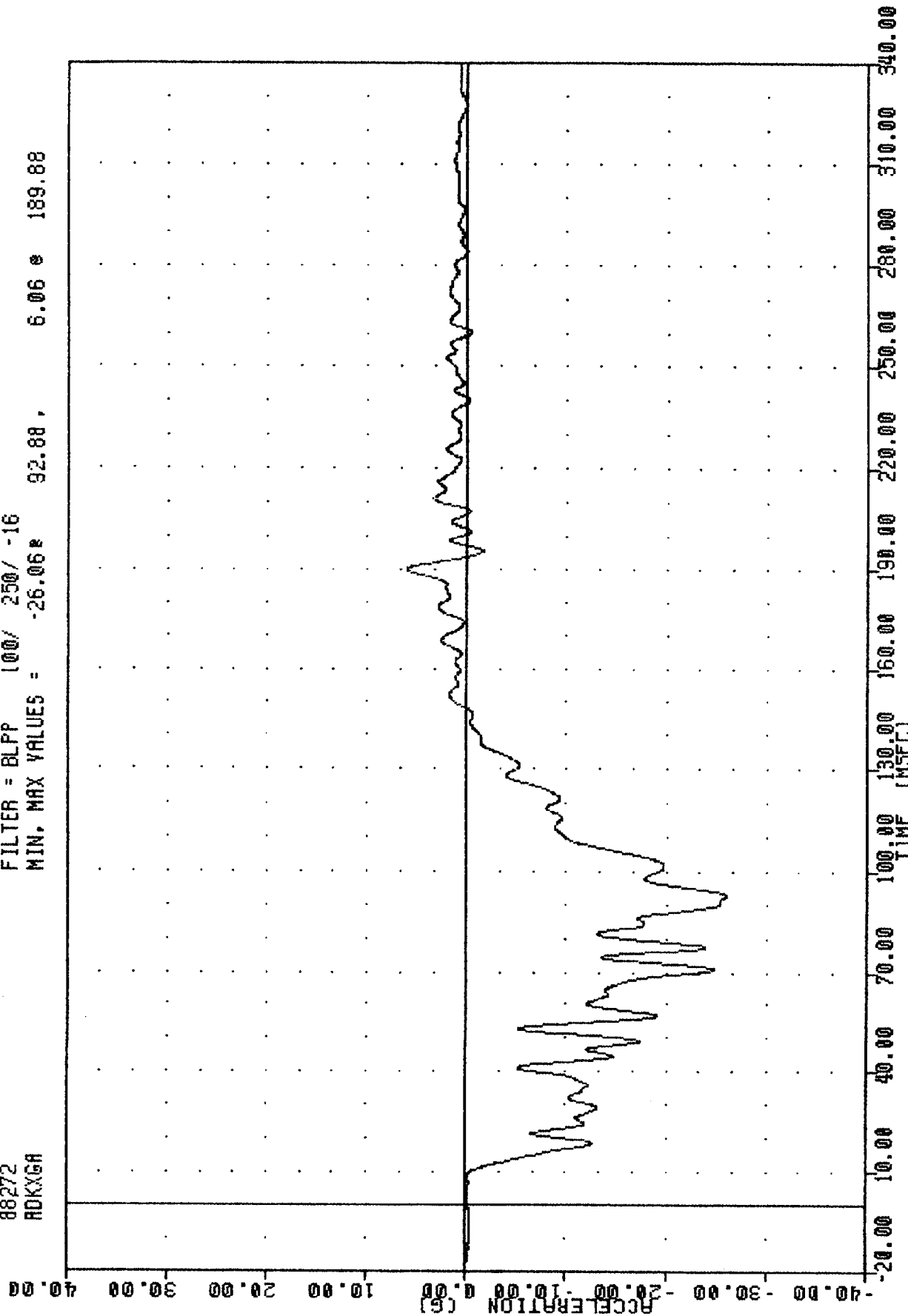
DAMAGE ALGORITHM REFORMULATION

88272

ADKXGA

FILTER = BLPP 100/ 250/ -16

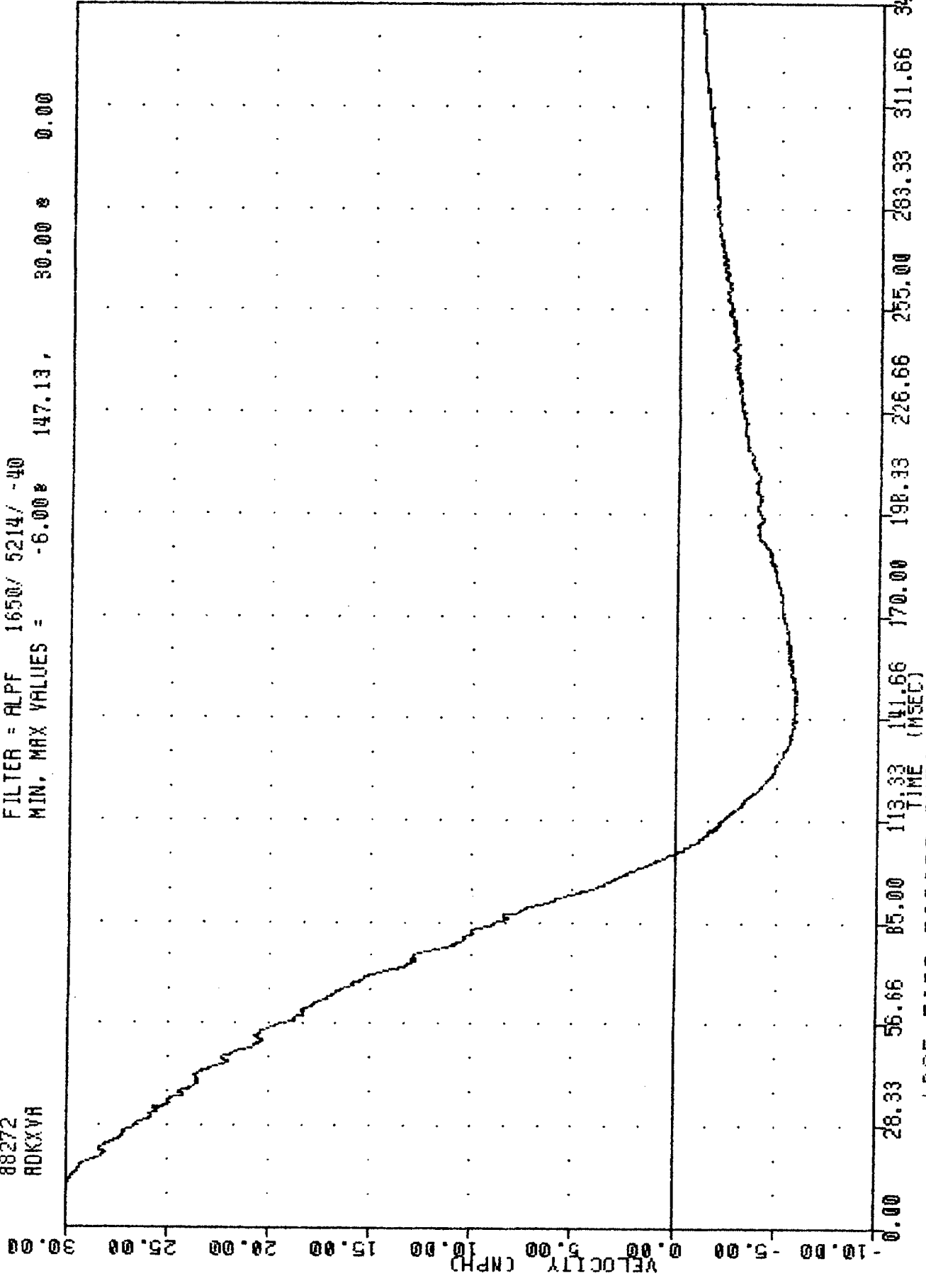
MIN, MAX VALUES = -26.06 92.88 6.06 189.88



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 30 MPH SIXTH TEST
VEHICLE REAR DECK X AXIS REDUNDANT ACCELERATION

VRTC-6 , 880928
 DAMAGE ALGORITHM REFORMULATION
 88272
 ADKXVR

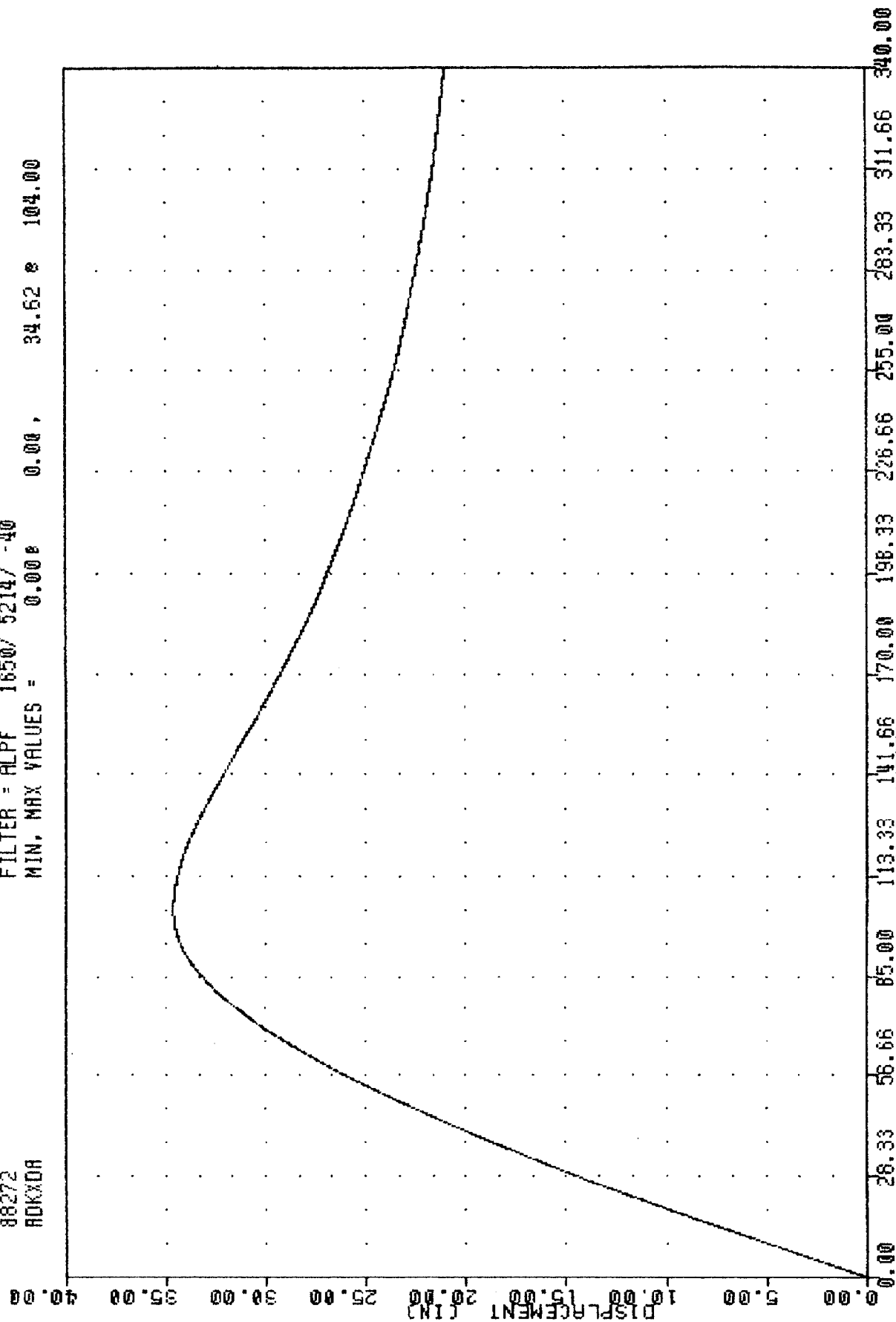
FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = -6.00% 147.13, 30.00% 0.00



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 30 MPH SIXTH TEST
 VEHICLE REAR DECK X AXIS VELOCITY REDUNDANT

VRTC-5 , 880928
 DAMAGE ALGORITHM REFORMULATION
 88272
 ADKXDR

FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = 0.000 0.00 , 34.62 8 104.00

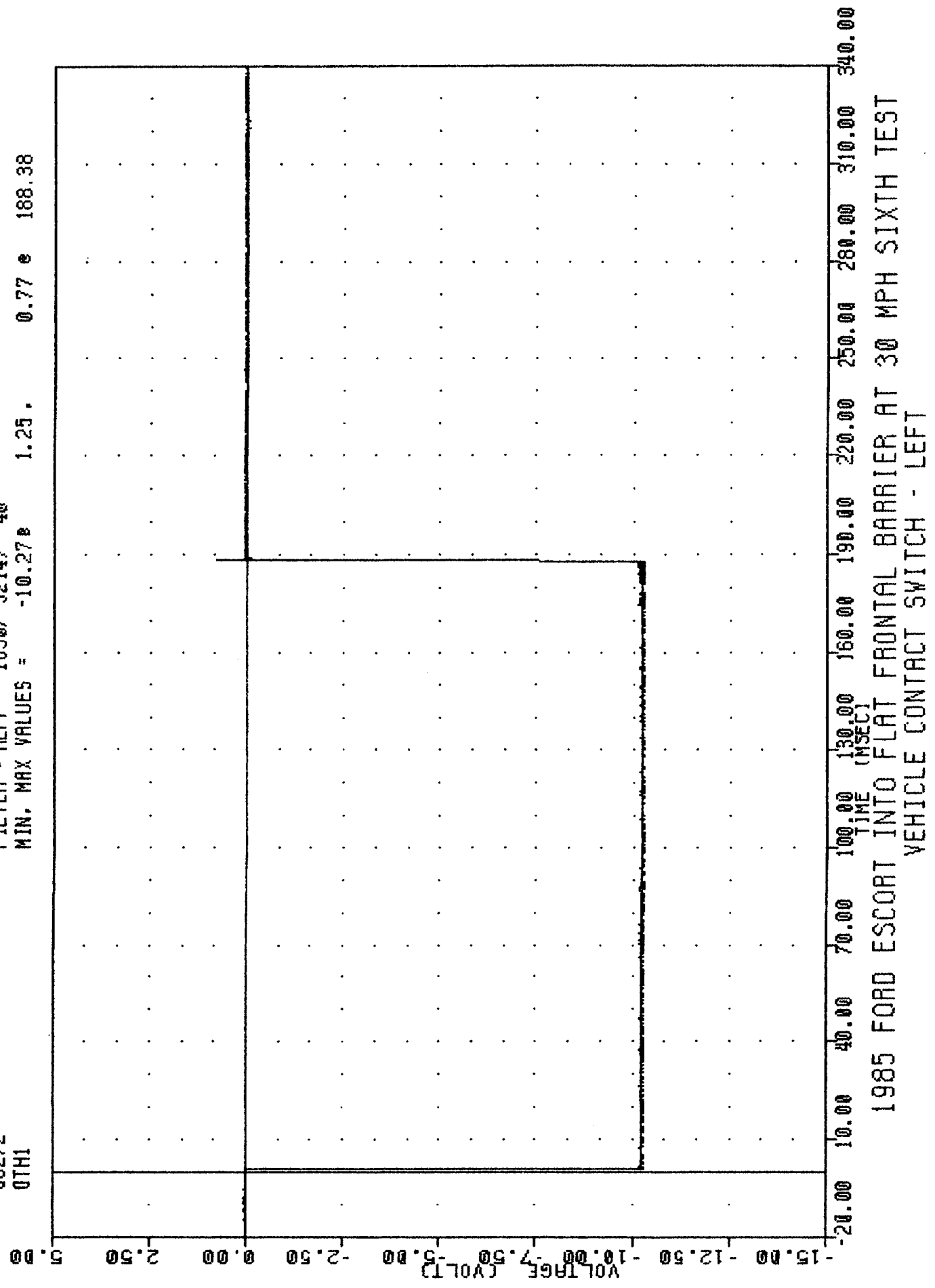


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 30 MPH SIXTH TEST
 VEHICLE REAR DECK X AXIS DISPLACEMENT REDUNDANT

VRTC-B
 DAMAGE ALGORITHM REFORMULATION
 88272
 0TH1

, 880928

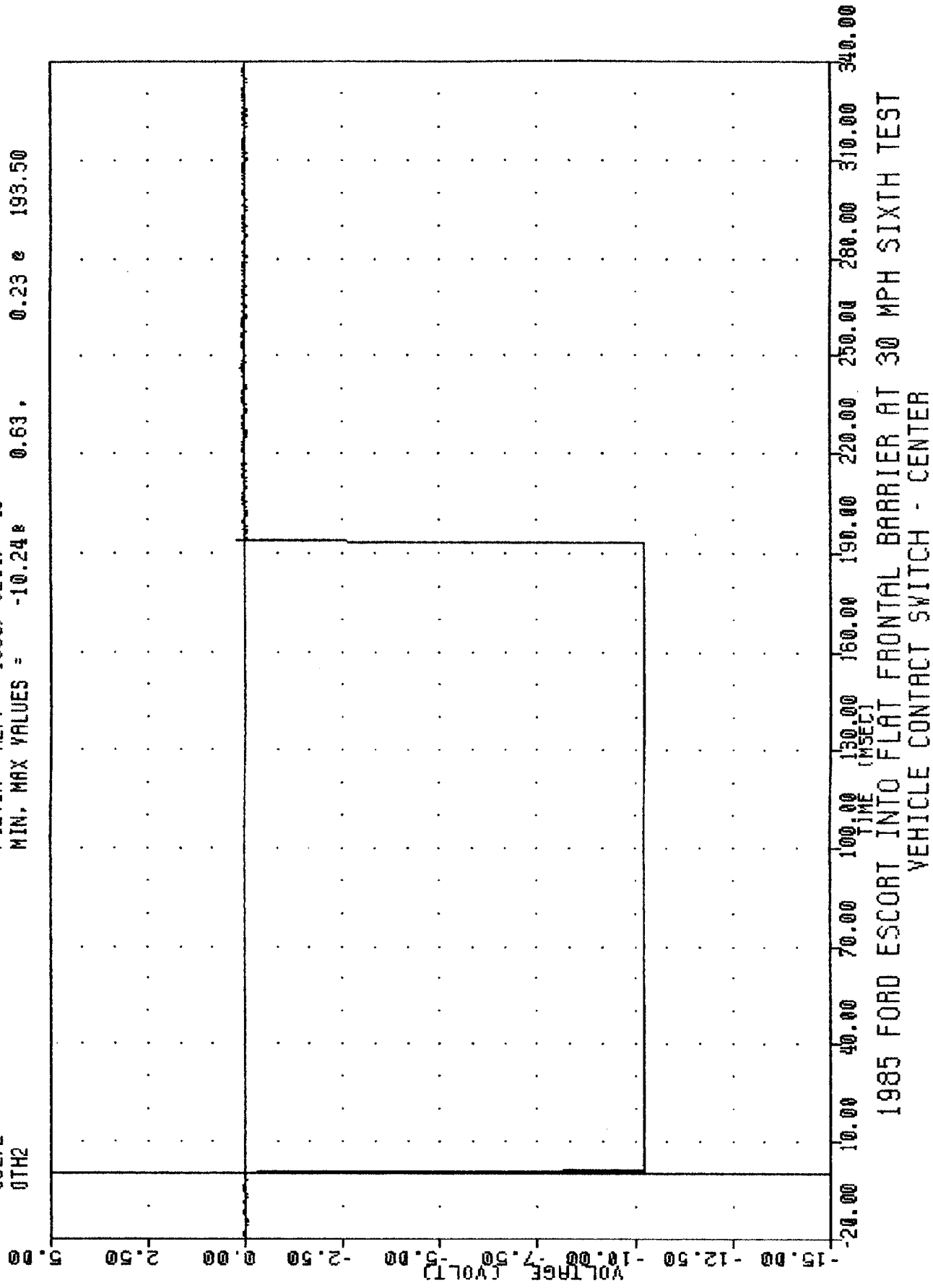
FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = -10.27 e 1.25. 0.77 e 188.38



VRTC-6 , 880928
DAMAGE ALGORITHM REFORMULATION

88272 FILTER = ALPF 1650/ 5214/ -40

0TH2 MIN. MAX VALUES = -10.24 0.63 0.23 e 193.50



YRTC-6
 DAMAGE ALGORITHM REFORMULATION
 88272
 QTH3

, 880928

FILTER = ALPF 1650/ 5214/ -40

MIN, MAX VALUES = -9.97 e

0.00,

0.06 e

-3.75

5.00

2.50

0.00

-2.50

-5.00

-7.50

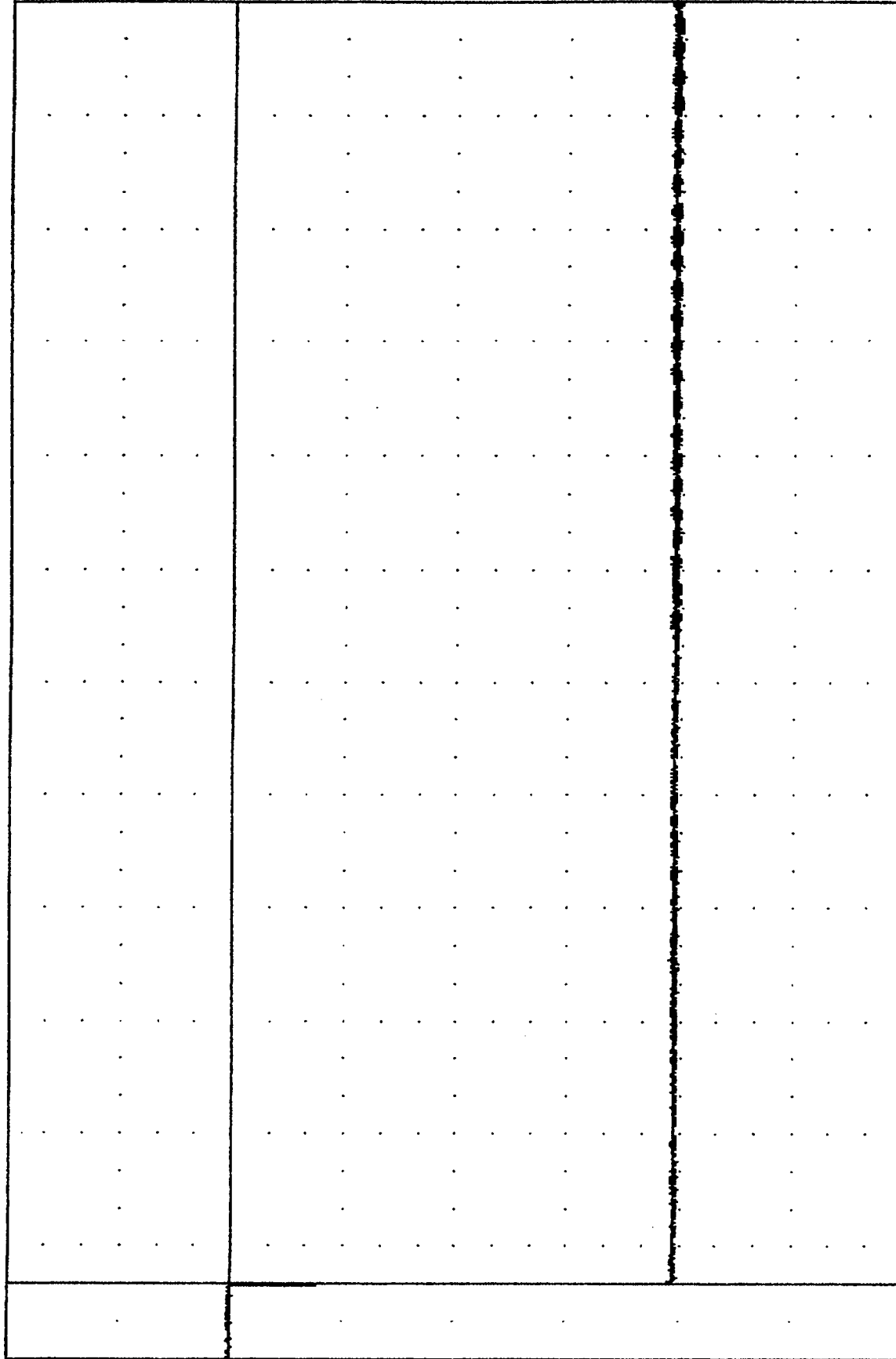
-10.00

-12.50

-15.00

-20.00

VOLTAGE (VOLT)

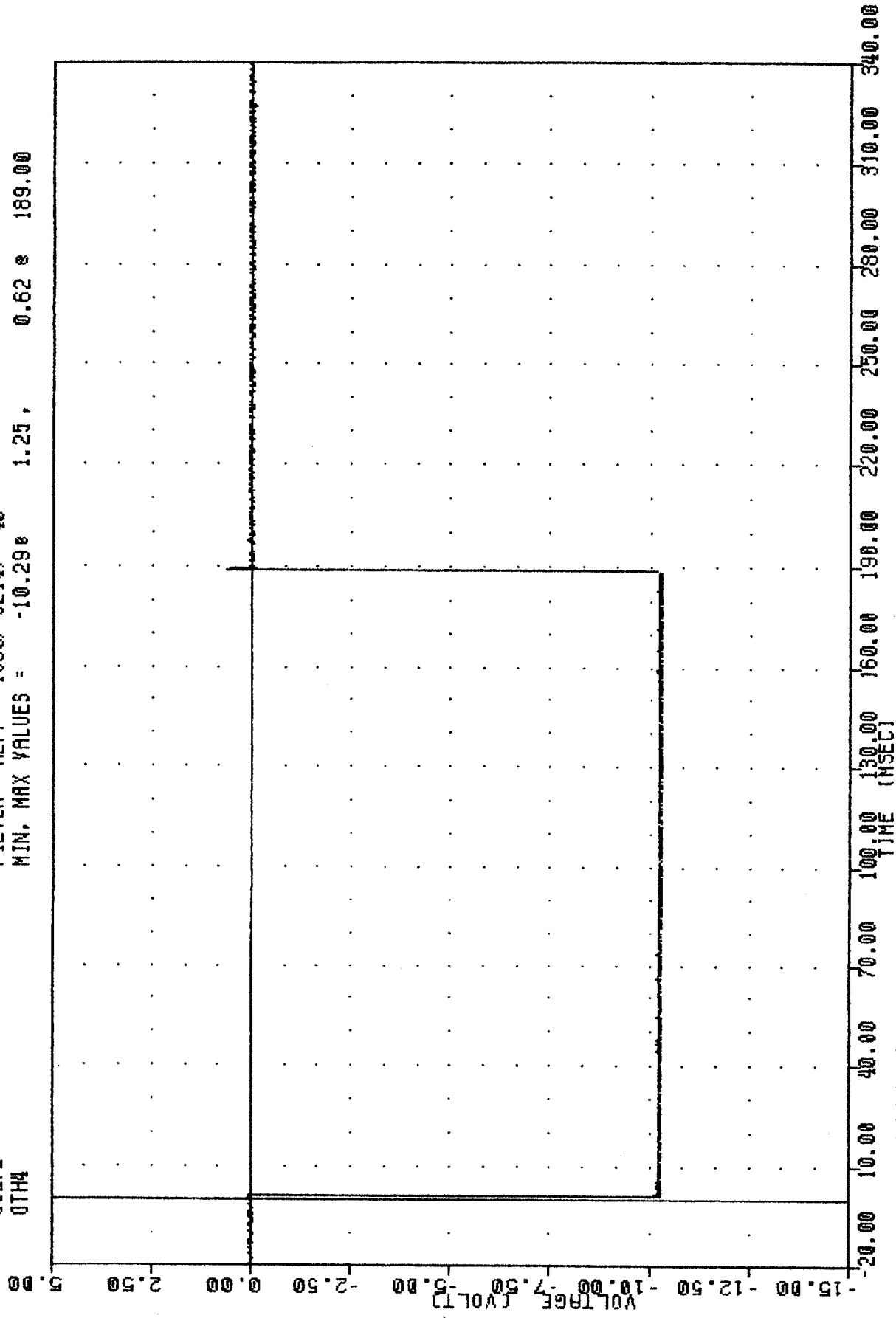


1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 30 MPH SIXTH TEST

VEHICLE CONTACT SWITCH - RIGHT

YRTC-6 , 880928
 DAMAGE ALGORITHM REFORMULATION
 88272
 0TH4

FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = -10.290 1.25 , 0.62 189.00



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 30 MPH SIXTH TEST
 BARRIER CONTACT SWITCH - LEFT

VRTC-6
DAMAGE ALGORITHM REFORMULATION

880928

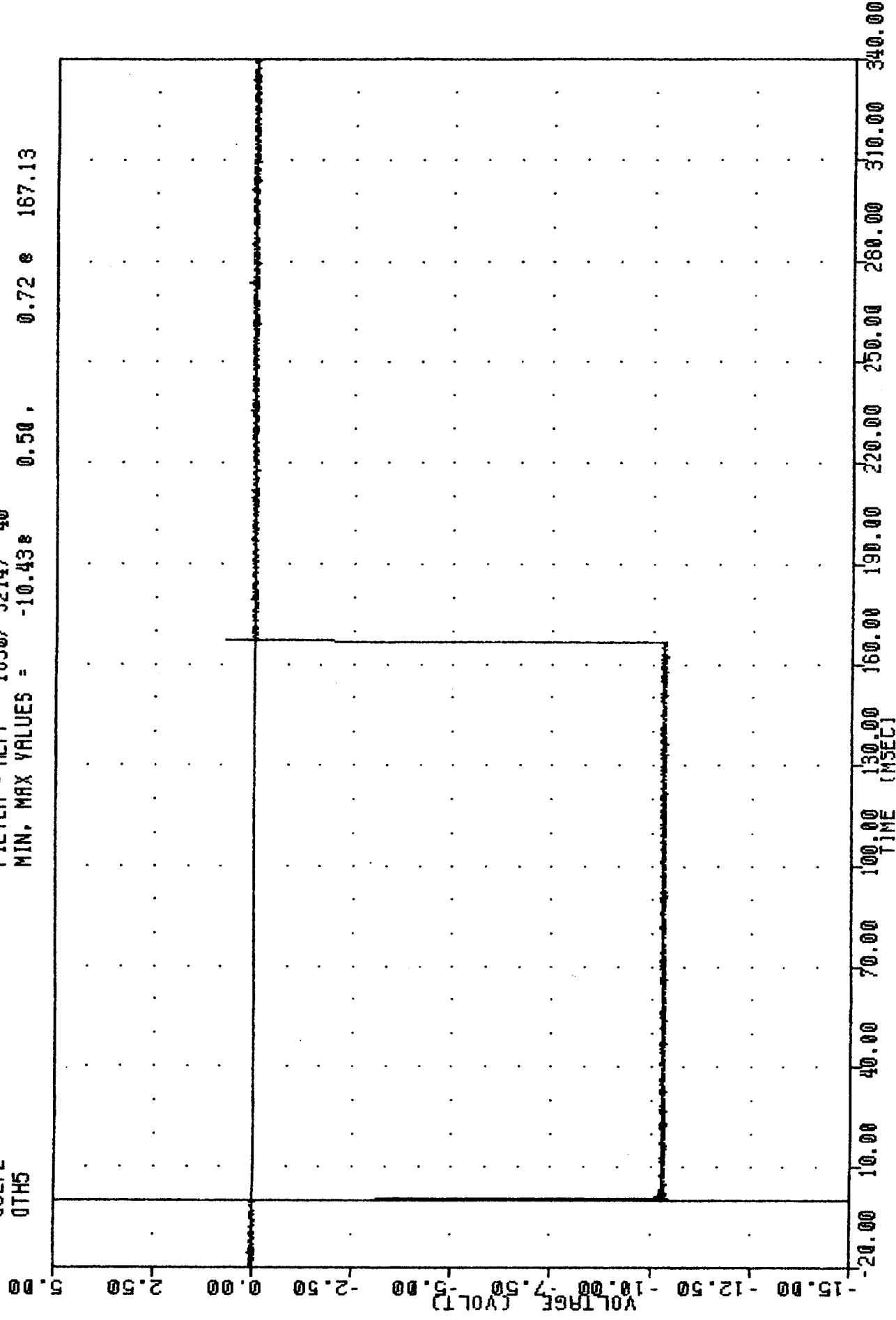
FILTER = ALPF 1650/ 5214/ -40

88272

0TH5

MIN, MAX VALUES = -10.43e

0.50, 0.72 e 167.13



1985 FORD ESCORT INTO FLAT FRONTAL BARRIER AT 30 MPH SIXTH TEST
BARRIER CONTACT SWITCH - RIGHT