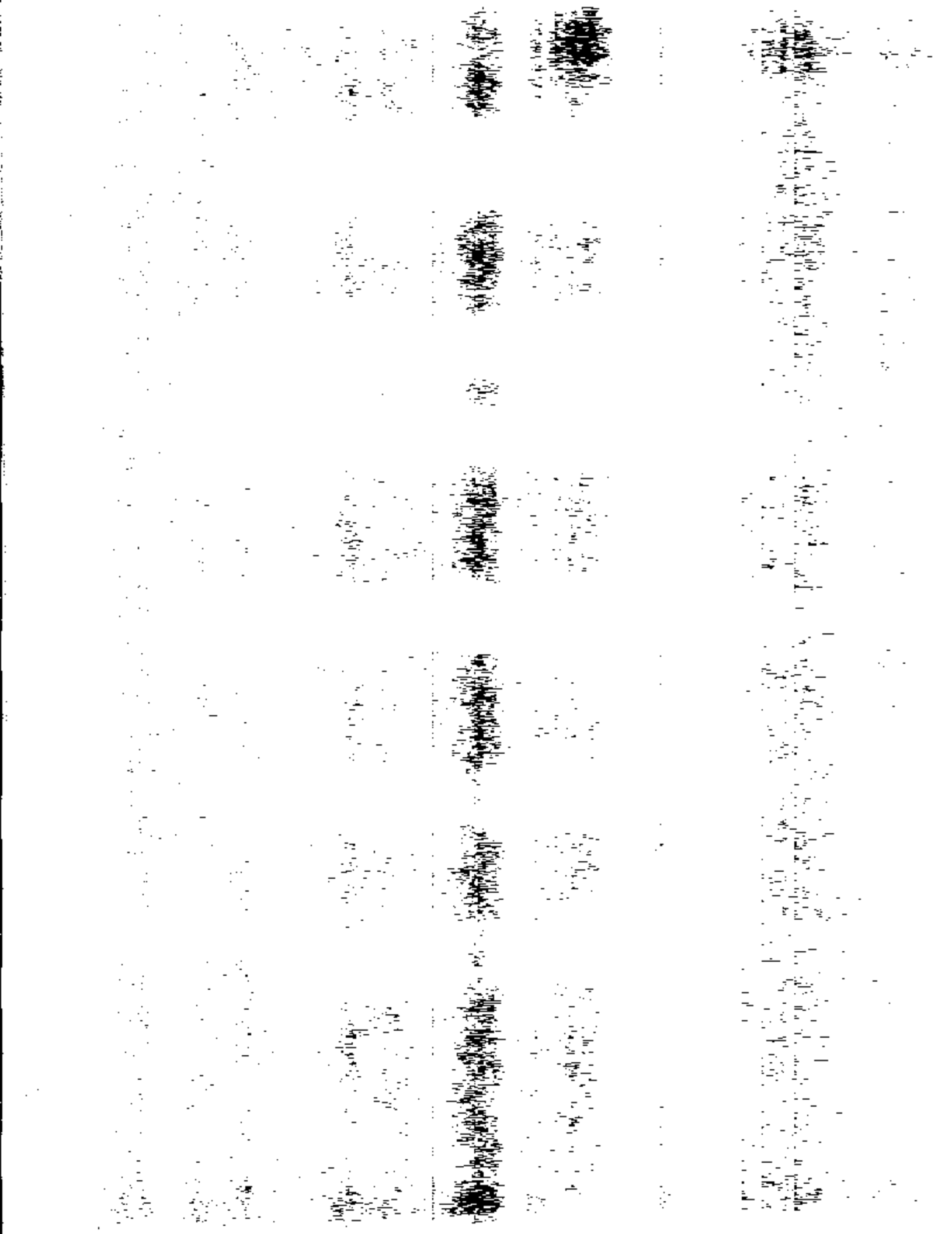




SCT

FINAL TEST REPORT

CONFIDENTIAL

Global Test Operations
Advanced Vehicle Technology

"RECORD COPY"	
Schedule No.	2-42
Year	2018

TO: K. Artinay

Test Order No.	T-A3061
Work Task W. O. No.	J16
Test Date	8/5/97
Date Reported	3/27/98
Sheet	1 of 111

SUBJECT: Crash Test 10788 (90° Right Side Fixed Pole Impact at 15.5 ± 0.4 mph, 24.9 ± 0.6 km/h) - 1999 FJ-145 4-Door Sedan

REQUESTED BY: Vehicle Safety and CAE Department, Advanced Vehicle Technology - D. Purdy

OBJECT: To obtain development data relative to air bag system sensors.

SUMMARY OF TEST RESULTS: See Section 1.0 for air bag system sensor data.

Concurred *[Signature]* 3/26/98
K. Burns
Section Supervisor
Operations Engineering Section

[Signature]
M. Foster
Test Development Engineer

T-A3041 C-10788 Sheet 2

VEHICLE DATA:

Make and Model 1999 FH-145 4-Door Sedan (Workhorse Prototype)

ID Numbers 2FALP74W58X208367, 516-T-405, FB8205

Power Train 4.6L, EFI, Automatic (4R70W) Transmission

Fuel Tank(s) Usable Capacity: 19.0 gal. (71.9L)
Test Condition: Empty

Front Seat(s) Type: Bucket
Cover: Leather
Tracks/Position: 6-Way Power/Mechanical Mid and Down
Seat Backs/Position: Adjustable/30.0° Rear of Vertical
Head Restraints/Position: Adjustable/Up
Lumbar Support/Position: Power/Deflated

Restraint System RF: 3-Point Continuous Loop Active Belt and Seat Back Side Air Bag

Occupants RF: BIO-SID Uninstrumented Dummy

Test Weight Front: 2316 lb (1051 kg)
Rear: 2310 lb (1048 kg)
Total: 4626 lb (2098 kg)

Tires Front: P225/60R16 32 psi (221 kPa)
Rear: P225/60R16 32 psi (221 kPa)
Spares: Removed

Significant Content or Accessories: Air Conditioning, Power Steering, Power Brakes, Tilt Steering Wheel

CRTS 0010788

GENERAL TEST COMMENTS:**1. Test Procedure**

The test was performed according to the following Corporate test procedure(s):

Fixed Barrier Collision, T657-ST-14 dated July 17, 1996.

1.1 Vehicle Alignment

The test vehicle impacted an 350 mm diameter steel pole structure, rigidly attached to the barrier face. The vertical steel pole was aligned so that the point of vehicle impact was centered on the test dummy's right front head center of gravity.

2. Remarks

Crash movies, pre- and post- crash still images of the test vehicle and copies of this report are available only through the Crash Test Operations Section after permission is obtained from the test requesting department. The crash still images are stored on CD ROMs. The file names of the still images are listed under crash number and a three digit sequence number which are 10788001 through 10788051.

TEST RESULTS:**1.0 Sensor Development**

Time histories of the dummy dynamic displacements obtained from Film Analysis are included in this report.

Time histories of the air bag/sensor(s) are included in this report.

Time histories of any requested derived data (i.e. integrations, etc.) were given to the requesting activity and are not included in this report.

2.0 Vehicle Crush, Film Analysis and/or Instrumentation Data

Time histories of the vehicle accelerations and other instrumentation are included in this report.

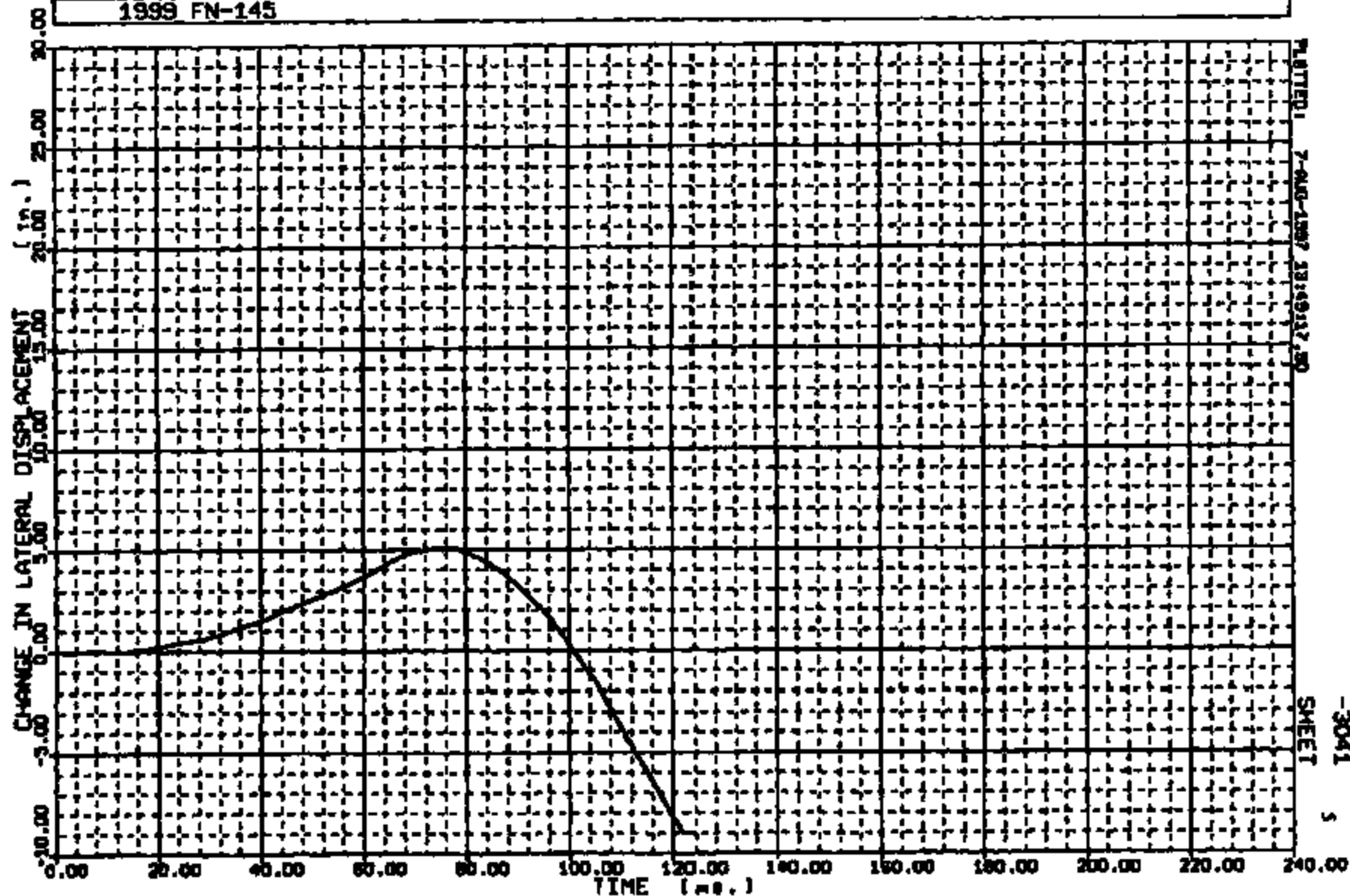
Time histories of vehicle dynamic displacements obtained from Film Analysis are included in this report.

Static displacements of various body points obtained by Dimensional Analysis are included in this report.

Time histories of any requested derived data (i.e. integrations, etc.) were given to the requesting activity and are not included in this report.

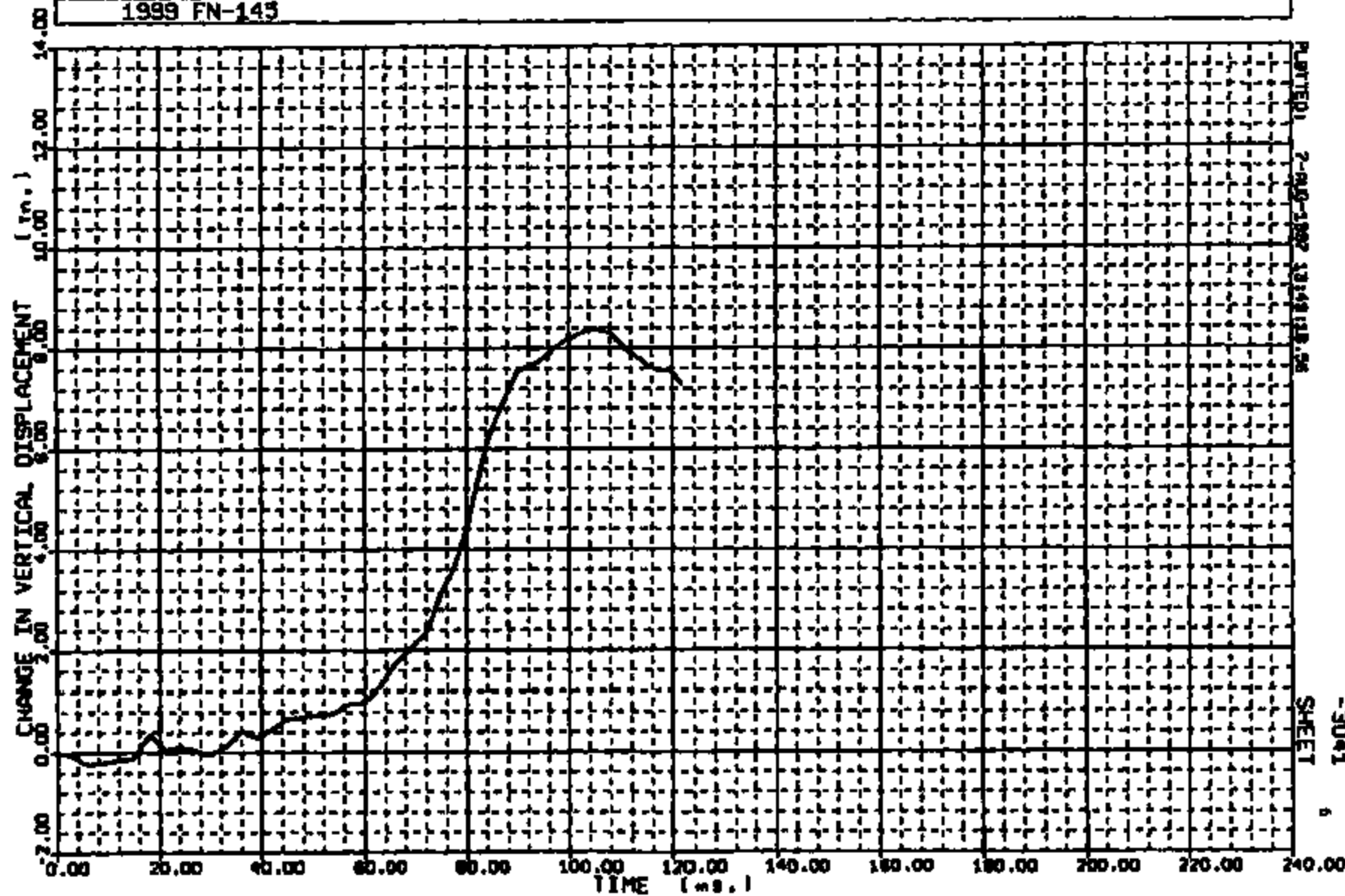
Y - AXIS: PASSENGER HEAD WRT ROOF C/L AT B-PILLAR MAX = 5.118 at 78.00 MIN = -8.001 at 122.00

RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD	PITCH CORRECTION
10788	BARRIER	-3041	SCALE	NOT APPLIED
1999 FN-145				



Y - AXIS: PASSENGER HEAD MFT ROOF C/L AT B-PILLAR MAX = 8.385 at 105.00 MIN = -.2382 at 5.00

RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD	PITCH CORRECTION
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1999 FN-143				

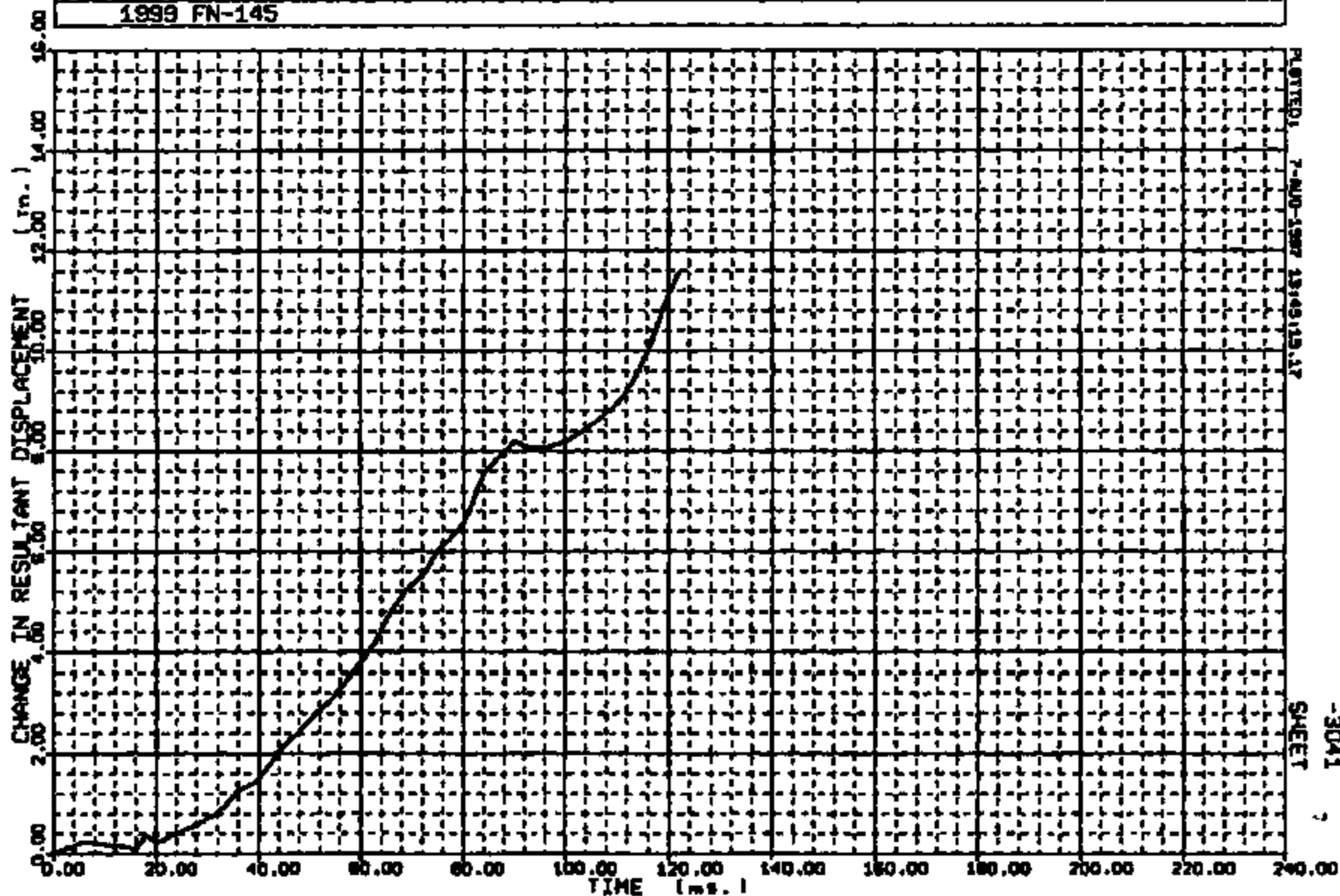


CRIS 0010788

-3041

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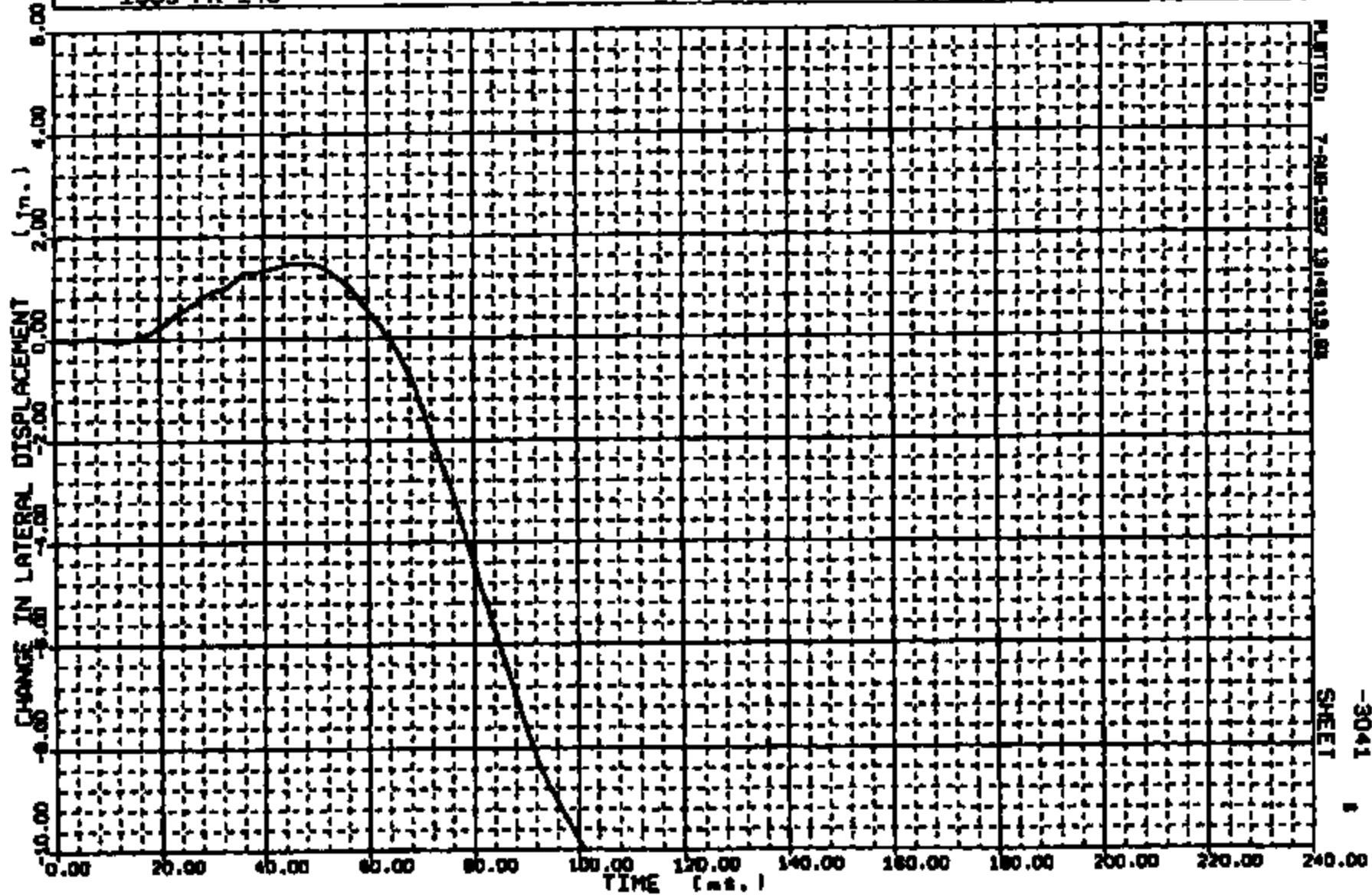
Y - AXIS:		PASSENGER HEAD WRT ROW C/L AT B-PILLAR		MAX = 11.57	at 122.00	NDV = 0.0000E+00	at 0.00
RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD		PITCH CORRECTION		
10798	BARRIER	-3041	SCALE		NOT APPLIED		
1999 FN-145							



CRTS 0010788

-3041
ENTIRE PAGE CONFIDENTIAL

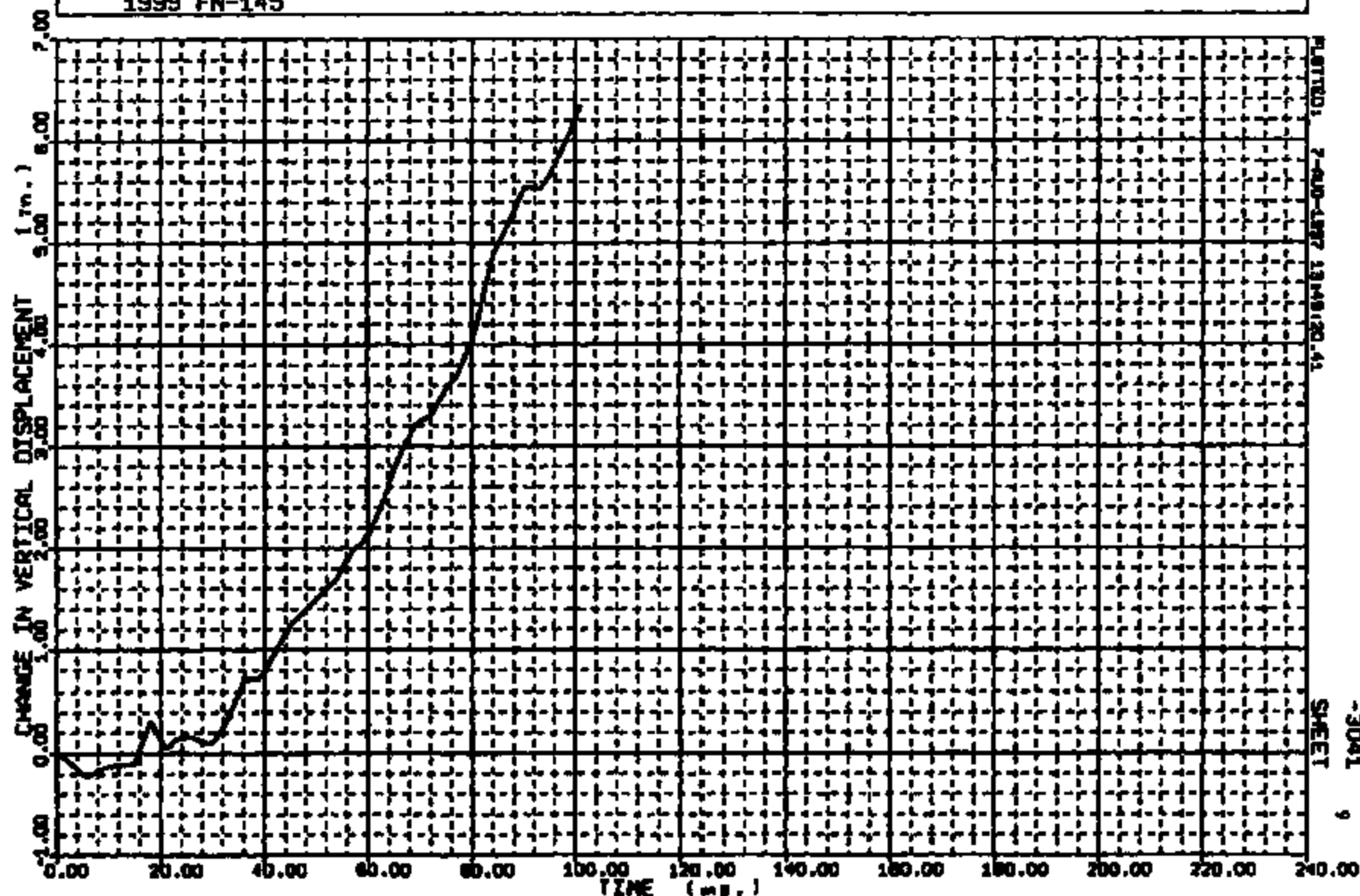
Y - AXIS: PASSENGER CHEST WRT ROOF C/L AT B-PILLAR					MAX = 1.466	at 49.00	MIN = -9.984	at 101.00
RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD	PITCH CORRECTION				
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1999 FN-145								



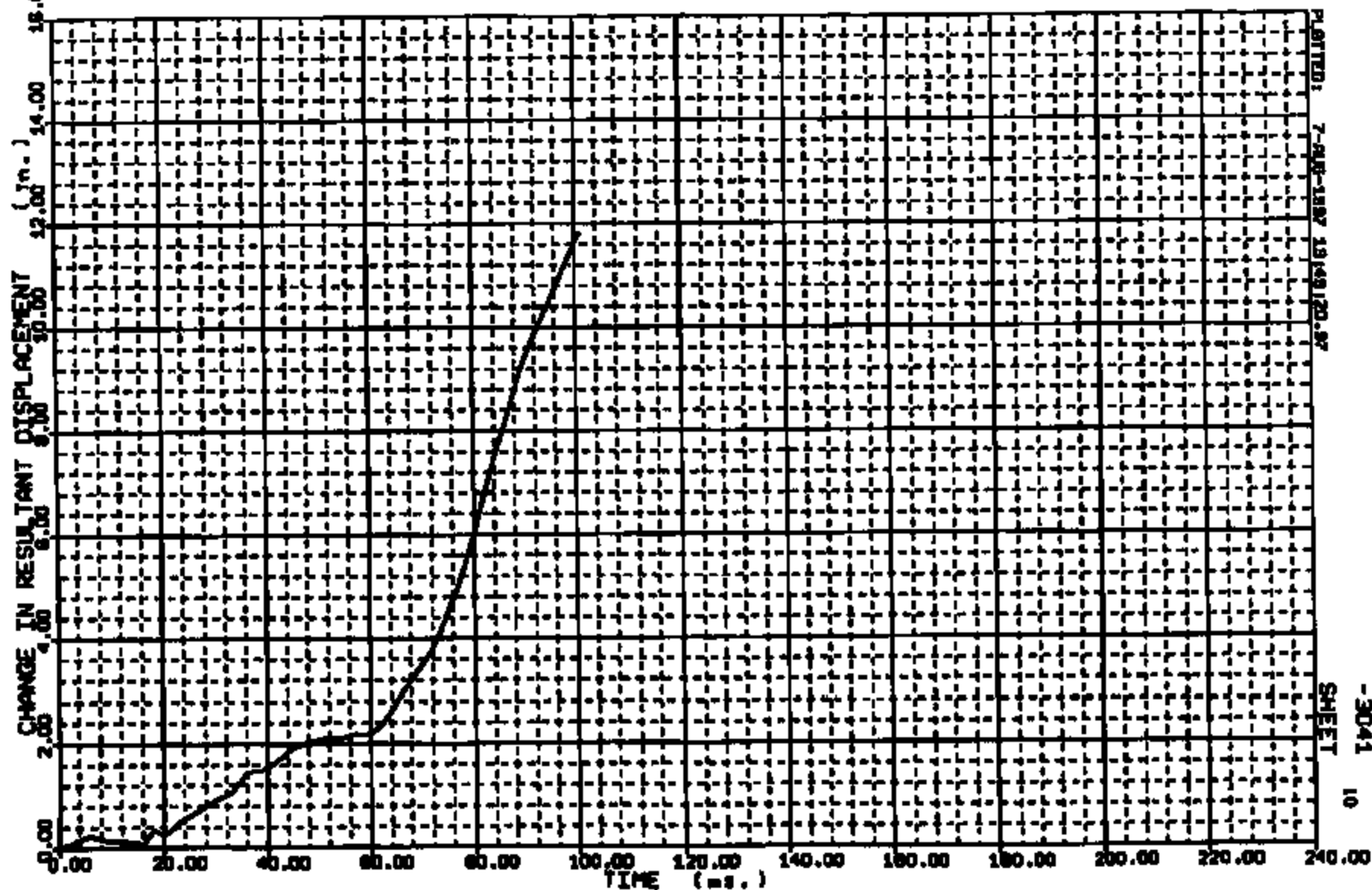
Y - AXIS: PASSENGER CHEST HIT ROOF C/L AT B-PILLAR MAX = 5.345 @ 101.00 MIN = -.2277 @ 6.00

RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD	PITCH CORRECTION
10788	BARRIER	-3041	SCALE	NOT APPLIED

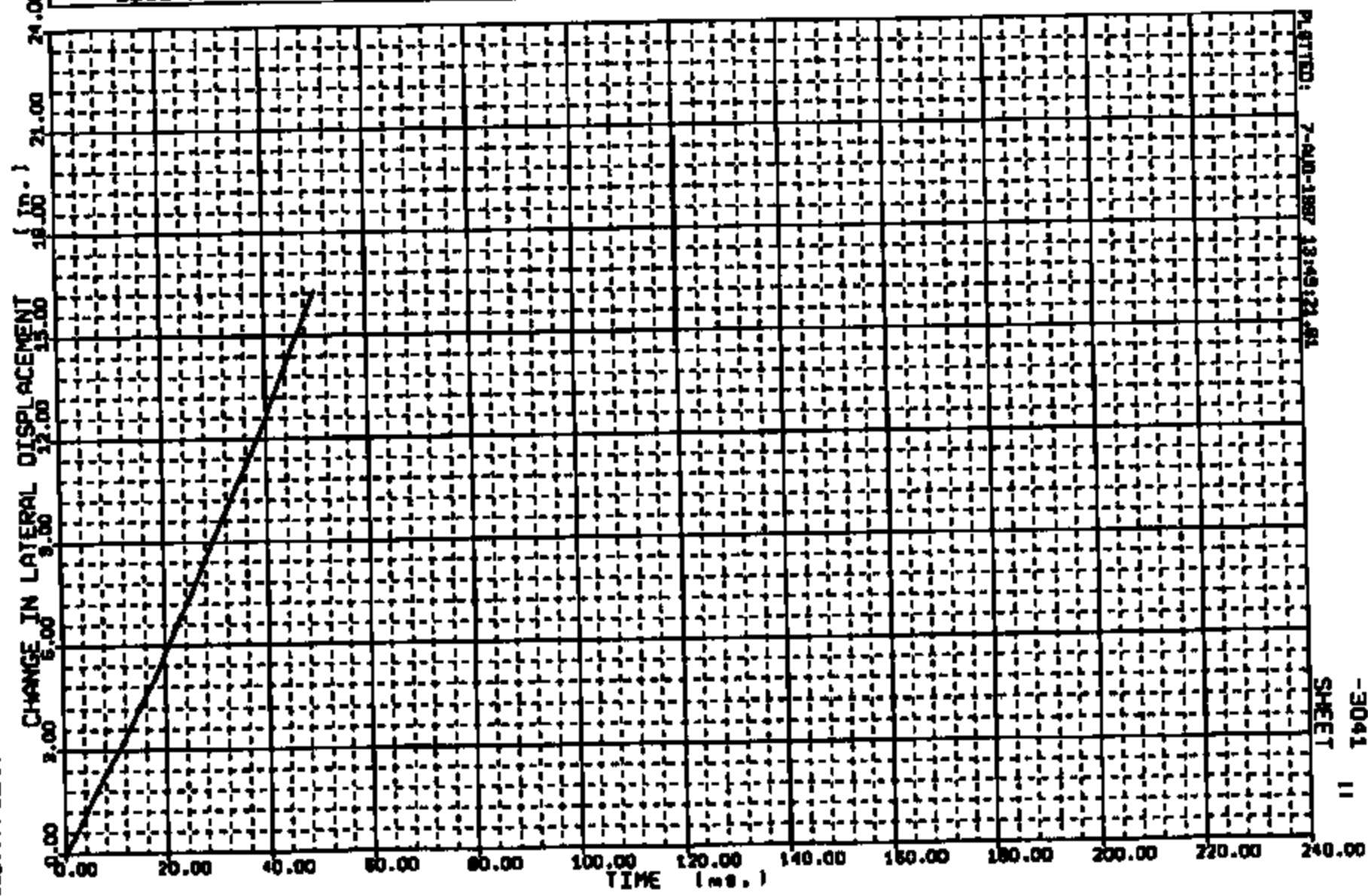
1999 FN-145



Y - AXIS: PASSENGER CHEST NET ROOF C/L AT B-PILLAR					PKX = 11.83	at 101.00	MIN = 0.0000E+00	at 0.00
RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD		PITCH CORRECTION			
10788	BARRIER	-3041	SCALE		NOT APPLIED			
1999 FN-145								



Y - AXIS: PASSENGER HEAD WRT POLE		MAX = 18.30		at 50.00 MIN = 0.0000E+00 at 0.00	
RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD	PITCH CORRECTION	
10788	BARRIER	-3041	SCALE	NOT APPLIED	
1999 FN-145					



CRTS 0010788

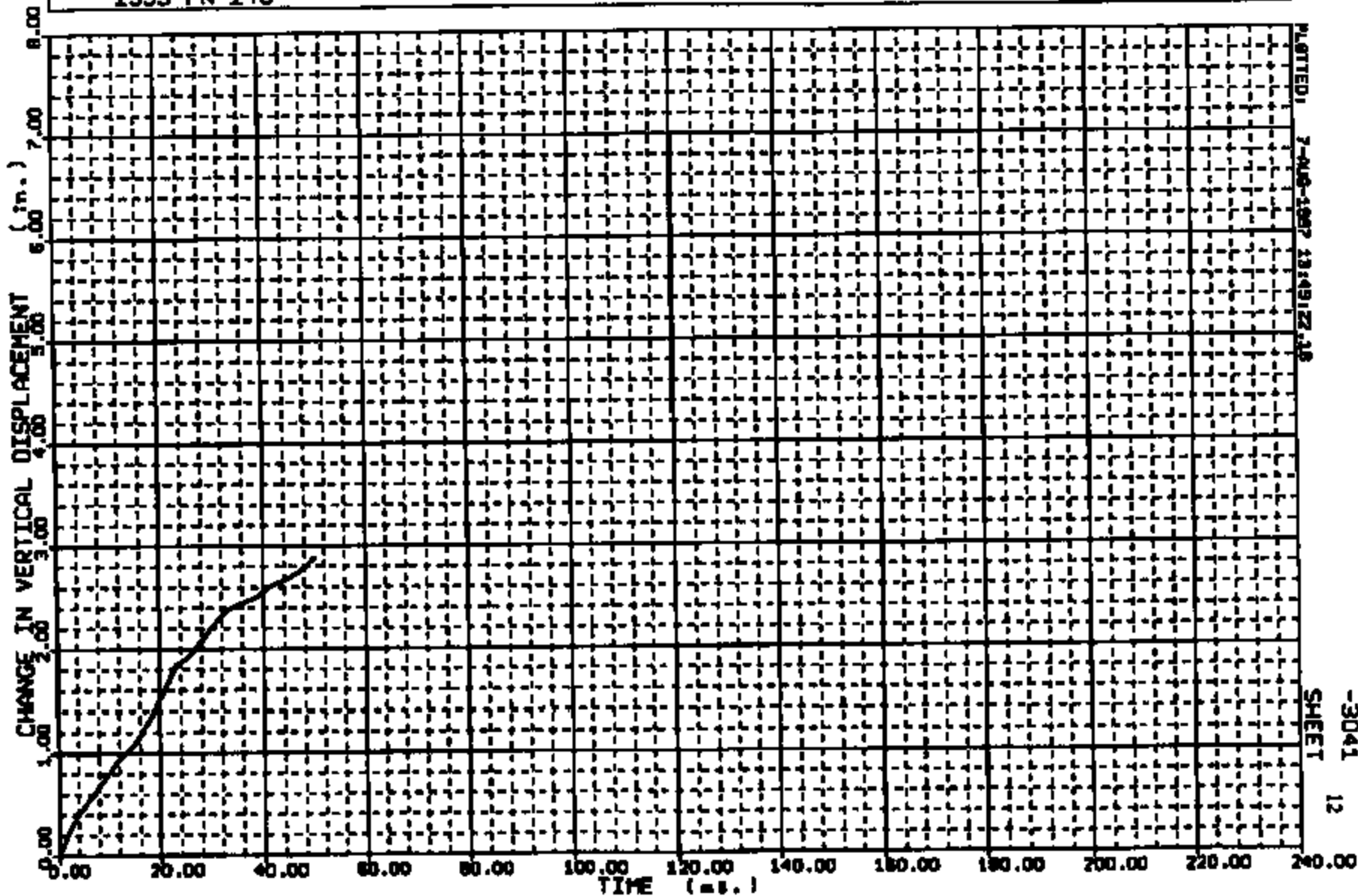
PLotted: 7-24-1997 13:49:22.81

-3041
SHEET 11

Y - AXIS: PASSENGER HEAD WRT POLE

MAX = 2.891 at 50.00 MIN = 0.0000E+00 at 0.00

RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD	PITCH CORRECTION
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1999 FN-145				

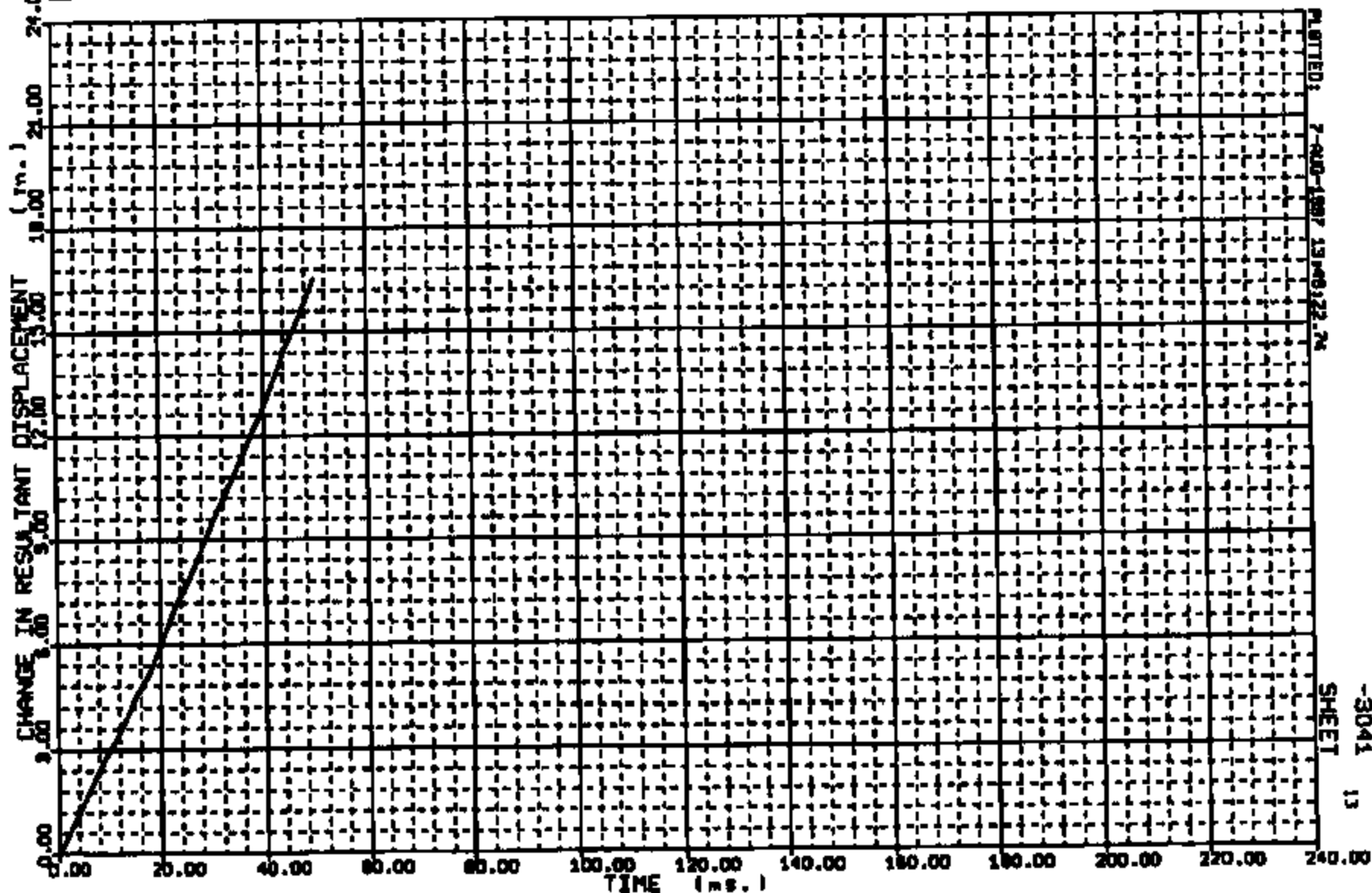


CRIS 0010788

Y - AXIS: PASSENGER HEAD WRT PBLE

PAK = 16.56 at 50.00 HDN = 0.0000E+00 at 0.00

RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD	PITCH CORRECTION
10788	BARRIER	-3041	SCALE	NOT APPLIED
1999 FN-145				



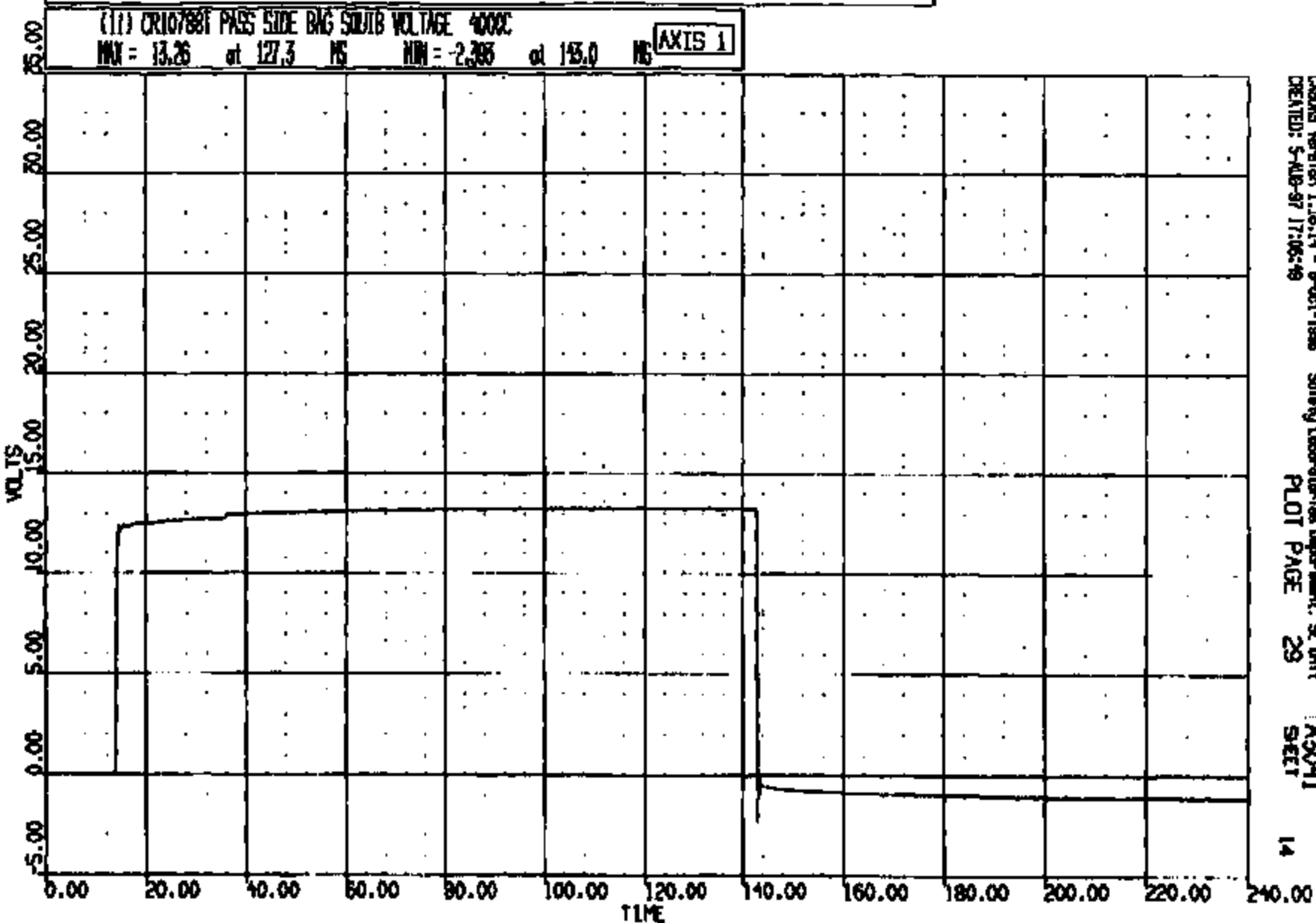
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CR R: 10788 TO: TA3041 DATE: 970803 16:45:11
1999 FN-145 1999 FN-145

(11) CR10788T PASS SIDE BAG SOUTB VOLTAGE 4000C

MAX = 13.26 at 127.3 MS MIN = -2.206 at 143.0 MS

AXIS 1



CASMS Version 1.16.14 - B-001-1998
CREATED: 5-AUG-97 17:06:49

Safety Laboratories Department, St. Unit
PLOT PAGE 29

TA3041
SHEET

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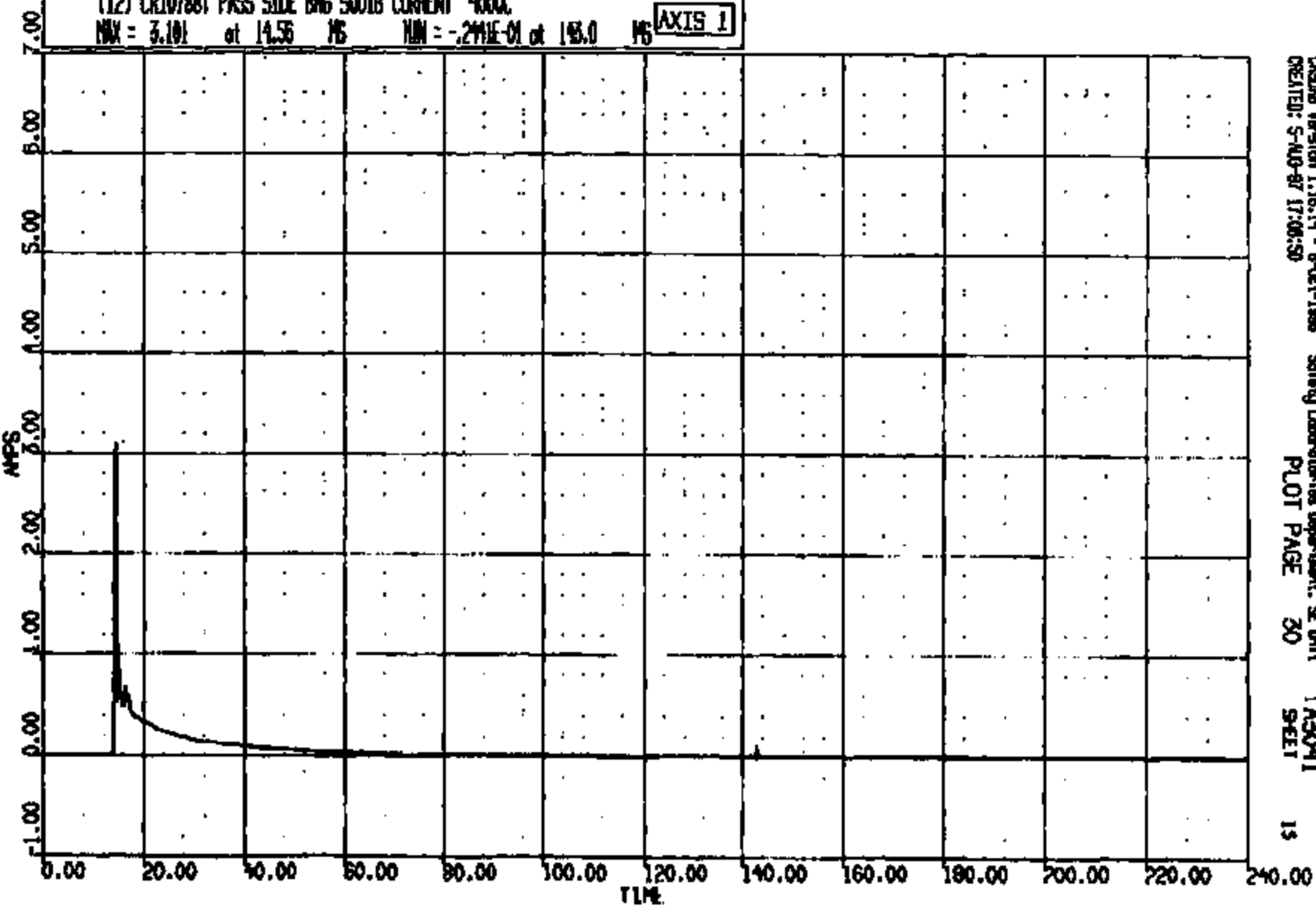
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CR R: 10788 TO: TA3041 DATE: 970805 18:48:11
1999 FN-145 1999 FN-145

(12) CR10788T PASS SIDE BAG SOUTB CURRENT 4000C

MAX = 3.101 at 14.56 MS MIN = -.241E-01 at 143.0 MS

AXIS 1



CASLAB Version 1.18.14 - B-04-1998
CREATED: 5-AUG-97 17:06:50

Safety Laboratories Department, SE Unit
PLOT PAGE 30

TA3041
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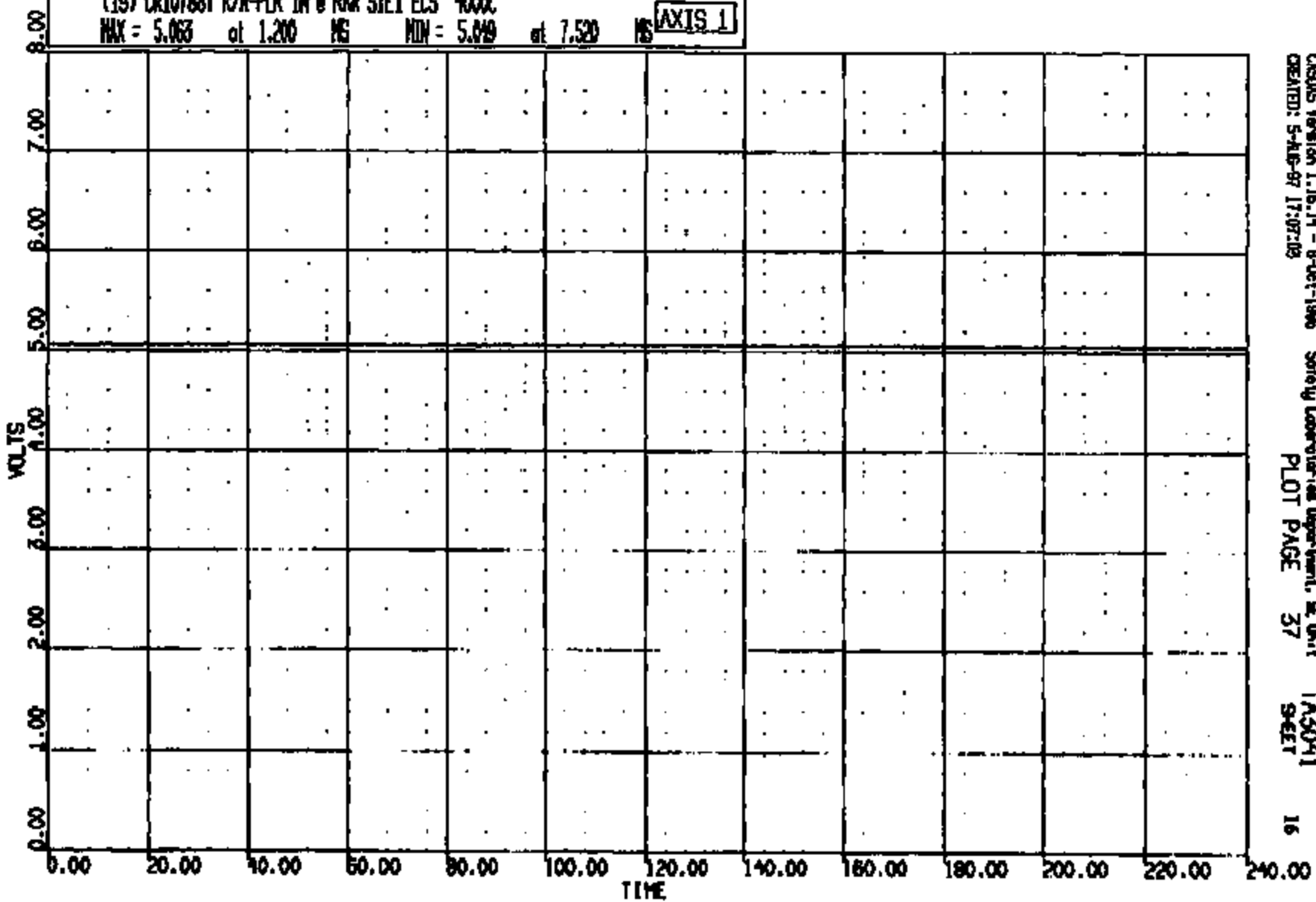
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1999 FN-145 1999 FN-145

(19) CR107881 R/A-PLR IN @ RWR SITE1 ECS 4000C

MAX = 5.063 at 1.200 MS MIN = 5.049 at 7.520 MS

AXIS 1



CASUS Version 1.16.14 - 8-Oct-1996
CREATED: 5-AUG-97 17:07:09

Selfy Laboratories Department, E. Unit
PLOT PAGE 37

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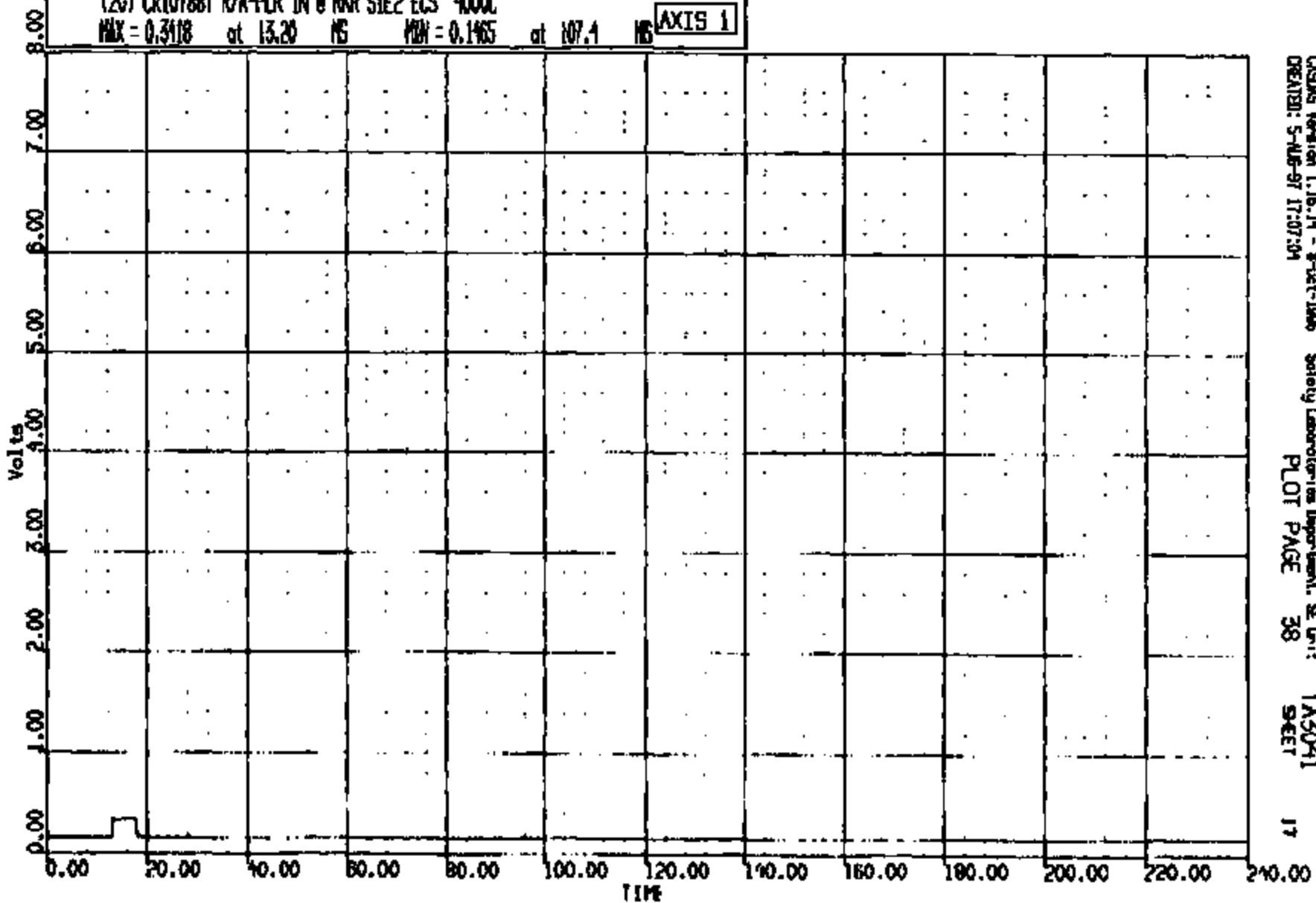
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1999 FN-146 1999 FN-145

(20) CR10788T R/A-PLR IN @ RWR SIE2 ECS 4000C

MAX = 0.3118 at 13.20 NS MIN = 0.1465 at 107.4 NS

AXIS 1



CISMS Version 1.16.14 - 8-Oct-1998
CREATED: 5-AUG-97 17:07:04

Safety Laboratories Department, SE Unit:
PLOT PAGE 38

TA3041
SET 17

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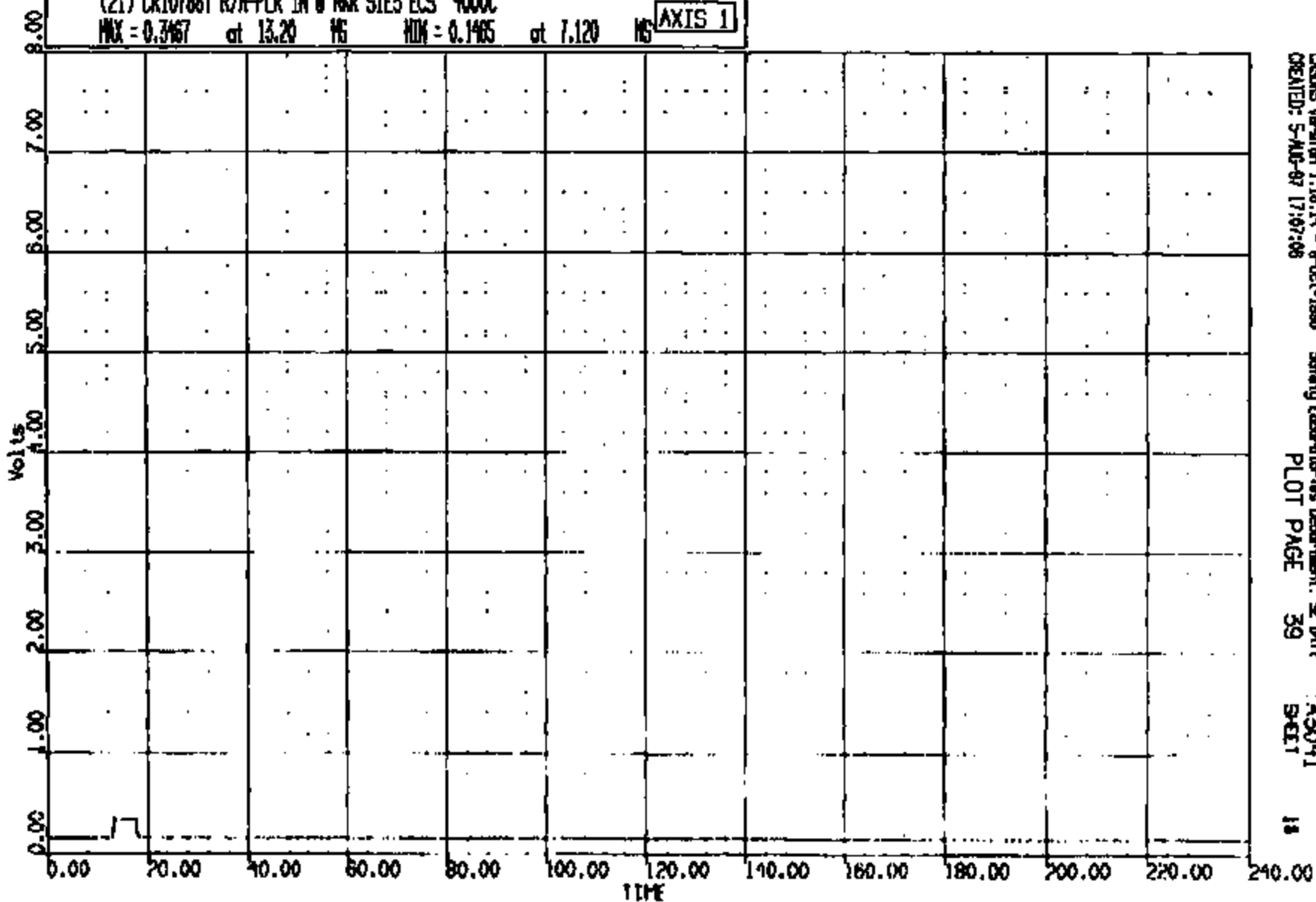
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CR R: 10788 TO: TASO41 DATE: 970803 16:43:11
1999 FN-145 1999 FN-145

(21) CR10788T R/A-PLR IN @ ROR SITE3 ECS 4000C

MAX = 0.3467 at 13.20 MS MIN = 0.1405 at 7.120 MS

AXIS 1



CASUS Version 1.16.14 - 8-Oct-1996
CREATED: 5-AUG-97 17:07:08

Safety Laboratories Department, St. Unit
PLOT PAGE 39

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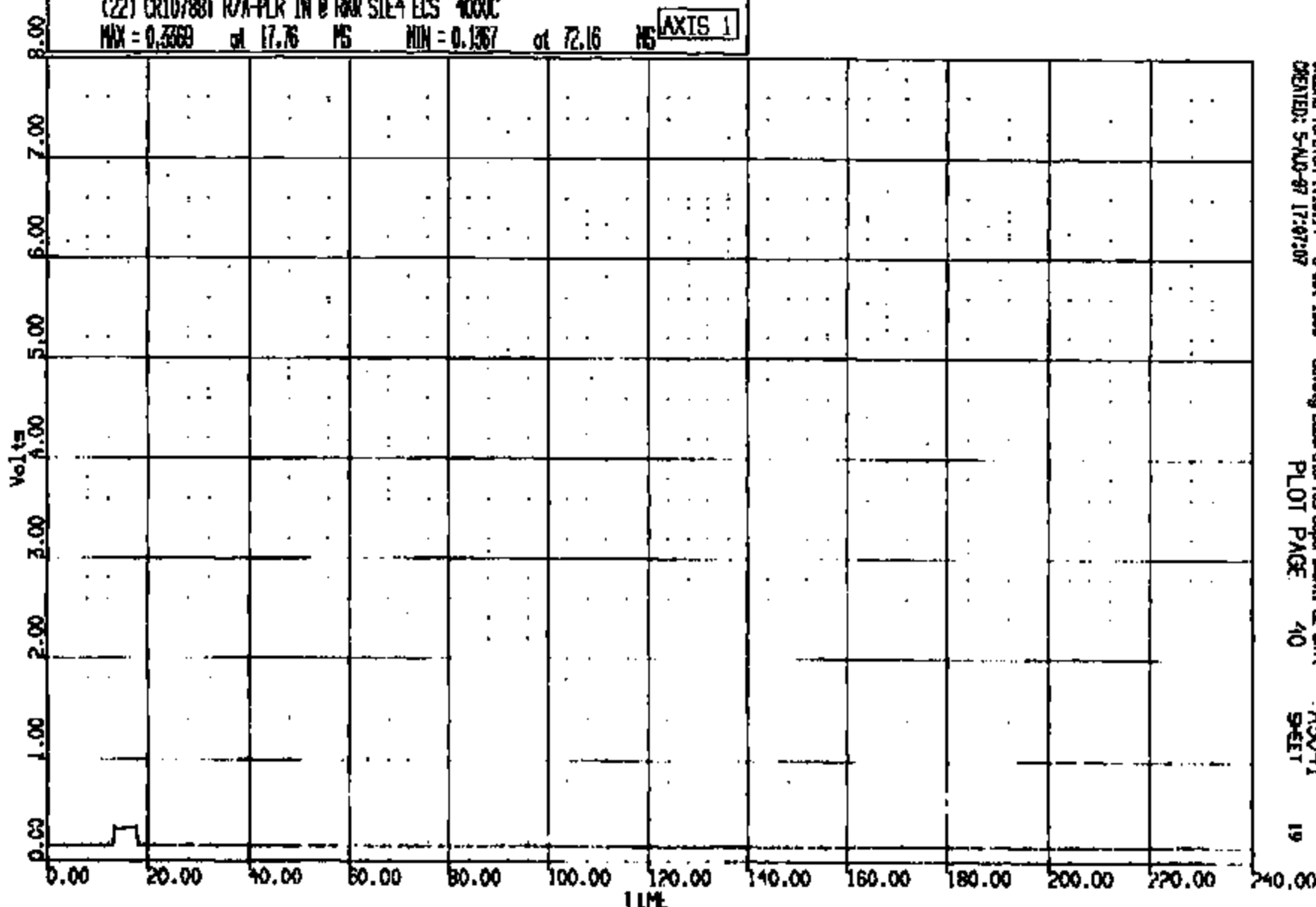
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CR R: 10788 TO: TA3041 DATE: 970803 16:43:11
1999 FN-145 1999 FN-145

(22) CR10788T R/A-PLR IN @ ROR STE4 ECS 4000C

MAX = 0.3369 at 17.76 MS MIN = 0.1367 at 72.16 MS

AXIS 1



CASAS Version 1.16.14 - 8-Oct-1999 Safety Laboratories Department, SE Unit
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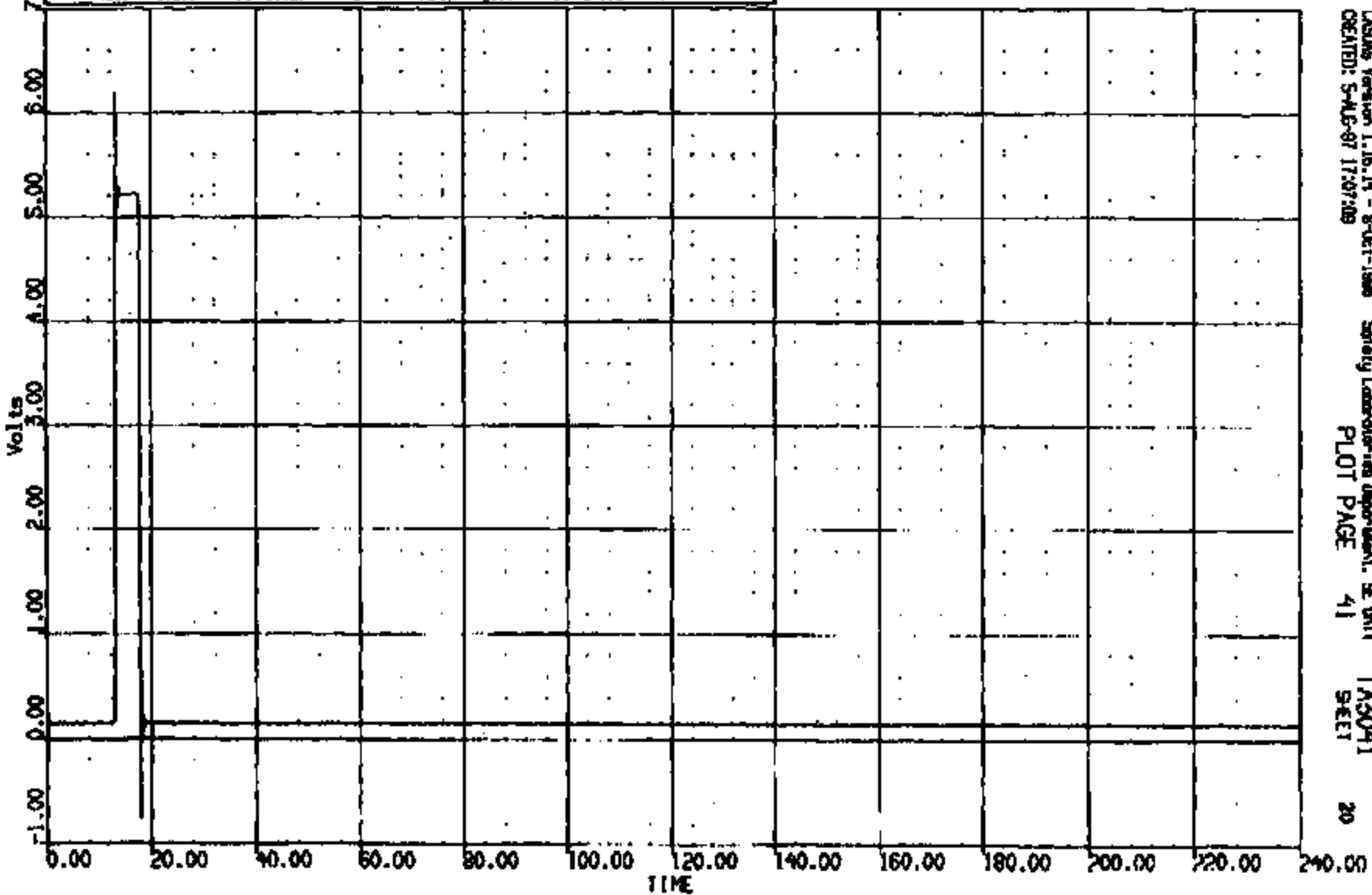
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CRIS 0010788

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1999 FN-145 1999 FN-145

(25) CR107881 R/A-PLR IN @ 18K SIES ECS 4000C

MAX = 6.196 at 13.20 MS MIN = -.7686 at 17.92 MS **AXIS 1**



CASINS Version 1.16.14 - 8-Oct-1998
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Safety Laboratory Department, EE Unit
PLOT PAGE 41

TA3041
SHEET

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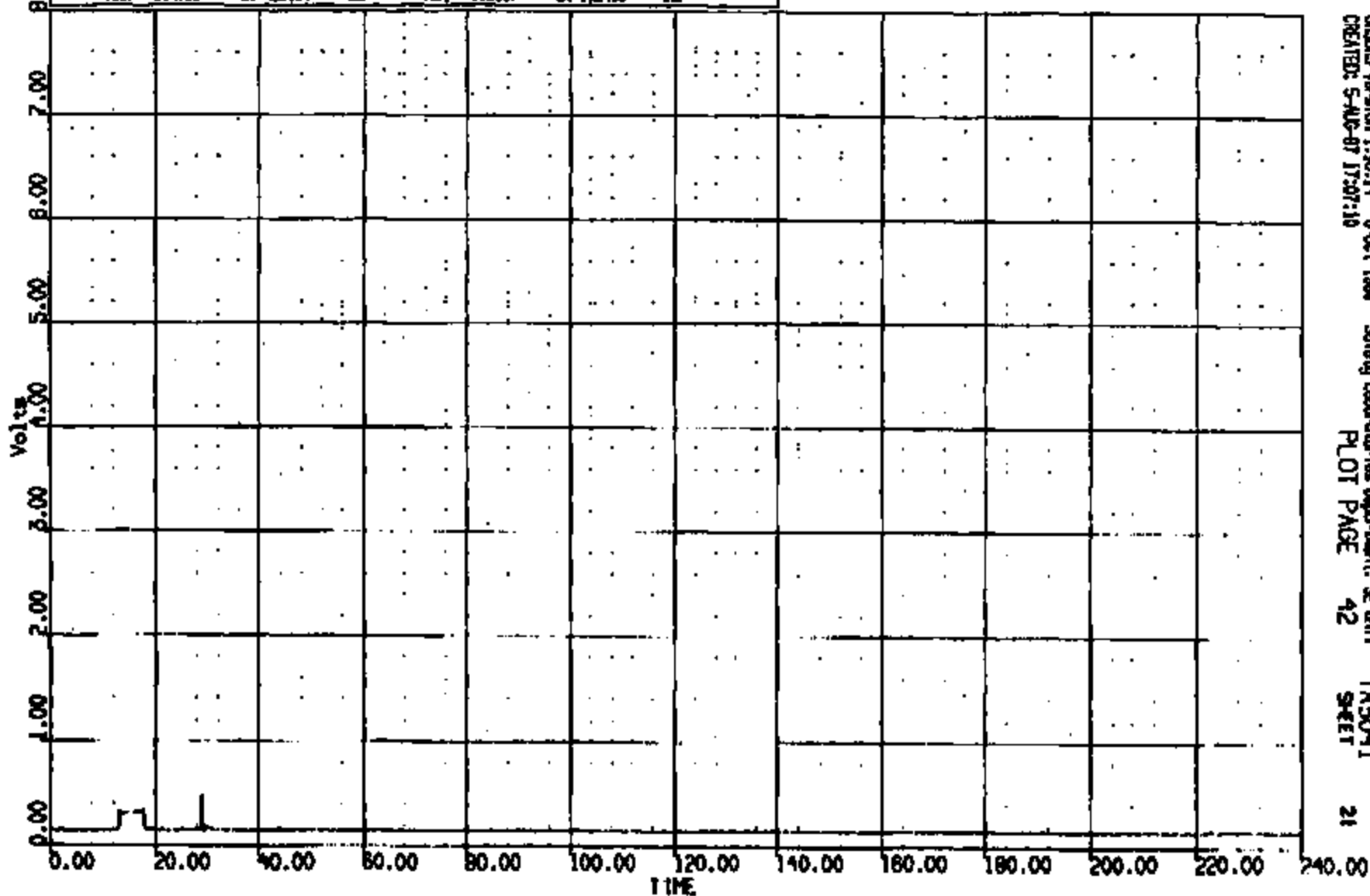
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CR R: 10788 TO: TA3041 DATE: 870805 16:43:11
1989 FN-145 1989 FN-145

(24) CR10788T R/A-PLR IN @ RNR SIEG ECS 4000C

MIN = 0.1765 at 29.04 MS MAX = 0.1357 at 0.2400 MS

AXIS 1



CASIMS Version 1.16.14 - 8-Oct-1986
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Safety Laboratories Department, SE Unit
PLOT PAGE 42

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Sheet 21

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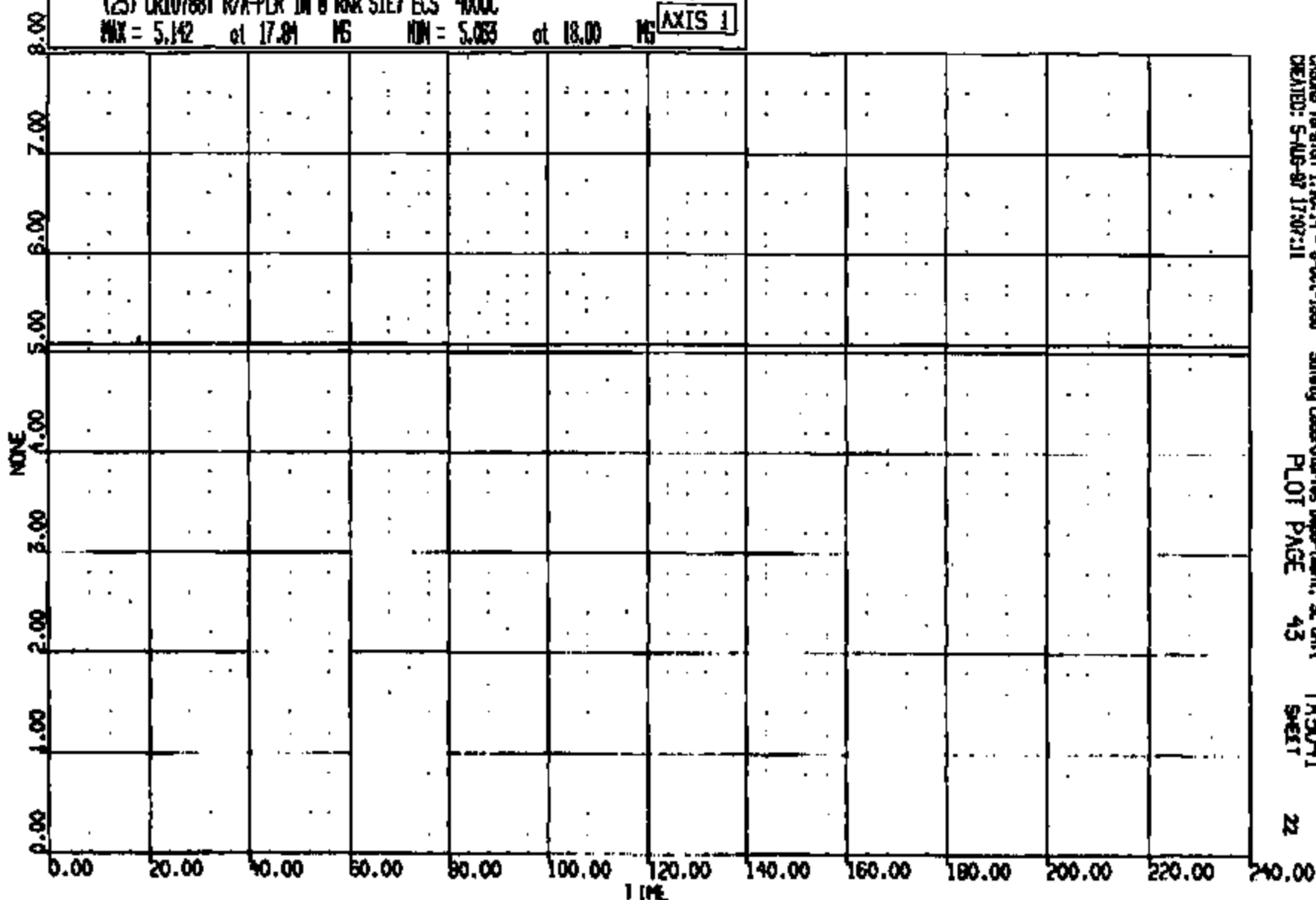
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CR R: 10788 TO: TA3041 DATE: 970805 18:43:11
1999 FN-145 1999 FN-145

(25) CR107881 R/A-PLR IM 8 RKR SIE7 ECS 4000C

MAX = 5.142 at 17.84 MS MIN = 5.053 at 18.00 MS

AXIS 1



CHADS Version 1.16.14 - 8-Oct-1998
CREATED: 5-AUG-97 17:07:11

Safety Laboratories Department, SE Unit
TA3041
PLOT PAGE 43

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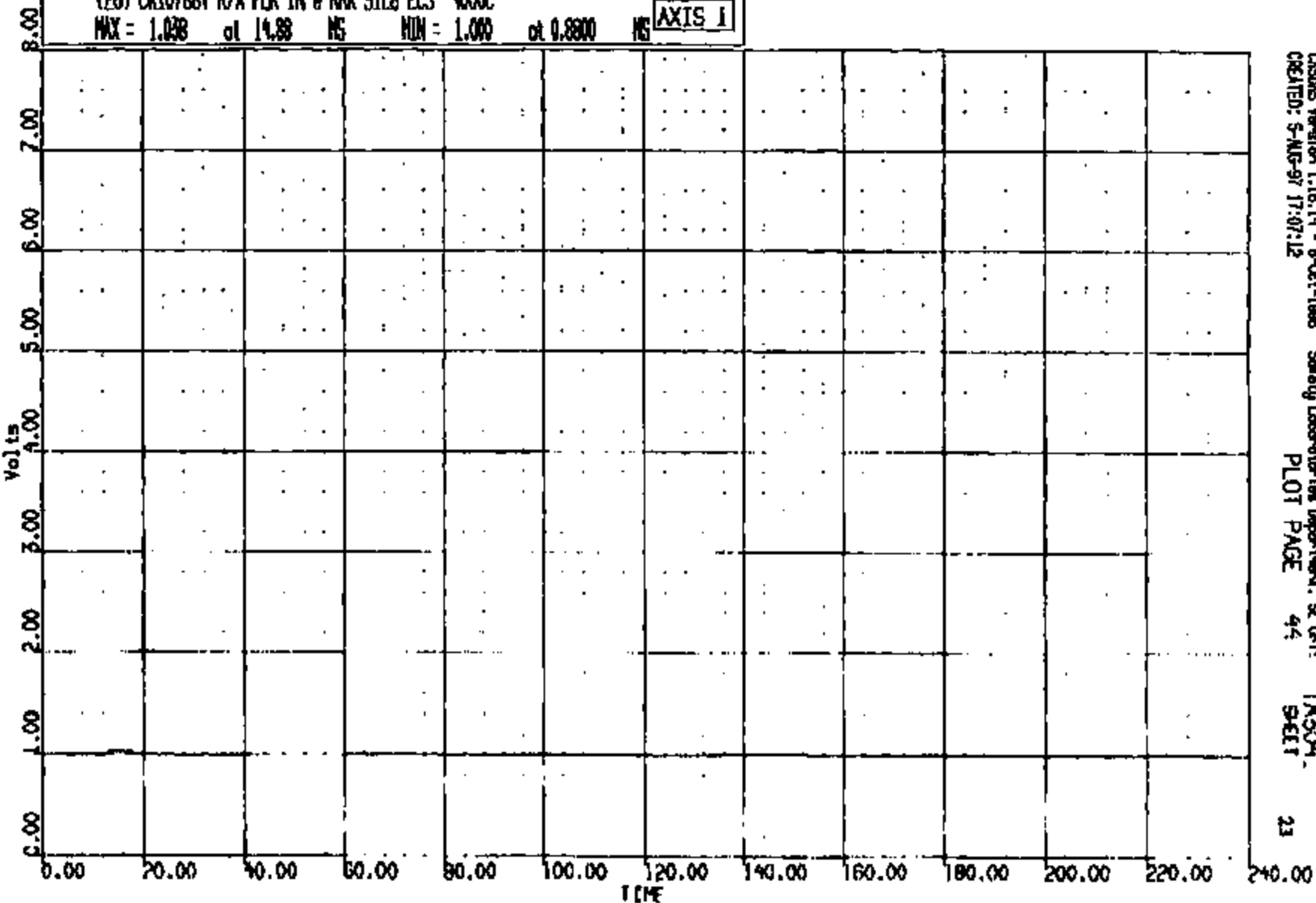
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CR R: 10788 TO: TAB041 DATE: 970806 16:48:11
1998 FN-145 1998 FN-145

(26) CR107881 R/A-PLR IN @ RWR SITE ECS 4000C

MAX = 1.038 of 14.88 NS MIN = 1.000 of 0.8800 NS

AXIS I



CASIMS Version 1.16.14 - 8-Oct-1998
CREATED: 5-AUG-97 17:07:12

Safety Laboratories Department, SC Unit:
PLOT PAGE 44

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SET 23

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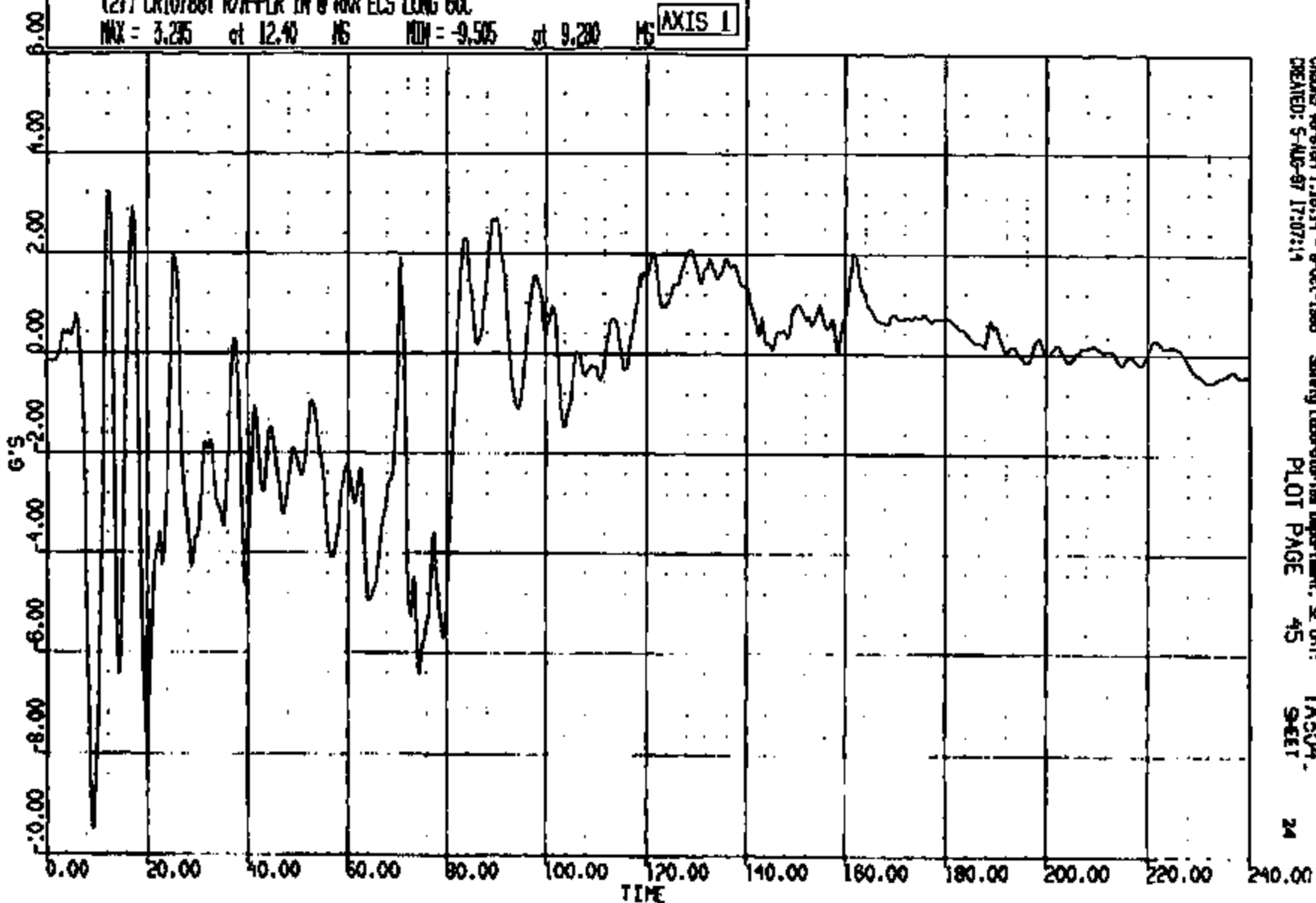
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CR R: 10788 TO: TA3041 DATE: 870808 16:42:11
1988 FN-145 1988 FN-145

(27) CR10788T R/A-PLR IN @ RVR ECS LONG GOC

MAX = 3.295 at 12.40 MS MIN = -9.505 at 9.280 MS

AXIS 1



CASIMS Version 1.16.14 - 8-Oct-1988
CREATED: 5-AUG-87 17:07:14

Safety Laboratory Department, S. Unit:
PLOT PAGE 45

TA3041
Sheet 24

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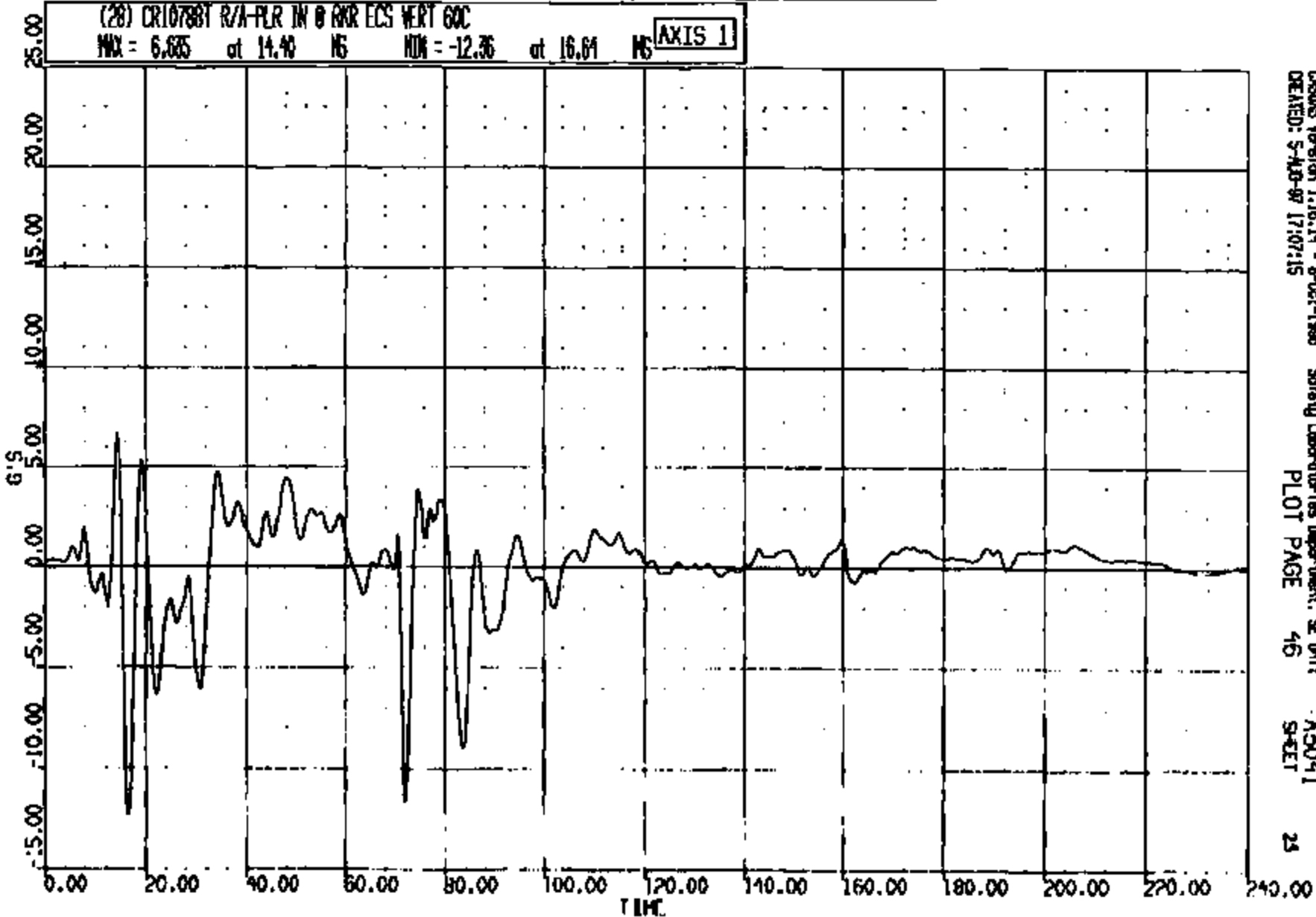
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CR R: 10788 TO: TA2041 DATE: 970805 18:45:11
1999 FN-145 1999 FN-145

(28) CR10788T R/A-PLR IN @ RKR ECS WERT 60C

MAX = 6.835 at 14.40 MS MIN = -12.36 at 16.64 MS

AXIS 1



CRSUS Version 1.16.14 - 8-Oct-1998
CREATED: 5-AUG-97 17:07:15

Safety Laboratories Department, SE Unit
PLOT PAGE 46
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S-SET

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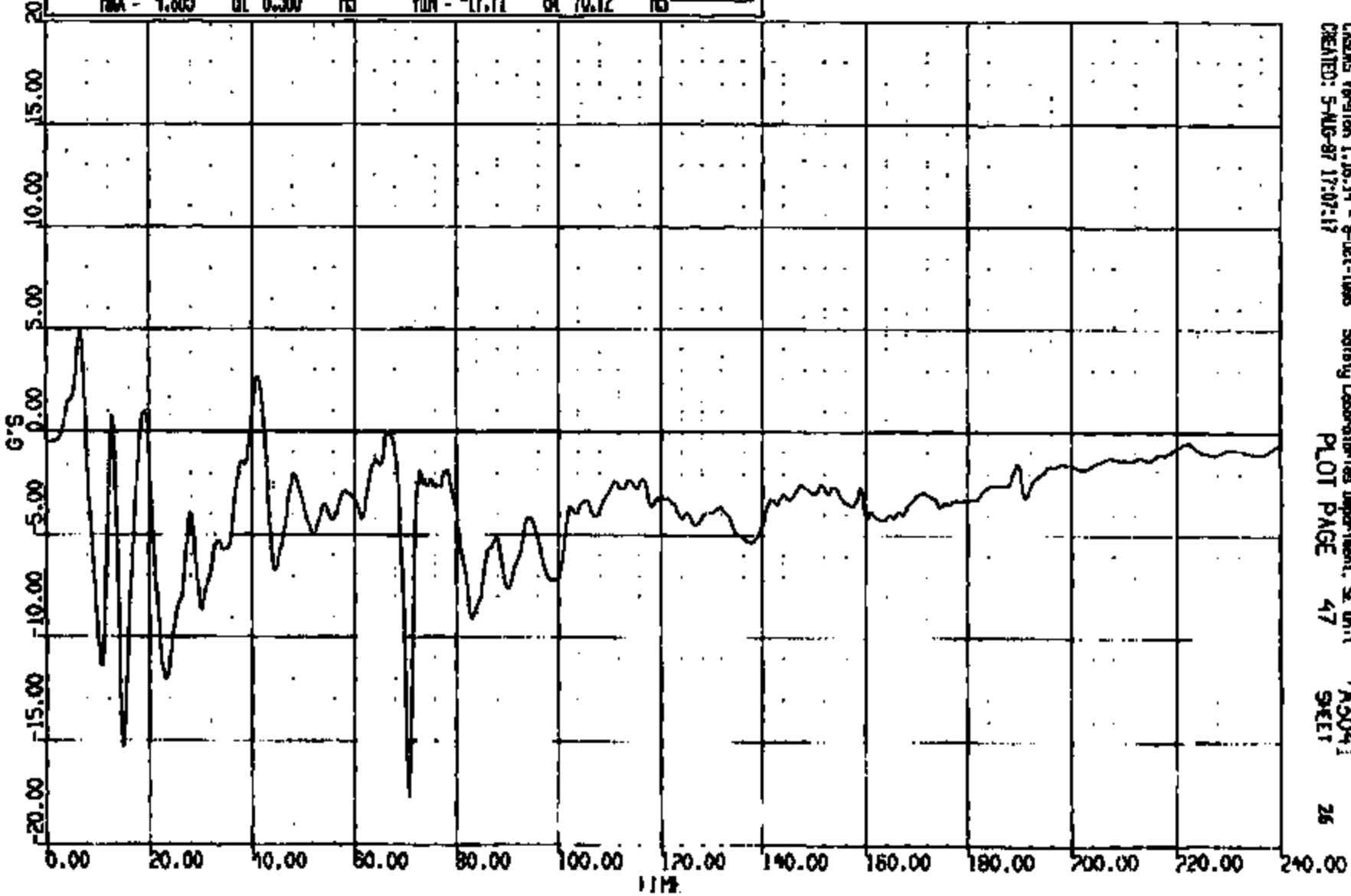
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CR R: 10788 TO: TA5041 DATE: 970805 18:45:11
1999 FN-145 1999 FN-145

(29) CR107881 R/A-PLR IN @ RNR ECS LAT 60C

MAX = 4.863 at 6.550 MS MIN = -17.71 at 70.72 MS

AXIS 1



CASMS Version 1.16.14 - 8-Oct-1996
CREATED: 5-AUG-97 17:07:17

Safety Laboratories Department, St. Unit
PLOT PAGE 47

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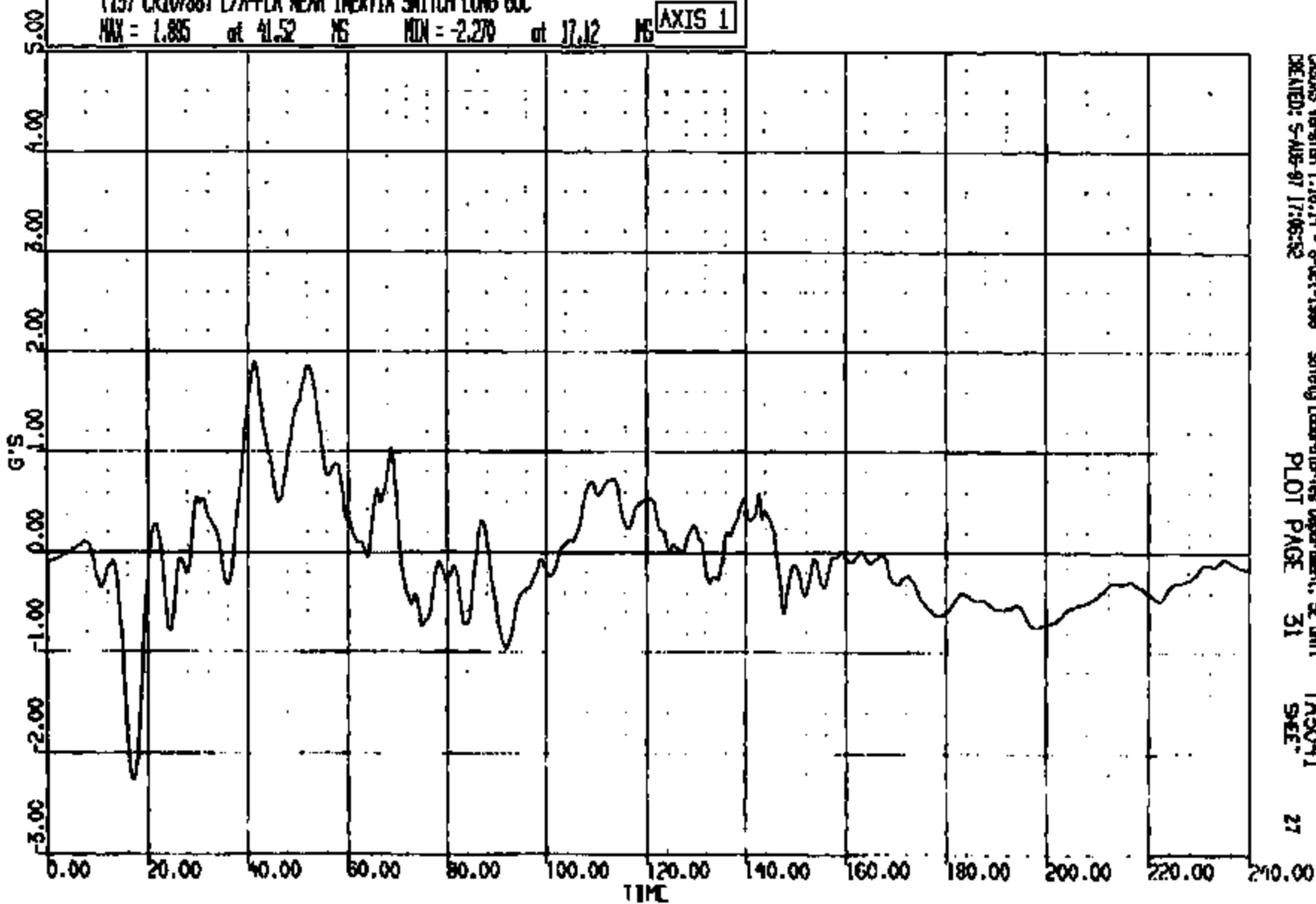
CRTS 0010788

CR R: 10788 TO: TA3041 DATE: 970805 18:45:11
1998 FN-145 1998 FN-145

(13) CR10788T L/A-PLR NEAR INERTIA SWITCH LONG 60C

MAX = 1.885 at 41.52 MS MIN = -2.270 at 17.12 MS

AXIS 1



CASMS Version 1.16.14 - 8-Oct-1998
CREATED: 5-AUG-97 17:05:52

Safety Laboratories Department, SE Unit
PLOT PAGE 31

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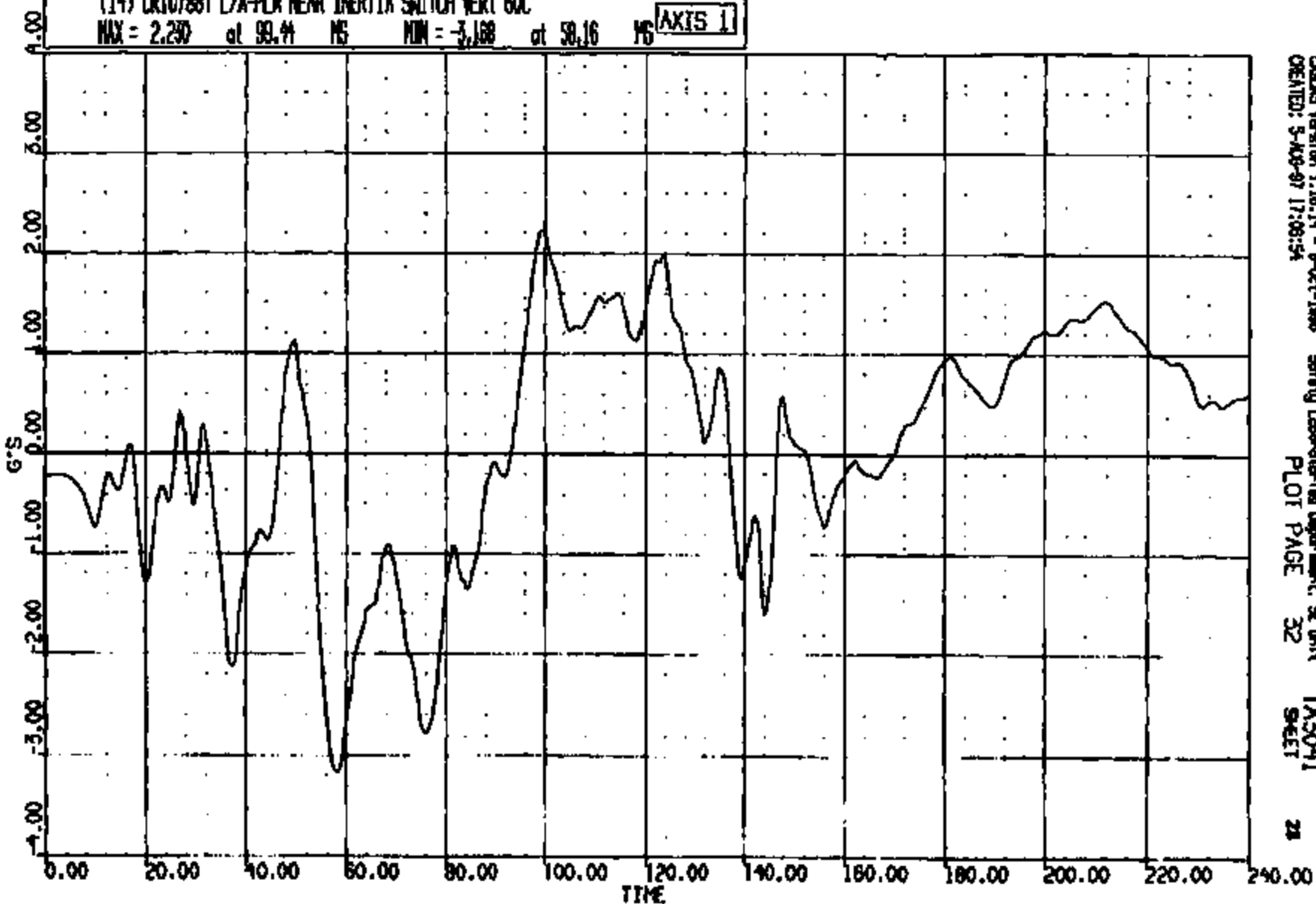
CRIS 0010788

CR R: 10788 TO: TA3041 DATE: 870808 18:43:11
1988 FN-145 1988 FN-145

(14) CR107881 L/A-PLR NEAR INERTIA SWITCH VERT GNC

MAX = 2.290 at 93.41 MS MIN = -3.168 at 58.16 MS

AXIS 1



CASRS Version 1.16.14 - 8-Oct-1988
CREATED: 5-AUG-87 17:08:54

Safety Laboratories Department, St. Louis
PLOT PAGE 32

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SHEET 21

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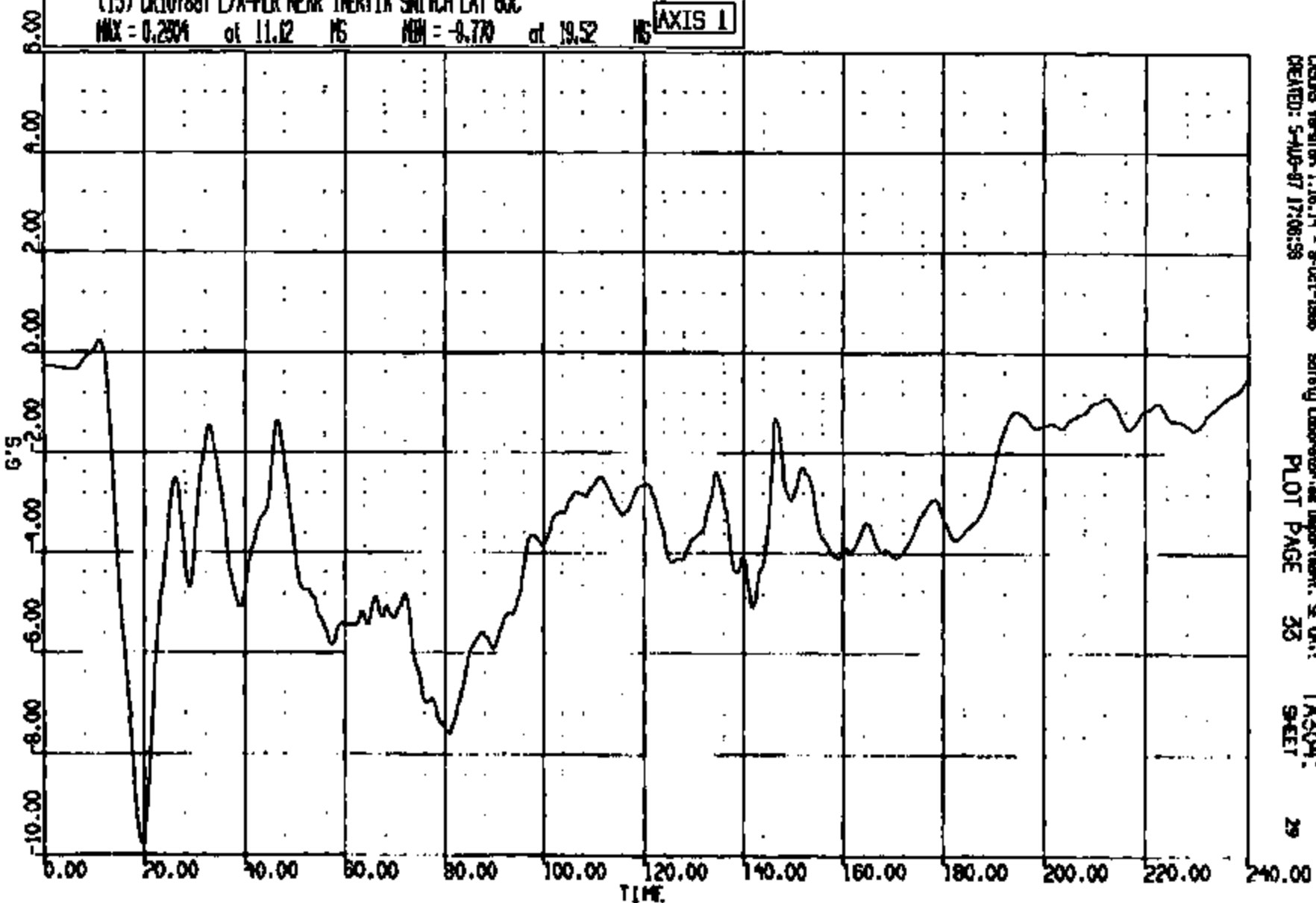
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CR R: 10788 TO: TAB041 DATE: 870808 18:43:11
1988 FN-145 1988 FN-145

(15) CR10788T L/A-PLR NEAR INERTIA SWITCH LAT 60C

MAX = 0.2804 at 11.62 MS MIN = -0.770 at 19.52 MS

AXIS 1



CRSUS Version 1.16.14 - 8-Oct-1988
CREATED: 5-AUG-87 17:08:58

Safety Laboratories Department, SE Unit:
PLOT PAGE 33

1A304:
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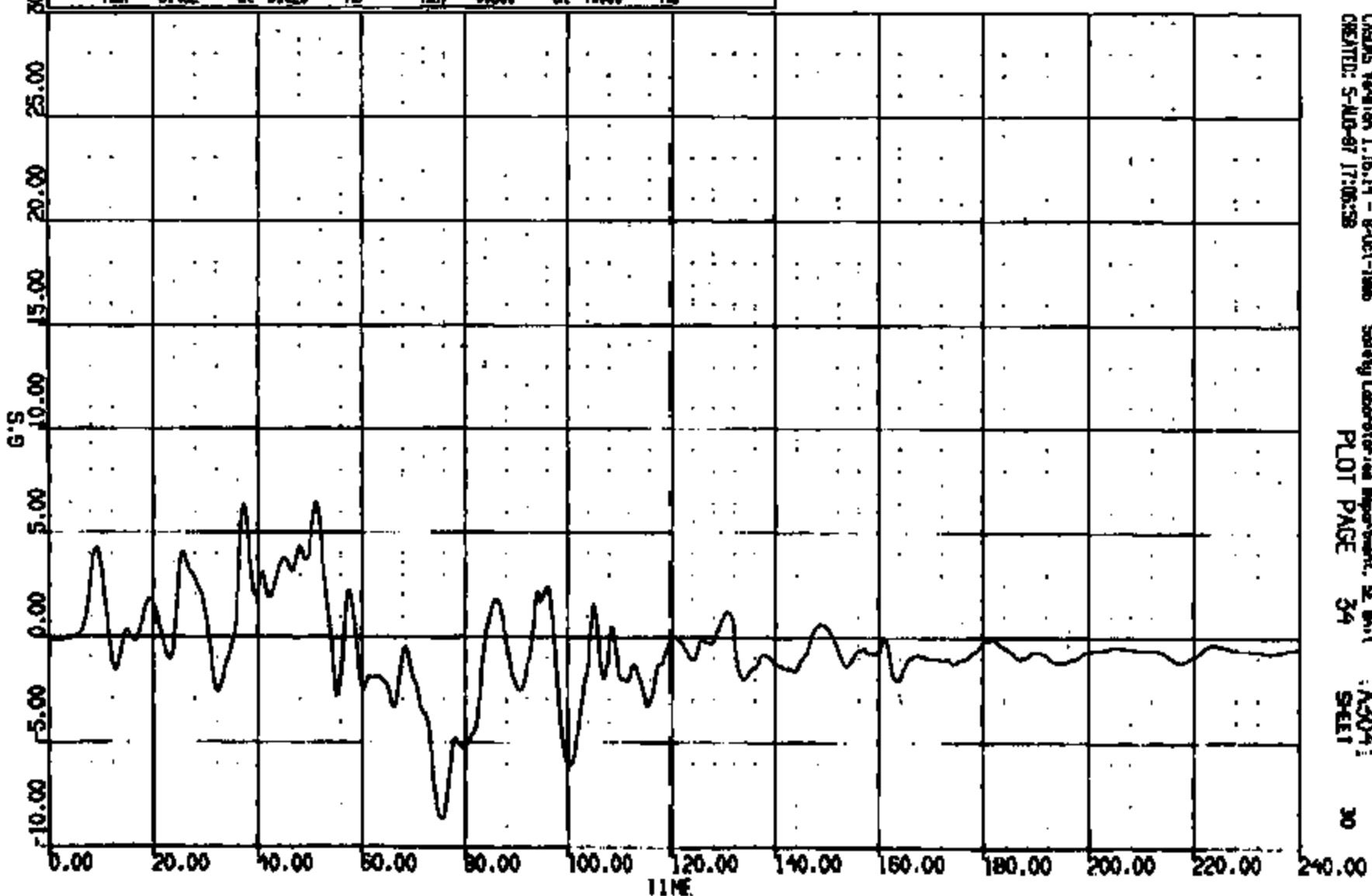
CRIS 0010788

CR #: 10788 TO: TA3041 DATE: 870808 18:45:11
1998 FN-145 1998 FN-145

(16) CR10788T C/L TNL @ DASH SH LONG 60C

MAX = 6.452 at 51.20 MS MIN = -4.680 at 75.80 MS

AXIS 1



CASIMS Version 1.15.14 - 8-04-1995
CREATED: 5-AUG-87 17:06:38

Safety Laboratory Department, SE, Bn 1
PLOT PAGE 34

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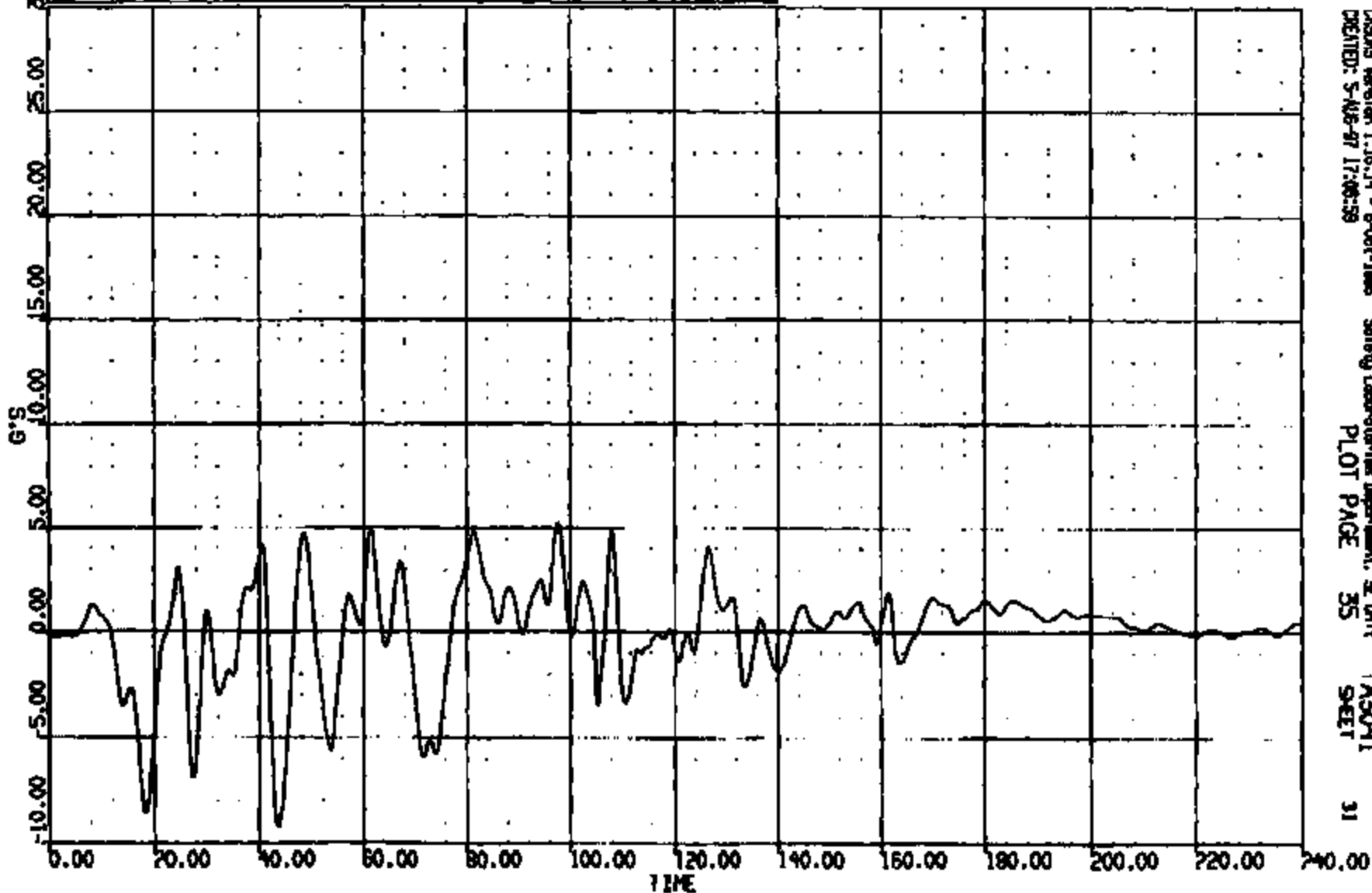
CRIS 0010788

CR R: 10788 TO: TA3041 DATE: 970805 16:48:11
1999 FN-145 1999 FN-145

(17) CR10788T C/L TNL @ DASH 94 VERT 60C

MAX = 5.250 at 97.00 MS MIN = -9.276 at 43.00 MS

AXIS 1



DISK5 Verlen 1.16.14 - 8-Oct-1999
CREATED: 5-AUG-97 17:00:59

Safety Laboratories Department, St. Unit
PLOT PAGE 35

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SHEET 31

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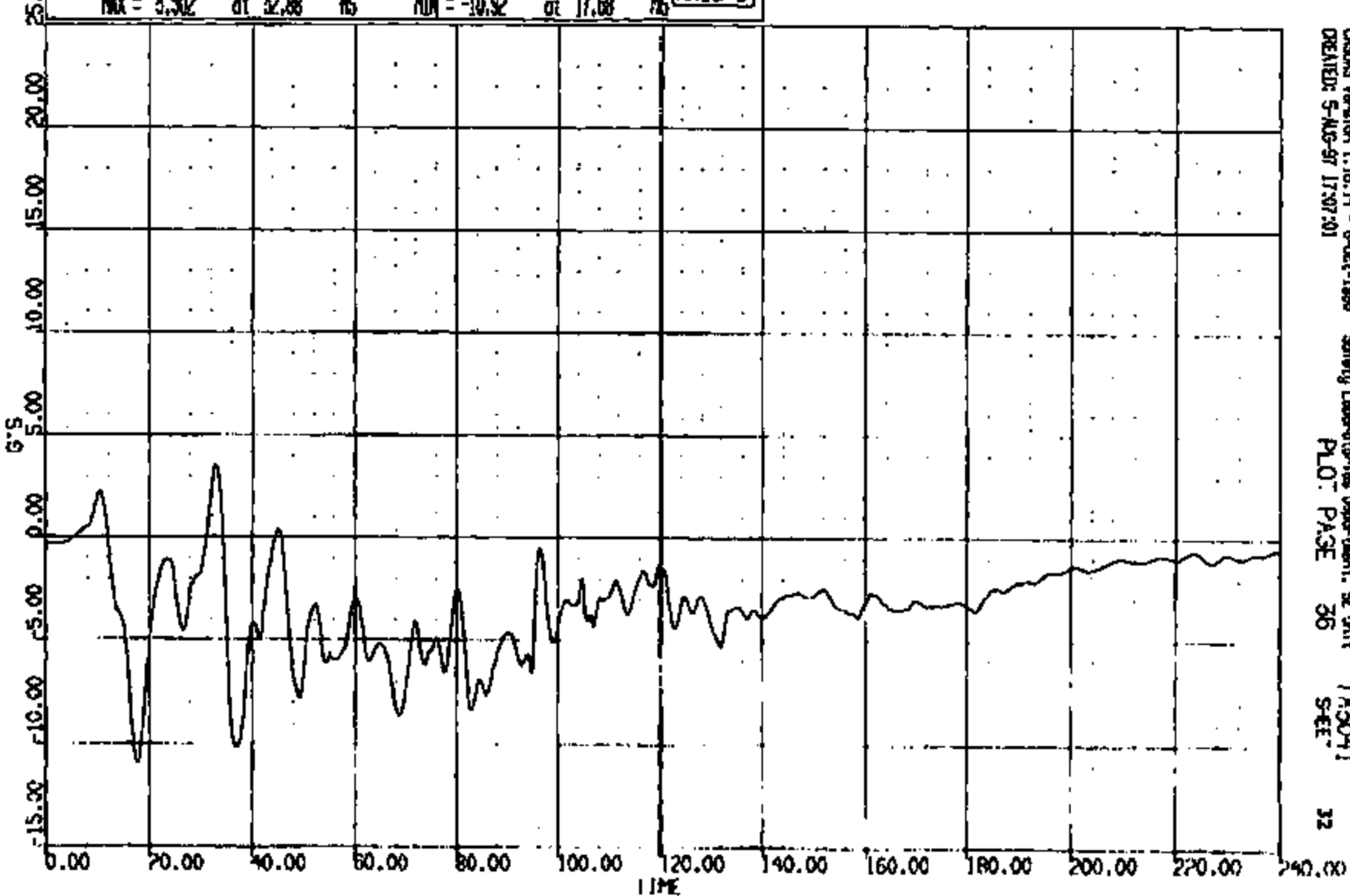
CRIS 0010788

CR R: 10788 TO: TA3041 DATE: 970805 16:45:11
1999 FN-145 1999 FN-145

(18) CR107887 C/L TNL @ DASH SH LAT 60C

MAX = 3.92 at 32.88 MS MIN = -10.92 at 17.68 MS

AXIS 1



CSDAS Version 1.18.14 - 8-Oct-1995
CREATED: 5-AUG-97 17:07:01

Safety Laboratories Department, SE Unit
PLOT PAGE 36

TA3041
S-EE

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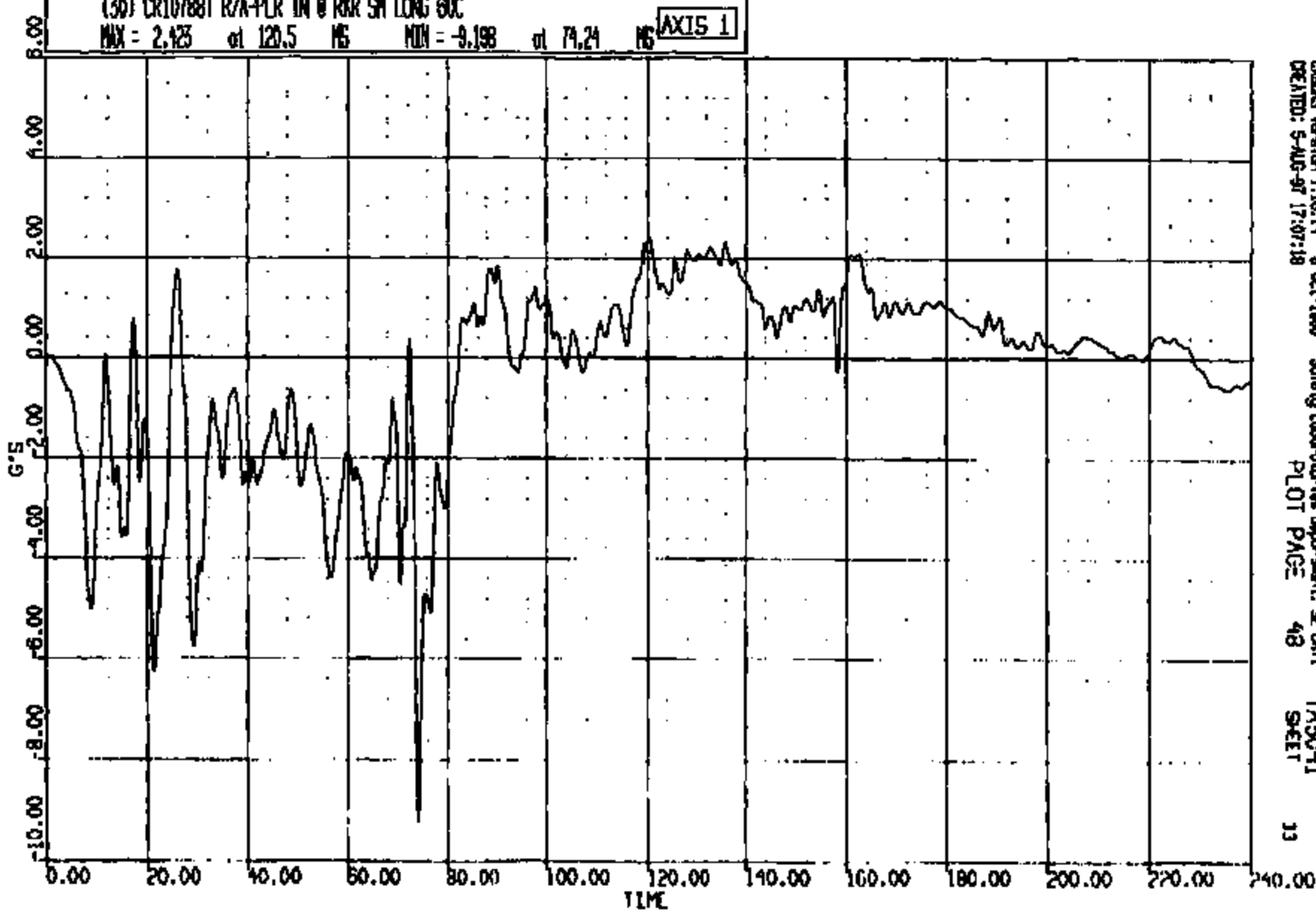
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CR R: 10788 TO: TAB041 DATE: 870805 18:45:11
1999 FN-145 1999 FN-145

(30) CR10788T R/A-PLR IN @ RRR SN LONG 00C

MAX = 2.425 at 120.5 MS MIN = -9.198 at 74.24 MS

AXIS 1



CRSIS Version 1.16.14 - 8-Oct-1998 Safety Laboratories Department, S Unit
CREATED: 5-AUG-97 17:07:18
PLOT PAGE 48
TAB041
SHEET 33

ENTIRE PAGE CONFIDENTIAL

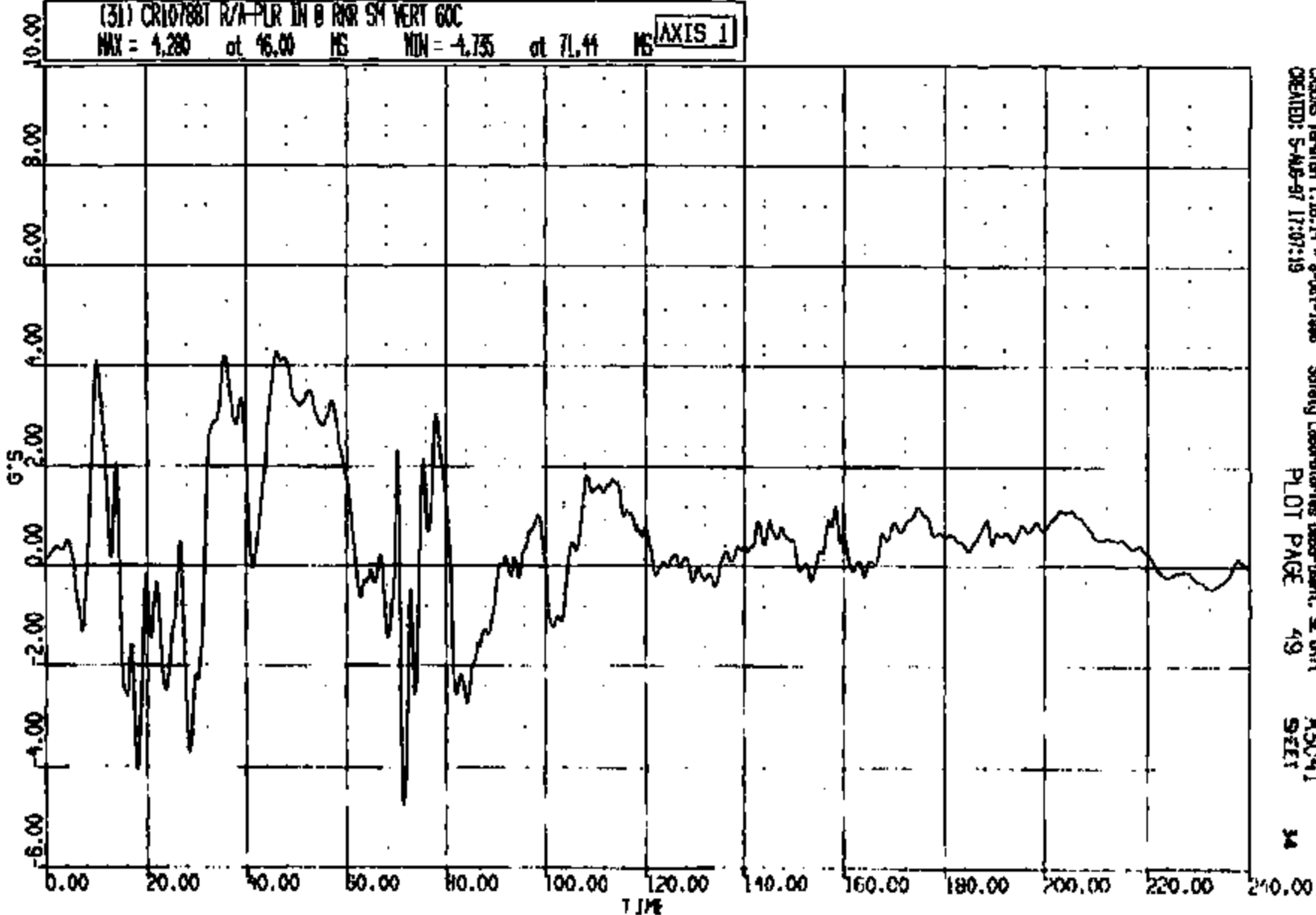
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CR R: 10788 TO: TA5041 DATE: 970805 18:43:11
1999 FN-145 1999 FN-145

(31) CR10788T R/A-PLR IN 8 RNR SM VERT GOC

MAX = 4.280 at 46.00 MS MIN = -4.735 at 71.44 MS

AXIS 1



CASUS Version 1.16.14 - 8-Oct-1998
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Safety Laboratories Department, SE Unit
PLOT PAGE 49

TA5041
SHEET

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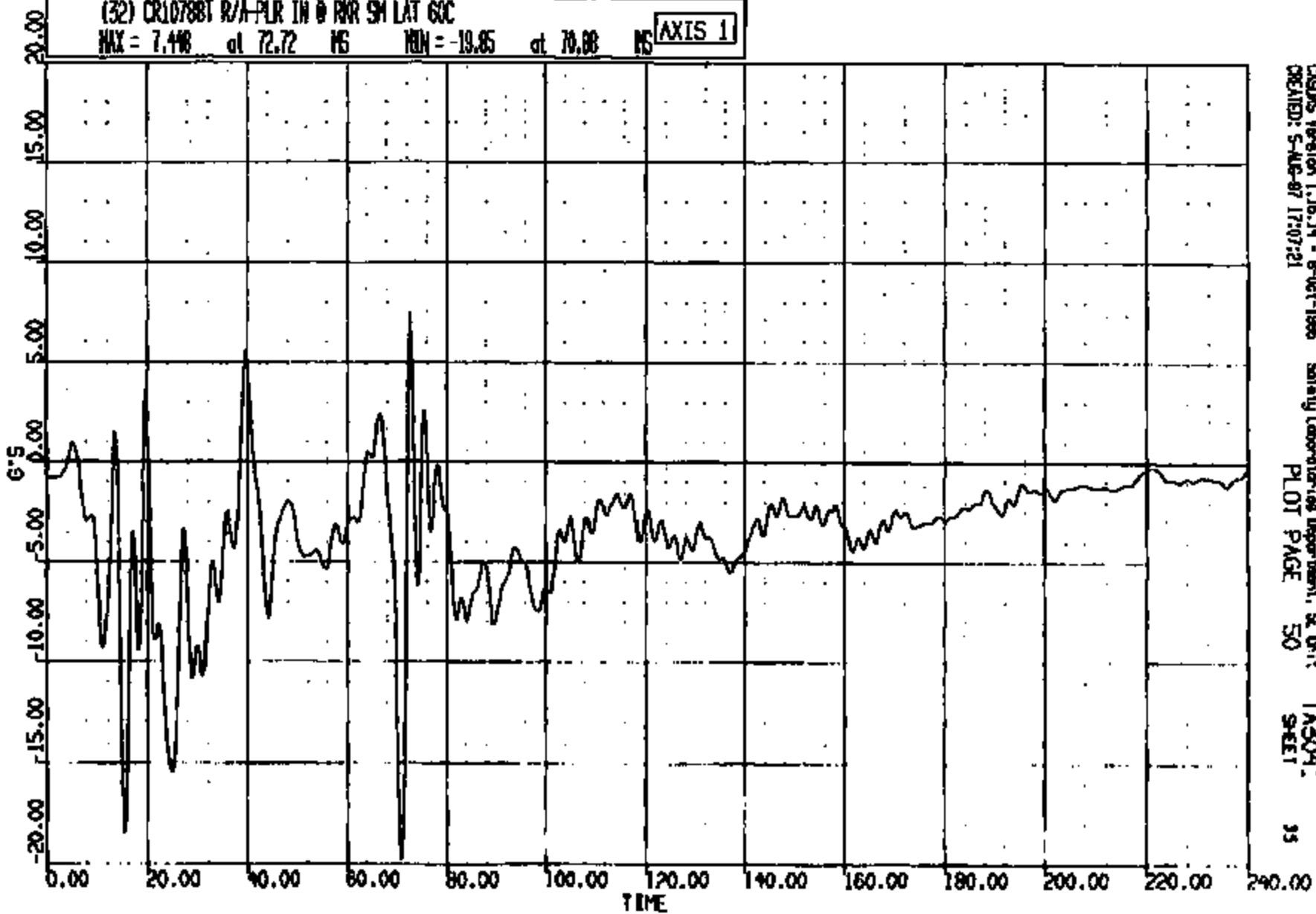
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CR R: 10788 TO: TA3041 DATE: 970805 18:48:11
1999 FN-145 1999 FN-145

(32) CR107881 R/A-PLR IN @ R/R SM LAT 60C

MAX = 7.448 at 72.72 MS MIN = -19.85 at 70.00 MS

AXIS 1



CRS Version 1.16.14 - 8-Oct-1996
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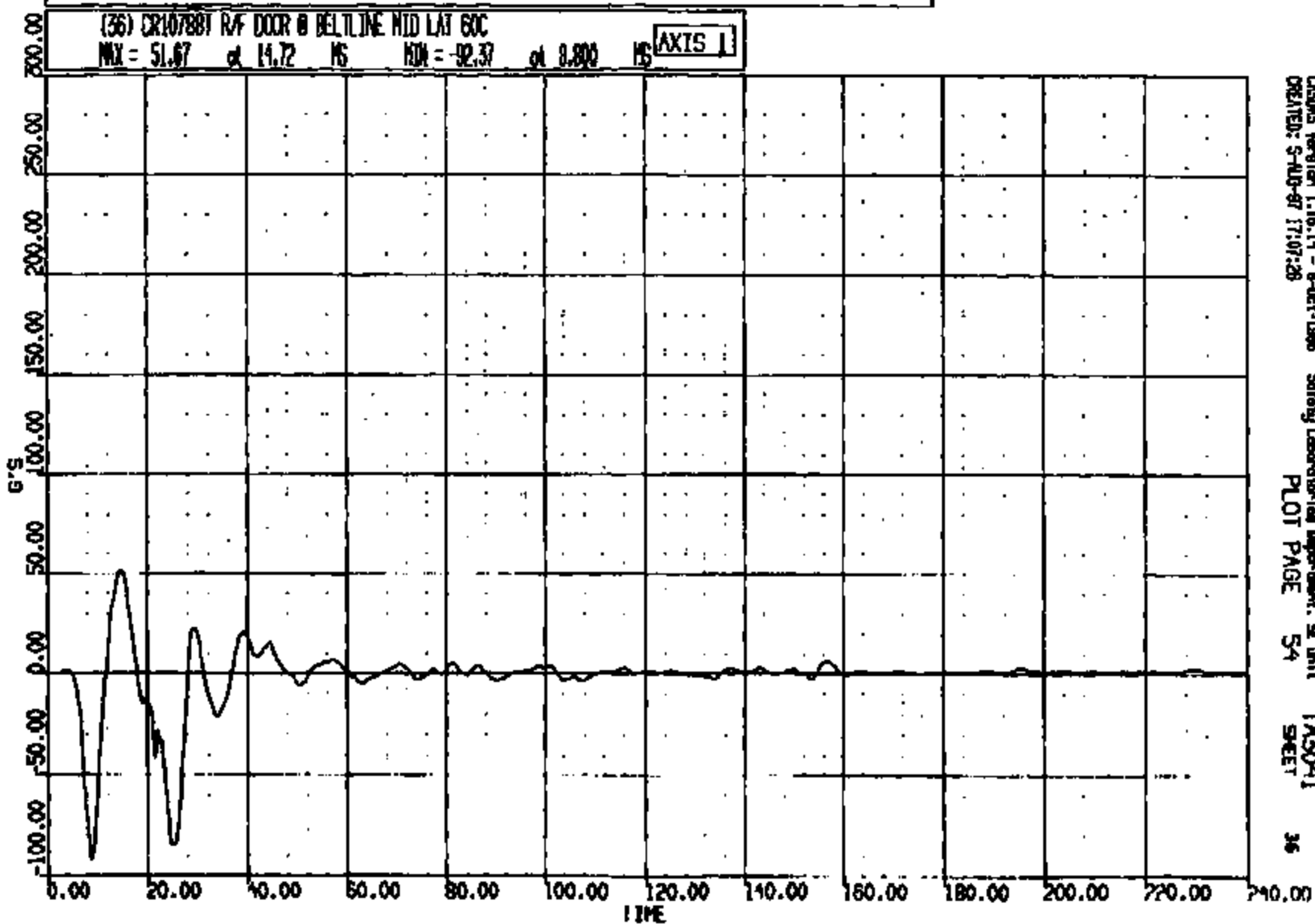
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TA3041
PLOT PAGE 50 SHEET

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CRIS 0010788

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1999 FN-145 1999 FN-145



CRS045 Version 1.16.14 - 8-Oct-1996
CREATED: 5-AUG-97 17:07:28

Safety Laboratories Department, SE Unit
PLOT PAGE 54

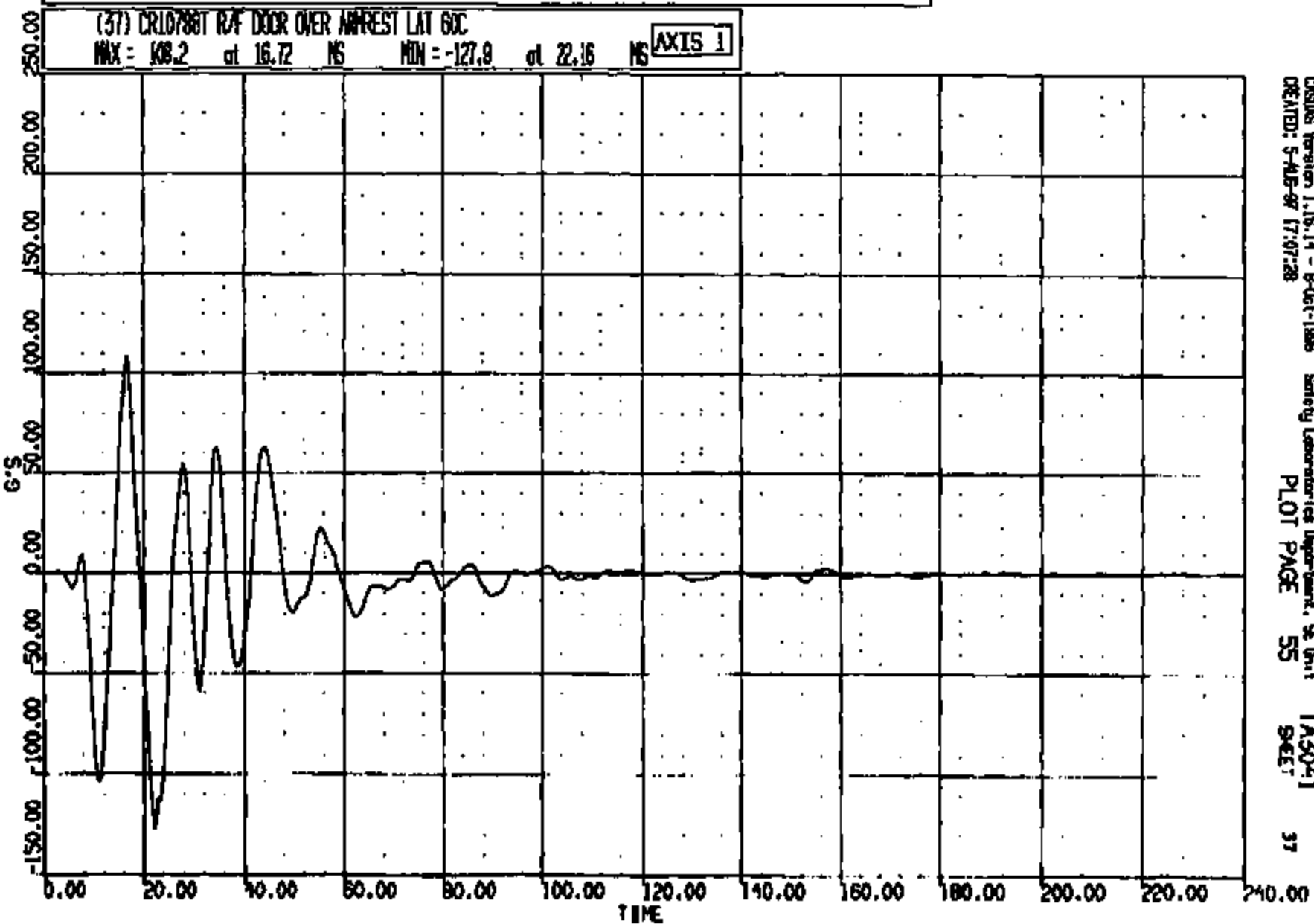
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1988 FN-145 1988 FN-148



CRSIS Version 1.16.14 - 8-Oct-1988
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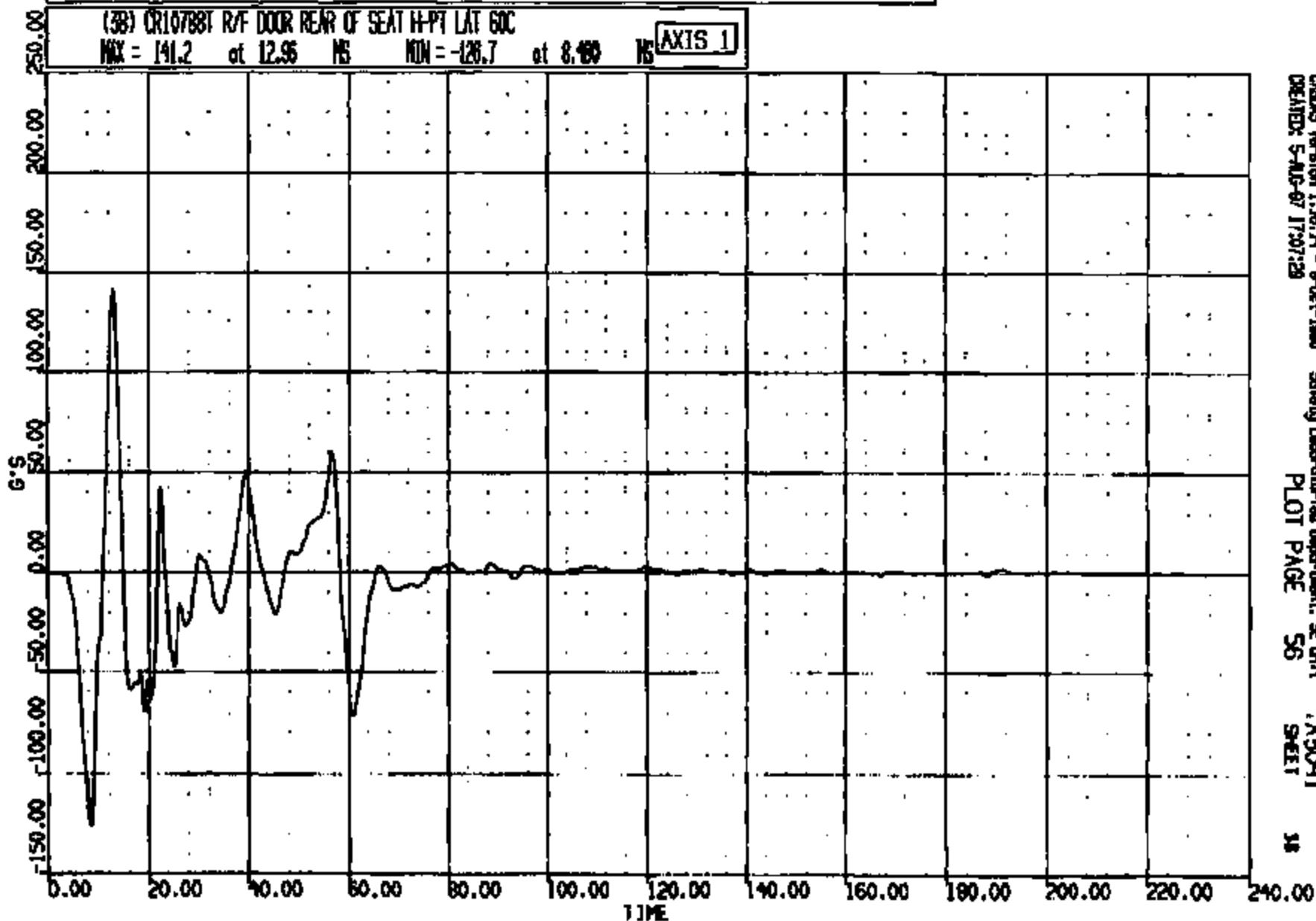
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1999 FN-145 1999 FN-145

(38) CR10788T R/F DOOR REAR OF SEAT H-PT LAT 60C

MAX = 141.2 at 12.95 MS MIN = -128.7 at 8.480 MS

AXIS 1



CHDS Version 1.16.14 - 8-Dec-1998
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Safety Laboratories Department, SE Unit
PLOT PAGE 56

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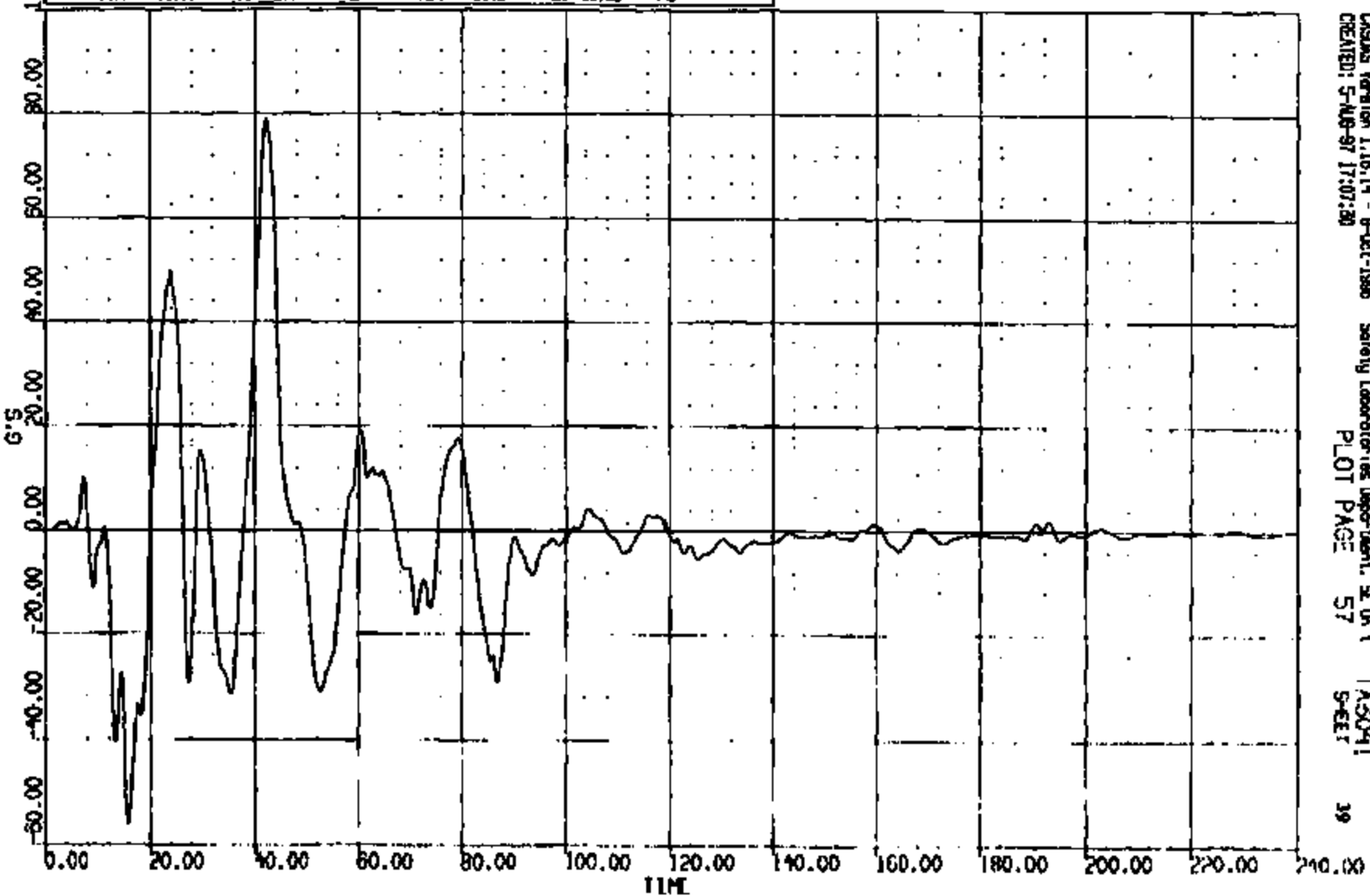
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CR R: 10788 TO: TAB041 DATE: 970806 15:45:11
1999 FN-145 1999 FN-145

(39) CR107881 R/F DOOR SPEAKER HOLE LAT 60C

MAX = 78.86 at 12.08 MS MIN = -56.24 at 15.92 MS

AXIS 1



CASUS Version 1.16.14 - 8-Oct-1998
CREATED: 5-AUG-97 17:07:30

Safety Laboratories Department, SE Unit 1
PLOT PAGE 57

TAB041
Sheet 39

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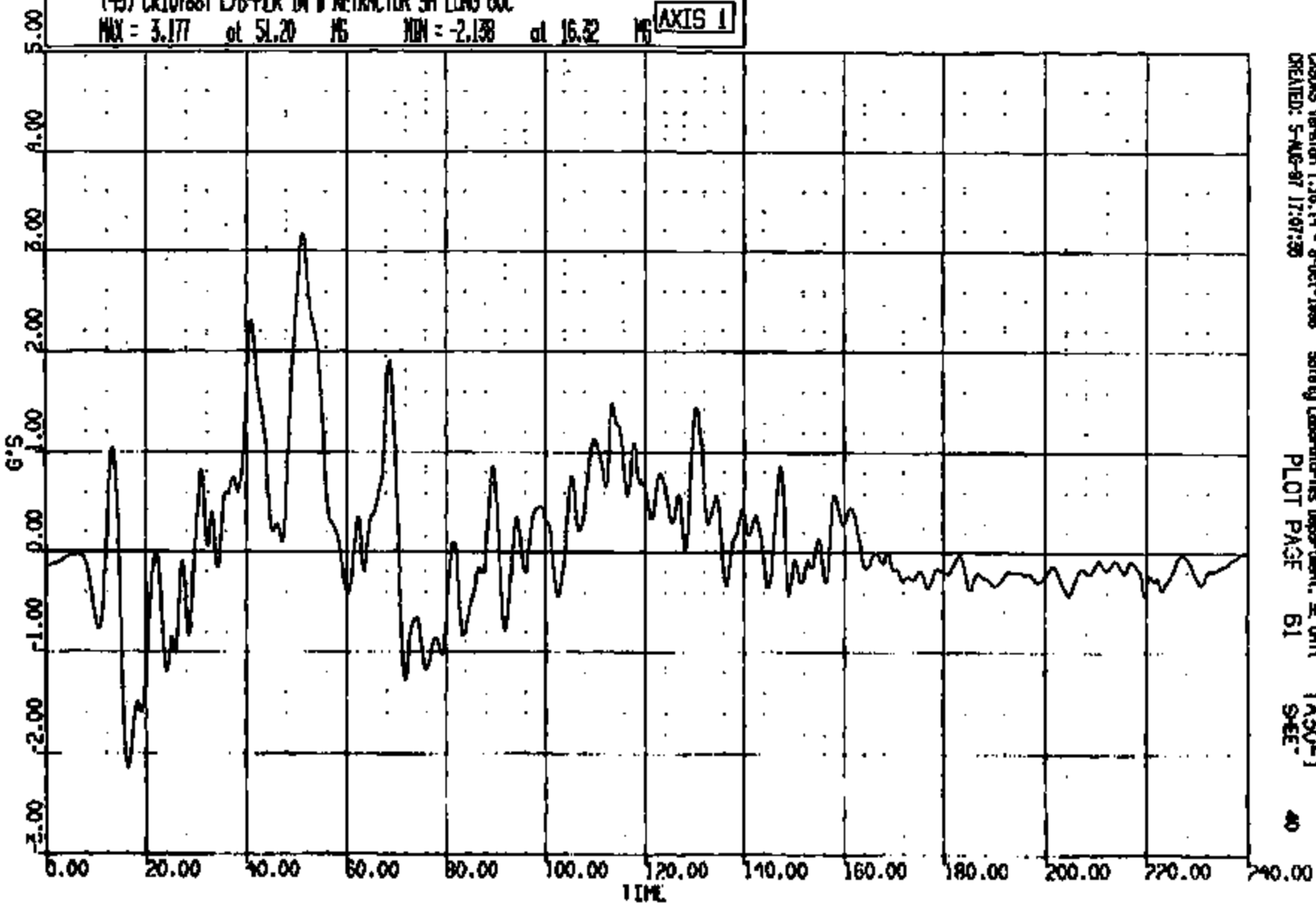
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1988 FN-145 1988 FN-145

(43) CR10788T L/B-PLR IN B RETRACTOR SH LONG GOC

MAX = 3.177 at 51.20 MS MIN = -2.138 at 16.32 MS

AXIS 1



CASMS Version 1.16.14 - 8-Oct-1988
CREATED: 5-AUG-87 17:07:30

Safety Laboratories Department, SE Unit
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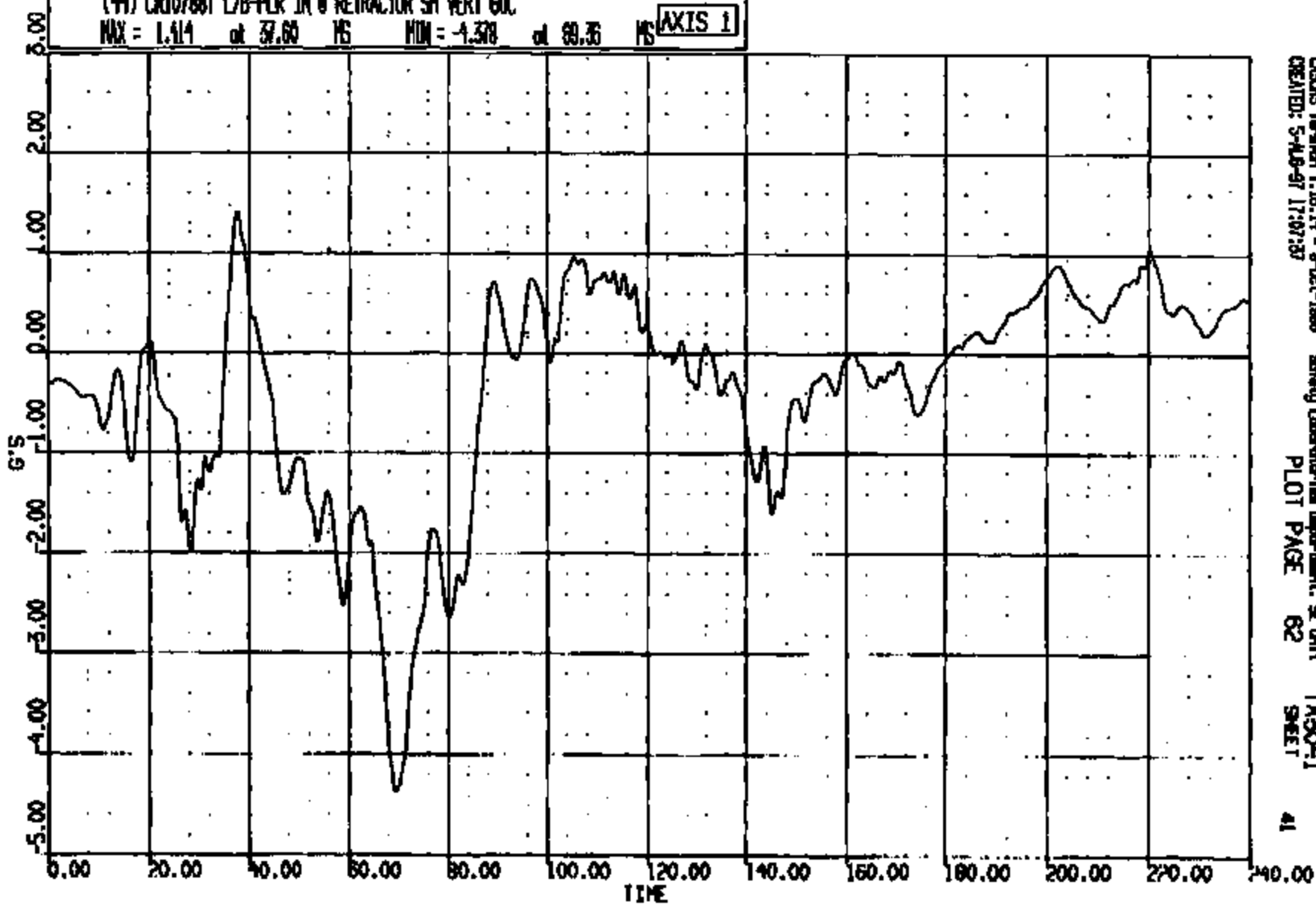
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1998 FN-145 1998 FN-145

(44) CR007887 L/B-PLR IN @ RETRACTOR SH VERT GOC

MAX = 1.414 at 37.60 MS MIN = -4.378 at 69.35 MS

AXIS 1



CSDS Version 1.16.14 - 8-Oct-1998
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Safety Laboratory Department, SE Unit
TA3041
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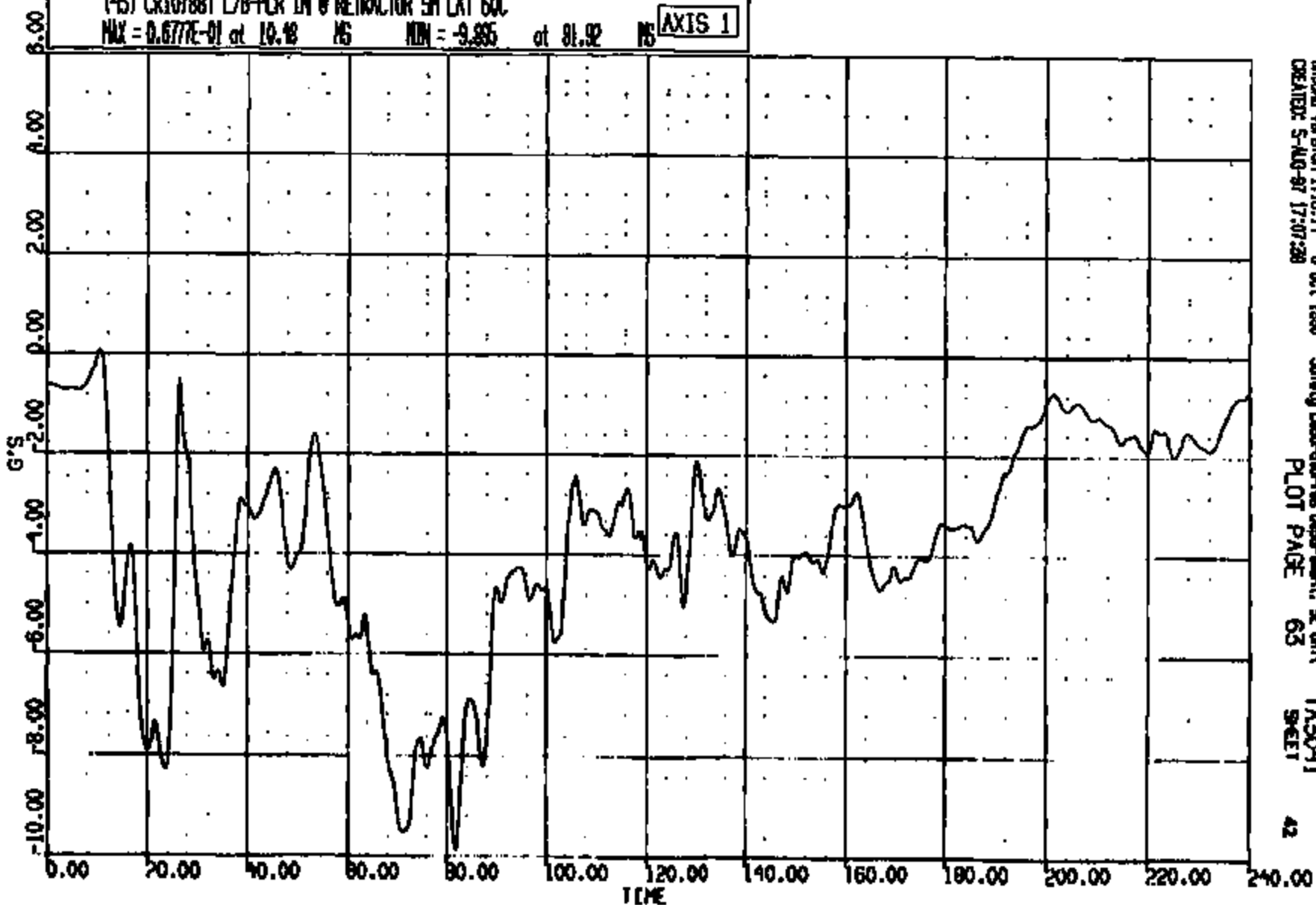
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1988 FN-145 1988 FN-145

(45) CR10788T L/B-PLR IN @ RETRACTOR SH LAT 60C

MAX = 0.677E-01 at 10.48 MS MIN = -9.895 at 81.92 MS

AXIS 1



CASAS Version 1.16.14 - 8-Oct-1988
CREATED: 5-AUG-87 17:07:28

Safety Laboratories Department, SE Unit
PLOT PAGE 63

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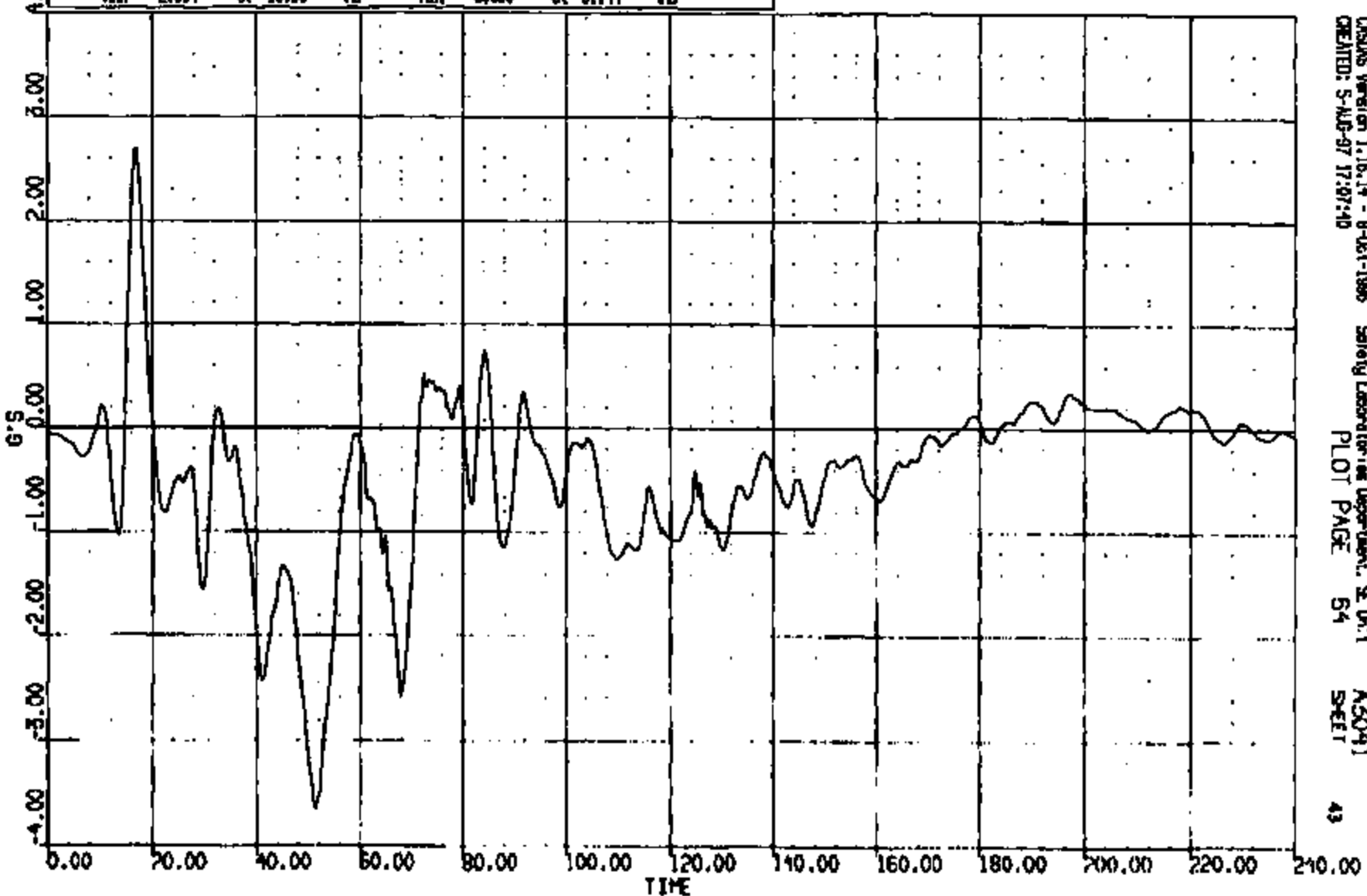
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1988 FN-145 1988 FN-145

(46) CR10788T L/B-PLR IN B RGR SM LONG GOC

MAX = 2.094 at 16.96 MS MIN = -3.058 at 51.44 MS

AXIS 1



CASAS Version 1.18.14 - 8-Oct-1988
CREATED: 5-AUG-87 17:07:40

Safety Laboratory Department, SE Unit
PLOT PAGE 54 SHEET 43

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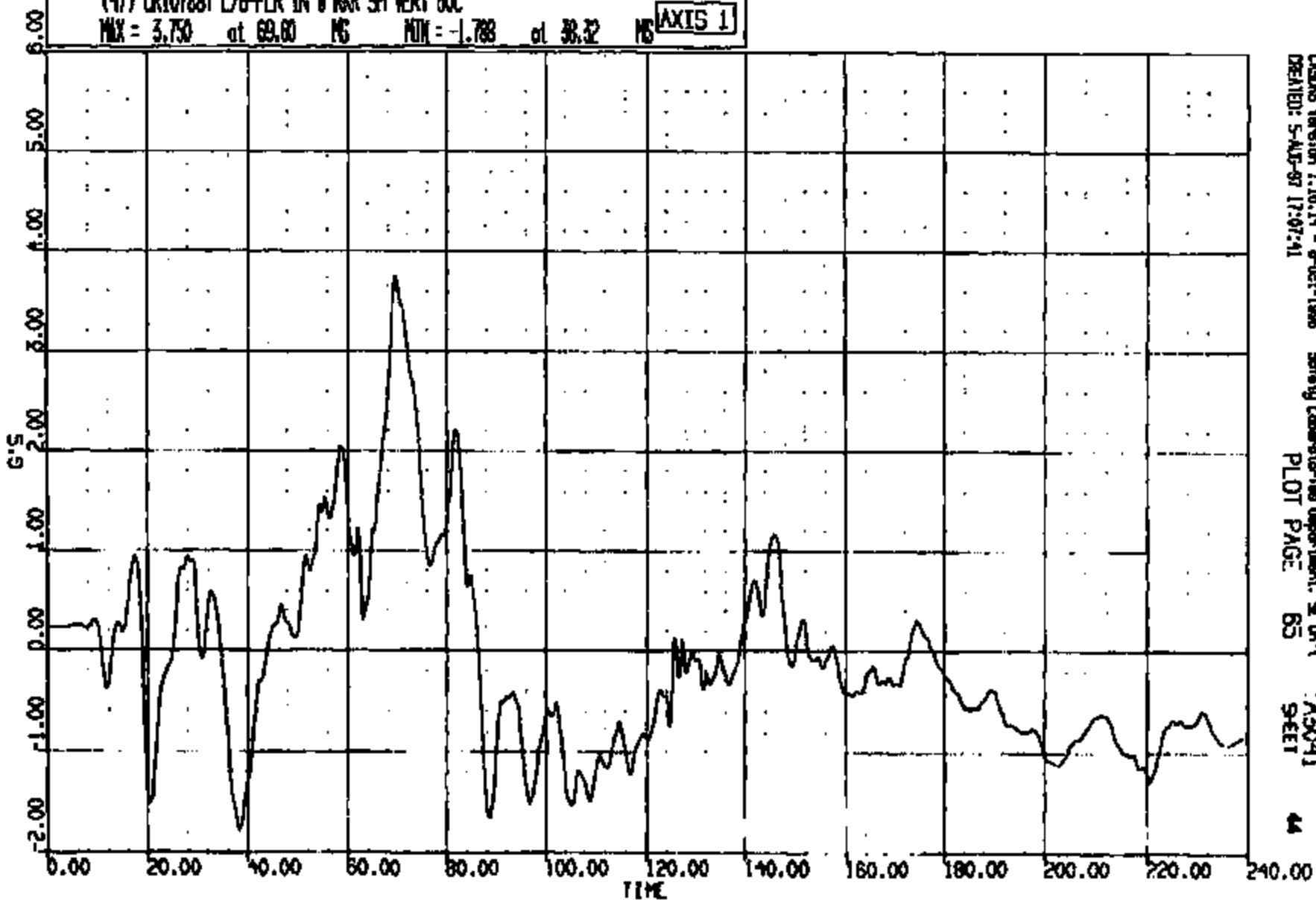
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1999 FN-148 1999 FN-145

(47) CR10788T L/O-PLR IN 8 RKR SM VERT 60C

MAX = 3.750 at 69.00 MS MIN = -1.788 at 38.32 MS

AXIS 1



CASMS Version 1.16.14 - 8-Oct-1996
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Safety Laboratory Department, S. U. I.
PLOT PAGE 65

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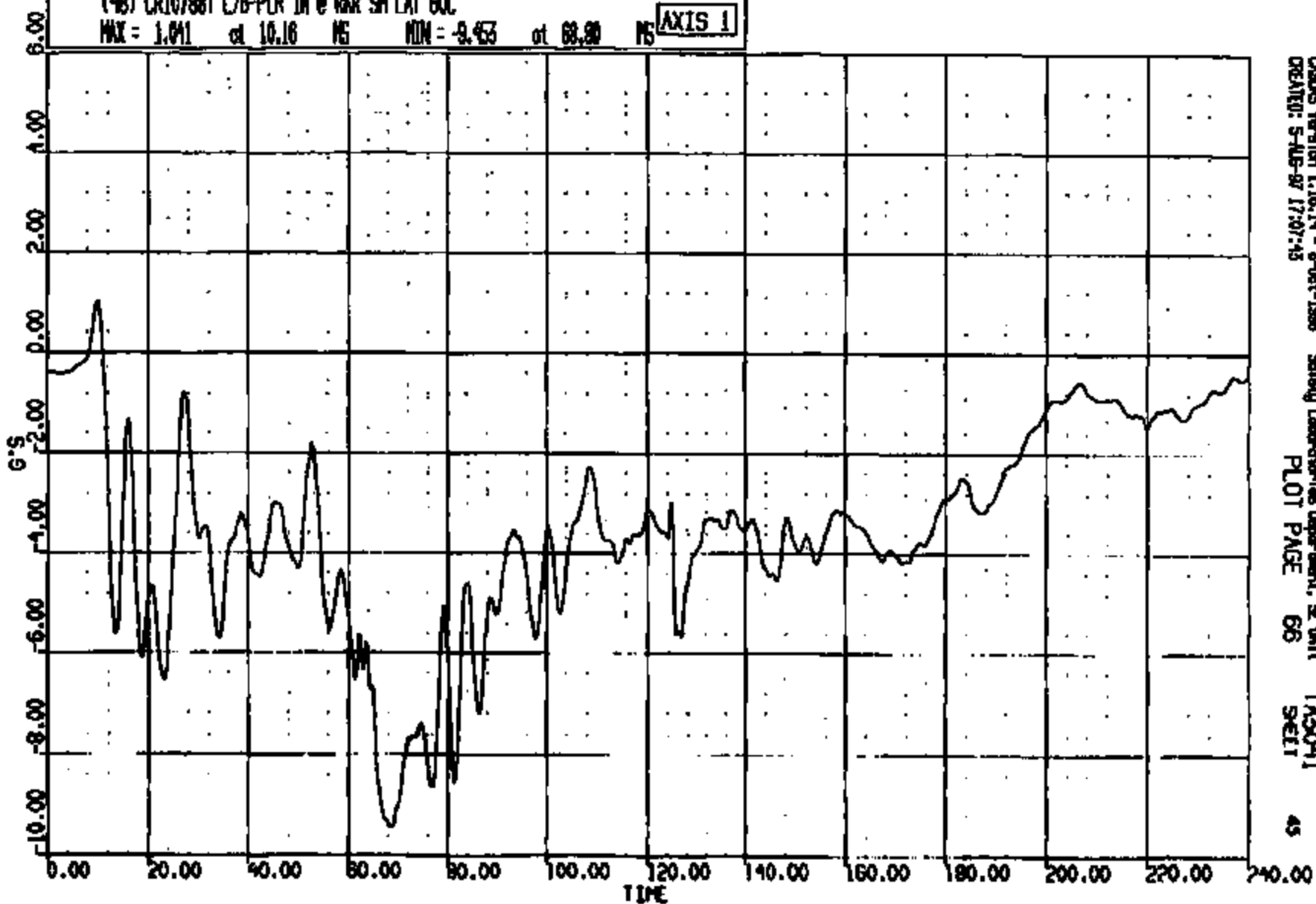
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1999 FN-145 1999 FN-145

(48) CR10788T L/B-PLR IN @ WKR SH LAT 60C

MAX = 1.041 at 10.16 NS MIN = -9.453 at 88.90 NS

AXIS 1



CASDS Version 1.16.14 - 8-Oct-1998
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Safety Laboratories Department, SE Unit
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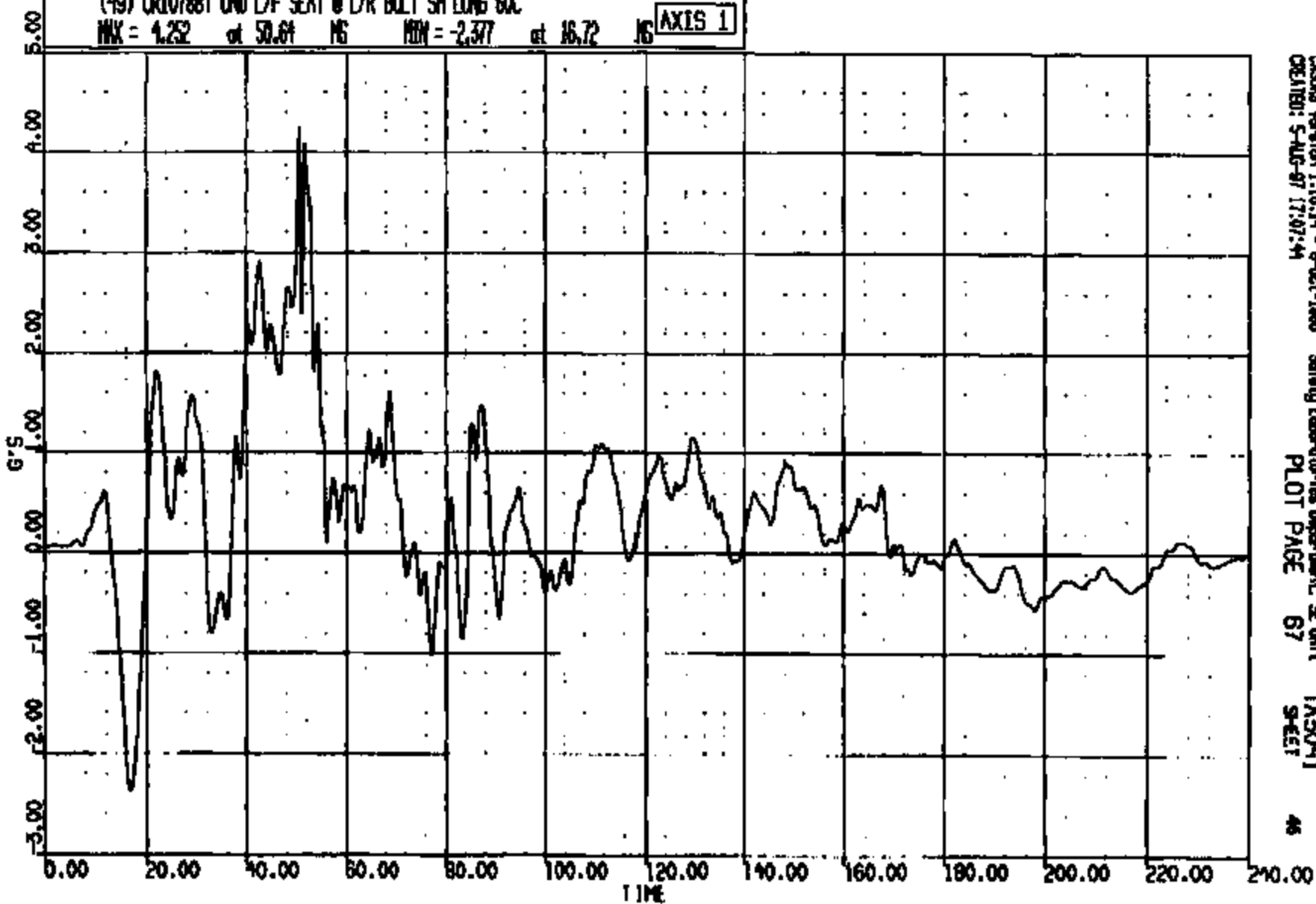
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1999 FN-146 1999 FN-146

(49) CR10788T UND L/F SEAT @ L/R BOLT SH LONG GOC

MAX = 4.252 at 50.61 MS MIN = -2.377 at 16.72 MS

AXIS 1



CASINS Version 1.16.14 - 8-Oct-1998
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Safely Laboratories Department, SE Unit
PLOT PAGE 67

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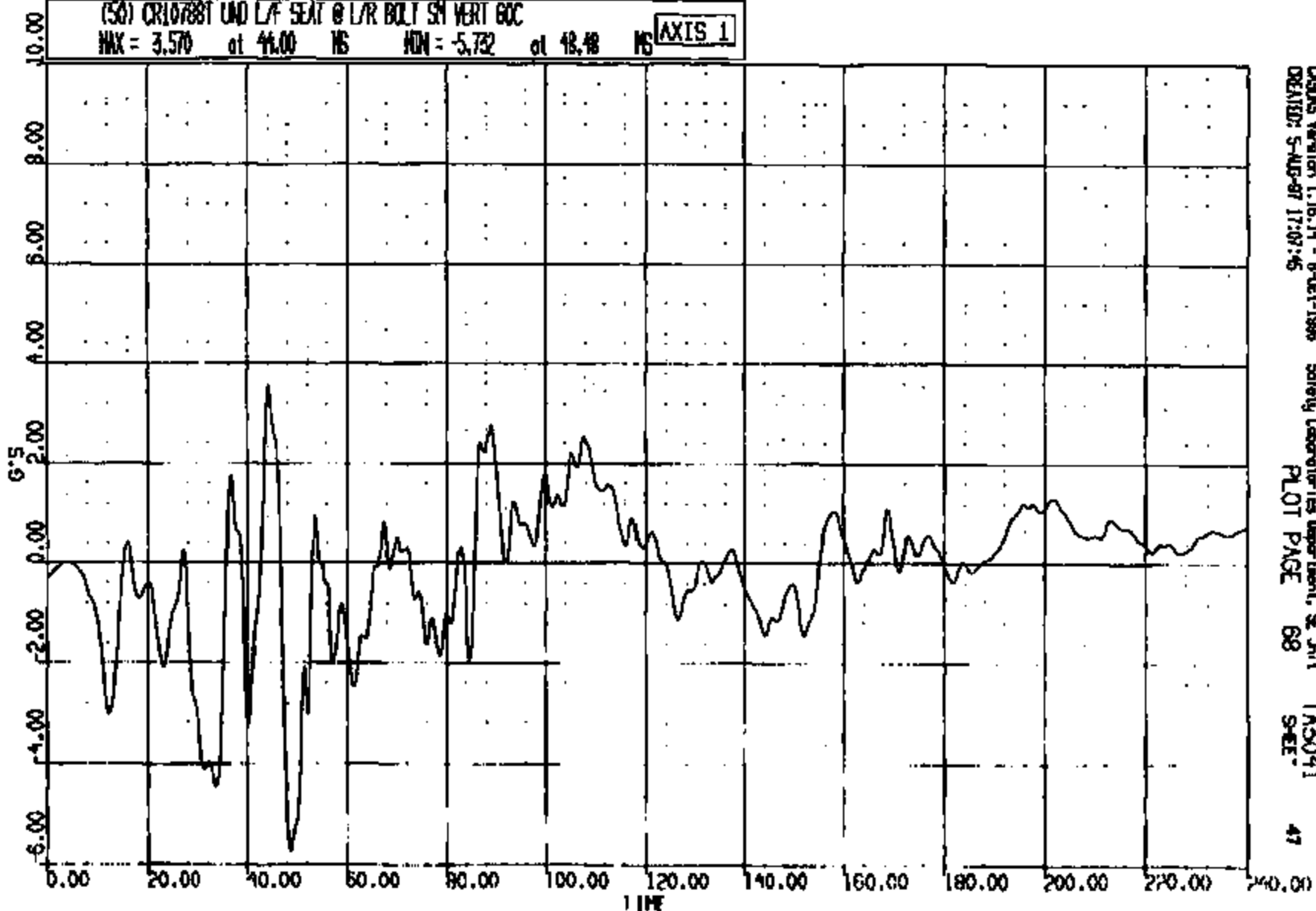
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1988 FN-146 1988 FN-146

(50) CR107881 UND L/R SEAT @ L/R BOLT SH VERT GOC

MAX = 3.570 at 46.00 MS MIN = -5.732 at 48.48 MS

AXIS 1



CARDS Version 1.18.14 - 8-Oct-1986
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Safety Laboratories Department, St. J. Hill
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TAS041
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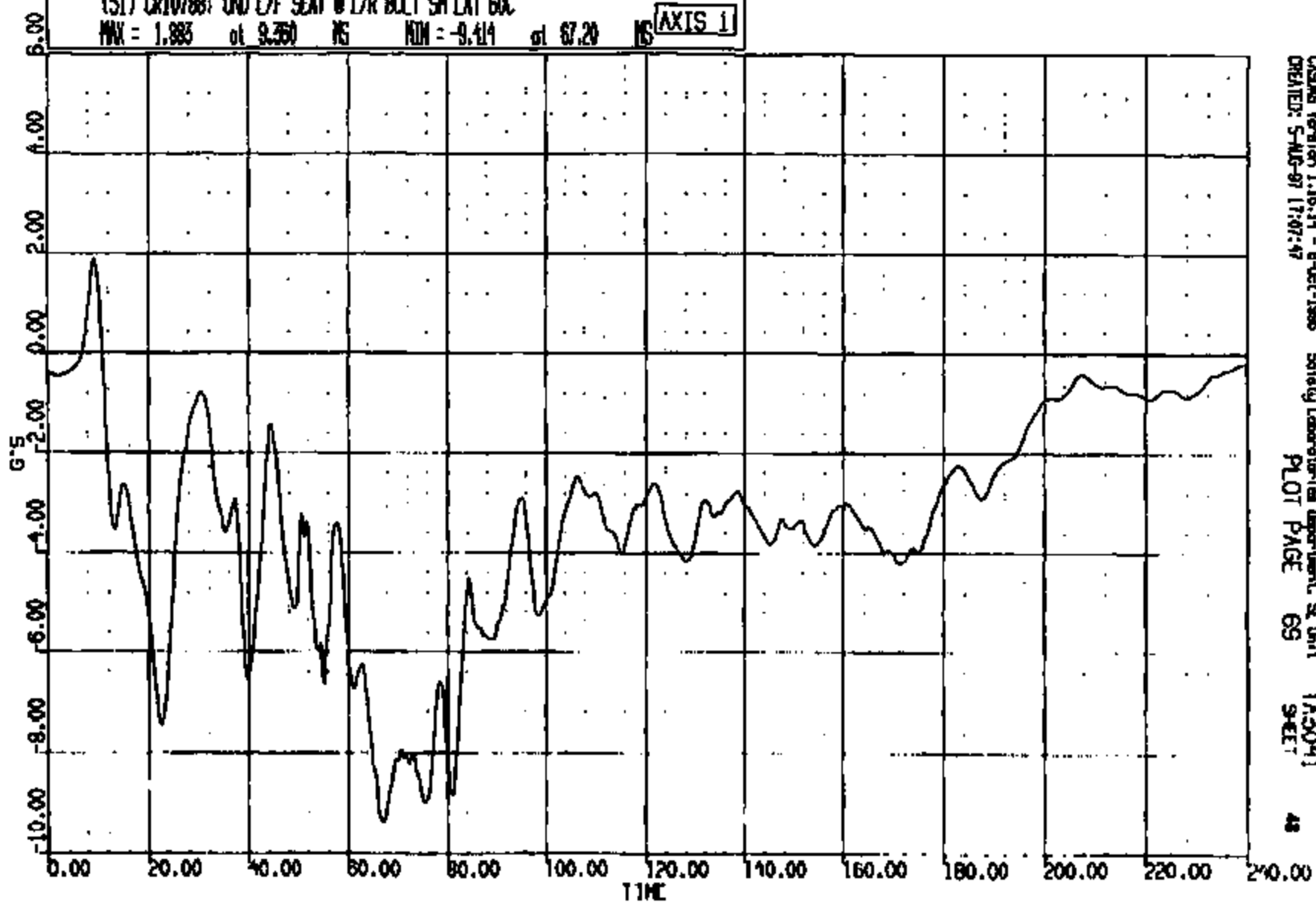
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1988 FN-145 1988 FN-145

(51) CR10788T UND L/F SEAT @ L/R BOLT SH LAT 60C

MAX = 1.883 at 9.360 MS MIN = -9.414 at 67.20 MS

AXIS 1



CASMS Version 1.16.14 - 8-Oct-1988
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Safety Laboratories Department, St. Unit
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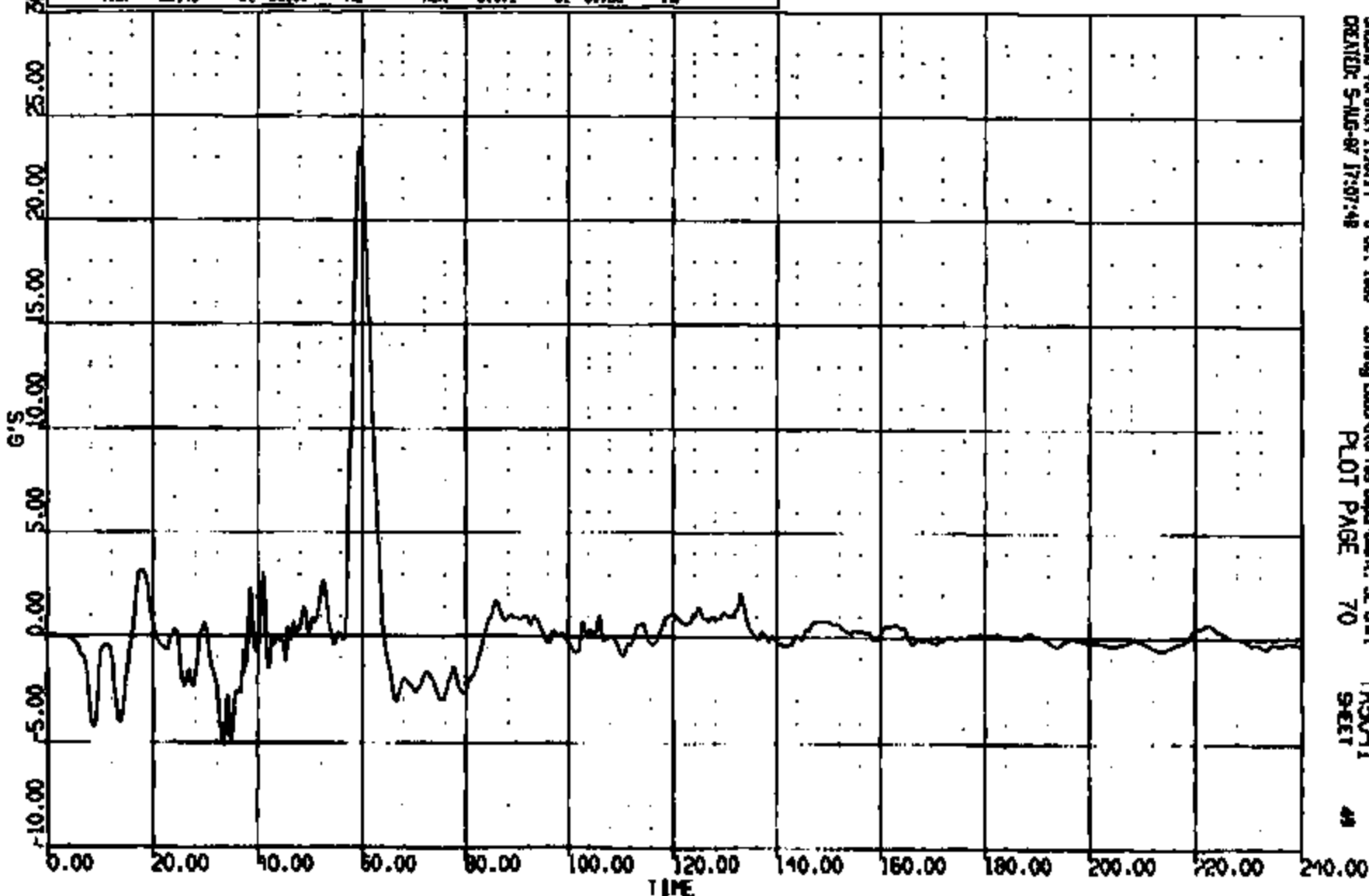
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1998 FN-145 1998 FN-145

(S2) CR10788T LND R/F SEAT @ R/R BOLT SH LONG GOC

MAX = 23.19 at 59.00 MS MIN = -5.071 at 33.35 MS

AXIS 1



CADDS Version 1.86.14 - 8-Oct-1998
CREATED: 5-AUG-97 17:57:48

Safety Laboratories Department, SE Unit
PLOT PAGE 70

TAZ041
SHEET 48

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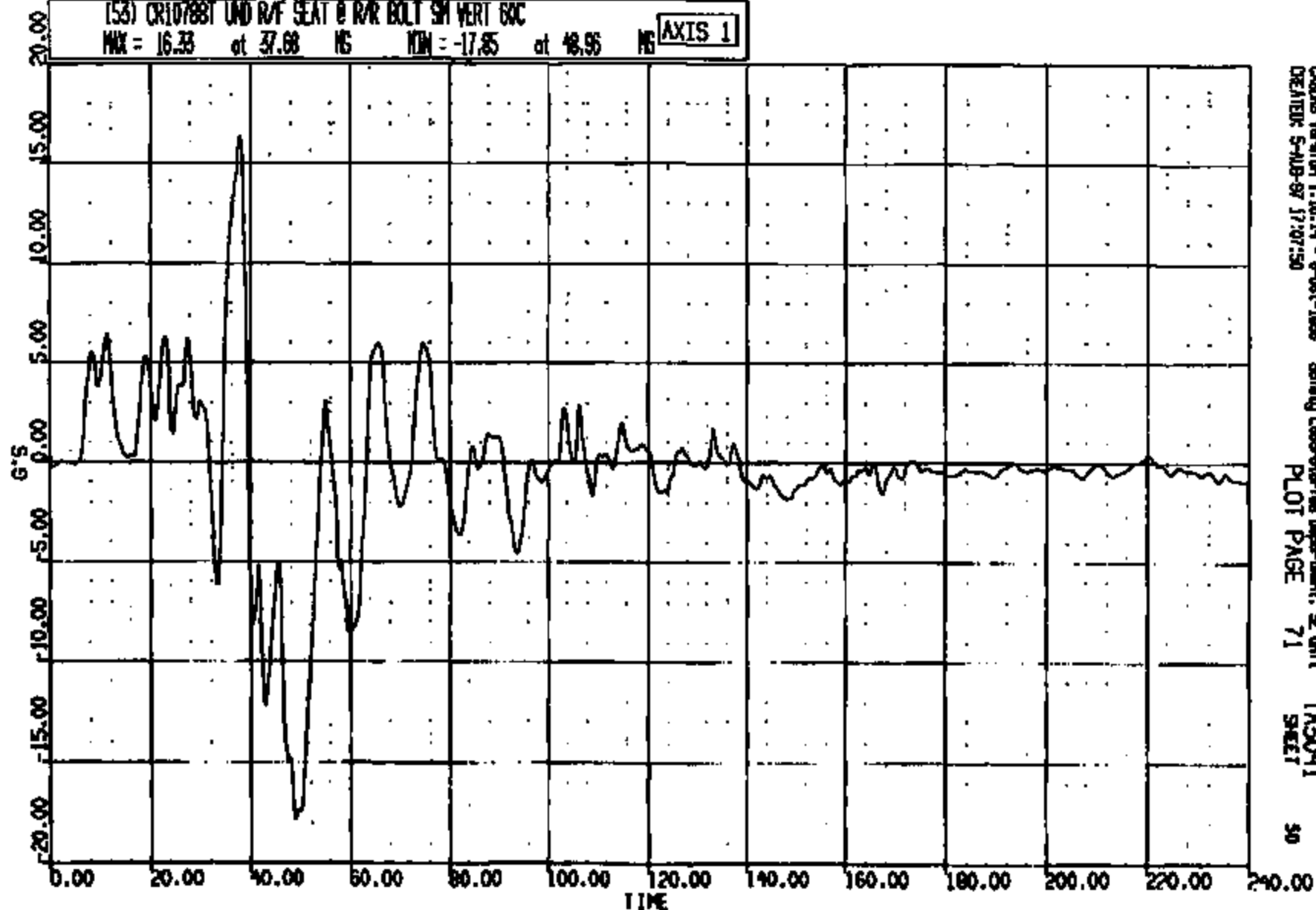
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1999 FN-146 1999 FN-146

(53) CR10788T UND R/V SEAT @ R/R BOLT SM VERT GOC

MAX = 16.33 at 37.68 MS MIN = -17.85 at 48.95 MS

AXIS 1



CARDS Version 1.16.14 - 8-Oct-1998
CREATOR S-AUG-97 17:07:50

Safety Laboratories Department, SE Unit
PLOT PAGE 71

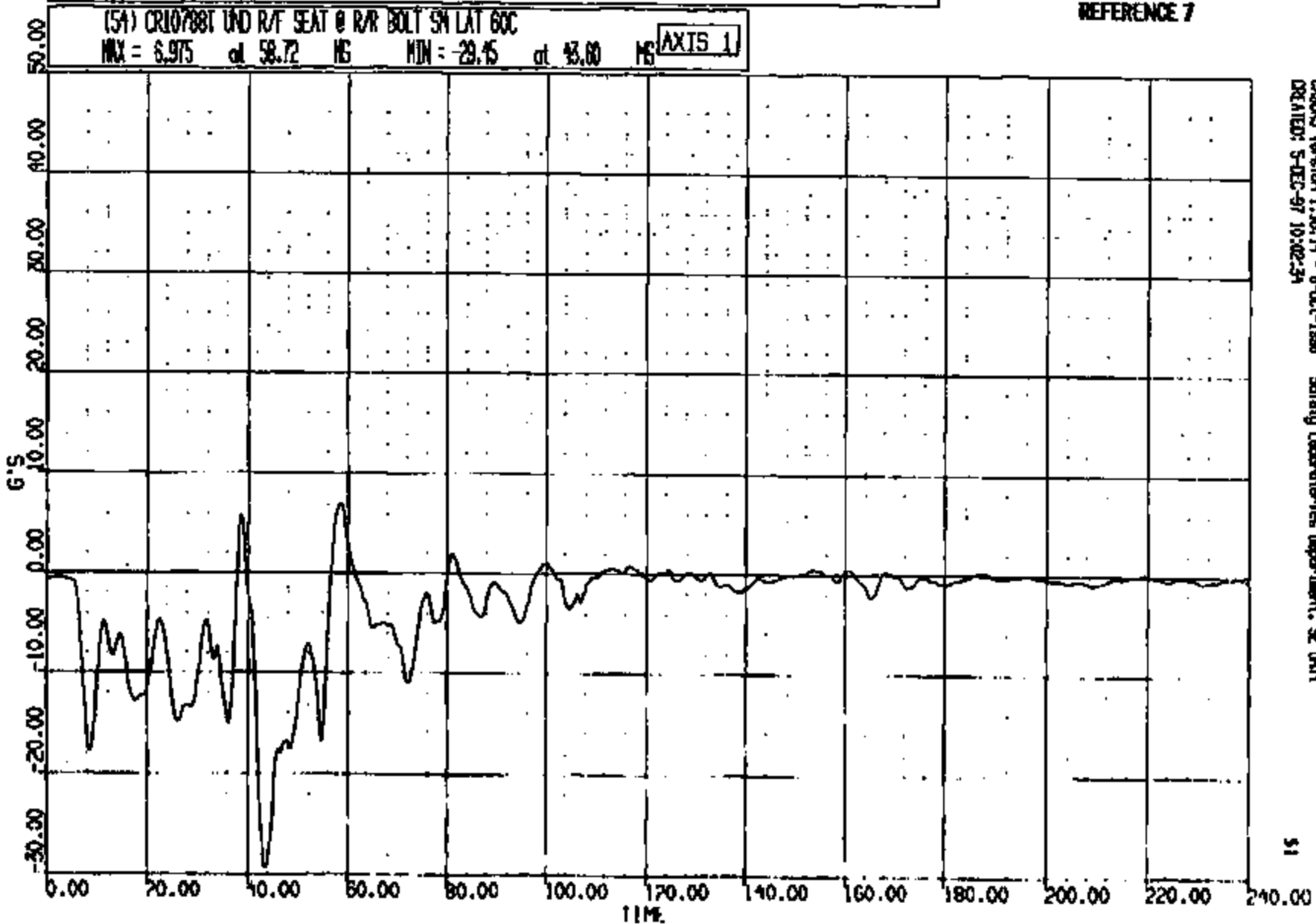
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POLARITY CORRECTED IN
ACCORDANCE WITH ST-25
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CASDS Version 1.16.14 - 8-Oct-1998 Safety Laboratories Department, SE Unit
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51

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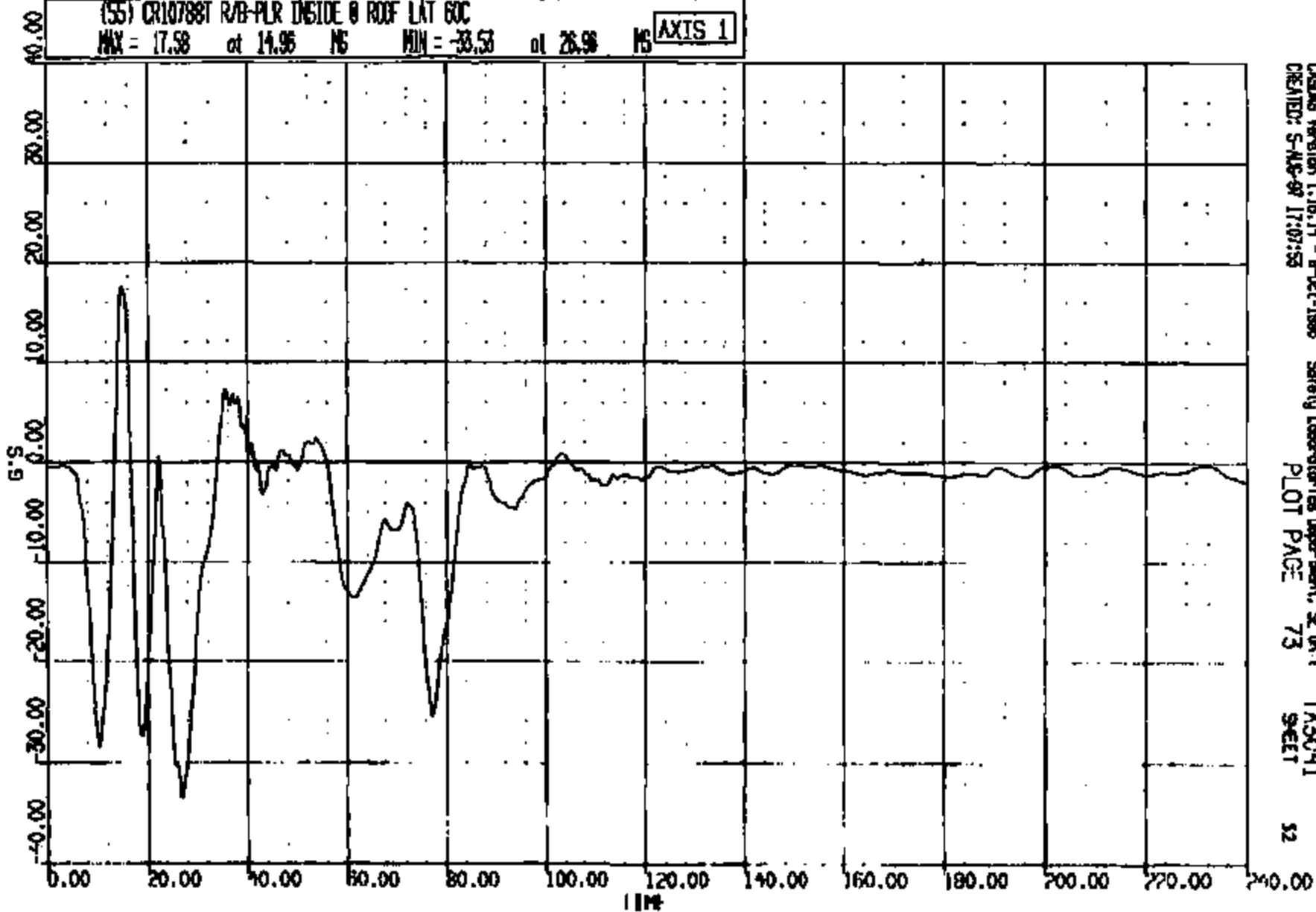
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CR #: 10788 TO: TA3041 DATE: 970805 18:45:11
1999 FN-145 1999 FN-145

(55) CR10788T R/B-PLR INSIDE @ ROOF LAT 60C

MAX = 17.58 at 14.95 MS MIN = -33.53 at 26.96 MS

AXIS 1



CASMS Version 1.16.14 - 8-Oct-1996
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Safety Laboratories Department, SE Unit
PLOT PAGE 73

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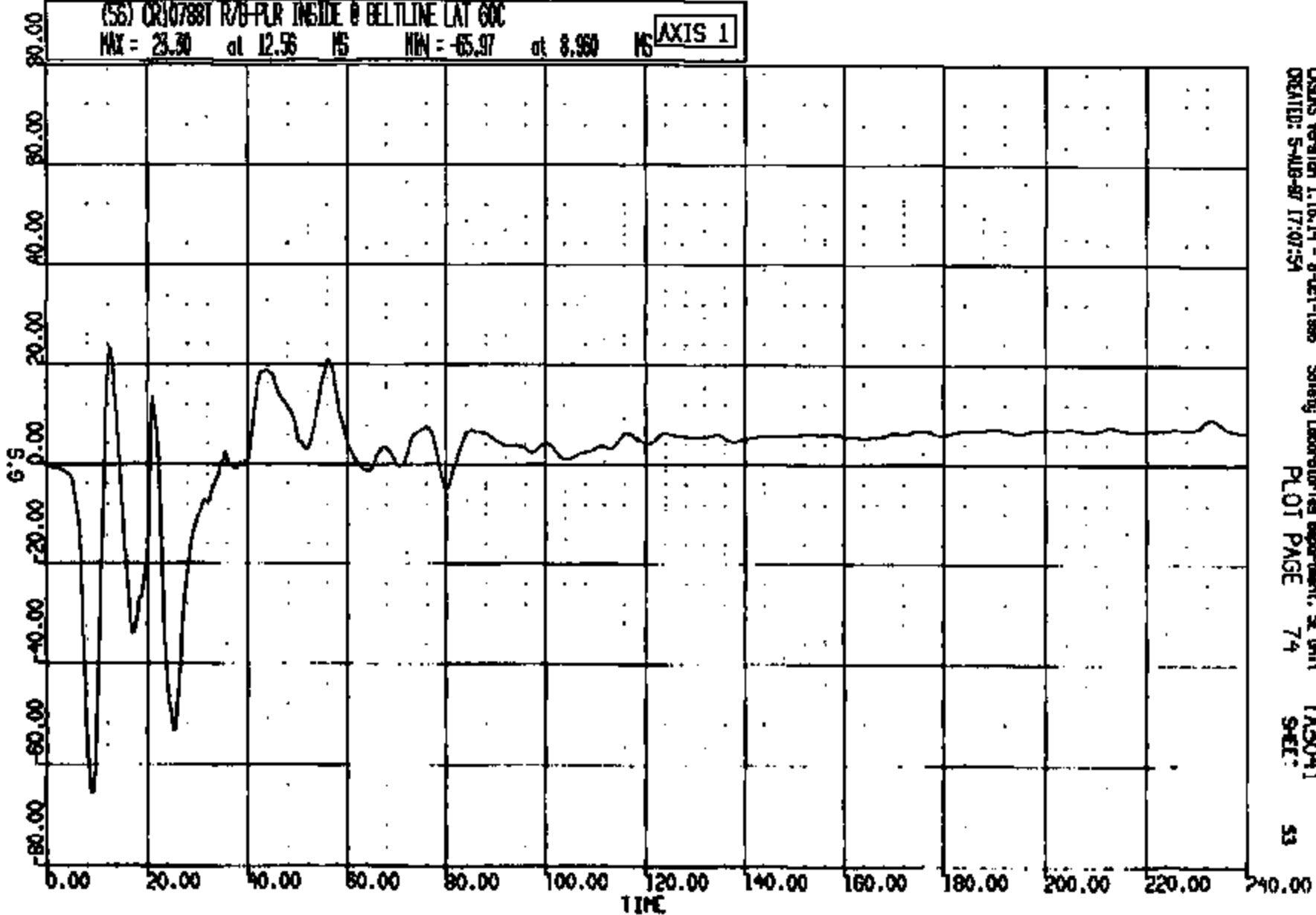
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1999 FN-145 1999 FN-145

(55) CR10788T R/O-PLR INSIDE @ BELTLINE LAT 60C

MAX = 23.30 at 12.56 MS MIN = -65.97 at 8.950 MS

AXIS 1



CASAS Version 1.18.14 - 8-Oct-1995
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Safety Laboratories Department, SE Unit
PLOT PAGE 74

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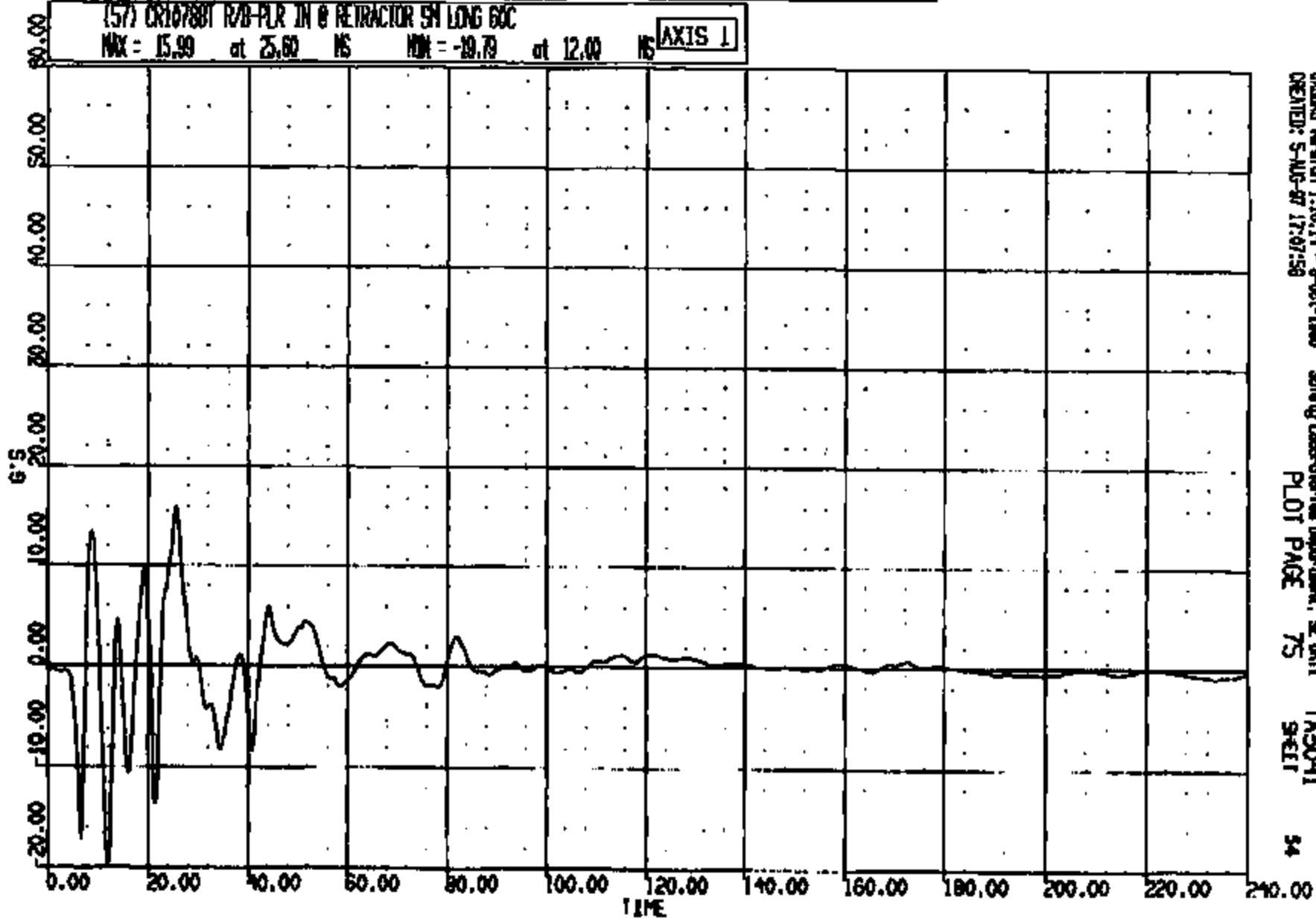
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1988 FN-145 1988 FN-145

(57) CR10788T 12/8-PLR IN @ RETRACTOR SN LONG 60C

MAX = 15.99 at 25.00 MS MIN = -19.79 at 12.00 MS

AXIS 1



CLIENT Version 1.16.14 - 8-Oct-1988
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Safety Laboratories Department, E. Unit
PLOT PAGE 75

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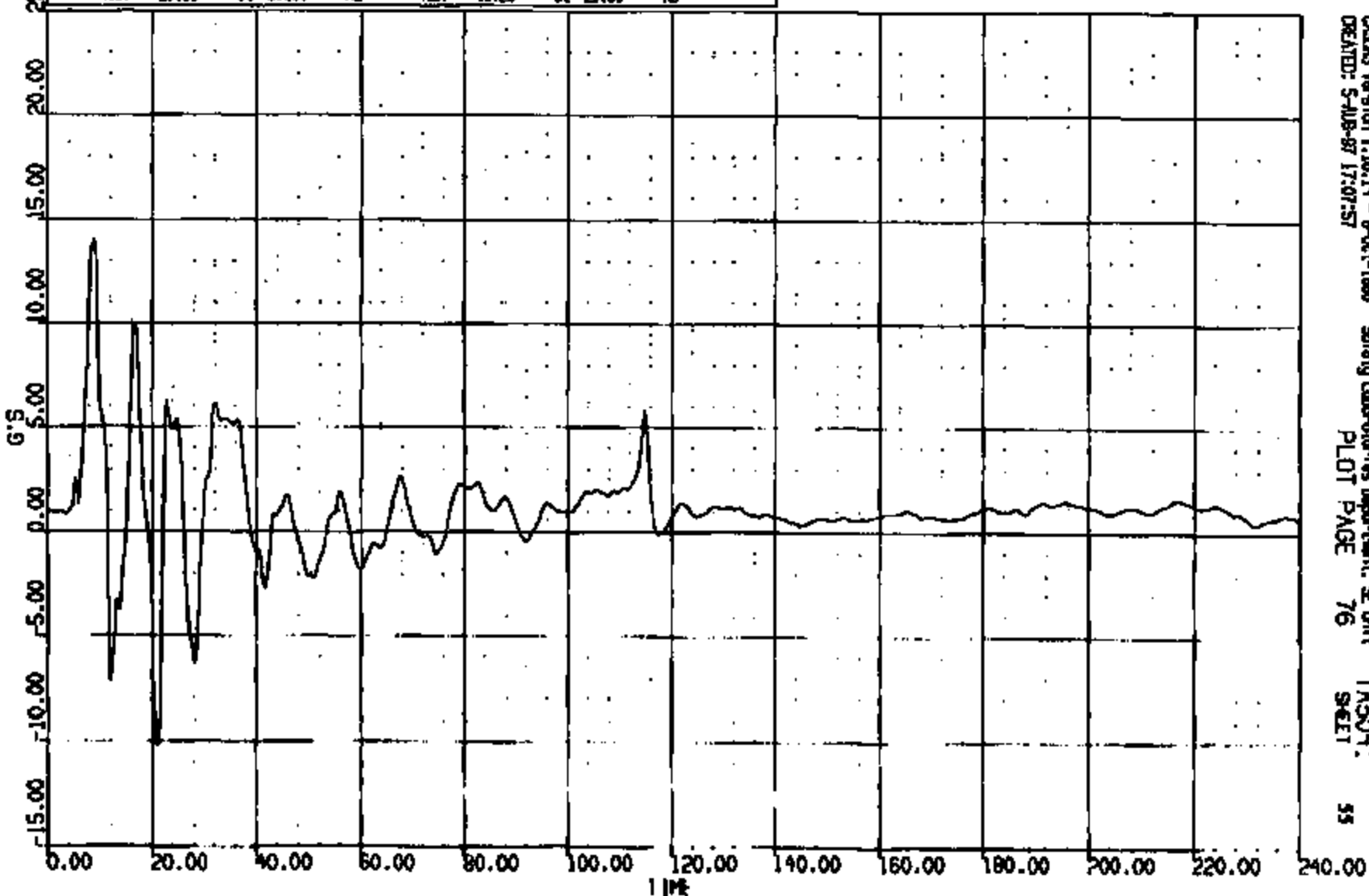
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1999 FN-146 1999 FN-145

(58) CR10788T R/O-PLR IN @ RETRACTOR SH VERT 60C

MAX = 13.99 at 8.960 MS MIN = -10.25 at 20.88 MS

AXIS 1



CASINS Version 1.16.14 - 8-Oct-1999
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Safety Laboratories Department, SE Unit
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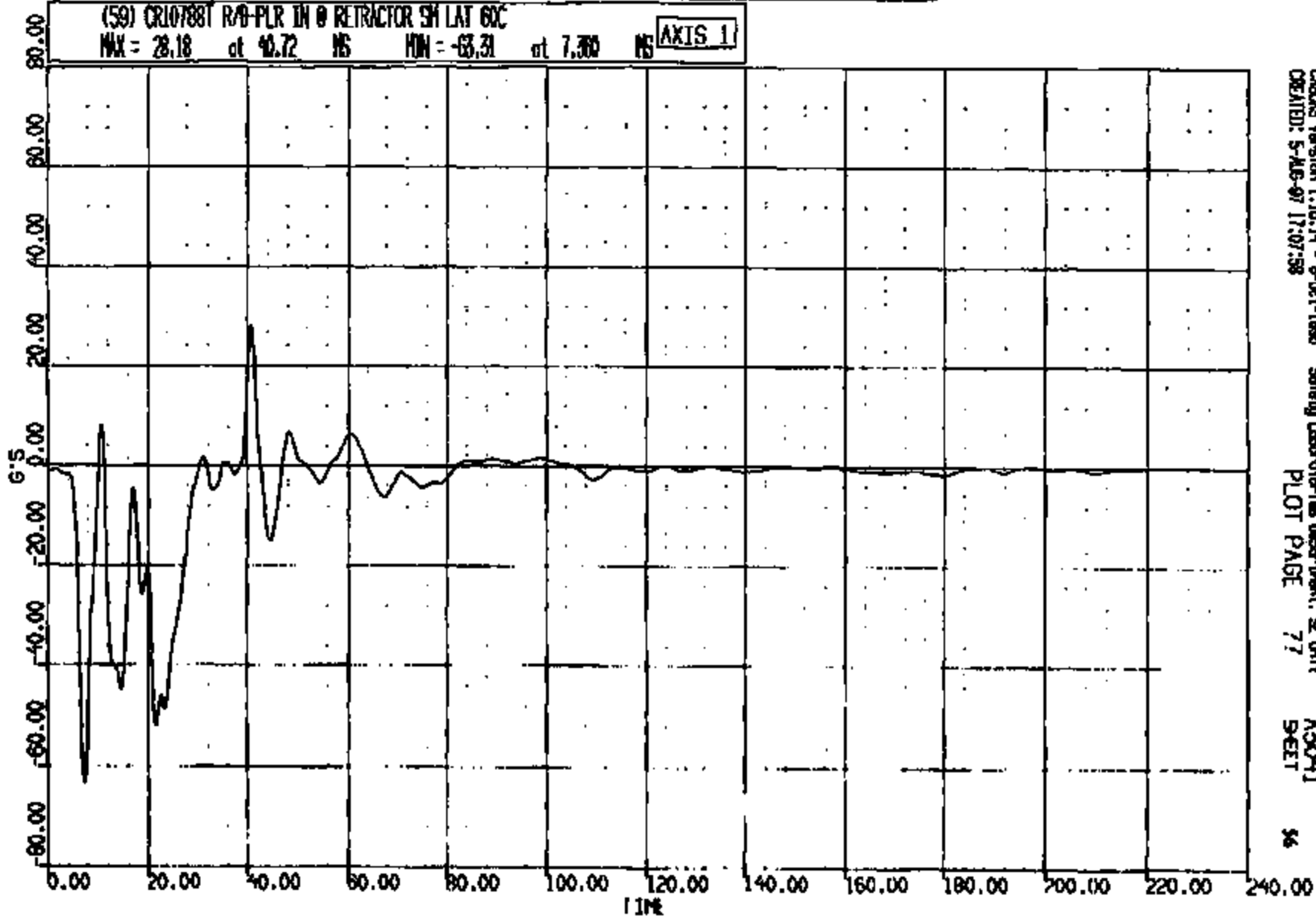
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1999 FN-145 1999 FN-145

(59) CR107881 R/O PLR IN @ RETRACTOR SM LAT 60C

MAX = 28.18 at 40.72 NS MIN = -63.31 at 7.300 NS

AXIS 1



CASIS Version 1.16.14 - 8-Oct-1996
CREATED: 5-AUG-97 17:07:58

Safety Laboratories Department, SE Unit
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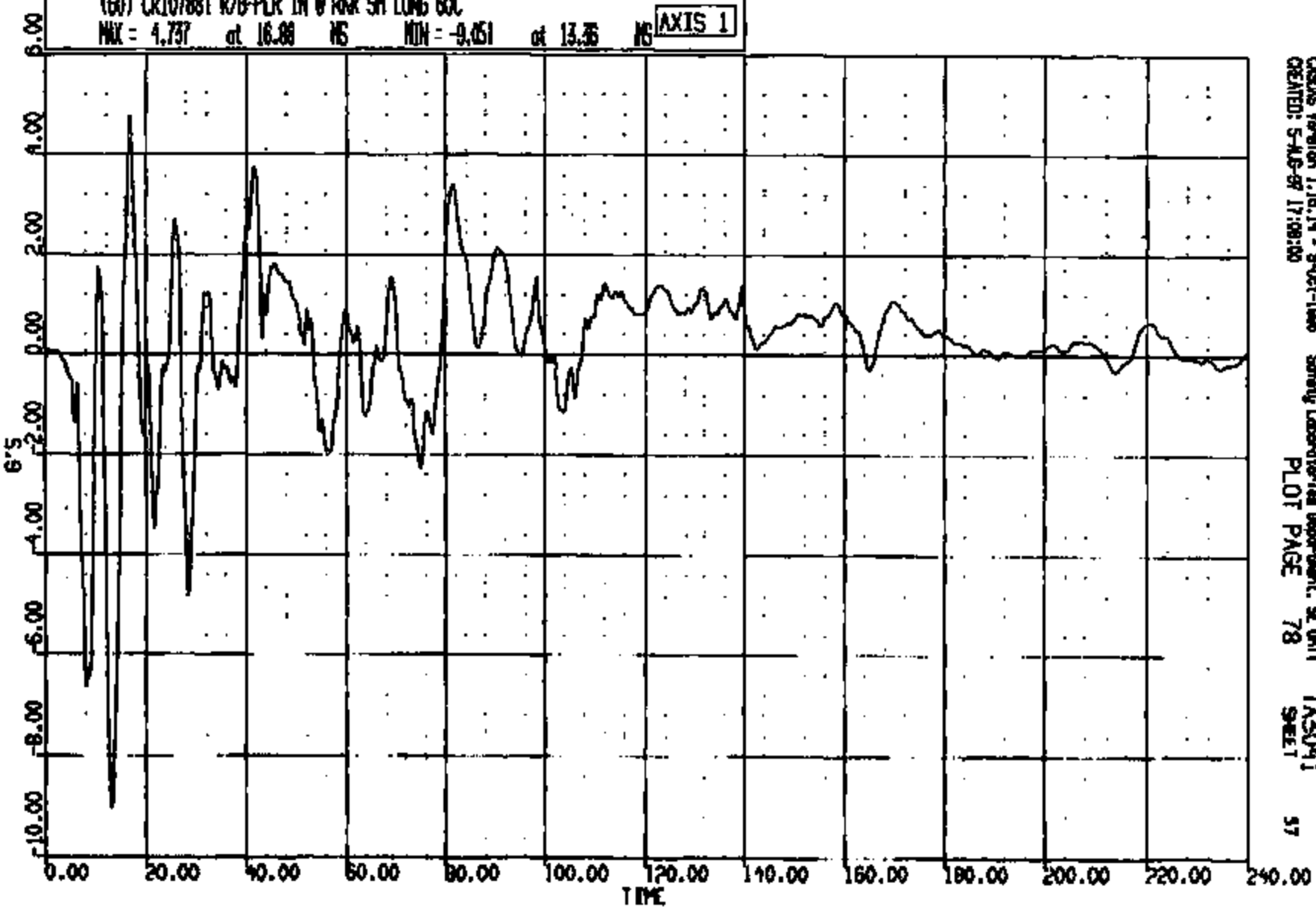
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1999 FN-145 1999 FN-145

(60) CR107881 R/B-PLR IN @ R/R 5M LONG 60C

MAX = 4.737 at 16.00 MS MIN = -9.051 at 13.35 MS

AXIS 1



CASAS Version 1.16.14 - 8-Oct-1996
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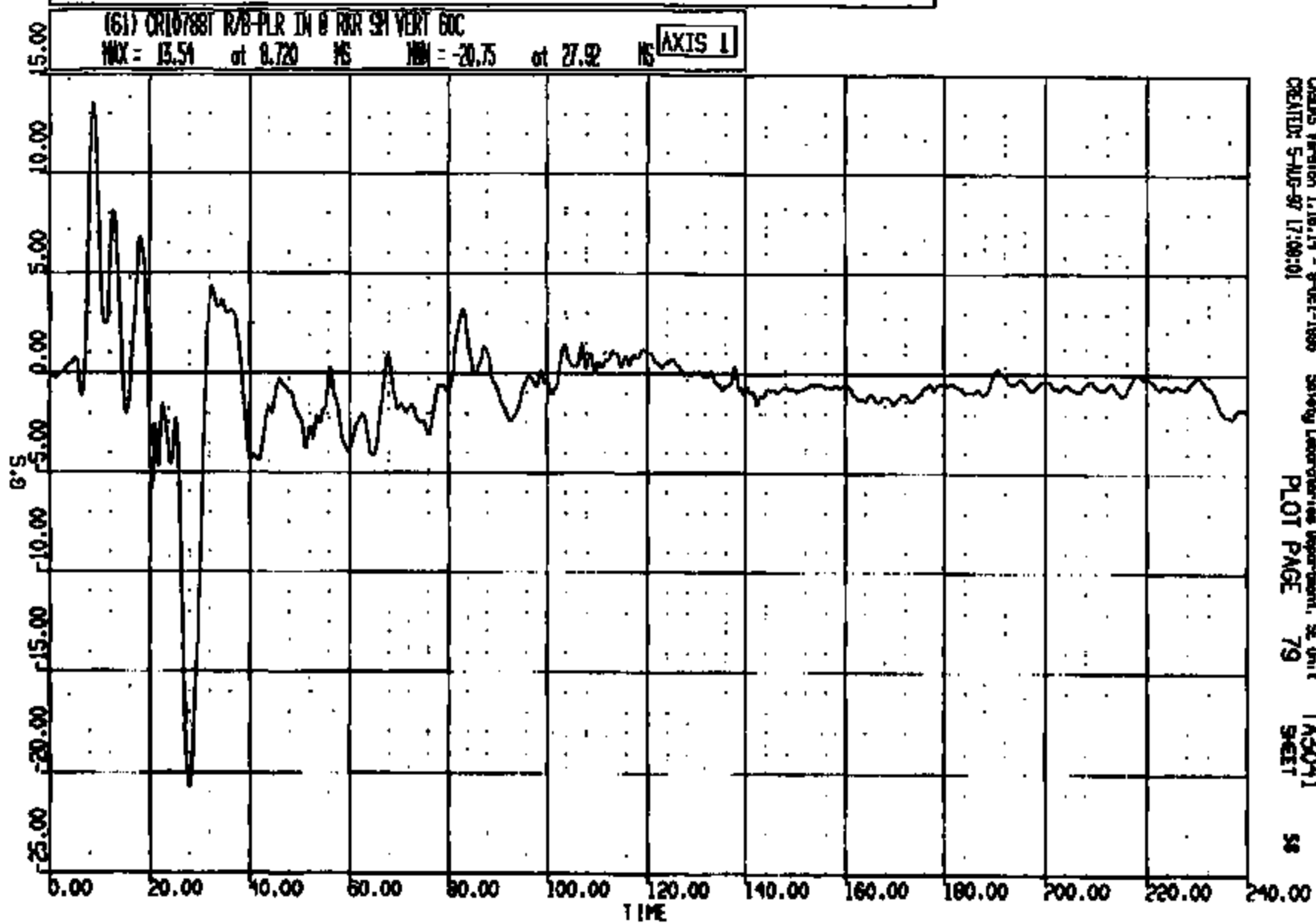
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1999 FN-145 1999 FN-145



CASIMS Version 1.16.14 - 8-Oct-1999
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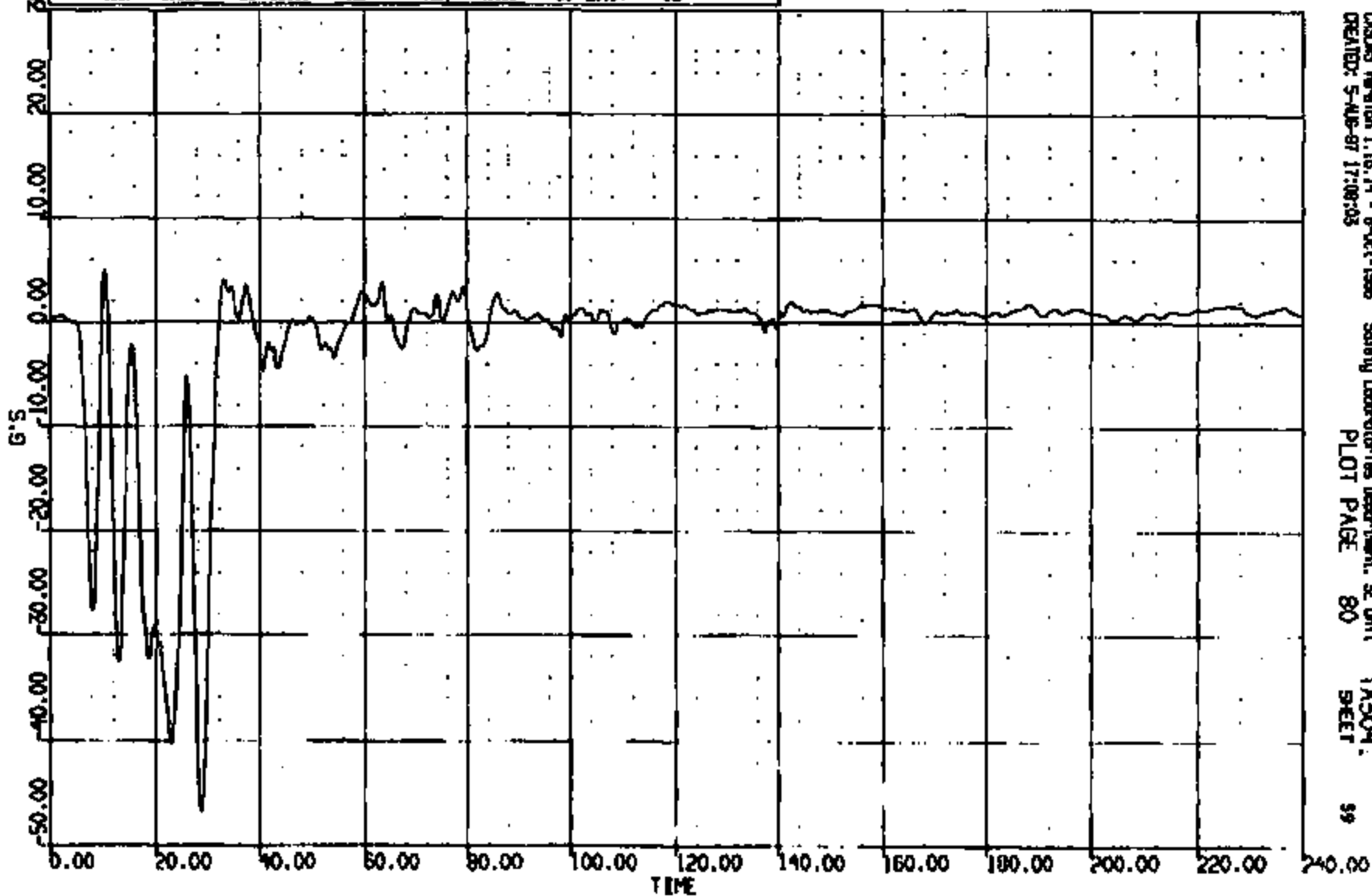
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1999 FN-145 1999 FN-145

(62) CR1078801 R/V-PLR IN @ RWR SM LAT 60C

MAX = 5.006 at 10.56 MS MIN = -46.69 at 28.64 MS

AXIS 1



CASOS Version 1.16.14 - 8-Oct-1998
CREATED: 5-AUG-97 17:08:03

Safety Laboratories Department, SE Unit
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1988 FN-148 1988 FN-148

REAR FLOOR PANBONE AXLE VERT GOC

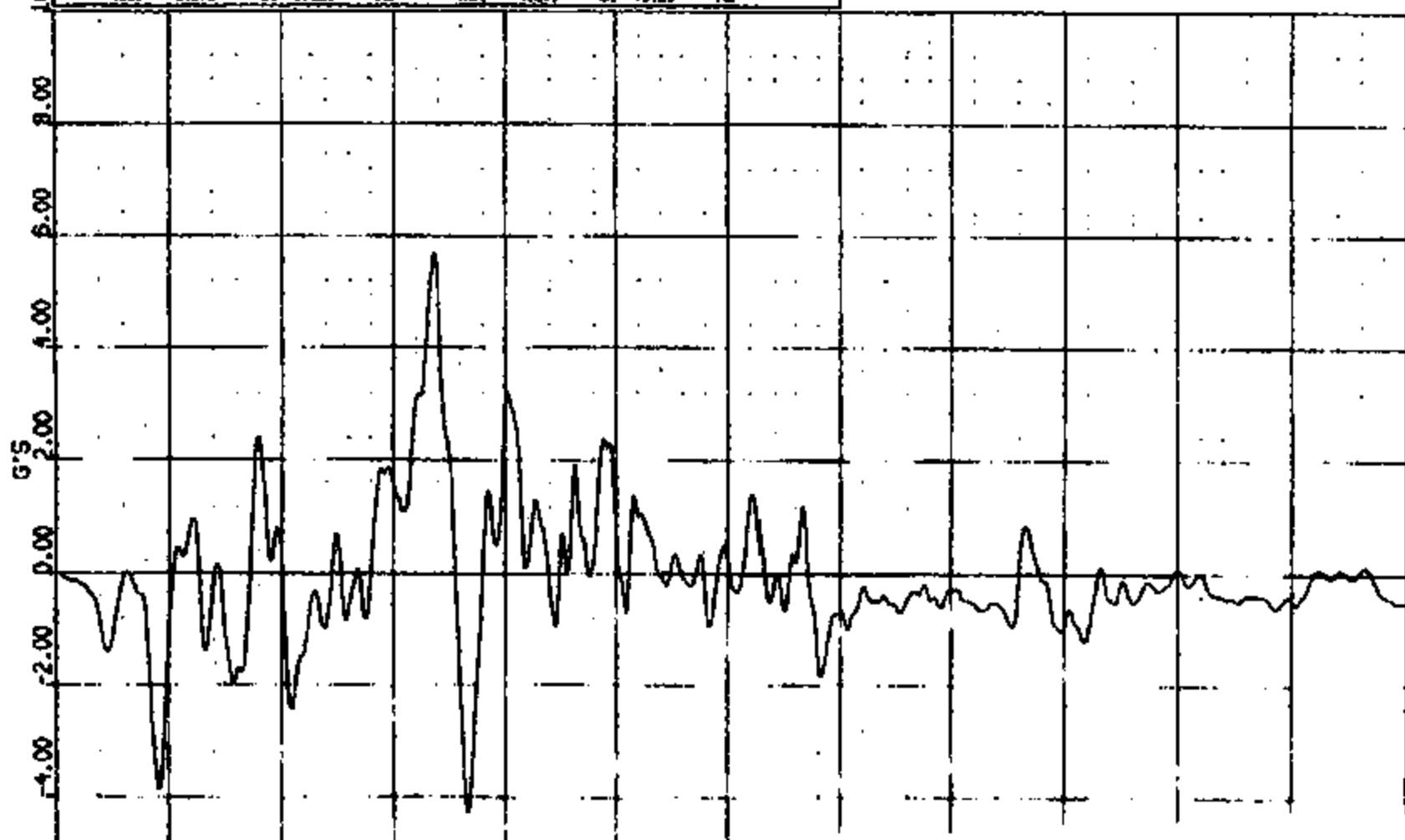
AXIS 1

CR R: 10788 TO: TA5041 DATE: 870808 18:48:11
1988 FN-148 1988 FN-148

(69) CR10788T REAR FLOOR PANBONE AXLE LONG GOC

MAX = 5.675 at 67.20 MS MIN = -4.281 at 73.28 MS

AXIS 1



CSDAS Version 1.16.14 - 8-Oct-1988
CREATED: 8-AUG-87 17:58:12

Safety Laboratories Document, SE Unit
PLOT PAGE 87

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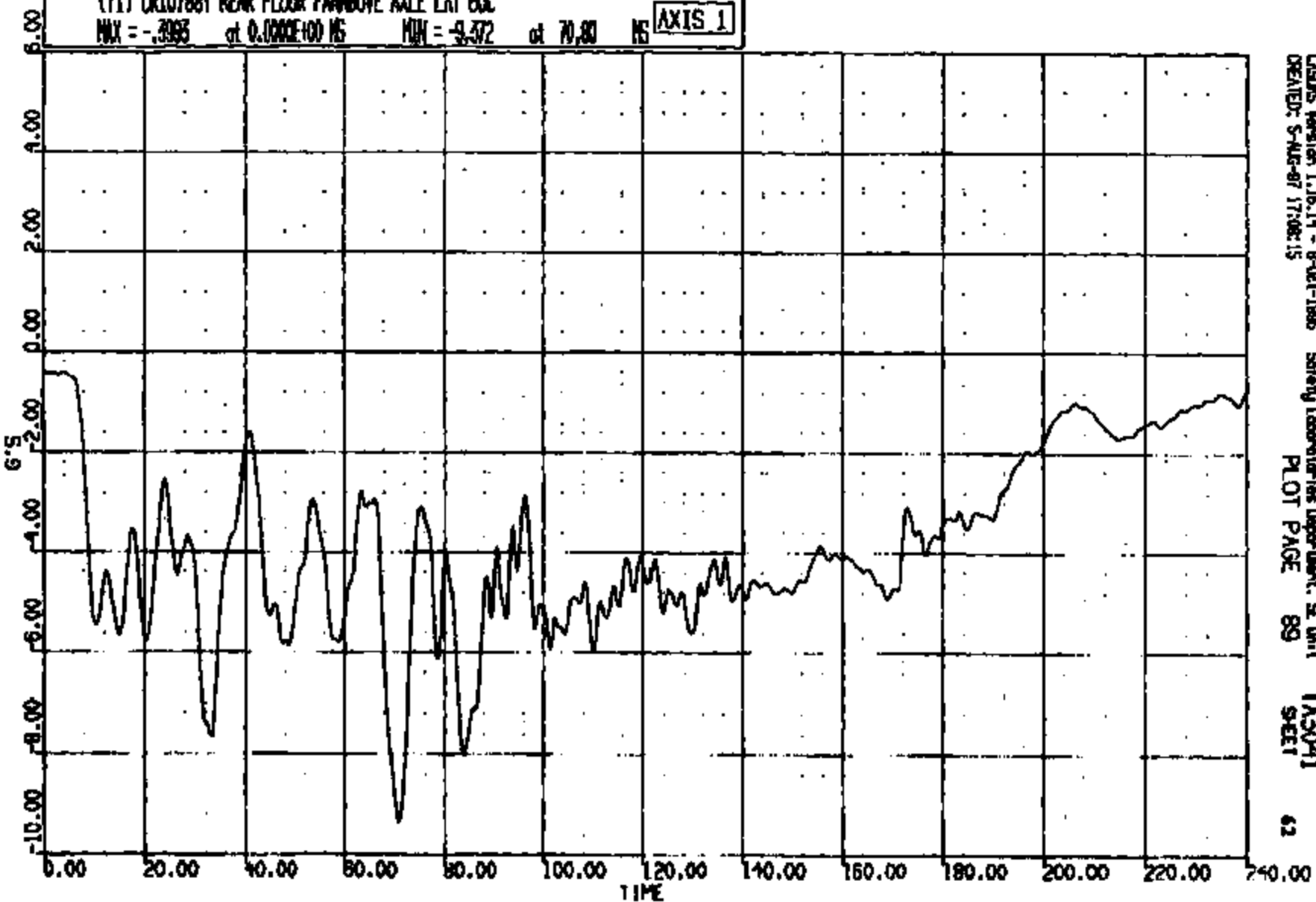
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CR RI 10788 TO: TA5041 DATE: 970808 16:48:11
1999 FN-145 1999 FN-146

(71) CR10788T REAR FLOOR PANADOME AXLE LAT 60C

MAX = -.3993 at 0.000E+00 MS MIN = -9.572 at 70.80 MS

AXIS 1



CRSIS Version 1.16.14 - 8-Oct-1995
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Safety Laboratories Department, SE Unit
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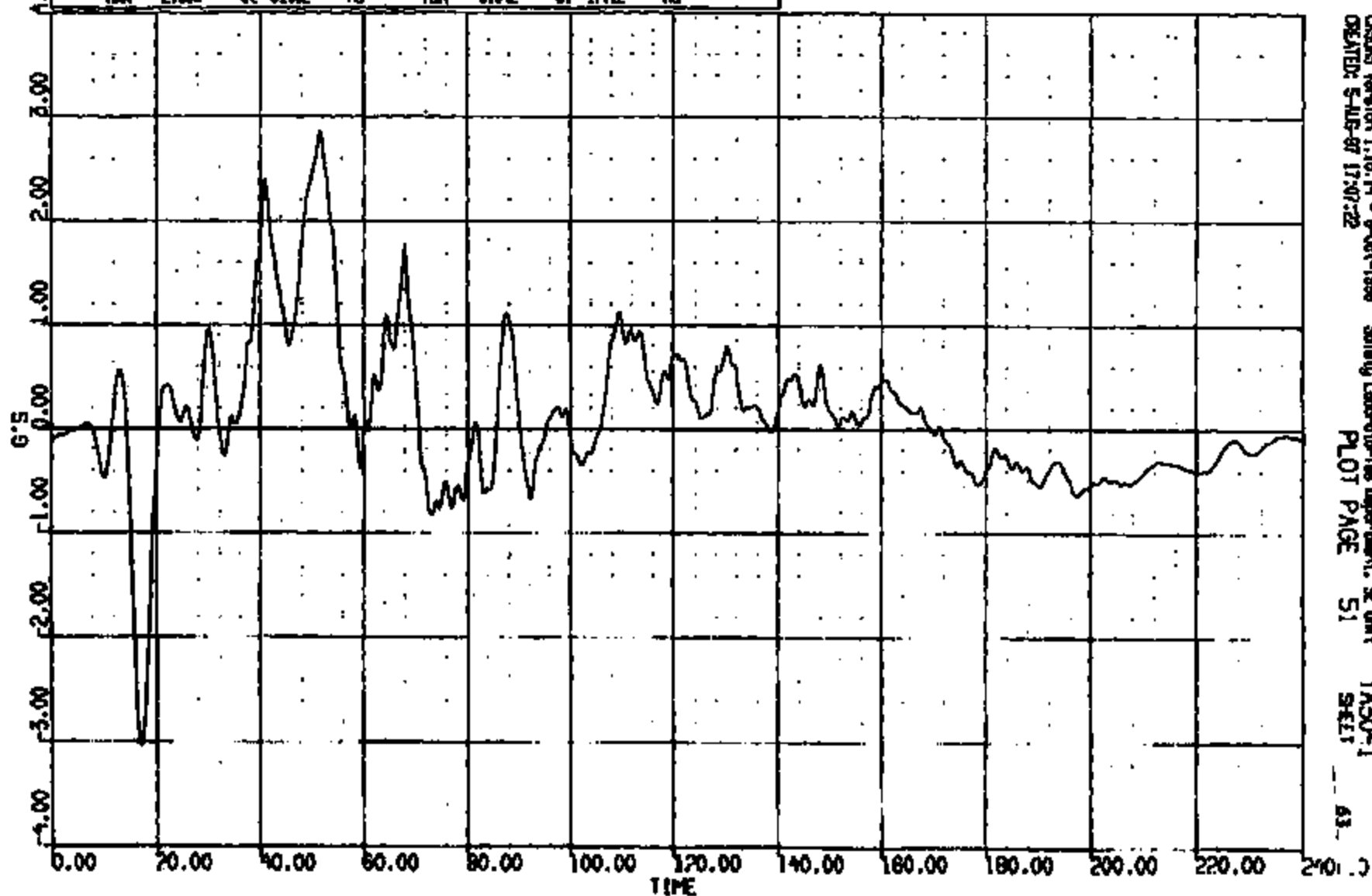
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1999 FN-145 1999 FN-145

(33) CR10788T L/ROCKER @ FRONT SEAT MID LONG SOC

MAX = 2.858 at 51.52 MS MIN = -3.042 at 17.12 MS

AXIS 1



CADDS Version 1.16.14 - 8-Oct-1998
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Safety Laboratories Department, SE Unit
PLOT PAGE 51

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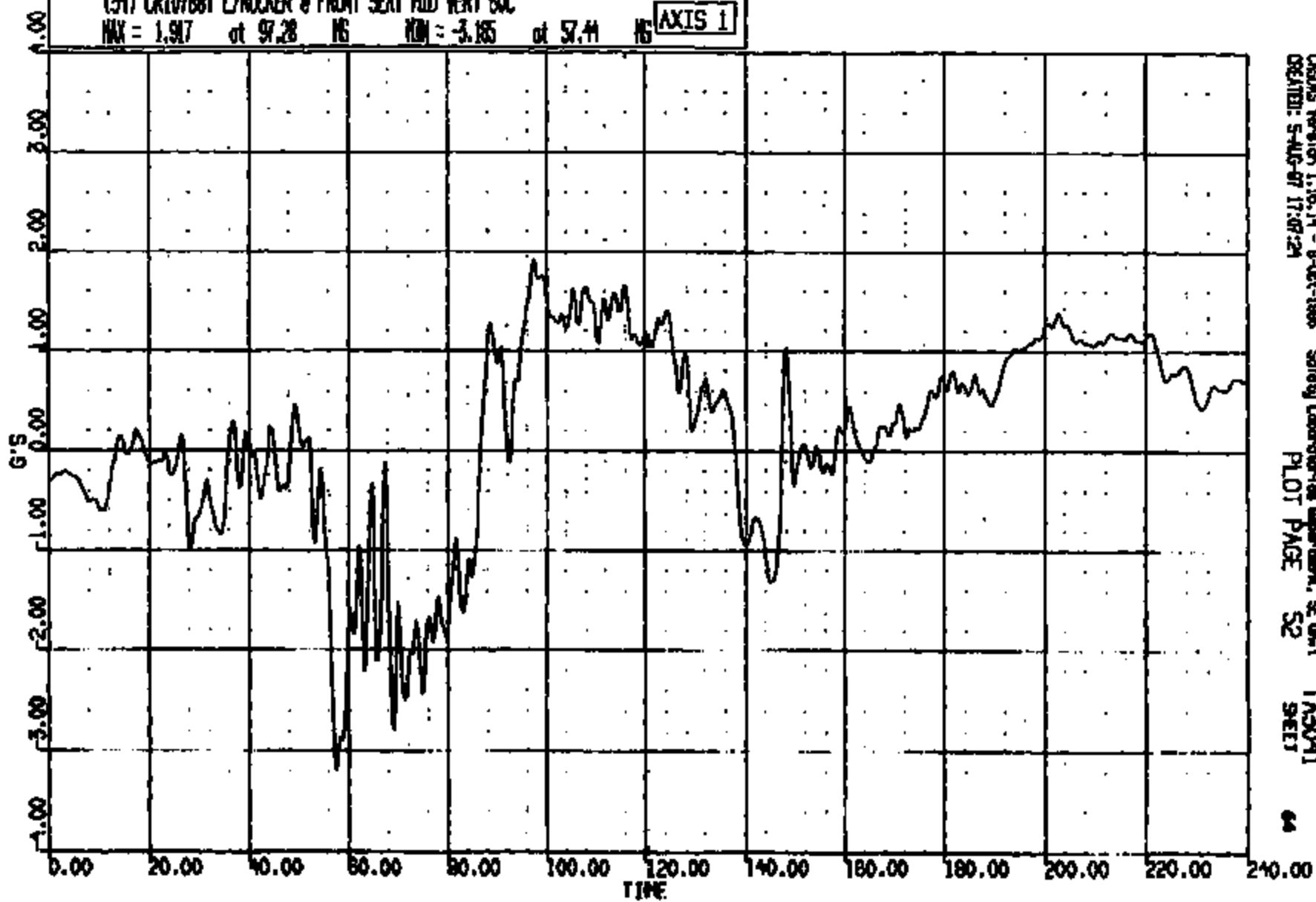
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1999 FN-145 1999 FN-145

(34) CR10788T L/ROCKER @ FRONT SEAT MID VERT SOC

MAX = 1.917 at 97.28 MS MIN = -3.185 at 57.44 MS

AXIS 1



ORION Version 1.16.14 - 8-Oct-1996
CREATED: 5-AUG-97 17:07:24

Safety Laboratories Department, SE Unit
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TAB041
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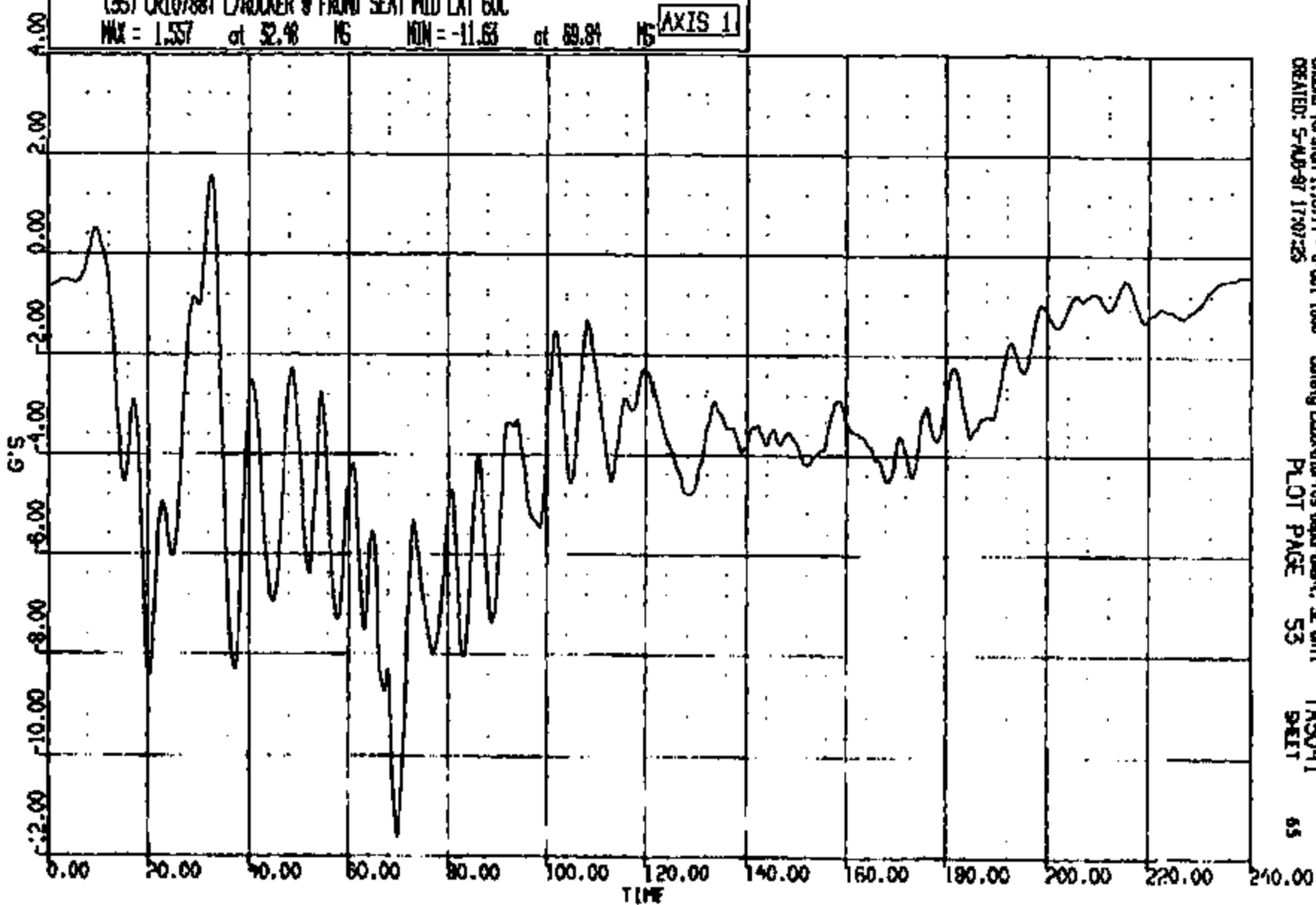
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1999 FN-148 1999 FN-148

(35) CR107881 L/ROCKER @ FRONT SEAT MID LAT 60C

MAX = 1.557 at 32.48 MS MIN = -11.63 at 69.84 MS

AXIS 1



CASME Version 1.16.14 - 8-Oct-1996
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Safety Laboratories Department, SE Unit
TA3041
PLOT PAGE 53 SHEET

65

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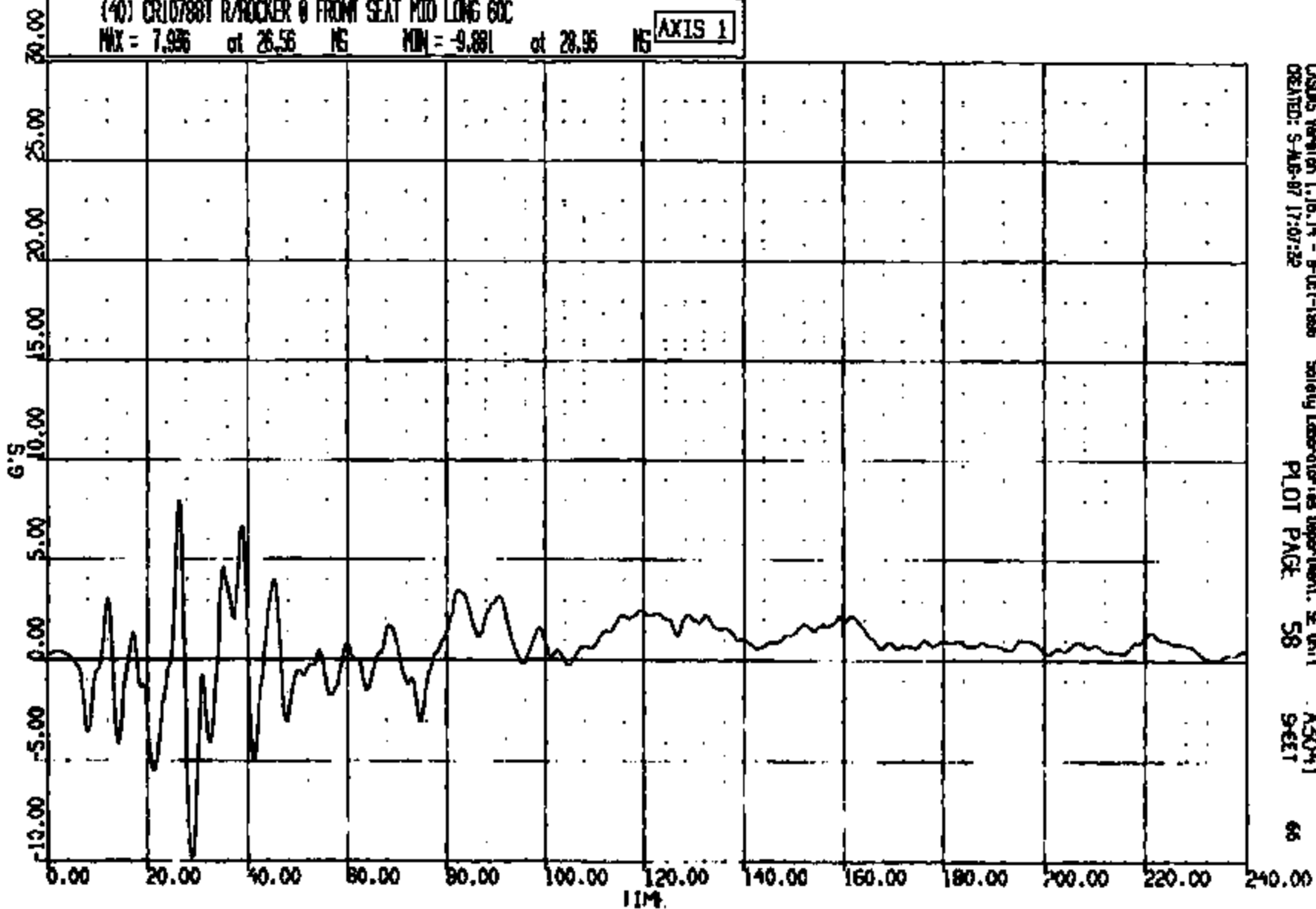
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1999 FN-145 1999 FN-145

(40) CR10788T R/ROCKER @ FRONT SEAT MID LONG 60C

MAX = 7.996 at 26.56 NS MIN = -9.881 at 28.96 NS

AXIS 1



CASAS Version 1.16.14 - B-01-1886
CREATED: 5-AUG-97 17:07:32

Safety Laboratories Department, SE Unit
PLOT PAGE 58

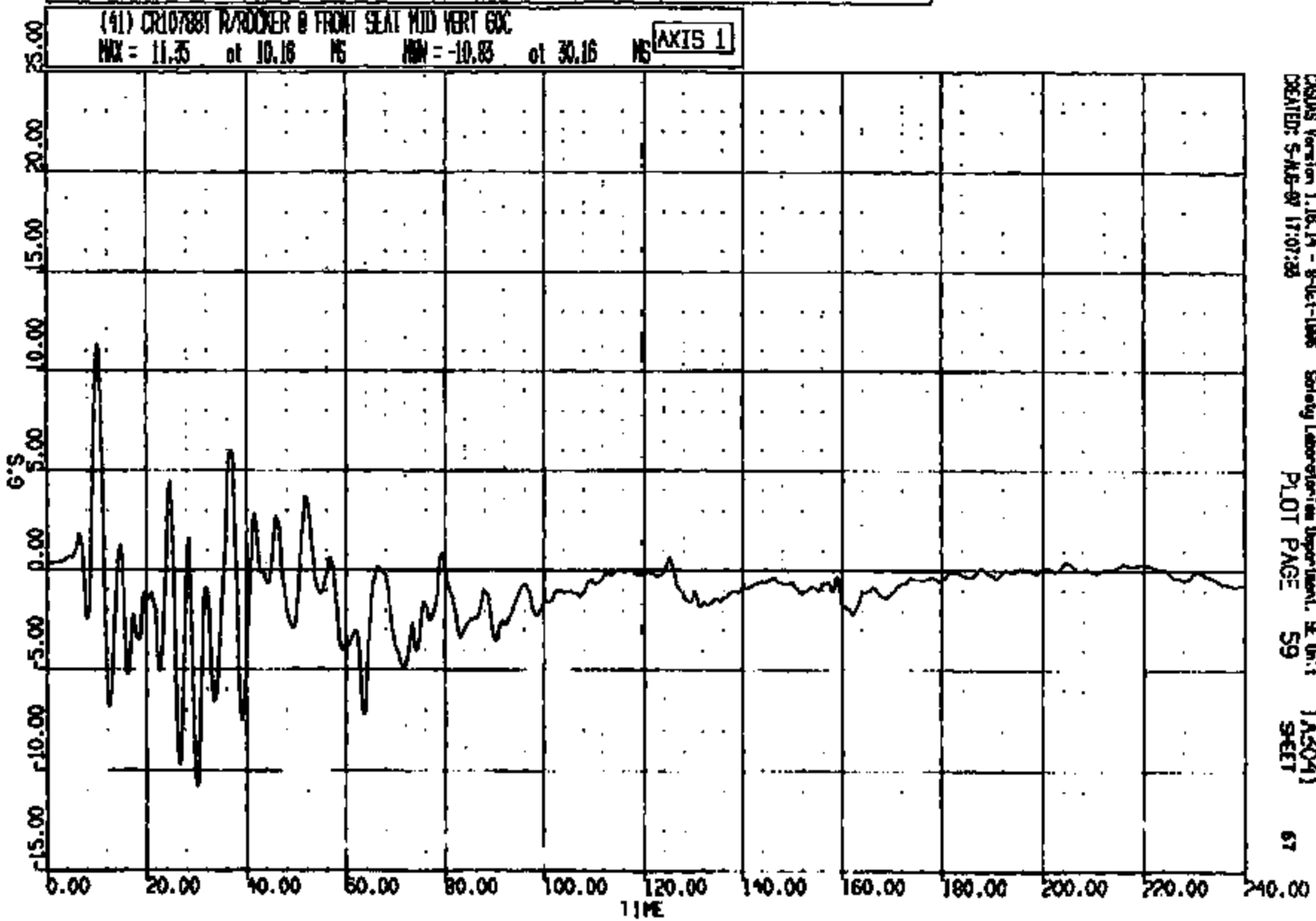
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1999 FN-146 1999 FN-146



CASUS Version 1.16.14 - 8-04-1995
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Safety Laboratory Department, E. U. 1
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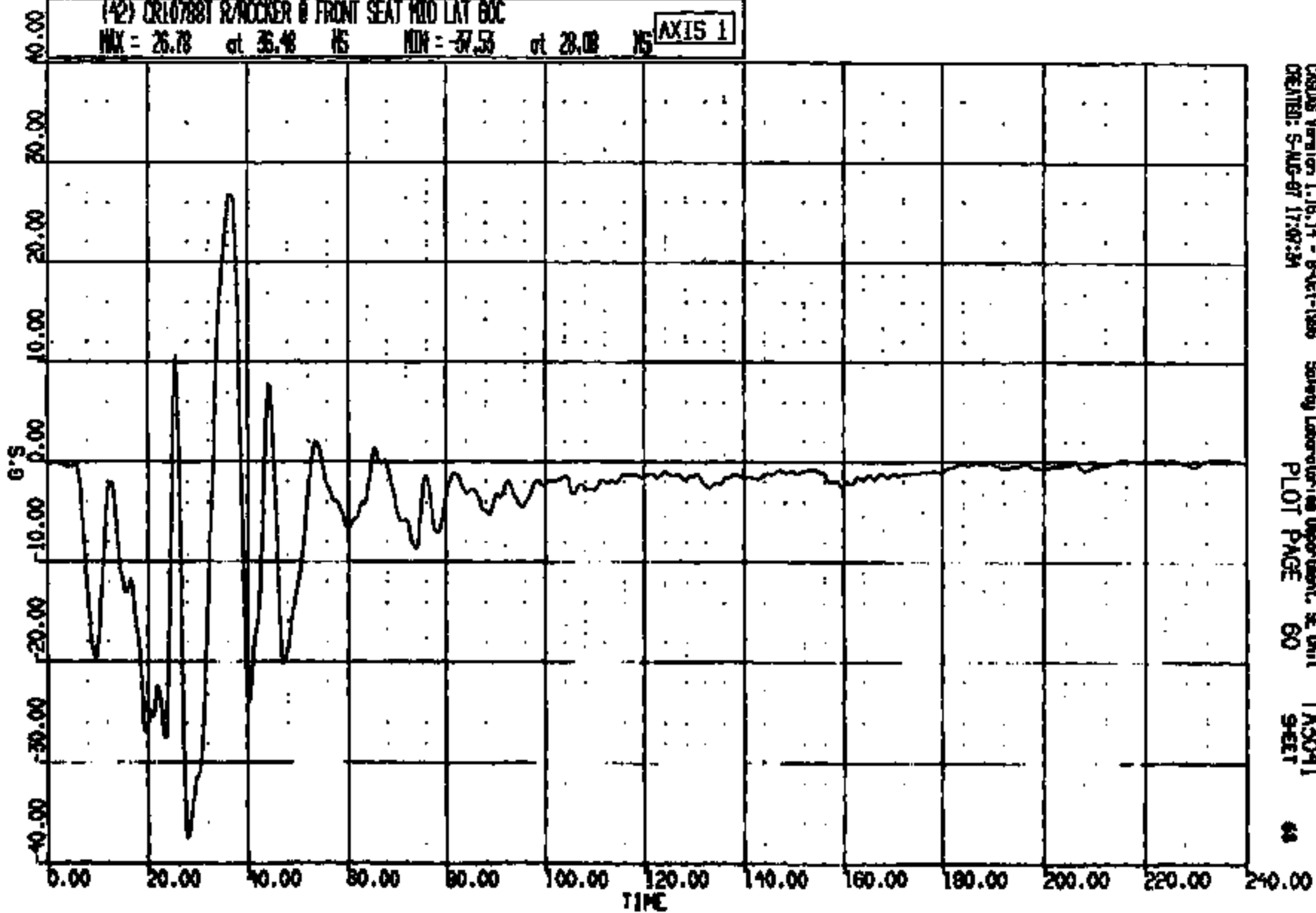
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1999 FN-145 1999 FN-145

(42) CR107881 R/ROCKER @ FRONT SEAT MID LAT BOC

MAX = 26.78 at 36.48 MS MIN = -37.53 at 28.08 MS

AXIS 1



CASAS Version 1.16.14 - 8-Oct-1999
CREATED: 5-AUG-97 17:07:34

Safety Laboratory Department, SE Unit
PLOT PAGE 60

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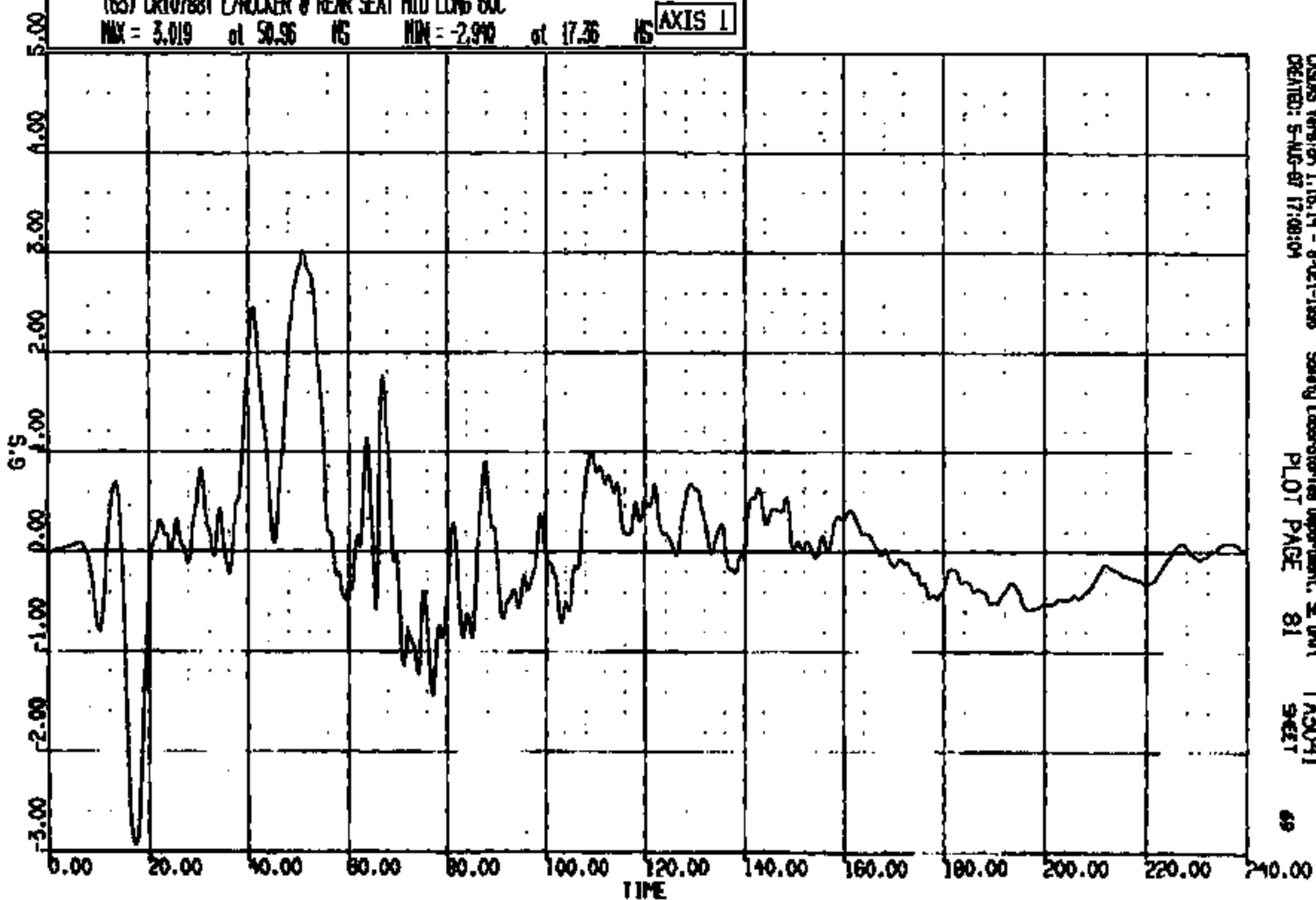
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CR R: 10788 TO: TA3041 DATE: 970806 16:48:11
1999 FN-145 1999 FN-145

(63) CR10788T L/ROCKER @ REAR SEAT MID LONG 60C

MAX = 3.019 at 50.96 MS MIN = -2.940 at 17.36 MS

AXIS 1



CASRS Version 1.16.14 - 8-Oct-1999
CREATED: 5-AUG-97 17:08:04

Safety Laboratories Department, SE Unit
PLOT PAGE 81

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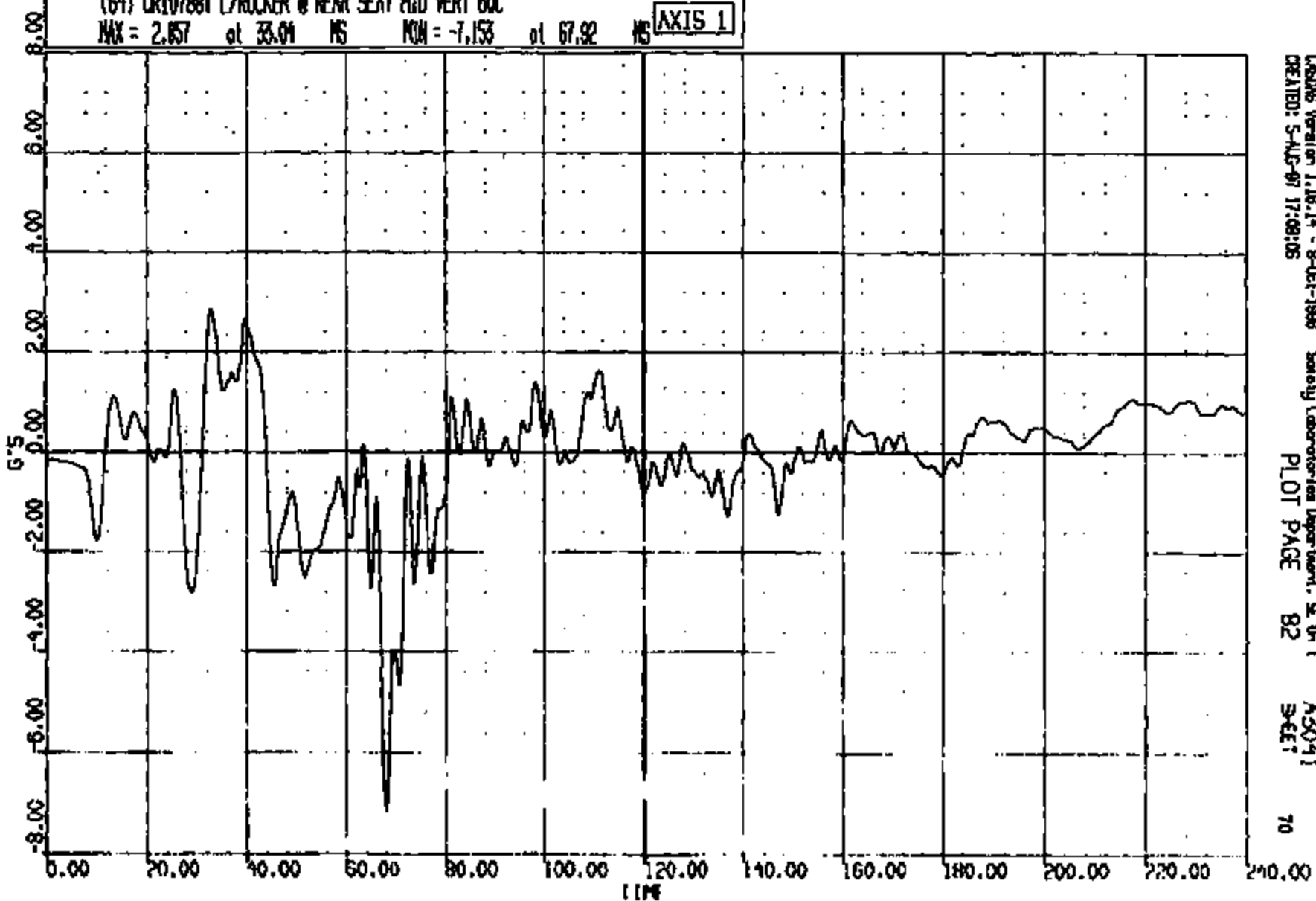
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1999 FN-145 1999 FN-145

(64) CR10788T L/ROCKER @ REAR SEAT MID VERT GDC

MAX = 2.857 at 33.04 MS MIN = -7.153 at 67.92 MS

AXIS 1



CASAS Version 1.16.14 - 8-Oct-1999
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Safety Laboratories Department, St. U. I.
PLOT PAGE 82

TA3041
3-6-97 70

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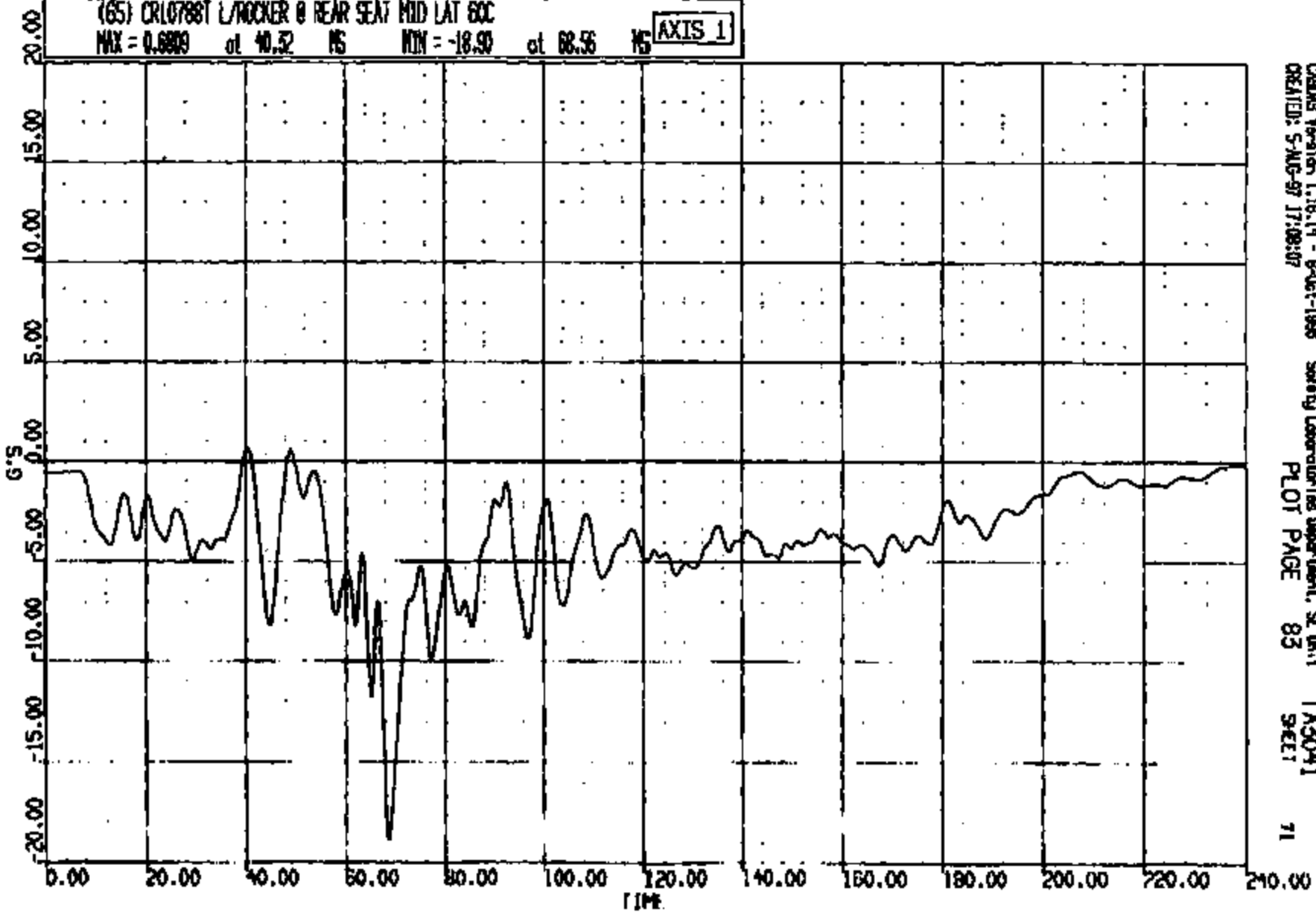
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CR R: 10788 TD: TA3041 DATE: 970806 16:45:11
1999 FN-145 1999 FN-145

(65) CR10788T L/ROCKER @ REAR SEAT MID LAT 60C

MAX = 0.6809 at 40.52 MS MIN = -18.50 at 68.56 MS

AXIS 1



CADAB Version 1.16.14 - 8-Oct-1998
CREATED: 5-AUG-97 17:08:07

Safety Laboratories Department, St. Louis
PLOT PAGE 83

TA3041
SET 71

ENTIRE PAGE CONFIDENTIAL

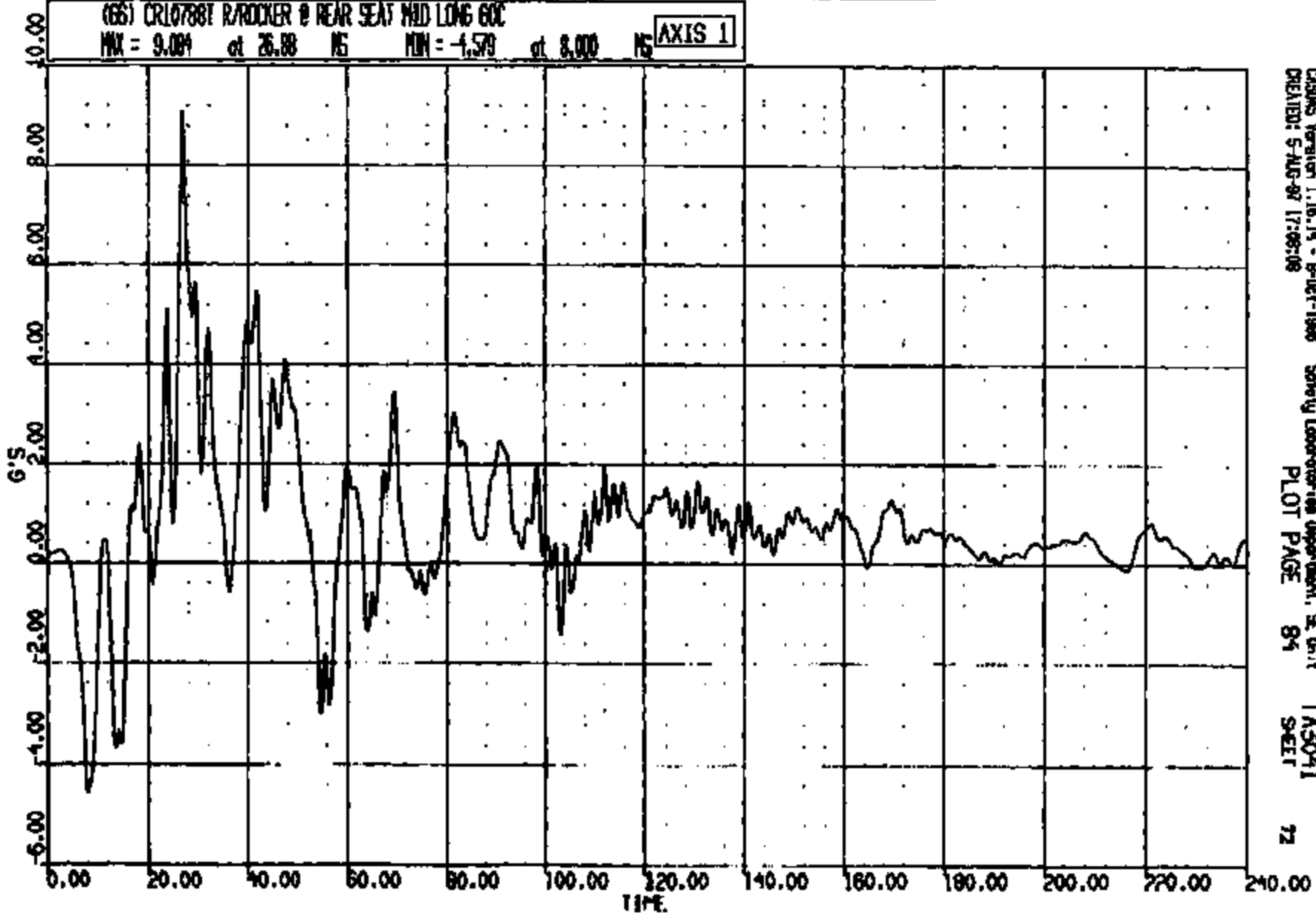
CRTS 0010788

CR R: 10788 TO: TA3041 DATE: 970805 16:45:11
1999 FN-145 1999 FN-145

(66) CR10788T R/ROCKER @ REAR SEAT MID LONG 60C

MAX = 9.084 at 26.88 NS MIN = -4.579 at 8.000 NS

AXIS 1



CASAS Version 1.16.14 - 9-Dec-1998
CREATED: 5-AUG-97 17:05:08

Safety Laboratories Department, SE Unit
PLOT PAGE 84

TA3041
SHEET 72

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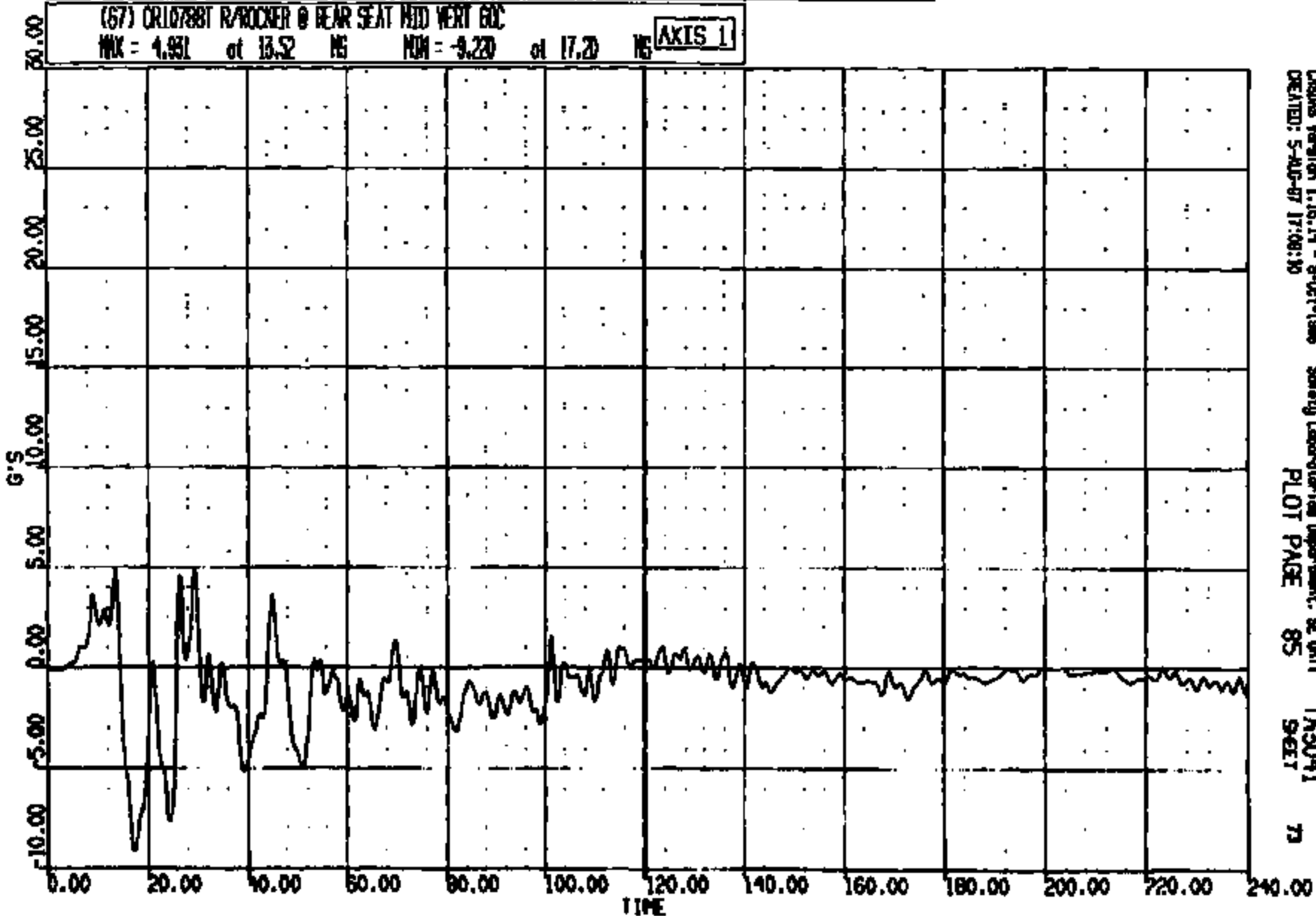
CRIS 0010788

CR R: 10788 TO: TA3041 DATE: 070808 16:45:11
1989 FN-145 1989 FN-145

(67) CR10788T R/ROCKER @ BEAR SEAT WTD VERT GDC

MAX = 4.931 at 13.52 MS MIN = -9.220 at 17.20 MS

AXIS 1



CASUAL Version 1.16.14 - 8-Oct-1988
CREATED: 5-AUG-87 17:08:30

Safety Laboratory Department, SE Unit
PLOT PAGE 85

TA3041
SET 73

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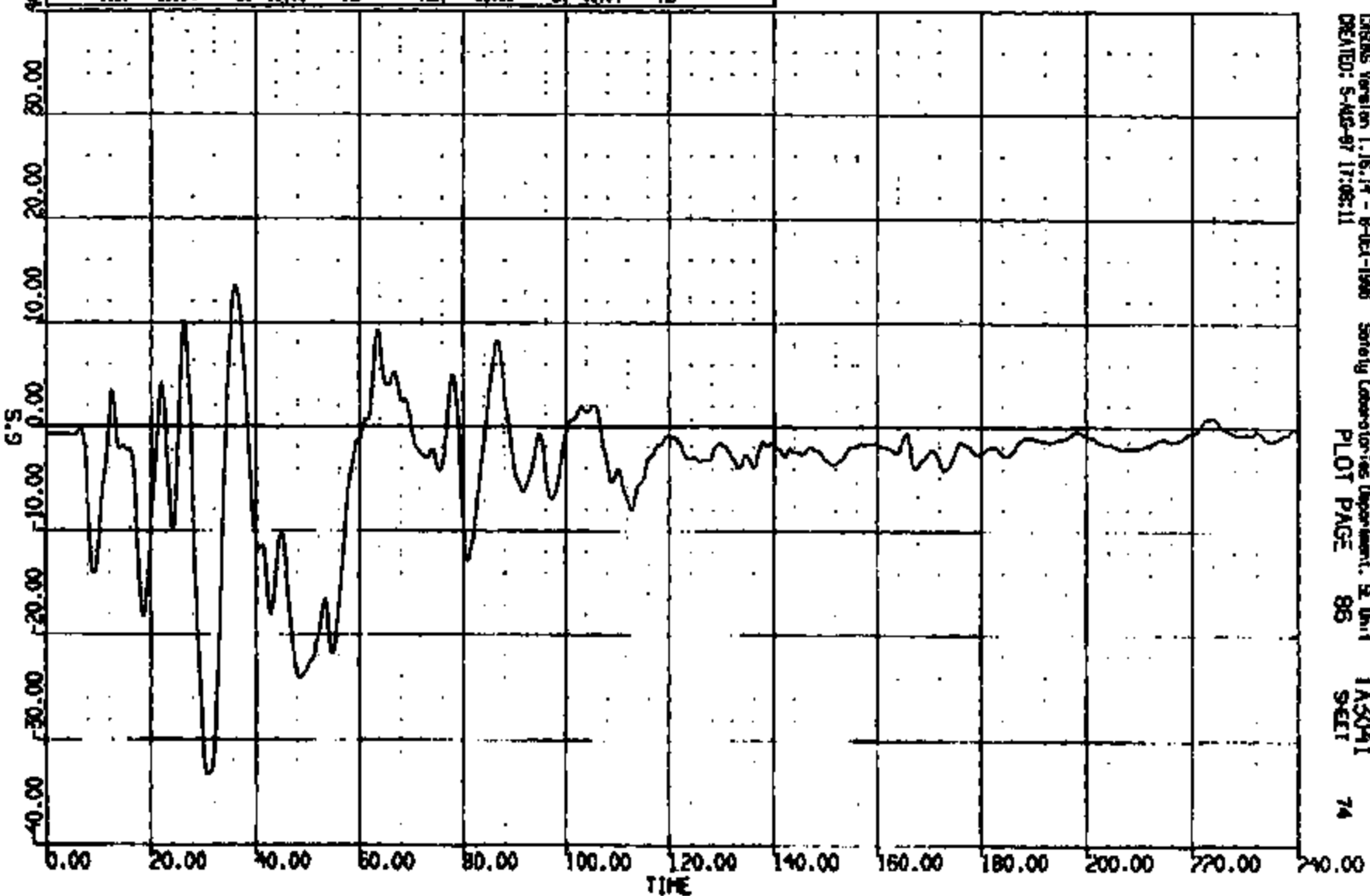
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CR R: 10788 TO: TA3041 DATE: 870805 16:43:11
1999 FN-145 1999 FN-145

(68) CR10788T R/ROCKNER @ REAR SEAT MID LAT 60C

MAX = 13.54 at 35.08 MS MIN = -33.35 at 30.64 MS

AXIS 1



CRHS Version 1.16.14 - 8-04-1998
CREATED: 5-16-97 17:08:11

Safety Laboratories Department, E. Unit
PLOT PAGE 86
TA3041
SET 74

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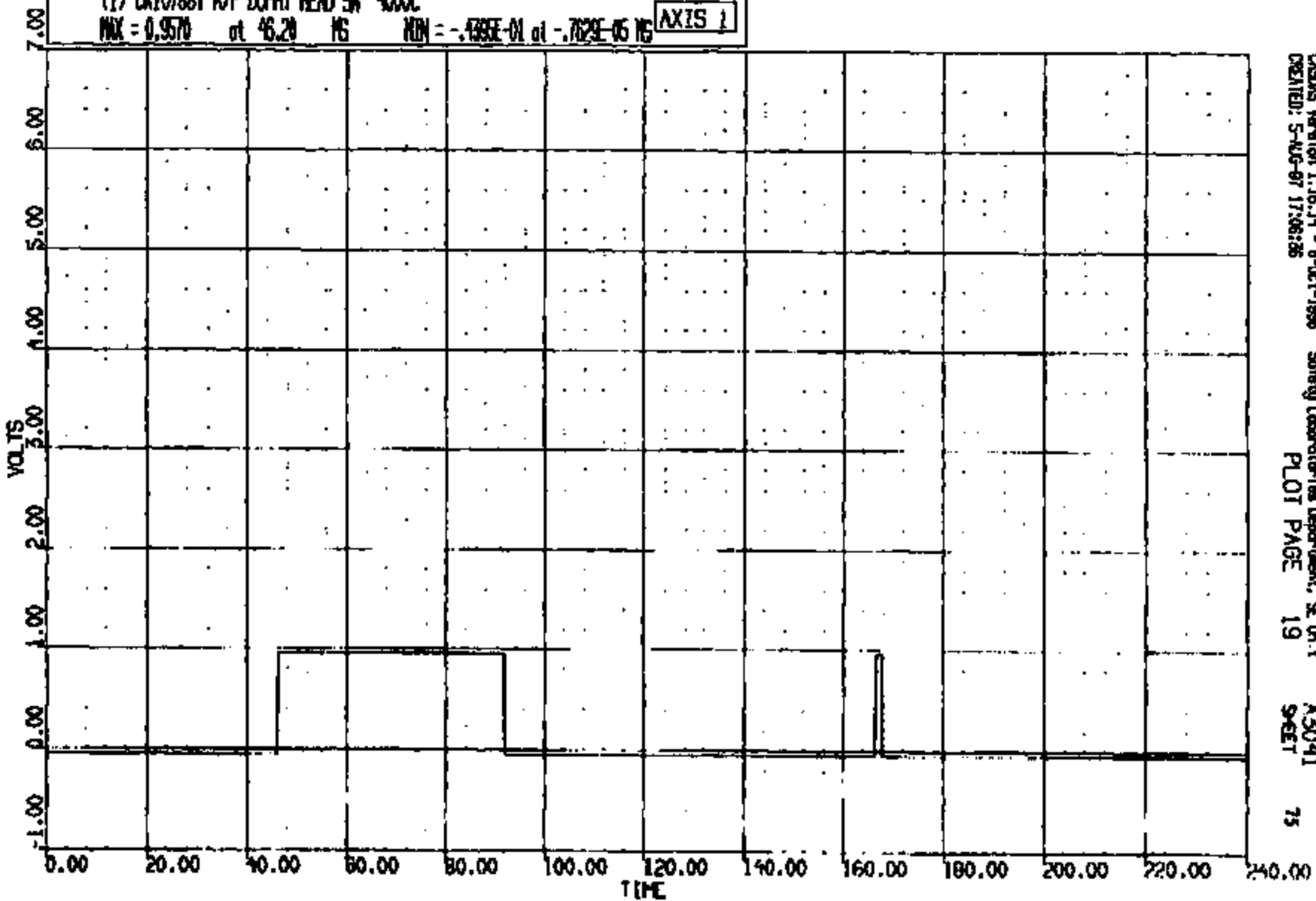
CRHS 0010788

CR R: 10788 TO: TA5041 DATE: 870805 18:43:11
1989 FN-145 1989 FN-145

(1) CR10788T R/F DUMMY HEAD SN 4000C

MAX = 0.9570 at 46.20 MS MIN = -.438E-01 at -.762E-05 MS

AXIS 1



CASMS Version 1.16.14 - 8-Oct-1986
CREATED: 5-MC-87 17:06:26

Safety Laboratories Department, SE Unit
PLOT PAGE 19

TA5041
Sheet 75

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CR10788

CR R: 10788 TO: TA3041 DATE: 970806 16:48:11
1999 FN-145 MOVING DEFORMABLE BA

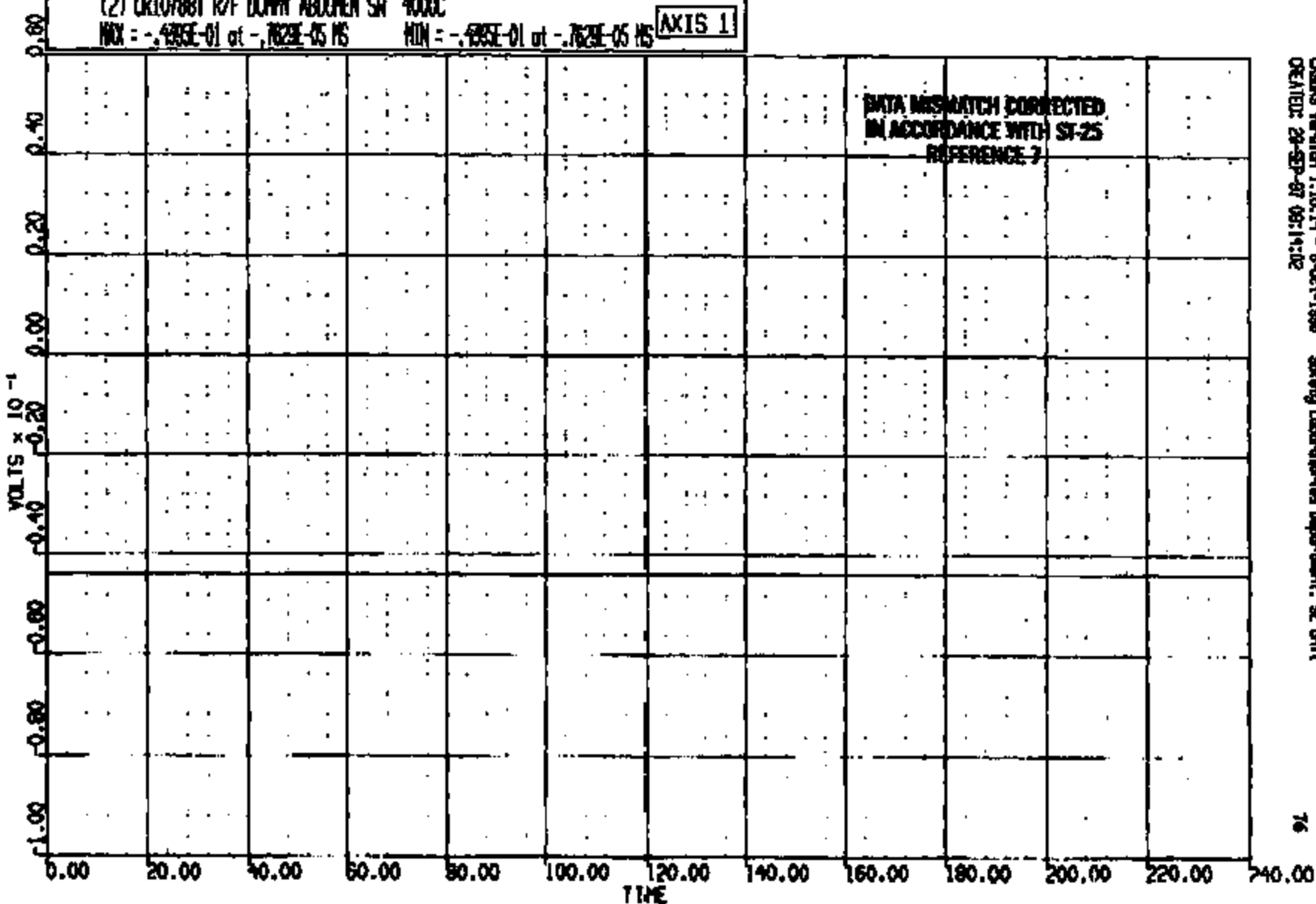
(2) CR10788T R/F DUMMY ABOONEN SN 4000C

MAX = -.493E-01 at -.762E-05 MS

MIN = -.493E-01 at -.762E-05 MS

AXIS 1

DATA MISMATCH CORRECTED
IN ACCORDANCE WITH ST-25
REFERENCE 7

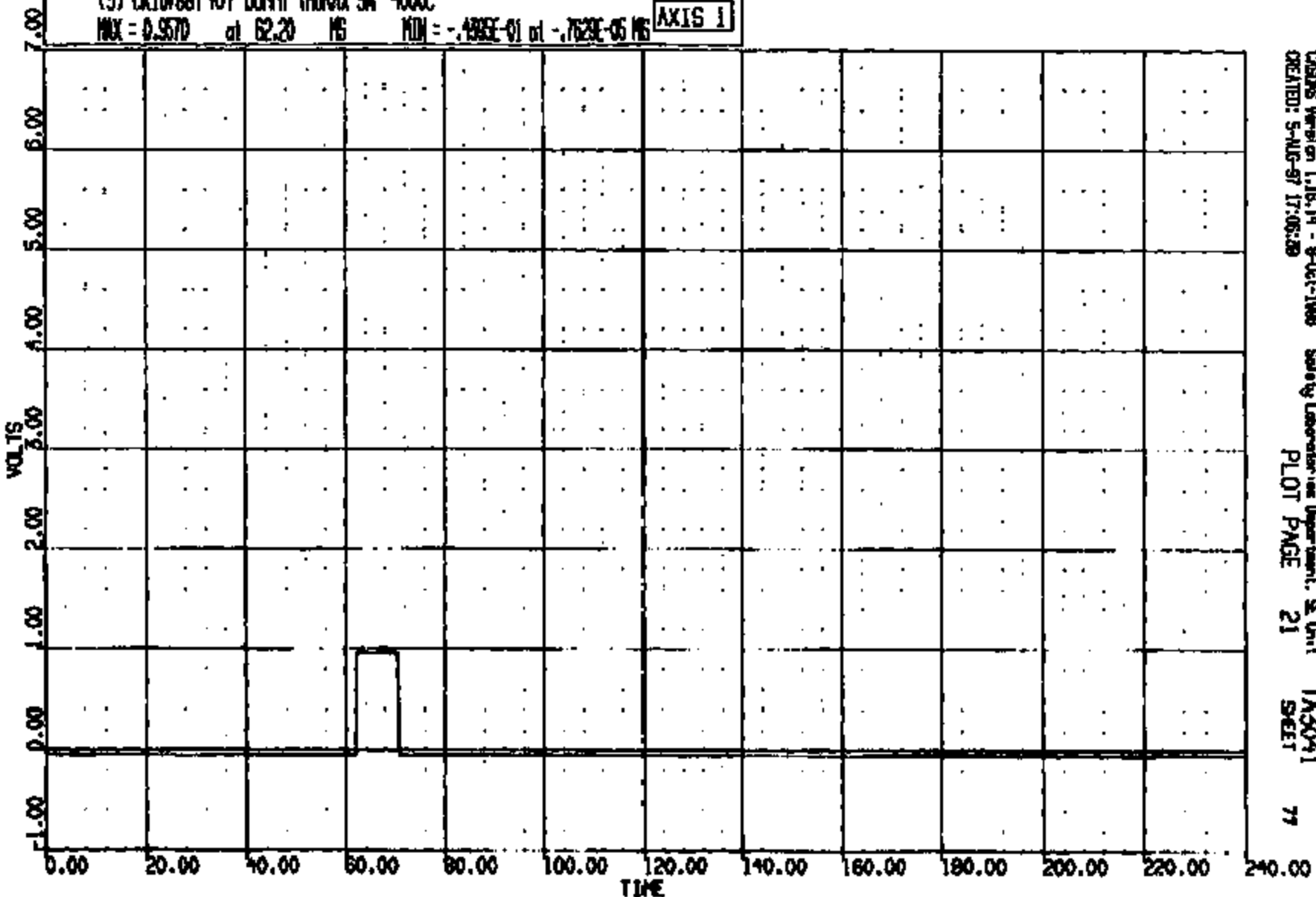


CR R: 10788 TO: TA3041 DATE: 970605 16:43:11
1999 FN-145 1999 FN-145

(3) CR10788T R/T DUMMY THORAX SW 4000C

MAX = 0.9570 at 62.20 MS MIN = -.4935E-01 at -.7629E-05 MS

AXIS 1



CASIMS Version 1.18.14 - 8-Oct-1998
CREATED: 5-AUG-97 17:06:28

Safety Laboratory Inc Department, SE Unit
PLOT PAGE 21

TA3041
SHEET 77

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CRIS 0010788

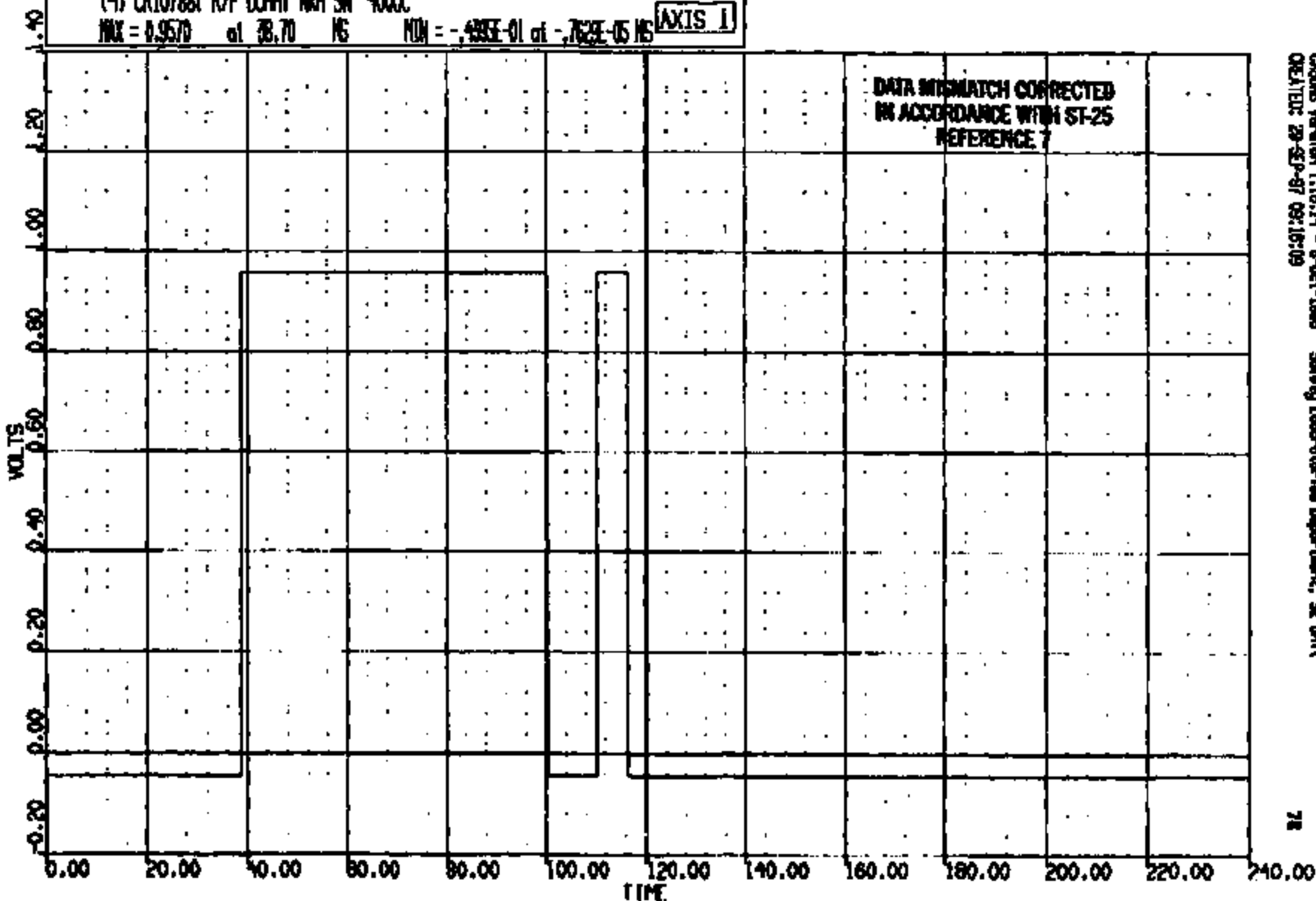
CR R: 10788 TO: TA3041 DATE: 870805 16:45:11
1999 FN-145 MOVING DEFORMABLE BA

(4) CR10788X R/F DUMMY ARM SN 4000C

MAX = 0.9570 at 38.70 MS MIN = -.493E-01 at -.762E-05 MS

AXIS 1

DATA MISMATCH CORRECTED
IN ACCORDANCE WITH ST-25
REFERENCE 7



CASAS Version 1.1B.14 - 8-Oct-1988 Safety Laboratories Department, SE Unit
CREATED: 29-SEP-87 09:16:09

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CRITS 0010788

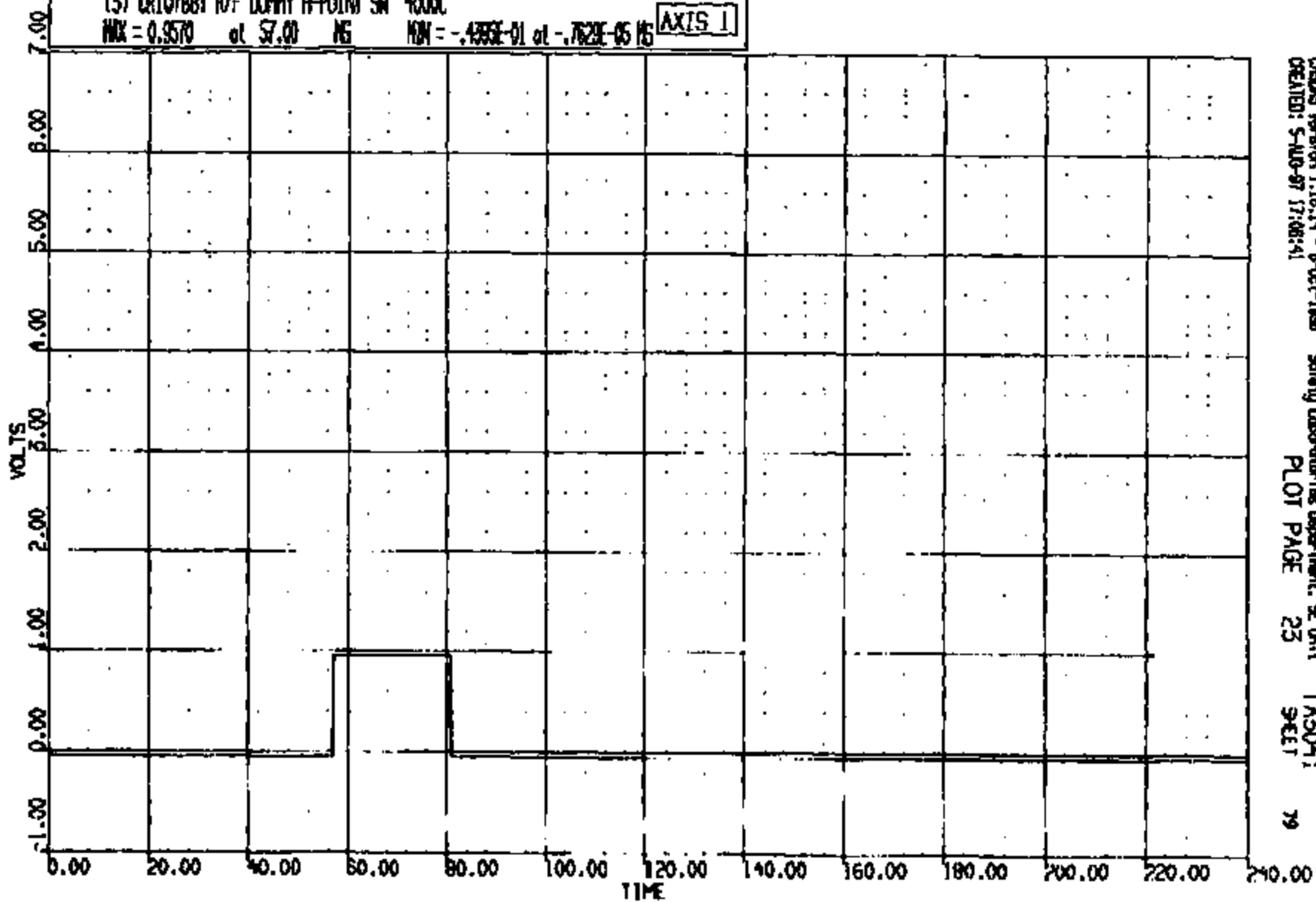
ENTIRE PAGE CONFIDENTIAL

CR R: 10788 TO: TA3041 DATE: 970905 18:48:11
1999 FN-145 1999 FN-145

(5) CR10788T R/F DUMMYP H-POINT SW 4000C

MAX = 0.9570 at 57.00 MS MIN = -.4353E-01 at -.7629E-05 MS

AXIS 1



CASYS Version 1.16.14 - B-Oct-1995
CREATED: 5-AUG-97 17:08:41

Safety Laboratories Department, SE Unit
PLOT PAGE 23 94ET 79
TA3041

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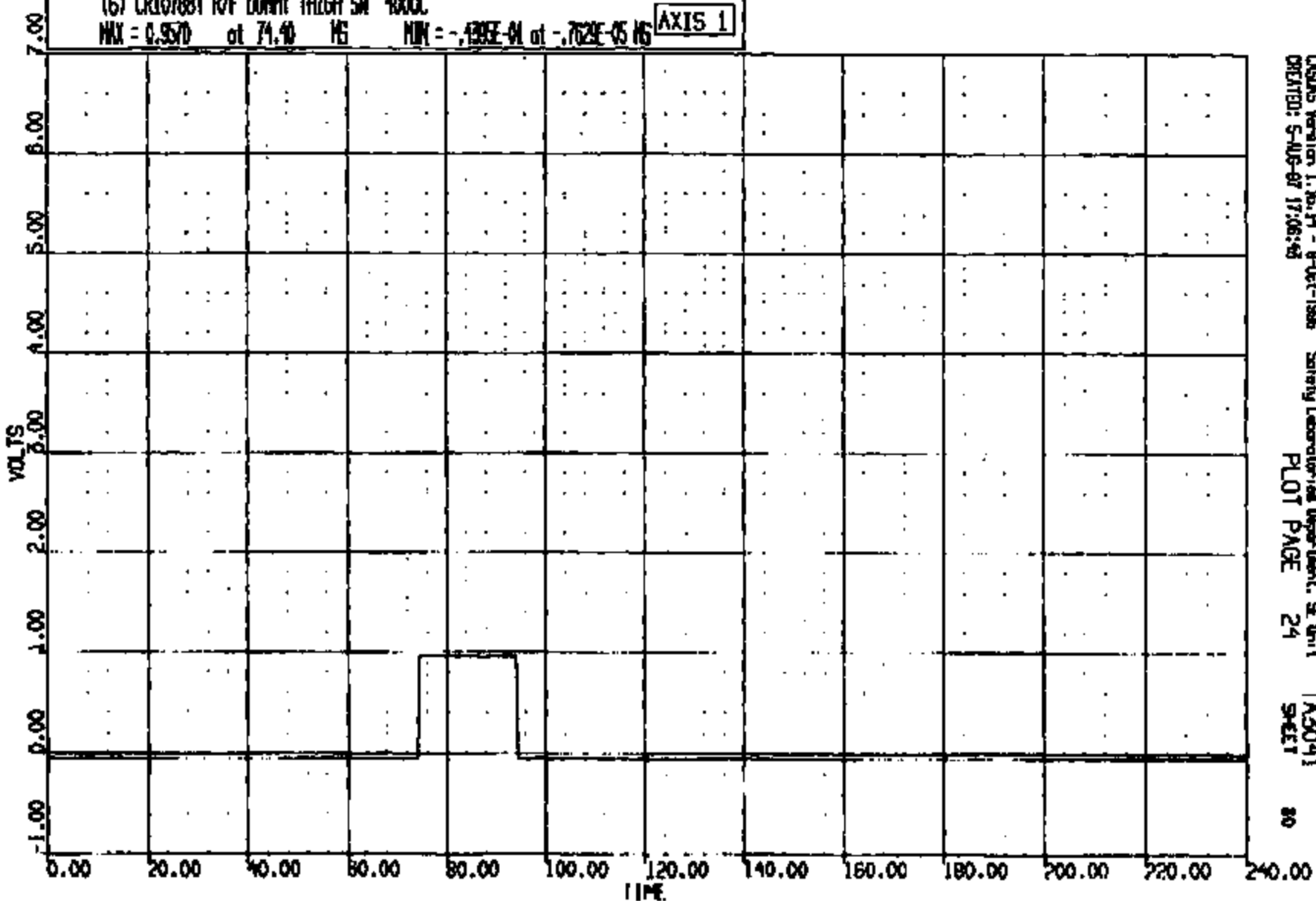
CRIS 0010788

CR R = 10788 TO: TA3041 DATE: 970803 18:48:11
1999 FN-145 1999 FN-145

(S) CR10788T R/F DUNNY THIGH SM 4000C

MAX = 0.9570 at 71.40 MS MIN = -.1393E-01 at -.7629E-05 MS

AXIS 1



CARDS Version 1.0a.14 - 8-Oct-1996
CREATED: 5-AUG-97 17:06:43

Safety Laboratories Department, SE Unit 1
PLOT PAGE 24

TA3041
SHEET 80

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CRTS 0010788

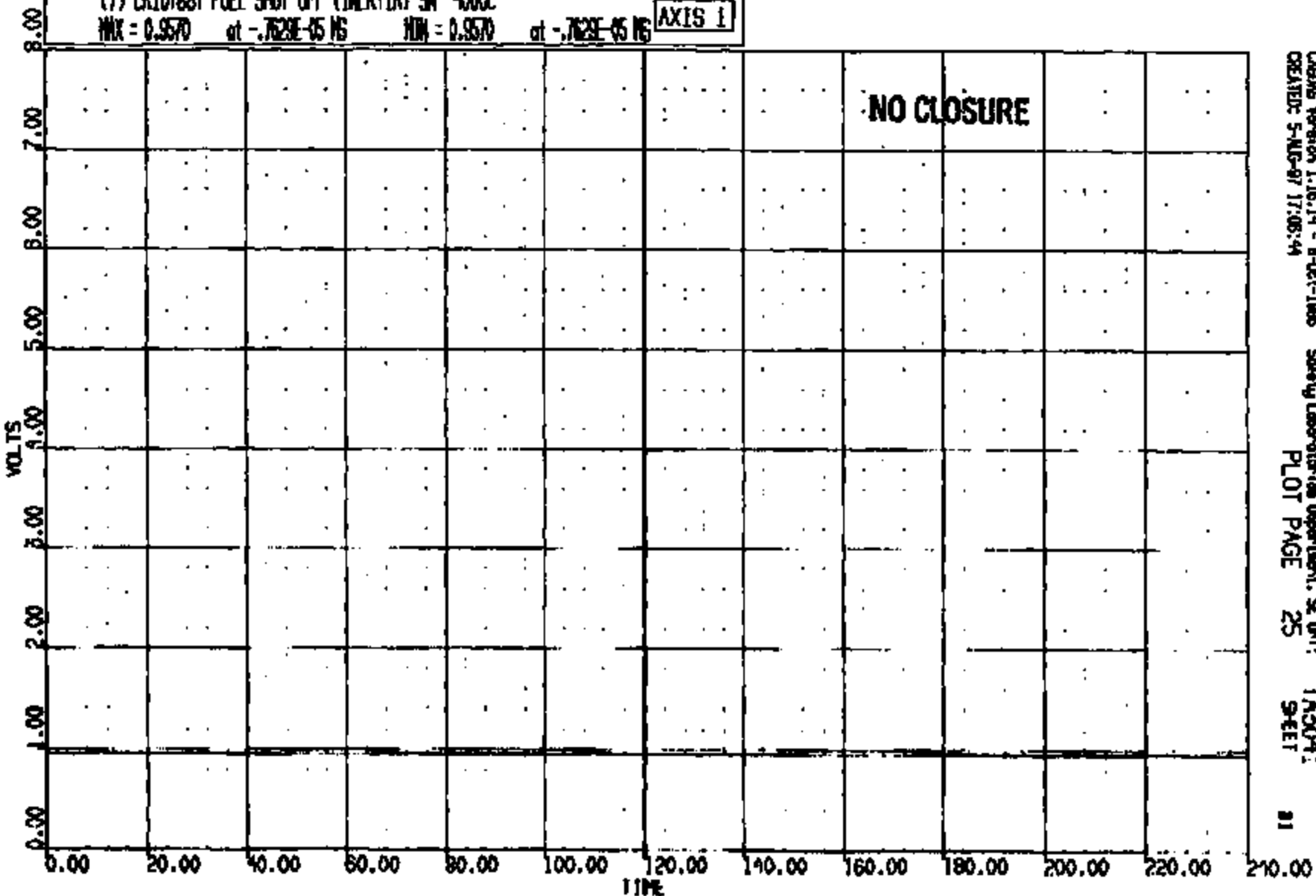
CR R: 10788 TO: TA3041 DATE: 970808 18:45:11
1999 FN-145 1999 FN-145

(7) CR10788T FUEL SHUT OFF (INERTIA) SW 4000C

MAX = 0.9570 at -7.623E-05 MS MIN = 0.9570 at -7.623E-05 MS

AXIS 1

NO CLOSURE



CHDS Version 1.16.14 - 8-Oct-1998
CREATED: 5-NOV-97 17:05:44

Safety Laboratory Department, SE Unit:

PLOT PAGE 25

TA3041
SELF

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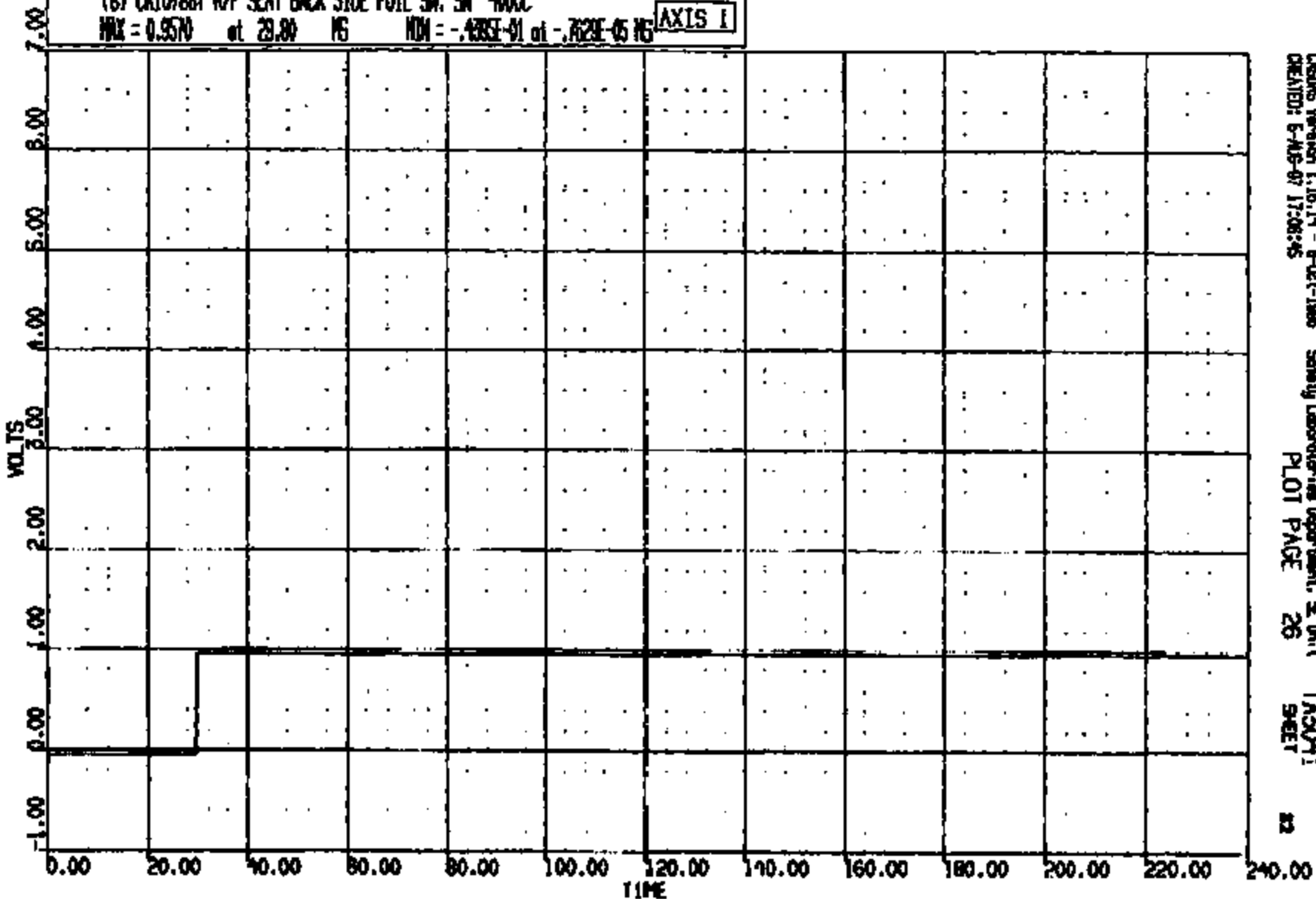
CRIS 0010788

CR R: 10788 TO: TA3041 DATE: 970805 16:43:11
1999 FN-145 1999 FN-145

(8) CR107881 R/F SEAT BACK SIDE FOIL SM, SM 4000C

MAX = 0.9570 at 29.00 MS MIN = -.435E-01 at -.762E-05 MS

AXIS 1



CRSIS Version 1.16.14 - 8-Oct-1998
CREATED: 8-AUG-97 17:06:25

Safety Laboratories Department, SE Unit
PLOT PAGE 26

TA3041
SER

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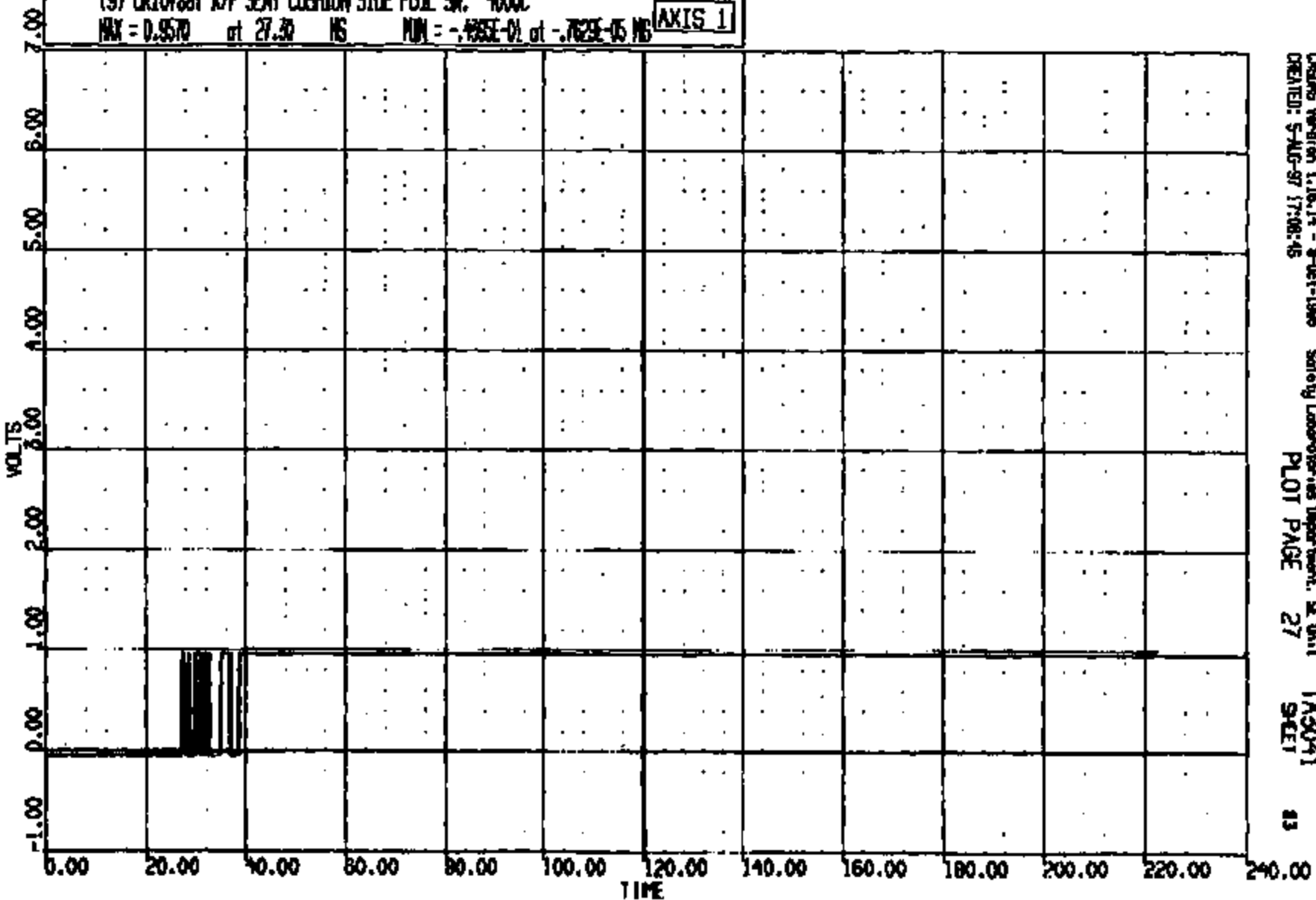
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CASMS Version 1.16.14 - 8 Oct 1988
CREATED: 5-AUG-87 17:08:45Safety Laboratories Department, SE Unit
PLOT PAGE 27TA3041
SHEET 83CR R: 10788 TO: TA3041 DATE: 870805 16:48:11
1988 FN-145 1988 FN-145

(9) CR10788T R/F SEAT CUSHION SIDE FOIL SW. 4000C

MAX = 0.9570 at 27.30 MS MIN = -.485E-01 at -.762E-05 MS

AXIS 1



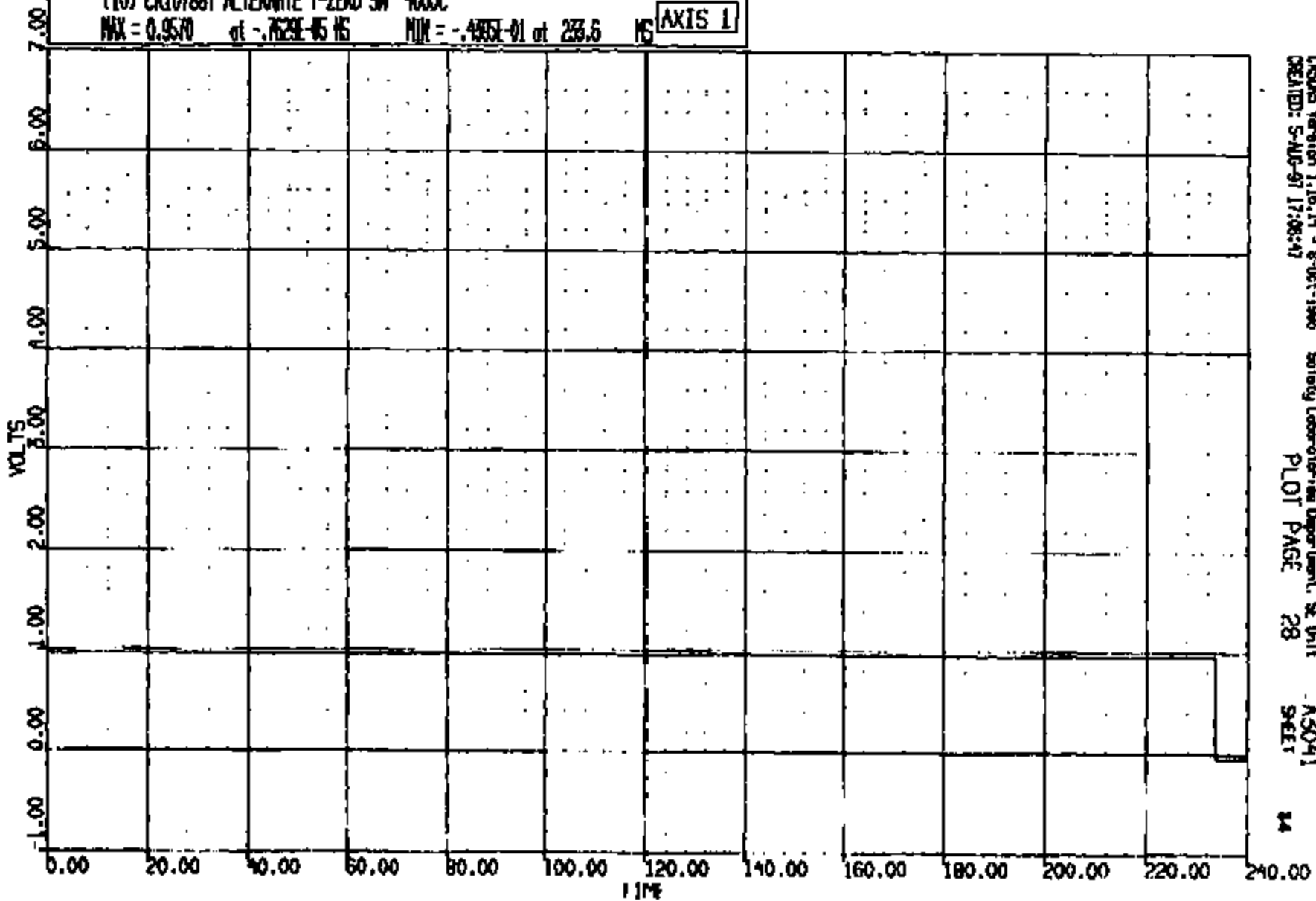
CRIS 0010788

CR R: 10788 TO: TA3041 DATE: 970805 16:45:11
1999 FN-145 1999 FN-145

(10) CR10788T ALTERNATE T-ZERO SM 4000C

MAX = 0.9570 at -7629E-05 MS MIN = -.4905E-01 at 233.5 MS

AXIS 1



CASDS Version 1.16.14 - 8-Oct-1998
CREATED: 5-AUG-97 17:05:47

Safety Laboratory Department, SE Unit
PLOT PAGE 28

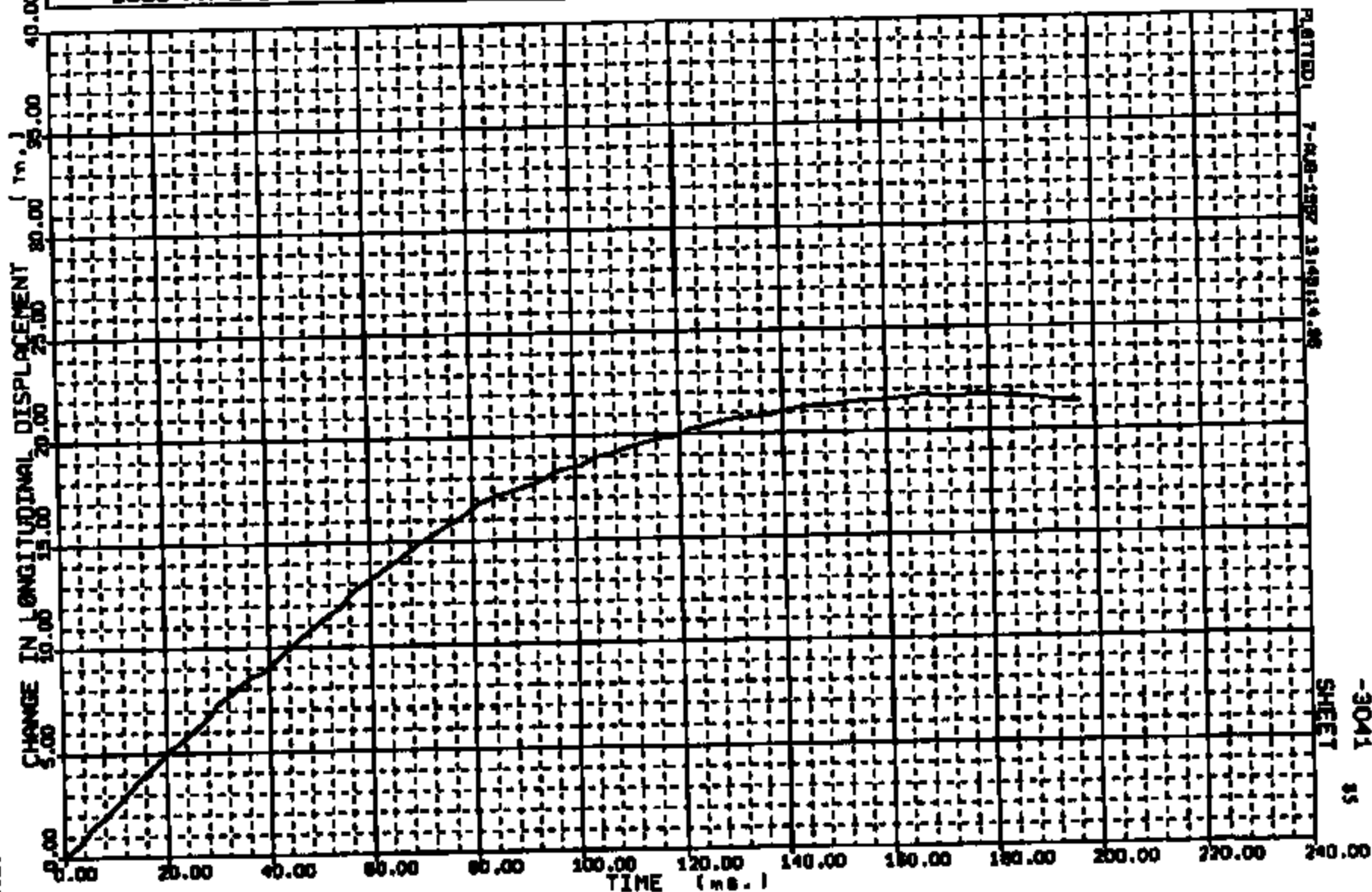
TA3041
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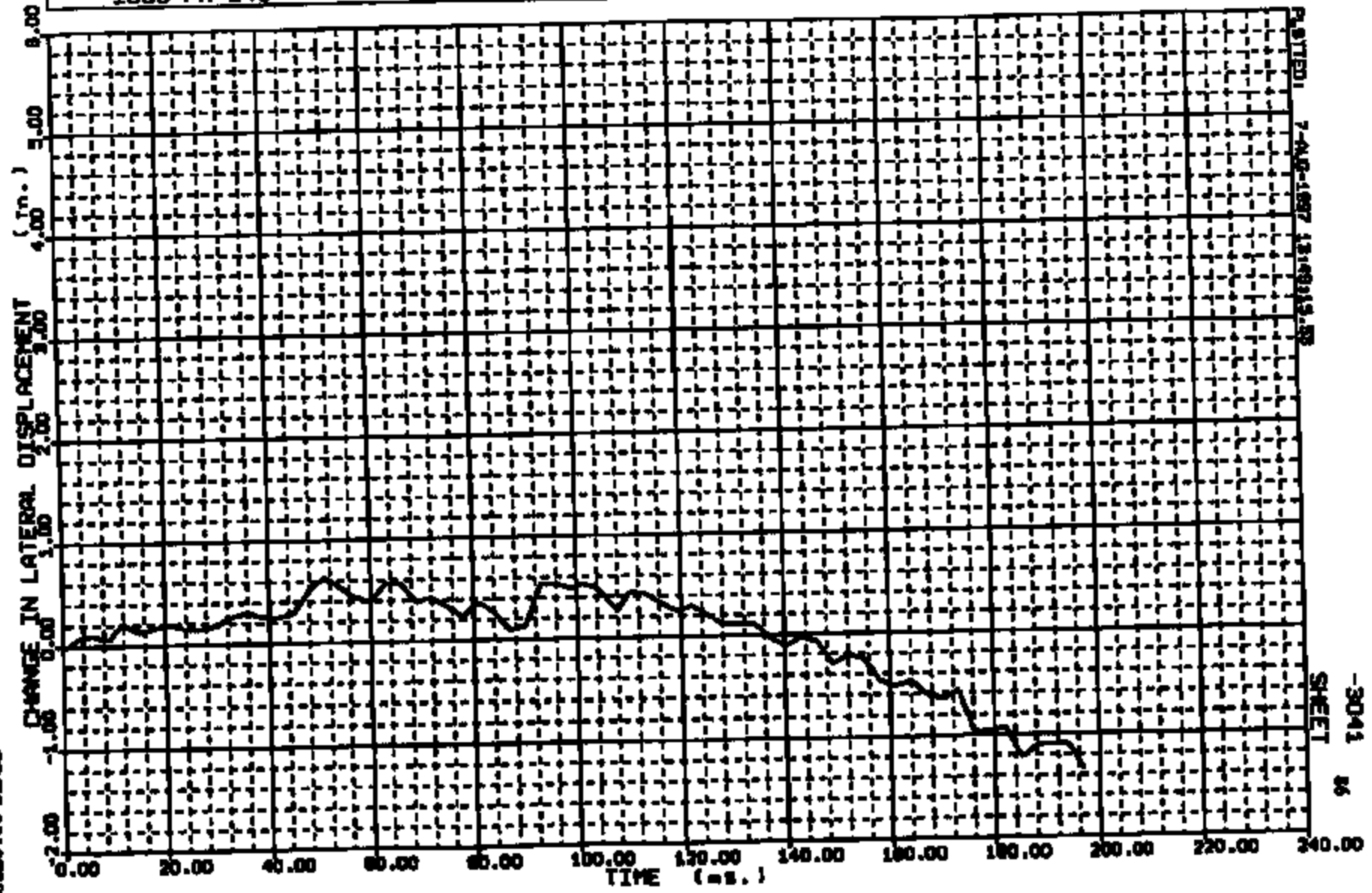
CRIS 0010788

Y - AXIS: L/S ROOF AT B-PILLAR WRT GROUND REFERENCE RAN = 21.75 at 179.00 MIN = 0.0000E+00 at 0.00

RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD	PITCH CORRECTION
10788	BARRIER	-3041	SCALE	NOT APPLIED
1999 FN-145				



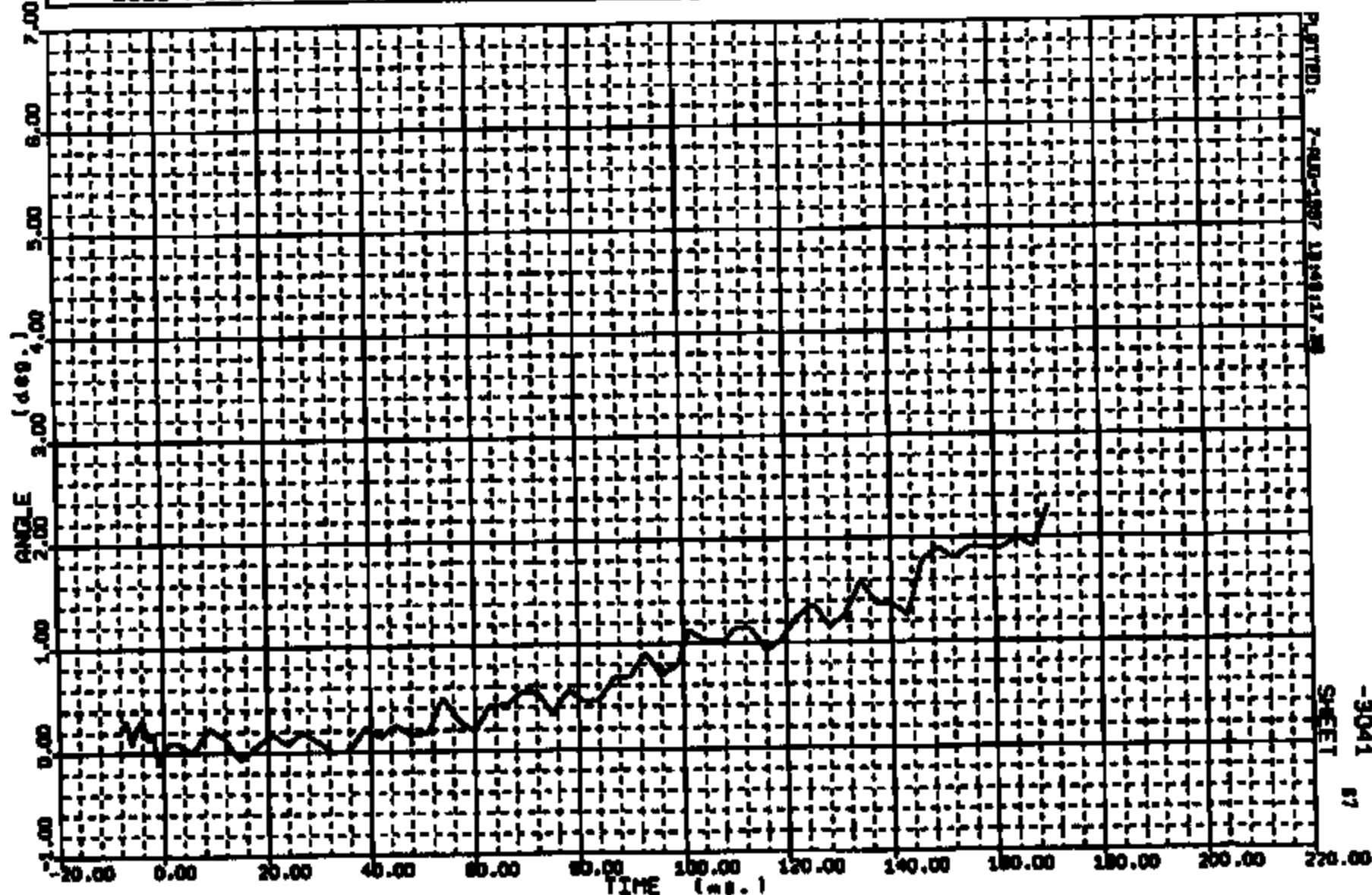
V - AXIS: L/S ROOF AT B-PILLAR WRT GROUND REFERENCE		MAX = 0.6301	at 91.00	MIN = -1.348	at 197.00
RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD	PITCH CORRECTION	
10788	BARRIER	-3041	SCALE	NOT APPLIED	
1999 FN-145					



CRIS 0010788

-3041 86
SHEET

Y - AXIS: TOP OF VEHICLE MFT GROUND		MAX = 2.304		at 170.00	MIN = -.1182	at -1.00
RUN NO.	FACILITY	TEST ORDER NO.	FILM ANALYSIS METHOD	PITCH CORRECTION		
10788	BARRIER	-3041	SCALE	NOT APPLIED		
1999 FN-145						



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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10788

VEHICLE INFORMATION

TEST DESCRIPTION:	90 DEG. RIGHT SIDE FIXED POLE
VEHICLE PROGRAM YEAR:	1999
VEHICLE MODEL NAME:	FN-145
VEHICLE PROGRAM NAME:	FN-145
VEHICLE ID NUMBER:	51ST405
CERTIFICATION VEHICLE CODE:	DV
REQUESTOR NAME:	D. R. PURDY
TEST ENGINEER NAME:	M. POSTER

TIME AND DATE OF REPORT: 17-DEC-97 14:38:49

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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10788

** POINT COORDINATES **

UNIT NO	SIDE	PNT NO	DESCRIPTION		INCHES			INCHES CHANGED			
					LONG X	LAT Y	VERT Z	X	Y	Z	D
071			MISCELLANEOUS / SIDED								
	L	07	CONTROL NOTCH/HOLE C/L SET DR/SIDE MEAS./PASS	BEF AFT	124.49	-30.74	14.81				
074			CNM POSITIONING REF.								
		41	CNM FRONT DOOR A PILLAR GROOV SSIDE OF IMPAC	BEF AFT	116.55	24.42	58.59				
		42	CNM FRONT DOOR A PILLAR GROOV SSIDE OF IMPAC	BEF AFT	91.68	37.38	40.49				
		43	CNM FRONT DOOR A PILLAR GROOV SSIDE OF IMPAC	BEF AFT	83.41	32.83	20.62				
		44	CNM FRONT DOOR ROCKER SS PILLAR SSIDE OF IMP	BEF AFT	123.25	32.47	19.28				
095			CONTROL NON SIDED								
		09	LEFT FRONT FRAME SET-UP HEIGHT (INRD. OF SILL)	BEF AFT	99.51 99.41	-20.68 -31.11	15.08 15.42	-0.10	-0.43	0.34	0.56
		10	LEFT REAR FRAME SET-UP HEIGHT (INRD. OF SILL)	BEF AFT	152.47 152.41	-30.54 -29.79	14.23 15.44	-0.06	0.77	0.61	0.98
		14	RIGHT FRONT FRAMESET-UP HEIGHT (INRD. OF SILL)	BEF AFT	99.80	10.99	15.10				
		15	RIGHT REAR FRAME SET-UP HEIGHT (INRD. OF SILL)	BEF AFT	151.47	35.64	14.61				
411			TOP (BODY) NON SIDED								
		01	EXTRA SET UP POINT (LEFT FOREMOST FRAME)	BEF AFT	40.75 40.94	-22.13 -21.89	22.94 23.42	0.19	0.24	0.46	0.55

* VALUE WAS TRANSLATED

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				** POINT COORDINATES **			INCHES CHANGED				
UNIT NO	SIDE	PNT NO	DESCRIPTION		LONG X	LAT Y	VECT Z	X	Y	Z	D
		02	EXTRA SET UP POINT (RIGHT FOREMOST FRAME)	REF AFT	41.46 43.79	22.53 23.96	22.46 23.97	2.33	0.43	1.51	2.61
		03	EXTRA SET UP POINT (LEFT REARMOST FRAME)	REF AFT	223.59	-24.84	20.98				
		04	EXTRA SET UP POINT (RIGHT REARMOST FRAME)	REF AFT	223.60	25.36	20.89				
		26	"H" POINT LOCATION ON OUTER FRT/OCCUPANT DOO	REF AFT	121.06	38.61	27.01				
		38	TOP OF ROCKER SILL IN LINE W/FRONT "H" FT.	REF AFT	121.08	32.51	19.31				
		57	FRONT OCCUPANT SEAT C/L (WIDTH)	REF AFT		16.00					
		84	"W.R.T." ON ROCKER SIDE OPPOSITE OF IMPAC	REF AFT	132.71 132.71	-33.95 -33.95	16.06 16.06	0.00	0.00	0.00	0.00
412			TOP (BODY) SIDED POINTS								
	L	09	END OF FRONT SPINDLE @ CENTERLINE(WHEELBASE)	REF AFT	61.17 63.69	-32.90 -31.36	18.55 18.43	0.52	-0.46	-0.06	0.76
	R	09	END OF FRONT SPINDLE @ CENTERLINE(WHEELBASE)	REF AFT	63.59 65.58	33.14 32.52	18.30 18.27	2.19	-0.62	0.07	2.28
	L	16	LATCH/STRIKER BOLT SC/L OR U-BOLT/TOE @ PILLA	REF AFT	128.85 128.70	-33.56 -34.75	31.65 31.70	-0.15	-1.19	0.05	1.20
	R	16	LATCH/STRIKER BOLT SC/L OR U-BOLT/TOE @ PILLA	REF AFT	128.83	33.58	31.50				
	L	89	END OF REAR SPINDLE @ CENTERLINE(WHEELBASE)	REF AFT	178.23 177.98	-31.93 -31.31	17.89 16.63	-0.28	0.61	-1.26	1.43
	R	89	END OF REAR SPINDLE @ CENTERLINE(WHEELBASE)	REF AFT	178.09 177.11	31.94 32.21	17.77 17.76	-0.98	0.27	-0.01	1.02

* VALUE WAS TRANSLATED

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** POINT COORDINATES **

UNIT NO	SIDE	PNT NO	DESCRIPTION		INCHES			INCHES CHANGED			
					LONG X	LAT Y	VERT Z	X	Y	Z	D
650			BLANK UNIT POINTS								
		01	1	SEE COMMENTS PAGE	REF AFT	121.34	-31.40	15.18			
		02	2	SEE COMMENTS PAGE	REF AFT	154.65	-21.22	14.92			
		03	3	SEE COMMENTS PAGE	REF AFT	92.36	-30.00	24.28			
		04	4	SEE COMMENTS PAGE	REF AFT	129.37	-30.46	10.18			
		05	5	SEE COMMENTS PAGE	REF AFT	133.80	-30.50	21.33			
		06	6	SEE COMMENTS PAGE	REF AFT	121.66	-23.88	17.90			
		07	7	SEE COMMENTS PAGE	REF AFT	178.04	-0.04	22.51			
		08	8	SEE COMMENTS PAGE	REF AFT	111.38	31.30	15.20			
		09	9	SEE COMMENTS PAGE	REF AFT	184.53	31.49	14.89			
		10	10	SEE COMMENTS PAGE	REF AFT	94.63	0.72	25.52			
		11	11	SEE COMMENTS PAGE	REF AFT	90.82	28.19	26.02			
		12	12	SEE COMMENTS PAGE	REF AFT	93.68	30.21	22.91			
		13	13	SEE COMMENTS PAGE	REF AFT	99.79	32.03	40.80			

* VALUE WAS TRANSLATED

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DIMENSIONAL ANALYSIS REPORT

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** POINT COORDINATES **											
UNIT NO	SIDE	PNT NO	DESCRIPTION		INCHES			INCHES CHANGED			
					LONG X	LAT Y	VERT Z	X	Y	Z	D
		14	SEE COMMENTS PAGE	REF AFT	115.05	31.95	41.59				
		15	SEE COMMENTS PAGE	REF AFT	114.70	32.03	34.90				
		16	SEE COMMENTS PAGE	REF AFT	104.21	31.86	27.26				
		17	SEE COMMENTS PAGE	REF AFT	125.28	31.93	31.27				
		18	SEE COMMENTS PAGE	REF AFT	123.30	23.14	17.43				
		19	SEE COMMENTS PAGE	REF AFT	136.86	22.73	58.16				
		20	SEE COMMENTS PAGE	REF AFT	134.16	29.66	45.94				
		21	SEE COMMENTS PAGE	REF AFT	129.72	30.64	30.20				
		22	SEE COMMENTS PAGE	REF AFT	123.71	30.67	21.32				
		23	SEE COMMENTS PAGE	REF AFT	53.75 53.45	-34.94 -35.88	39.45 39.39	-0.30	-0.94	-0.06	0.99
		24	SEE COMMENTS PAGE	REF AFT	179.41 179.49	-34.94 -36.07	43.13 43.07	0.00	-1.13	-0.06	1.13

* VALUE WAS TRANSLATED

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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10788

** SECTIONALS **

UNIT NO	SCIN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	Z
423	81			BREATHLINE EXTERIOR SECT			
			1	BEFORE	63.23	32.67	41.34
			1	AFTER	66.53	31.68	42.93
			2	BEFORE	76.52	34.56	41.34
			2	AFTER	74.61	32.52	43.03
			3	BEFORE	88.17	35.37	41.34
			3	AFTER	81.58	32.96	42.94
			4	BEFORE	89.53	35.53	41.34
			4	AFTER	91.80	33.12	43.00
			5	BEFORE	97.76	35.92	41.34
			5	AFTER	93.83	33.60	43.14
			6	BEFORE	105.49	36.27	41.34
			6	AFTER	98.47	32.93	43.32
			7	BEFORE	114.96	36.57	41.34
			7	AFTER	102.45	31.57	43.49
			8	BEFORE	127.36	36.86	41.34
			8	AFTER	106.93	29.25	43.39
			9	BEFORE	132.59	36.91	41.34
			9	AFTER	111.47	26.32	43.45
			10	BEFORE	133.35	37.22	41.34
			10	AFTER	119.91	23.37	43.21
			11	BEFORE	146.55	37.26	41.34
			11	AFTER	120.48	20.11	43.10
			12	BEFORE	169.76	36.89	41.34
			12	AFTER	123.49	17.94	43.12
			13	BEFORE	170.31	36.86	41.34
			13	AFTER	125.09	17.27	43.98

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CRASH #: 10788

** SECTIONS **

UNT NO	SCM NO	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
		14	BEFORE	178.82	36.55	41.84
		14	AFTER	126.88	17.19	43.08

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MIDLINE EXTERIOR SECT

1	BEFORE	79.06	37.11	31.50
1	AFTER	78.65	35.47	33.05
2	BEFORE	86.81	37.60	31.50
2	AFTER	84.70	38.68	33.10
3	BEFORE	87.51	37.88	31.50
3	AFTER	90.51	35.79	32.19
4	BEFORE	103.56	38.56	31.50
4	AFTER	92.60	36.36	33.17
5	BEFORE	110.81	38.96	31.50
5	AFTER	97.11	34.63	33.10
6	BEFORE	121.24	39.13	31.50
6	AFTER	107.13	32.31	33.17
7	BEFORE	132.20	38.82	31.50
7	AFTER	108.80	29.30	33.28
8	BEFORE	148.44	38.78	31.50
8	AFTER	114.22	26.15	33.21
9	BEFORE	164.82	38.49	31.50
9	AFTER	118.93	21.43	33.20
10	BEFORE	165.60	38.48	31.50
10	AFTER	120.43	22.44	33.26
11	BEFORE	168.26	38.56	31.50
11	AFTER	122.49	20.36	33.08

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CHARACTER LINE EXT SECT

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** SECTIONS **

UNIT NO	SCY NO	SLIDE	SEC NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			1	BEFORE	79.41	36.80	23.62
			1	AFTER	82.88	34.99	24.91
			2	BEFORE	87.26	36.92	23.62
			2	AFTER	86.54	35.17	25.13
			3	BEFORE	87.96	37.23	23.62
			3	AFTER	91.19	38.26	25.06
			4	BEFORE	96.16	37.47	23.62
			4	AFTER	92.76	38.41	25.15
			5	BEFORE	107.54	37.77	23.62
			5	AFTER	98.42	33.49	25.15
			6	BEFORE	119.42	38.02	23.62
			6	AFTER	107.91	31.64	25.25
			7	BEFORE	130.88	38.12	23.62
			7	AFTER	109.16	29.64	25.45
			8	BEFORE	132.32	37.89	23.62
			8	AFTER	115.14	26.76	25.41
			9	BEFORE	146.21	37.81	23.62
			9	AFTER	118.82	24.66	25.48
			10	BEFORE	160.42	37.60	23.62
			10	AFTER	120.40	23.39	25.22
			11	BEFORE	160.98	37.58	23.62
			11	AFTER	122.55	20.88	25.30
			12	BEFORE	162.51	37.98	23.62
			12	AFTER	124.39	19.44	25.27

429 51

BOTTOM OF DOOR EXT SECT

1	BEFORE	89.03	35.86	16.54
1	AFTER	91.60	32.28	18.04

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** SECTIONALS **

OBJ NO	SCIN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			2	BEFORE	130.64	36.32	16.41
			2	AFTER	98.73	31.62	18.10
			3	BEFORE	133.21	35.65	17.23
			3	AFTER	104.71	29.68	17.82
			4	BEFORE	133.85	35.24	16.98
			4	AFTER	110.37	27.71	18.13

431 81

ROCKER PANEL EXT SECT

			1	BEFORE	91.21	34.00	16.93
			1	AFTER	93.72	30.89	20.37
			2	BEFORE	109.91	34.10	16.93
			2	AFTER	107.47	28.11	18.97
			3	BEFORE	129.82	34.04	16.93
			3	AFTER	115.01	25.72	18.87
			4	BEFORE	140.73	24.08	16.91
			4	AFTER	119.50	23.59	18.78
			5	BEFORE	159.51	23.98	16.91
			5	AFTER	120.78	21.89	18.61

433 81

ROOF LINE INTERIOR SECT

			1	BEFORE	95.04	29.19	47.07
			1	AFTER	98.23	26.26	49.50
			2	BEFORE	100.90	28.18	50.17
			2	AFTER	103.03	24.44	52.77
			3	BEFORE	110.58	24.51	56.54
			3	AFTER	112.42	19.87	59.76
			4	BEFORE	113.82	23.26	57.20
			4	AFTER	114.93	18.84	60.47

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** SECTIONALS **

UNIT NO	SCEN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			5	BEFORE	119.10	23.80	57.97
			5	AFTER	119.47	16.60	61.19
			6	BEFORE	125.92	23.11	58.73
			6	AFTER	125.72	13.21	61.99
			7	BEFORE	134.96	23.34	58.69
			7	AFTER	134.57	11.87	62.01
			8	BEFORE	139.05	23.49	58.58
			8	AFTER	138.83	13.21	62.28

435 81

HRLT LINE INTERIOR SECT

1	BEFORE	98.12	32.17	42.08
1	AFTER	103.89	28.24	48.16
2	BEFORE	101.92	32.24	42.11
2	AFTER	105.14	21.48	46.01
3	BEFORE	110.61	32.17	43.18
3	AFTER	111.36	17.84	47.40
4	BEFORE	118.34	32.18	42.29
4	AFTER	116.03	14.10	47.79
5	BEFORE	125.43	32.21	42.54
5	AFTER	124.98	12.19	49.04
6	BEFORE	126.22	32.93	42.75
6	AFTER	125.28	12.23	49.30
7	BEFORE	128.95	32.54	42.76
7	AFTER	127.49	12.38	49.55
8	BEFORE	130.89	31.90	42.62
8	AFTER	0.00	0.00	0.00
9	BEFORE	131.17	30.67	42.79
9	AFTER	0.00	0.00	0.00

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** SECTIONALS **

UNT NO	SCEN NO	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
		10	BEFORE	134.95	30.68	42.85
		10	AFTER	0.00	0.00	0.00
437	81		HIV INTERIOR SECTION			
		1	BEFORE	95.18	31.90	27.00
		1	AFTER	101.84	25.11	30.79
		2	BEFORE	108.54	32.06	27.00
		2	AFTER	110.19	20.33	29.40
		3	BEFORE	111.44	32.05	27.00
		3	AFTER	112.78	17.24	30.19
		4	BEFORE	116.25	32.06	27.00
		4	AFTER	116.08	15.09	29.93
		5	BEFORE	123.16	32.30	27.00
		5	AFTER	121.19	11.79	29.96
		6	BEFORE	127.16	31.97	27.00
		6	AFTER	123.76	10.97	29.84
		7	BEFORE	128.74	30.87	27.00
		7	AFTER	0.00	0.00	0.00
		8	BEFORE	135.42	31.35	27.00
		8	AFTER	0.00	0.00	0.00
438	81		1ST 50 FWD/MINOR PLANE			
		1	BEFORE	90.55	35.90	16.42
		1	AFTER	94.79	32.77	18.05
		2	BEFORE	90.55	37.14	22.56
		2	AFTER	94.93	33.42	19.10
		3	BEFORE	90.55	37.74	28.52
		3	AFTER	95.11	33.97	21.25

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** SECTIONALS **

UNIT NO	SECT NO	SIDE	SEQ NO	BEFORE AND CRASH STATUS	X	Y	INCHES Z
			4	BEFORE	90.55	37.77	29.03
			4	AFTER	95.22	34.27	23.81
			5	BEFORE	90.55	37.96	29.41
			5	AFTER	95.35	34.52	25.58
			6	BEFORE	90.55	38.01	32.98
			6	AFTER	95.39	34.92	28.16
			7	BEFORE	90.55	37.35	37.26
			7	AFTER	95.49	34.96	29.78
			8	BEFORE	90.55	35.98	40.65
			8	AFTER	95.48	34.97	30.63
			9	BEFORE	90.55	35.24	41.88
			9	AFTER	95.54	35.14	31.03
			10	BEFORE	90.55	34.66	42.85
			10	AFTER	95.50	35.14	33.46
			11	BEFORE	90.55	34.03	43.70
			11	AFTER	95.46	35.10	35.98

439 81

SECT @ 2500 BODY LINE

1	BEFORE	98.42	16.06	16.46
1	AFTER	102.23	30.45	18.16
2	BEFORE	98.42	17.41	22.99
2	AFTER	102.70	31.70	21.71
1	BEFORE	98.42	18.05	23.10
1	AFTER	103.92	32.11	26.78
4	BEFORE	98.42	18.25	29.42
4	AFTER	102.84	32.23	28.19
5	BEFORE	98.42	18.21	34.70
5	AFTER	102.81	32.16	30.79

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CRASH #: 10700

** SECTIONALS **

UNIT NO	SECT NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			6	BEFORE	98.42	35.91	41.37
			6	AFTER	102.94	32.30	31.05
			7	BEFORE	98.42	35.44	42.07
			7	AFTER	102.96	32.44	33.71
			8	BEFORE	98.42	35.26	42.41
			8	AFTER	102.83	32.14	35.76
			9	BEFORE	98.42	34.66	43.25
			9	AFTER	102.74	32.07	38.67

439 82

SECT @ 3500 BODY LINE

	1	BEFORE	98.42	31.53	21.83
	1	AFTER	101.49	27.58	23.29
	2	BEFORE	98.42	32.04	25.86
	2	AFTER	101.38	28.22	27.40
	3	BEFORE	98.42	32.39	34.11
	3	AFTER	101.41	28.69	44.28
	4	BEFORE	98.42	32.16	42.87
	4	AFTER	0.00	0.00	0.00

440 81

VERT SECT. 20' FWD 1/CL

	1	BEFORE	121.65	36.32	16.46
	1	AFTER	122.75	21.23	17.81
	2	BEFORE	121.65	38.01	23.45
	2	AFTER	122.70	20.91	23.23
	3	BEFORE	121.65	38.68	25.14
	3	AFTER	122.63	20.58	29.48
	4	BEFORE	121.65	38.86	29.61
	4	AFTER	122.59	20.34	30.81

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** SECTIONALS **

UNT NO	SCIN NO	SIDE	SEQ NO	BEFORE AND CRASH STATUS	X	Y	INCHES Z
			5	BEFORE	121.65	38.95	34.74
			5	AFTER	122.66	20.45	31.34
			6	BEFORE	121.65	38.19	38.08
			6	AFTER	122.47	20.14	35.48
			7	BEFORE	121.65	37.03	40.84
			7	AFTER	122.45	20.01	37.43
			8	BEFORE	121.65	36.02	42.49
			8	AFTER	122.23	19.61	38.33
			9	BEFORE	121.65	35.72	42.85
			9	AFTER	122.03	19.28	39.47
			10	BEFORE	121.65	35.55	43.13
			10	AFTER	122.07	19.02	42.29
			11	BEFORE	121.65	34.85	43.98
			11	AFTER	121.95	19.04	44.58
			12	BEFORE	121.65	25.18	60.12
			12	AFTER	121.97	18.96	44.89
			13	BEFORE	121.65	23.45	61.45
			13	AFTER	121.87	19.03	45.25
			14	BEFORE	121.65	22.89	61.63
			14	AFTER	121.80	19.83	46.27
			15	BEFORE	121.65	20.78	62.15
			15	AFTER	122.03	16.75	63.08

440 32

VERT SECT. 20" FWD I/CL

1	BEFORE	121.65	31.53	20.60
1	AFTER	122.67	18.89	22.13
2	BEFORE	121.65	31.95	24.38
2	AFTER	121.83	17.15	19.52

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CRASH #: 10788

** SECTIONALS **

UNIT NO	SCEN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			3	BEFORE	121.65	32.47	38.17
			3	AFTER	121.79	16.99	40.66
			4	BEFORE	121.65	32.47	39.27
			4	AFTER	121.65	16.69	41.64
			5	BEFORE	121.65	32.15	40.58
			5	AFTER	121.65	16.70	43.96
			6	BEFORE	121.65	32.20	42.47
			6	AFTER	0.00	0.00	0.00

441 S1

VENT SECT. @ IMPACT C/L

1	BEFORE	129.90	36.30	18.32
1	AFTER	130.39	30.12	17.81
2	BEFORE	129.90	38.16	23.84
2	AFTER	130.38	19.78	22.02
3	BEFORE	129.90	38.75	27.96
3	AFTER	130.37	19.45	25.43
4	BEFORE	129.90	38.79	29.40
4	AFTER	130.23	19.09	30.26
5	BEFORE	129.90	38.96	29.72
5	AFTER	130.22	18.87	31.19
6	BEFORE	129.90	39.08	31.76
6	AFTER	130.20	18.92	31.60
7	BEFORE	129.90	38.09	38.60
7	AFTER	129.95	18.40	36.78
8	BEFORE	129.90	36.06	42.69
8	AFTER	129.73	18.28	39.01
9	BEFORE	129.90	35.48	43.45
9	AFTER	129.76	17.90	39.60

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CRASH #: 10700

** SECTIONS **

UNIT NO	SCEN NO	SIDE	SEC NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			10	BEFORE	129.90	34.53	44.23
			10	AFTER	129.65	17.79	40.95
			11	BEFORE	129.90	24.65	60.89
			11	AFTER	129.44	17.87	42.58
			12	BEFORE	129.90	23.10	62.12
			12	AFTER	129.44	17.62	43.08
			13	BEFORE	129.90	22.32	62.26
			13	AFTER	129.53	17.38	43.89
			14	BEFORE	129.90	19.63	62.81
			14	AFTER	129.52	17.20	44.28

441 83

VERT SECT. @ IMPACT C/L

1	BEFORE	129.90	30.88	20.03
1	AFTER	130.79	16.18	22.93
2	BEFORE	129.90	30.82	28.49
2	AFTER	130.73	14.43	29.92
3	BEFORE	129.90	30.91	32.84
3	AFTER	132.34	14.20	34.35
4	BEFORE	129.90	30.47	36.08
4	AFTER	131.12	13.47	37.29
5	BEFORE	129.90	31.78	39.09
5	AFTER	131.84	13.68	42.24
6	BEFORE	131.24	30.93	46.18
6	AFTER	132.23	12.37	47.54
7	BEFORE	132.72	28.30	51.67
7	AFTER	132.28	12.86	49.19
8	BEFORE	134.22	28.35	56.22
8	AFTER	134.08	12.50	53.60

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** SECTIONALS **

UNIT NO	SECTN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			9	BEFORE	134.20	24.05	58.12
			9	AFTER	134.39	12.27	58.19
			10	BEFORE	133.09	23.47	58.69
			10	AFTER	134.17	11.97	61.39
			11	BEFORE	129.90	22.95	58.91
			11	AFTER	0.00	0.00	0.00
			12	BEFORE	129.90	22.25	59.39
			12	AFTER	0.00	0.00	0.00

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** COMMENTS **

ANY AUTOMATICALLY GENERATED COMMENTS APPEAR IN THIS BOX:

THIS VEHICLE IS SET UP TO DESIGN ATTITUDE AND WHILE REPORTED IN ENGLISH UNITS, USES A METRIC PRINT SHEET. SUSPENSION COMPONENTS ARE NOT IN DESIGN POSITION. COORDINATES CAN BE CONVERTED TO DESIGN PRINT VALUES BY USING THE FOLLOWING: asking for a metric print-out or

TO CONVERT TO METRIC DESIGN PRINT VALUES: MULTIPLY BY 25.4.
TO CONVERT TO ENGLISH DESIGN PRINT VALUES: (for most DOMESTIC VEHICLES)
SUBTRACT 78.74 (2000 MM) FROM THE X VALUE AND SUBTRACT 19.69 (500 MM) FROM THE Z VALUE.

*** THIS DIMENSION SYSTEM UTILIZES THE RIGHT HAND RULE ***
From Front of Vehicle FACING REARWARD
+ = Rearward, Up, & Left (AMERICAN PASSENGER SIDE)
[Lateral Zero is Centerline of Vehicle]

**** THE "D" DIMENSION UNDER "INCHES CHANGED X Y Z" ****
*** IS THE SCALAR (TRUE VALUE) DISTANCE CHANGE OF THE POINT ***

REMARKS::: Paint a C/L stripe on tunnel from front seat to and including rear seat where applicable.

*** If this is a POLE IMPACT TEST, do NOT scribe cart edges. ***

ON SIDE IMPACTS FOR VEHICLES WITH A WHEELBASE OF 114 inches or less
SCRIBE (4) VERTICAL LINES on side of impact from ROCKER TO BELT LINE @:
(1) WHEELBASE C/L (2) 37" FORWARD OF WHEELBASE C/L
(3) 4" FORWARD OF WHEELBASE C/L (4) 29" REARWARD OF WHEELBASE C/L

ON SIDE IMPACTS FOR VEHICLES WITH A WHEEL BASE GREATER THAN 114 INCHES
SCRIBE (4) VERTICAL LINES on side of impact from ROCKER TO BELT LINE @:
(1) 20" (2) 53" (3) 86" REARWARD OF FRONT AXLE CENTER LINE
(4) @ WHEELBASE CENTER LINE

BELT LINE (EXTERIOR SECTION) LOCATED @ 1st INCREMENTED 50mm BODY LINE BELOW GLASS/WEATHERSTRIP

WTD LINE (EXTERIOR SECTION) LOCATED @ _____mm BODY LINE

CHARACTER LINE (EXTERIOR SECTION) LOCATED @ _____mm BODY LINE

ROCKER LINE (EXTERIOR SECTION) LOCATED @
1st INCREMENTED 10mm BODY LINE BELOW DOOR OPENING

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** COMMENTS **

SCRIBE A LONGITUDINAL C/L ALONG THE ENTIRE EXTERNAL BODY
(USE TAPE OR PAINT ON THE WINDSHIELD & BACKLIGHT)

SCRIBE A LONGITUDINAL C/L IN THE INTERIOR ON THE ROOF, TUNNEL/CONSOLE
AND OR SEATS

MARK A LONGITUDINAL C/L ON THE OCCUPANT FRONT & REAR SEATS

SCRIBE A VERTICAL LINE ON THE LEFT & RIGHT ROOF TARGET 27.00" REARWARD
OF THE FRONT EDGE OF THE MASTER CONTROL NOTCH OR CONTROL HOLE CENTER-
LINE. ALSO, SCRIBE A HORIZONTAL LINE ON THE TARGETS 46.00" ABOVE THE
TOP OF THE MASTER CONTROL NOTCH OR CONTROL HOLE CENTERLINE.

ANY COMMENTS ENTERED BY OPERATORS APPEAR BELOW THIS LINE:

***** 650 POINT DESCRIPTION*****

THE FOLLOWING POINTS ALL ACCEL:

01. L/SILL FWD
02. L/SILL RWD
03. LOWER L/A-PILLAR 1ST
04. L/B-PILLAR @ HIPLINE
05. L/LOWER B-PILLAR
06. L/DRIVER FWD OF REAR/OR SEAT BOLT
07. REAR COMPARTMENT @ REAR AXLE C/L
08. R/SILL FWD
09. R/SILL RWD
10. FORWARD TUNNEL @ C/L
11. R/LOWER A-PILLAR BELOW HIPLINE
12. R/LOWER A-PILLAR
13. R/FRT DOOR @ BELTLINE FWD
14. R/FRT DOOR @ BELTLINE RWD
15. R/FRT DOOR @ MIDLINE
16. R/FRT DOOR BELOW SPEAKER
17. R/FRT DOOR REAR OF SEAT B-FIT
18. R/PASSENGER FWD OF REAR O/B SEAT BOLT
19. R/B-PILLAR @ ROOFLINE
20. R/B-PILLAR ABOVE BELTLINE
21. R/B-PILLAR @ HIPLINE
22. R/LOWER B-PILLAR

POST SETUP POINTS:

23. ALIGNMENT PT. FWD

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** COMMENTS **

24. ALIGNMENT PT. END

NOTE: UNIT 411 PT.27 FALLS IN HOLE.

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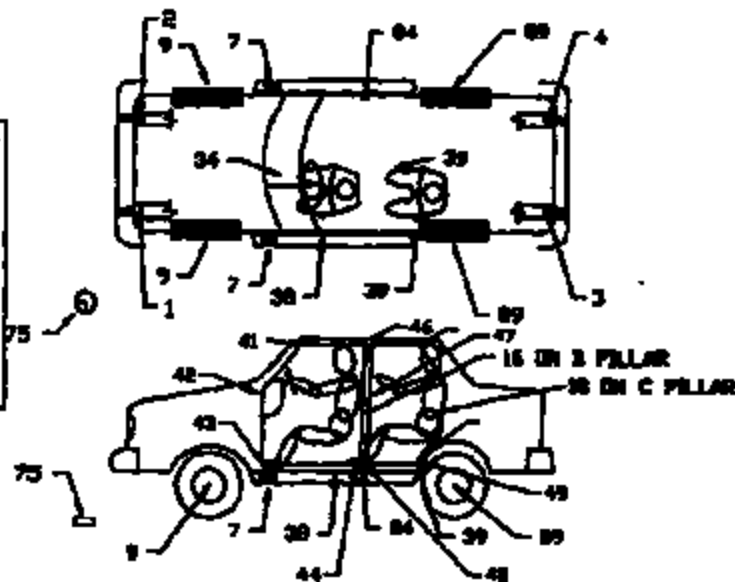
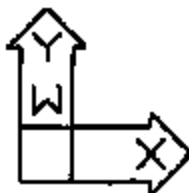
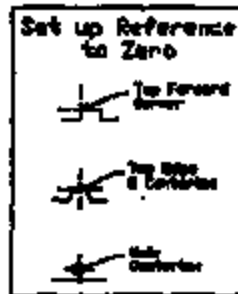
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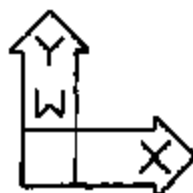
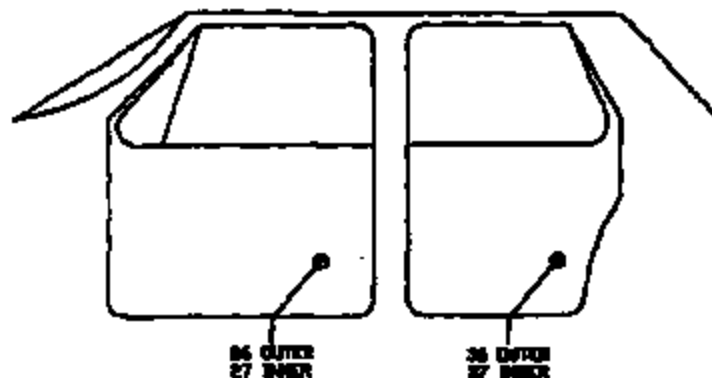
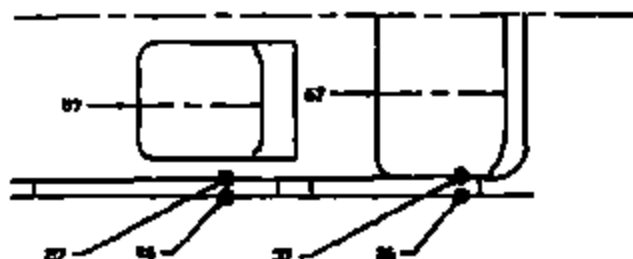
CONTROL POINTS (SIDE IMPACT CAR) REQUEST 404
UNIT 70 POINT 75
UNIT 73 POINTS 7 LEFT & RIGHT
UNIT 74 POINTS 41-44, 46-49 ON SIDE OF IMPACT
UNIT 74 POINTS 53, 54 ON SIDE OPPOSITE OF IMPACT
UNIT 413 POINTS 1-4, 30, 39, 84
UNIT 412 POINTS 9, 16, 30, 39 LEFT & RIGHT
(LEFT SIDE IMPACT SHOWN)



REQUEST 404 IMPC 960 12/96

IMPACT 1

PRE-CRASH LATERAL C/L'S 74 POINTS + REQUEST 417
 (NET 411 POINTS 25,27,28,29,27)



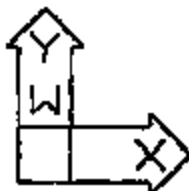
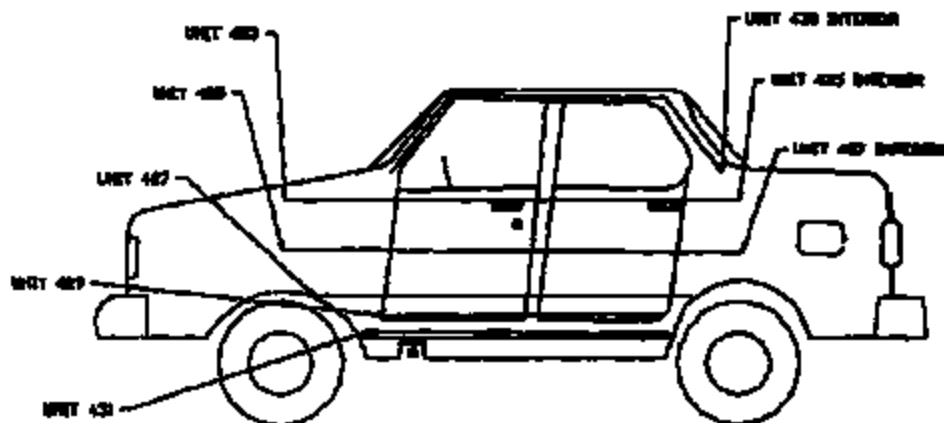
REQUEST 417 UPIC 964 10/96

UNDEL.

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EXTERIOR & INTERIOR VIEW, SECTIONAL, SIDE IMPACT
REQUEST 483,485,487,489,431,433,435,437



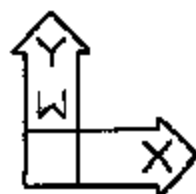
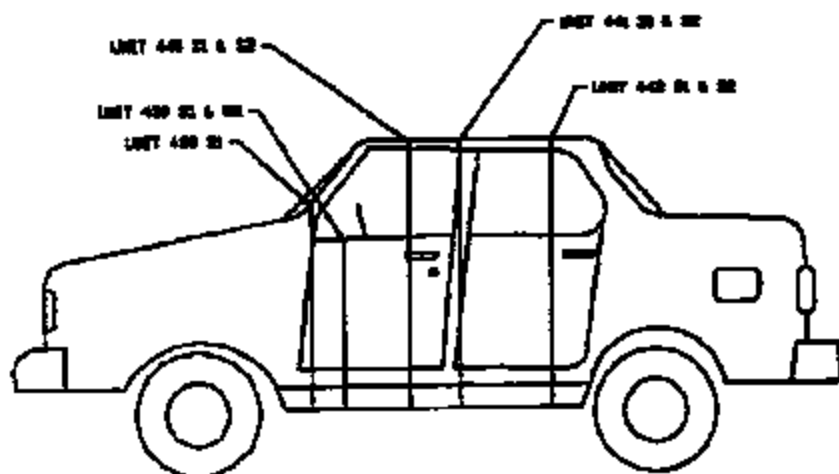
REQUEST 483,485,487,489,431,433,435,437 UPIC 977 18/96

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T-A3041

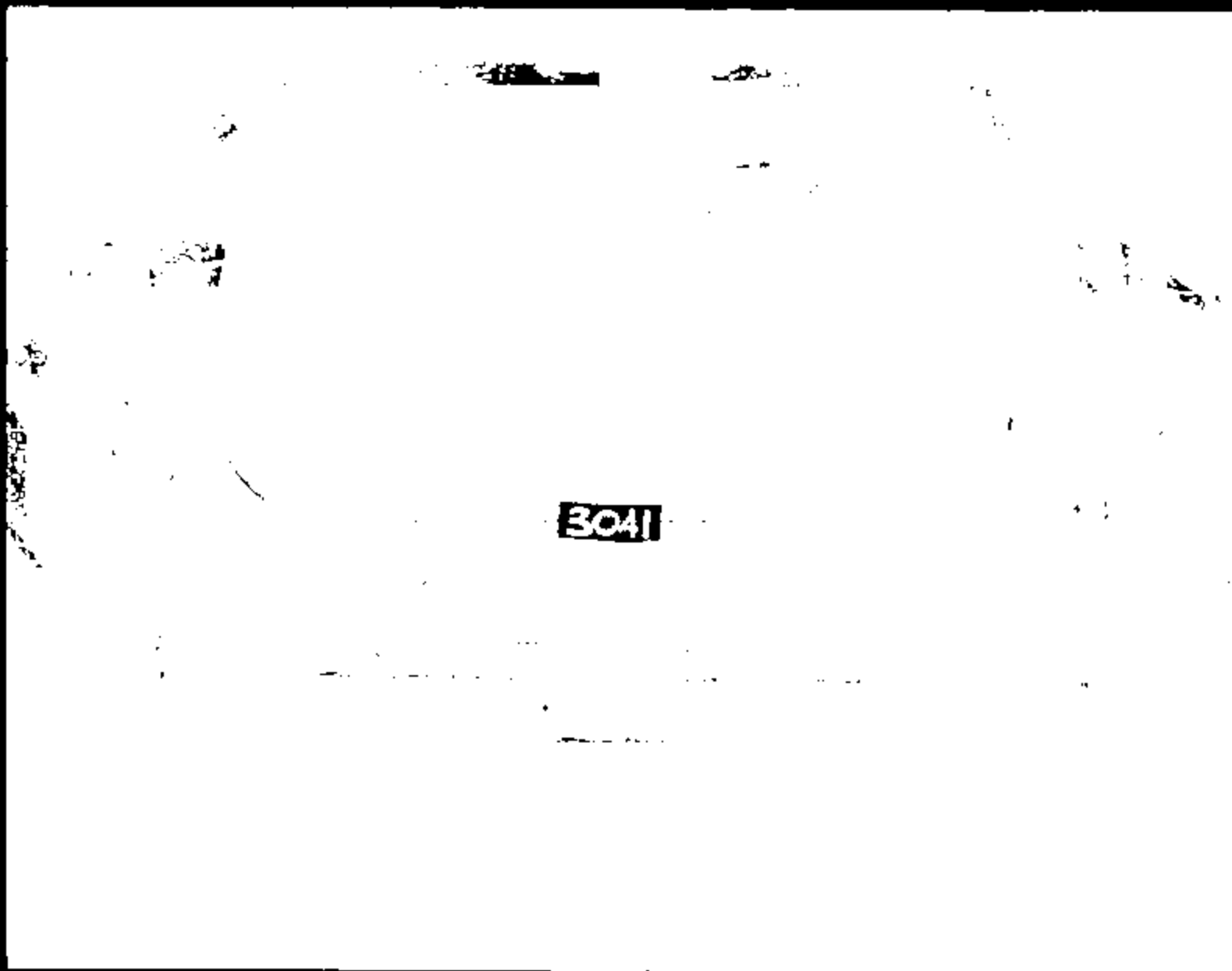
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REQUEST 438 - 442 WENT. SECTIONS SIDE IMPACT
 UNITS 438 21, 439 - 440 21 & 22
 21 SECTIONS ARE EXTERIOR, 22 SECTIONS ARE INTERIOR



REQUEST 438 - 442 UFG 979 10/96

REQ-433

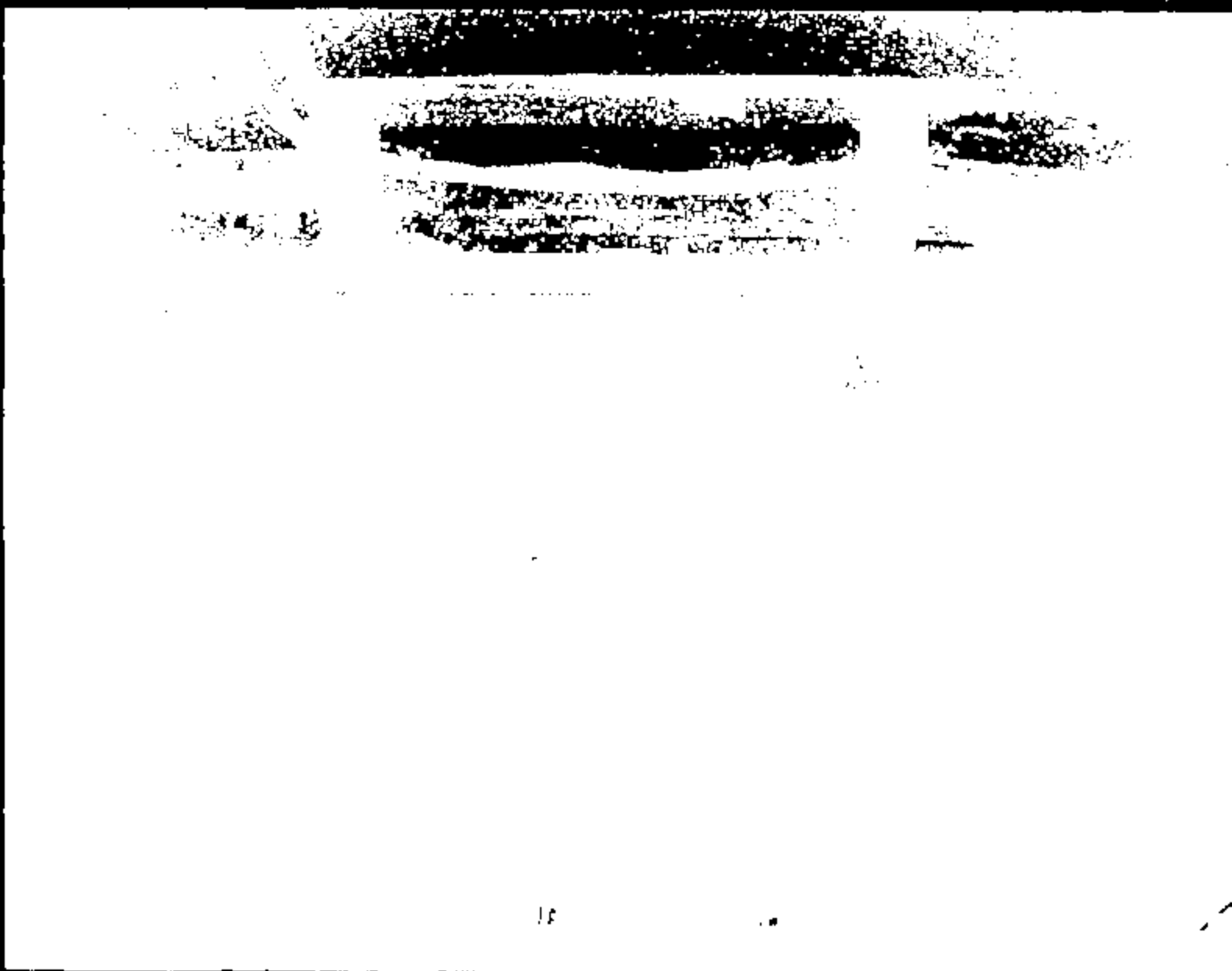


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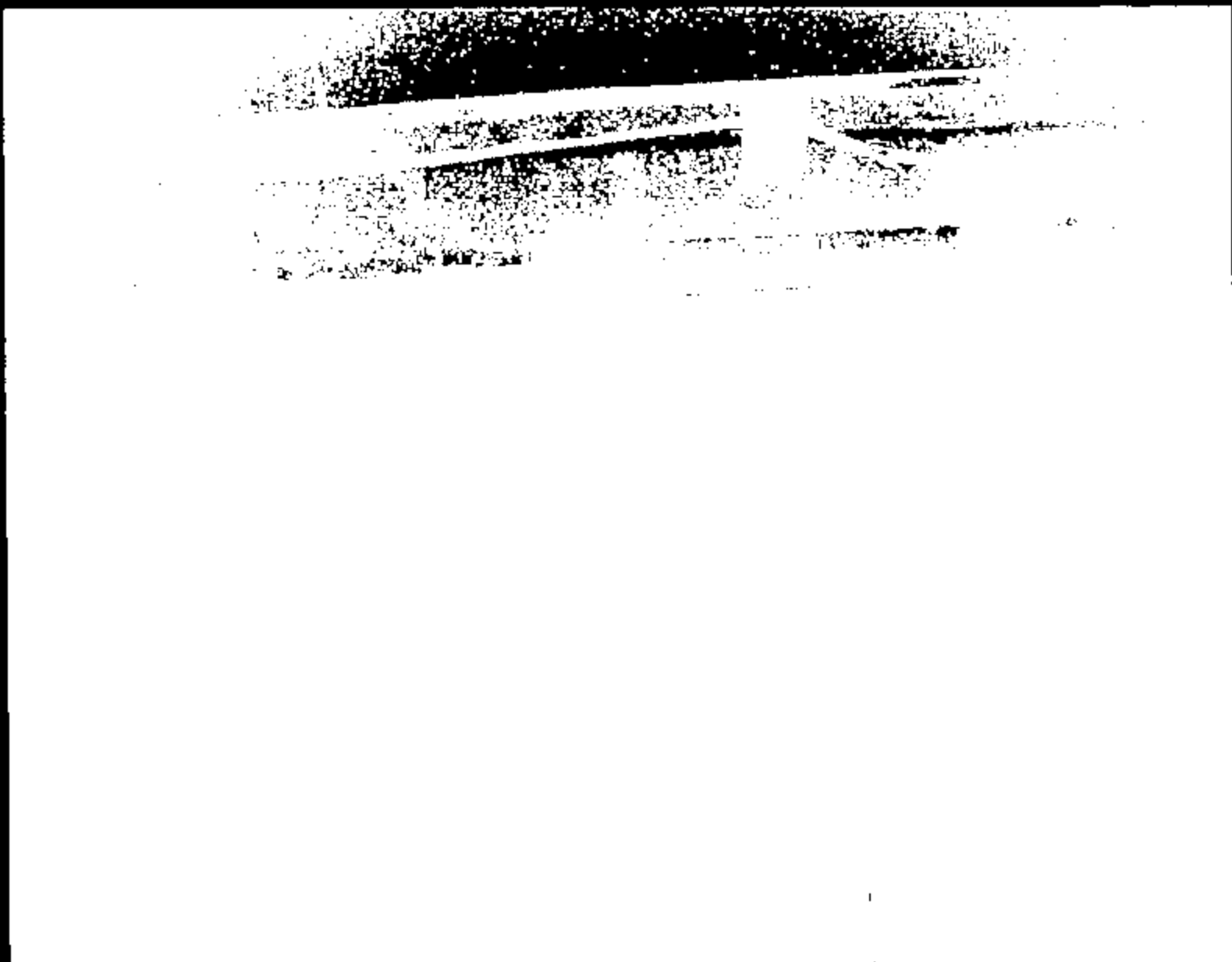


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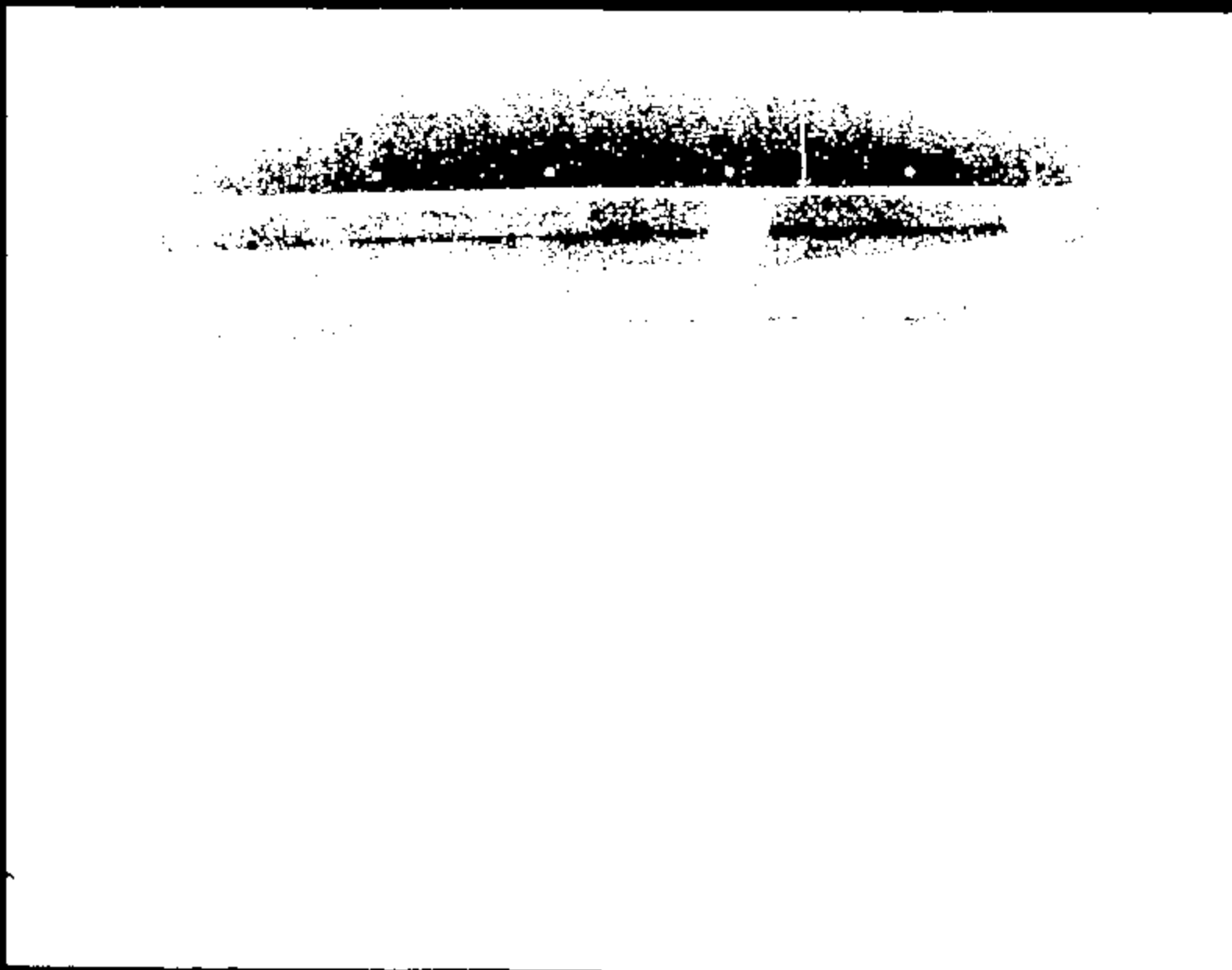
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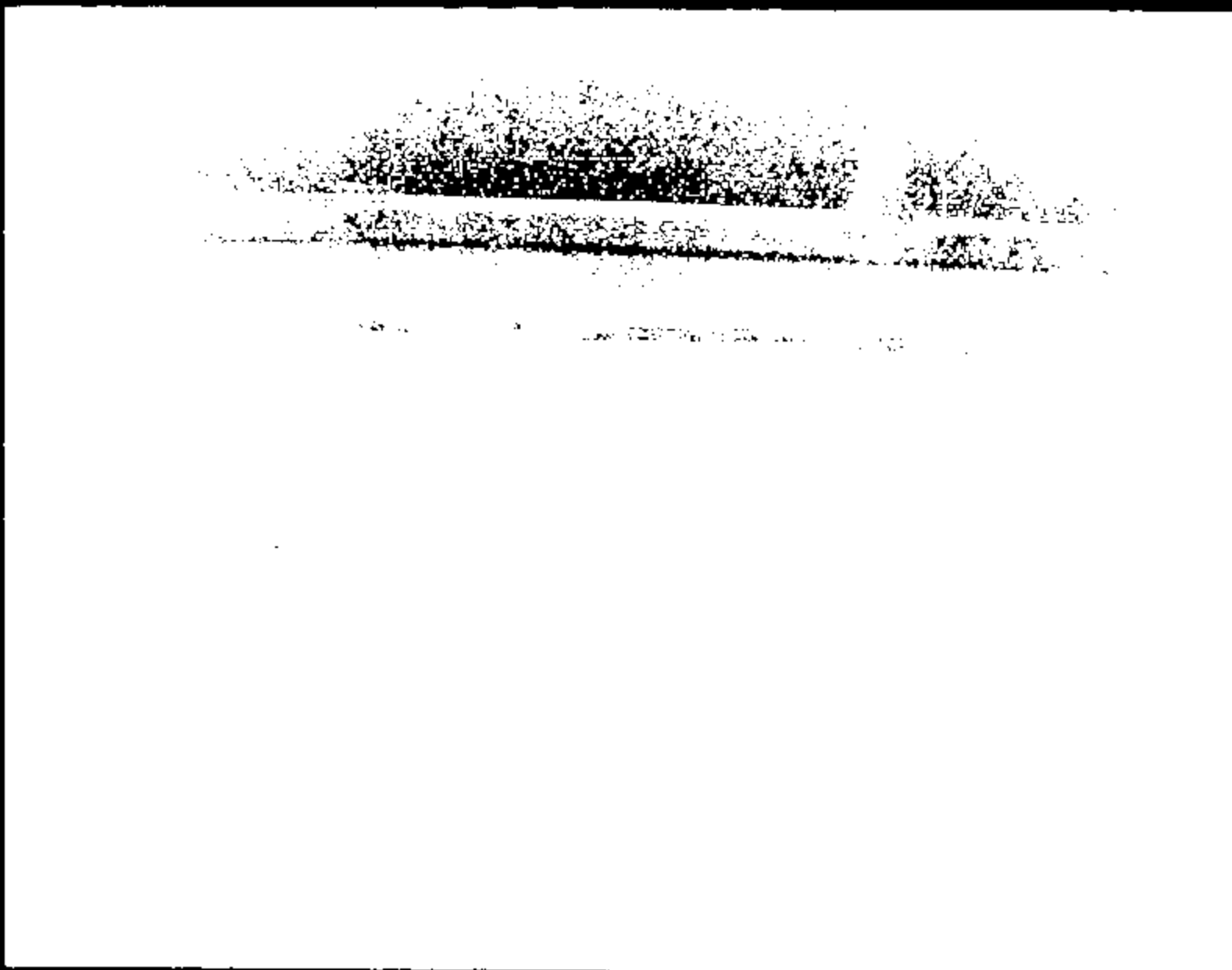
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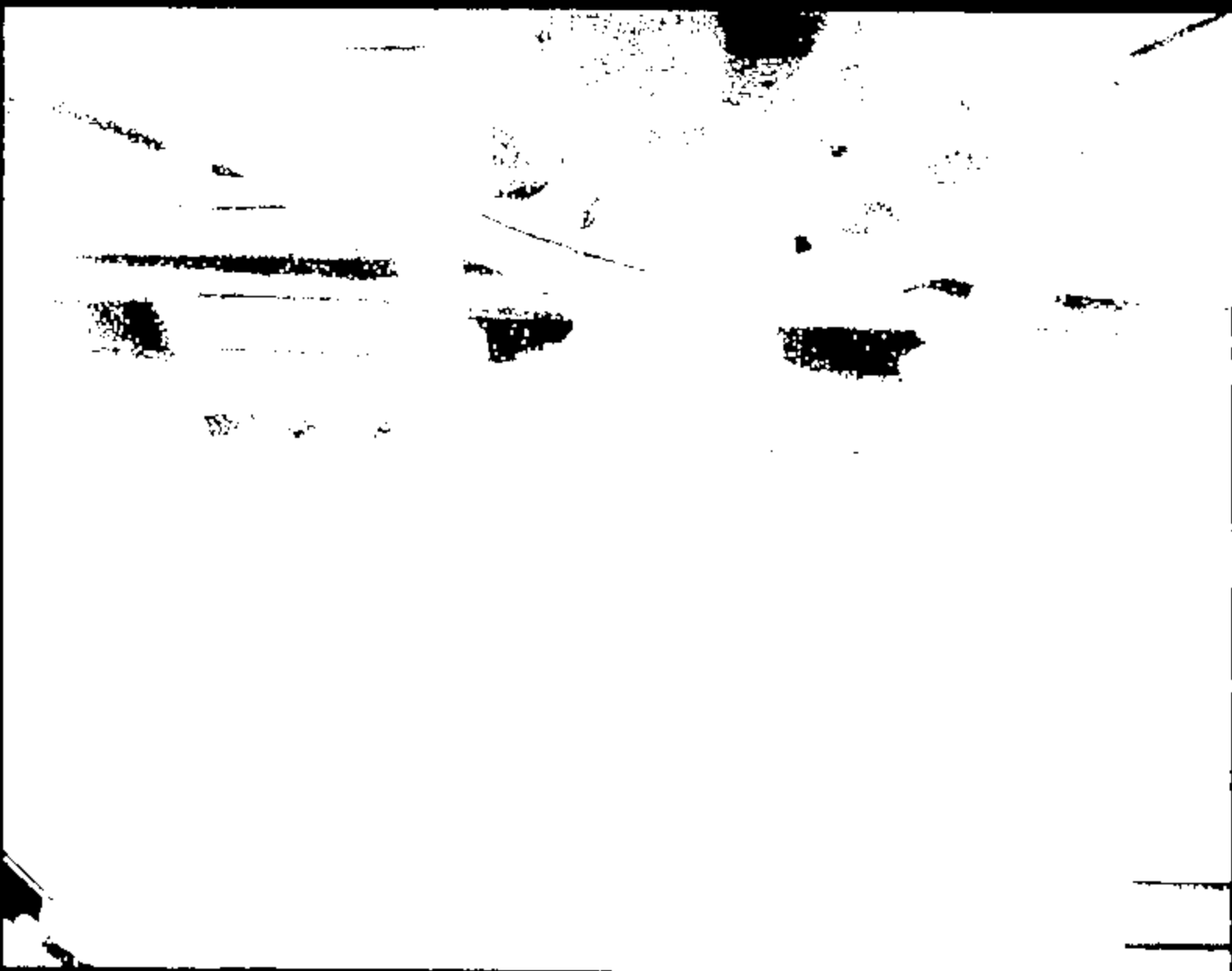
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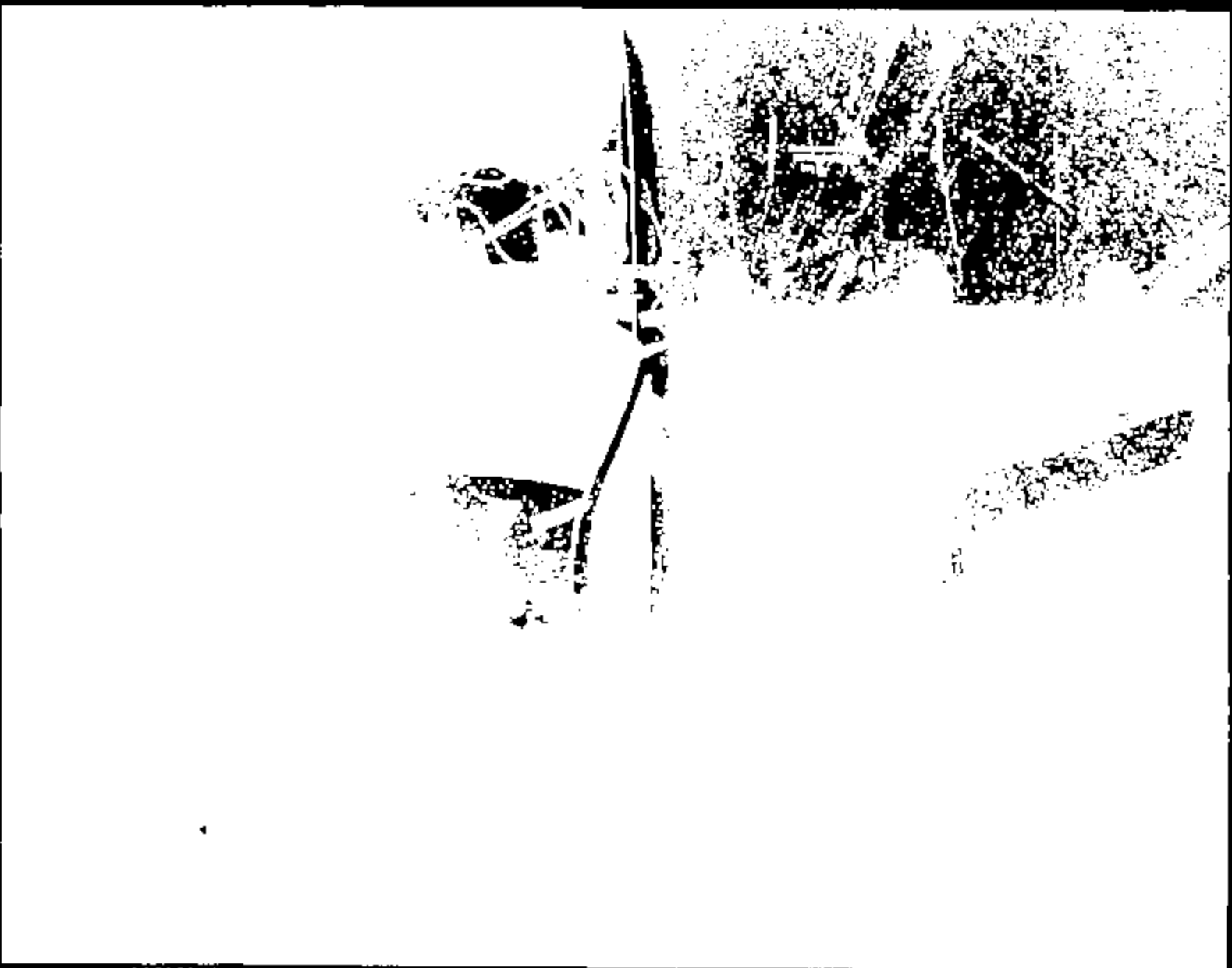
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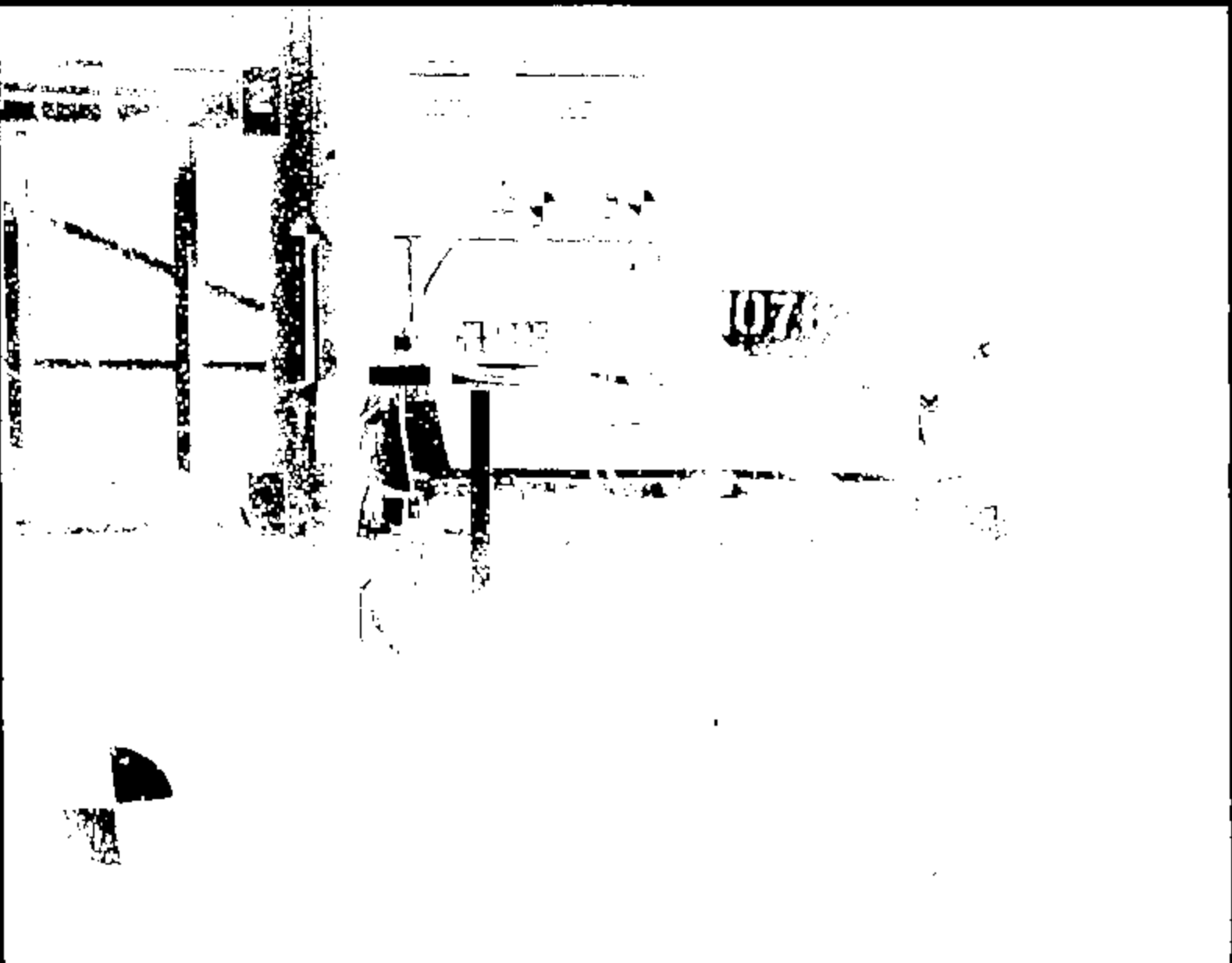
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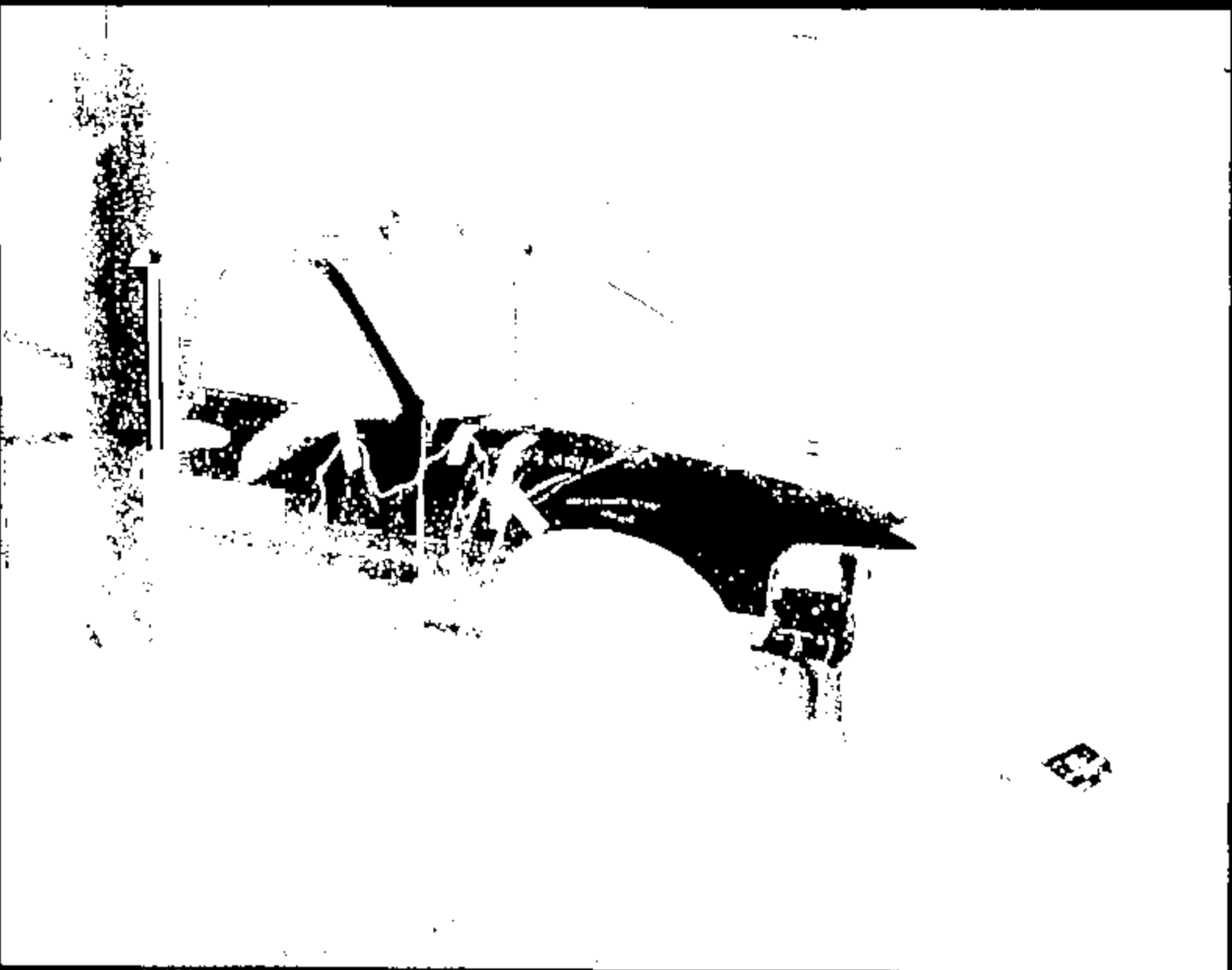
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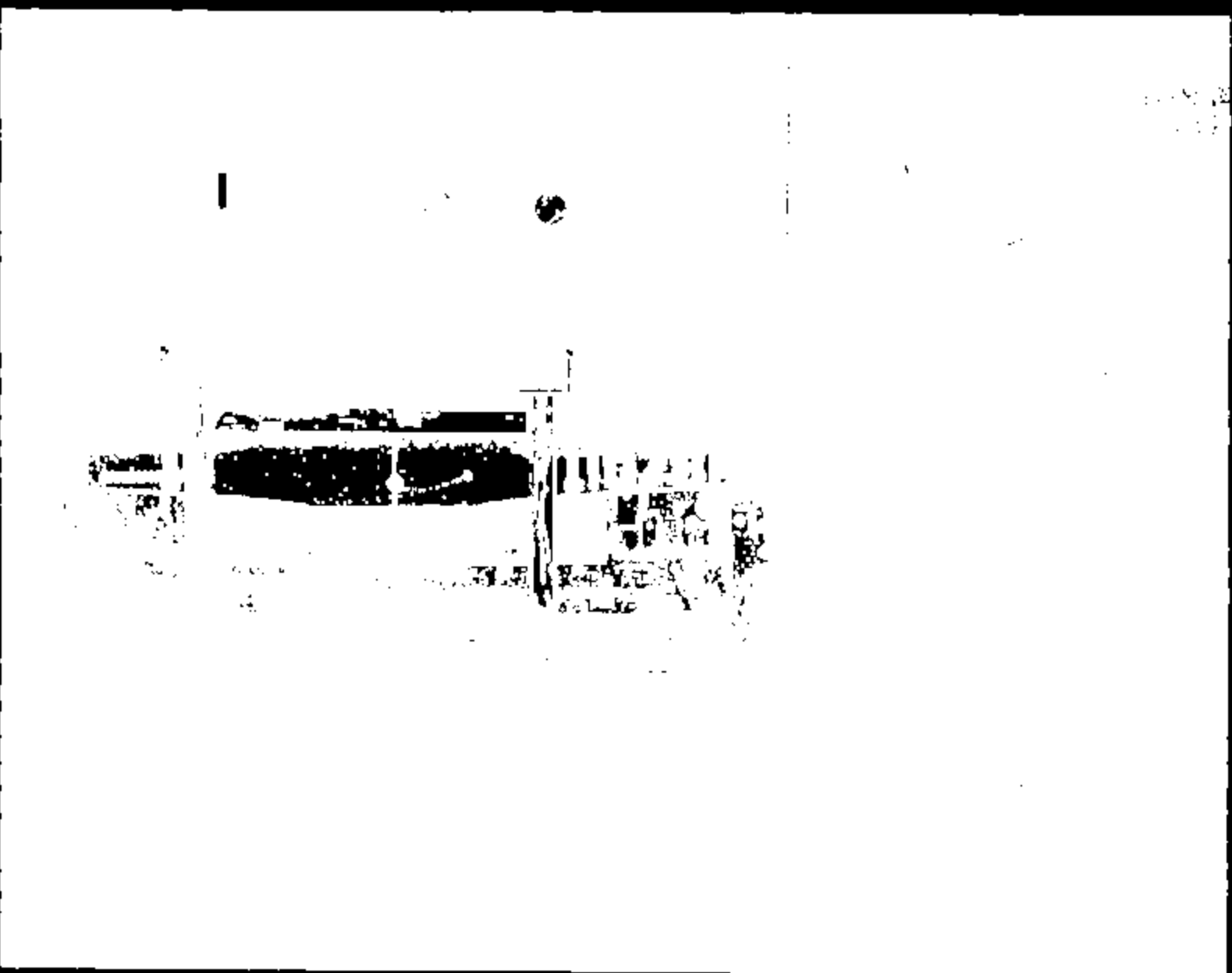
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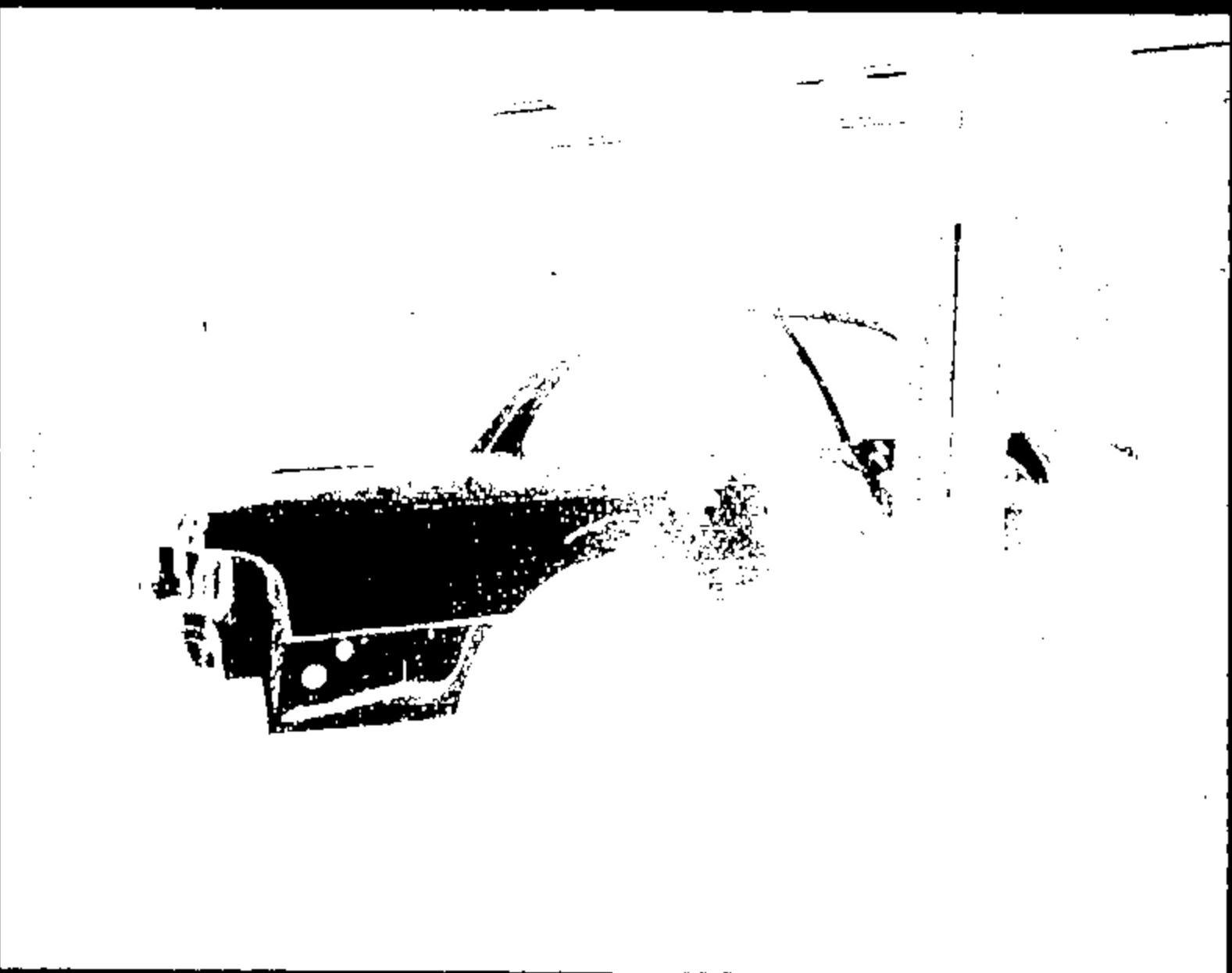
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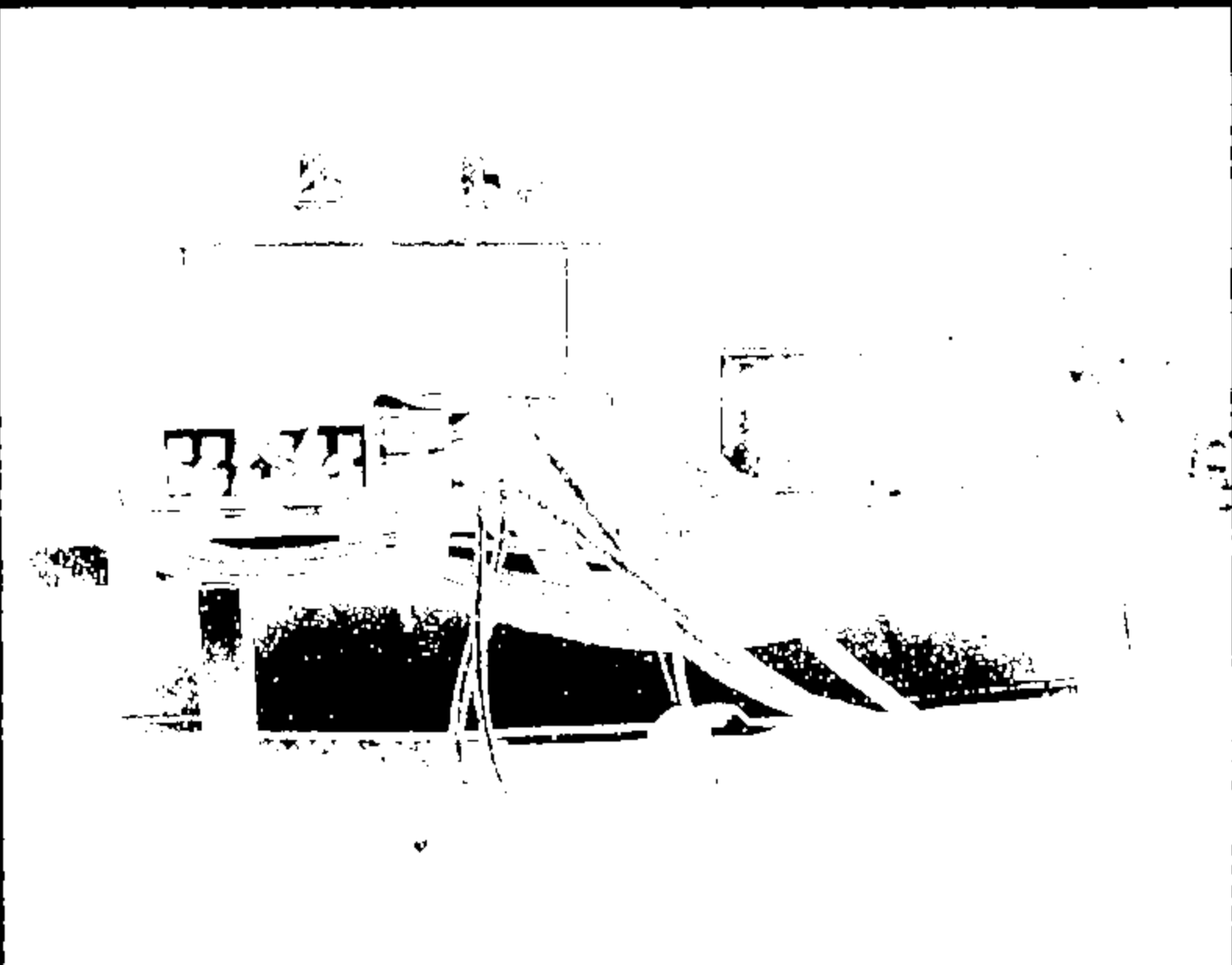
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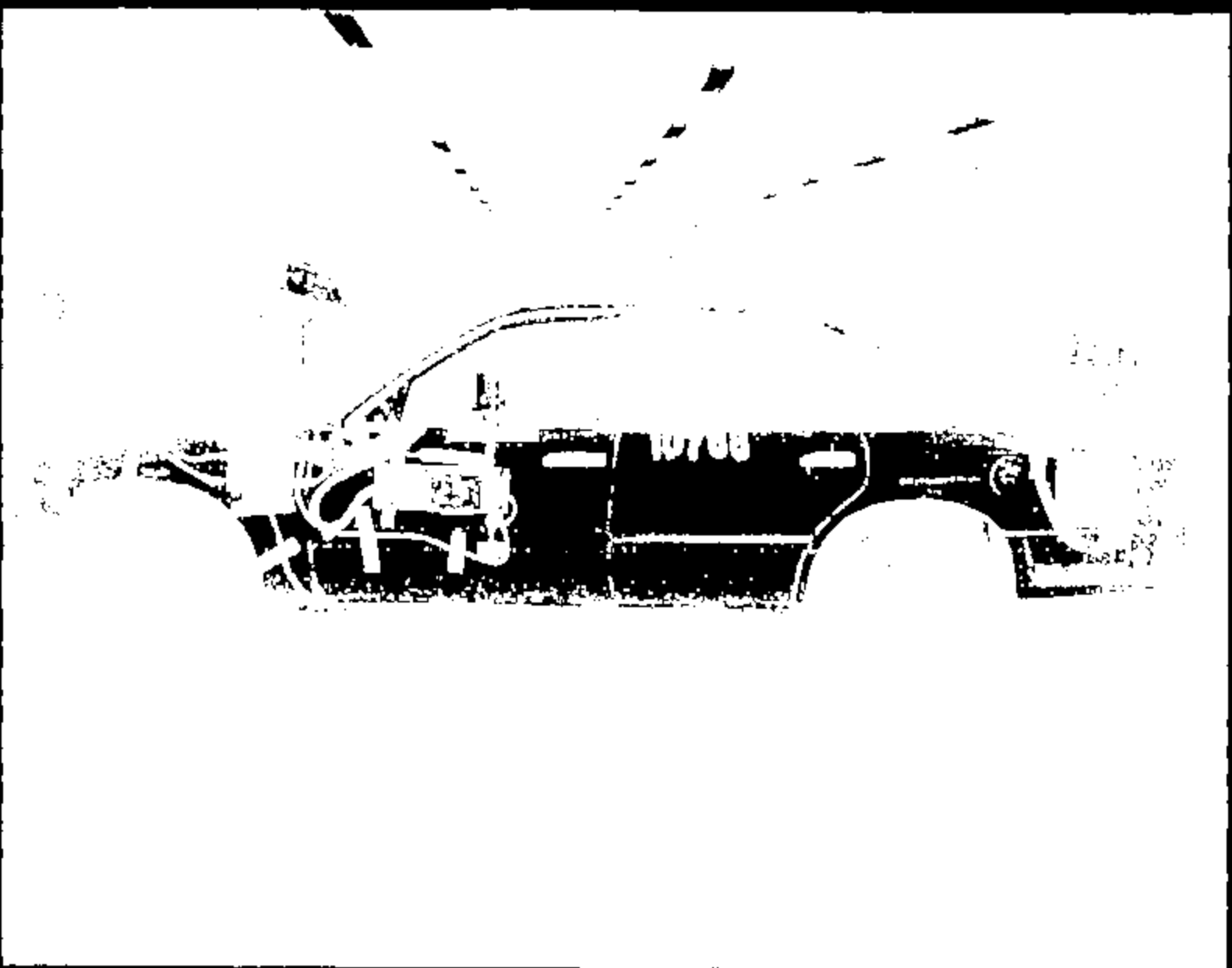
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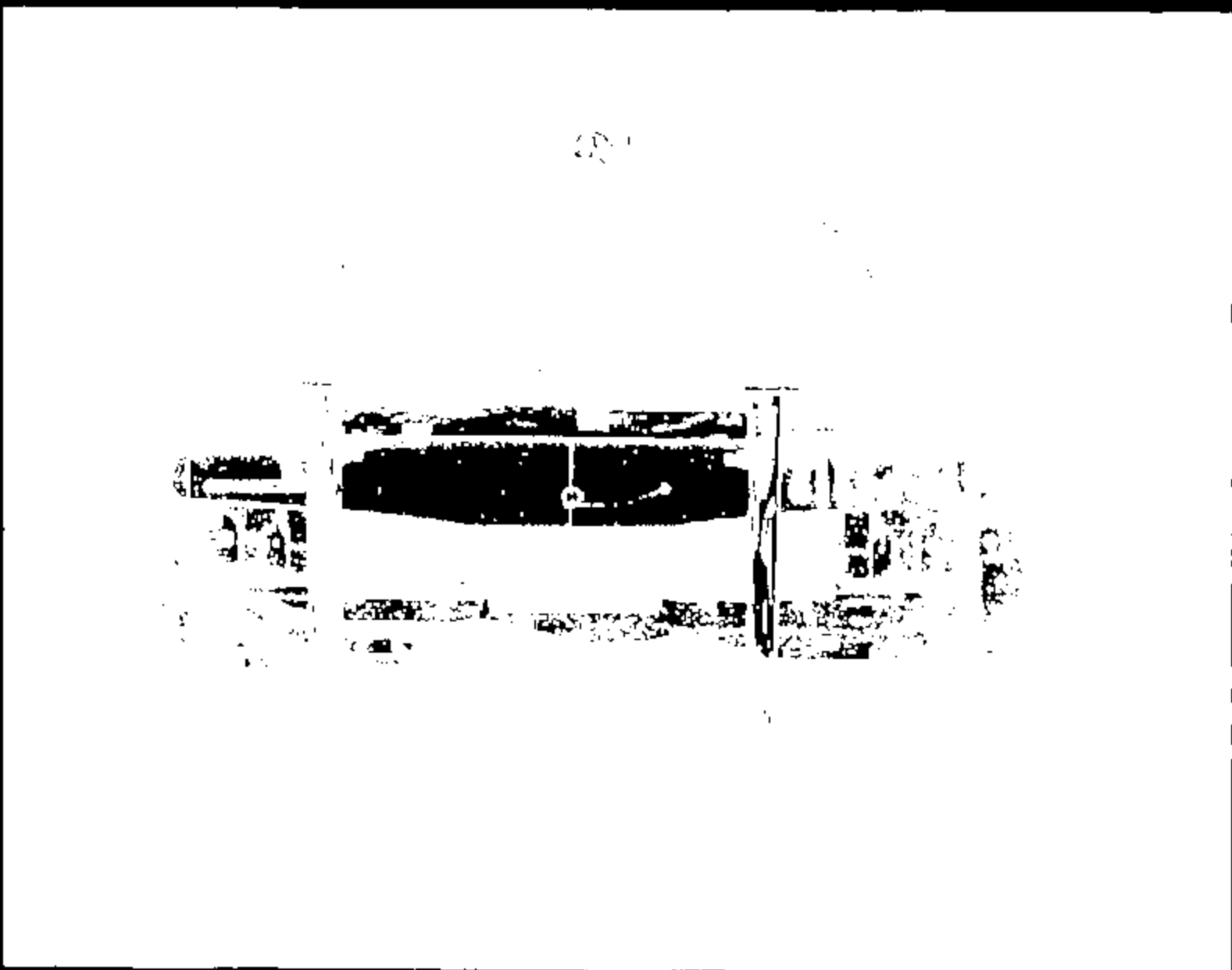


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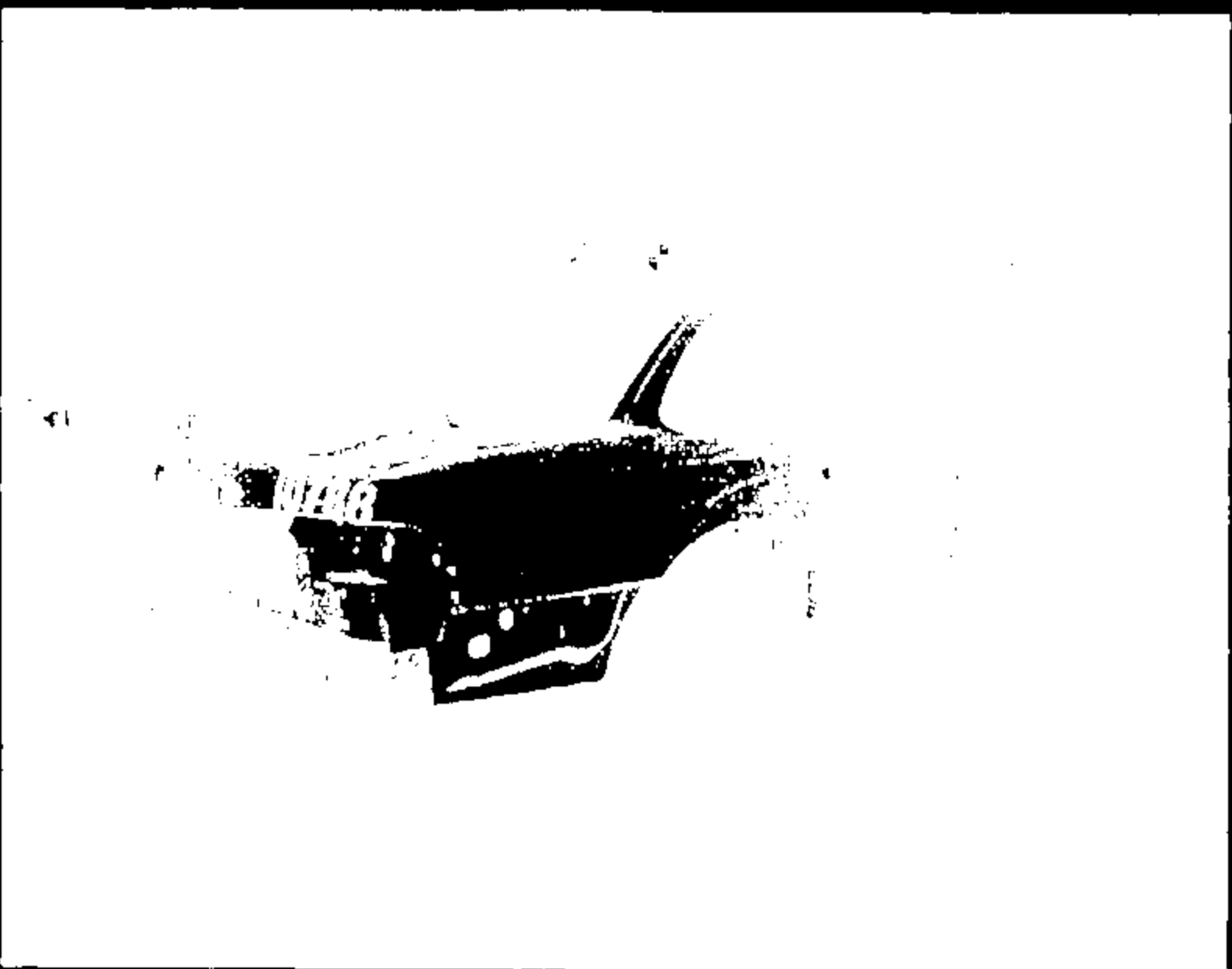
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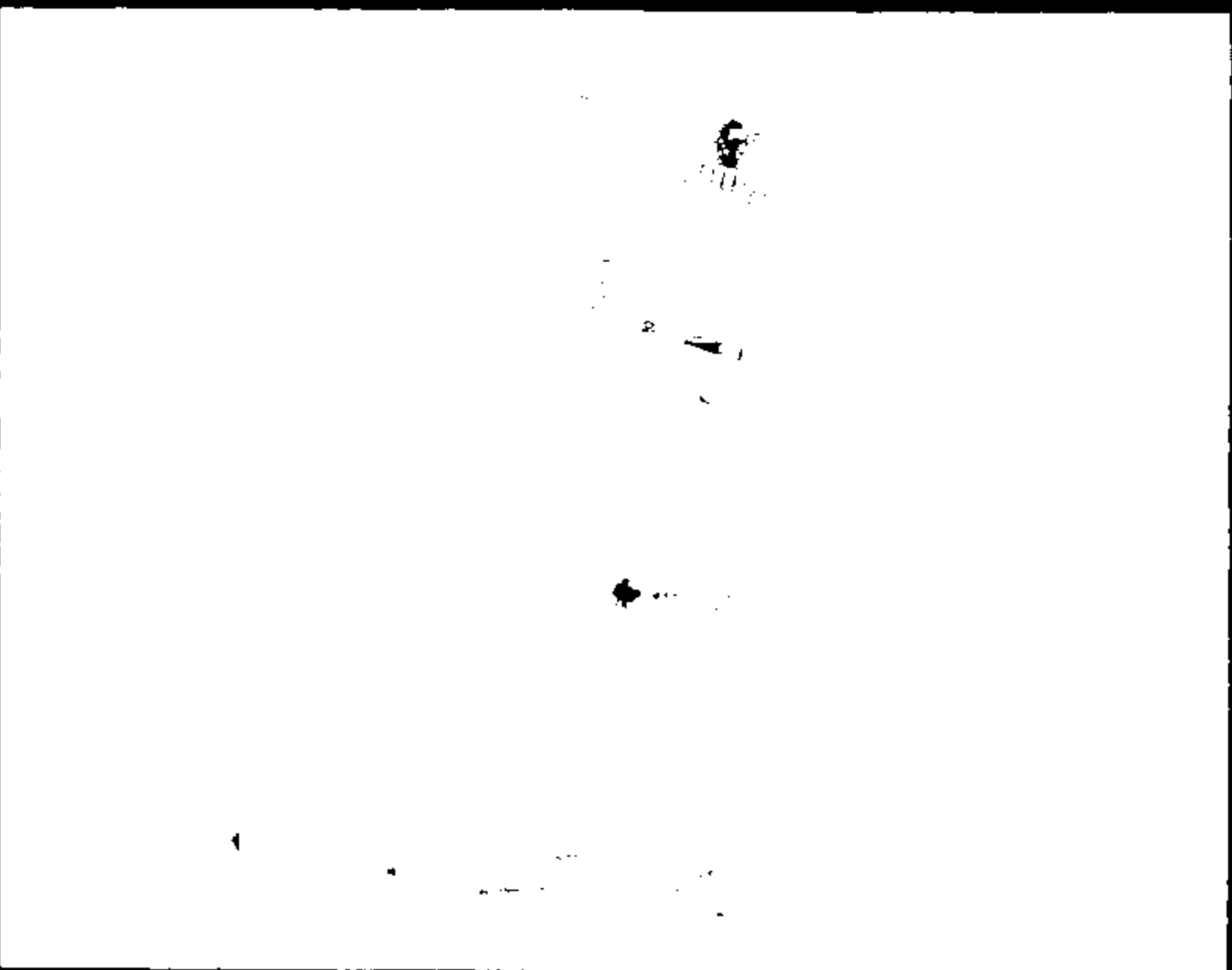
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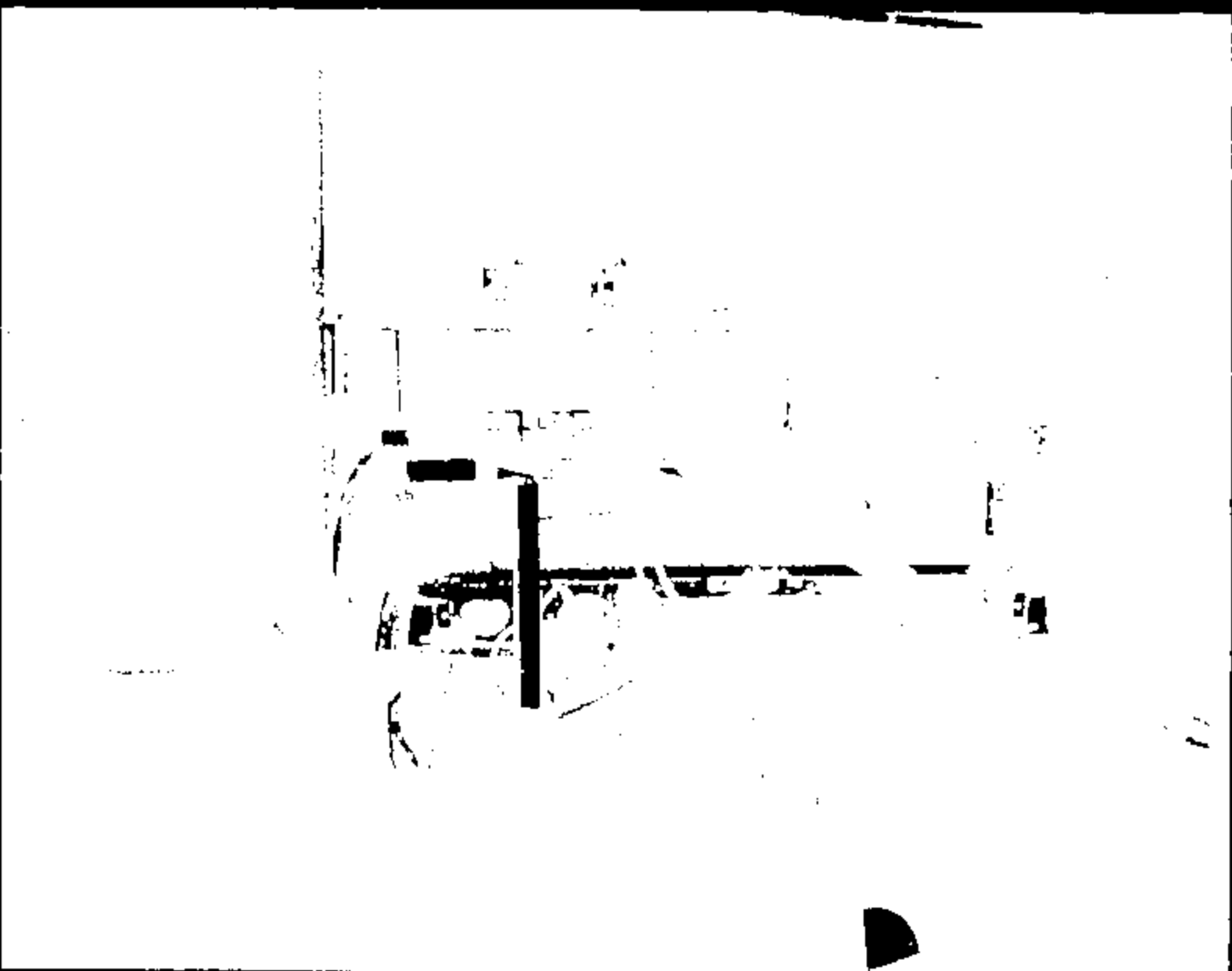
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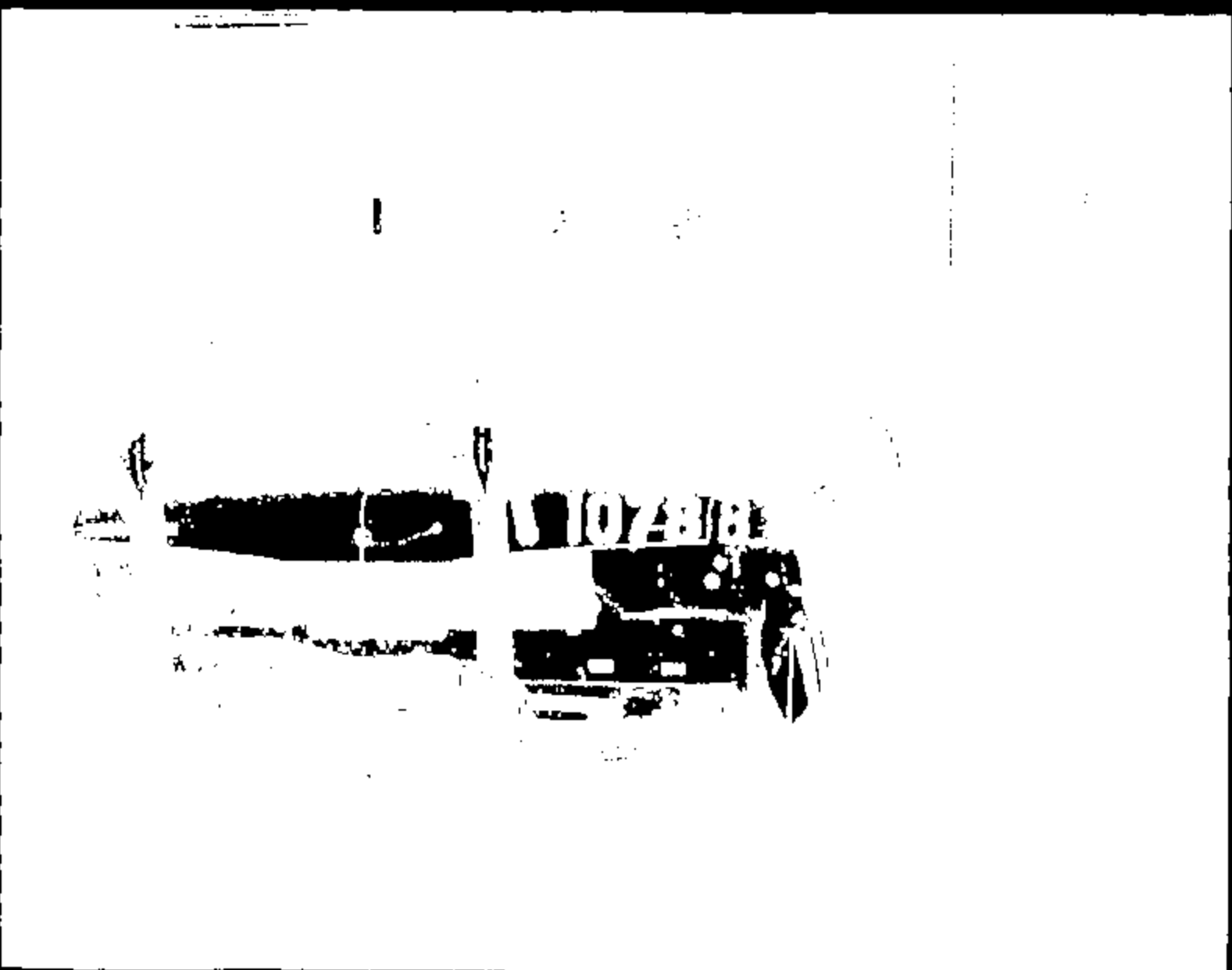
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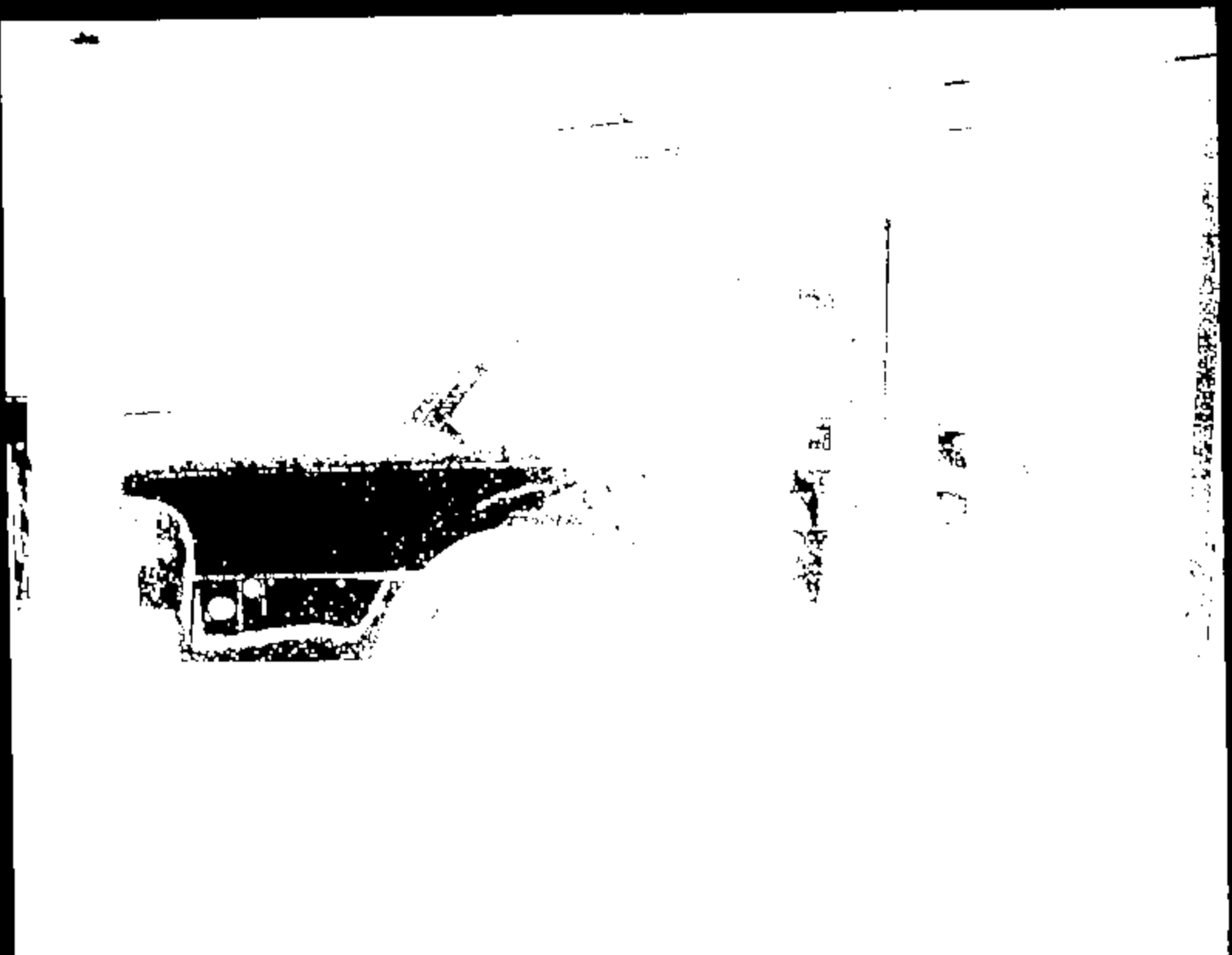
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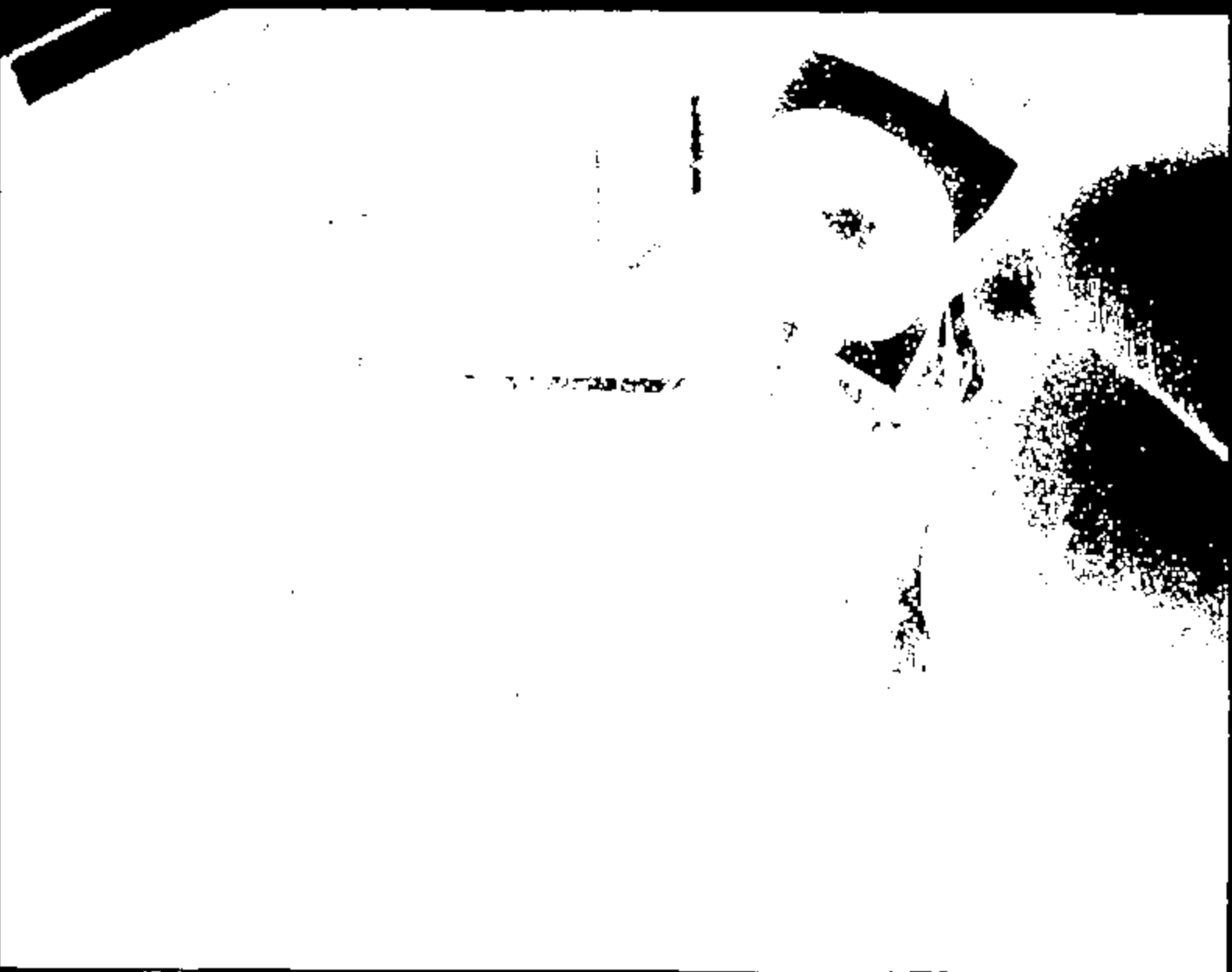
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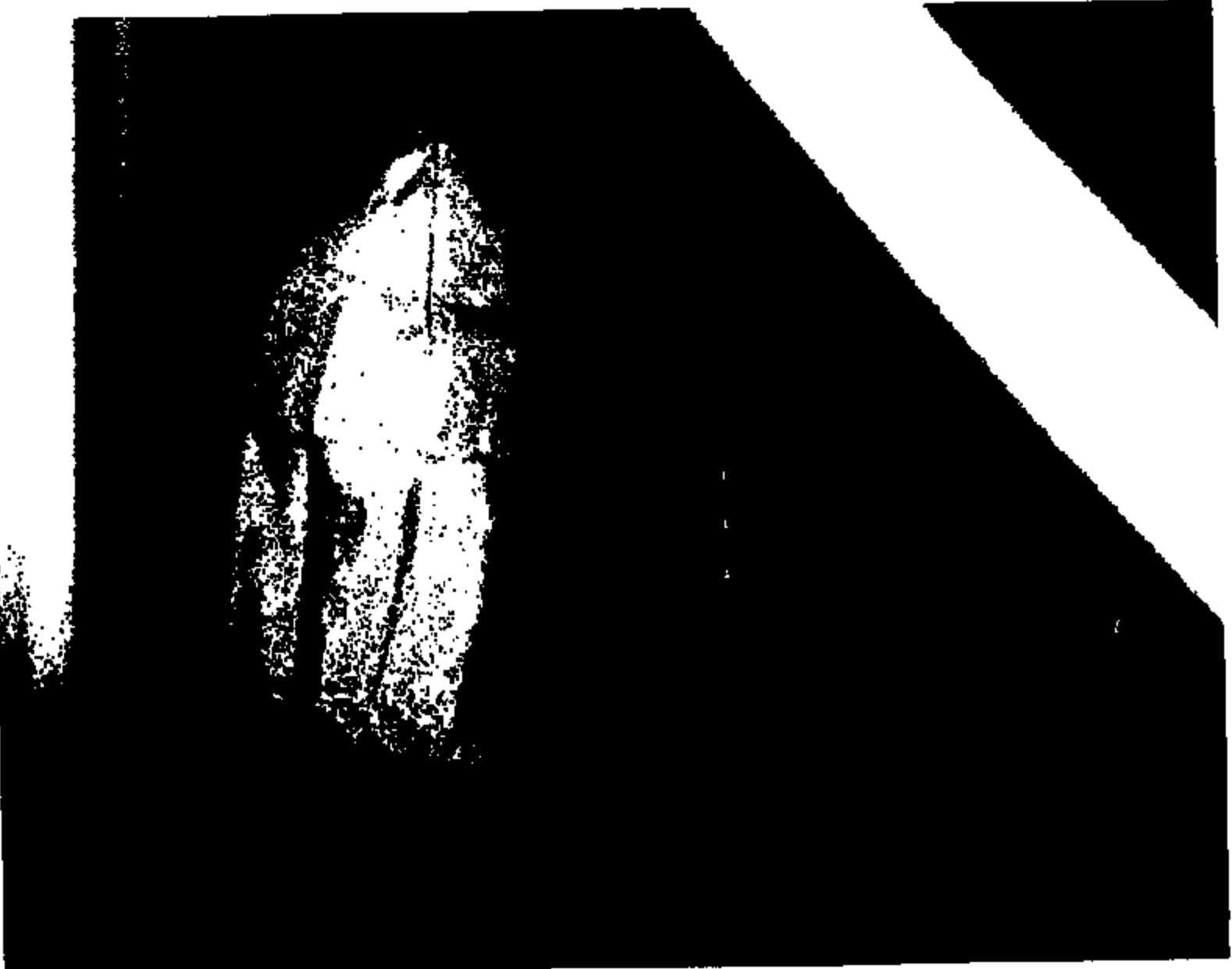
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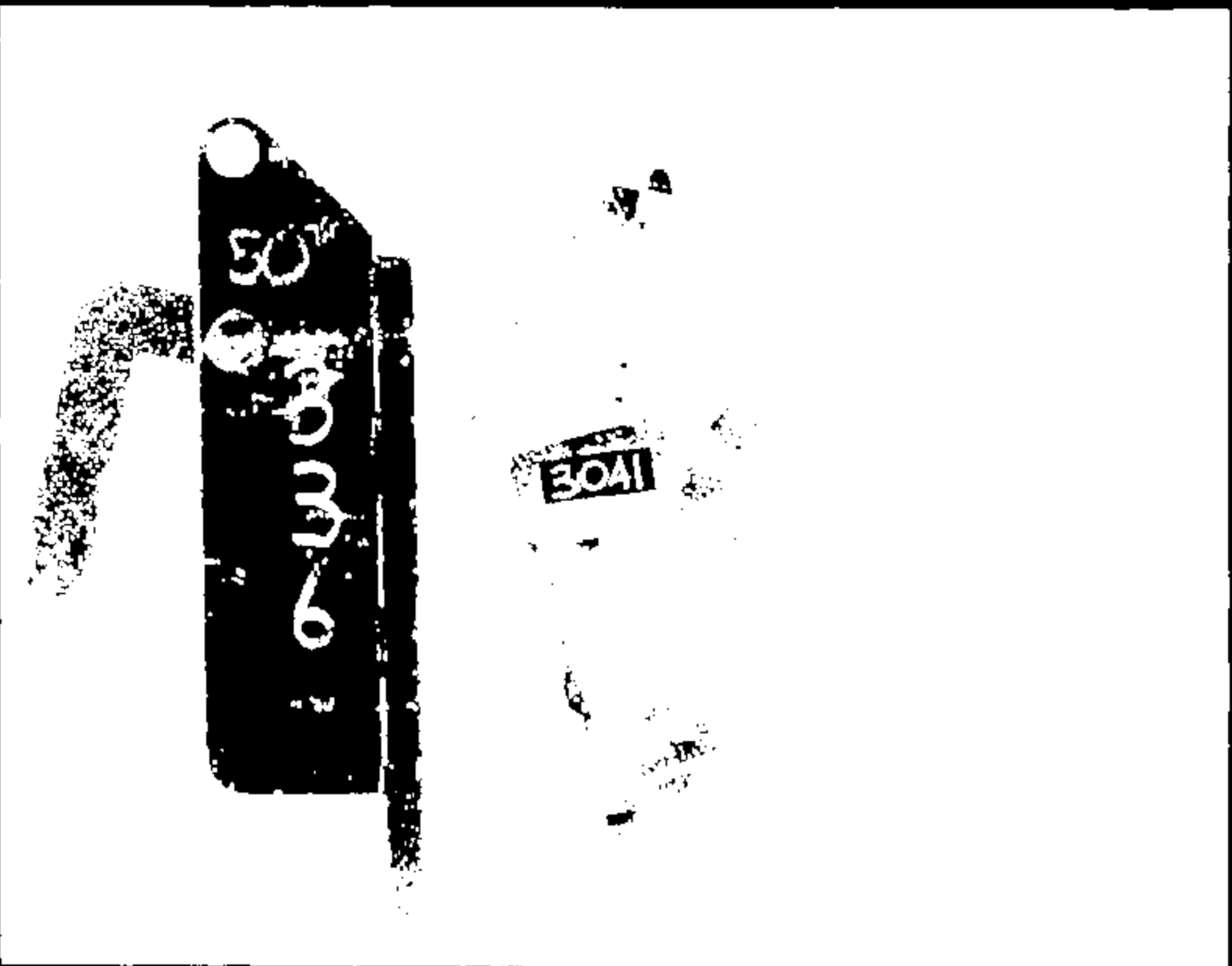
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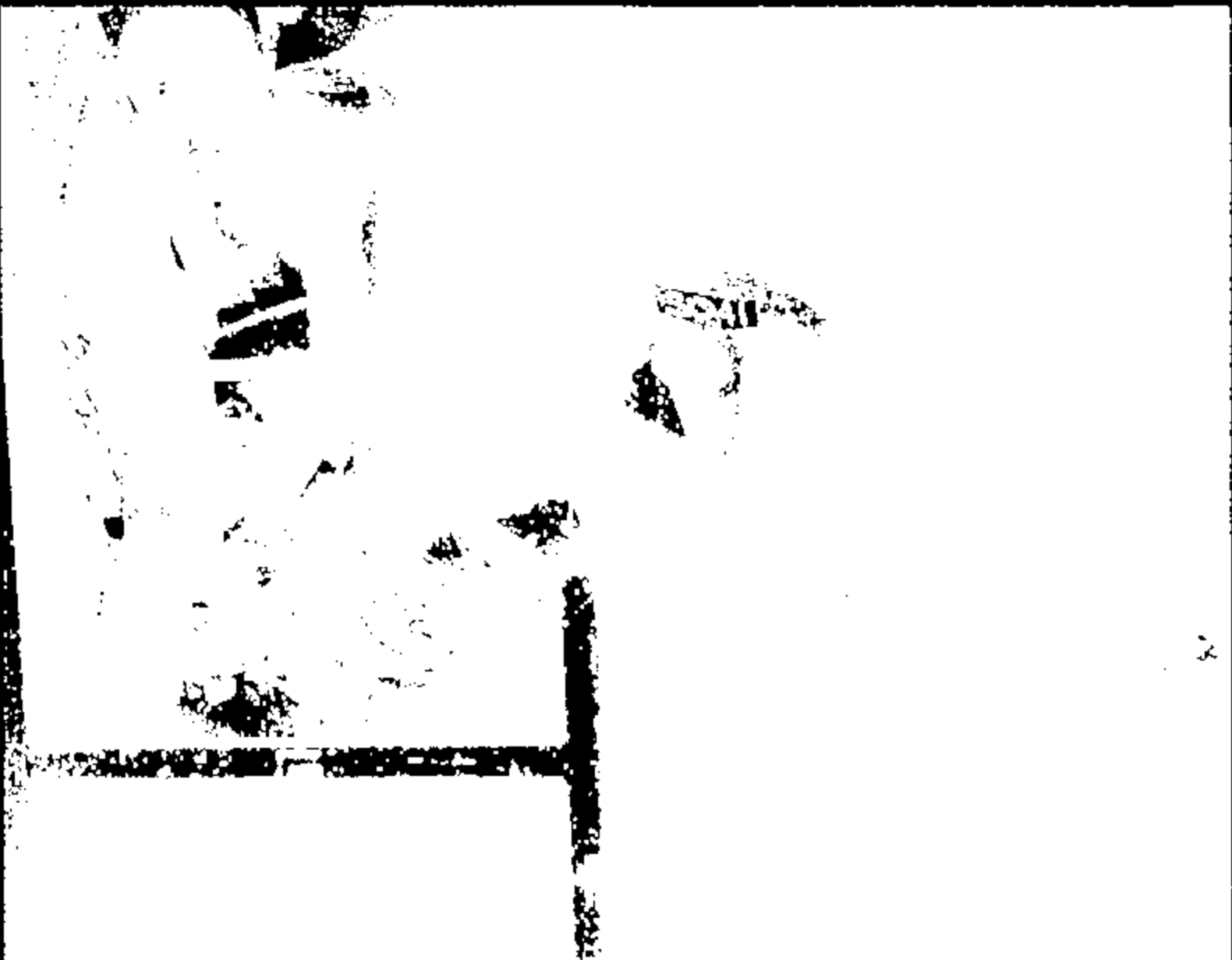
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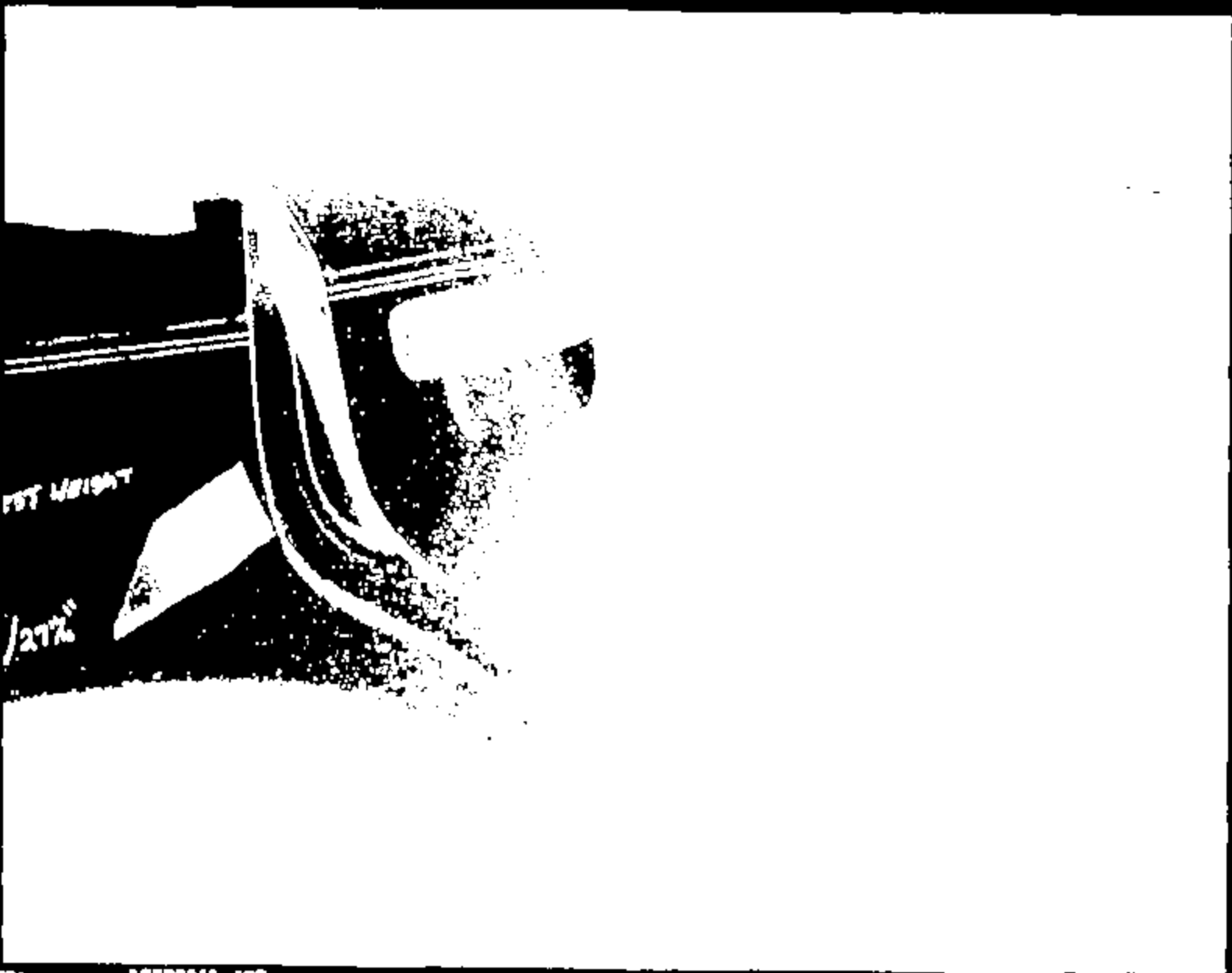
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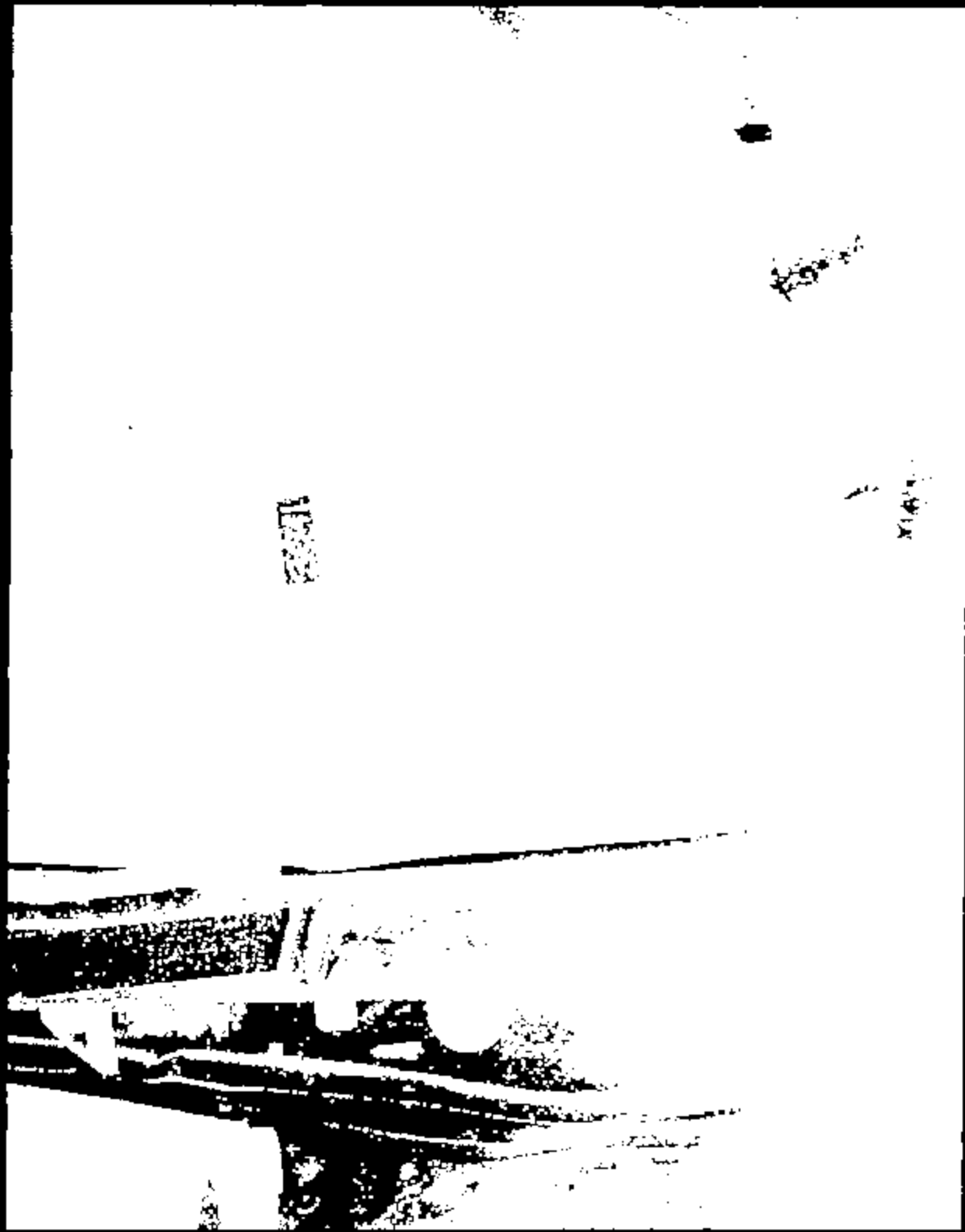
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Page 1



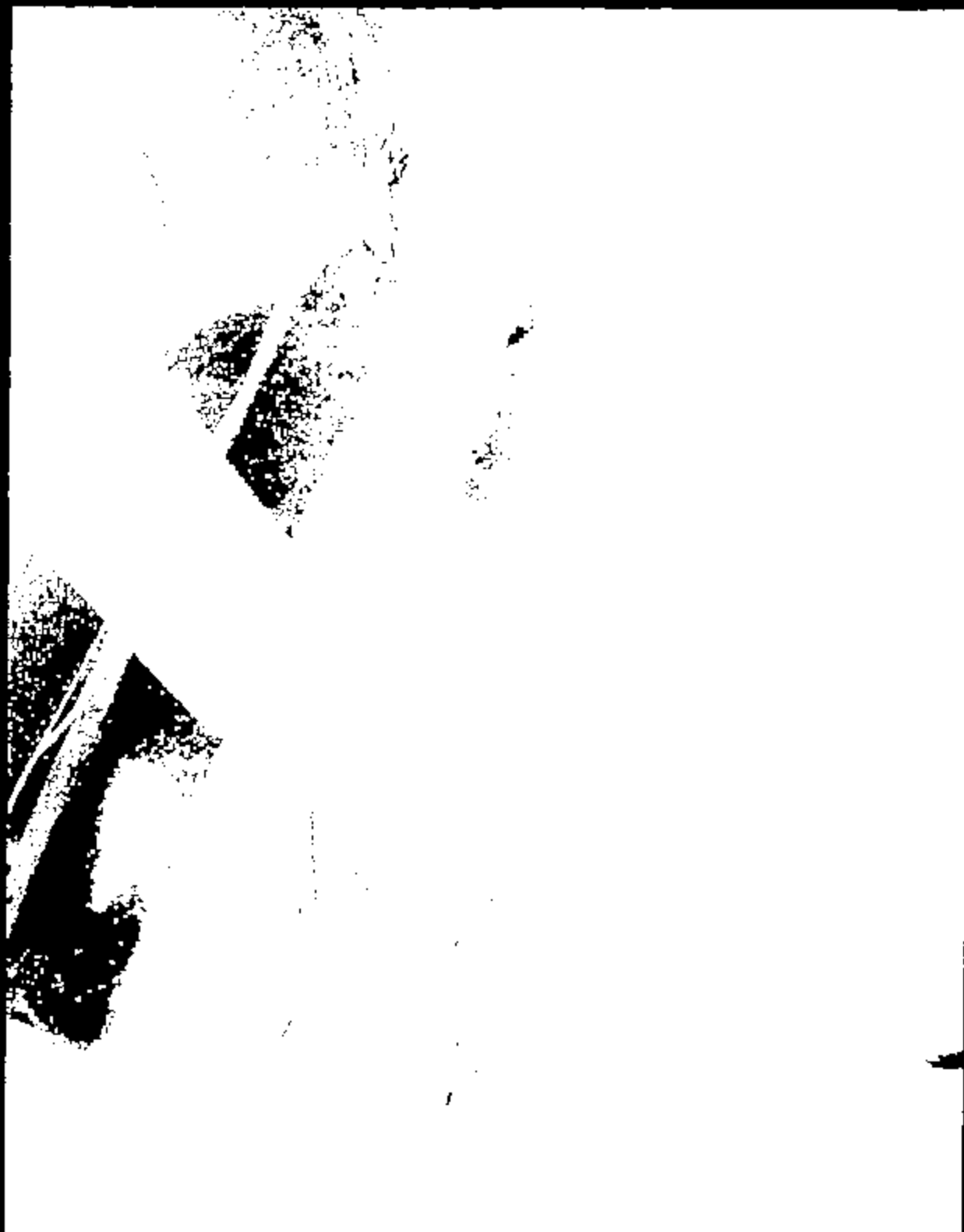
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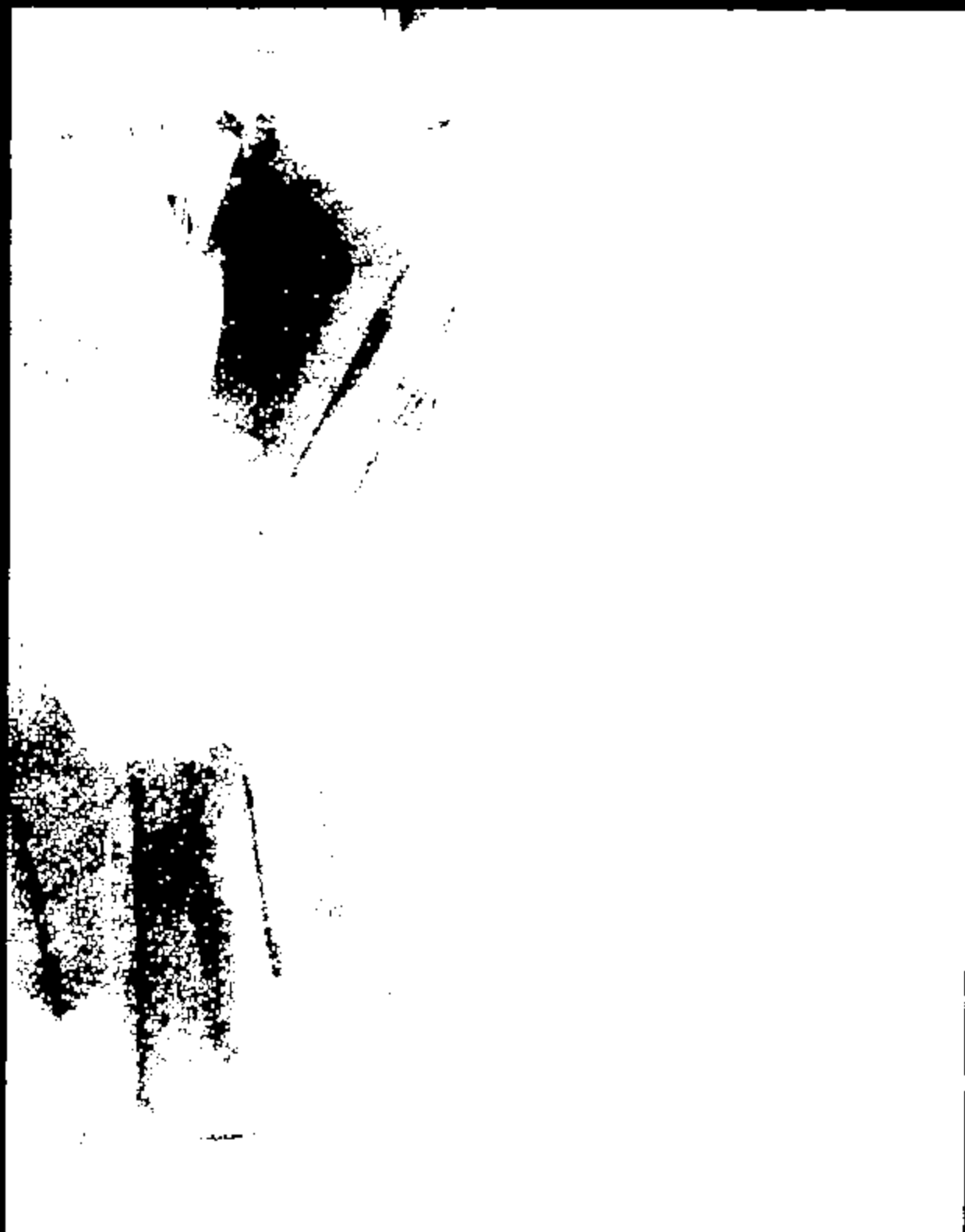
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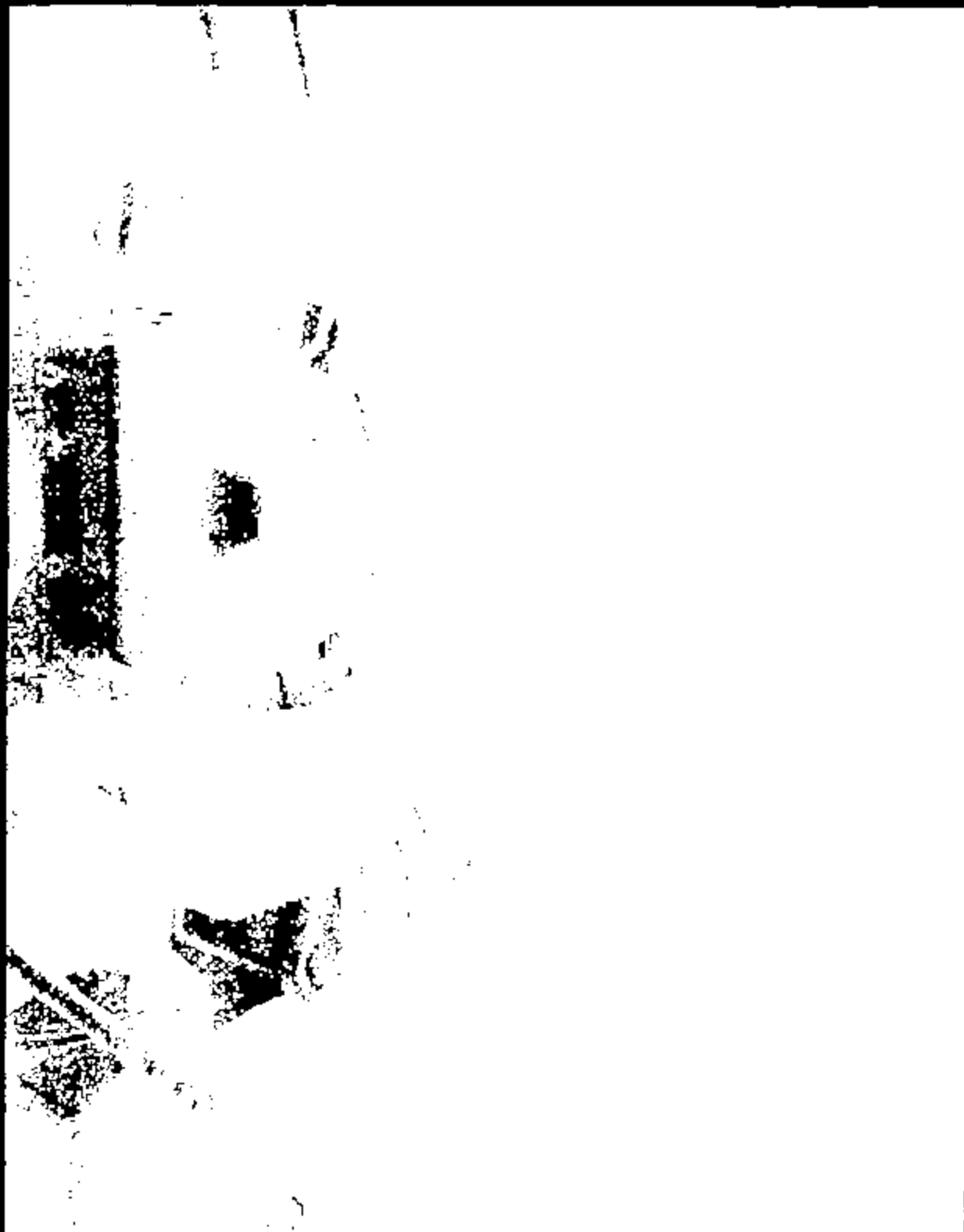
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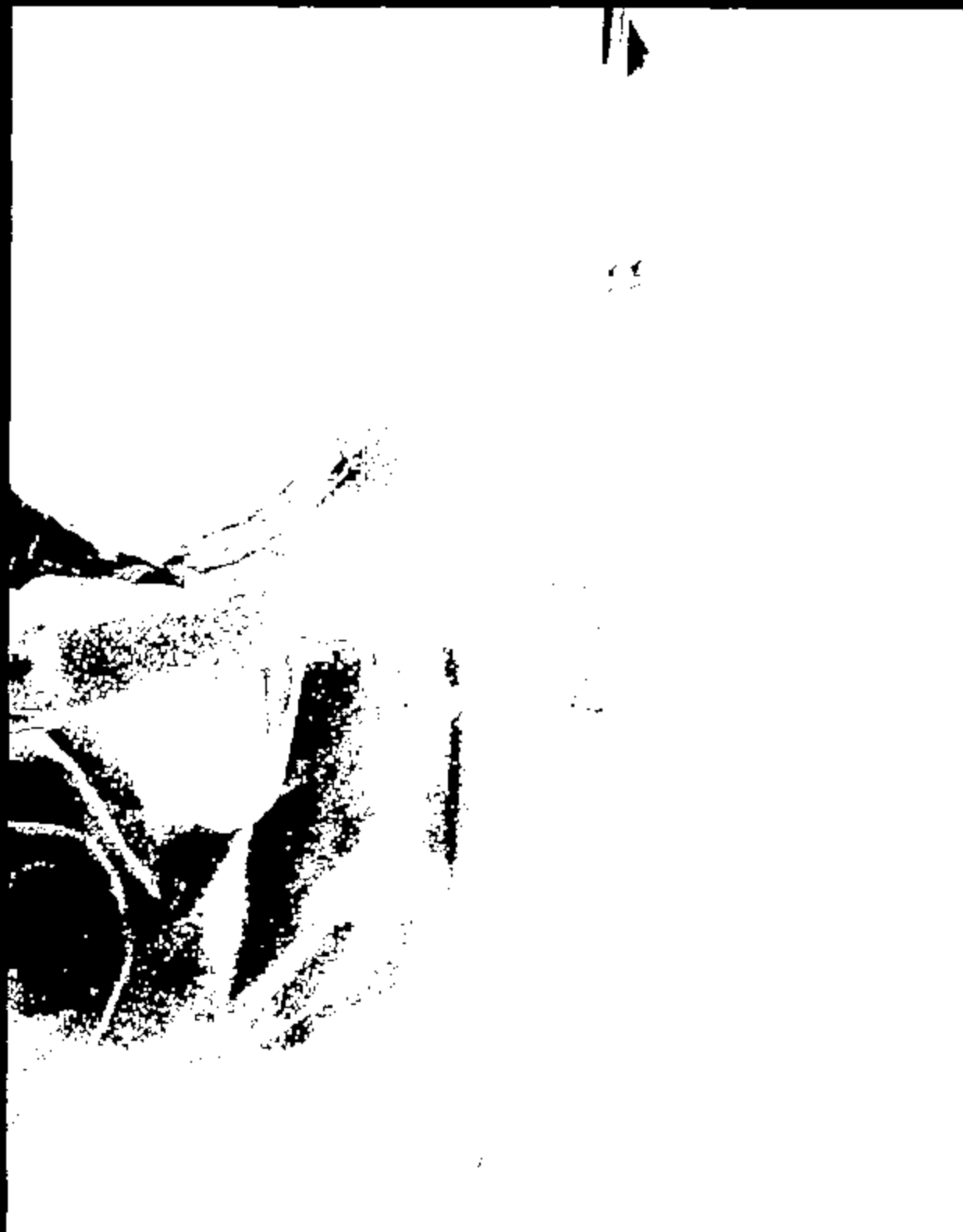
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TEST AUTHORIZATION				TEST ORDER NUMBER: TA3041					
TO: G. TOMAJ CC: K. Arthurs				REQUEST DATE: 6/26/97		REQUESTED COMPLETION DATE: 7/9/97			
				REQUEST NUMBER: 16-J16-4149		PROBLEM NUMBER: n/a			
				REQUESTING ACTIVITY: Vehicle Safety & CAR Technology					
TITLE OF TEST: 1999 FN145		(speed) 15 mph		(test description) Right Side Impact Pole		PARTS DUE DATE: n/a			
TYPE OF TEST: (X) VEHICLE () LABORATORY		[] BENCH [] OTHER		VIN # or IDENTIFICATION F09309 - 516T406 2FALP74W68X206357		VEHICLE MODEL & YEAR: 1999 FN145			
ENGINE NO. DISPL. CARB: 4.8L		TRANSMISSION: 4R70W		AXLE RATIO: n/a		TEST CONDUCTED TO CERTIFY CONTROL ITEM COMPLIANCE WITH GOV. REGULATIONS: Yes X No			
TYPE OF FLUID: NONE		CONVERTER: n/a		IGNITION TRANS: n/a		DISPOSITION OF PARTS: n/a			
CRANKCASE OIL AND CAPACITY (L): n/a		TIRE SIZE AND FLY RATING: P225 60R16		REPORT CATEGORIES: (X) ENGINEERING (X) DATA (X) RAW DATA		PROCUREMENT REQ? I YES I NO IF YES, GIVE CODE			
VEHICLE TEST WEIGHT: FRONT 2314 REAR 2306 TOTAL 4618		TIRE PRESSURE (psi): FRONT 32 REAR 32				MAIL REPORT TO: SLO: POC MAIL ORDP: MD158 ADDRESS: GA-F22			
1. OBJECT OF TEST 2. TEST PROCEDURE 3. ITEMS TO BE TESTED (NAME, NUMBER, QUANTITY) (speed) (year) (vehicle) (eval) (workhorse) 1) Conduct: 15 mph 1999 FN145 (mode) Right Side Impact Pole - "Slider" 2) Velocity At Impact: 15 mph 3) Vehicle Year: 1999 Remote Fire Time: 14 ms Vehicle Line: FN145 Positioning procedure: ST-15 Vehicle Level: workhorse Additional Contacts: (name) (phone) (paper number) D. R. Purdy 32-30498 DPUR E. Meier 84-57542 EMEI Estimated test cost = \$30,000.00 Test Dev. Engineer M. Foster 39-08074 MFOS									
REQUESTING SECT. NO: T-561	WORK ORDER/ WORK TASK: J10	ISSUED/ REQUESTED BY: D. R. Purdy	PHONE: 32-30498	APPROVAL: K. Arthurs 28-05155	TEST TYPE: n/a	REMARKS: n/a	ISSN OFF DATE: n/a		
REQUESTER: DO NOT WRITE BELOW THIS LINE									
WORK STANDARDS NUMBER:		TEST DESCRIPTION:							
MANDATORY				OPTIONAL					
TEST ORDER NO:	CATEGORY	RESP. SECTION:	EST. COMP. DATE:	REQ	TEST ENG. INITIALS:	UNIT CODE:	TEST ORDER DATE:	USER CODE:	PROD. CODE:
PERFORMING SECTION	HOURS	MATERIAL COST	COMP. COST	PARTS DUE DATE	EST. START DATE	EST. COMP DATE	STATUS	PERCENT COMPLETE	
TOTAL									

Form 100-100-100-100-100
Product: 70007 Product: 70007
Casting: 70007 Casting: 70007

Form 100-100-100-100-100
Test Authorization
Page 1 of 1

Form 100-100-100-100-100
Ver. 2.000 Ver. 2.000
Product: 70007 Product: 70007

CRTS 0010755

General Request Information

Test Mode

15 mph
Right Side Impact Pole

Test Objectives: Cert (C) Verif (V) Dev (D) Audit (A) Safety Guideline (SG)

☐ FMVSS 204 - Steering Wheel Displacement
☐ FMVSS 208 - Frontal Occupant Protection
☐ FMVSS 212 - Wind Shield Retention
☐ FMVSS 214 - Side Impact Protection
☐ FMVSS 219 - Windshield Zone Intrusion
☐ Film Analysis
☐ Template
☐ FMVSS 301 - Fuel System Integrity
☐ Rollover
☐ Pressure Check
☐ FMVSS 303 - NGV Fuel System Integrity
☒ D Sensor Development
☐ Door Openability
☐ ECE 32 Occupant Survival Space - Rear Impact
☐ ECE 33 Occupant Survival Space - Frontal Impact
☐ ECE 34 Fuel System Integrity
☐ ECE 84 Step II - Frontal Offset
☐ ECE / M / 133 STEP II - 300mm Barrier Side Impact
☐
☐

Primary Test Vehicle Information

Use (Target/Built):	Build TARGET
Model Year:	1999
Vehicle Program:	PN148
Vehicle Name:	Town Car
Body Style:	Sedan
Build Number:	FM205
Tag Number:	816T408
VIN Number:	2FALP74W6PC206367
Fuel System Rated Capacity:	18 gal
Prototype Level:	workhorse
Drive Side:	Left Hand Drive

<<< <<< END OF SHEET >>> >>>

Special Prep/Built Instructions Primary Vehicle

Special Build Instructions

☐ Remove Side View Mirrors
☐ Remove Headrests
☐ Remove Hood
☐ Remove Arm rest
☐ Remove Bottom of Bumper Cover
☐ Cut Off Brake & Clutch Pedal
☒ Color Contrast Under Hood Components

Other, Specify:

Pyro Restraints Usage

☐ Left Front Air Bag
☐ Right Front Air Bag
☐ Left Side Air Bag
☒ Right Side Air Bag (In Seat Back)
☐ Left Pyro Retractor
☐ Left Pyro Buckle
☐ Right Pyro Retractor
☐ Right Pyro Buckle

Other, Specify:

☐ 14 ms Remote Fire Time:
 (No fire time listed if sensor fired OR if no pyro restraints are used)

Special Pre-Test Preparation

Other, Specify:

<OK OK END OF SHEET OK OK

Occupant / ATD Request Primary Vehicle

	Occupant 1	Occupant 2
Type	<u>BIOSID</u>	<u>None</u>
Instrumentation Level*	<u>Development</u>	<u>Development</u>
In-Vehicle Location	<u>RF</u>	<u>FR</u>
Verify: Seat Position Long	<u>mid track travel</u>	<u></u>
Seat Position Vert	<u>Full Down</u>	<u></u>
Seat Back Angle	<u>20.7 degrees</u>	<u></u>
Positioning Procedure	<u>ST-15</u>	<u>ST-15</u>
Use Foot Rest	<u></u>	<u></u>
Take Seat Track Video	<u></u>	<u></u>
Special Positioning Instructions	<u></u>	<u></u>
Dummy Adjustment (arm angle)	<u>0 deg (BIOSID)</u>	<u></u>
Occupant Belted	<u>YES</u>	<u>NO</u>

*See instrumentation request for detailed instrumentation information.

*** END OF SHEET ***

Dimensional Analysis Request
Primary Vehicle

Frontal Impacts

1	1	Frontal Impact	100%
2	2	Frontal Impact	100%
3	3	Frontal Impact	100%
4	4	Frontal Impact	100%
5	5	Frontal Impact	100%
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Side Impacts

1	1	Side Impact	100%
2	2	Side Impact	100%
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Rear Impacts

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54	54	Rear Impact	100%
55	55	Rear Impact	100%
56	56	Rear Impact	100%
57	57	Rear Impact	100%
58	58	Rear Impact	100%
59	59	Rear Impact	100%
60	60	Rear Impact	100%
61	61	Rear Impact	100%
62	62	Rear Impact	100%
63	63	Rear Impact	100%
64	64	Rear Impact	100%
65	65	Rear Impact	100%
66	66	Rear Impact	100%
67	67	Rear Impact	100%
68	68	Rear Impact	100%
69	69	Rear Impact	100%
70	70	Rear Impact	100%
71	71	Rear Impact	100%
72	72	Rear Impact	100%
73	73	Rear Impact	100%
74	74	Rear Impact	100%
75	75	Rear Impact	100%
76	76	Rear Impact	100%
77	77	Rear Impact	100%
78	78	Rear Impact	100%
79	79	Rear Impact	100%
80	80	Rear Impact	100%
81	81	Rear Impact	100%
82	82	Rear Impact	100%
83	83	Rear Impact	100%
84	84	Rear Impact	100%
85	85	Rear Impact	100%
86	86	Rear Impact	100%
87	87	Rear Impact	100%
88	88	Rear Impact	100%
89	89	Rear Impact	100%
90	90	Rear Impact	100%
91	91	Rear Impact	100%
92	92	Rear Impact	100%
93	93	Rear Impact	100%
94	94	Rear Impact	100%
95	95	Rear Impact	100%
96	96	Rear Impact	100%
97	97	Rear Impact	100%
98	98	Rear Impact	100%
99	99	Rear Impact	100%
100	100	Rear Impact	100%

Instrumentation and Data Processing Request

Primary Vehicle Structural Instrumentation - Frontal Impact

ACCELEROMETERS:	Long	Vert	Lat
Engine/Trans Upper			
Engine/Trans Lower			
Left Rocker at B-Pillar			
Right Rocker at B-Pillar			
Left Frame at B-Pillar			
Right Frame at B-Pillar			
Left A-Pillar Inside			
Right A-Pillar Inside			
Centerline Tunnel @ Dash			
Centerline Tunnel Middle			
Centerline Tunnel @ Seat Long Centerline			
Left Floor Pan Under Seat			
Left Door Inside Top			
Left Shock Tower			
Right Floor Pan Under Seat			
Right Door Inside Top			
Right Shock Tower			
Rear Support Top - Center			
#1 Crossmember Bottom			
#2 Crossmember Bottom			
Left Front Rail Forward of Sledrunners			
Left Front Rail Forward of Shock Tower			
Right Front Rail Forward of Sledrunners			
Right Front Rail Forward of Shock Tower			
Directly Below O.A. Point # 60			
Directly Below O.A. Point # 64			

Primary Vehicle Structural Instrumentation - Side Impact

ACCELEROMETERS:	Long	Vert	Lat
1/ A-PILLAR_INSIDE @ ROCKER			
1/ A-PILLAR_INSIDE @ HINGE			
R/ A-PILLAR_INSIDE @ HINGE			
X 1/ F_DOOR @ BELTLINE MID			X
X 1/ F_DOOR_OVER_ARMREST			X
X 1/ F_DOOR_REAR_OF_SEAT_H-PT			X
X 1/ F_DOOR_SPEAKER_HOLE			X
X 1/ B-PILLAR_INSIDE @ ROOF			X
X 1/ B-PILLAR_INSIDE @ BELTLINE			X
1/ B-PILLAR_INSIDE @ ROCKER			
1/ R_DOOR @ BELTLINE MID			
1/ R_DOOR_OVER_ARMREST			
X 1/ ROCKER @ FRONT_SEAT MID	X	X	X
X 1/ ROCKER @ REAR_SEAT MID	X	X	X
X R/ ROCKER @ FRONT_SEAT MID	X	X	X
X R/ ROCKER @ REAR_SEAT MID	X	X	X
FRONT_FLOOR_PAN @ CL			
FLOOR_PANEL @ 1/ F_SEAT_CL			
FLOOR_PANEL @ R/ F_SEAT_CL			

CL_TUNNEL @ FRONT_SEAT
 REAR_FLOOR_PAN_ABOVE_AXLE

XXXX**Primary Vehicle Structural Instrumentation - Rear Impact****ACCELEROMETERS:****Long****Vert****Lat** Left Rocker Panel at "B" Pillar Right Rocker Panel at "B" Pillar Left Frame Rail at "B" Pillar Right Frame Rail at "B" Pillar **OTHER STRUCTURAL ACCELS:****Long****Vert****Lat** X Near Fuel Inertia Switch (A-Pillar) X X X

Secondary Vehicle Structural Instrumentation**ACCELS:**

	Long	Vert	Lat
____ MDR_CENTER_OF_GRAVITY	____	____	____
____ MDS_LEFT_FRAME_RAIL	____	____	____
____ MDS_RIGHT_FRAME_RAIL	____	____	____
____ MDS_REAR_HONEYCOMB @ C-L	____	____	____
____ MDS BUMPER_FACE @ C-L	____	____	____
____ MDS BUMPER_FACE @ L-S	____	____	____
____ MDS BUMPER_FACE @ R-S	____	____	____
	Long	Vert	Lat
____ Left Rocker Panel at "A" Pillar	____	____	____
____ Right Rocker Panel at "A" Pillar	____	____	____
____ Left Rocker Panel at "B" Pillar	____	____	____
____ Right Rocker Panel at "B" Pillar	____	____	____

OTHER SECONDARY VEHICLE ACCELS:

	Long	Vert	Lat
____	____	____	____
____	____	____	____

Primary Vehicle Systems Instrumentation**SENSOR ACCELS:**

☐ L/Rad Upper Front
☐ C/Rad Upper Front
☐ R/Rad Upper Front
☐ C/L Tunnel Forward
☐ C/L Tunnel Between Seats
☐
☐

Long	Vert	Lat
☐	☐	☐
☐	☐	☐
☐	☐	☐
☐	☐	☐
☐	☐	☐
☐	☐	☐
☐	☐	☐
☐	☐	☐

MONITOR AIR BAG SENSORS:

☒ See Sensor Map
☒ Monitor Closure of Each Specified Sensor
☒ Monitor Closure of Single Ft. Elect Sensor

MONITOR AIR BAGS STATUS:

☐ Driver Squib Voltage
☐ Driver Squib Current
☐ Driver Bag Pressure
☒ Passenger Squib Voltage (In Seat)
☒ Passenger Squib Current (In Seat)
☐ Passenger Bag Pressure
☐ Passenger Inflator Pressure

RESTRAINT LOADS:

☐ Left Belt Tongue - Strain Gaged
☐ Left Pyro-Technic Buckle Squib Voltage
☐ Left Pyro-Technic Buckle Squib Current
☐ Right Belt Tongue - Strain Gaged
☐ Right Pyro-Technic Buckle Squib Voltage
☐ Right Pyro-Technic Buckle Squib Current
☐ Left Lap Belt at Anchor Load
☐ Left Torso Belt at Retractor Load
☐ Left Torso Belt at D-ring Load
☐ Right Lap Belt at Anchor Load
☐ Right Torso Belt at Retractor Load
☐ Right Torso Belt at D-ring Load

STEERING COLUMN:

☐ Stroke Break Wires
☐ Tie Mechanism Break Wires
☐ String Pot
☐ Load Cell (S Axis)
☐
☐

SWITCHES:

☐ Engine to Rad Support left
☐ Engine to Rad Support center
☐ Engine to Rad Support right
☐ Brake booster to shock tower
☒ Right Front Seat Back Side (Low) - Foli Switch
☒ Right Front Seat Cushion Side - Fall Switch

FUEL SYSTEM:

☒ Inertia Fuel System Cut-Off Switch

ANGULAR MOTION SENSORS

☐
☐

VEHICLE STRING POTS

☐

CRTS 0010788

OTHER VEHICLE SYSTEM INSTRUMENTATION

X See Sensor Map

Dummy Instrumentation - Internal**ACCELS:**

☐ Head C.G.
☐ Chest
☐ Pelvis

☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat

LOAD CELLS:

☐ Neck Upper Load
☐ Neck Upper Moment
☐ Neck Lower Load
☐ Neck Lower Moment
☐ Thoracic Load
☐ Thoracic Moment
☐ Lower Lumbar Load
☐ Lower Lumbar Moment
☐ L/Femur Load
☐ L/Femur Moment
☐ R/Femur Load
☐ R/Femur Moment
☐ L/Up/Tibia Moment & Load
☐ R/Up/Tibia Moment & Load
☐ L/Low/Tibia Moment & Load
☐ R/Low/Tibia Moment & Load

☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz

POTENTIOMETERS:

☐ Chest Deflection
☐ Knee Slider - Left
☐ Knee Slider - Right

☐ Disp
☐ Disp
☐ Disp

OTHER INTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - External**CONTACT SWITCHES:**

☐ L / Knee Contact
☐ R / Knee Contact
☐ Header

STRING POTS:

☐ Pelvis
☐ L / Knee
☐ R / Knee

OTHER EXTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - Internal**ACCELS:**

☐ Head C.G.
☐ Chest
☐ Pelvis

☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat

LOAD CELLS:

☐ Neck Upper Load
☐ Neck Upper Moment
☐ Neck Lower Load
☐ Neck Lower Moment
☐ Thoracic Load
☐ Thoracic Moment
☐ Lower Lumbar Load
☐ Lower Lumbar Moment
☐ L/Femur Load
☐ L/Femur Moment
☐ R/Femur Load
☐ R/Femur Moment
☐ L/Up/Tibia Moment & Load
☐ R/Up/Tibia Moment & Load
☐ L/Low/Tibia Moment & Load
☐ R/Low/Tibia Moment & Load

☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz

POTENTIOMETERS:

☐ Chest Deflection
☐ Knee Slider - Left
☐ Knee Slider - Right

☐ Disp
☐ Disp
☐ Disp

OTHER INTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - External**CONTACT SWITCHES:**

☐ L / Knee Contact
☐ R / Knee Contact
☐ Header

STRING POTS:

☐ Pelvis
☐ L / Knee
☐ R / Knee

OTHER EXTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - Internal**BIOCID****R/F****ACCELS:**

☐ LF_DUMMY_HEAD_C.G.
☐ LF_DUMMY_T1
☐ LF_DUMMY_T17
☐ LF_DUMMY_T12
☐ LF_DUMMY_T127
☐ LF_DUMMY_PELVIS
☐ LF_DUMMY_PELVIS7
☐ LF_DUMMY_THORAXREAR7
☐ LF_DUMMY_THORAXREAR7
☐ LF_DUMMY_THORAXREAR7
☐ LF_DUMMY_THORAXREAR7

☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat
☐ Lat - L ☐ Lat - R
☐ Long ☐ Vert ☐ Lat
☐ Lat - FRT ☐ Lat - REAR
☐ Long ☐ Vert ☐ Lat
☐ Lat - L ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR

LOAD CELLS:

☐ LF_DUMMY_ABDOMEN_LOAD_FRONT (EURO)
☐ LF_DUMMY_ABDOMEN_LOAD_MID (EURO)
☐ LF_DUMMY_ABDOMEN_LOAD_REAR (EURO)
☐ LF_DUMMY_THORACIC_SPINE_LOAD
☐ LF_DUMMY_THORACIC_SPINE_LOAD
☐ LF_DUMMY_LUMBAR_SPINE_LOAD
☐ LF_DUMMY_LUMBAR_SPINE_LOAD
☐ LF_DUMMY_PUBIC_LOAD (EURO)

☐ Fy
☐ Fy
☐ Fy
☐ Fx ☐ Fy ☐ Fz
☐ Fx ☐ Fy ☐ Fz
☐ Fx ☐ Fy ☐ Fz

POTENTIOMETERS:

☐ LF_DUMMY_CHEST_DEFLECTION (SID)
☐ LF_DUMMY_THORAXREAR7DISP (EURO)
☐ LF_DUMMY_THORAXREAR7DISP (EURO)
☐ LF_DUMMY_THORAXREAR7DISP (EURO)

☐ Disp
☐ Disp
☐ Disp
☐ Disp

OTHER INTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - External**CONTACT SWITCHES:**

☒ LF_DUMMY_HEAD_SW
☒ LF_DUMMY_ARM_SW
☒ LF_DUMMY_THORAX_SW
☒ LF_DUMMY_ABDOMEN_SW
☒ LF_DUMMY_H-POINT_SW
☒ LF_DUMMY_THIGH_SW

OTHER EXTERNAL DUMMY INSTRUMENTATION:

☐
☐

None

R/R

Dummy Instrumentation - Internal**ACCELS:**

☐ L/R_DUMMY_HEAD_C.G.
☐ L/R_DUMMY_T1
☐ L/R_DUMMY_T1/
☐ L/R_DUMMY_T12
☐ L/R_DUMMY_T12/
☐ L/R_DUMMY_PELVIS
☐ L/R_DUMMY_PELVIS/
☐ L/R_DUMMY_THORAXRIB/LP/
☐ L/R_DUMMY_THORAXRIB/O/
☐ L/R_DUMMY_THORAXRIB/LO/

☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat
☐ Lat - L ☐ Lat - R
☐ Long ☐ Vert ☐ Lat
☐ Lat - FRT ☐ Lat - REAR
☐ Long ☐ Vert ☐ Lat
☐ Lat - L ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR

LOAD CELLS:

☐ L/R_DUMMY ABDOMEN_LOAD_FRONT (EURO)
☐ L/R_DUMMY ABDOMEN_LOAD_MID (EURO)
☐ L/R_DUMMY ABDOMEN_LOAD_REAR (EURO)
☐ L/R_DUMMY_THORACIC_SPINE_LOAD
☐ L/R_DUMMY_THORACIC_SPINE_LOAD
☐ L/R_DUMMY_LUMBAR_SPINE_LOAD
☐ L/R_DUMMY_LUMBAR_SPINE_LOAD
☐ L/R_DUMMY_PUBIC_LOAD (EURO)

☐ Fy
☐ Fy
☐ Fy
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Fz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Fy

POTENTIOMETERS:

☐ L/R_DUMMY_CHEST_DEFLECTION (MM)
☐ L/R_DUMMY_THORAXRIB/ADISP (EURO)
☐ L/R_DUMMY_THORAXRIB/CDISP (EURO)
☐ L/R_DUMMY_THORAXRIB/LODISP (EURO)

☐ Disp
☐ Disp
☐ Disp
☐ Disp

OTHER INTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - External**CONTACT SWITCHES:**

☐ L/R_DUMMY_HEAD_SW
☐ L/R_DUMMY_ARM_SW
☐ L/R_DUMMY_THORAX_SW
☐ L/R_DUMMY ABDOMEN_SW
☐ L/R_DUMMY_H-POINT_SW
☐ L/R_DUMMY_THIGH_SW

OTHER EXTERNAL DUMMY INSTRUMENTATION:

Film Analysis & Photographic Services Request**Front Impact Film Analysis**

☐ Head WRT Vehicle
☐ Shoulder WRT Vehicle
☐ Rocker WRT Ground

Other, Specify:

Side Impact Film Analysis

☒ Impact Speed
☒ Impact Angle
☒ Dummy Head wrt Vehicle Lateral
☒ Dummy Head wrt Vehicle Vertical
☒ Dummy Head wrt Vehicle Resident
☐ Cart wrt Vehicle Impact Point
☒ Dummy Chest wrt Vehicle (Lat)
☐ Cart wrt Vehicle Intrusion (overhead)
☒ Vehicle wrt Pole Intrusion (overhead)
☒ Dummy Head wrt Pole

Other, Specify:

Rear Impact Film Analysis

Other, Specify:

Still Photography

☐ Copies of Still Photo Proof Sheets Required
☐ Copies of Still Photos (4X5) Required
☒ Pre Test Documentation Photographs
☒ Post Test Documentation Photographs

High Speed Photographic Requirements

☐ 2 Copies of High Speed Film Required
☐ Copies of High Speed Film Required in VHS Format
☐ Digitization of Driver/ Passenger Kinematics
☐ Format

High Speed Cameras for Front Impact**On-Board Vehicle**

_____ Onboard - LEFT Occupant Over Shoulder
 _____ Onboard - RIGHT Occupant Over Shoulder
 _____ Onboard - Driver "D" Ring
 _____ Onboard - Driver Retractor (Lower)
 _____ Onboard - Driver Lower Torso to IP Contact, From Rear, Cross Car
 _____ Onboard - Passenger Lower Torso to IP Contact, From Rear, Cross Car
 _____ Onboard - Passenger "D" Ring
 _____ Onboard - Passenger Retractor (Lower)
 _____ Onboard - Driver Door (Left Knee to Bolster)
 _____ Onboard - Passenger Door (Knee to IP)
 _____ Onboard - Photo Sonic (Intermediate Shaft) - From Floor
 _____ Onboard - Photo Sonic (Intermediate Shaft) - Side View From Tunnel
 _____ Onboard - Fiber Optics (Intermediate Shaft) - From Floor
 _____ Onboard - Fiber Optics (Intermediate Shaft) - Side View From Tunnel

Floor Coverage

_____ Left Occupant Over Shoulder, On tripod, from rear, cross car
 _____ Right Occupant Over Shoulder, On tripod, from rear, cross car
 _____ Left Occupant Over Shoulder, In lights
 _____ Right Occupant Over Shoulder, In lights
 _____ Overall Left
 _____ Barrier to B-Pillar Left
 _____ Dummy Kinematics & Velocity Left
 _____ Overall Right
 _____ Barrier to B-Pillar Right
 _____ Dummy Kinematics & Velocity Right
 _____ Top of Barrier - Overall View of Windshield
 _____ Top of Barrier - Driver
 _____ Top of Barrier - Passenger
 _____ Left Front Rail Extension Bumper Close-up
 _____ Right Front Rail Extension Bumper Close-up

Overhead Coverage

_____ Overhead - Overall
 _____ Overhead - A-Pillar Forward
 _____ Steering Column Displacement
 _____ Scale
 _____ Resection

PI Coverage

_____ PI - Overall
 _____ PI - A-Pillar Forward
 _____ PI - L/R Frame Home (Circross)
 _____ PI - L/R Front Rails #1 X/M Rearward
 _____ PI - Steering Gear Close-up
 _____ PI - Fuel Tank

_____ Places of Plex-Glass to be removed from pit.

High Speed Cameras for Side Impact

On-Board Vehicle

_____ Front Dummy from Vehicle Hood
☒ Front Dummy from Opposite Window Opening
 _____ Rear Dummy from Opposite Window Opening
 _____ Rear Dummy from Vehicle Trunk
☒ View of Front Seat to Show Dummy Interaction with Trim from Front (Fiber Optic)
☒ View of Front Seat to Show Dummy Interaction with Trim from Rear Seat
☒ View of Front Seat to Show Dummy Interaction with Trim from Left Head
☒ View of Front Seat to Show Dummy Interaction with Trim from Center Head

Secondary Vehicle Coverage

_____ ON BOARD CART, Cart Centerline - View of Impact

Floor Coverage

☒ Full Left View of Impact
☒ Full Right View of Impact
☒ Front 3/4 View of Impact
☒ Rear 3/4 View of Impact
☒ View of Cart for Velocity determination

Pit Coverage

☒ Cart contact - view of impacted side of vehicle with cart contact
☒ Cart contact - overlap view of impacted side of vehicle with cart contact

Overhead Coverage

☒ Overall view of impacted vehicle side including cart
☒ view of impacted vehicle side focus on front door opening area

High Speed Cameras for Rear Impact

Floor Coverage

_____ Overall Left
 _____ Velocity Left
 _____ Overall Right
 _____ Velocity Right
 _____ A-Pillar Forward Left
 _____ A-Pillar Forward Right
 _____ Left B-Pillar Rearward (Target)
 _____ Right B-Pillar Rearward (Target)
 _____ Left Side 45 Degree Angle of Contact Area (from rear)
 _____ Right Side 45 Degree Angle of Contact Area (from front)

Overhead Coverage

_____ Overhead - Overall
 _____ Overhead - A-Pillar Forward

Overhead - B-Pillar Rearward

Pit Coverage

Pit - Fuel Tank

Pit - Overlap of Fuel Tank

Pit - Filler Pipe

All Other High Speed Photography

Test Conditions - Final Prep

T.O.#: 1A3041

Final Prep Contacts

ONE of these MUST be present during weigh-up & final prep

	Test Engineer	Request Engineer	Build Coordinator
Name:	<u>M. Foster</u>	<u>D. R. Purdy</u>	<u>E. Meier</u>
Phone:	<u>38-08074</u>	<u>32-30488</u>	<u>84-57542</u>
Pager:	<u>MF08</u>	<u>DPUR</u>	<u>EMER</u>

Tire Pressure

Front: 32Rear: 32

Fuel System

Fuel Tank & System to Contain: none

<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Fill Level	"	"	X	18 gal	Capacity
	"	X	X		

Weight Targets

If required weight distribution is UNACHIEVABLE, please note allowable variances.

	Curb Weight	Requested Test Weight	Acceptable Test Weight Variance		Actual Test Weight
			High (+)	Low (-)	
Front:	<u>2220</u>	<u>2314</u>	Front: <u>12</u>	<u> </u>	Front: <u>2316</u>
Rear:	<u>1802</u>	<u>2308</u>	Rear: <u>12</u>	<u> </u>	Rear: <u>2370</u>
Total:	<u>4022</u>	<u>4619</u>	Total: <u>24</u>	<u>0/VALUE1</u>	Total: <u>4686</u>

Rated Luggage Load: 200 lbs

Simulate/Verify at Weigh-Up

Dunway Weight

On Board Camera Count

Weight Addition (Restrictions)

Do NOT place any weight in the following locations:

<u> </u> Air Cleaner	<u> </u> Engine	<u> </u> X Doors
<u> </u> Battery	<u> </u> Fan Box/Shroud	<u> </u> X Foot Wells - Front
<u> </u> Bottle - Coolant	<u> </u> Headlamp Opnrs	<u> </u> X Foot Wells - Rear
<u> </u> Bottle - Washer	<u> </u> Radiator	<u> </u> X Quarter Panels
Other: <u> </u>		<u> </u> Trunk Floor

Ride Heights

Measure @ Test Weight

Front: 716Rear: 707

Measure

From: Wheel UpTo: Ground

Additional Remarks

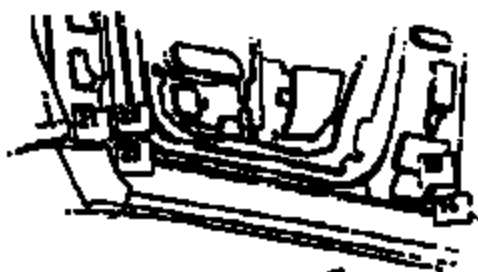
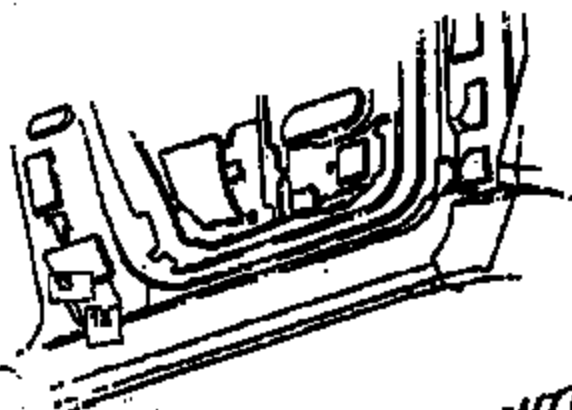
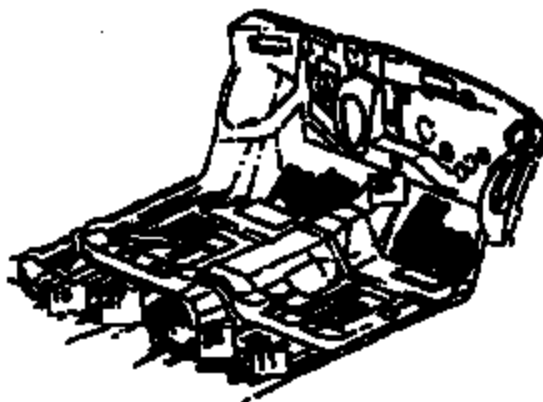
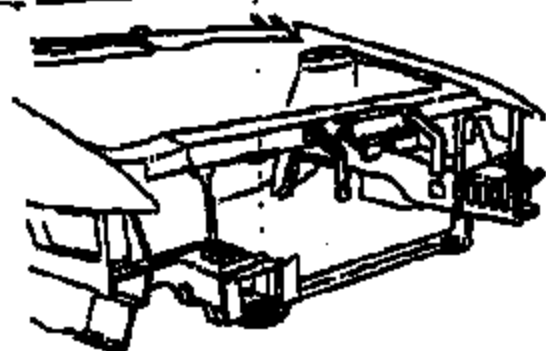
<<< <<< END OF SHEET >>> >>>

JUN 27 '97 10:55 AM

SENSOR MAP

Program: RV145
 Vehicle ID: FB8206
 Build Level: Phase 1 - Side
 Build Mode: 16 mph pole right

Engineer: Dave Telford
 Phone #: 810-308-4301
 Date: 6/27/97
 Time: 12:30 PM



MONITORED THRU ECS

Location Name	Type	Output	Normal (V)	Normal (A)	Serial ID
10 UND_L/F_SEAT_R_L/R_VOLT_STRT	Stemmed wire	status	2.5 ± 0.5		6001
11 UND_R/F_SEAT_R_R/R_VOLT_STRT	Stemmed wire	status	2.3 ± 0.5		6147
12 L/R-PLA_IN_R_VOLT_IN	anal	TR101			
13 L/R-PLA_IN_R_VOLT_IN	anal	TR102			
14 R/R-PLA_IN_R_VOLT_IN	anal	TR103			
15 R/R-PLA_IN_R_VOLT_IN	anal	TR104			
21 R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa Pres	0.5 ± 0.5		
21a R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or Tag	0.5 ± 0.5		
21b R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 2 Tag	0.5 ± 0.5		
21c R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 2 Tag	0.5 ± 0.5		
21d R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 3 Tag	0.5 ± 0.5		
21e R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 3 Tag	0.5 ± 0.5		
21f R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 4 Tag	0.5 ± 0.5		
21g R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 4 Tag	0.5 ± 0.5		
21h R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 5 Tag	0.5 ± 0.5		
21i R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 5 Tag	0.5 ± 0.5		
21j R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 6 Tag	0.5 ± 0.5		
21k R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 6 Tag	0.5 ± 0.5		
21l R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 7 Tag	0.5 ± 0.5		
21m R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 7 Tag	0.5 ± 0.5		
21n R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 8 Tag	0.5 ± 0.5		
21o R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 8 Tag	0.5 ± 0.5		
21p R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 9 Tag	0.5 ± 0.5		
21q R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 9 Tag	0.5 ± 0.5		
21r R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 10 Tag	0.5 ± 0.5		
21s R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 10 Tag	0.5 ± 0.5		
21t R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 11 Tag	0.5 ± 0.5		
21u R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 11 Tag	0.5 ± 0.5		
21v R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 12 Tag	0.5 ± 0.5		
21w R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 12 Tag	0.5 ± 0.5		
21x R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 13 Tag	0.5 ± 0.5		
21y R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Or 13 Tag	0.5 ± 0.5		
21z R/A-PLA_IN_R_VOLT_IN	Stemmed wire	Pa 14 Tag	0.5 ± 0.5		
22 R/A-PLA_IN_R_VOLT_IN	anal	TR101			
23 R/A-PLA_IN_R_VOLT_IN	anal	TR102			
24 R/A-PLA_IN_R_VOLT_IN	anal	TR103			
25 C/L_TH_R_VOLT_IN	anal	TR104			
26 UND_L/F_SEAT_R_L/R_VOLT_IN	anal	TR105			
27 UND_R/F_SEAT_R_R/R_VOLT_IN	anal	TR106			
28 UND_L/F_SEAT_R_L/R_VOLT_IN	anal	TR107			

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