



449

# MOBILITY SYSTEMS and EQUIPMENT COMPANY

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17 February 1982

Department of Transportation  
Federal Highway Administration  
400 Seventh Street, S.W., Room 215  
Washington, D.C. 20590

Attention: Mr. Charles McDevitt HRS-12

Subject: Improved Performance of Small Sign Supports  
Contract Number DTFH61-80-C-00170 (P-0131)  
Attachments to Progress Report Number 16

Dear Mr. McDevitt:

We are enclosing the following material, pertaining to Progress Report Number 16, January, 1982:

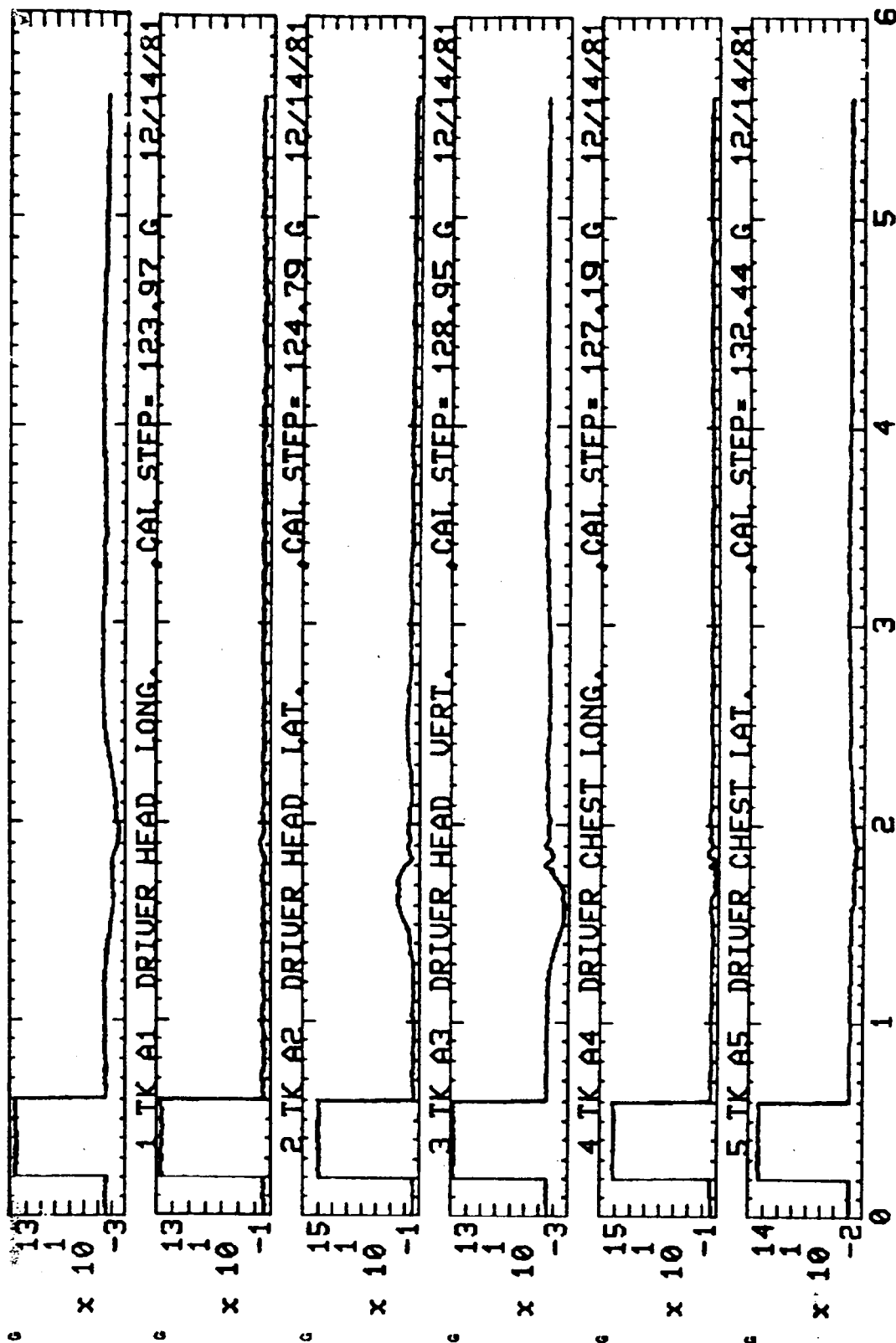
- Digital Magnetic Tape containing data from Test No. 2, Rigid Pole, 1981 Honda Civic.
- Set of plots from above tape.
- Force-time plots from Test No. 1, Rigid Pole, 1974 Chevrolet Vega.
- Force-time plots from Test No. 2, Rigid Pole, 1981 Honda Civic.

The January Progress Report has been mailed under separate cover.

Very truly yours,

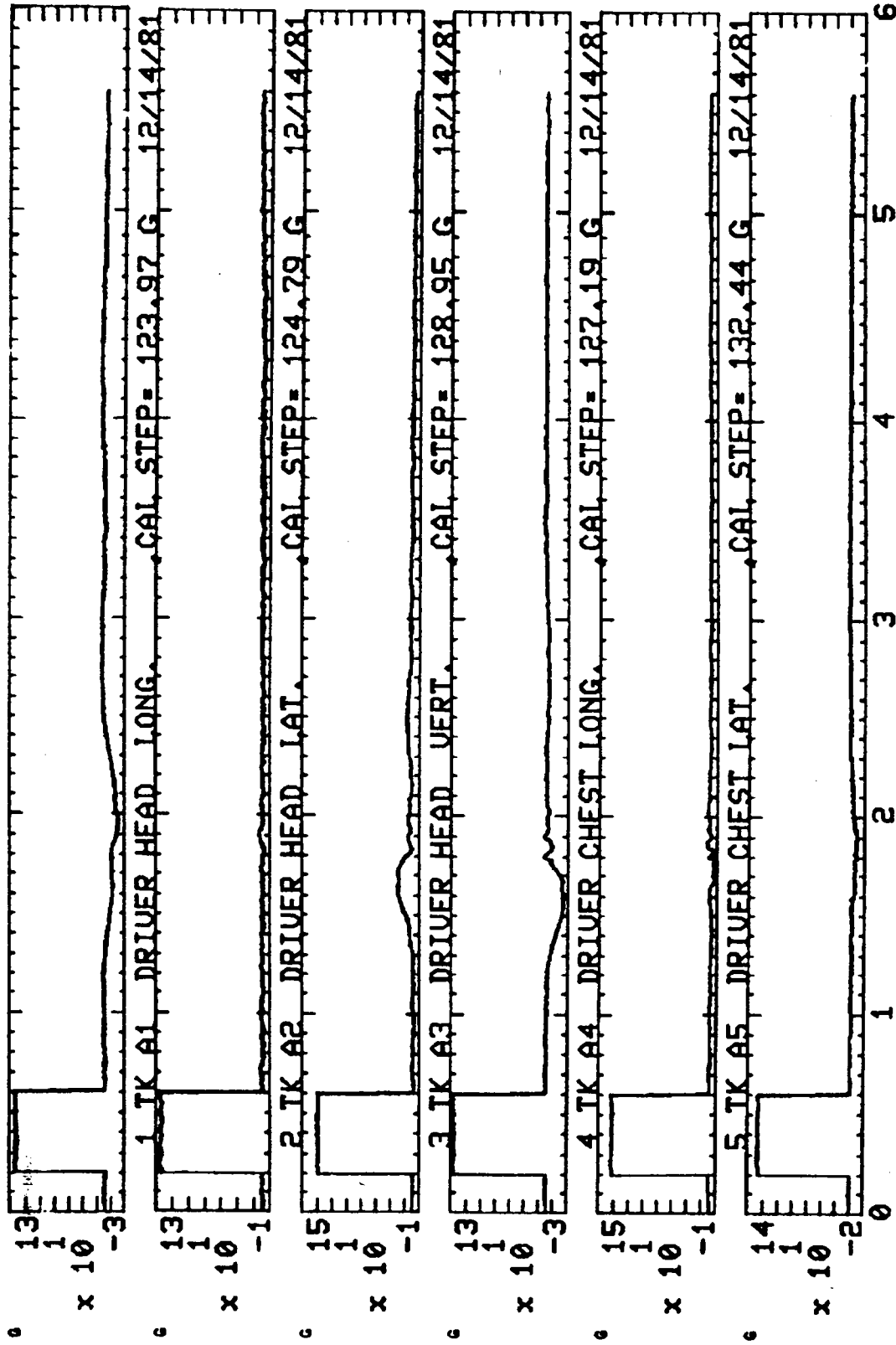
*Lloyd E. Carlson / 124B*  
Lloyd E. Carlson  
Project Manager

LEC:RLB/dl  
Enclosure



TIME AXIS SECONDS  
(WY.L. RMM)

MOBILITY SYSTEMS HONDA CIVIC  
6 TK A6 DRIVER CHEST VERT. ,CAL STEP= 126.52 G 12/14/81



-1

TIME AXIS SECONDS

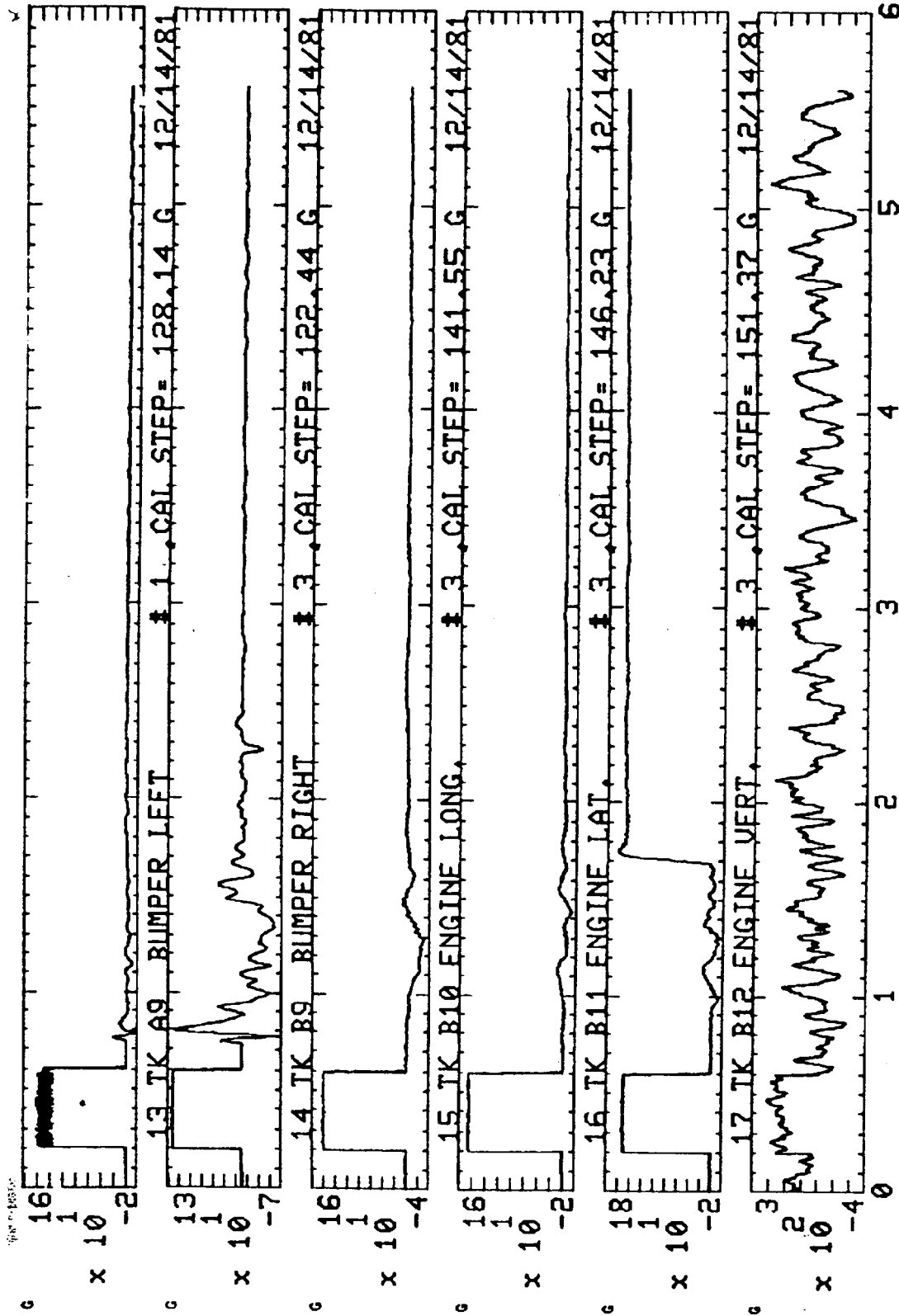
(WY.L. RMM)

MOBILITY SYSTEMS HONDA CIVIC

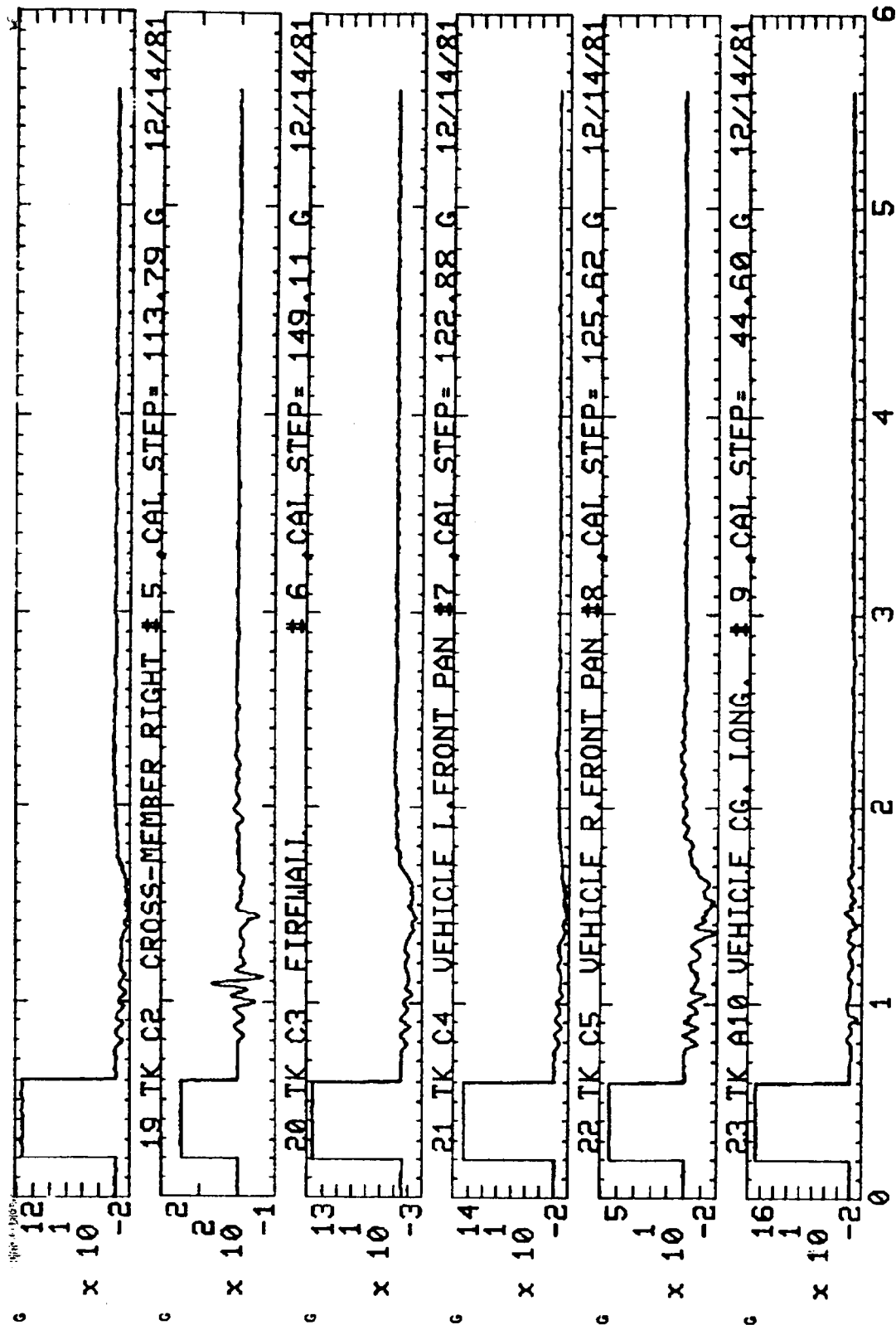
x 10

, CAL STEP= 126.52 G

12/14/81



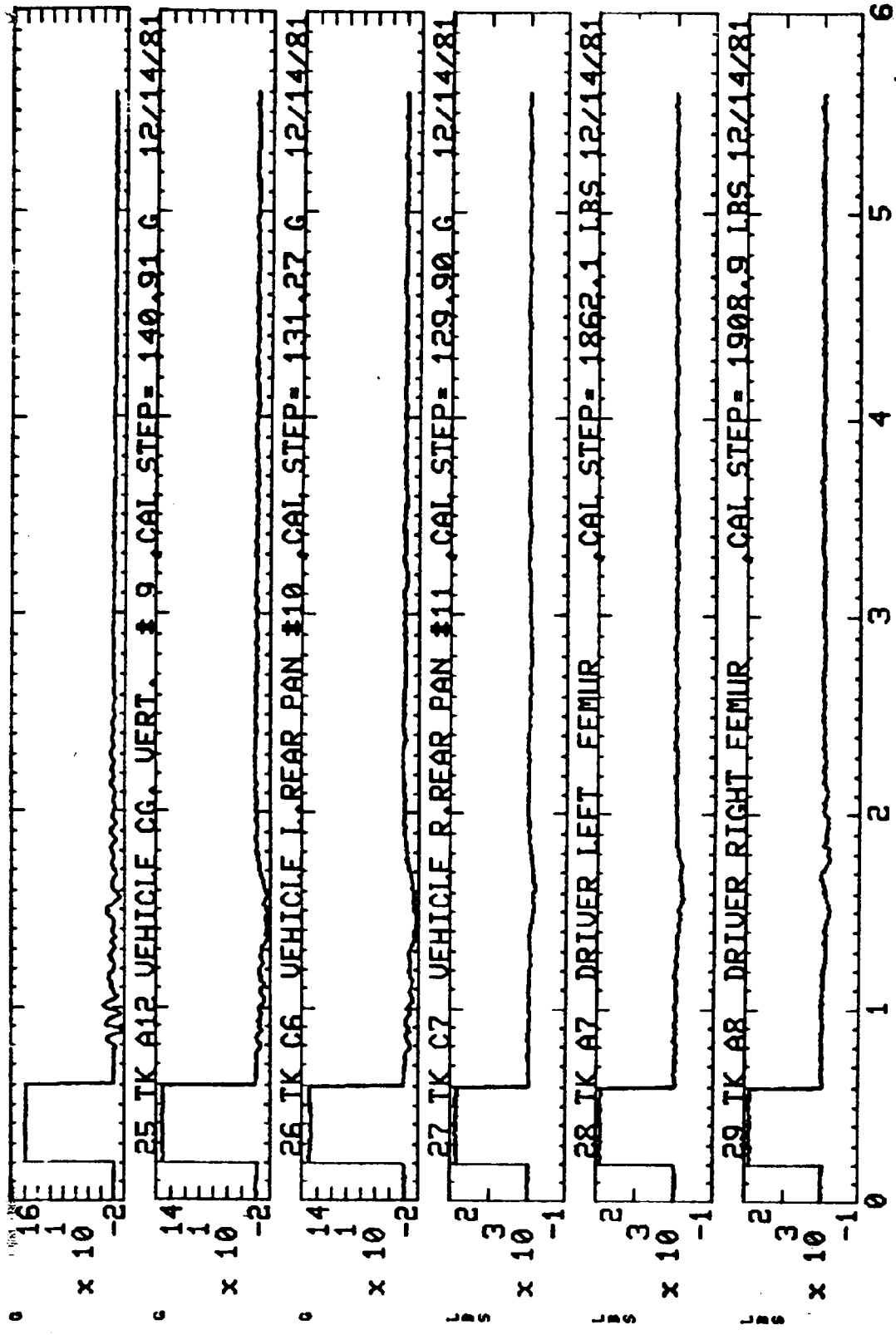
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)8K9K  
 TIME AXIS SECONDS x10<sup>-1</sup>  
 18 TK C1 CROSS-MEMBER LEFT # 4 ,CAL STEP= 118.10 G 12/14/81



MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)

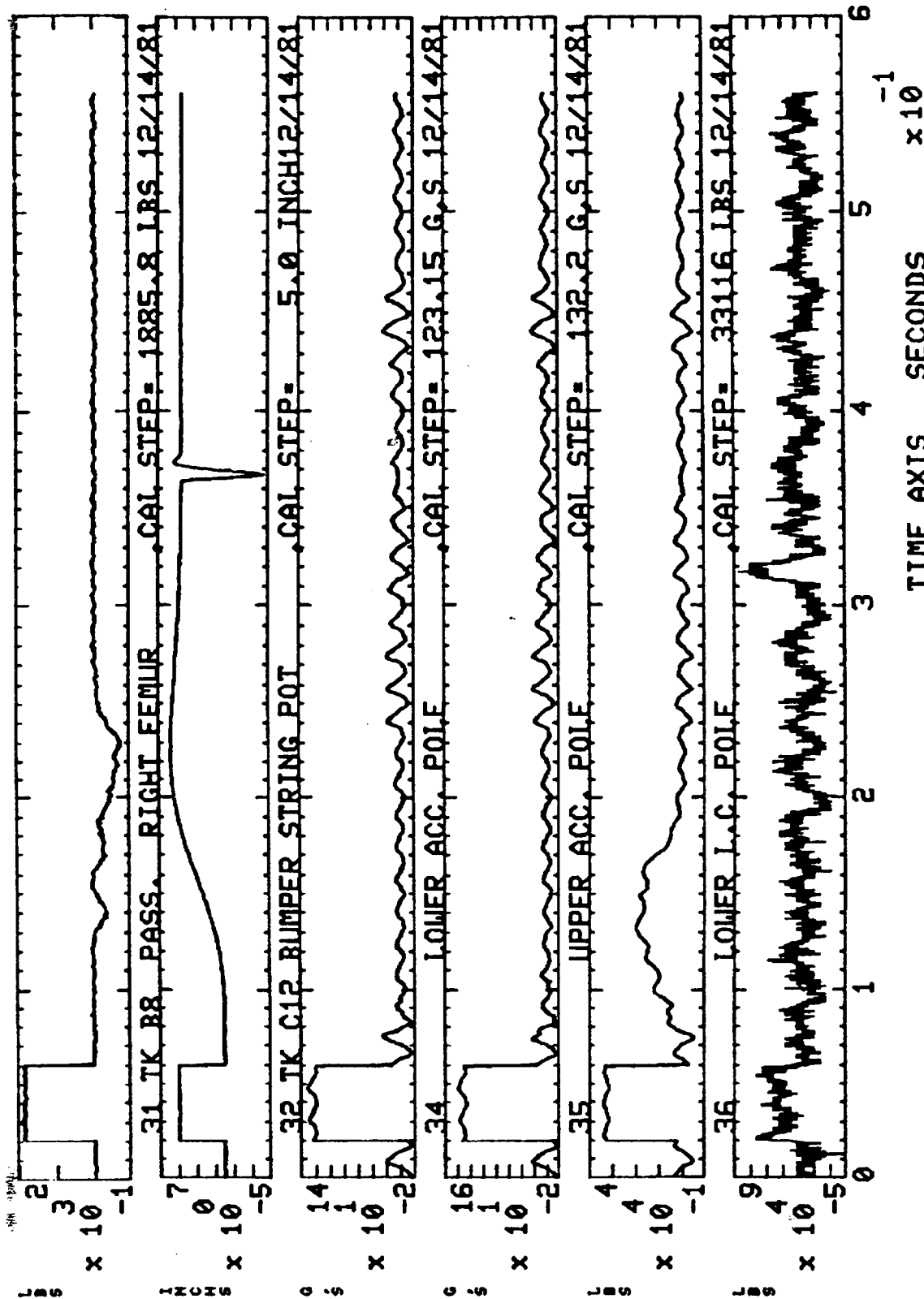
24 TK A11 VEHICLE CG. LAT. # 9 , CAL STEP= 148.38 G 12/14/81

-1  
x 10

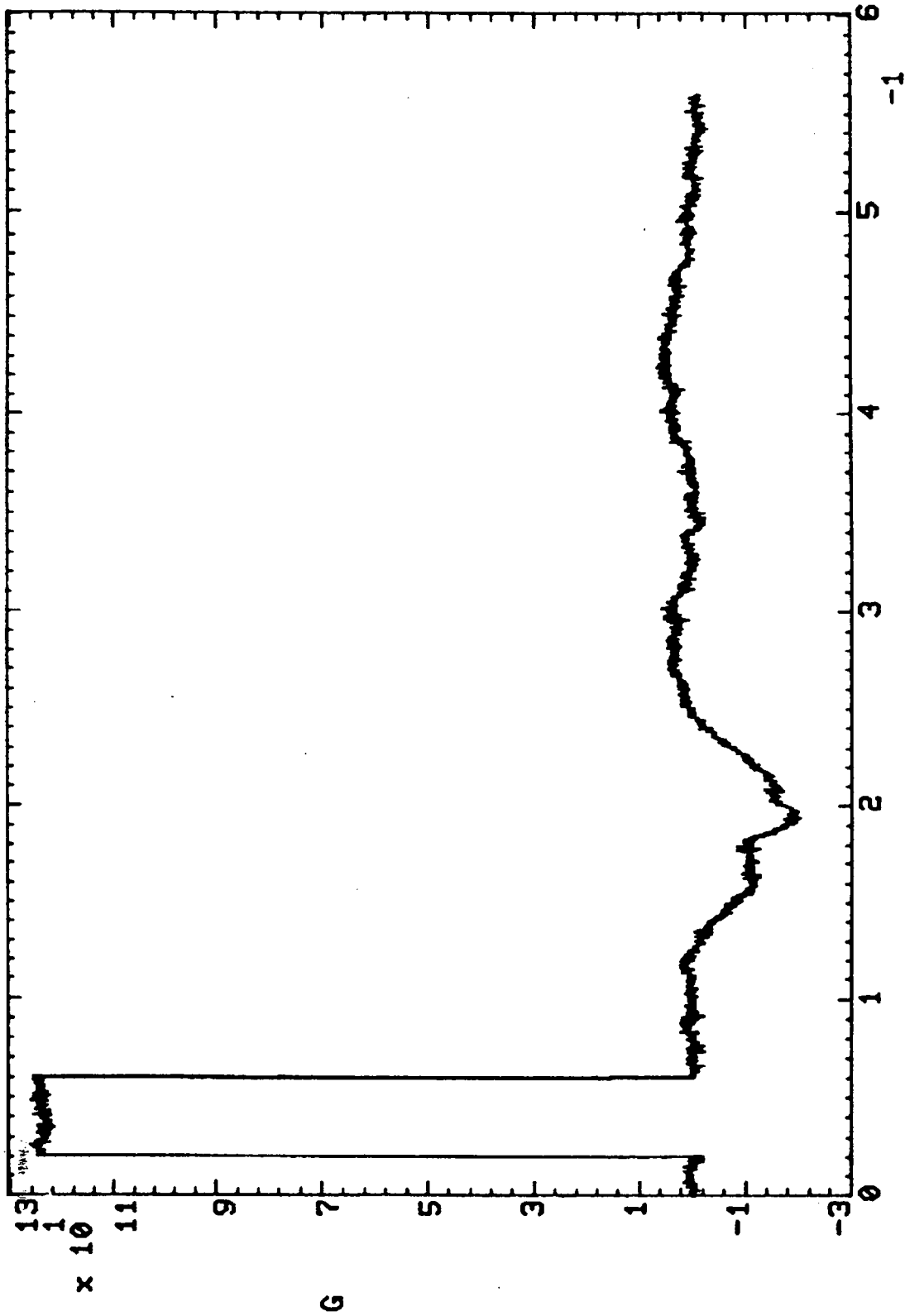


MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
 30 TK B7 PASS. LEFT FEMUR ,CAL STEP= 1891.8 LBS 12/14/81

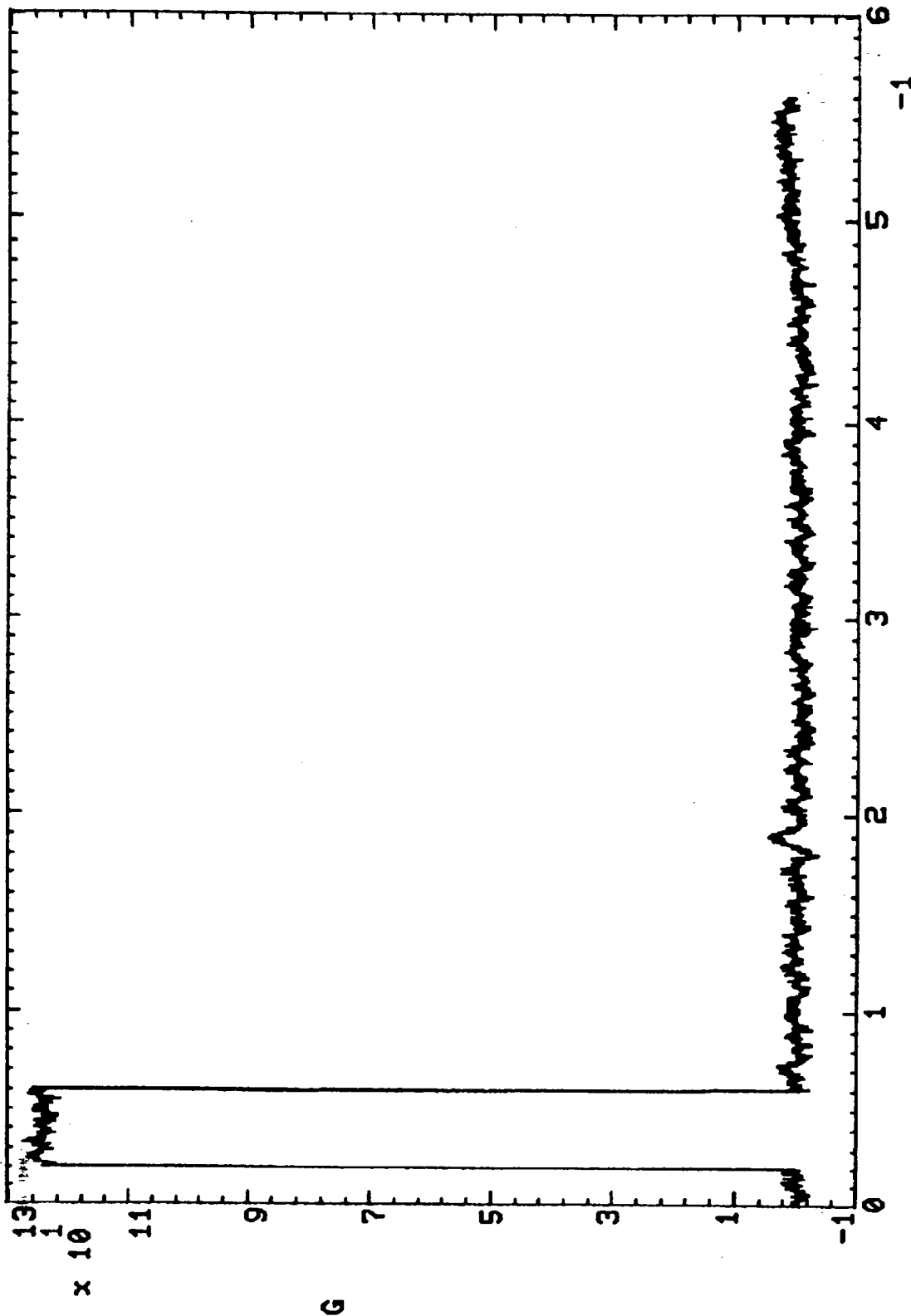
TIME AXIS SECONDS x10  
 -1



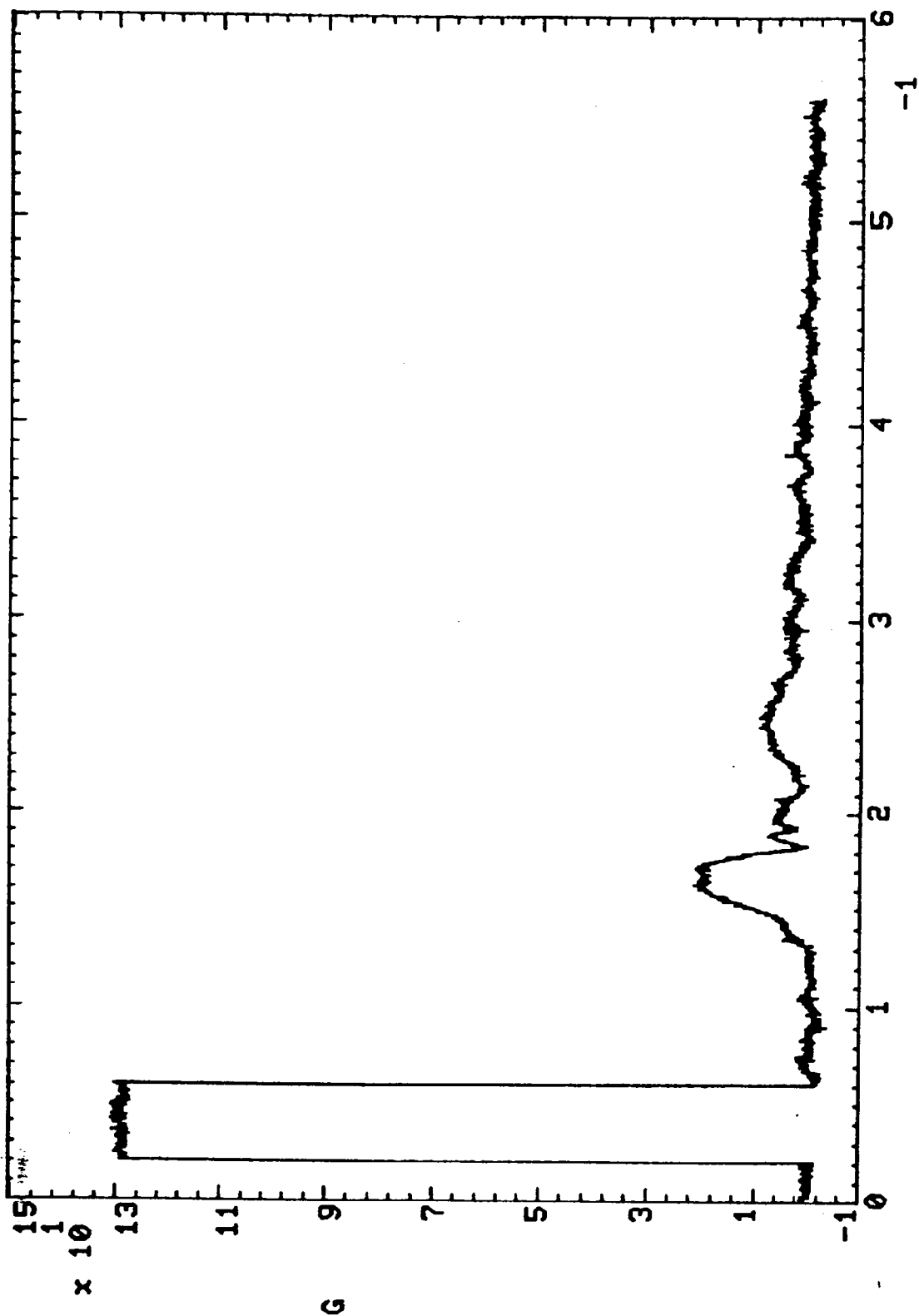
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
 UPPER L.C. POLE, CAL STEP = 32956 LBS 12/14/81



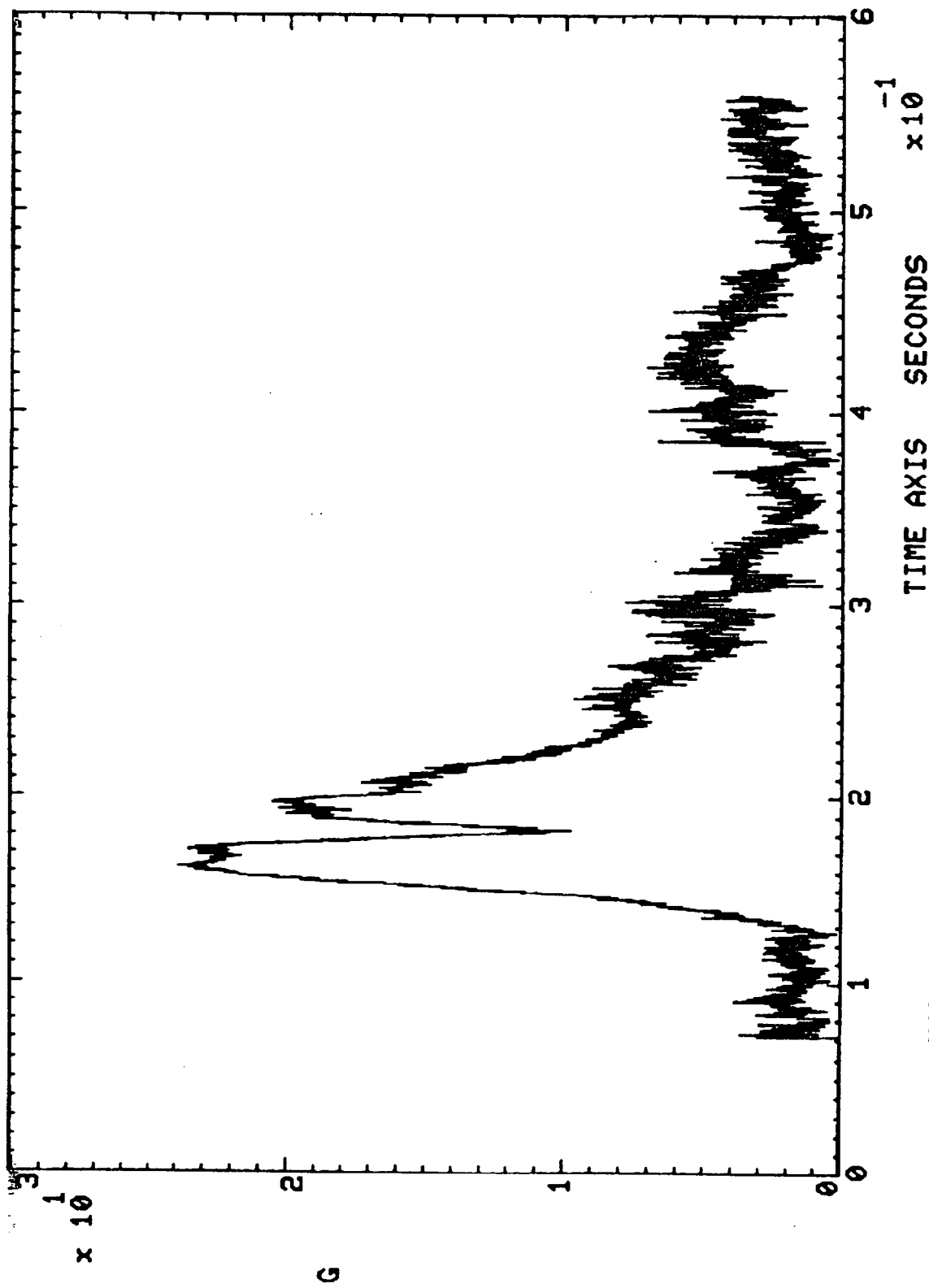
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
1 TK A1 DRIVER HEAD LONG. ,CAL STEP= 123.97 G 12/14/81



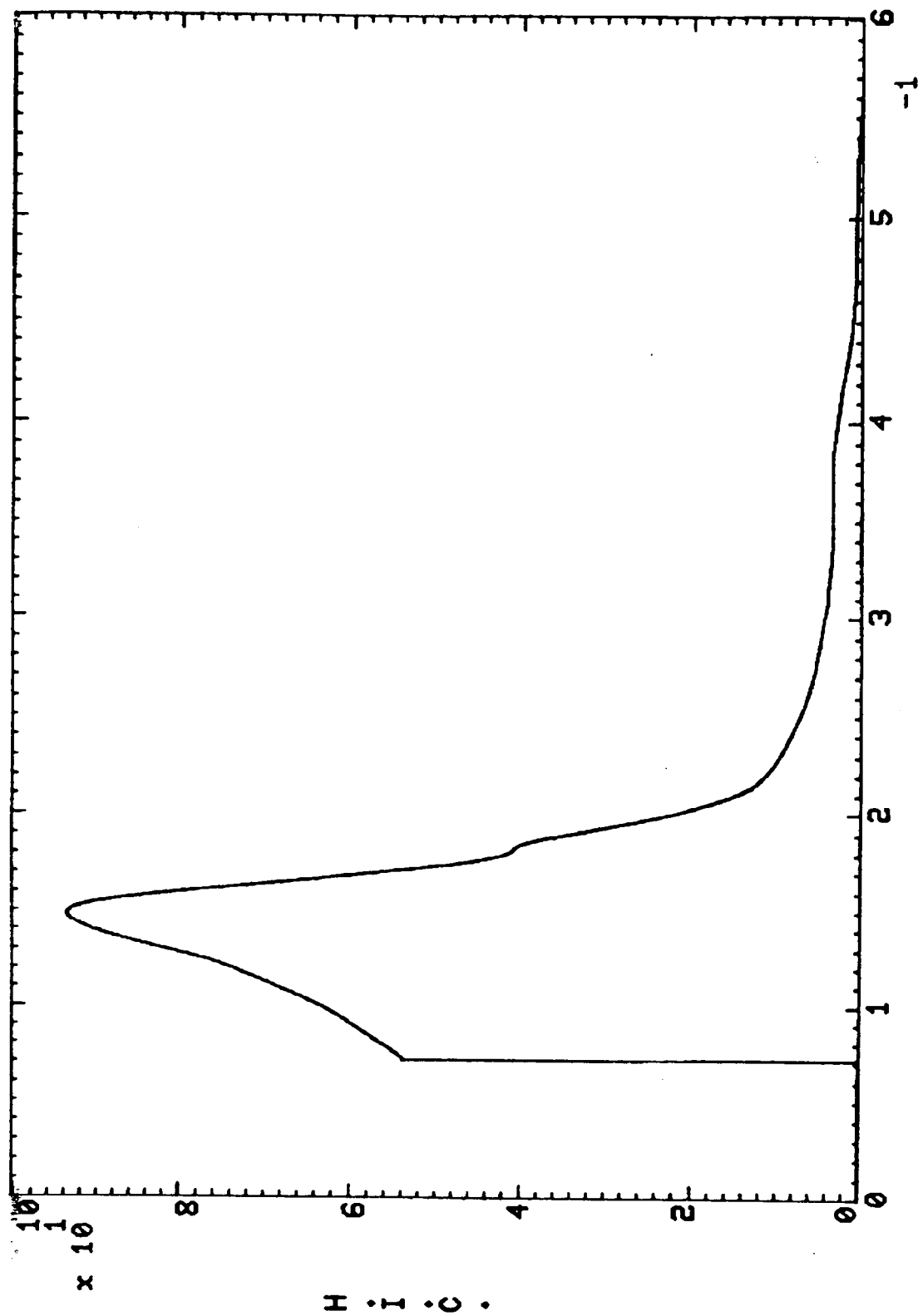
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
2 TK A2 DRIVER HEAD LAT. ,CAL STEP= 124.79 G 12/14/81



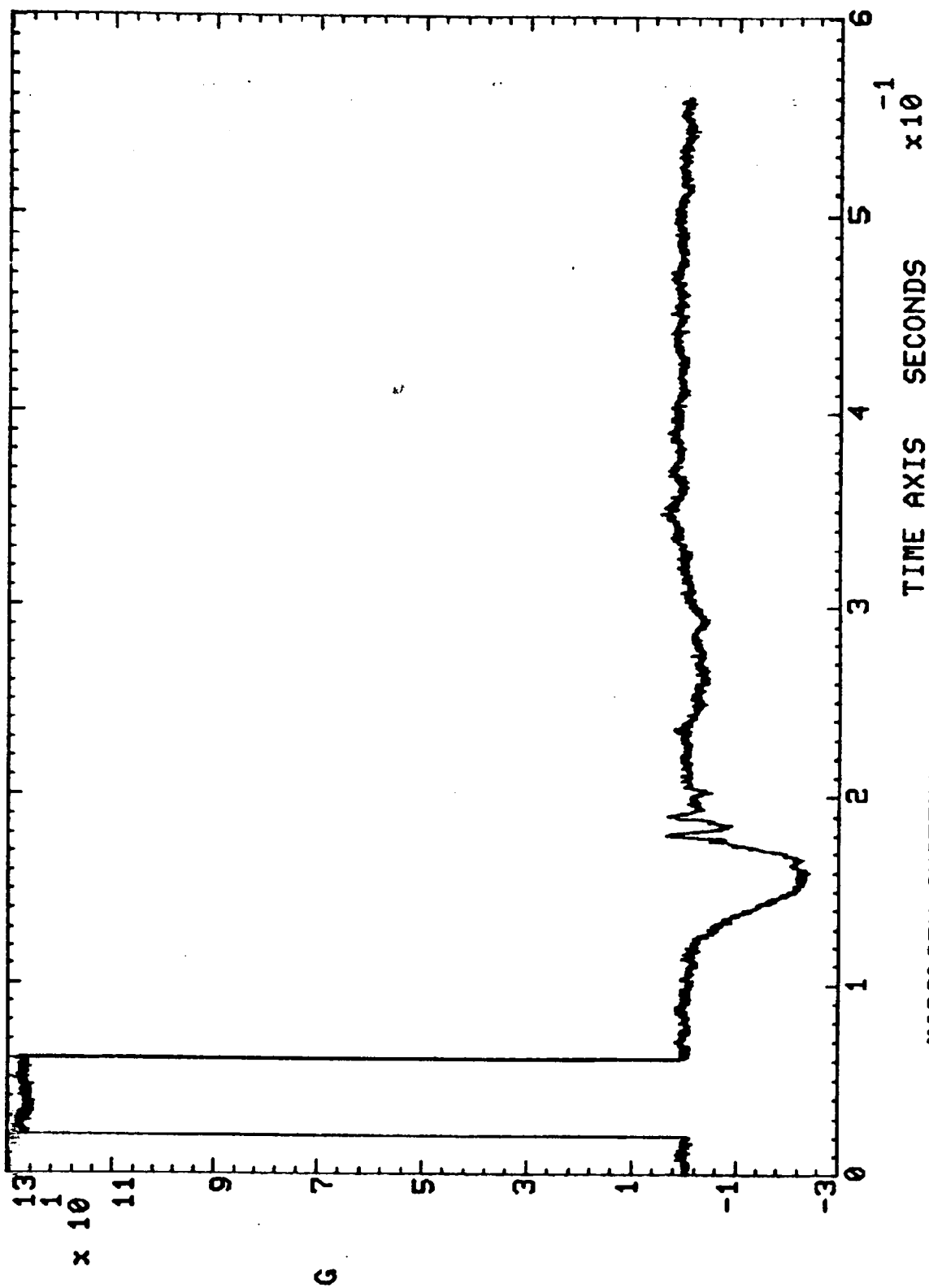
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
3 TK A3 DRIVER HEAD VERT. ,CAL STEP= 128.95 G 12/14/81



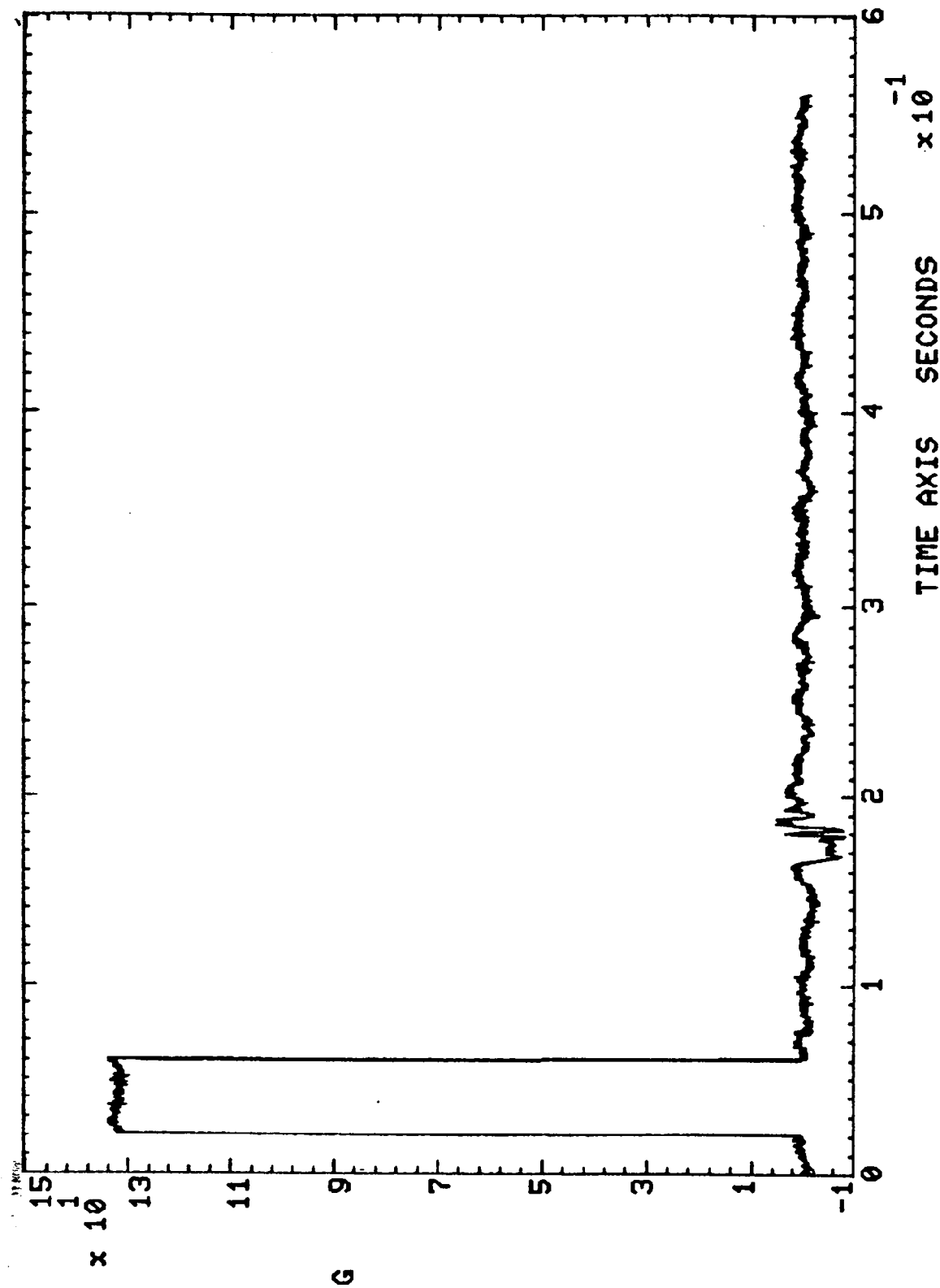
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
3 TK A3 DRIVER HEAD VERT. ,CAL STEP= 128.95 G 12/14/81



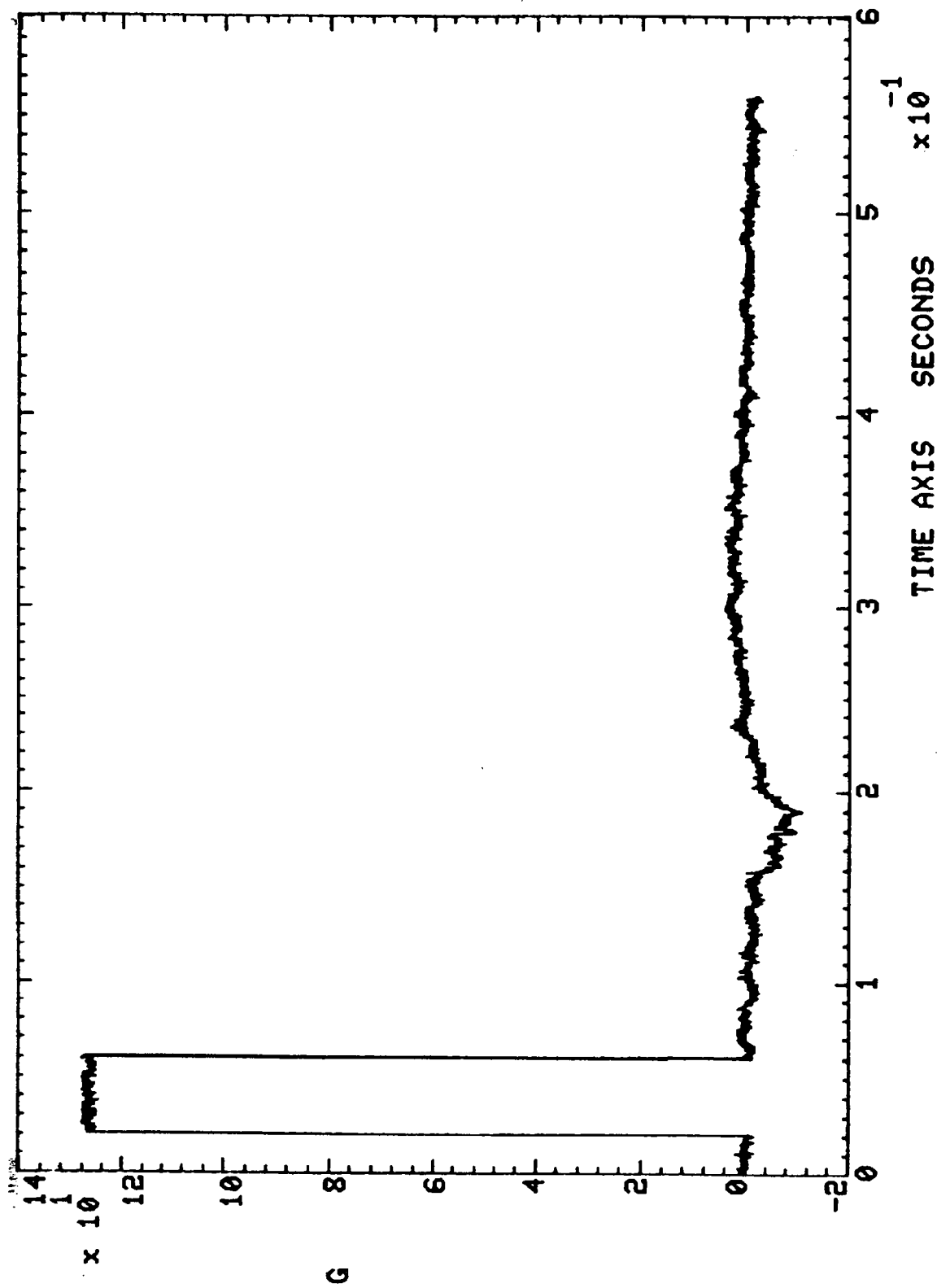
H.I.C.  
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
3 TK A3 DRIVER HEAD VERT. ,CAL STEP= 128.95 G 12/14/81



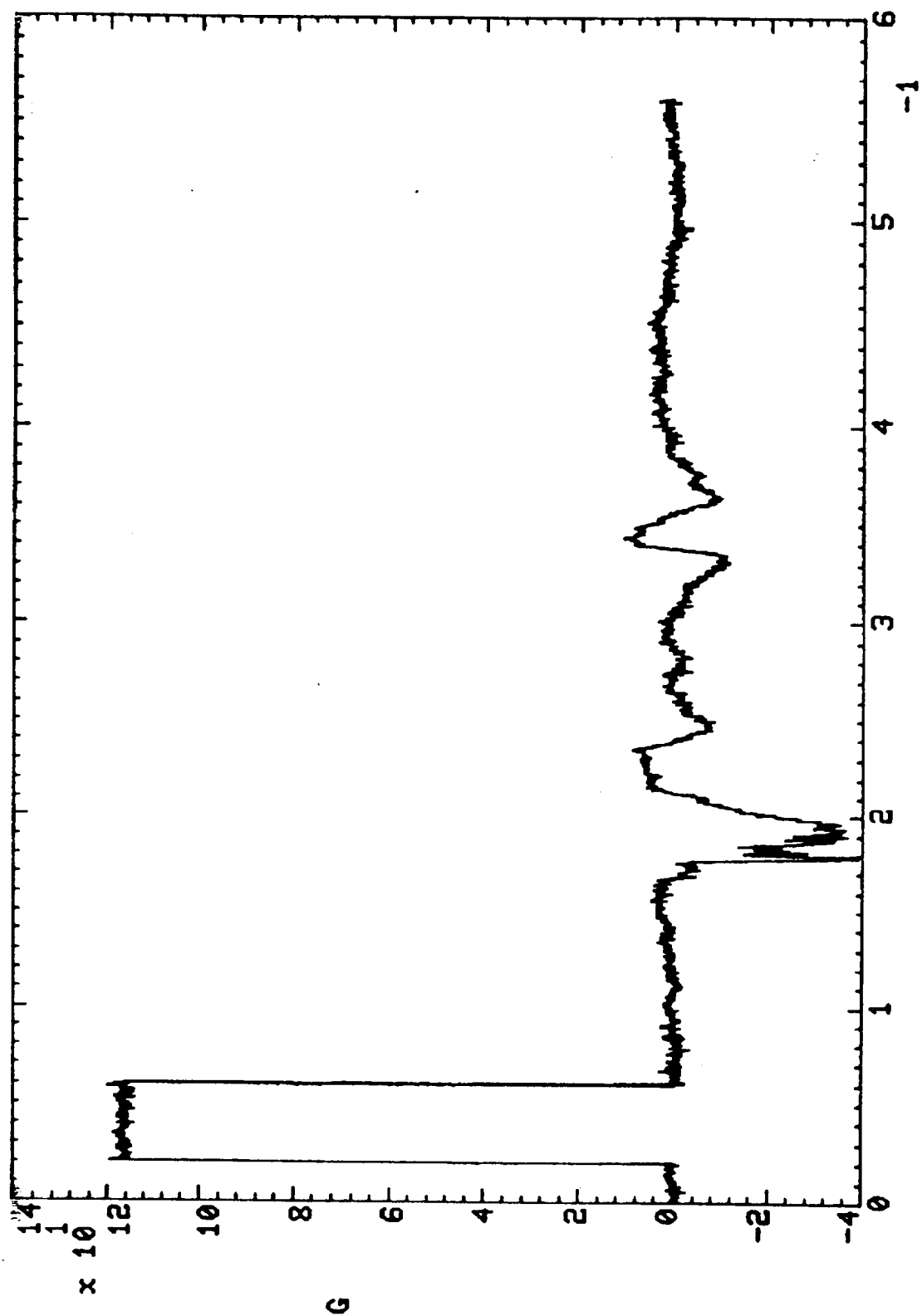
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
4 TK A4 DRIVER CHEST LONG. ,CAL STEP= 127.19 G 12/14/81



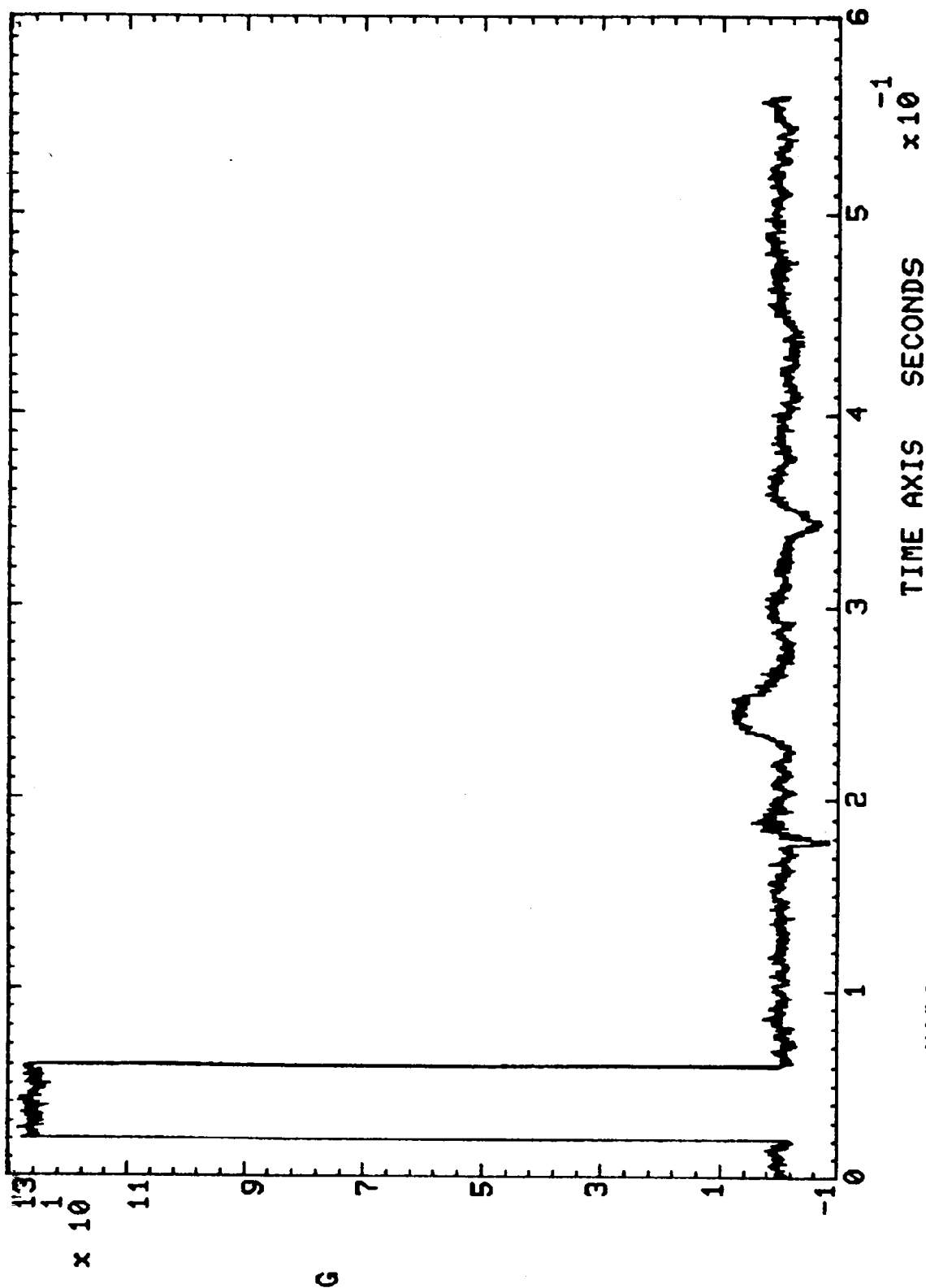
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
5 TK A5 DRIVER CHEST LAT. ,CAL STEP- 132.44 G 12/14/81



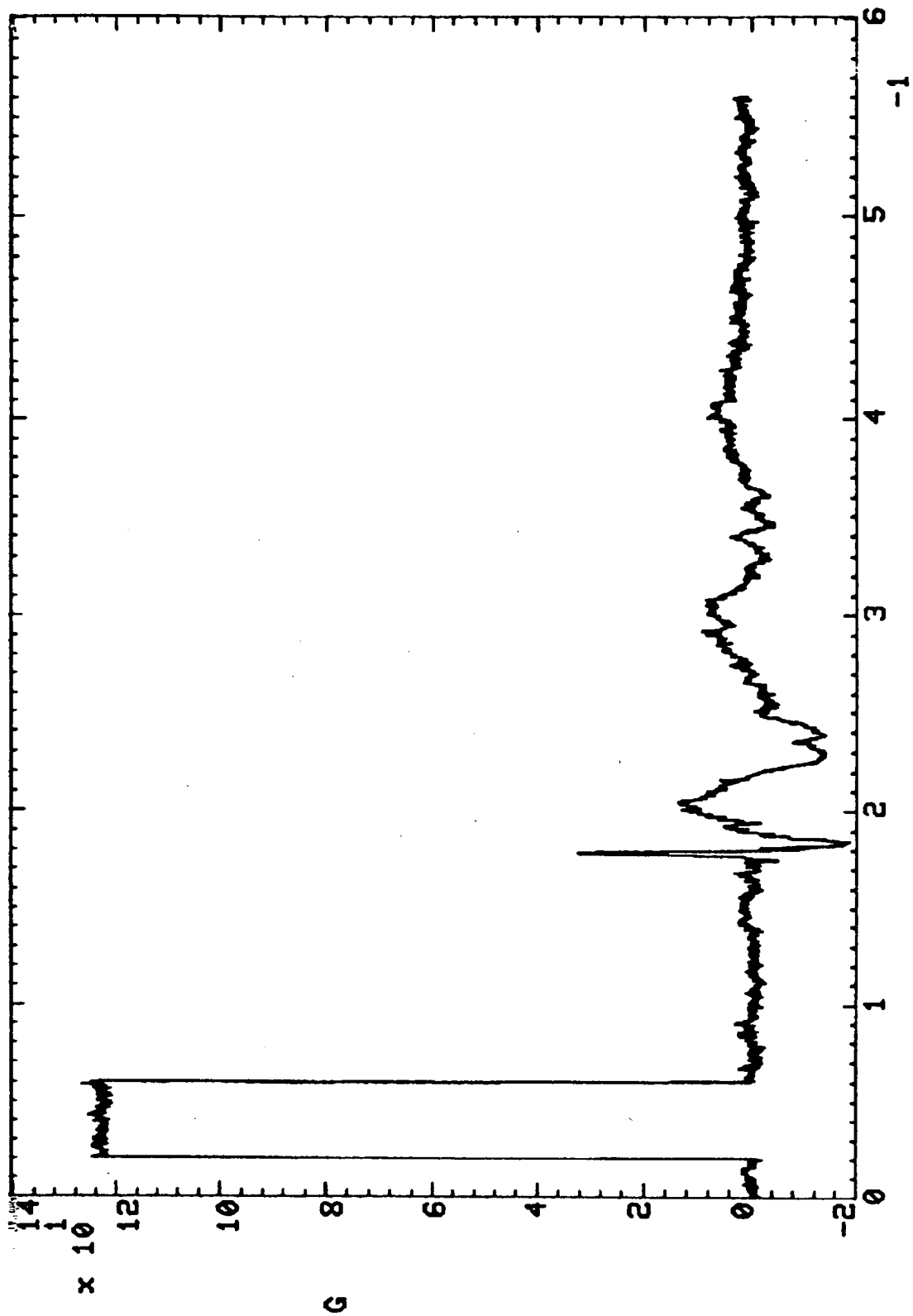
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
6 TK A6 DRIVER CHEST VERT. ,CAL STEP= 126.52 G 12/14/81



MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
7 TK B1 PASS. HEAD LONG. ,CAL STEP= 116.48 G 12/14/81

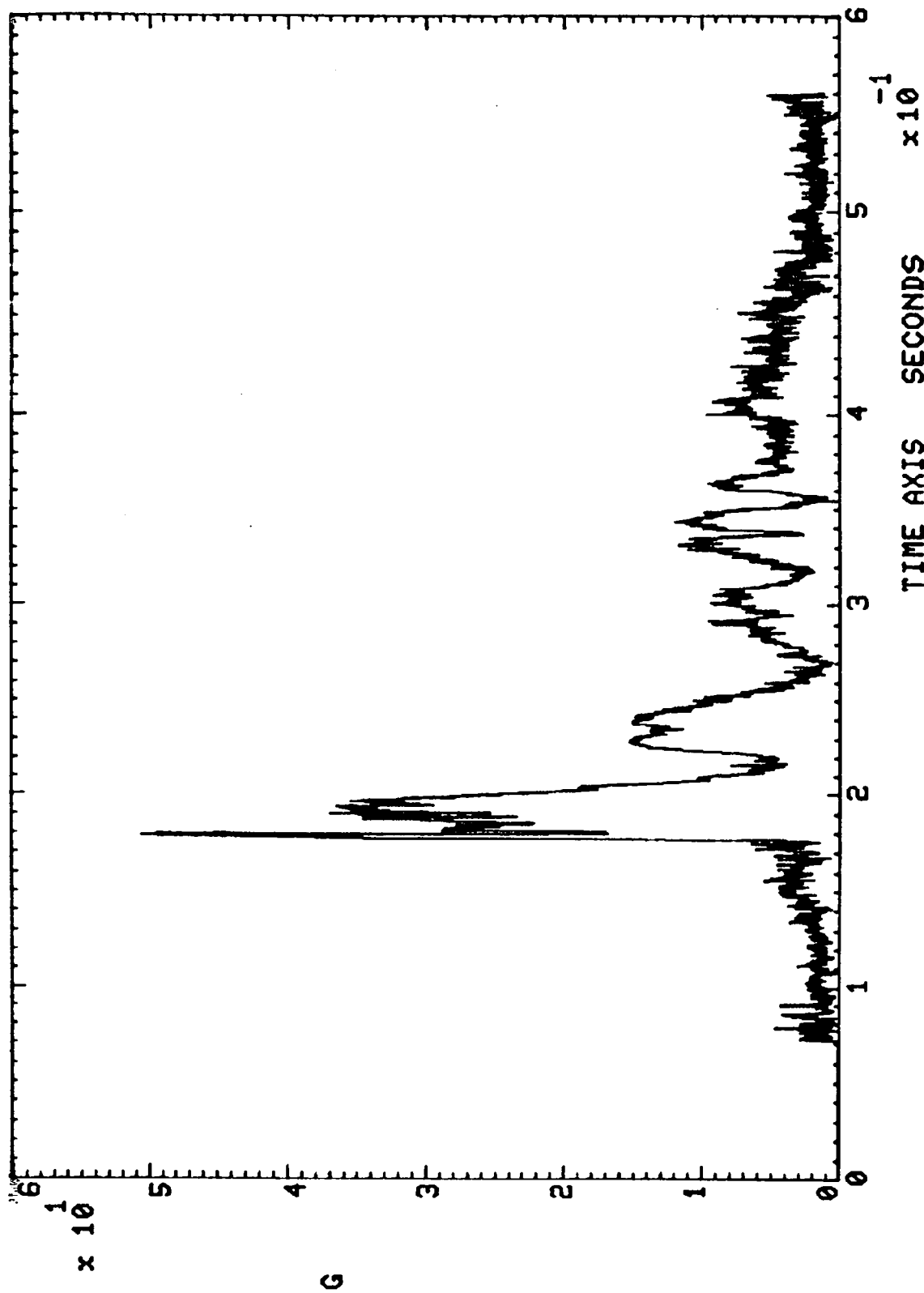


MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
8 TK B2 PASS. HEAD LAT. ,CAL STEP= 126.09 G 12/14/81



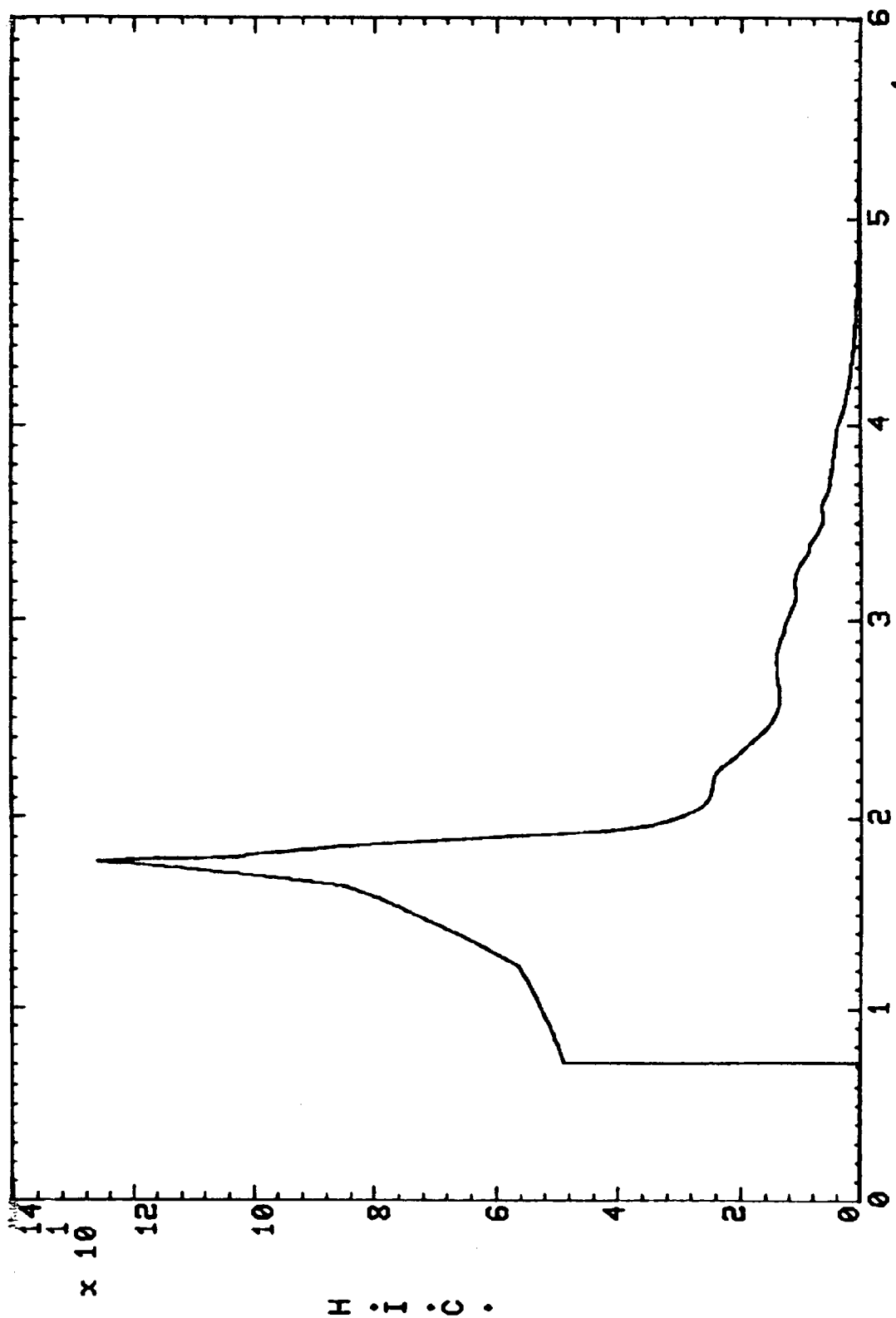
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)

9 TK B3 PASS. HEAD VERT. ,CAL STEP= 122.88 G 12/14/81

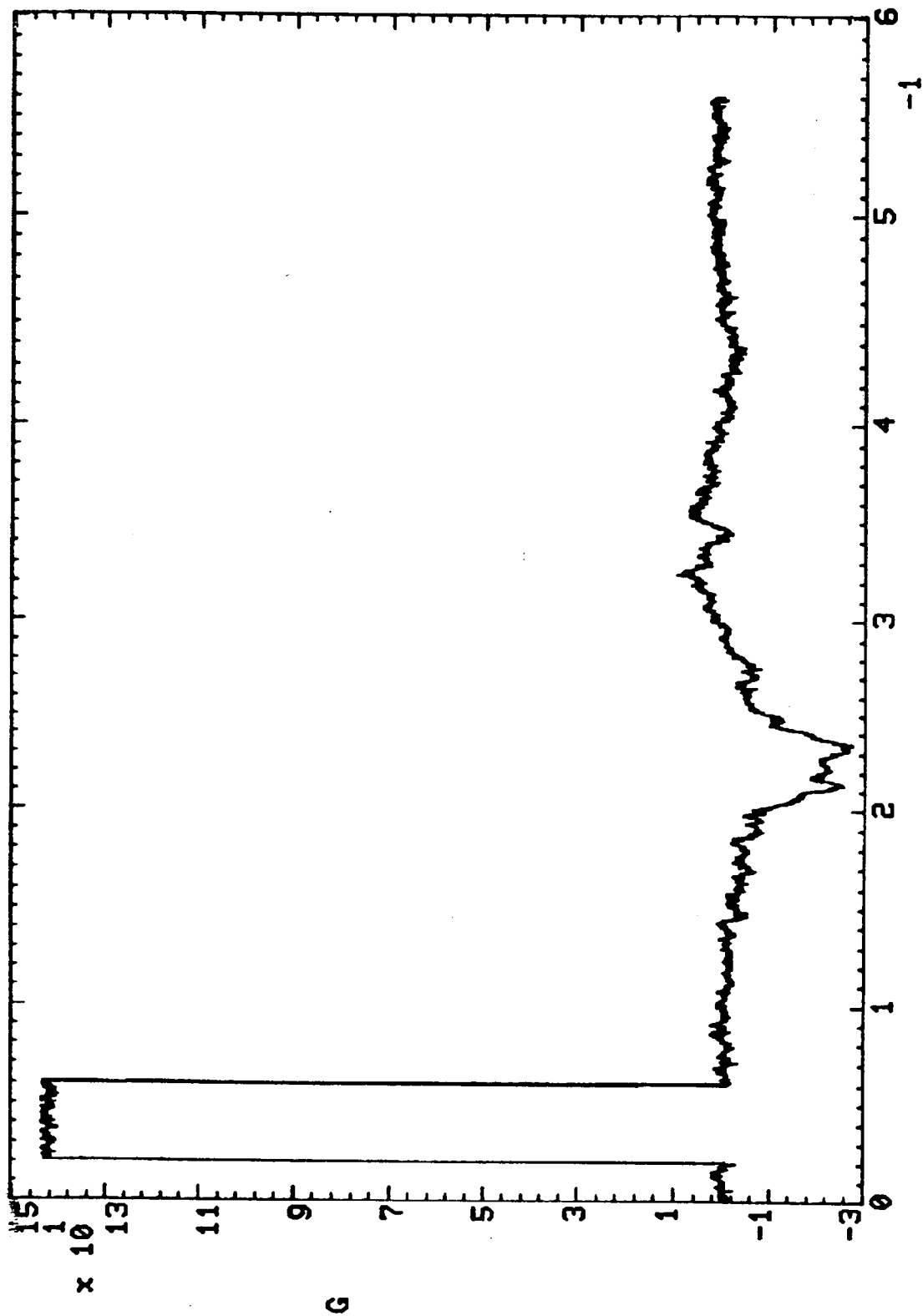


MOBILITY SYSTEMS HONDA CIVIC  
(WY.L. RMM)

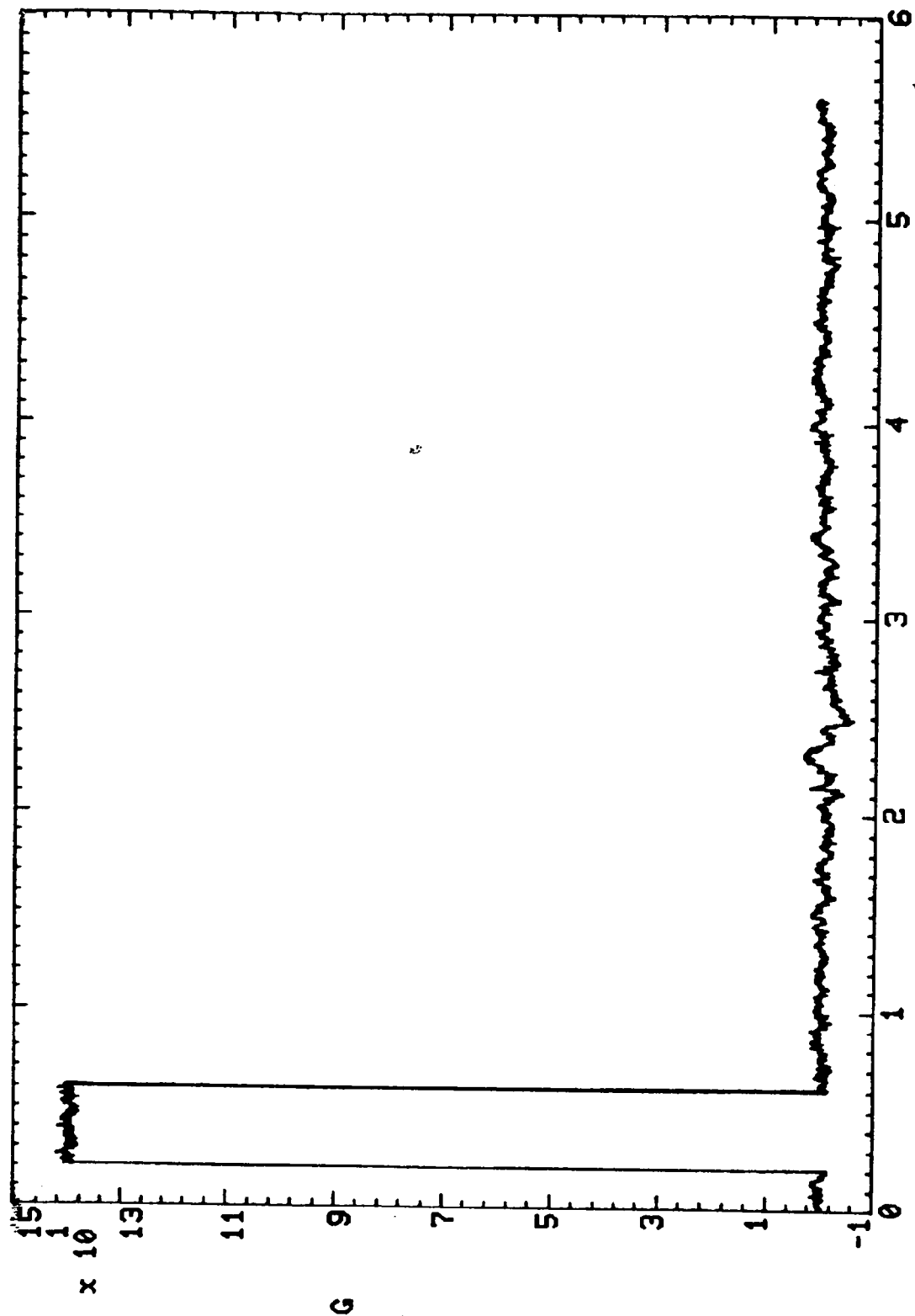
9 TK B3 PASS. HEAD VERT. ,CAL STEP= 122.88 G 12/14/81



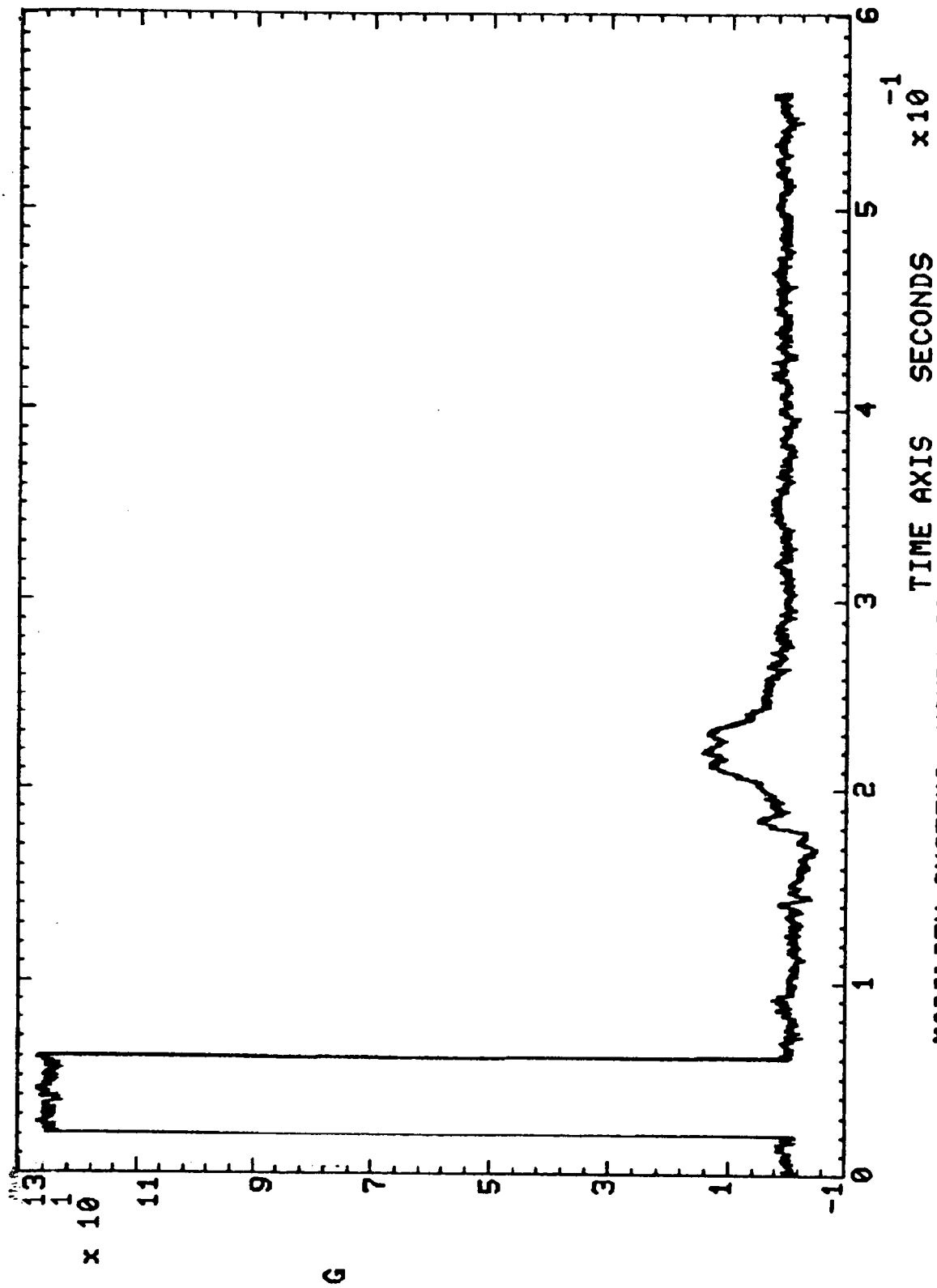
H.I.C.  
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
9 TK B3 PASS. HEAD VERT. , CAL STEP= 122.88 G 12/14/81



MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
10 TK B4 PASS. CHEST LONG. ,CAL STEP- 142.49 G 12/14/81

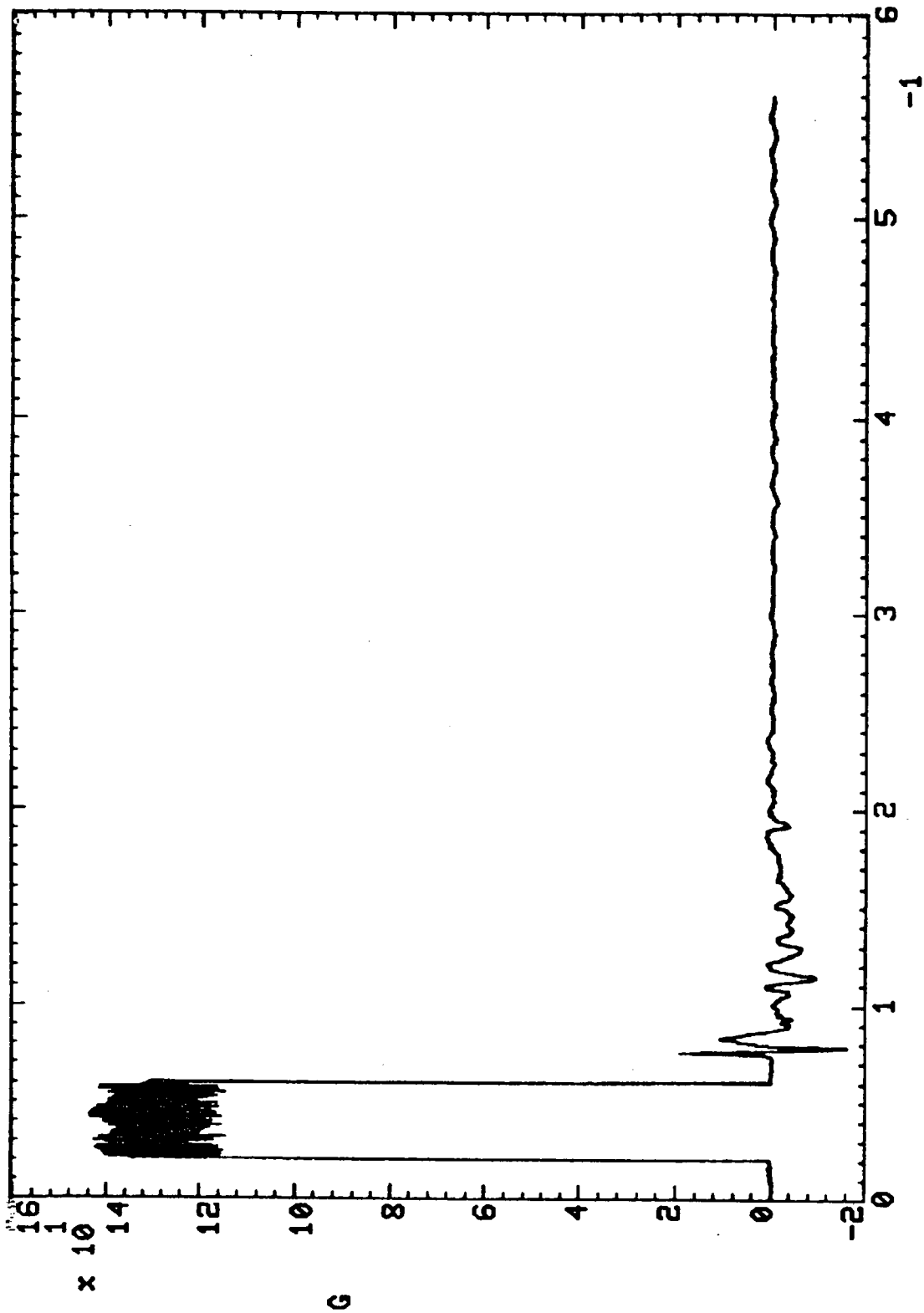


MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM)  
11 TK B5 PASS. CHEST LAT. , CAL STEP- 140.00 G 12/14/81

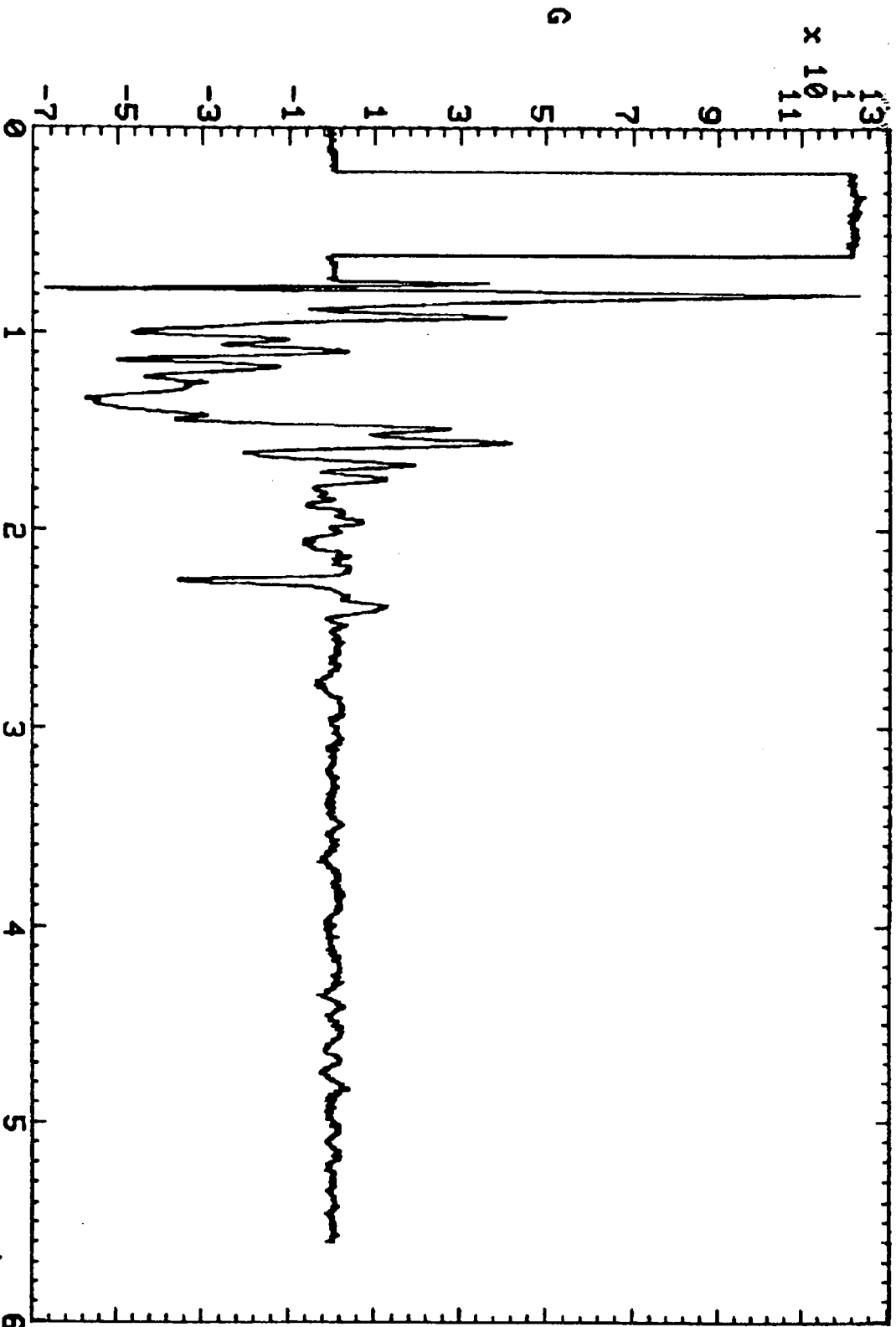


MOBILITY SYSTEMS HONDA CIVIC  
(WY.L. RMM)

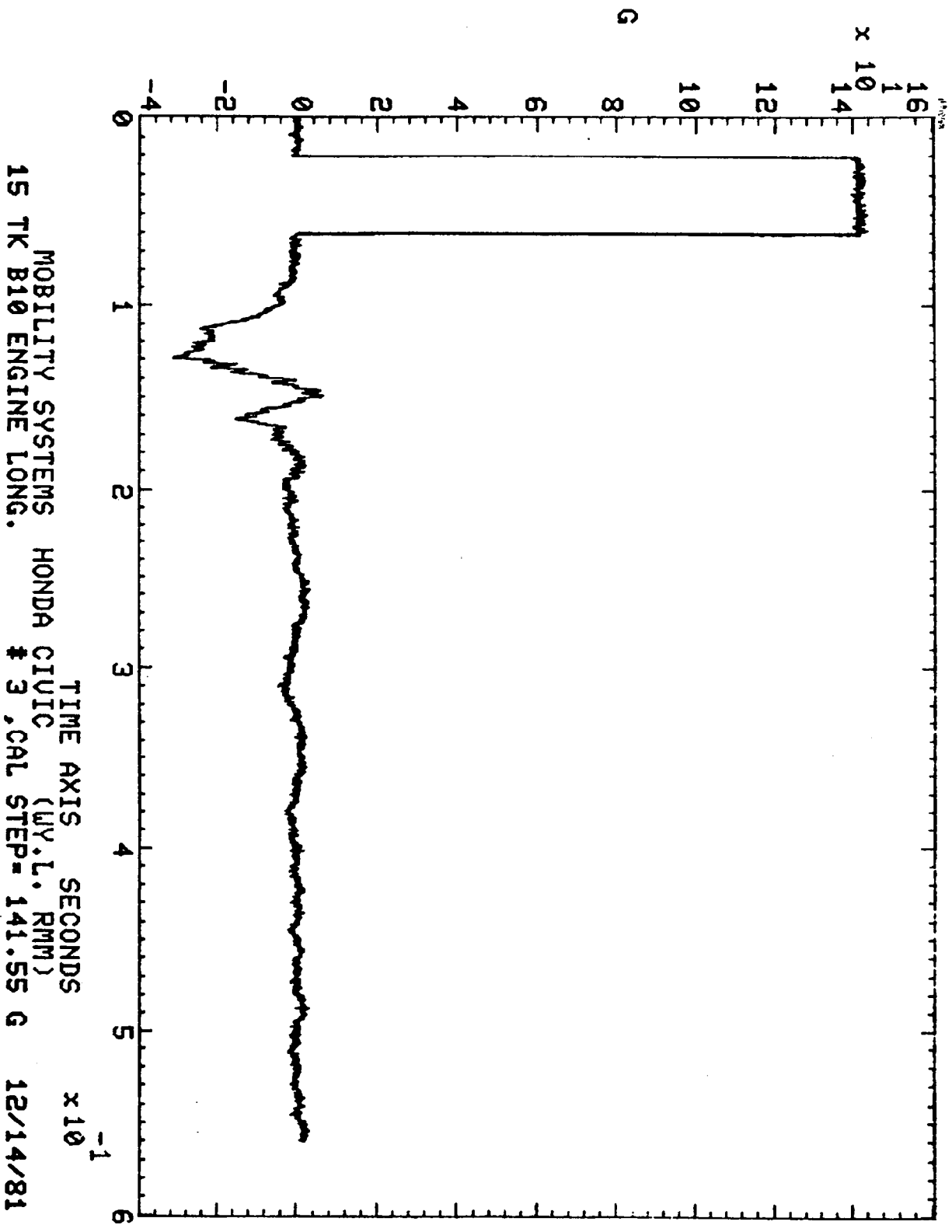
12 TK B6 PASS. CHEST VERT. ,CAL STEP= 125.17 G 12/14/81



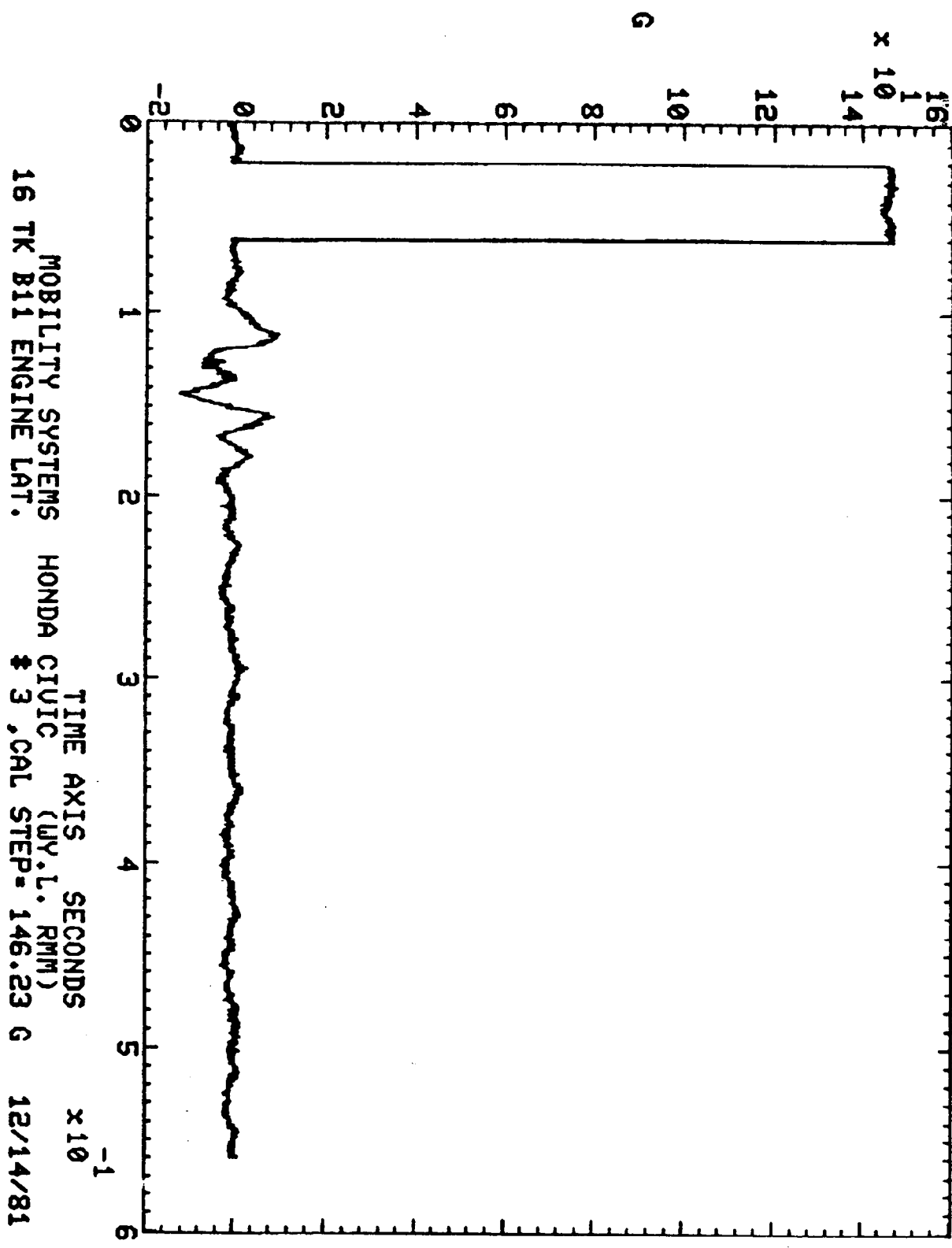
MOBILITY SYSTEMS HONDA CIVIC (WY.L. RMM) # 1 ,CAL STEP- 128.14 G 12/14/81



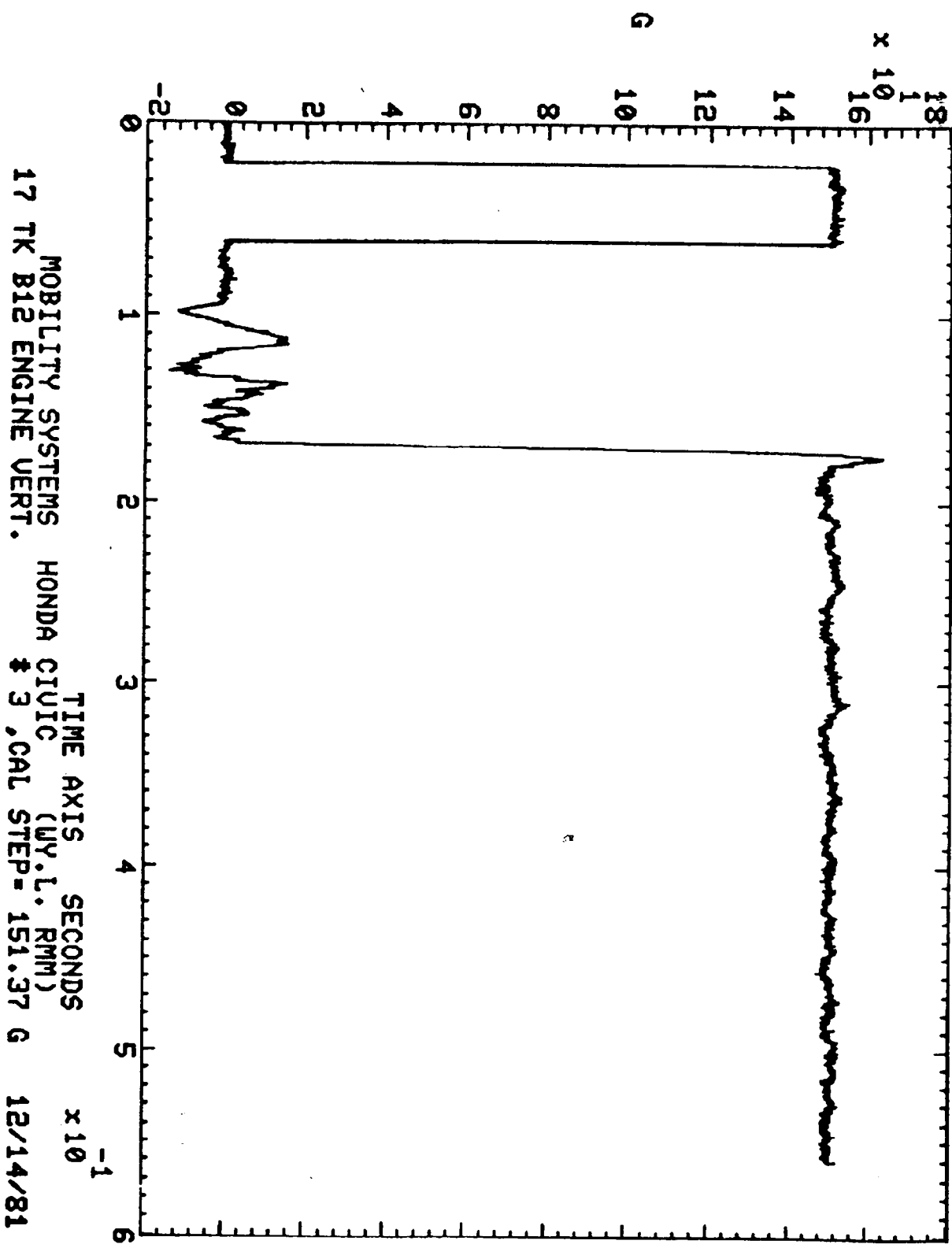
MOBILITY SYSTEMS HONDA CIVIC  
 14 TK B9 BUMPER RIGHT # 3 , CAL STEP- 122.44 G 12/14/81  
 TIME AXIS SECONDS  
 x 10<sup>-1</sup>



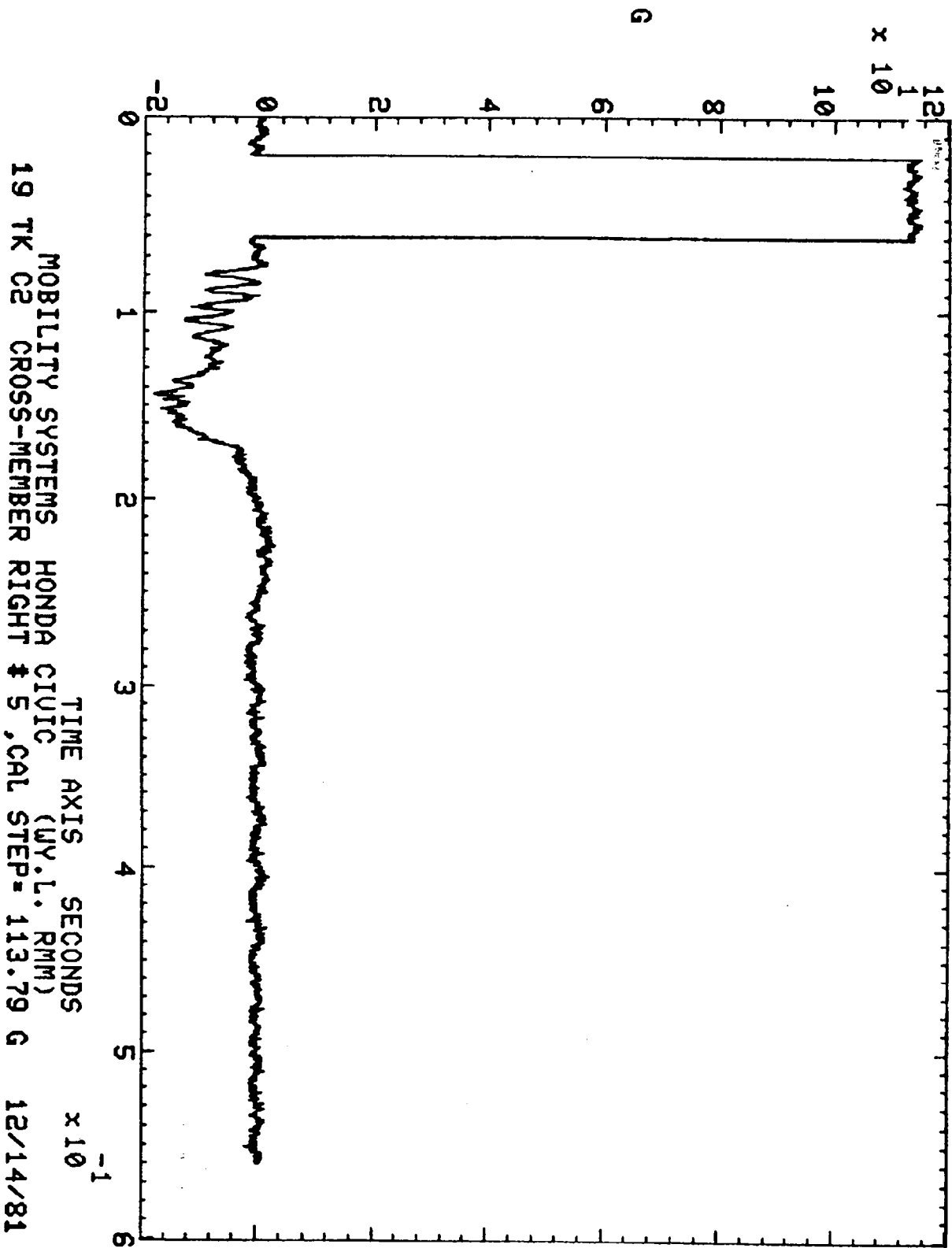
MOBILITY SYSTEMS HONDA CIVIC  
15 TK B10 ENGINE LONG. # 3, CAL STEP= 141.55 G 12/14/81



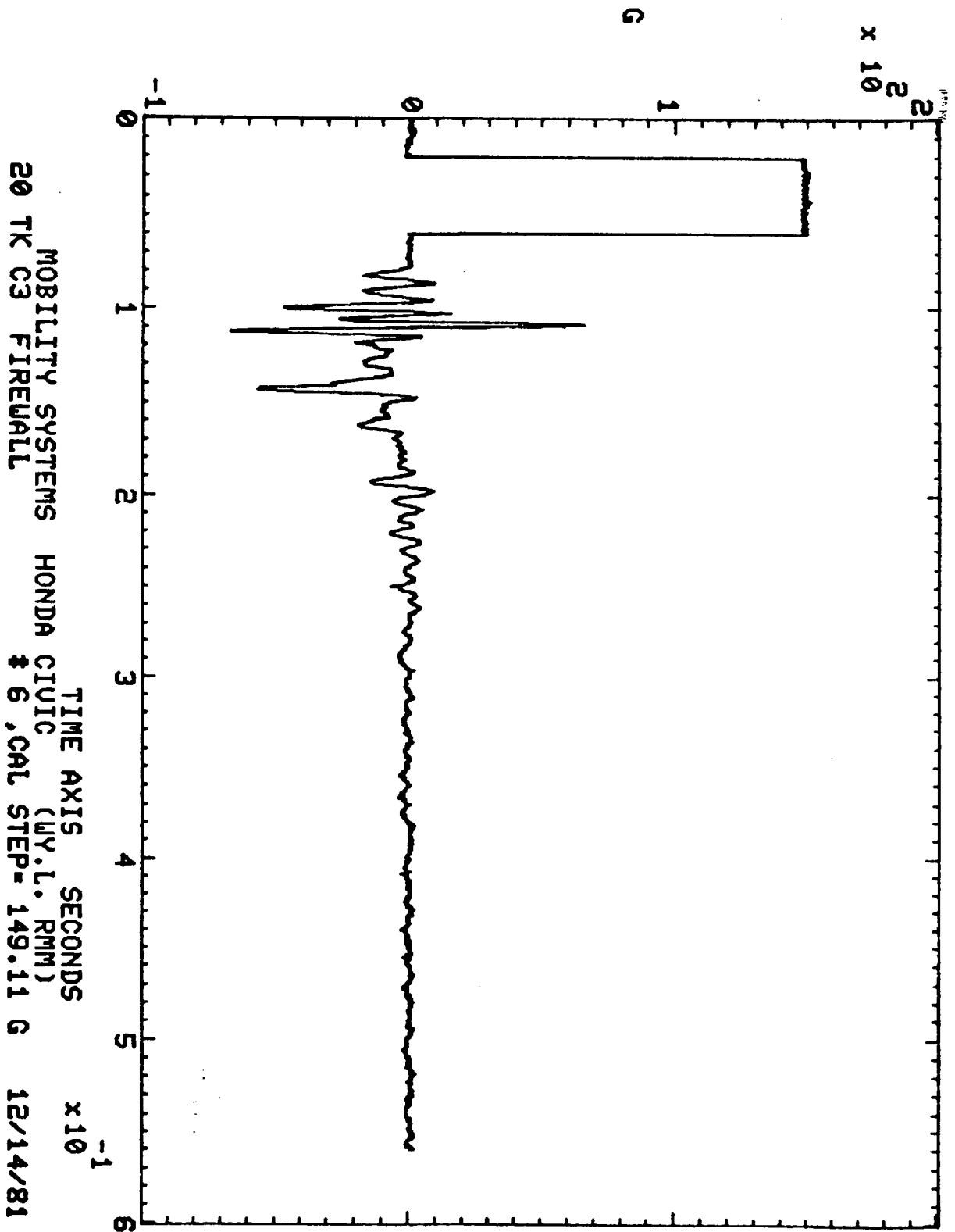
MOBILITY SYSTEMS HONDA CIVIC  
16 TK B11 ENGINE LAT. # 3, CAL STEP- 146.23 G 12/14/81  
TIME AXIS SECONDS  
(WY.L. RMM)  
 $\times 10^{-1}$



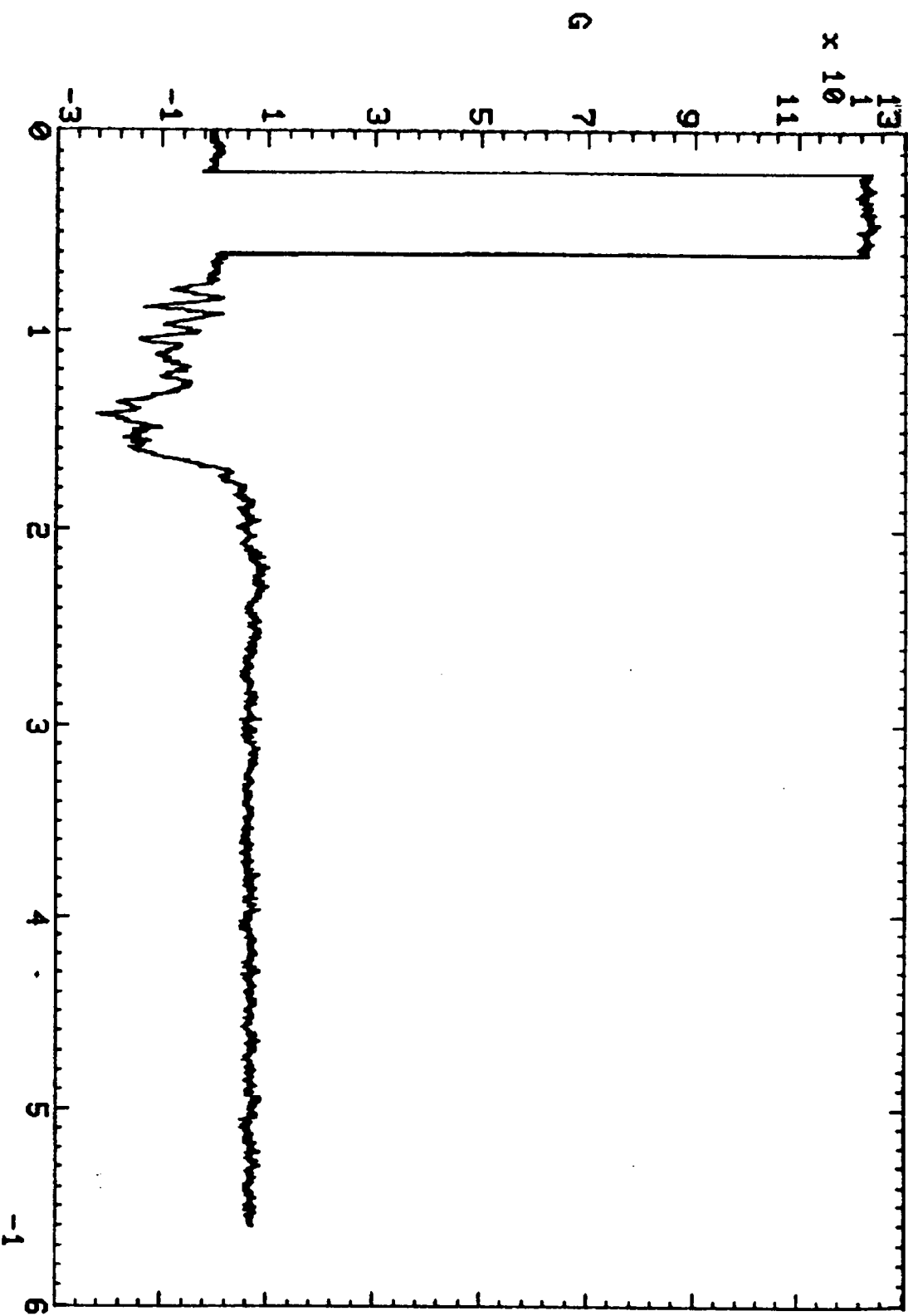
MOBILITY SYSTEMS HONDA CIVIC  
17 TK B12 ENGINE VERT. # 3, CAL STEP= 151.37 G 12/14/81  
TIME AXIS SECONDS  
(WY.L. RMM)  
x 10<sup>-1</sup>



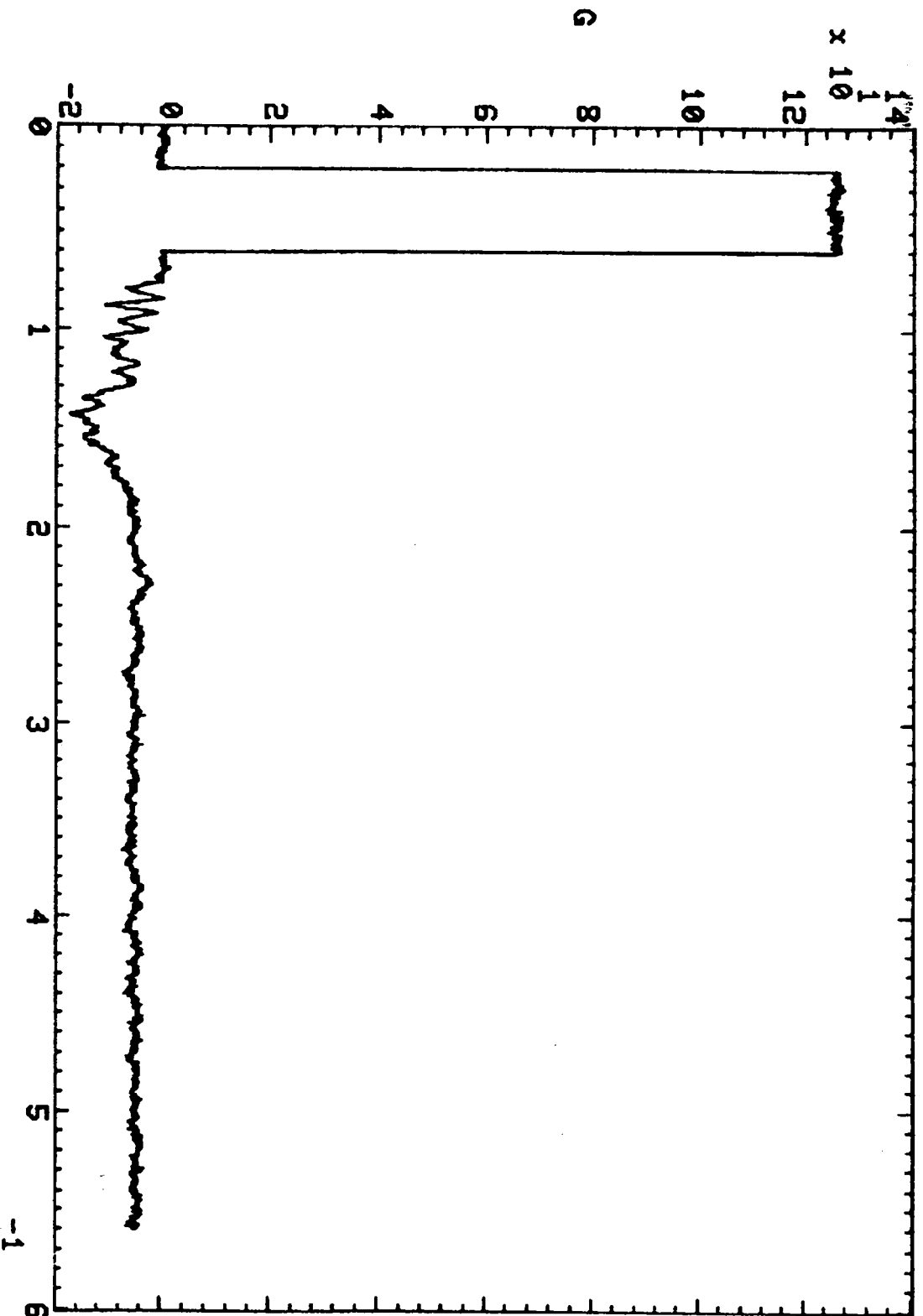
MOBILITY SYSTEMS HONDA CIVIC  
19 TK C2 CROSS-MEMBER RIGHT # 5, CAL STEP- 113.79 G 12/14/81  
TIME AXIS SECONDS  
(WY.L. RMM)  
x 10



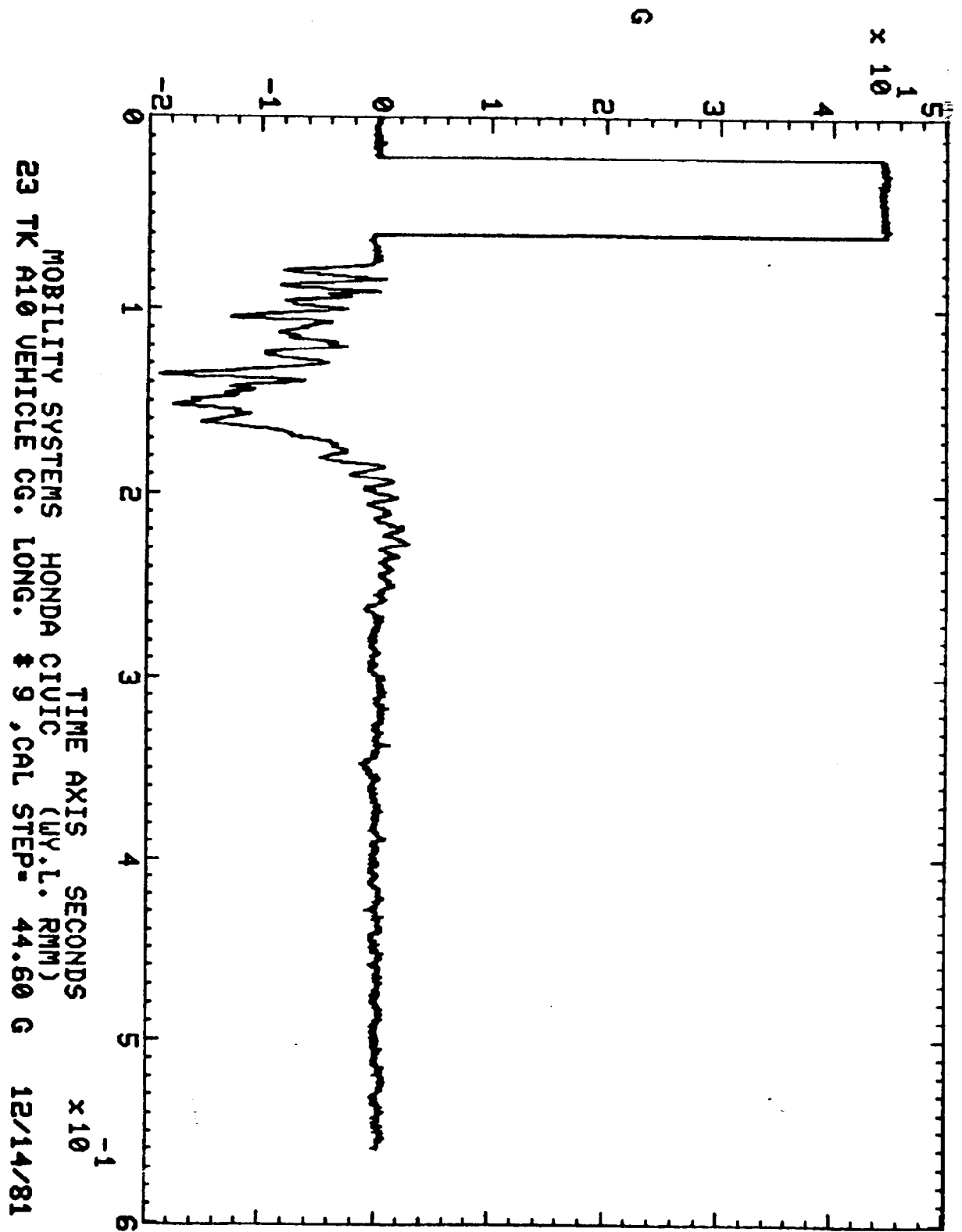
MOBILITY SYSTEMS HONDA CIVIC  
 # 6, CAL STEP- 149.11 G 12/14/81  
 20 TK C3 FIREWALL



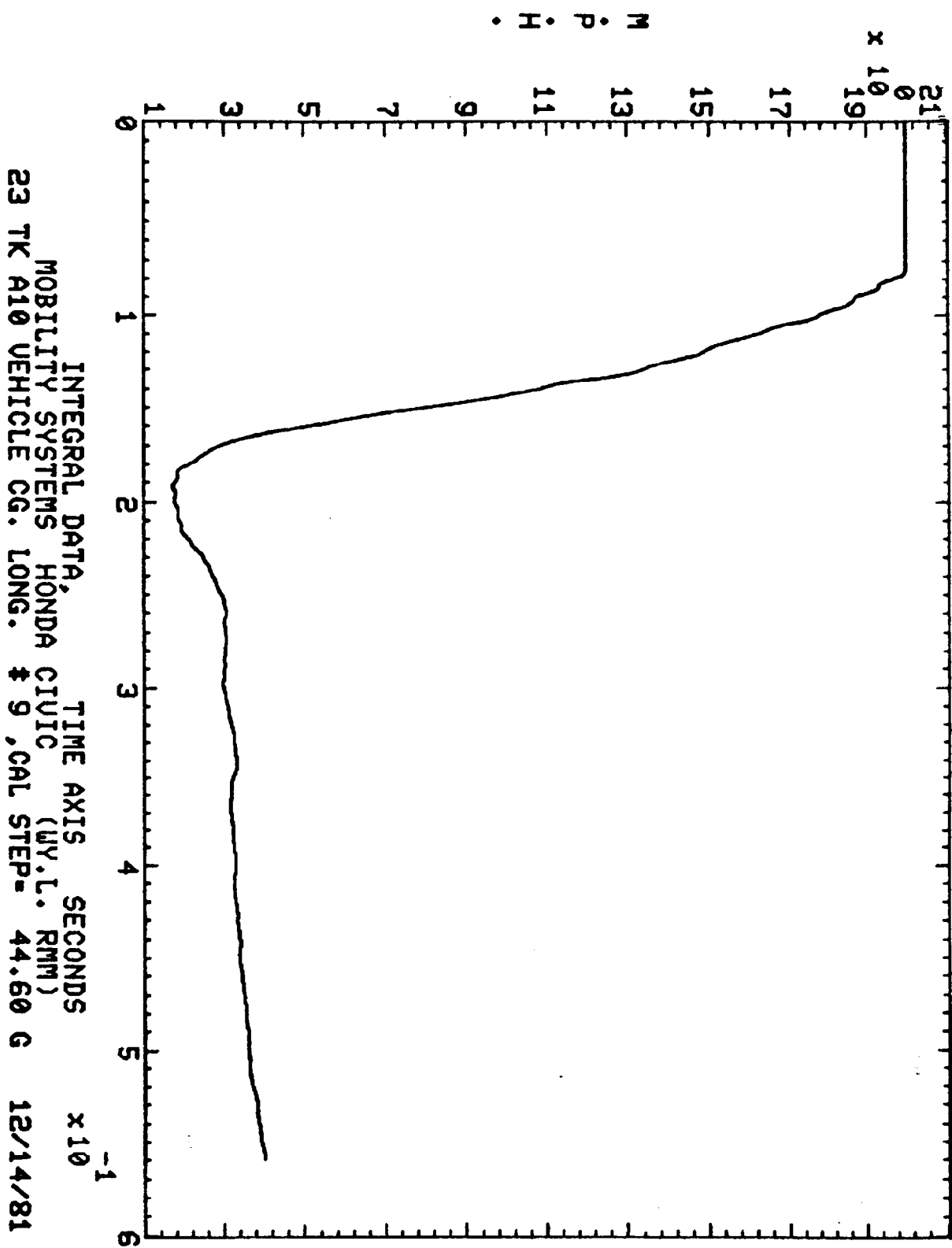
MOBILITY SYSTEMS HONDA CIVIC  
TIME AXIS SECONDS  
(WY.L. RMM)  
21 TK C4 VEHICLE L.FRONT PAN #7, CAL STEP- 122.88 G 12/14/81

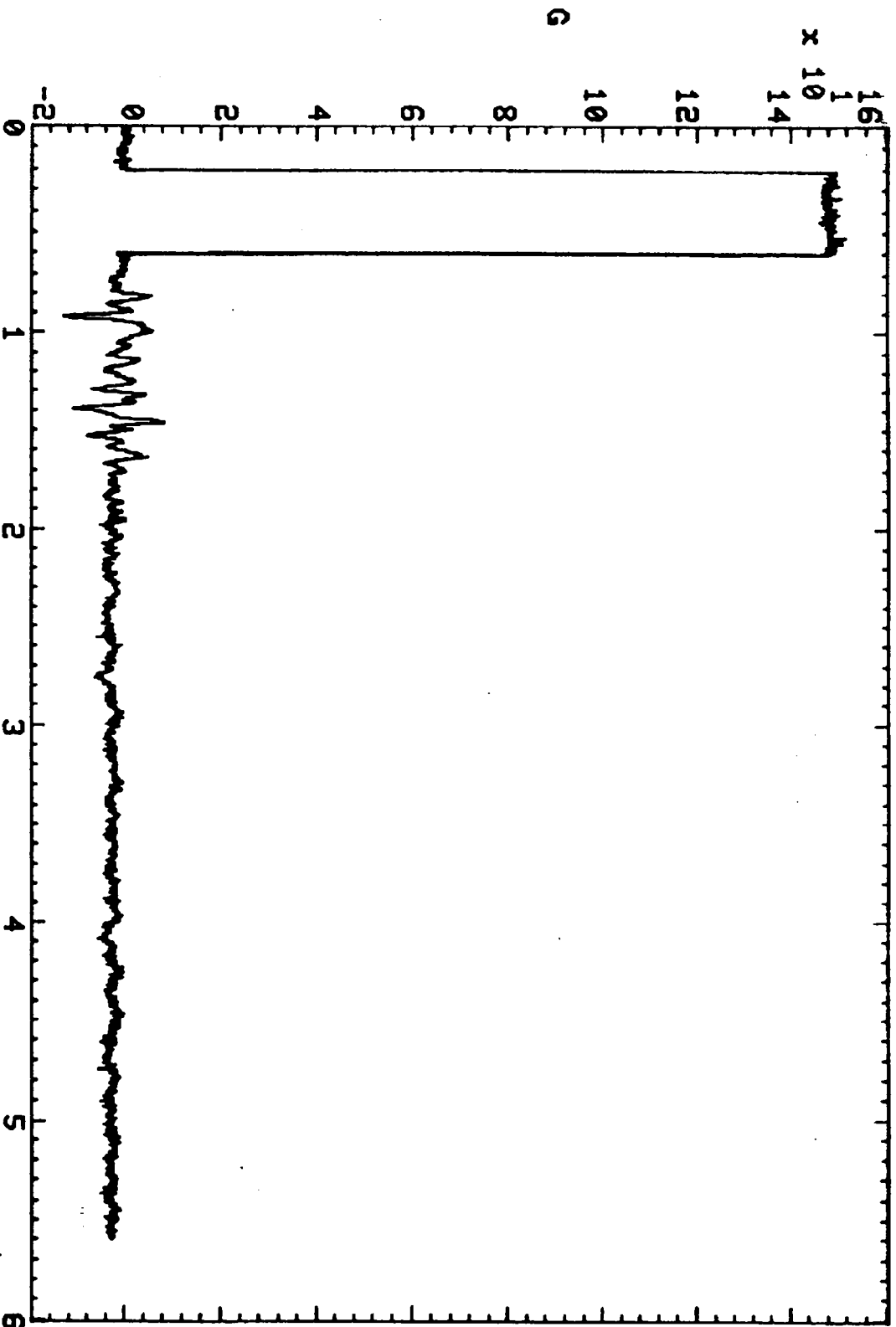


MOBILITY SYSTEMS HONDA CIVIC  
 (UY.L. RMM)  
 22 TK CS VEHICLE R.FRONT PAN #8, CAL STEP= 125.62 G 12/14/81

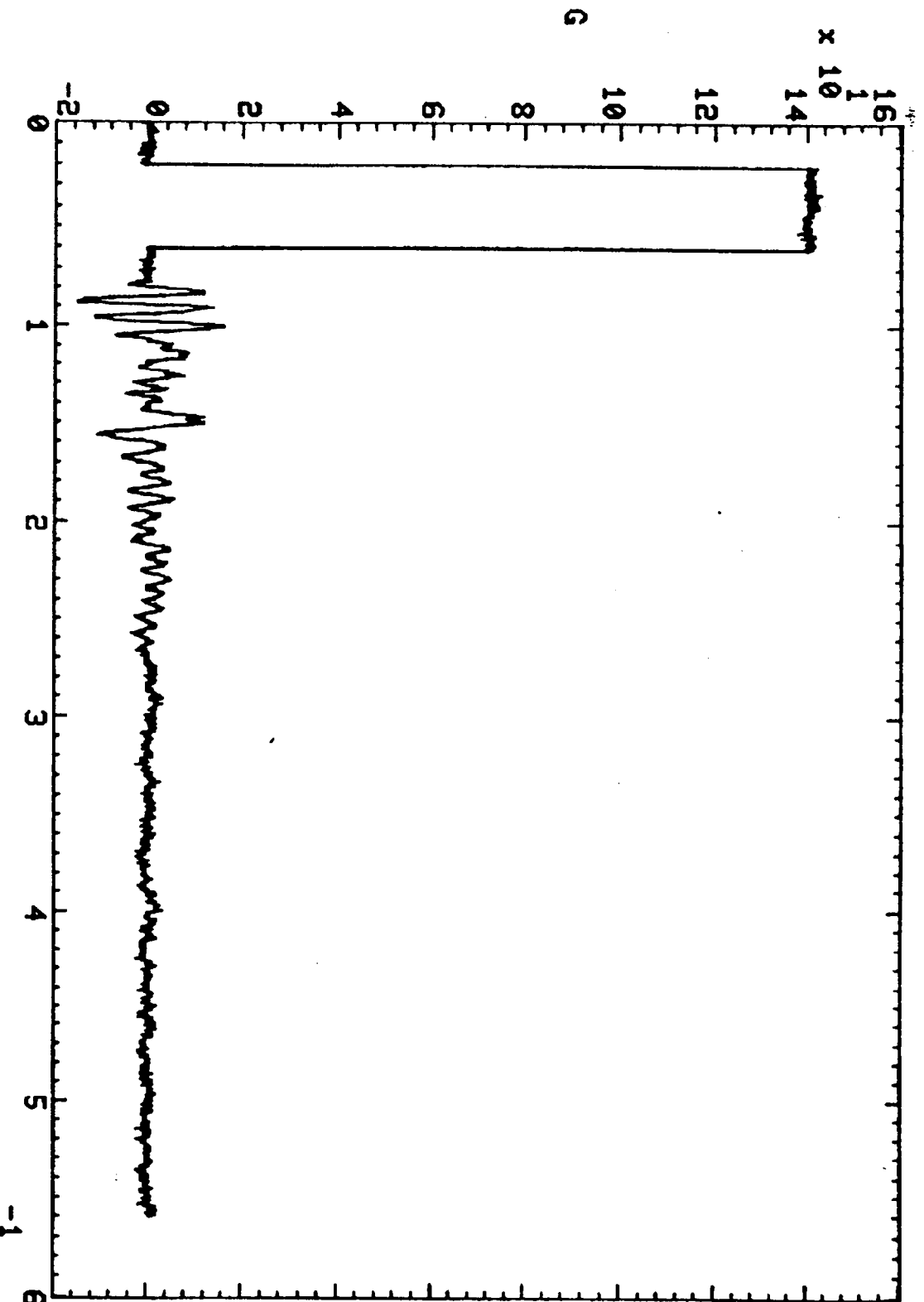


MOBILITY SYSTEMS HONDA CIVIC  
 23 TK A10 VEHICLE CG. LONG. # 9 , CAL STEP= 44.60 G 12/14/81  
 TIME AXIS SECONDS  
 (WY.L. RMM)  
 $\times 10^{-1}$

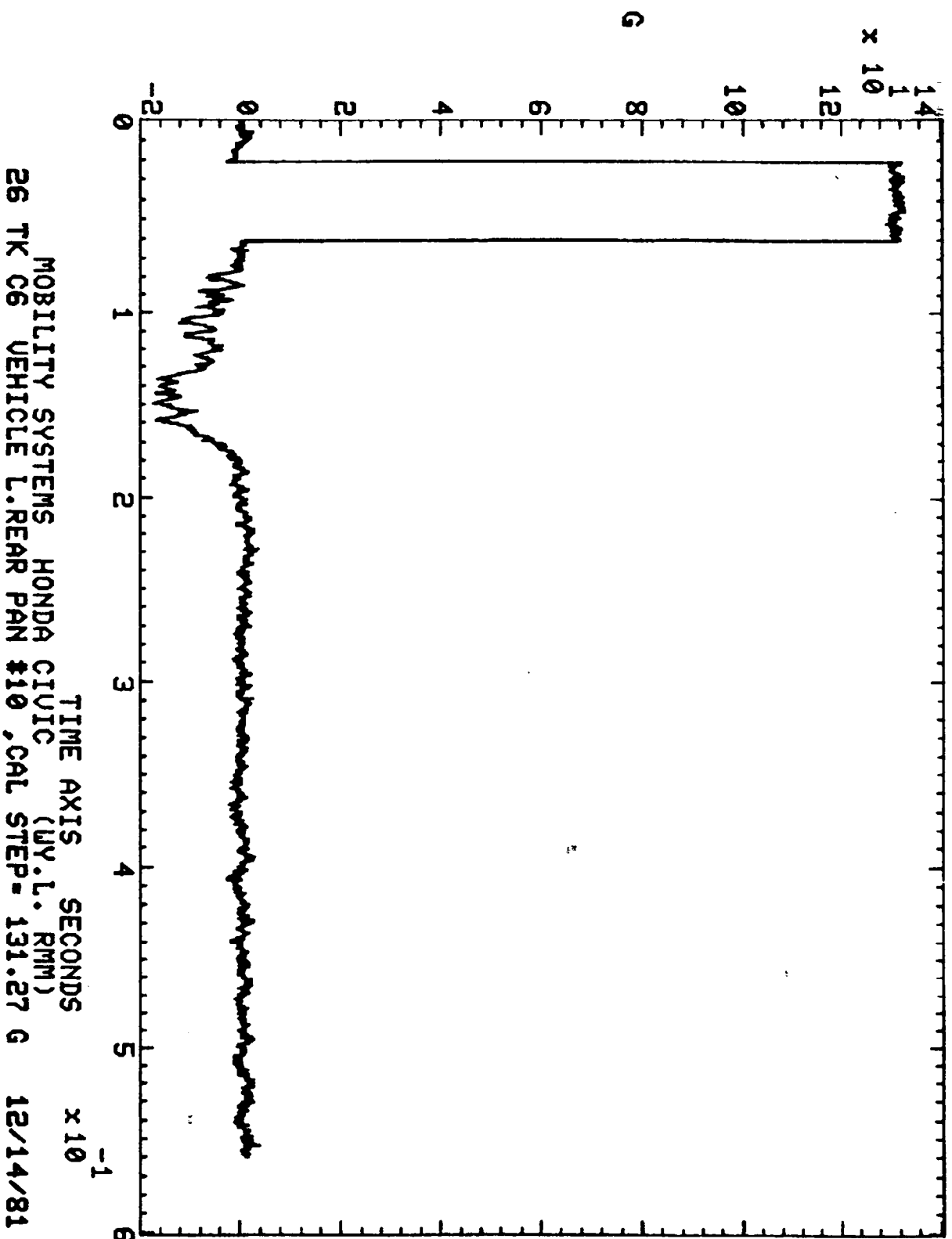




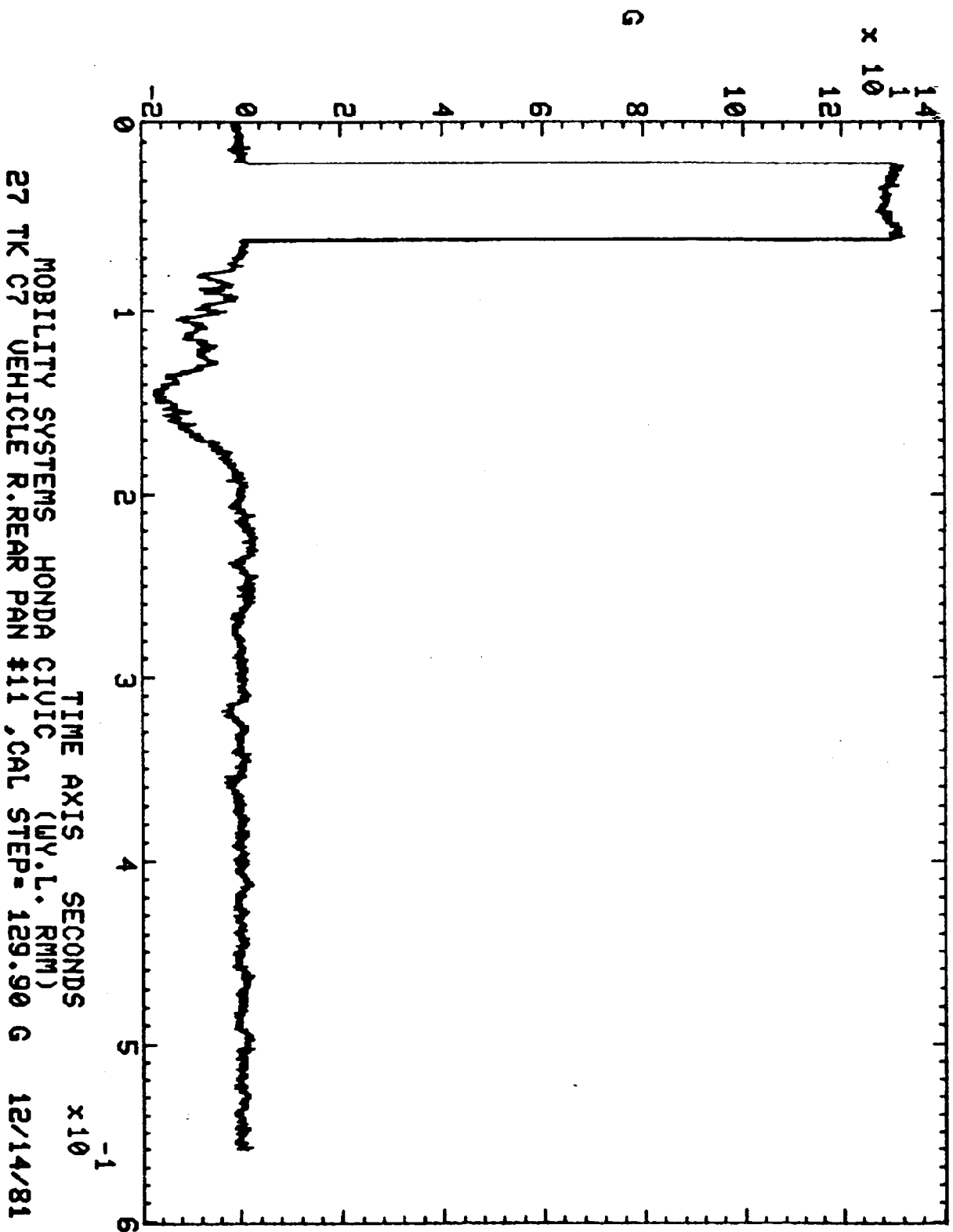
MOBILITY SYSTEMS HONDA CIVIC  
24 TK A11 VEHICLE CG. LAT. # 9 , CAL STEP- 148.38 G 12/14/81  
TIME AXIS SECONDS  
(WY.L. RMM)  
 $\times 10^{-1}$

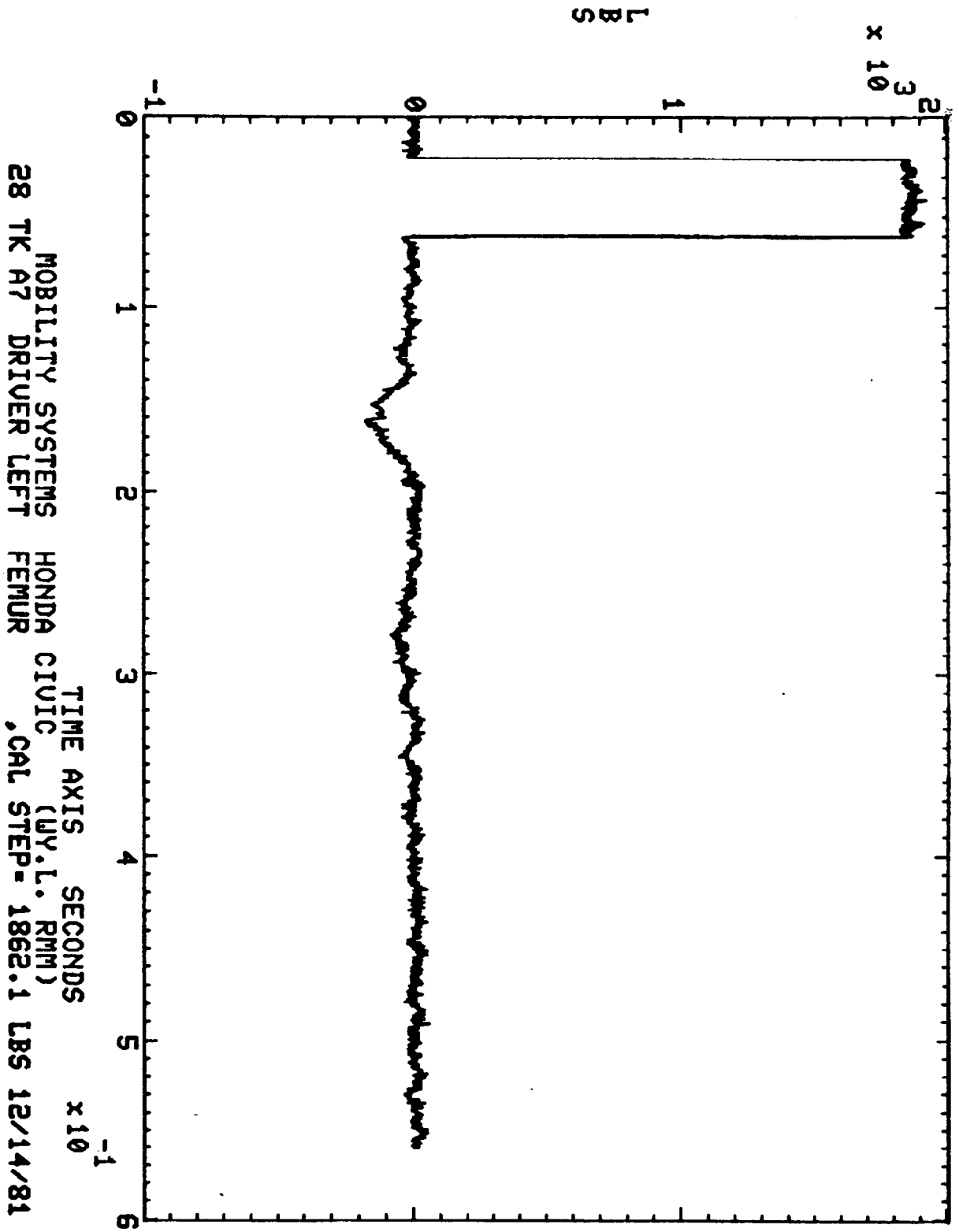


MOBILITY SYSTEMS HONDA CIVIC  
 25 TK A12 VEHICLE CG. VERT. # 9 , CAL STEP- 140.91 G 12/14/81

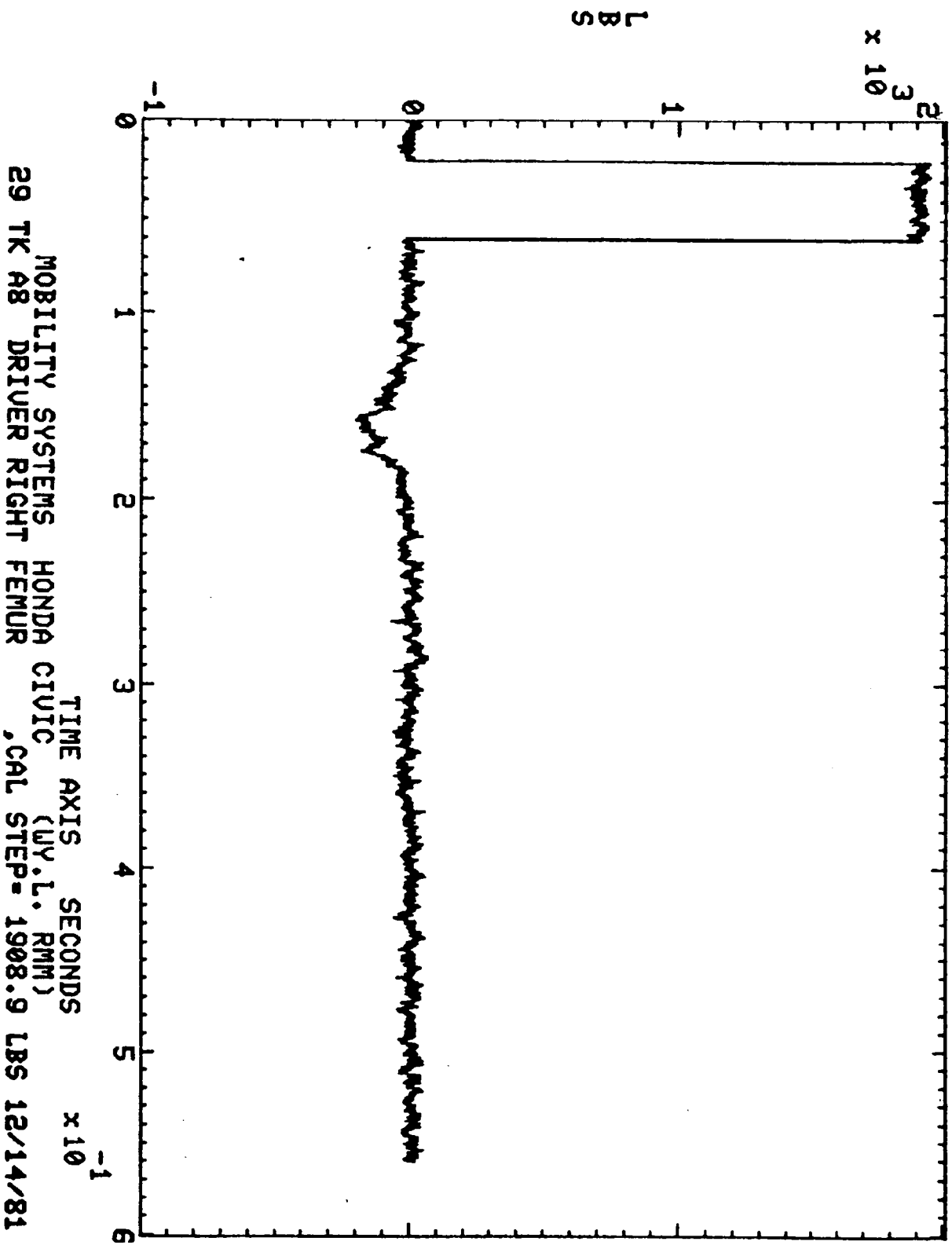


MOBILITY SYSTEMS HONDA CIVIC  
 (JY.L. RMM)  
 TIME AXIS SECONDS  
 26 TK C6 VEHICLE L.REAR PAN #10 ,CAL STEP- 131.27 G 12/14/81

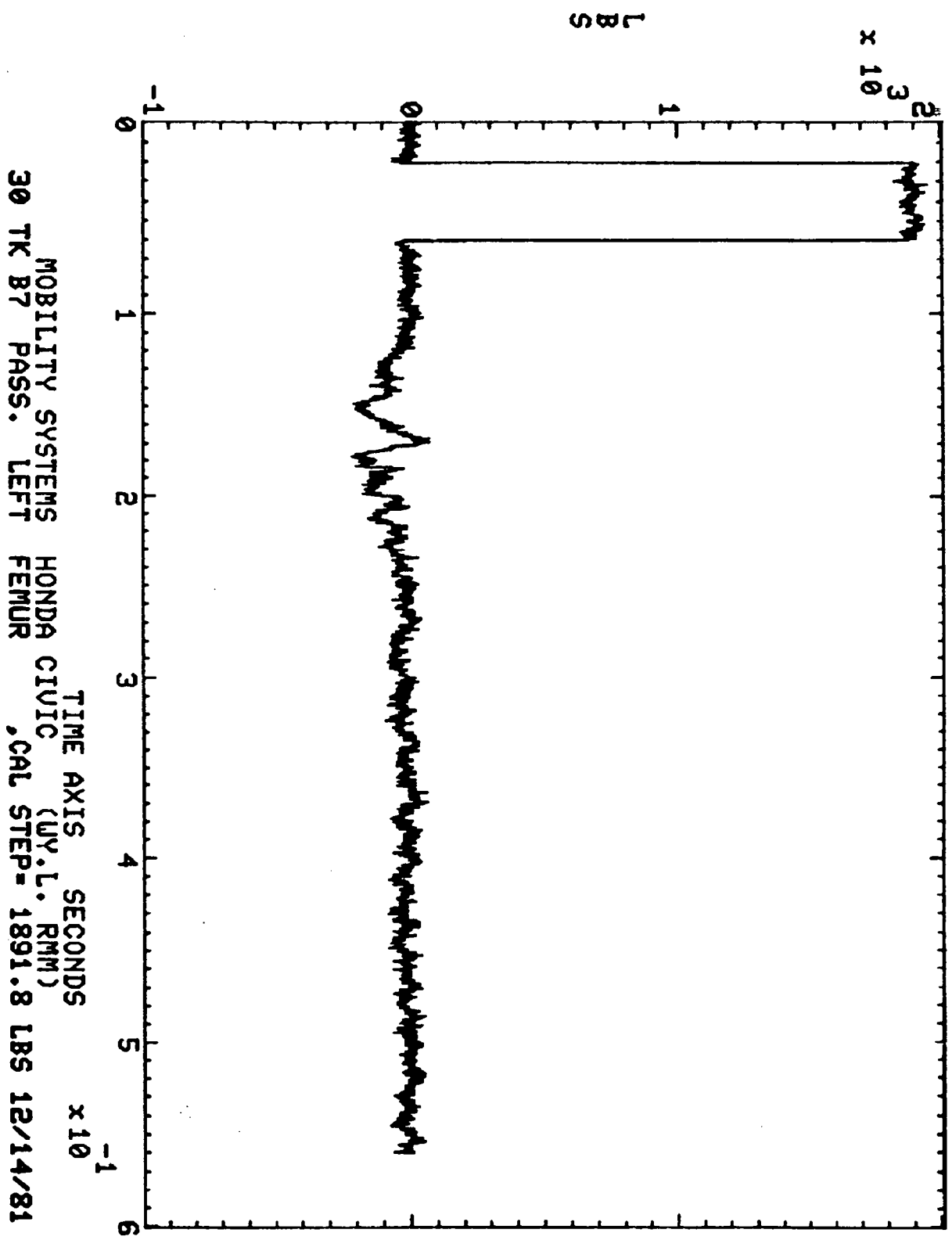




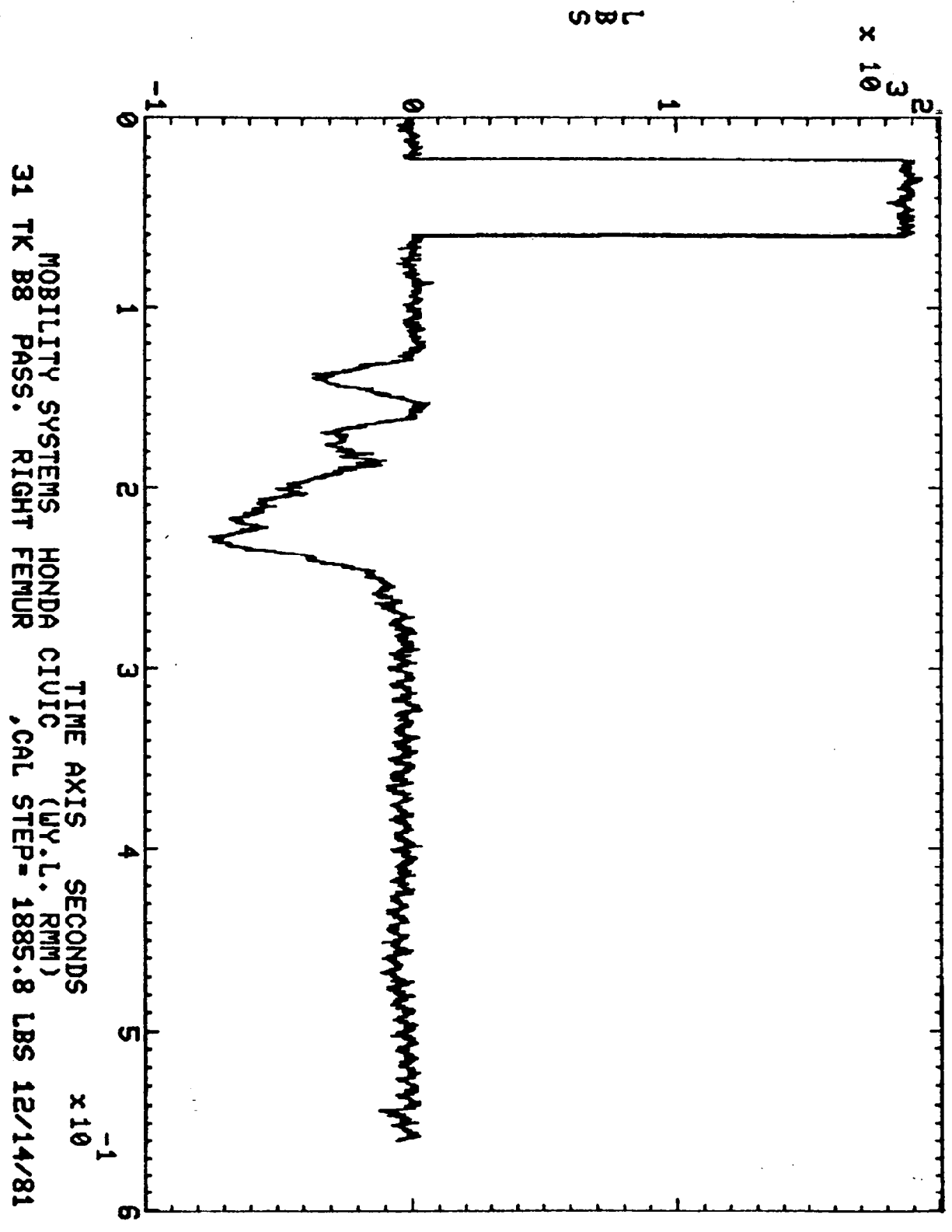
MOBILITY SYSTEMS  
 HONDA CIVIC  
 DRIVER LEFT FEMUR  
 TIME AXIS SECONDS  
 (WY.L. RMM)  
 .CAL STEP- 1862.1 LBS 12/14/81



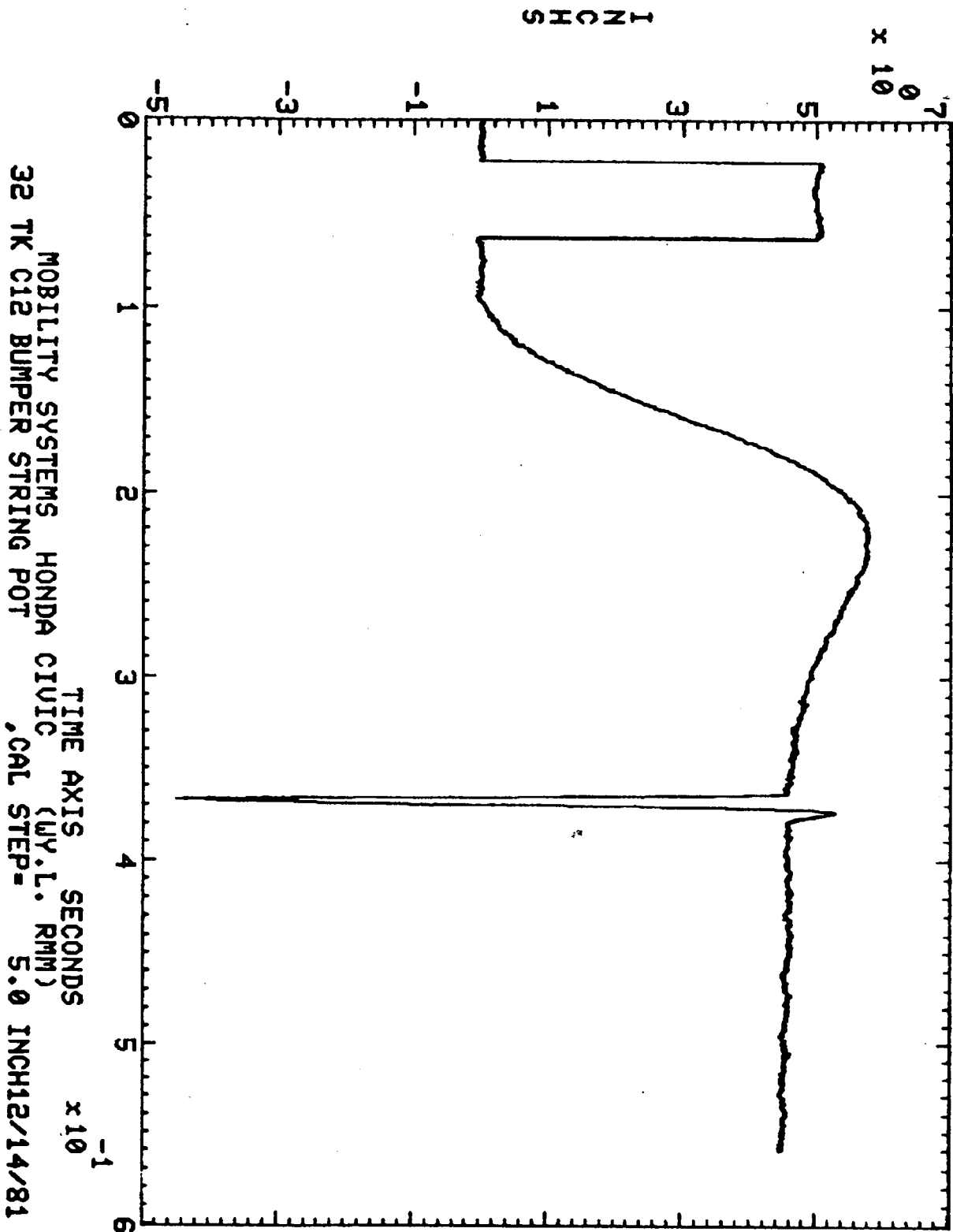
MOBILITY SYSTEMS HONDA CIVIC (U.Y.L. RMM)  
 29 TK A8 DRIVER RIGHT FEMUR ,CAL STEP- 1908.9 LBS 12/14/81



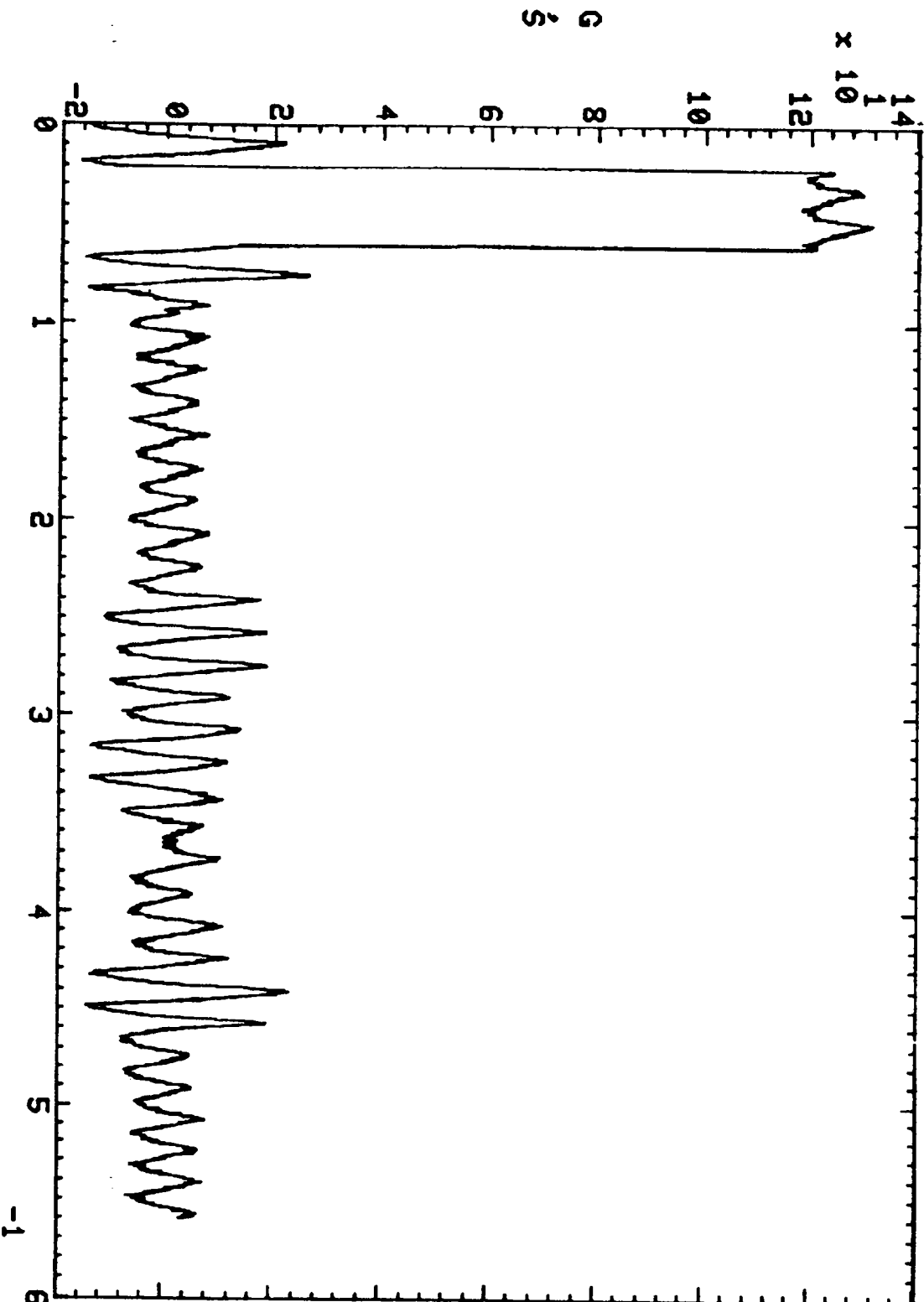
MOBILITY SYSTEMS HONDA CIVIC  
30 TK B7 PASS. LEFT FEMUR ,CAL STEP- 1891.8 LBS 12/14/81



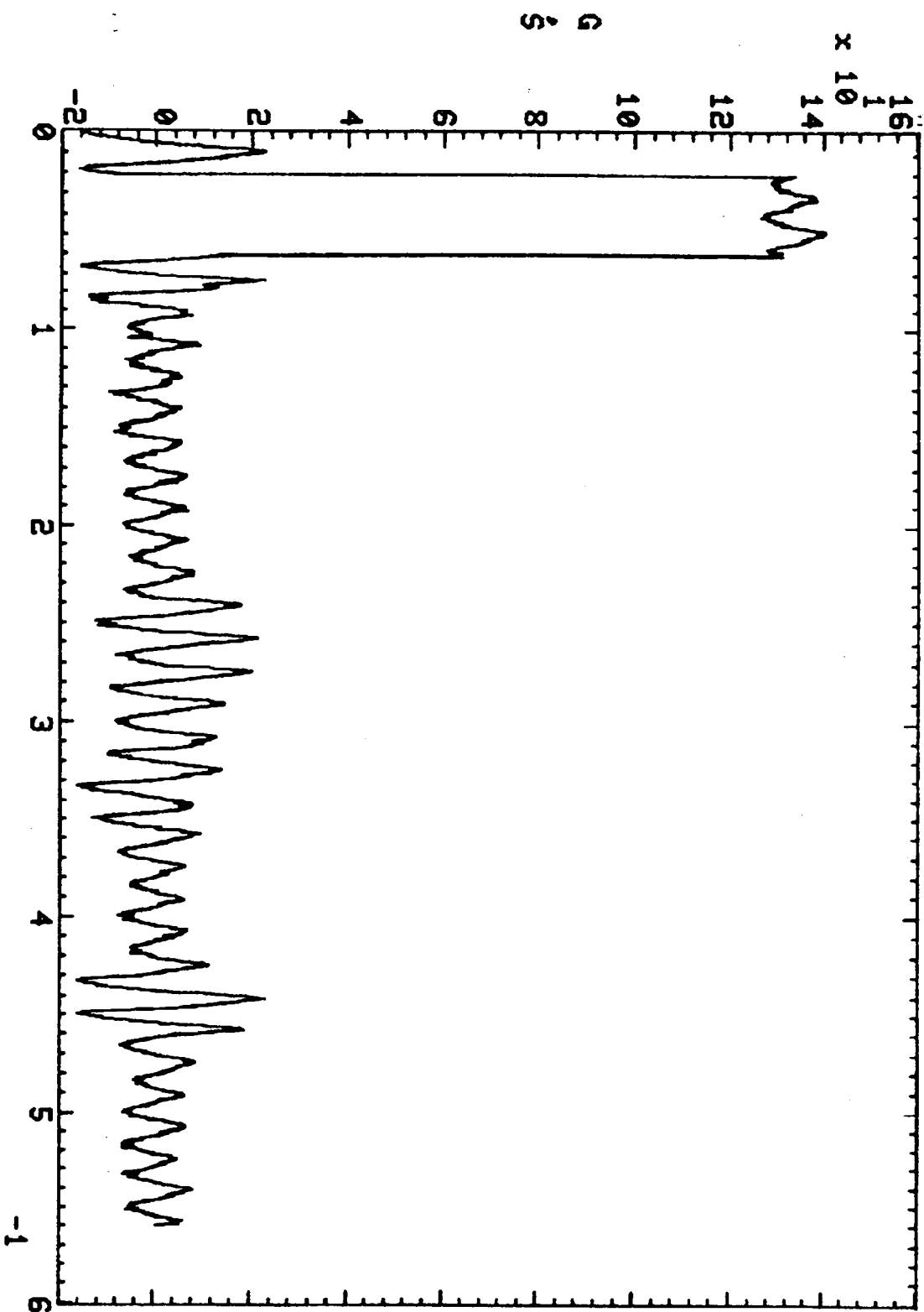
MOBILITY SYSTEMS HONDA CIVIC  
TIME AXIS SECONDS  
(WY.L. RMM)  
31 TK B8 PASS. RIGHT FEMUR ,CAL STEP- 1885.8 LBS 12/14/81



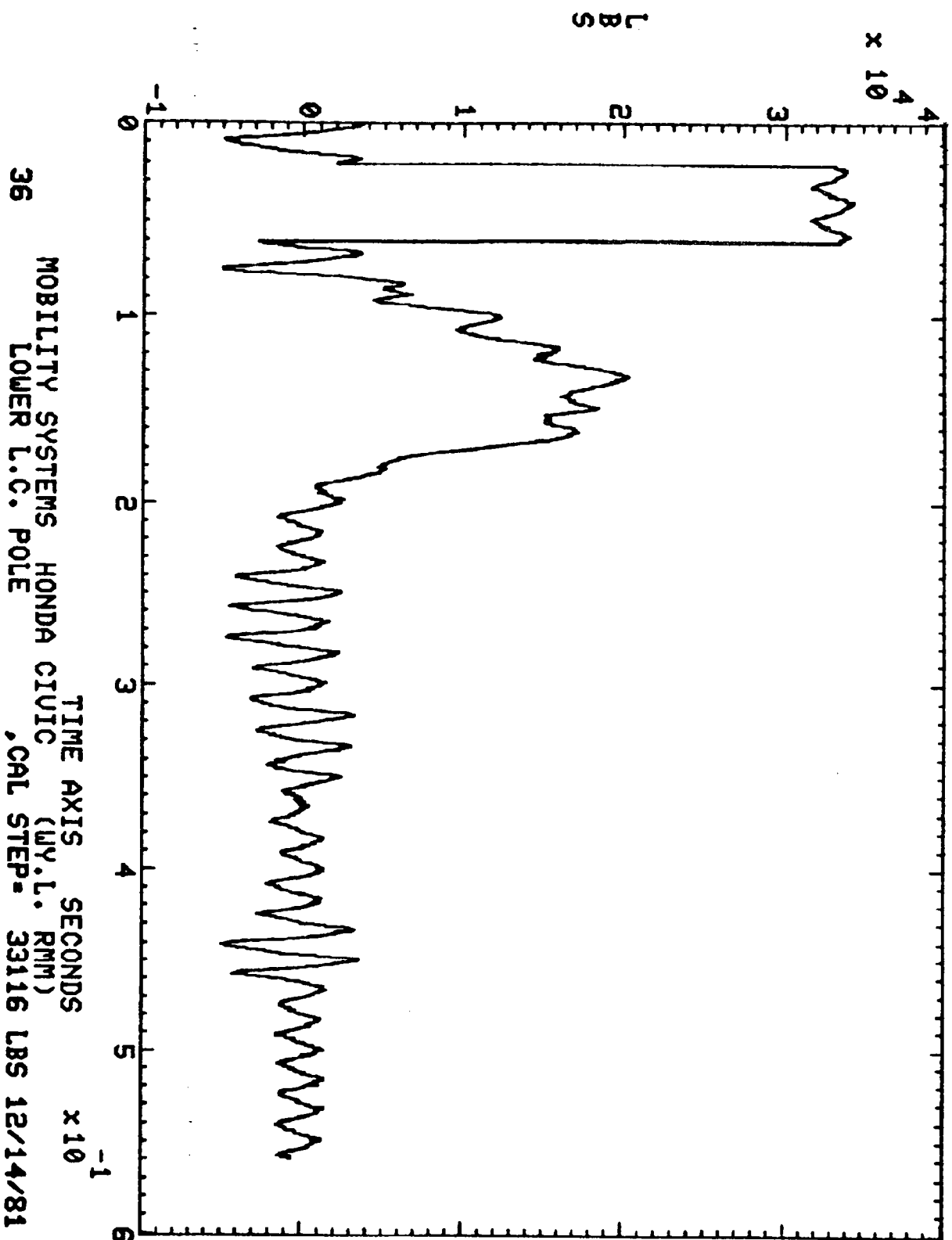
MOBILITY SYSTEMS HONDA CIVIC  
32 TK C12 BUMPER STRING POT  
TIME AXIS SECONDS  
(UY.L. RMM)  
.CAL STEP- 5.0 INCH12/14/81



34 MOBILITY SYSTEMS HONDA CIVIC  
 LOWER ACC. POLE TIME AXIS SECONDS  
 (WY.L. RMM) x 10  
 ,CAL STEP= 123.15 G,S 12/14/81

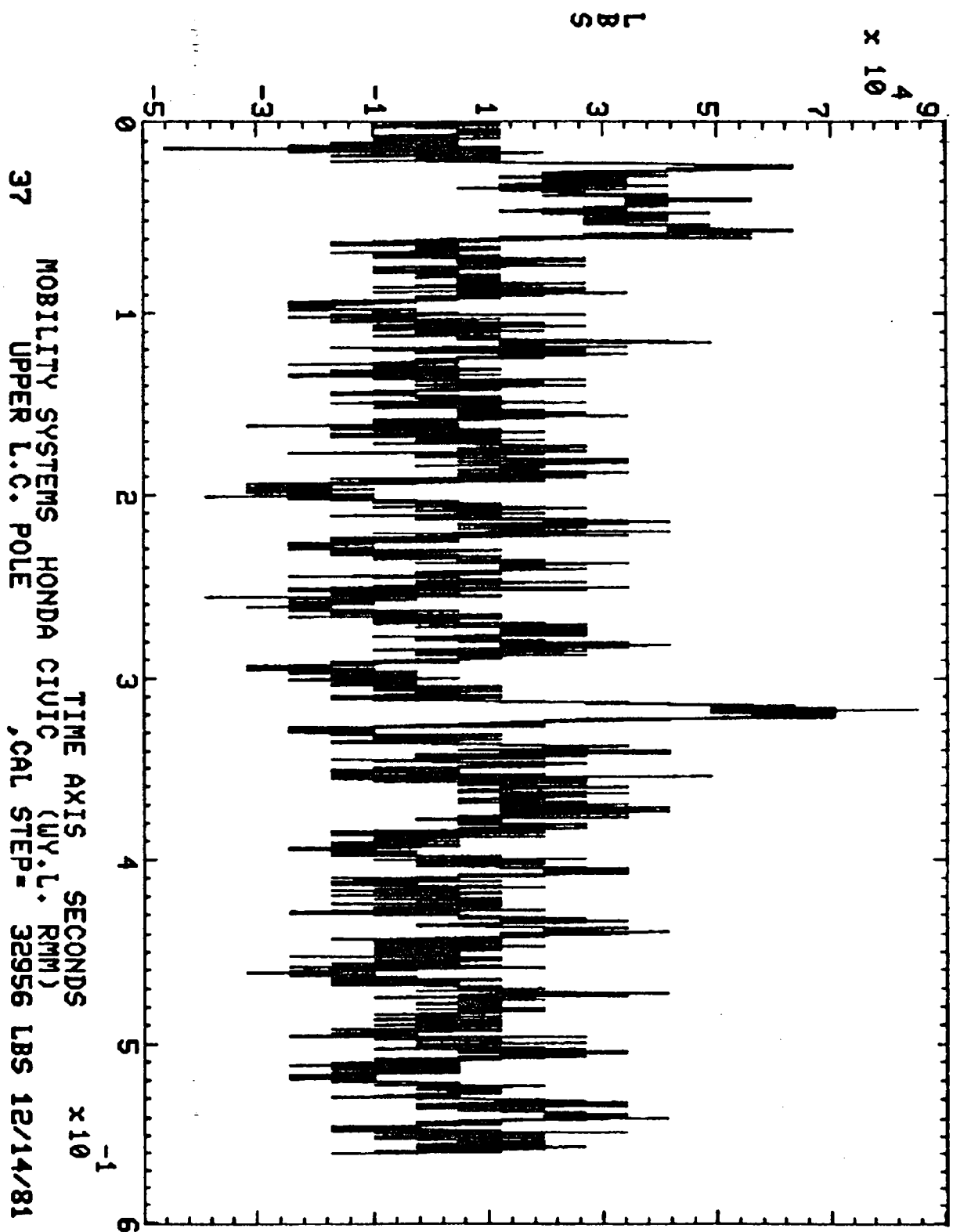


35 MOBILITY SYSTEMS HONDA CIVIC  
 UPPER ACC. POLE TIME AXIS SECONDS  
 (WY.L. RMM) x 10  
 ,CAL STEP- 132.2 G,5 12/14/81



36

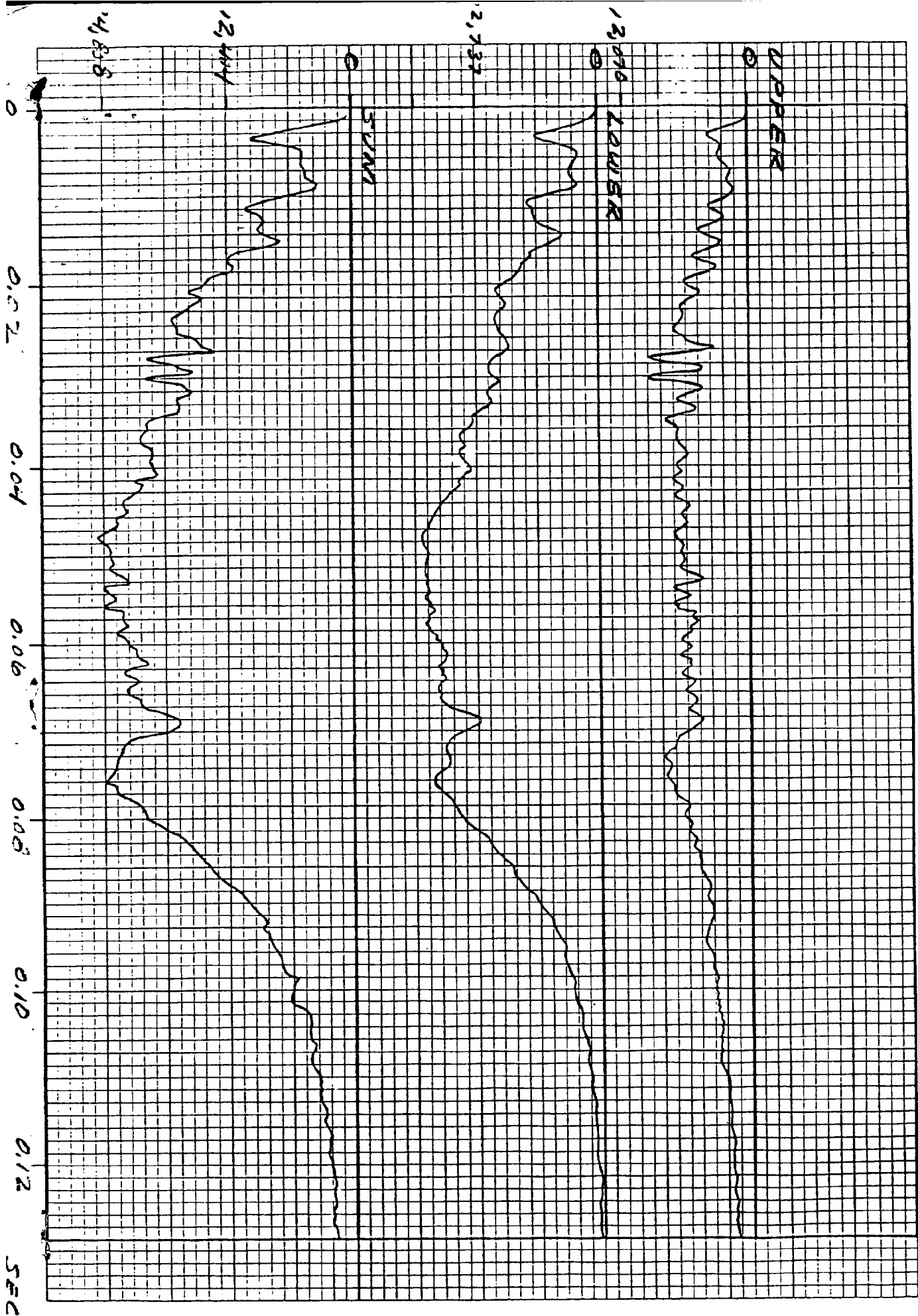
MOBILITY SYSTEMS HONDA CIVIC  
 LOWER L.C. POLE  
 TIME AXIS SECONDS  
 (W.Y.L. RMM)  
 ,CAL STEP- 33116 LBS 12/14/81



37

46 0863

PHASE I, Test No. 2  
Rigid Pole Impact - HONOLULU



40 U803  
PHASE I, Test No. 1  
Rigid Role Impact RED VEGA

