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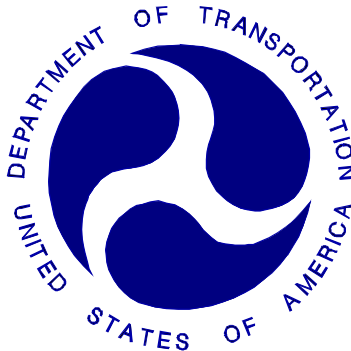
**NEW CAR ASSESSMENT PROGRAM (NCAP)
FRONTAL BARRIER IMPACT TEST**

DAIMLERCHRYSLER
2005 CHRYSLER TOWN AND COUNTRY
MINIVAN

NHTSA NUMBER: L50300

GENERAL DYNAMICS TEST NUMBER: 8741-01

GENERAL DYNAMICS
ADVANCED INFORMATION ENGINEERING SERVICES
TRANSPORTATION SCIENCES CENTER
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March 26, 2004

FINAL REPORT

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16. Abstract A frontal load cell barrier test of a 2005 Chrysler Town and Country Minivan was performed at General Dynamics crash test facility in Buffalo, New York, on March 26, 2004. The impact velocity was 56.49 kph and the temperature at the barrier face was 21.1°C. The maximum post-test vehicle crush was 602 mm. The test vehicle was equipped with 3-point restraint systems, knee bolsters, and airbags at both the driver and right outboard passenger seating positions. The driver side knee bolster was inflatable. With respect to FMVSS 208 "Occupant Crash Protection - Injury Criteria" both the driver and passenger appeared to comply with head, chest, and femur requirements.					
ATD Position	HIC	Clip (g's)	Chest Disp (mm)	Left Femur (N)	Right Femur (N)
Driver (150)	482.8	43.7	-39.4	-3206.1	-2088.6
Passenger (245)	384.5	45.7	-30.5	-3551.3	-3446.4
17. Key Words 56 kph Frontal Barrier Impact test New Car Assessment Program (NCAP)				18. Distribution Statement Copies of this report are available from: NHTSA Technical Reference Division National Highway Traffic Safety Admin. 400 Seventh St., SW, Room 5108 Washington, DC 20590	
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SECTION 1

PURPOSE AND SUMMARY OF TEST

1.1 PURPOSE

The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for an impact speed in excess of the current 48.3 kph requirements.

The 56.49 kph frontal barrier impact test was conducted in accordance with the Office of Crashworthiness Standards Laboratory Indicant Test procedure.

1.2 TEST PROCEDURE

This 56.49 kph frontal barrier impact test was conducted in accordance with the Office of Crashworthiness Standards (OCS) New Car Assessment Program (NCAP) Laboratory Indicant Test Procedure, dated December 1999. Data was obtained indicant of FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Retention"; FMVSS 219, "Windshield Zone Intrusion (Partial)"; and FMVSS 301 "Fuel System Integrity" performance. Procedures for receiving, inspection testing and reporting of test results are described in the test procedures and are not repeated in this report.

One real-time camera and 16 high-speed cameras were used to document the frontal barrier impact event. Camera locations and other pertinent camera information can be found in this report.

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

Both ATDs were fully instrumented with nine accelerometer array heads, chest and pelvis triaxial accelerometers, chest displacement potentiometers, upper neck transducers, right/left femur load cells, and lower leg instrumentation. Seat belt load cells were also installed on the driver's and passenger's lap belts to measure dummy pelvic section loading. Belt load cells were not installed on the driver's or passenger's shoulder belts at the request of Chrysler representatives and the approval of the NHTSA COTR. The driver (position 1) ATD (Serial No. 150) and the right-front passenger (position 2) ATD (Serial No.245) were calibrated previous to this test. Certification details, along with instrumentation calibration data, are found in Appendix C.

The vehicle, occupant, camera and measurement data are presented in Section 2. Appendix A contains the still photograph prints. The 193 channels of data were recorded on an on-board data acquisition system. Appendix B contains the vehicle, load cell barrier and dummy response data traces. Appendix C contains the dummy calibration data and Appendix D contains the transducer calibration dates.

1.3 SUMMARY OF FRONTAL BARRIER IMPACT TEST

A load cell barrier consisting of 36 load cells was impacted by a 2005 Chrysler Town and Country Minivan at a velocity of 56.49 kph. The test was performed at General Dynamics on March 26, 2004. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

The occupant data is summarized below.

	HIC	Clip (g)	Chest Disp. (mm)	Left Femur (N)	Right Femur (N)	Belt Spool (mm)	Belt Stretch (mm/50 mm)
Driver ATD	482.8	43.7	-39.4	-3206.1	-2088.6	†	0.25
Passenger ATD	384.5	45.7	-30.5	-3551.3	-3446.4	†	0

† - Not used due to the vehicle being equipped with torso belt pretensioners.

AUTOMATIC DOOR LOCK SUMMARY

ADL Equipped Test Vehicle:	Yes
ADL Activation Status:	Yes
Door Lock Condition:	Unlocked

There was 100 percent windshield retention and no intrusion into the protected zone of the windshield during the event. There was no Stoddard solvent leakage after the event or during any phase of the static rollover.

The maximum vehicle static crush was 602 mm and both the driver and passenger side doors remained closed during the impact event and were operable after the impact.

The driver's visible contact points were as follows: Face to the center of the airbag, back of head to the inboard edge of the head restraint, left and right knees to the inflatable knee bolster. The passenger's visible contact points were as follows: Face to the right one-third of the airbag, back of head to the outboard half of the head restraint, left knee to the left edge of the glove compartment door, right knee to the right one-third of the glove compartment door and the glove compartment door handle.

The 2005 Chrysler Town and Country Minivan did not exceed the requirements of FMVSS 208, FMVSS 212, FMVSS 219, and FMVSS 301. Data pertaining to these standards are presented in the data sheets.

SECTION 2

GENERAL TEST AND VEHICLE PARAMETER DATA

DATA SHEET NO. 1 CRASH TEST SUMMARY

Vehicle NHTSA No.:	L50300	Test Mode:	56.3 kph Frontal Barrier
Test Date:	March 26, 2004	Time:	16:42
		Temperature:	21.1 °C
Vehicle Make/Model/Body Style:	2005 Chrysler Town and Country Minivan		
Vehicle Test Weight:	2229.0	kg	
Vehicle/Barrier Impact Angle:	0	°	
Impact Velocity:	56.49	kph	
Maximum Static Crush:	602	mm	
Vehicle Rebound:	588	mm	
<u>DUMMIES:</u>		<u>DRIVER</u>	<u>PASSENGER</u>
Type:		572E	572E
Restraint System:		Seatbelt, Airbag, Inflatable Knee Bolster	Seatbelt, Airbag, Knee Bolster
Number of Data Channels:	193		
Number of Cameras:	1	Real Time	
	16	High Speed	
<u>DOOR OPENING DATA:</u>	Door remained closed and latched; Door opened without tools - Left Front		
	Door remained closed and latched; Door opened without tools - Right Front		
Front Seat(s) Data:		<u>DRIVER</u>	<u>PASSENGER</u>
Seat Track Failure: (mm of shift)		2	2
Seat Back Failure:		None	None
<u>VISIBLE DUMMY CONTACT POINTS:</u>		<u>DRIVER</u>	<u>PASSENGER</u>
Head:		Face to center of airbag; Back of head to inboard edge of head restraint	Face to right one-third of airbag; Back of head to outboard half of head restraint
Abdomen:		None	None
Chest:		Airbag	Airbag
Knees:		Left knee to inflatable knee bolster; Right knee to inflatable knee bolster	Left knee to left edge of the glove compartment door; Right knee to the right one-third of the glove compartment door

DATA SHEET NO. 2 GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2005 Chrysler Town and Country Minivan

NHTSA No. : L50300 ; VIN: 2C4GP44R35R131530 ; Color: Gray

Engine Data: 6 cylinders; - CID; 3.3 Liters; - cc

Placement: - Longitudinal or In-Line; X Transverse or Lateral

Transmission Data: 4 speeds; - Manual; X Automatic; X Overdrive

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

Safety Belt Features – Driver X Pretensioner (Shoulder); X Load Limiter; X Adj. Anchorage

Safety Belt Features - Passenger X Pretensioner (Shoulder); X Load Limiter; X Adj. Anchorage

Major Options: X ADL; X A/C; X Pwr.Strg.; X Pwr. Brakes

X Pwr. Windows; X Pwr. Door Locks; X Tilt Wheel

Date Received: 3/16/2004 ; Odometer Reading 14.5 km

Selling Dealer: Northtown Sheridan Chrysler Jeep

& Address: 3845 Sheridan Drive, Buffalo NY 14226-1790

DATA FROM TIRE VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured by: DaimlerChrysler

Date of Manufacture 02/04

GVWR: 2586 kg; GAWR: 1293 kg FRONT; 1339 kg REAR

DATA FROM TIRE PLACARD:

Recommended Tire Size: P215/70R15

* Recommended Cold Tire Pressure: 248 kPa FRONT; 248 kPa REAR

DATA FROM TIRE SIDEWALL:

Size of Tires on Test Vehicle: P215/70R15 98S ; Manufacturer: Goodyear

Tire Pressure with Maximum Capacity Vehicle Load: Front: 300 kPa; Rear: 300 kPa

Treadwear: 460 ; Traction: A ; Temperature: B

VEHICLE CAPACITY DATA:

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

Number of Occupants: 2 Front; 5 Rear; 7 Total

Vehicle Capacity Weight (VCW) = 638 kg

No. of Occupants x 68.04 kg = 476.3 kg

Rated Cargo/Luggage Weight (RCLW) = 161.7 kg **

*Tire pressure used for test

** Maximum RCLW of 136.1 kg was used for the target weight calculation.

DATA SHEET NO. 2 GENERAL TEST AND VEHICLE PARAMETER DATA (cont.)

WEIGHT OF TEST VEHICLE AS RECEIVED FROM DEALER (with maximum fluids)= UDW:

Right Front =	<u>529.0</u>	kg	Right Rear =	<u>424.0</u>	kg
Left Front =	<u>570.0</u>	kg	Left Rear =	<u>425.0</u>	kg
TOTAL FRONT =	<u>1099.0</u>	kg	TOTAL REAR =	<u>849.0</u>	kg
TOTAL DELIVERED WEIGHT =	<u>1948.0</u>	kg			
% of Total Front of Vehicle Weight =	<u>56.4</u>		% of Total Rear Weight =	<u>43.6</u>	%

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Delivered Weight (UDW) =	<u>1948.0</u>	kg
Rated Cargo/Luggage Weight (RCLW) =	<u>136.1</u>	kg (136.1 kg maximum)
Weight of 2 p.572 Dummies @ 76 each =	<u>152</u>	kg
TARGET TEST WEIGHT =	<u>2236.1</u>	kg

WEIGHT OF TEST VEHICLE WITH TWO DUMMIES AND 129.0 KG OF CARGO WEIGHT:

Right Front =	<u>560.0</u>	kg	Right Rear =	<u>526.5</u>	kg
Left Front =	<u>612.5</u>	kg	Left Rear =	<u>530.0</u>	kg
TOTAL FRONT =	<u>1172.5</u>	kg	TOTAL REAR =	<u>1056.5</u>	kg
TOTAL TEST WEIGHT =	<u>2229.0</u>	kg			
% of Total Front Weight =	<u>52.6</u>	%	% of Total Rear Weight =	<u>47.4</u>	%
Weight of Ballast Secured in Vehicle Trunk Area =	<u>56</u>	kg			
Vehicle Components Removed for Weight Reduction:	<u>None</u>				

VEHICLE ATTITUDE (all dimension in millimeters):

AS DELIVERED:	RF	<u>783</u>	LF	<u>773</u>	RR	<u>807</u>	LR	<u>796</u>
FULLY LOADED:	RF	<u>770</u>	LF	<u>758</u>	RR	<u>766</u>	LR	<u>758</u>
AS TESTED:	RF	<u>775</u>	LF	<u>765</u>	RR	<u>766</u>	LR	<u>759</u>
Vehicle's Wheel Base:	<u>3030</u>	mm						
Location of Vehicle's C.G.:	<u>1436</u>	mm rearward of front wheel center.						

FUEL SYSTEM DATA:

Fuel System Capacity From Owner's Manual =	<u>75.7</u>	liters
Usable Capacity Figure Furnished by COTR =	<u>75.7</u>	liters
Test Volume Range (92 to 94% of Usable Capacity) =	<u>69.64</u>	to <u>71.16</u> liters
ACTUAL TEST VOLUME=	<u>69.7</u>	liters (with entire fuel system filled)
Test Fluid Type:	<u>Stoddard Solution</u>	Spec. Grav. = <u>0.764</u>
Kinematic Viscosity =	<u>0.96</u>	centistokes; Color = <u>Orange</u>
Type of Fuel Pump: Electric-	<u>X</u>	Mechanical- <u>-</u>
Does Electric Pump operate with ignition switch "ON" & engine "OFF"	Yes- <u>X</u>	No- <u>-</u>
Details of Fuel System: Tank – Left of center ahead of the rear axle; Lines – Along centerline moving to the inside of the left frame stiffener; Filler - Left side ahead of the rear axle.		

DATA SHEET NO. 3 POST IMPACT DATA

TYPE OF TEST:

Type of Test: Frontal Barrier Impact Angle: 0°
Test Date: March 26, 2004 Time: 16:42 Temperature: 21.1 °C
Vehicle NHTSA No.: L50300
Required Impact Velocity Range: 55.5 to 57.1 kph

BARRIER IMPACT VELOCITY: (Speed traps within 5 feet of impact plane.)

Trap No. 1 = 56.49 kph; Trap No. 2 = 56.49 kph
Distance from vehicle to barrier: (1) entering trap = 813 mm
(2) exiting trap = 305 mm

VEHICLE STATIC CRUSH: (mm) (For frontal and rear impacts only.)

Vehicle Length:

Pre-Test	Left = <u>5019</u>	C/L = <u>5095</u>	Right = <u>5022</u>
Post-Test	Left = <u>4447</u>	C/L = <u>4509</u>	Right = <u>4499</u>
Crush	Left = <u>572</u>	C/L = <u>586</u>	Right = <u>523</u>
AVERAGE	= <u>560</u>	mm	

VEHICLE REBOUND: (From rigid barrier only.)

Distance from front of test vehicle to impact point:

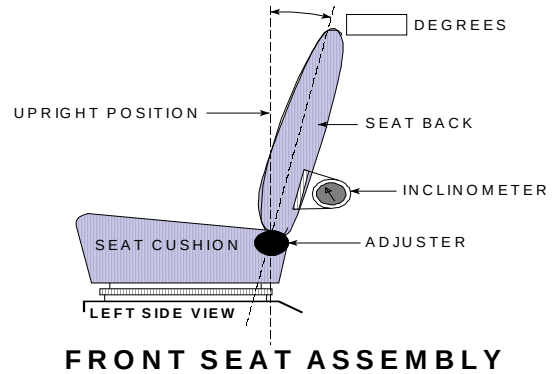
	Left = <u>588</u>	C/L = <u>547</u>	Right = <u>630</u>
AVERAGE	= <u>588</u>	mm	

DATA SHEET NO. 4 TEST VEHICLE INFORMATION

VEHICLE IDENTIFICATION:

Model Year : 2005 Vehicle Model: Chrysler Town and Country Body Style : Minivan

1. NOMINAL DESIGN RIDING POSITION: for adjustable driver and passenger seat backs. Please describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent, if applicable.



Seat back angle for driver's seat: 22°

Measurement instructions: Recline the seat 8° from the full up position.

Seat back angle for passenger's seat: 18°

Measurement instructions: Recline the seat 4° from the full up position.

2. SEAT FORE AND AFT POSITIONING:

Positioning of the driver's seat: There are 220 mm of total travel. The seat is placed in mid-position (110 mm)

Positioning of the passenger's seat: There are 220 mm of total travel. The seat is placed in mid-position (110 mm)

3. FUEL TANK CAPACITY DATA:

3.1 A. "Usable Capacity" of the standard equipment fuel tank is 75.7 liters

B. "Usable Capacity" of the optional equipment fuel tank is - liters

C. "Usable Capacity" of the vehicle(s) used for certification testing to requirements of FMVSS 301 = 75.7 liters

3.2 Amount of Stoddard solvent added to vehicle(s) used for certification test(s) = 69.7 liters

3.3 Is vehicle equipped with electric fuel pump? Yes- X ; No- :

If YES, explain the vehicle operating conditions under which the fuel pump will pump fuel.

When the key is turned to the 'ON' position or while the engine is running.

DATA SHEET NO. 4 TEST VEHICLE INFORMATION (cont.)

4. STEERING COLUMN ADJUSTMENTS:

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions. If the tested vehicle has any of these adjustments, does your company use any specific procedures to determine the geometric center.

Operational Instructions: The steering column is placed in the mid-position (25°)

5. SEAT BELT UPPER ANCHORAGE:

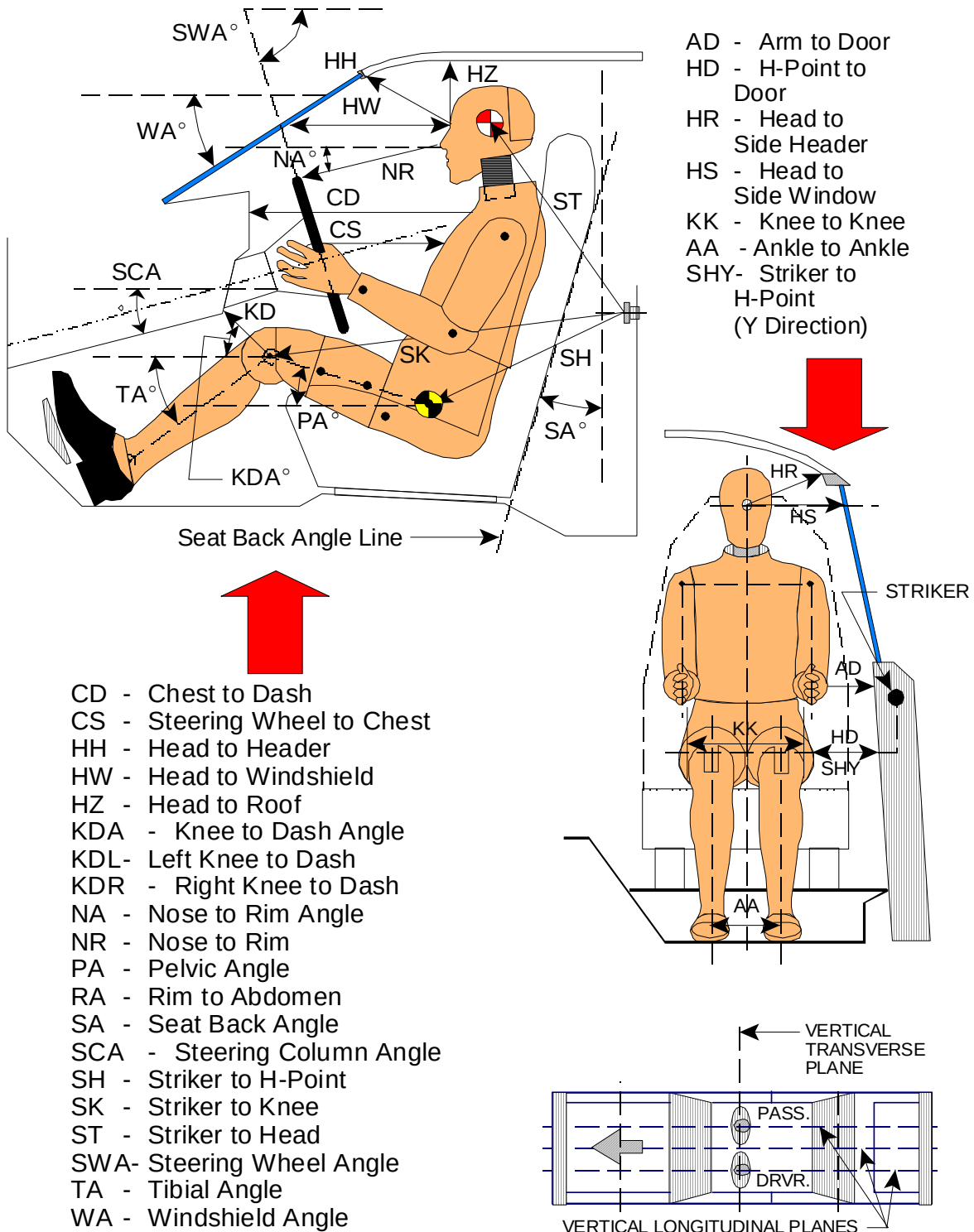
Nominal design riding position: There are four total detents. Test position is the second detent from full up.

6. AUTOMATIC DOOR LOCKS: Is test vehicle equipped with ADLs? X Yes; - No; -

Does vehicle owner's manual describe how to deactivate ADLs? X Yes; - No; - N/A

Comments: If ADLs are activated, the doors will lock only if the transmission is in gear, all doors are closed, speed is above 18 mph, and the doors were not previously locked with the power lock switch or keyless entry transmitter.

DATA SHEET NO. 5 FRONT SEAT DUMMY POSITIONING MEASUREMENTS IN VEHICLE
DUMMY MEASUREMENT FOR FRONT SEAT PASSENGERS



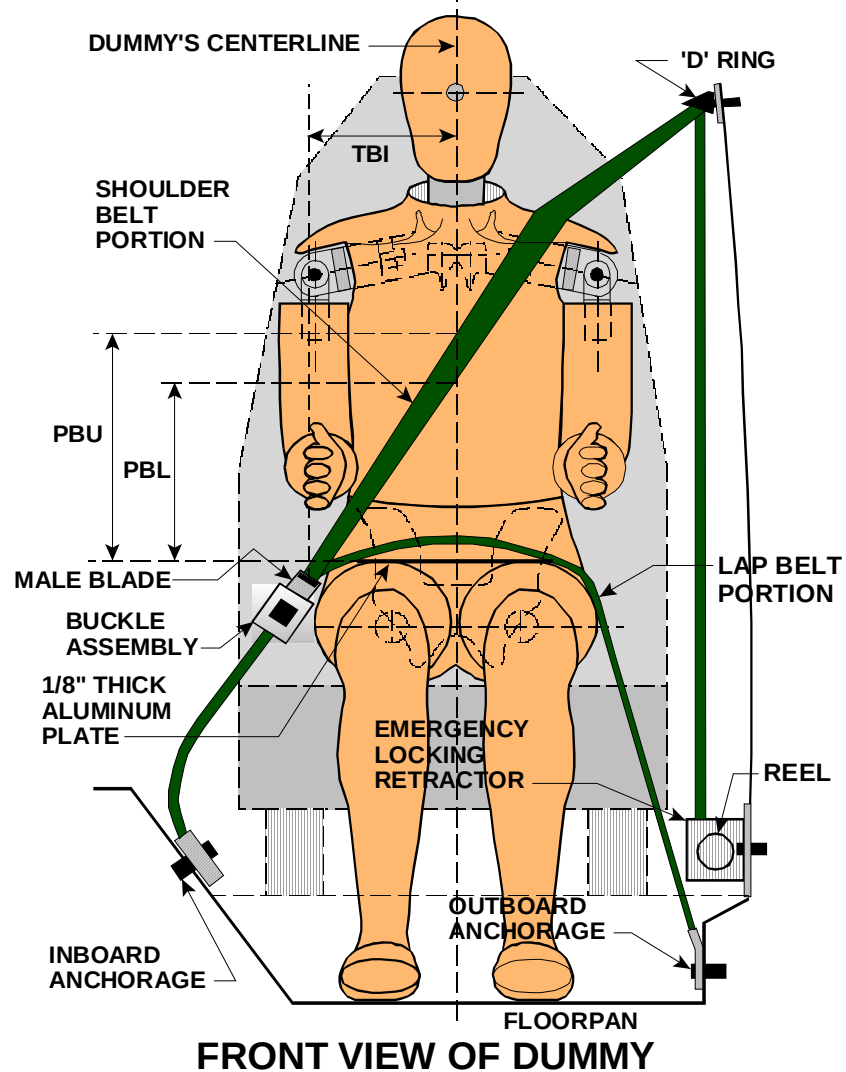
DATA SHEET NO. 5 FRONT SEAT DUMMY POSITIONING MEASUREMENTS IN VEHICLE (cont.)

	DRIVER (Serial #150)			PASS. (Serial #245)		
WA ^o	28.2 deg.			N/A		
SWA ^o	65 deg.			N/A		
SCA ^o	25 deg.			N/A		
SA ^o	22 deg.			18 deg.		
HZ	219			167		
HH	382			307		
HW	676			532		
HR	195			176		
NR	434	Angle	13 deg.	N/A		
CD	600			542		
CS	309			N/A		
RA	187			N/A		
KDL	174	Angle (KDA)	30 deg.	172		
KDR	210			172	Angle (KDA)	40 deg.
PA ^o	25.0 deg.			22 deg.		
TA ^o	58 deg.			54 deg.		
KK	378			172		
AA	285			190		
ST	665	Angle	10 deg.	661	Angle	15 deg.
SK	603	Angle	85 deg.	622	Angle	84 deg.
SH	207	Angle	88 deg.	220	Angle	89 deg.
SHY	260			231		
HS	345			340		
HD	155			141		
AD	160			129		

Dimensions in millimeters

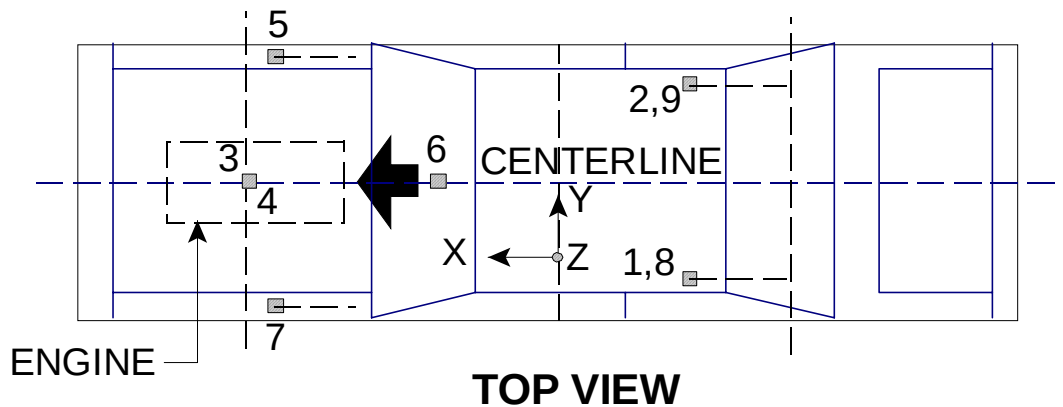
DATA SHEET NO. 6 SEAT BELT POSITIONING DATA

SEAT BELT POSITIONING DATA

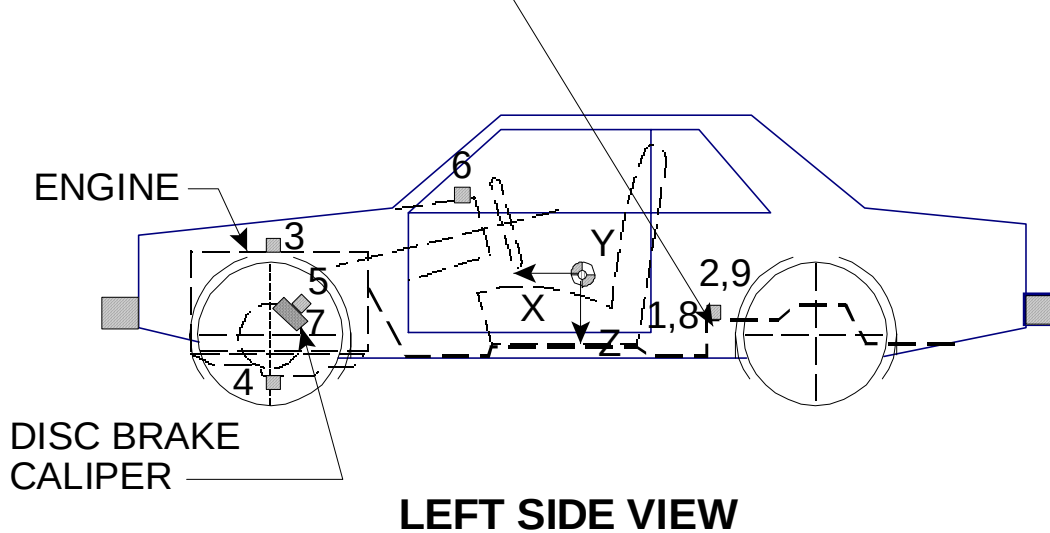


	DRIVER DUMMY (mm)	PASSENGER DUMMY (mm)
PBU -- Top surface of alum. plate to upper edge	327	320
PBL-- Top surface of alum. plate to belt lower edge	257	250
LAP BELT TENSION	10 N	10 N
SHOULDER BELT TENSION	Retractor	Retractor

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



REAR SEAT CUSHION
ASSY. FRONT ATTACHMENT
BRACKET SUPPORT



Note: Vehicle accelerometer location and data summary shown in DATA SHEET NO. 7

DATA SHEET NO. 7 VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY (cont.)

LOCATION		PRE-TEST LENGTH (mm)		
		X	Y	Z
1	Left Rear Seat Cross Member X	1925	-777	-452
2	Right Rear Seat Cross Member X	1924	778	-445
3	Top of Engine Block	4400	-187	-746
4	Bottom of Engine	3952	-102	-171
5	Disc Brake Caliper @ Right Side	4252	834	-389
6	Instrument Panel	3369	89	-850
7	Disc Brake Caliper @Left Side	4236	-846	-427
8	Left Rear Seat Cross Member Z	1925	-761	-452
9	Right Rear Seat Cross Member Z	1924	794	-445

LOCATION NUMBER	DESCRIPTION	MAXIMUM VALUE (g's)			
		Pos.	msec.	Neg.	msec.
1	Left Rear Seat Cross Member X	2.2	132.4	-39.0	38.6
2	Right Rear Seat Cross Member X	1.8	145.9	-33.5	59.4
3	Top of Engine Block	32.0	42.8	-168.0	29.4
4	Bottom of Engine	12.1	58.2	-111.0	30.9
5	Disc Brake Caliper @ Right Side	†	-	-88.2	47.7
6	Instrument Panel	24.7	70.5	-81.0	45.0
7	Disc Brake Caliper @Left Side	51.9	57.2	-144.9	40.7
8	Left Rear Seat Cross Member Z	11.9	103.2	-16.8	45.2
9	Right Rear Seat Cross Member Z	10.2	66.9	-9.5	93.1

† Data Invalid: After 68 ms

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES

Vehicle Year/Make/Model/Body Style: 2005 Chrysler Town and Country Minivan

NHTSA Test No.: L50300 Test Date: March 26, 2004

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Head 9 Array X Arm Y	g	3.1	132.1	-7.4	78.9	8.7	62.7	-10.0	59.8
Head 9 Array X Arm Z	g	32.6	96.2	-6.4	73.1	16.2	55.7	-5.4	149.8
Head 9 Array Y Arm X	g	1.5	30.3	-50.2	79.4	0.3	20.7	-48.4	74.7
Head 9 Array Y Arm Z	g	29.6	91.3	-3.8	40.0	13.7	84.0	-1.8	164.1
Head 9 Array Z Arm X	g	4.4	54.1	-66.1	74.6	2.8	40.4	-61.1	77.5
Head 9 Array Z Arm Y	g	4.7	101.4	-6.0	56.5	7.7	64.6	-5.7	91.7
Head X	g	3.3	33.0	-47.4	80.5	0.3	20.5	-48.0	85.5
Head Y	g	4.0	44.8	-5.1	81.5	6.5	63.0	-10.6	93.3
Head Z	g	29.2	91.3	-2.3	30.6	13.6	82.2	-2.1	138.9
Head Resultant	g	53.2	85.6	-	-	48.9	85.5	-	-
Redundant Head X	g	3.2	33.0	-47.1	80.5	0.4	20.5	-46.7	85.5
Redundant Head Y	g	3.4	30.0	-5.6	81.5	5.9	63.0	-11.3	93.3
Redundant Head Z	g	29.0	91.4	-2.5	30.6	11.5	83.2	-1.5	152.4
Redundant Head Resultant	g	53.4	86.0	-	-	47.6	85.5	-	-
Upper Neck Fx	N	872.2	74.2	-225.4	147.4	548.6	79.9	-411.7	62.9
Upper Neck Fy	N	137.6	98.5	-65.3	51.5	177.9	91.2	-96.4	140.3
Upper Neck Fz	N	1459.2	85.6	-80.1	40.0	1134.8	65.3	-81.8	149.8
Upper Neck F Resultant	N	1537.2	84.4	-	-	1206.9	64.7	-	-
Upper Neck Mx	N-m	6.0	127.9	-15.5	74.2	4.3	101.8	-9.8	134.7
Upper Neck My	N-m	66.0	74.2	-9.0	112.2	37.4	78.8	-10.4	104.2
Upper Neck Mz	N-m	4.5	127.0	-2.4	188.5	14.1	102.8	-8.8	162.2
Upper Neck M Resultant	N-m	67.8	74.2	-	-	38.8	78.7	-	-
Chest X	g	3.1	181.3	-42.4	73.6	2.7	179.0	-45.7	83.9
Chest Y	g	3.1	74.9	-2.5	89.1	3.2	52.0	-3.6	67.7
Chest Z	g	22.3	93.6	-8.7	69.2	12.9	96.7	-2.8	63.5
Chest Resultant	g	44.7	92.9	-	-	46.3	83.9	-	-

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)

Vehicle Year/Make/Model/Body Style: 2005 Chrysler Town and Country Minivan

NHTSA Test No.: L50300 Test Date: March 26, 2004

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Redundant Chest X	g	3.2	181.2	-42.8	73.6	2.7	179.1	-45.4	83.8
Redundant Chest Y	g	3.2	75.0	-2.5	87.5	3.3	52.3	-4.1	67.7
Redundant Chest Z	g	22.5	94.9	-8.5	69.1	12.9	96.5	-3.0	63.9
Redundant Chest Resultant	g	44.9	93.1	-	-	46.0	83.8	-	-
Chest Displacement	mm	0.0	-46.7	-39.4	96.5	0.0	19.8	-30.5	63.2
Pelvic X	g	8.6	183.4	-39.7	67.4	3.2	191.8	-68.1	63.7
Pelvic Y	g	8.7	34.7	-8.2	45.6	4.9	60.4	-8.1	68.1
Pelvic Z	g	8.2	99.6	-22.0	67.2	5.4	101.9	-21.6	80.6
Pelvic Resultant	g	45.4	67.3	-	-	69.5	63.7	-	-
Left Femur	N	217.4	26.5	-3206.1	66.7	481.2	50.1	-3551.3	63.4
Right Femur	N	239.0	24.3	-2088.6	30.8	1412.7	50.0	-3446.4	66.4
Left Upper Tibia Mx	N-m	42.8	29.3	-85.7	33.1	48.3	84.5	-10.7	43.8
Left Upper Tibia My	N-m	121.9	31.8	-26.5	50.4	12.6	62.7	-133.6	43.6
Left Lower Tibia Fz	N	147.2	30.2	-1727.0	38.6	95.0	19.4	-3402.2	43.6
Left Lower Tibia Mx	N-m	32.9	29.8	-30.4	27.6	42.5	59.5	-9.5	44.0
Left Lower Tibia My	N-m	99.2	27.9	-49.6	50.0	167.1	76.4	-57.7	42.9
Right Upper Tibia Mx	N-m	67.0	35.5	-34.9	29.5	26.8	47.2	-42.4	70.8
Right Upper Tibia My	N-m	147.5	29.0	-137.2	47.0	23.3	132.3	-135.9	50.3
Right Lower Tibia Fz	N	632.4	35.8	-5798.0	46.2	65.5	21.1	-1812.4	76.6
Right Lower Tibia Mx	N-m	57.3	56.4	-29.2	29.8	12.7	46.6	-41.9	55.8
Right Lower Tibia My	N-m	143.1	65.2	-44.3	47.2	242.1	64.4	-117.1	49.7
Left Foot Aft Ax	g	33.9	36.5	-139.0	27.9	15.3	52.8	-136.7	43.0
Left Foot Aft Az	g	5.2	186.6	-59.4	51.9	11.9	70.5	-72.0	44.5
Left Foot Fore Az	g	40.7	28.5	-180.2	27.9	40.1	63.1	-198.1	41.5
Right Foot Aft Ax	g	32.2	30.4	-170.4	45.2	25.3	64.1	-155.5	49.3
Right Foot Aft Az	g	35.8	62.7	-182.9	46.2	4.9	62.2	-136.0	49.8
Right Foot Fore Az	g	95.6	62.9	-347.2	46.3	129.2	57.8	-278.8	48.6
Lap Belt Load	N	2064.1	88.6	-19.2	156.8	4604.3	67.6	-11.3	178.1

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)

Vehicle Year/Make/Model/Body Style: 2005 Chrysler Town and Country Minivan

NHTSA Test No.: L50300 Test Date: March 26, 2004

HEAD INJURY CRITERIA (HIC)				
	HIC**	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂
Position #1 - Driver	482.8	65.6	101.6	44.8
Position #2 - Passenger	384.5	62.2	98.2	40.9

** HIC is as defined in FMVSS 208. The maximum time interval from t₁ to t₂ is 36 milliseconds.

CLIP SUMMARY*				
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver	43.7	91.3	94.3	431.3
Position #2 - Passenger	45.7	82.7	86.2	382.3

* The maximum chest resultant acceleration is defined as the maximum acceleration which exceeds 0.003 seconds in duration.

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)
REDUNDANT DATA

Vehicle Year/Make/Model/Body Style: 2005 Chrysler Town and Country Minivan

NHTSA Test No.: L50300 Test Date: March 26, 2004

HEAD INJURY CRITERIA (HIC) REDUNDANT				
	HIC**	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂
Position #1 - Driver	479.8	66.0	102.0	44.7
Position #2 - Passenger	368.1	62.3	98.3	40.2

** HIC is as defined in FMVSS 208. The maximum time interval from t₁ to t₂ is 36 milliseconds.

CLIP SUMMARY* REDUNDANT				
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver	43.9	91.3	94.3	435.8
Position #2 - Passenger	45.6	82.8	86.0	377.4

* The maximum chest resultant acceleration is defined as the maximum acceleration which exceeds 0.003 seconds in duration.

DATA SHEET NO. 9 SEAT BELT PERFORMANCE ASSESSMENT TEST DATA

BELT LENGTH DATA:

Belt length from trim panel exit
to bolt hole anchor point for
continuous webbing systems.

Driver

Passenger

2391

2420

Shoulder belt length as measured
on Part 572 Dummy.

869

885

Lap belt length as measured
on Part 572 Dummy.

882

895

BELT STRETCH DATA:

Measured mechanically.

5 mm/m

0 mm/m

Dimensions in millimeters

DATA SHEET NO.10 SUMMARY OF FMVSS 212 DATA

FMVSS NO. 212 - "WINDSHIELD MOUNTING" DATA

DETAILS OF WINDSHIELD MOUNTING SUCH AS RETENTION METHOD, TRIM TYPE, ETC.:

Windshield is bonded in place and covered with a 6 mm molding.

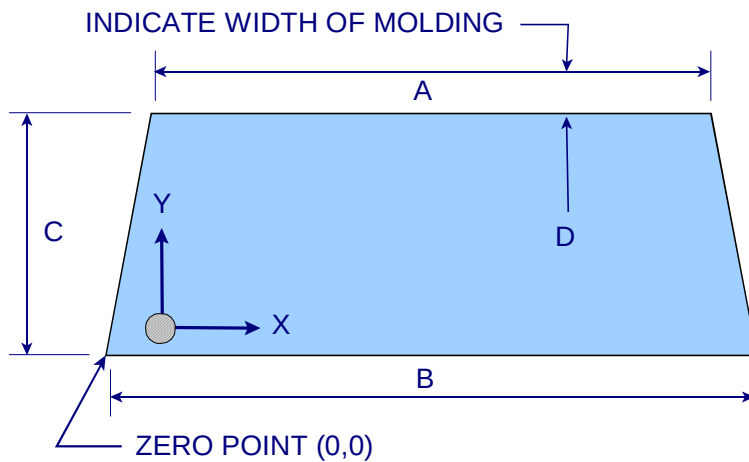
FMVSS 212 REQUIREMENTS:

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

FMVSS 212 TEST DATA

	WINDSHIELD PERIPHERY		% OF RETENTION
	PRE-TEST (mm)	POST-TEST (mm)	
RIGHT SIDE	2330	2330	100.0%
LEFT SIDE	2330	2330	100.0%
TOTAL	4660	4660	100.0%

AREA OF RETENTION FAILURE:



DIMENSIONS (mm)	
A	1240
B	1640
C	890
D	6

FRONT VIEW OF WINDSHIELD

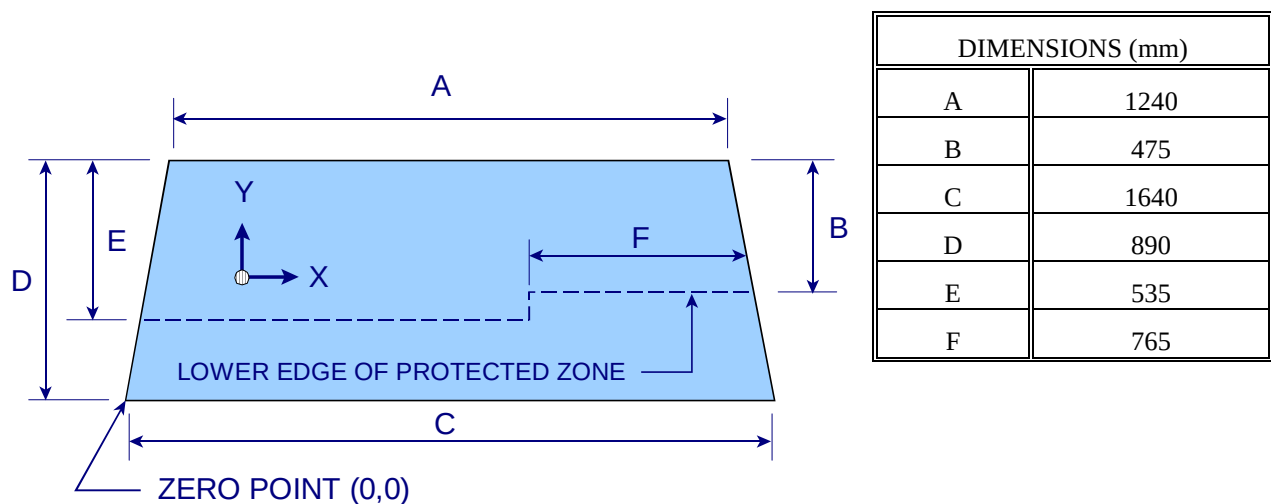
FAILURE DETAILS: None

DATA SHEET NO. 11 FMVSS NO. 219 (PARTIAL) - "WINDSHIELD ZONE INTRUSION" DATA

PROTECTED ZONE LOWER EDGE REQUIREMENT:

The lower edge of the protected zone is determined by placing a 165 mm diameter rigid sphere weighing 6.8 kg in a position such that it simultaneously contacts the inner surface of the windshield and the top surface of the instrument panel including padding. The locus of points is drawn on the inner surface of the windshield contacted by the sphere across the width of the instrument panel. From the outermost contactable points extend the locus line horizontally to the edges of the windshield, then draw a line on the inner surface of the windshield below and 13 mm distant from the locus line. The LOWER EDGE OF THE PROTECTED ZONE is the longitudinal projection of this line onto the outer surface of the windshield.

FMVSS 219 TEST DATA:



FRONT VIEW OF WINDSHIELD

DETAILS OF WINDSHIELD GLASS PENETRATION GREATER THAN 6 mm: None

(Show location of penetration on the above sketch)

COORDINATES		
	X	Y
1.	-	-
2.	-	-
3.	-	-
4.	-	-

DATA SHEET NO. 12 FMVSS NO. 301-75 "FUEL SYSTEM INTEGRITY" POST IMPACT TEST DATA

NHTSA TEST No.: L50300 TEST DATE: March 26, 2004

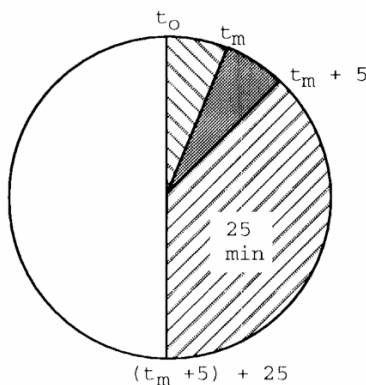
VEHICLE MAKE/MODEL: 2005 Chrysler Town and Country Minivan

The test vehicle was filled from 92% to 94% of the manufacture's "usable" capacity. The electric fuel pump was operating if it will operate without engine operation. Two Part 572 anthropomorphic test devices were located at each of the front designated seating positions.

=====

TEST VEHICLE IMPACT TYPE: X Frontal (56 kph)
 _____ Oblique (48 kph) with _____ deg. barrier face first
 _____ contacting _____
 _____ (driver/passenger) side
 _____ Rear Moving Barrier (48 kph)
 _____ Lateral Moving Barrier (32 kph)

FUEL SPILLAGE MEASUREMENT:



1. From impact until vehicle motion ceases
2. For 5 minute period after vehicle motion ceases
3. For next 25 minutes

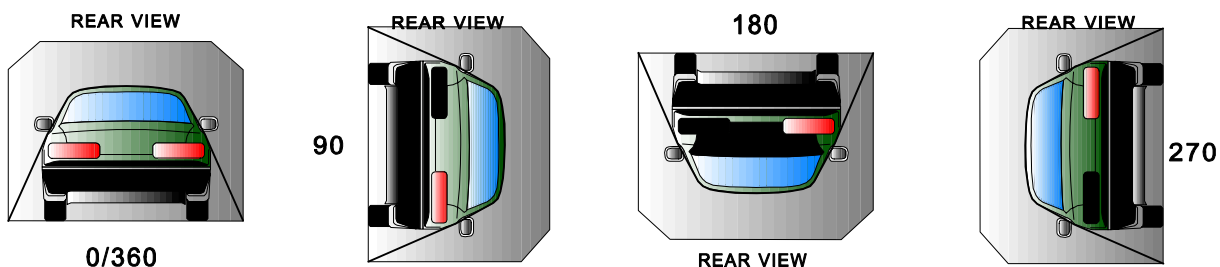
ACTUAL	MAX ALLOWED
0	28 g
0	141 g
0	28 g/min.

SOLVENT SPILLAGE DETAILS: None

DATA SHEET NO. 13 - ROLLOVER DATA

Vehicle: 2005 Chrysler Town and Country Minivan

NHTSA No.: L50300



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0° - 90°	1	minutes	10	seconds	5	minutes	6	minutes	10	seconds	7	minutes
90° - 180°	1	minutes	7	seconds	5	minutes	6	minutes	7	seconds	7	minutes
180°-270°	1	minutes	5	seconds	5	minutes	6	minutes	5	seconds	7	minutes
270°-360°	1	minutes	11	seconds	5	minutes	6	minutes	11	seconds	7	minutes

II. FMVSS 301 REQUIREMENTS: (Maximum allowable solvent spillage):

First 5 minutes from onset of rotation	6th min.	7th min.	8th min. (if required)
142 g	28 g	28 g	28 g

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

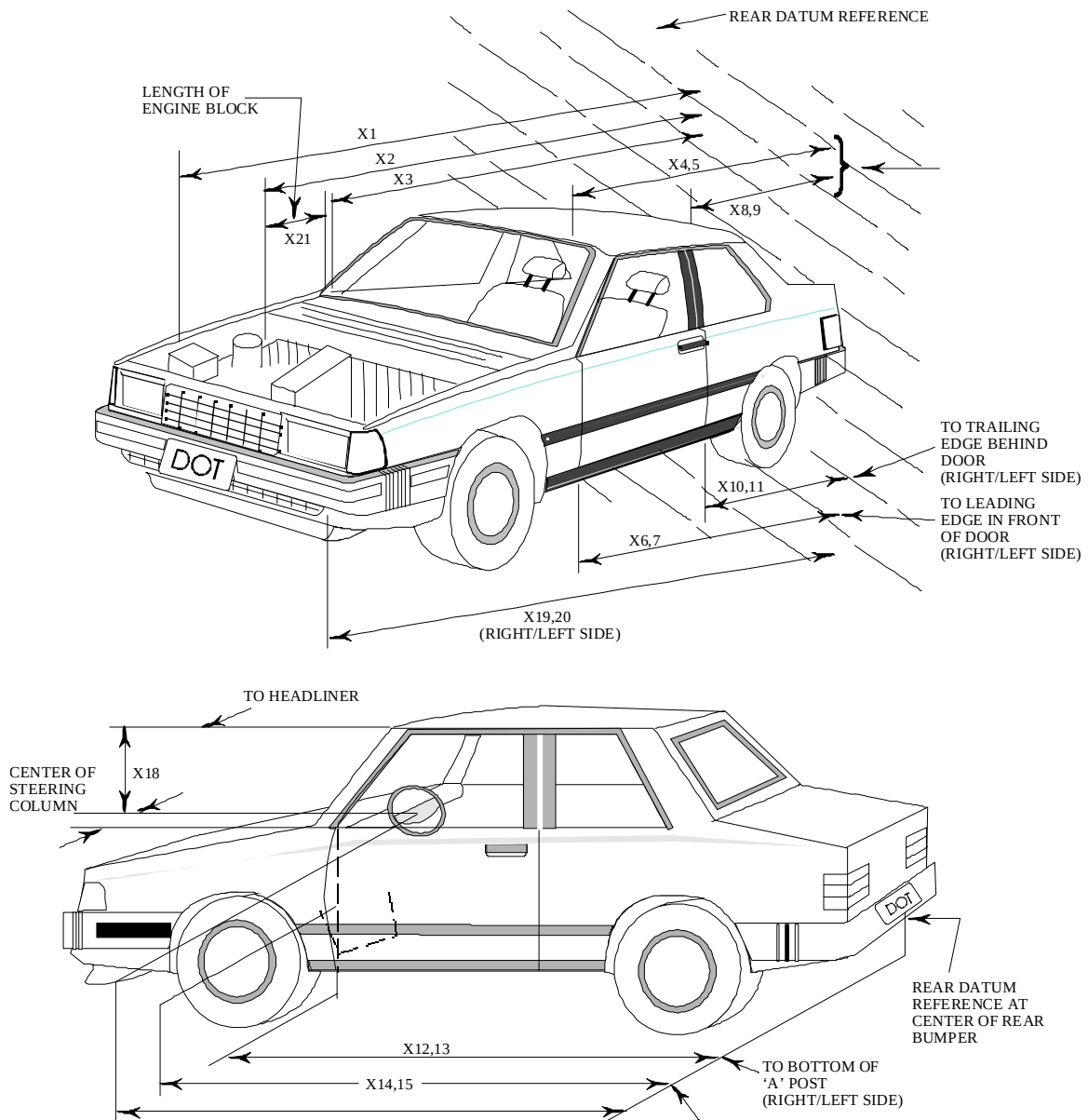
Rollover Stage	First 5 minutes from onset of rotation (g)	6th min. (g)	7th min. (g)	8th min. (if required) (g)
0° - 90°	0	0	0	-
90° - 180°	0	0	0	-
180°-270°	0	0	0	-
270°-360°	0	0	0	-

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

IV. SOLVENT SPILLAGE LOCATION(S):

Rollover Stage	Spillage Location
0° - 90°	None
90° - 180°	None
180°-270°	None
270°-360°	None

DATA SHEET NO. 14 TEST VEHICLE MEASUREMENTS

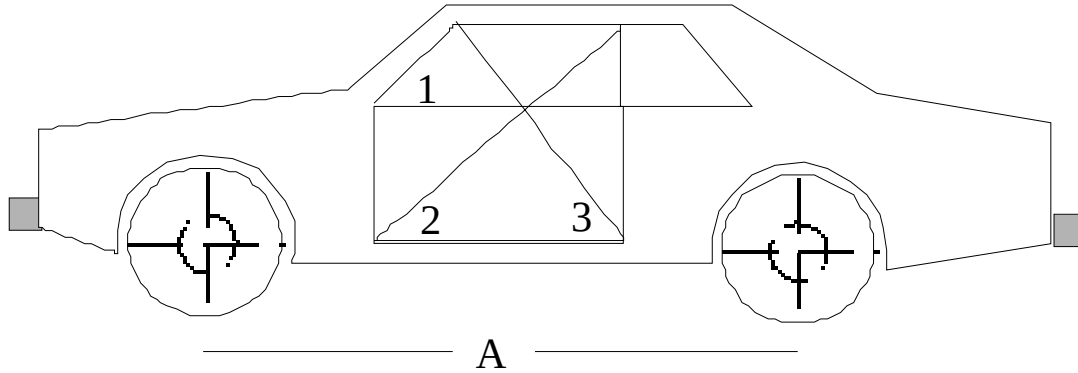


DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

No.		Pre-Test	Post-Test	Difference
X1	Total Length of Vehicle at Centerline	5095	4509	586
X2	Rear Surface of Vehicle to Front of Engine	4609	4306	303
X3	Rear Surface of Vehicle to Firewall	4319	4276	43
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	3666	3663	3
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	3669	3666	3
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	3642	3630	12
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	3643	3637	6
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	2635	2635	0
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	2640	2634	6
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	2640	2634	6
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	2641	2581	60
X12	Rear Surface of Vehicle to Bottom of "A" Post of Right Side	3846	3831	15
X13	Rear Surface of Vehicle to Bottom of "A" Post of Left Side	3870	3863	7
X14	Rear Surface of Vehicle to Firewall, Right Side	4212	4122	90
X15	Rear Surface of Vehicle to Firewall, Left Side	4214	4189	25
X16	Rear Surface of Vehicle to Steering Column	3228	3208	20
X17	Center of Steering Column to "A" Post	325	319	6
X18	Center of Steering Column to Headliner	458	420	38
X19	Rear Surface of Vehicle to Right Side of Front Bumper	5022	4499	523
X20	Rear Surface of Vehicle to Left Side of Front Bumper	5019	4447	572
X21	Length of Engine Block	311	311	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	3464	3449	15
CD	Rear Surface of Vehicle to Center of Dash Panel	3502	3489	13
LD	Rear Surface of Vehicle to Left Side of Dash Panel	3453	3453	0

All Dimensions in mm

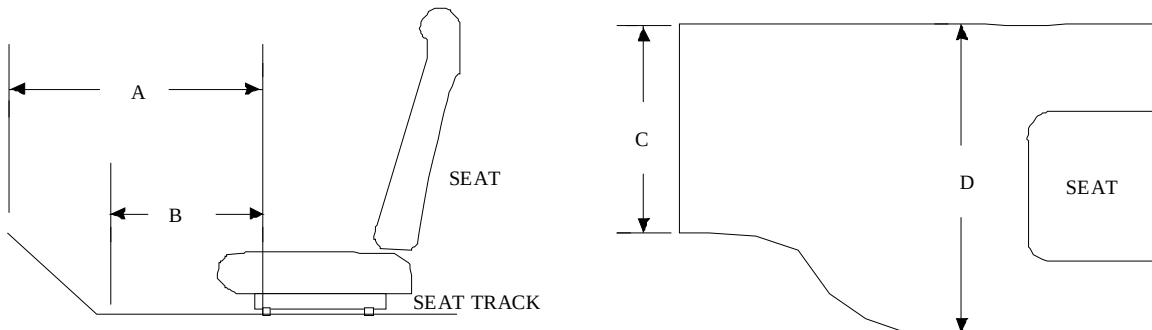
DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
 VEHICLE INTRUSION MEASUREMENTS
 DOOR OPENING WIDTH



UNITS (mm)	LEFT			RIGHT		
MEASUREMENT	1	2	3	1	2	3
BEFORE TEST	969	1527	1186	968	1520	1192
AFTER TEST	962	1535	1191	961	1537	1191
DIFFERENCE	7	-8	-5	7	-17	1

UNITS (mm)	A = WHEELBASE LEFT	A = WHEELBASE RIGHT
BEFORE TEST	3030	3030
AFTER TEST	2895	2861
DIFFERENCE	135	169

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
 VEHICLE INTRUSION MEASUREMENTS
 STATIC FOOTWELL DEFORMATION



DRIVER

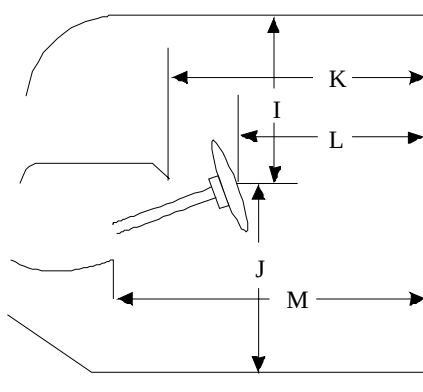
Measurement	Pre-Test	Post-Test	Difference
A	805	618	187
B	568	466	102
C	382	381	1
D	484	481	3

PASSENGER

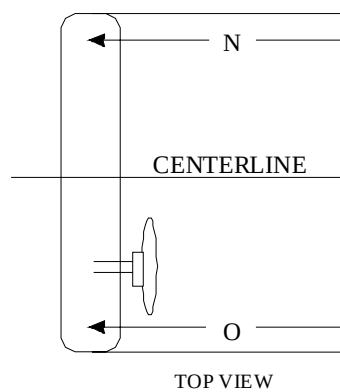
Measurement	Pre-Test	Post-Test	Difference
A	733	520	213
B	573	455	118
C	421	397	24
D	518	492	26

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
VEHICLE INTRUSION MEASUREMENTS
STATIC PASSENGER COMPARTMENT INTRUSION

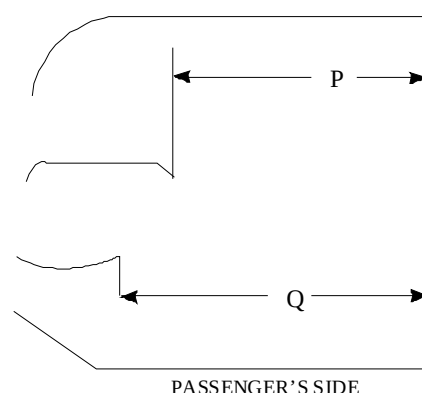


DRIVER'S SIDE



TOP VIEW

MEASUREMENTS
FROM C-PILLAR
BELT ANCHORAGE

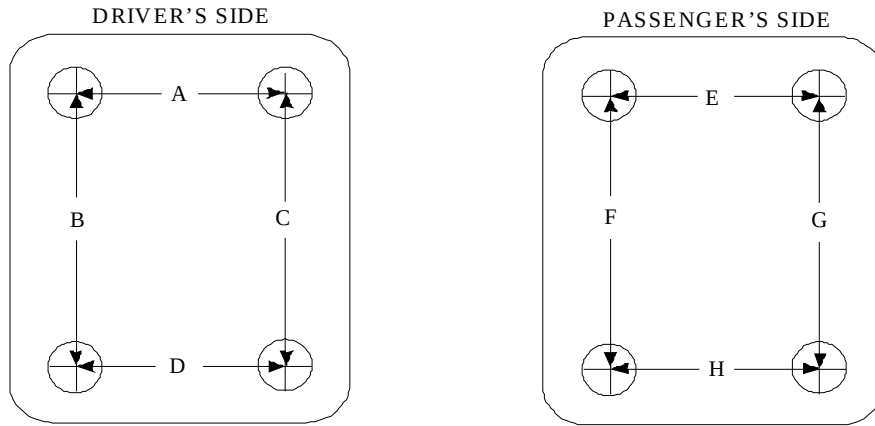


PASSENGER'S SIDE

Measurement	Pre-Test	Post-Test	Difference
I	458	420	38
J	703	749	-46
K	1846	1837	9
L	1587	1568	19
M	1793	1765	28
N	1832	1816	16
O	1812	1813	-1
P = K (PASS.)	1881	1862	19
Q = M (PASS.)	1906	1874	32

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
FLOORBOARD DEFORMATION

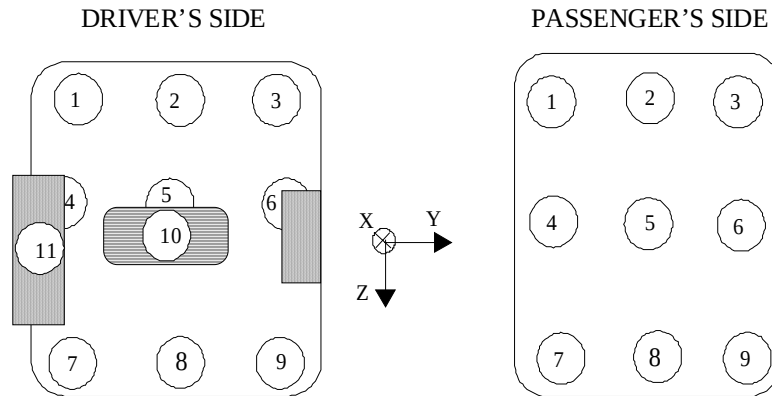


TOP VIEW THROUGH FLOOR PAN

Measurement	Pre-Test	Post-Test	Difference
A	382	381	1
B	360	361	-1
C	352	298	54
D	484	481	3
E	421	397	24
F	380	379	1
G	319	282	37
H	518	492	26

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
TOE-PAN INTRUSION



Driver Side Toe-pan Measurements

Toe-pan Location	X Deformation (mm)			Z Deformation (mm)		
	Pre-Test	Post-Test	Difference	Pre-Test	Post-Test	Difference
1	3857	3771	86	-640	-654	14
2	3953	3776	177	-622	-664	42
3	3956	3795	161	-615	-644	29
4	3766	3699	67	-513	-512	-1
5	3834	3669	165	-517	-544	27
6	3837	3655	182	-518	-574	56
7	3721	3674	47	-421	-419	-2
8	3716	3624	92	-422	-418	-4
9	3754	3595	159	-439	-480	41
10	3668	3643	25	-587	-566	-21
11	3750	3700	50	-574	-562	-12

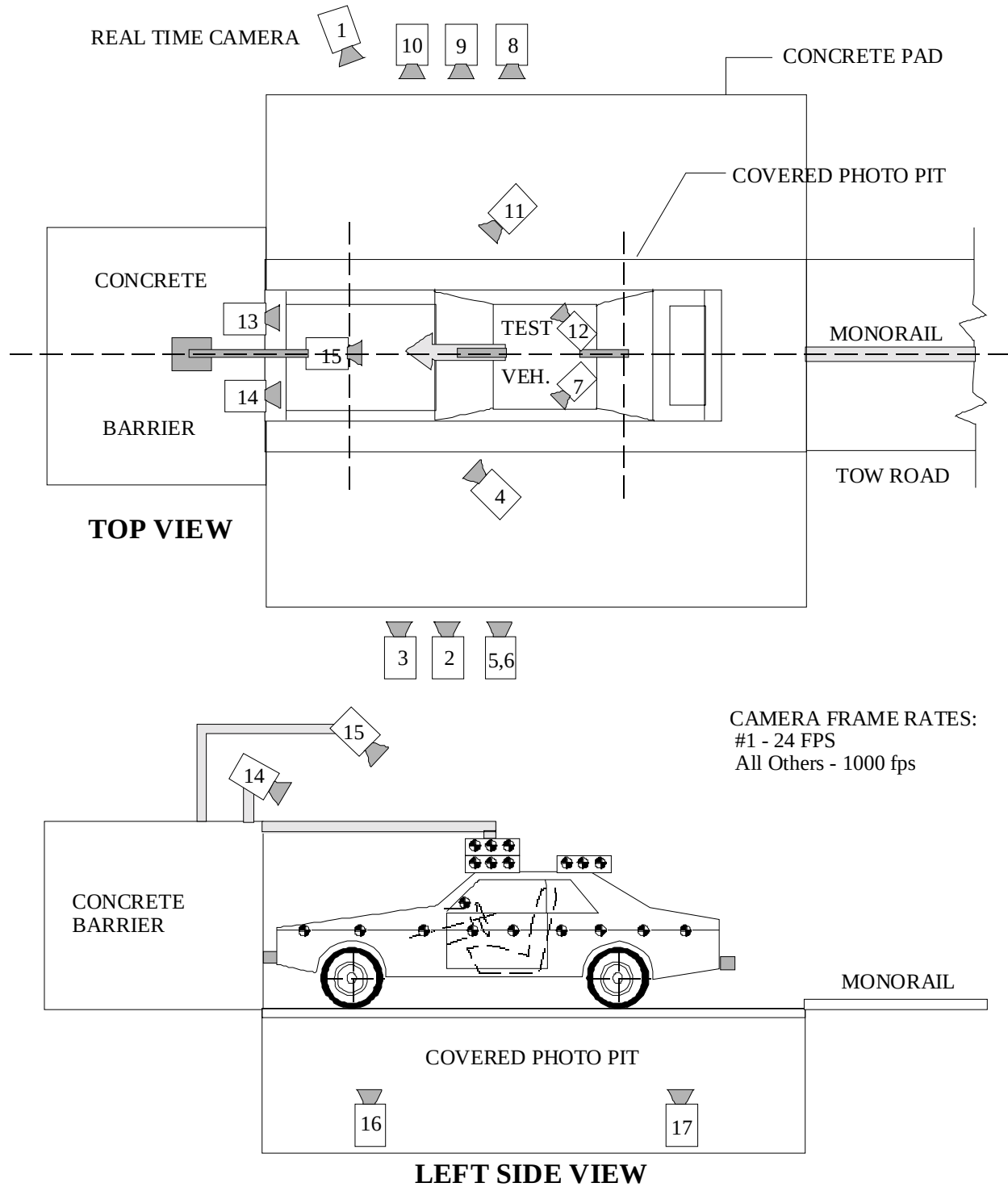
Passenger Side Toe-pan Measurements

Toe-pan Location	X Deformation (mm)			Z Deformation (mm)		
	Pre-Test	Post-Test	Difference	Pre-Test	Post-Test	Difference
1	3878	3695	183	-586	-650	64
2	3893	3677	216	-591	-675	84
3	3784	3675	109	-603	-665	62
4	3792	3758	34	-504	-708	204
5	3819	3651	168	-508	-523	15
6	3725	3639	86	-506	-550	44
7	3716	3642	74	-432	-494	62
8	3733	3612	121	-429	-426	-3
9	3696	3606	90	-432	-443	11

Reference: SAE: X = Rear Bumper (Positive: forward); Z = Ground (Positive: down)

DATA SHEET NO.15 HIGH-SPEED CAMERA LOCATIONS

NOTE: Camera information shown in DATA SHEET NO. 15.



DATA SHEET NO.15 HIGH-SPEED CAMERA LOCATIONS (cont.)

NHTSA Test No.: L50300 Vehicle: 2005 Chrysler Town and Country Minivan

CAMERA NO.	VIEW	CAMERA POSITIONS (mm)*			ANGLE (deg)**	FILM PLANE TO HEAD TARGET	LENS (mm)	SPEED (fps)
		X	Y	Z				
1	Real-Time Camera	-	-	-	-	-	-	24
2	Overall Left Side	7178	1703	1094	-2.9	6763	12.5	1000
3	Left Side View	7940	1101	1100	-2.4	7525	25	1000
4	Driver and Interior View	7255	2560	2055	-9.2	-	25	1050
5	Steering Column (Bottom)	7790	1969	1160	-2.8	7375	25	1050
6	Steering Column (Top)	7790	1969	1775	-6.5	7375	25	1000
7	Left CRS Lateral View	970	2615	1235	-7.0	-	24-70	1000
8	Overall Right Side	7320	2350	1062	-0.1	7671	12.5	1000
9	Right Side View	7935	1550	1095	-1.9	8286	25	1000
10	Right Passenger View	8370	1860	1398	-1.9	8721	35	1000
11	Passenger and Interior View	7520	2865	1985	-7.5	-	25	1000
12	Right CRS Lateral View	970	2615	1255	-7.0	-	24-70	1000
13	Passenger Front View	620	-92	1987	-38.1	-	13	1020
14	Driver Front View	620	-92	1987	-36.1	-	13	1000
15	Windshield View	0	-530	3374	-51.5	-	13	1000
16	Pit View of Engine	0	615	-3048	90	-	13	1010
17	Pit View of Fuel Tank	0	3150	-3048	90	-	13	1000

*X = film plane to monorail centerline ** = referenced to horizontal plane

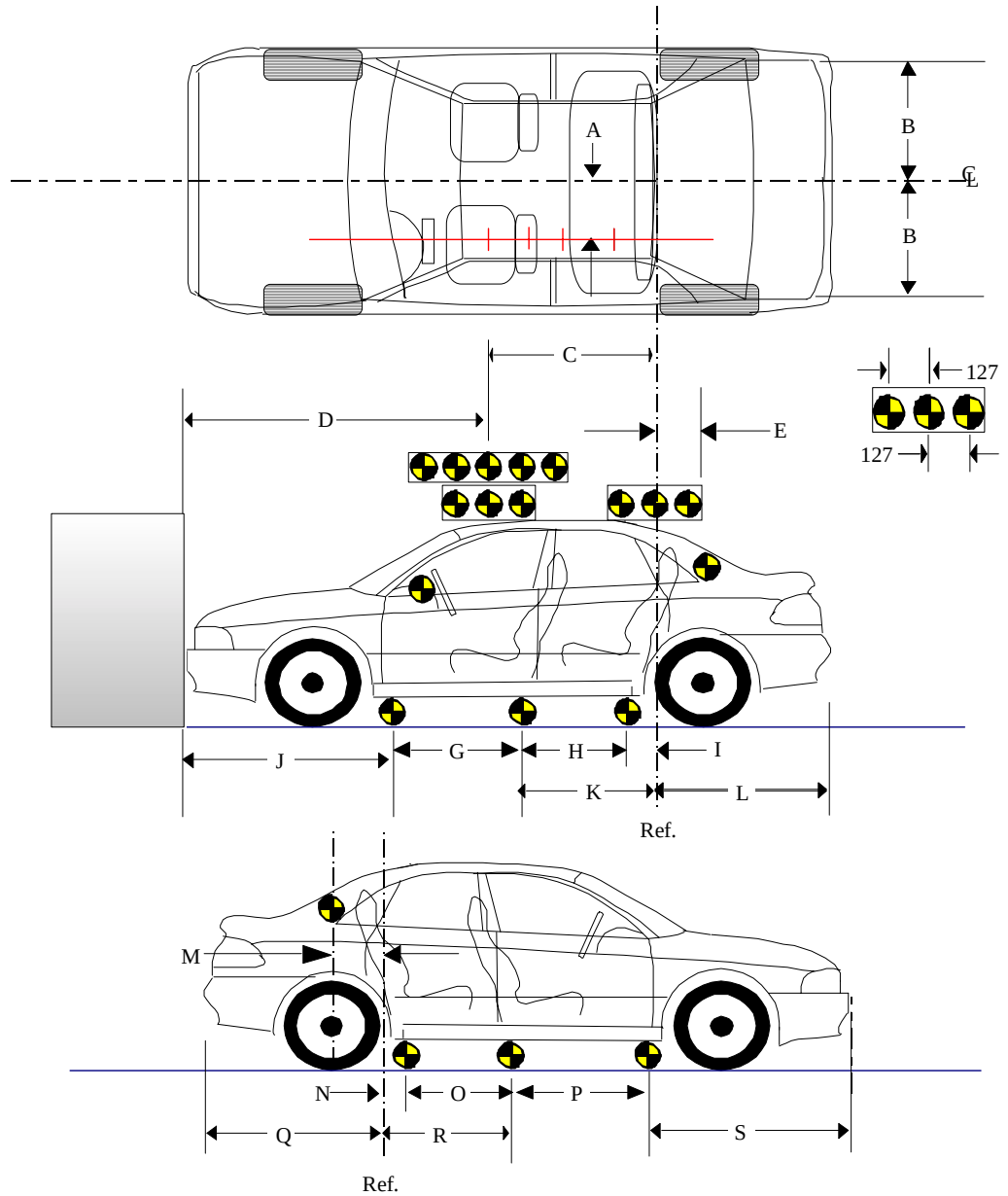
Y = film plane to impact location N.T. indicates No Timing

Z = film plane to ground

DATA SHEET NO. 16 VEHICLE REFERENCE PHOTO TARGET LOCATIONS

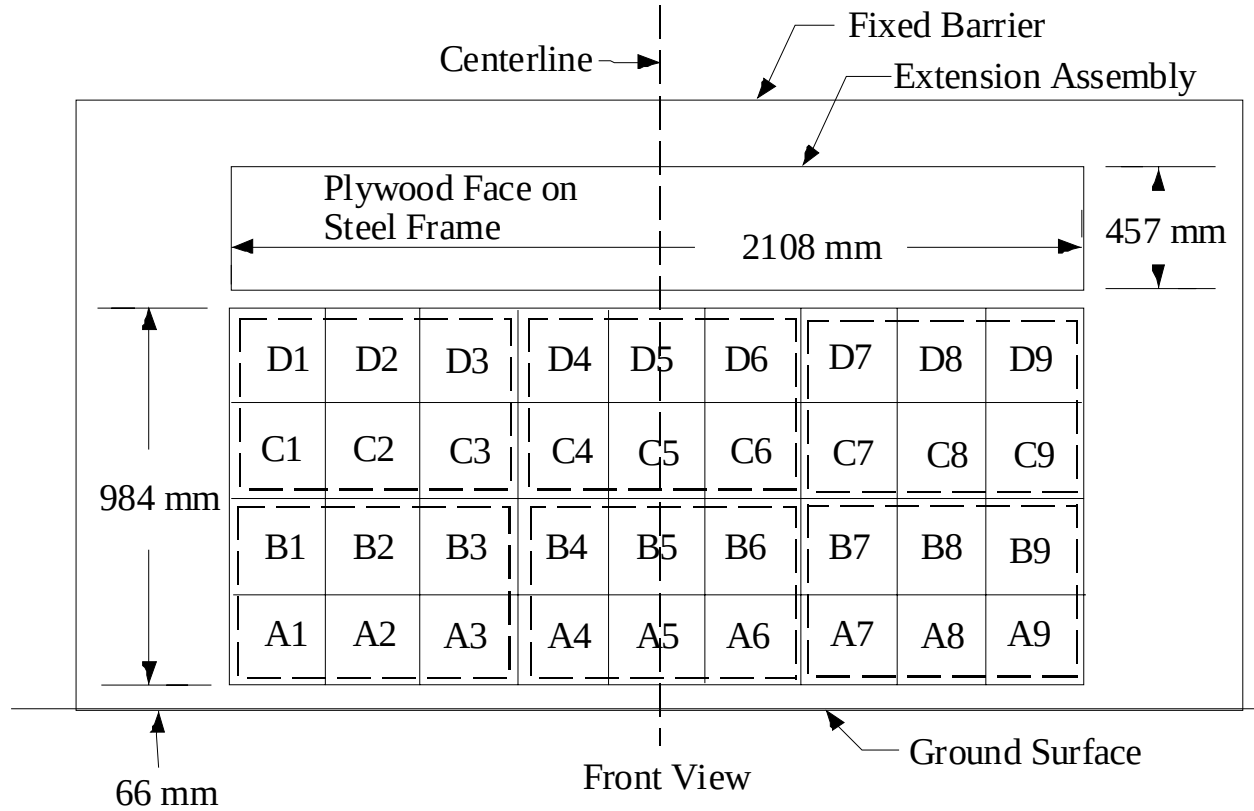
(Dimensions in millimeters)

A	427
B	766
C	1215
D	2419
E	-178
F	1931
G	1005
H	1003
I	141
J	1500
K	1144
L	1446
M	-168
N	179
O	954
P	1008
Q	1449
R	1133
S	1505



DATA SHEET NO. 17 LOAD CELL LOCATIONS ON FIXED BARRIER

36 Load Cells
 4 Rows
 9 Columns
 6 Groupings (6 cells/group)



6 GROUPS OF 6 LOAD CELLS EACH

Group 4 C1 thru D3	Group 5 C4 thru D6	Group 6 C7 thru D9
Group 1 A1 thru B3	Group 2 A4 thru B6	Group 3 A7 thru B9

The following data is presented in Appendix B:

- (1)Data from 36 individual load cells
- (2)Total or Sum of 36 individual load cells
- (3)Data from 6 Groupings shown above (6 cells/group)

DATA SHEET NO. 18 POST TEST AIR BAG DATA

NHTSA No.: L50300; Test Date: March 26, 2004; Technician: Lawrence Q. Valvo

Vehicle Model Year/Make/Model: 2005 Chrysler Town and Country Minivan

A. No. of vent holes: 2 -Driver 2 -Passenger

B. Size of vent holes: (mm²) 314 -Driver 707 -Passenger

C. Total vent area: (mm²) 628 -Driver 1414 -Passenger

D. Deflated air bag length and width dimensions or, if round, diameter. (mm)

Driver: 600 -Height; 600 -Width; 160 -Depth

Passenger: 580 -Height; 480 -Width; 470 -Depth

E. Is the air bag tethered?

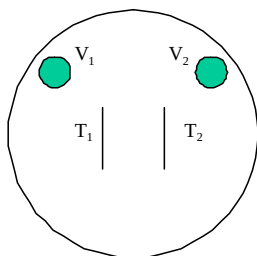
Driver: X -Yes; - -No; If yes, record length of tether- 200

Passenger: X -Yes; - -No; If yes, record length of tether- 570

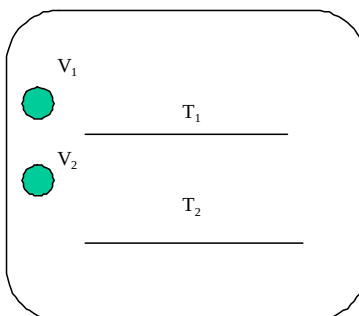
Sketch the air bag showing the location of the vent holes, how the bag is tethered, and where the bag is tethered. Also describe how the tethers are attached to the bag and the steering wheel.

(Note: Not to scale; V_n = Vent hole_n, T_n = Tether_n).

Driver



Passenger



F. Record part numbers and manufacturer name of the air bag and gas generator.

Driver: Air bag: N/A

Generator: N/A

Passenger: Air bag: N/A

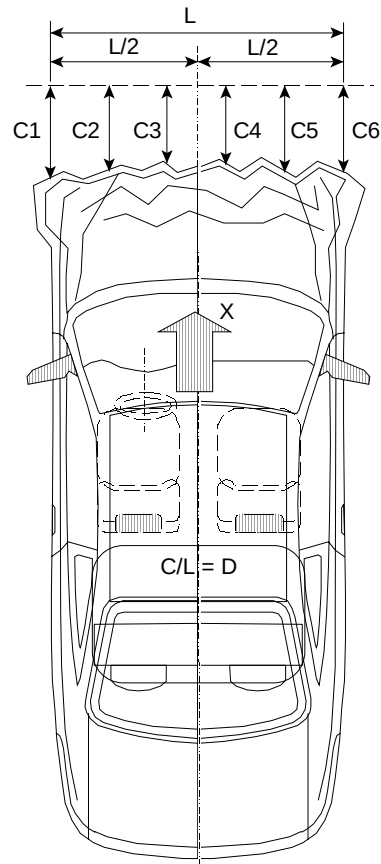
Generator: N/A

DATA SHEET NO. 19 ACCIDENT INVESTIGATION DIVISION DATA
FOR FRONTAL BARRIER IMPACT

Vehicle Make/Model/Body Style: Chrysler Town and Country Minivan
 NHTSA Test No.: L50300 VIN: 2C4GP44R35R131530
 Model Year: 2005 Build Date: 02/04 Test Date: March 26, 2004
 Vehicle Size Category: Minivan Test Weight: 2229.0 kg
 Vehicle Wheelbase: 3030 mm; Front Overhang: 957 mm; Overall Width: 1939 mm
 Collision Deformation Classification (CDC) Code: 12FDEW4

Crush Depth Dimensions

	PRE (mm)	POST (mm)	DIFF (mm)
C1 =	4889	4434	455
C2 =	5027	4446	581
C3 =	5087	4485	602
C4 =	5092	4514	578
C5 =	5043	4496	547
C6 =	4925	4437	488



Midpoint of Damage: D = Vehicle Centerline (Longitudinal)

Length of Damaged Region: L1= 1421 mm
 L2= 710.5 mm
 L5= 284.2 mm

APPENDIX A
PHOTOGRAPHS

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A-54	Pre-Test Passenger Floor Pan View	A-57
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A-56	Post-Test Passenger Head View	A-59
A-57	Post-Test Passenger Contact To Airbag	A-60
A-58	Rollover View	A-61
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PHOTOGRAPH NOT AVAILABLE

Figure A-1 LOAD CELL LOCATIONS

MFD BY DAIMLERCHRYSLER
CORPORATION

DATE OF MFR
2-04

GVWR
2586 KG(05700 LB)

GVWR FRONT
1293 KG(2850 LB)

WITH TIRES
215/70R15

RIMS AT
15X6.5

COLD
248 KPA(36 PSI)

GVWR REAR
1339 KG(2950 LB)

WITH TIRES
215/70R15

RIMS AT
15X6.5

COLD
248 KPA(36 PSI)

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY AND THEFT
PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN: 2C4GP44R35R131530

TYPE: MPV

SINGLE DUAL X



MDH: 020409 004AA PNT:PS2

VEHICLE MADE IN CANADA TRM:87D5 4648505

Figure A-2 VEHICLE CERTIFICATION PLACARD

MFD BY DAIMLERCHRYSLER
CORPORATION

DATE OF MFR
2-04

GWR
2586 KG(05700 LB)

GAWR FRONT WITH TIRES
1293 KG(2850 LB) 215/70R15

RIMS AT
15X6.5

COLD
248 KPA(36 PSI)

GAWR REAR WITH TIRES
1339 KG(2950 LB) 215/70R15

RIMS AT
15X6.5

COLD
248 KPA(36 PSI)

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY AND THEFT
PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN: 2C4GP44R35R131530 TYPE: MPV SINGLE DUAL X



MDH: 020409 004AA PNT:PS2

VEHICLE MADE IN CANADA TRM:87D5 4648505

Figure A-3 VEHICLE TIRE PLACARD



Figure A-4 RIGHT FRONT, AS RECEIVED



Figure A-5 LEFT REAR, AS RECEIVED



Figure A-6 PRE-TEST FRONT VIEW



Figure A-7 POST-TEST FRONT VIEW



Figure A-8 PRE-TEST LEFT SIDE VIEW



Figure A-9 POST-TEST LEFT SIDE VIEW



Figure A-10 PRE-TEST RIGHT SIDE VIEW



Figure A-11 POST-TEST RIGHT SIDE VIEW



Figure A-12 PRE-TEST RIGHT FRONT THREE-QUARTER VIEW



Figure A-13 POST-TEST RIGHT FRONT THREE-QUARTER VIEW



Figure A-14 PRE-TEST LEFT REAR THREE-QUARTER VIEW

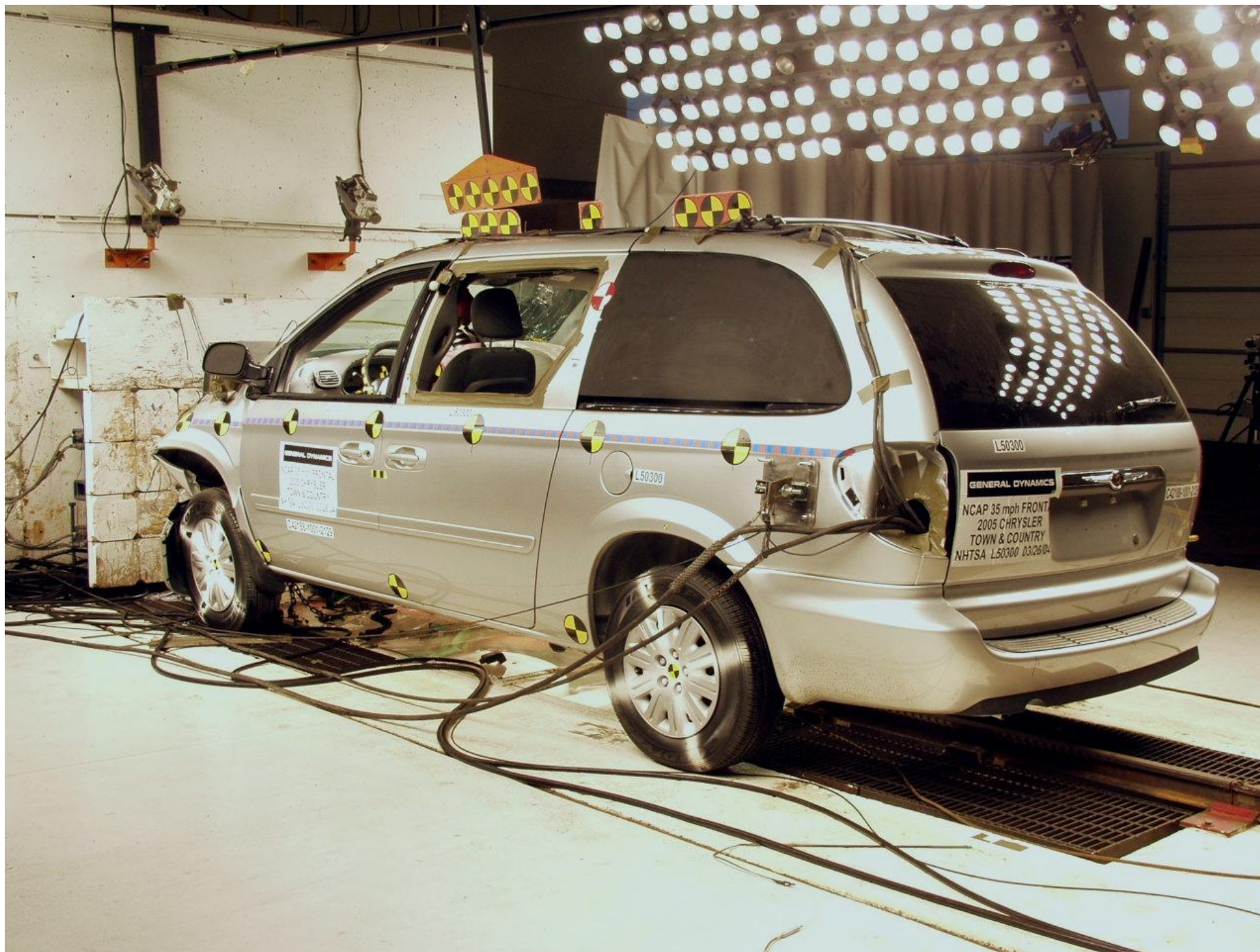


Figure A-15 POST-TEST LEFT REAR THREE-QUARTER VIEW



Figure A-16 LEFT REAR THREE-QUARTER VIEW OF DOORS AFTER IMPACT



Figure A-17 RIGHT REAR THREE-QUARTER VIEW OF DOORS AFTER IMPACT



Figure A-18 PRE-TEST WINDSHIELD VIEW



Figure A-19 POST-TEST WINDSHIELDVIEW



Figure A-20 PRE-TEST ENGINE COMPARTMENT VIEW



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8741-01

Figure A-21 POST-TEST ENGINE COMPARTMENT VIEW

8741-01



Figure A-22 PRE-TEST FUEL CAP VIEW

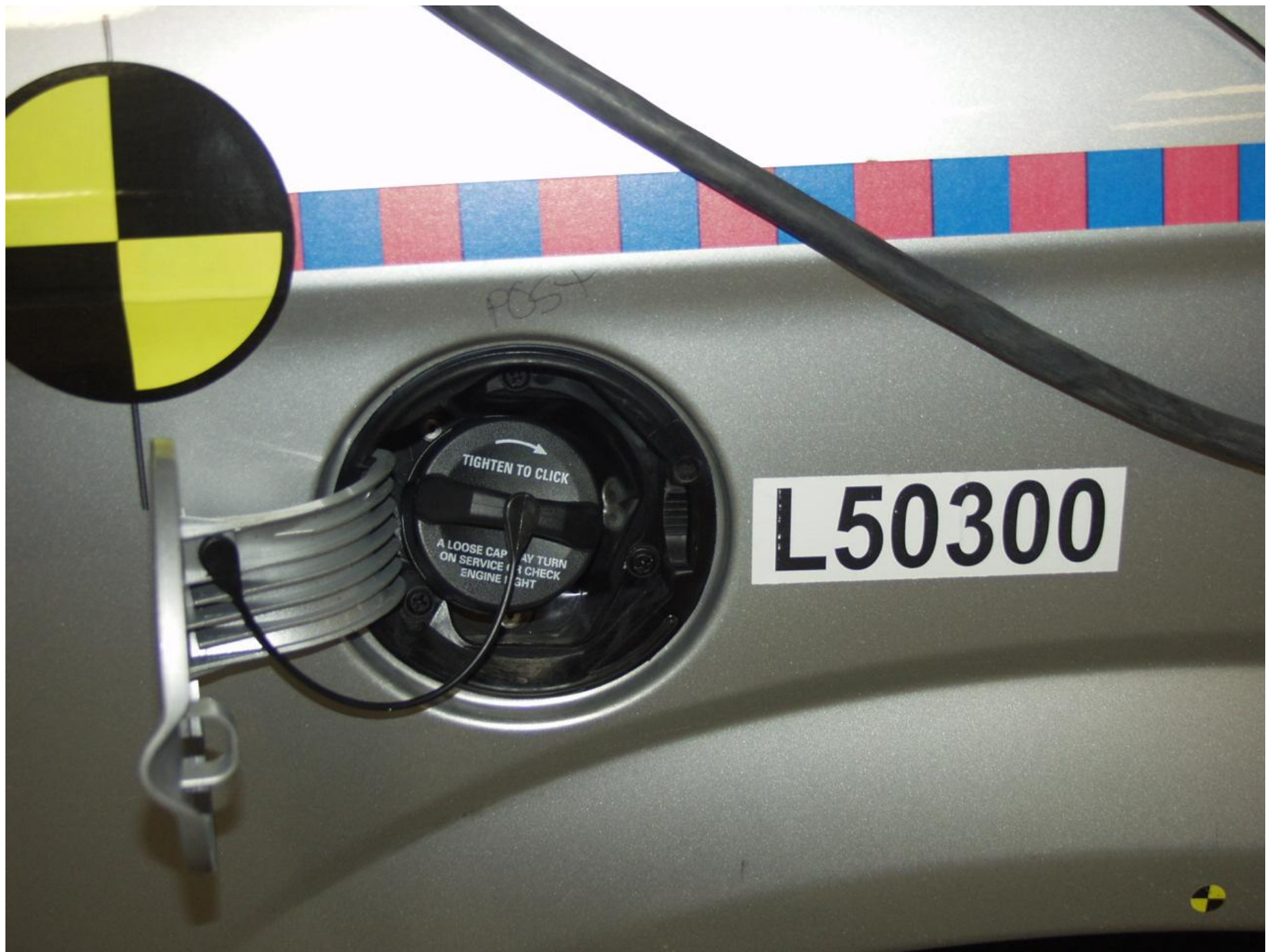


Figure A-23 POST-TEST FUEL CAP VIEW



Figure A-24 PRE-TEST FRONT UNDERBODY VIEW



Figure A-25 POST-TEST FRONT UNDERBODY VIEW



Figure A-26 PRE-TEST MID UNDERBODY VIEW



Figure A-27 POST-TEST MID UNDERBODY VIEW



Figure A-28 PRE-TEST REAR UNDERBODY VIEW



Figure A-29 POST-TEST REAR UNDERBODY VIEW



Figure A-30 PRE-TEST DRIVER HEAD LOCATION



Figure A-31 POST-TEST DRIVER HEAD LOCATION



Figure A-32 PRE-TEST DRIVER POSITION VIEW



Figure A-33 POST-TEST DRIVER POSITION VIEW



Figure A-34 PRE-TEST DRIVER AND INTERIOR VIEW



Figure A-35 POST-TEST DRIVER AND INTERIOR VIEW



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Figure A-36 PRE-TEST DRIVER FEET VIEW



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Figure A-37 POST-TEST DRIVER FEET VIEW



A-41

8741-01

Figure A-38 PRE-TEST DRIVER KNEE BOLSTER VIEW



Figure A-39 POST-TEST DRIVER KNEE BOLSTER VIEW



Figure A-40 PRE-TEST DRIVER FLOOR PAN VIEW



Figure A-41 POST-TEST DRIVER FLOOR PAN VIEW



Figure A-42 POST-TEST DRIVER HEAD VIEW

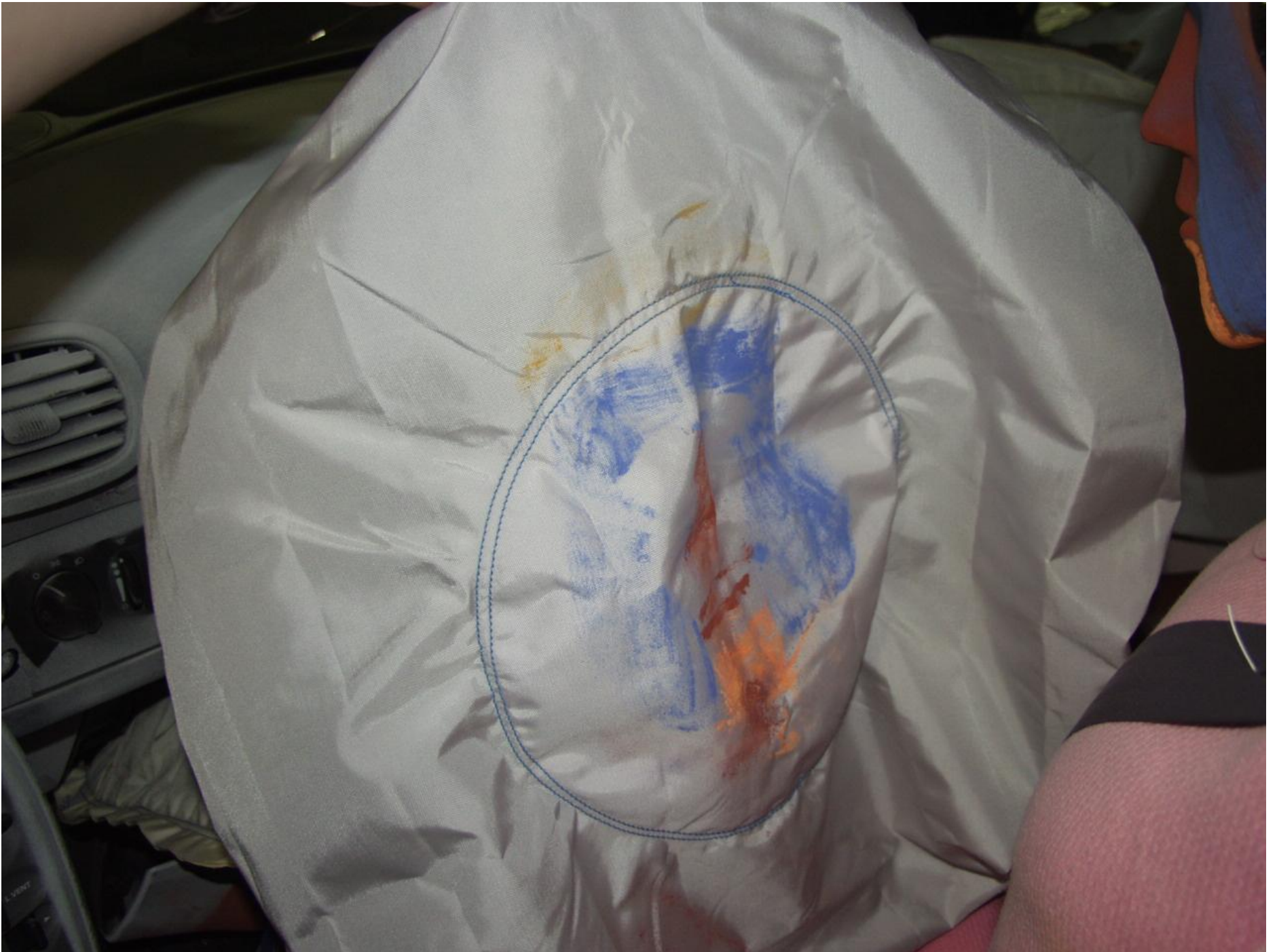


Figure A-43 POST-TEST DRIVER CONTACT TO AIRBAG



Figure A-44 PRE-TEST PASSENGER HEAD LOCATION



Figure A-45 POST-TEST PASSENGER HEAD LOCATION



Figure A-46 PRE-TEST PASSENGER POSITION VIEW

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8741-01



Figure A-47 POST-TEST PASSENGER POSITION VIEW



Figure A-48 PRE-TEST PASSENGER AND INTERIOR VIEW



Figure A-49 POST-TEST PASSENGER AND INTERIOR VIEW



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8741-01

Figure A-50 PRE- TEST PASSENGER FEET VIEW



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8741-01

Figure A-51 POST-TEST PASSENGER FEET VIEW



Figure A-52 PRE-TEST PASSENGER KNEE BOLSTER VIEW



Figure A-53 POST-TEST PASSENGER KNEE BOLSTER VIEW

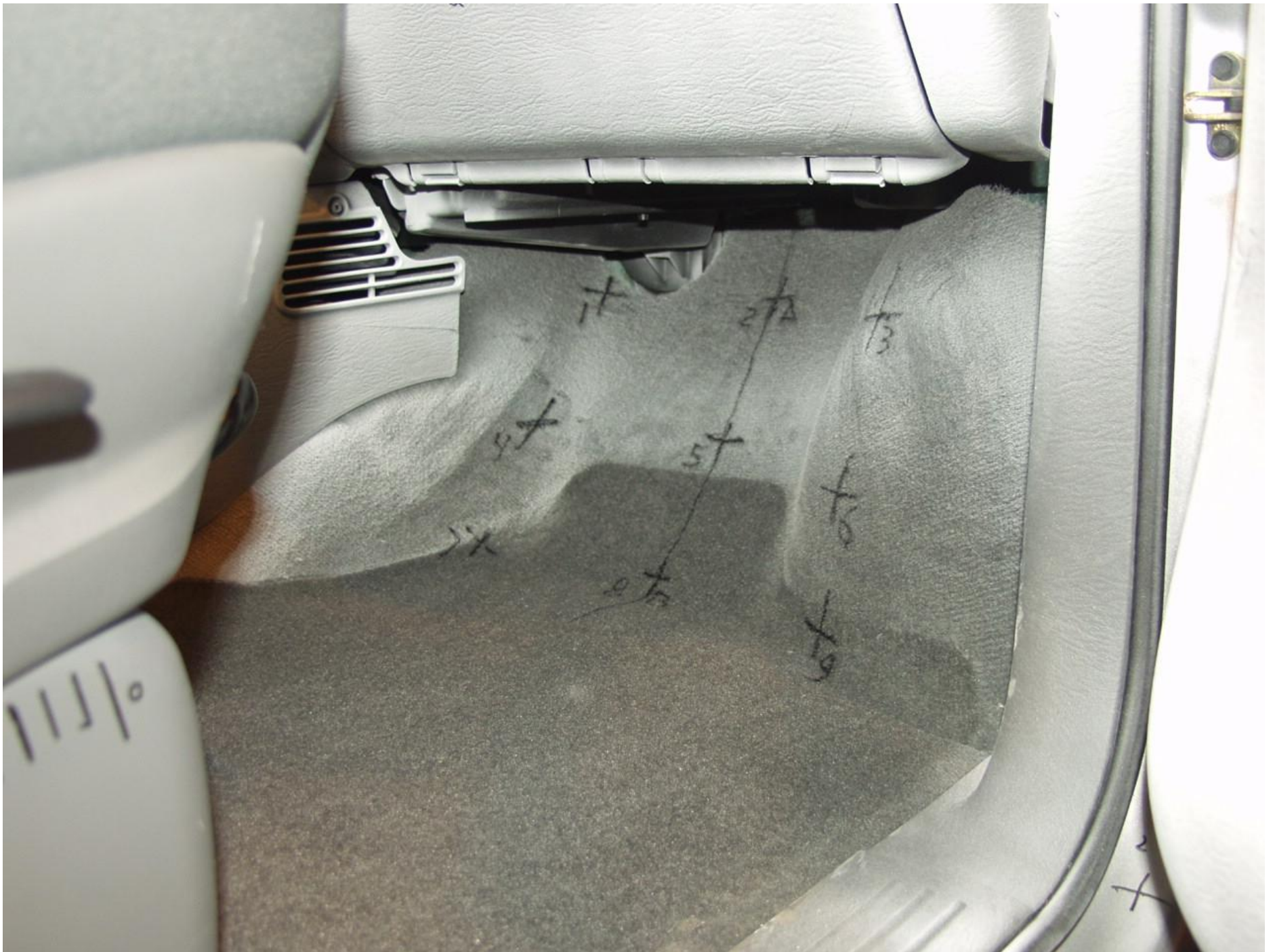


Figure A-54 PRE-TEST PASSENGER FLOOR PAN VIEW



Figure A-55 POST-TEST PASSENGER FLOOR PAN VIEW



Figure A-56 POST-TEST PASSENGER HEAD VIEW



Figure A-57 POST-TEST PASSENGER CONTACT TO AIRBAG



Figure A-58 ROLLOVER VIEW



Figure A-59 IMPACT VIEW

APPENDIX B

DUMMY, VEHICLE AND LOAD CELL BARRIER RESPONSE DATA

**Hybrid III Dummy Sign Conventions
Load Cells and Special Transducers**

Transducer	SAE Sign Convention (positive unless noted)
Upper Neck Load Cell	Fx Head rearward Fy Head left Fz Neck in tension Mx Left ear to left shoulder My Chin to chest (flexion) Mz Chin to left shoulder (look left)
Chest Displacement Potentiometer	Compression is negative
Pelvic Load Cell (Lower Lumbar)	Fx Chest rearward Fy Chest left Fz Spine in tension
Femur Load Cell	Compression is negative
Upper Tibia Load Cell (right and left leg)	Mx Support tibia at ends, load left side center My Support tibia at ends, load front (shin) center
Lower Tibia Load Cell (right and left leg)	Fz Tibia in tension Mx Support tibia at ends, load left side center My Support tibia at ends, load front (shin) center

DATA CHANNEL FILTER CLASS SUMMARY

NHTSA TEST NO.: L50300

DATA TYPE	SAE FILTER CLASS (Hz)
Dummy Head Accelerations	1000
Dummy Chest Accelerations	180
Dummy Chest Displacements	600
Dummy Femur Forces	600
Dummy Belt Loads	60
Dummy Belt Displacements	180
Dummy Neck Forces	1000
Dummy Neck Moments	600
Vehicle Accelerations	60
Vehicle Velocity Integrations	180
Vehicle Displacement Integrations	180
Load Cell Barrier Forces	60

Table of Data Plots

PLOT	PLOT NAME[UNITS, CHANNEL FILTER CLASS]	PAGE
1	V1P1 Head 9 Array X Arm Ay [g, CFC_1000]	B-8
2	V1P1 Head 9 Array X Arm Az [g, CFC_1000]	B-9
3	V1P1 Head 9 Array Y Arm Ax [g, CFC_1000]	B-10
4	V1P1 Head 9 Array Y Arm Az [g, CFC_1000]	B-11
5	V1P1 Head 9 Array Z Arm Ax [g, CFC_1000]	B-12
6	V1P1 Head 9 Array Z Arm Ay [g, CFC_1000]	B-13
7	V1P1 Head CG x [g, CFC_1000]	B-14
8	V1P1 Head CG y [g, CFC_1000]	B-15
9	V1P1 Head CG z [g, CFC_1000]	B-16
10	V1P1 Head CG Resultant [g, CFC_1000]	B-17
11	V1P1 Head CG Red x [g, CFC_1000]	B-18
12	V1P1 Head CG Red y [g, CFC_1000]	B-19
13	V1P1 Head CG Red z [g, CFC_1000]	B-20
14	V1P1 Head CG Red Resultant [g, CFC_1000]	B-21
15	V1P1 Upper Neck Fx [N, CFC_1000]	B-22
16	V1P1 Upper Neck Fy [N, CFC_1000]	B-23
17	V1P1 Upper Neck Fz [N, CFC_1000]	B-24
18	V1P1 Upper Neck F Resultant [N, CFC_1000]	B-25
19	V1P1 Upper Neck Mx [N-m, CFC_600]	B-26
20	V1P1 Upper Neck My [N-m, CFC_600]	B-27
21	V1P1 Upper Neck Mz [N-m, CFC_600]	B-28
22	V1P1 Upper Neck M Resultant [N-m, CFC_600]	B-29
23	V1P1 Chest x [g, CFC_180]	B-30
24	V1P1 Chest y [g, CFC_180]	B-31
25	V1P1 Chest z [g, CFC_180]	B-32
26	V1P1 Chest Resultant [g, CFC_180]	B-33
27	V1P1 Chest Red x [g, CFC_180]	B-34
28	V1P1 Chest Red y [g, CFC_180]	B-35
29	V1P1 Chest Red z [g, CFC_180]	B-36
30	V1P1 Chest Red Resultant [g, CFC_180]	B-37
31	V1P1 Chest Compression [mm, CFC_600]	B-38
32	V1P1 Pelvic x [g, CFC_1000]	B-39
33	V1P1 Pelvic y [g, CFC_1000]	B-40
34	V1P1 Pelvic z [g, CFC_1000]	B-41
35	V1P1 Pelvic Resultant [g, CFC_1000]	B-42
36	V1P1 Left Femur [N, CFC_600]	B-43
37	V1P1 Right Femur [N, CFC_600]	B-44
38	V1P1 Left Upper Tibia Mx [N-m, CFC_600]	B-45
39	V1P1 Left Upper Tibia My [N-m, CFC_600]	B-46
40	V1P1 Left Lower Tibia Fz [N, CFC_600]	B-47
41	V1P1 Left Lower Tibia Mx [N-m, CFC_600]	B-48
42	V1P1 Left Lower tibia My [N-m, CFC_600]	B-49
43	V1P1 Right Upper Tibia Mx [N-m, CFC_600]	B-50
44	V1P1 Right Upper Tibia My [N-m, CFC_600]	B-51
45	V1P1 Right Lower Tibia Fz [N, CFC_600]	B-52
46	V1P1 Right Lower tibia Mx [N-m, CFC_600]	B-53

Table of Data Plots (Continued)

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47	V1P1 Right Lower Tibia My [N-m, CFC_600]	B-54
48	V1P1 Left Foot Aft Ax [g, CFC_600]	B-55
49	V1P1 Left Foot Aft Az [g, CFC_600]	B-56
50	V1P1 Left Foot Fore Az [g, CFC_600]	B-57
51	V1P1 Right Foot Aft x [g, CFC_600]	B-58
52	V1P1 Right Foot Aft z [g, CFC_600]	B-59
53	V1P1 Right Foot Fore z [g, CFC_600]	B-60
54	V1 Driver Lap Belt [N, CFC_60]	B-61
55	V1P2 Head 9 Array X Arm y [g, CFC_1000]	B-62
56	V1P2 Head 9 Array X Arm z [g, CFC_1000]	B-63
57	V1P2 Head 9 Array Y Arm x [g, CFC_1000]	B-64
58	V1P2 Head 9 Array Y Arm z [g, CFC_1000]	B-65
59	V1P2 Head 9 Array Z Arm x [g, CFC_1000]	B-66
60	V1P2 Head 9 Array Z Arm y [g, CFC_1000]	B-67
61	V1P2 Head CG x [g, CFC_1000]	B-68
62	V1P2 Head CG y [g, CFC_1000]	B-69
63	V1P2 Head CG z [g, CFC_1000]	B-70
64	V1P2 Head CG Resultant [g, CFC_1000]	B-71
65	V1P2 Head CG Red x [g, CFC_1000]	B-72
66	V1P2 Head CG Red y [g, CFC_1000]	B-73
67	V1P2 Head CG Red z [g, CFC_1000]	B-74
68	V1P2 Head CG Red Resultant [g, CFC_1000]	B-75
69	V1P2 Upper Neck Fx [N, CFC_1000]	B-76
70	V1P2 Upper Neck Fy [N, CFC_1000]	B-77
71	V1P2 Upper Neck Fz [N, CFC_1000]	B-78
72	V1P2 Upper Neck F Resultant [N, CFC_1000]	B-79
73	V1P2 Upper Neck Mx [N-m, CFC_600]	B-80
74	V1P2 Upper Neck My [N-m, CFC_600]	B-81
75	V1P2 Upper Neck Mz [N-m, CFC_600]	B-82
76	V1P2 Upper Neck M Resultant [N-m, CFC_600]	B-83
77	V1P2 Chest x [g, CFC_180]	B-84
78	V1P2 Chest y [g, CFC_180]	B-85
79	V1P2 Chest z [g, CFC_180]	B-86
80	V1P2 Chest Resultant [g, CFC_180]	B-87
81	V1P2 Chest Red x [g, CFC_180]	B-88
82	V1P2 Chest Red y [g, CFC_180]	B-89
83	V1P2 Chest Red z [g, CFC_180]	B-90
84	V1P2 Chest Red Resultant [g, CFC_180]	B-91
85	V1P2 Chest Compression [mm, CFC_600]	B-92
86	V1P2 Pelvic x [g, CFC_1000]	B-93
87	V1P2 Pelvic y [g, CFC_1000]	B-94
88	V1P2 Pelvic z [g, CFC_1000]	B-95
89	V1P2 Pelvic Resultant [g, CFC_1000]	B-96
90	V1P2 Left Femur [N, CFC_600]	B-97
91	V1P2 Right Femur [N, CFC_600]	B-98
92	V1P2 Left Upper Tibia Mx [N-m, CFC_600]	B-99

Table of Data Plots (Continued)

PLOT	PLOT NAME[UNITS, CHANNEL FILTER CLASS]	PAGE
93	V1P2 Left Upper Tibia My [N-m, CFC_600]	B-100
94	V1P2 Left Lower Tibia Fz [N, CFC_600]	B-101
95	V1P2 Left Lower Tibia Mx [N-m, CFC_600]	B-102
96	V1P2 Left Lower Tibia My [N-m, CFC_600]	B-103
97	V1P2 Right Upper Tibia Mx [N-m, CFC_600]	B-104
98	V1P2 Right Upper Tibia My [N-m, CFC_600]	B-105
99	V1P2 Right Lower Tibia Fz [N, CFC_600]	B-106
100	V1P2 Right Lower Tibia Mx [N-m, CFC_600]	B-107
101	V1P2 Right Lower Tibia My [N-m, CFC_600]	B-108
102	V1P2 Left Foot Aft x [g, CFC_600]	B-109
103	V1P2 Left Foot Aft z [g, CFC_600]	B-110
104	V1P2 Left Foot Fore z [g, CFC_600]	B-111
105	V1P2 Right Foot Aft x [g, CFC_600]	B-112
106	V1P2 Right Foot Aft z [g, CFC_600]	B-113
107	V1P2 Right Foot Fore z [g, CFC_600]	B-114
108	V1 RFP Lap Belt [N, CFC_60]	B-115
109	V1 Left Rear #1x [g, CFC_60]	B-116
110	V1 Left Rear #1x Velocity [kph, CFC_180]	B-117
111	V1 Left Rear #1x Displacement [mm, CFC_180]	B-118
112	V1 Right Rear #2x [g, CFC_60]	B-119
113	V1 Right Rear #2x Velocity [kph, CFC_180]	B-120
114	V1 Right Rear #2x Displacement [mm, CFC_180]	B-121
115	V1 Engine Top #3x [g, CFC_60]	B-122
116	V1 Engine Top #3x Velocity [kph, CFC_180]	B-123
117	V1 Engine Top #3x Displacement [mm, CFC_180]	B-124
118	V1 Engine Bottom #4x [g, CFC_60]	B-125
119	V1 Engine Bottom #4x Velocity [kph, CFC_180]	B-126
120	V1 Engine Bottom #4x Displacement [mm, CFC_180]	B-127
121	V1 Right Caliper #5x [g, CFC_60]	B-128
122	V1 Right Caliper #5x Velocity [kph, CFC_180]	B-129
123	V1 Right Caliper #5x Displacement [mm, CFC_180]	B-130
124	V1 Instrument Panel #6x [g, CFC_60]	B-131
125	V1 Instrument Panel #6x Velocity [kph, CFC_180]	B-132
126	V1 Instrument Panel #6x Displacement [mm, CFC_180]	B-133
127	V1 Left Caliper #7x [g, CFC_60]	B-134
128	V1 Left Caliper #7x Velocity [kph, CFC_180]	B-135
129	V1 Left Caliper #7x Displacement [mm, CFC_180]	B-136
130	V1 Left Rear #8z [g, CFC_60]	B-137
131	V1 Left Rear #8z Velocity [kph, CFC_180]	B-138
132	V1 Left Rear #8z Displacement [mm, CFC_180]	B-139
133	V1 Right Rear #9z [g, CFC_60]	B-140
134	V1 Right Rear #9z Velocity [kph, CFC_180]	B-141
135	V1 Right Rear #9z Displacement [mm, CFC_180]	B-142
136	Barrier Load Cell A1 Fx [N, CFC_60]	B-143
137	Barrier Load Cell A2 Fx [N, CFC_60]	B-144
138	Barrier Load Cell A3 Fx [N, CFC_60]	B-145

Table of Data Plots (Continued)

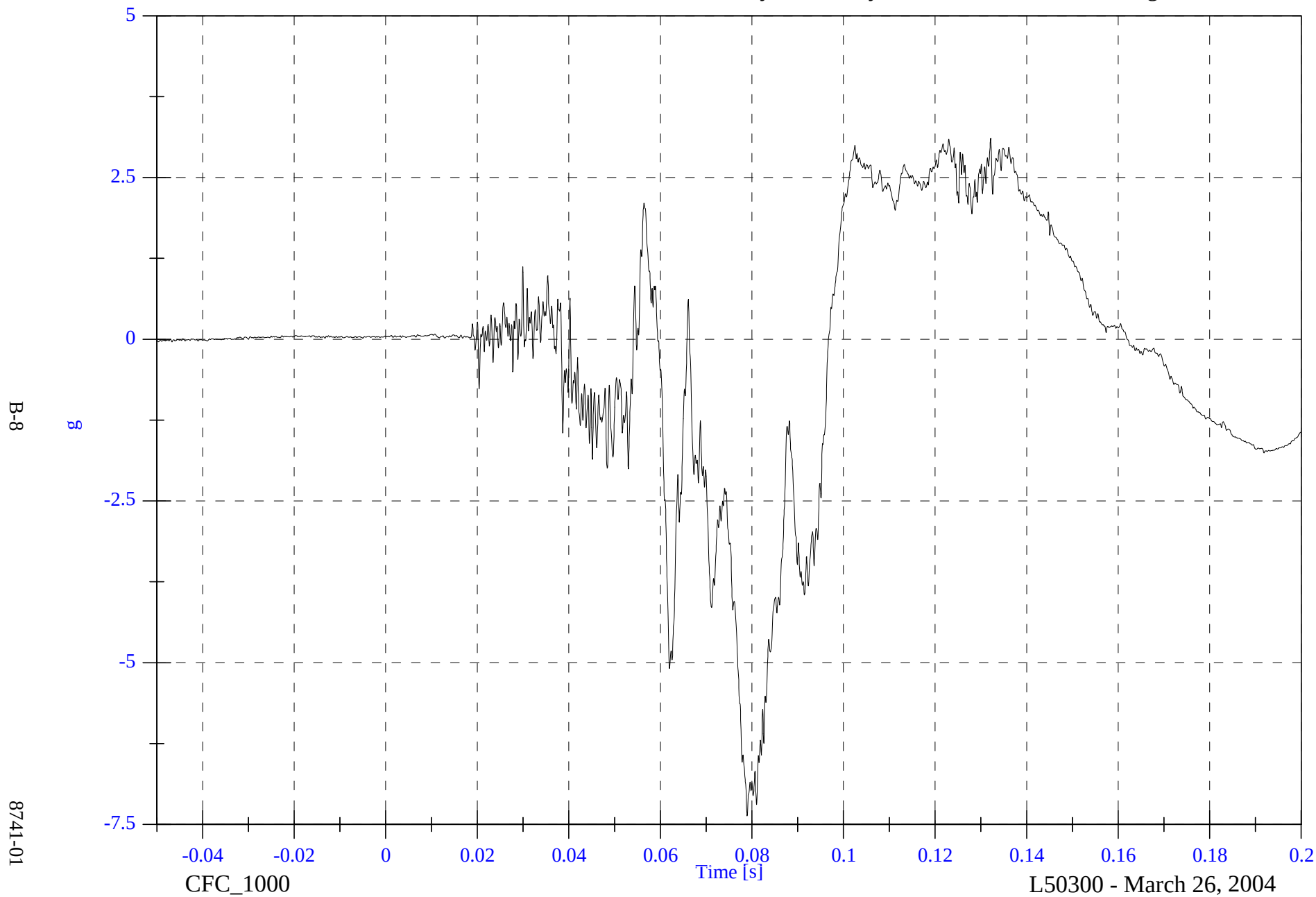
PLOT	PLOT NAME[UNITS, CHANNEL FILTER CLASS]	PAGE
139	Barrier Load Cell A4 Fx [N, CFC_60]	B-146
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Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Head 9 Array X Arm Ay

Max: 3.1 [g] at 0.132 [s]

Min: -7.4 [g] at 0.079 [s]



B-8

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

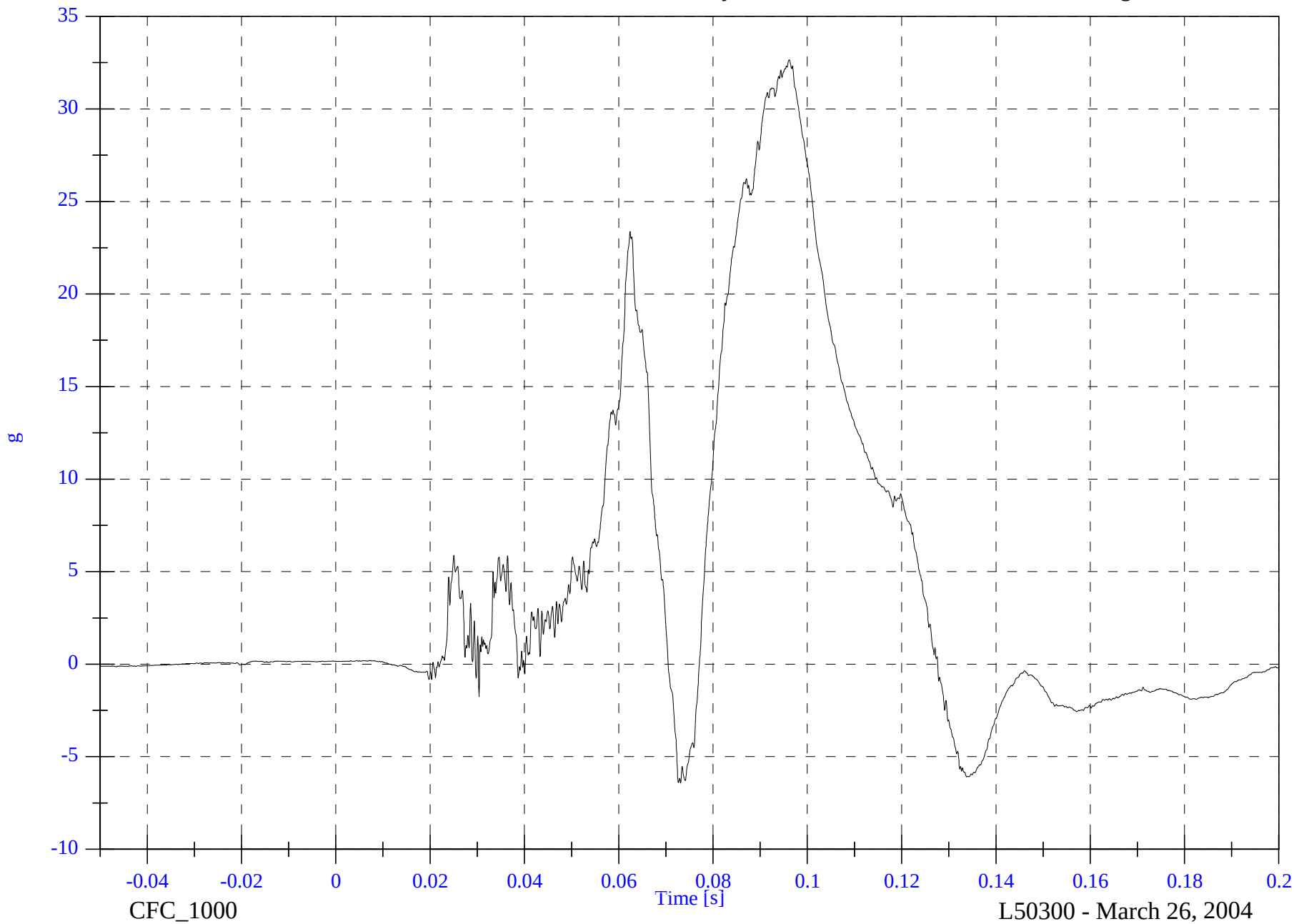
V1P1 Head 9 Array X Arm Az

Max: 32.6 [g] at 0.096 [s]

Min: -6.4 [g] at 0.073 [s]

B-9

8741-01

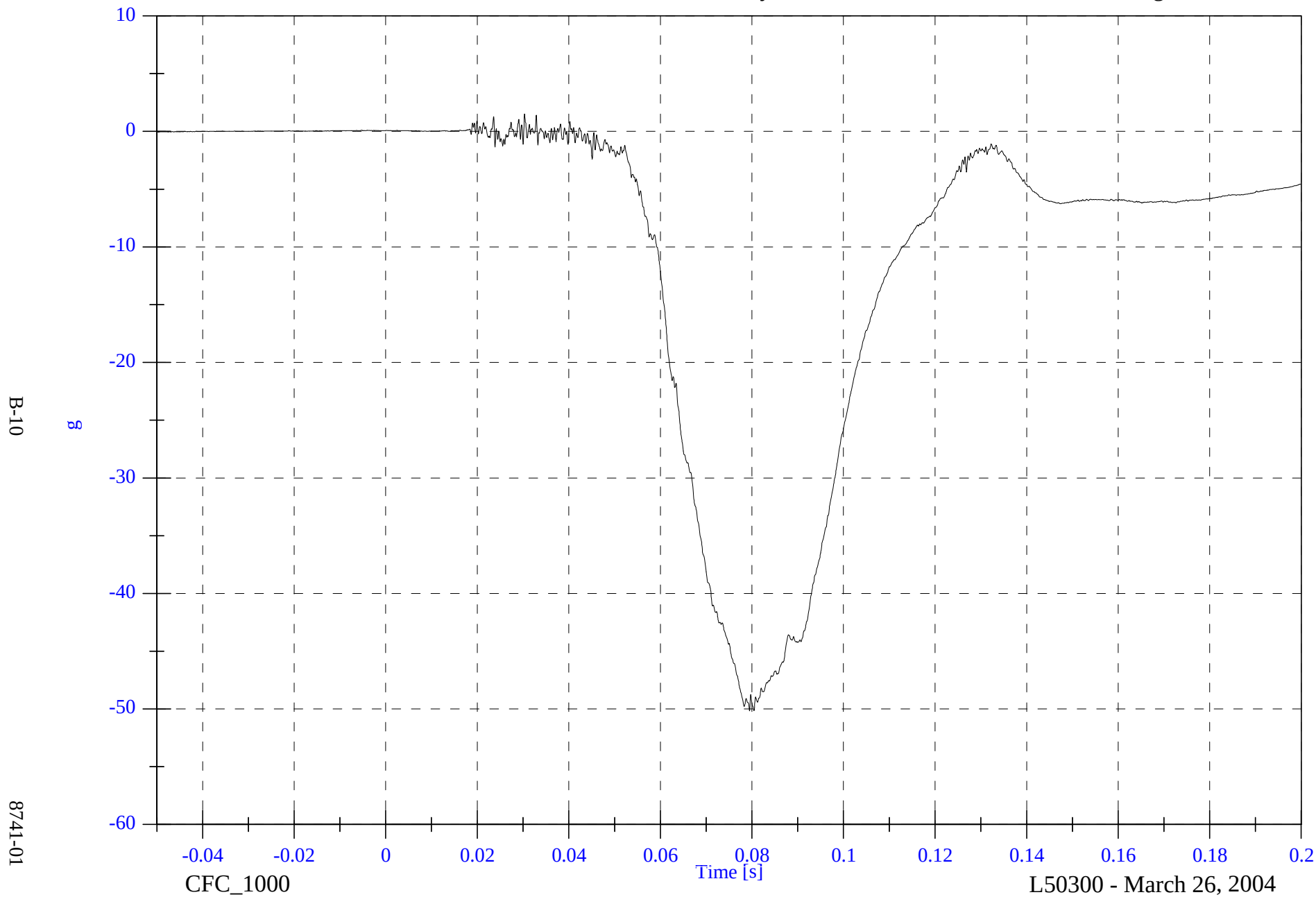


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Head 9 Array Y Arm Ax

Max: 1.5 [g] at 0.030 [s]

Min: -50.2 [g] at 0.079 [s]

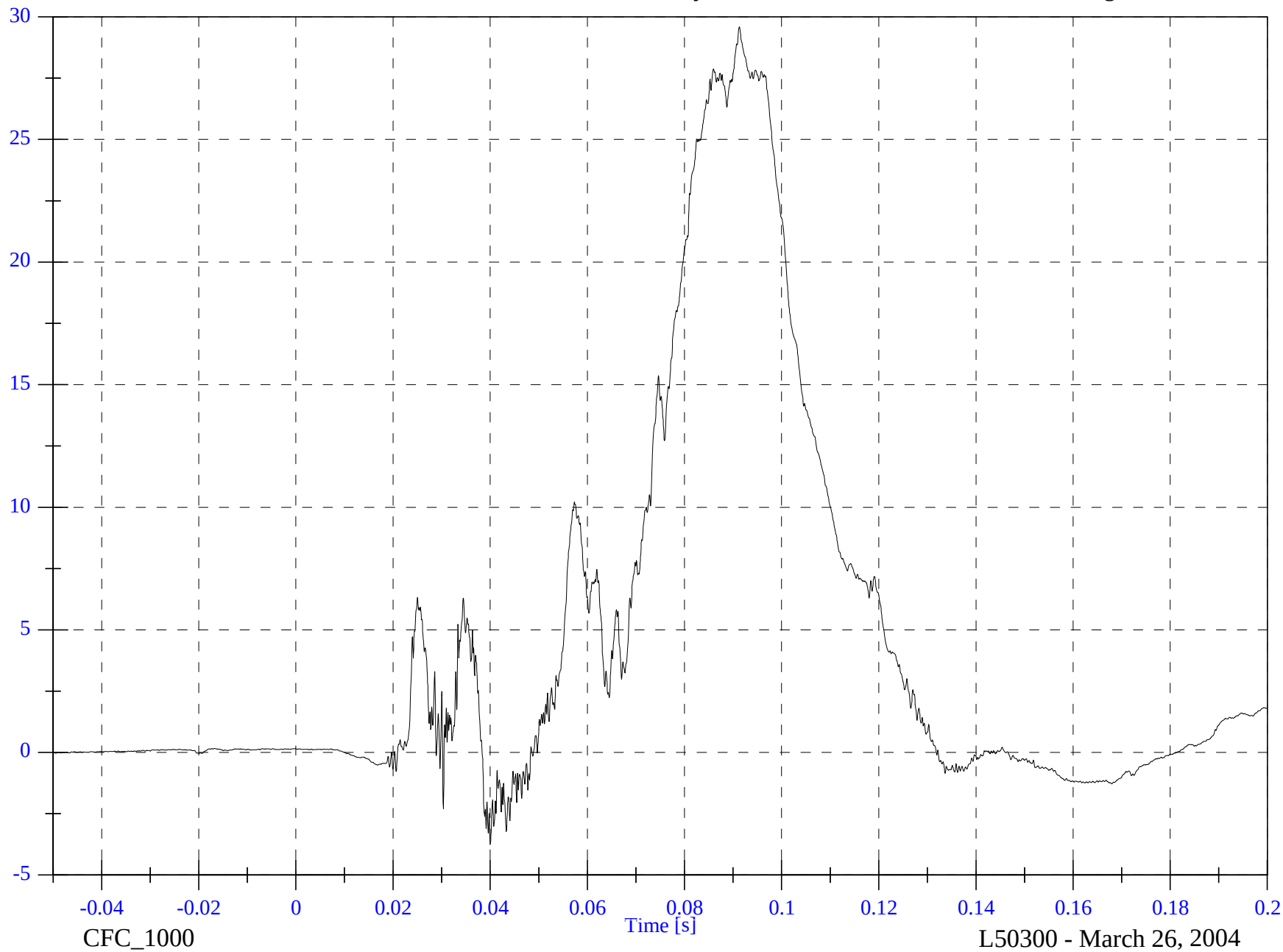


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Head 9 Array Y Arm Az

Max: 29.6 [g] at 0.091 [s]

Min: -3.8 [g] at 0.040 [s]



B-11

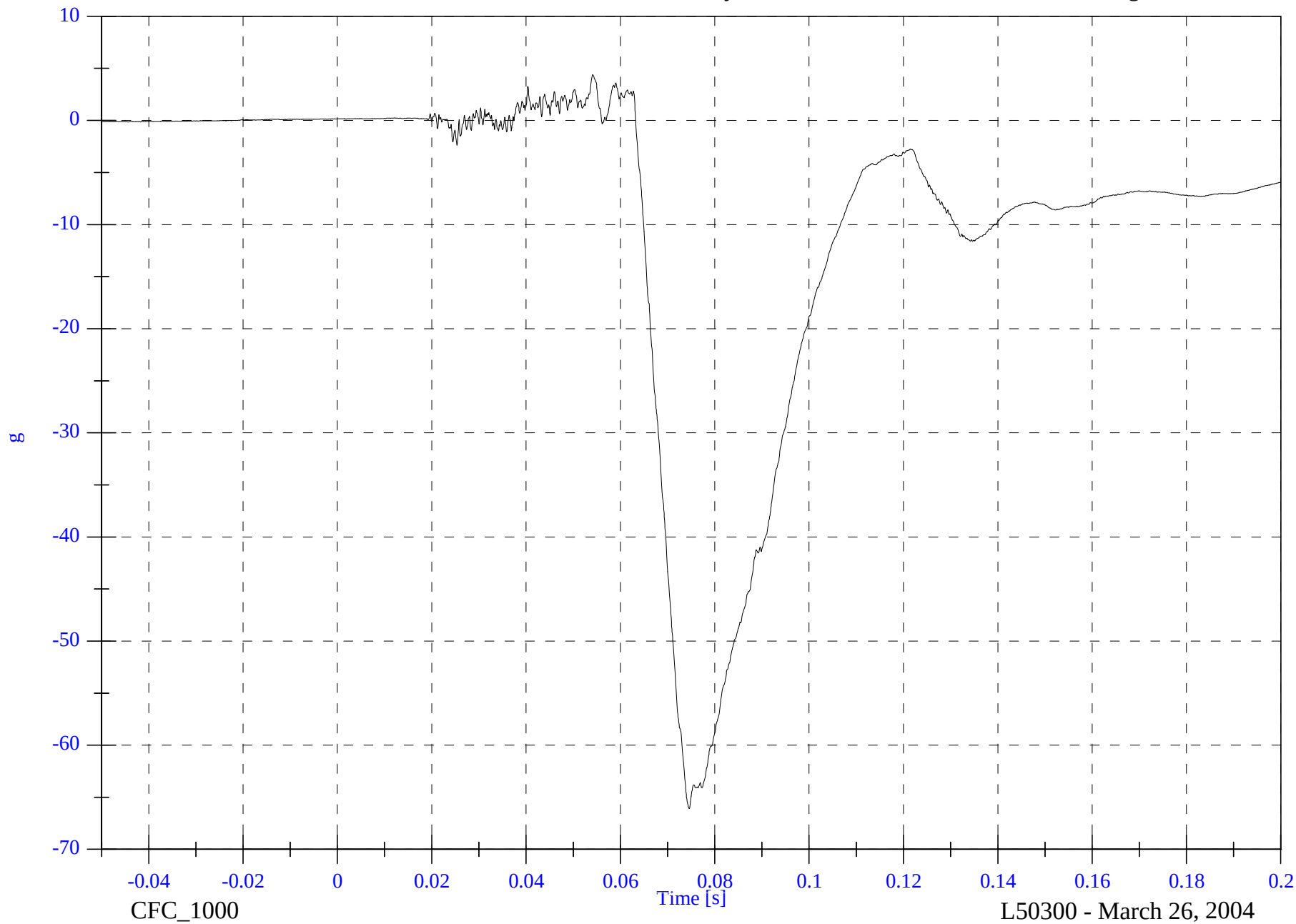
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Head 9 Array Z Arm Ax

Max: 4.4 [g] at 0.054 [s]

Min: -66.1 [g] at 0.075 [s]



B-12

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

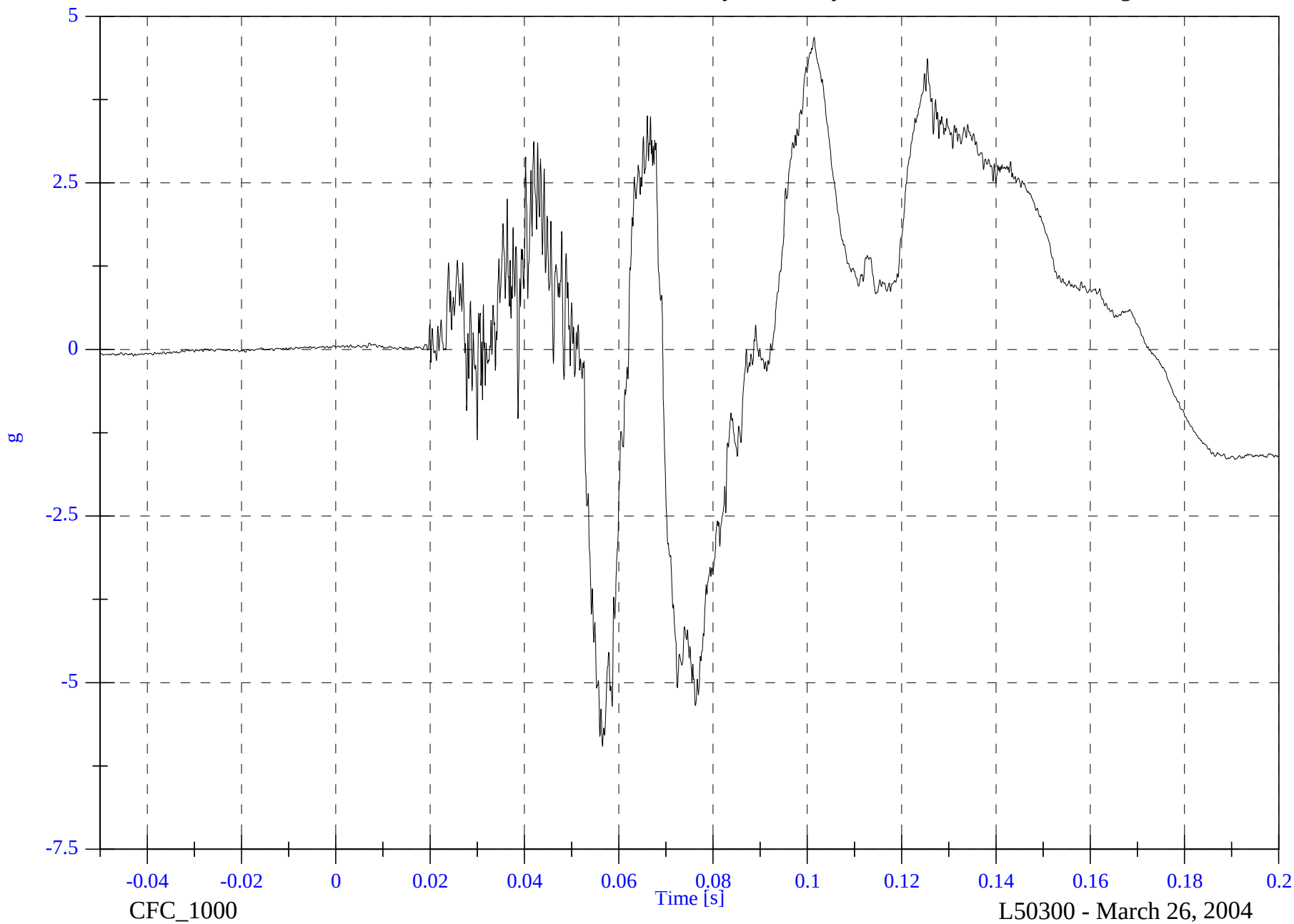
V1P1 Head 9 Array Z Arm Ay

Max: 4.7 [g] at 0.101 [s]

Min: -6.0 [g] at 0.057 [s]

B-13

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

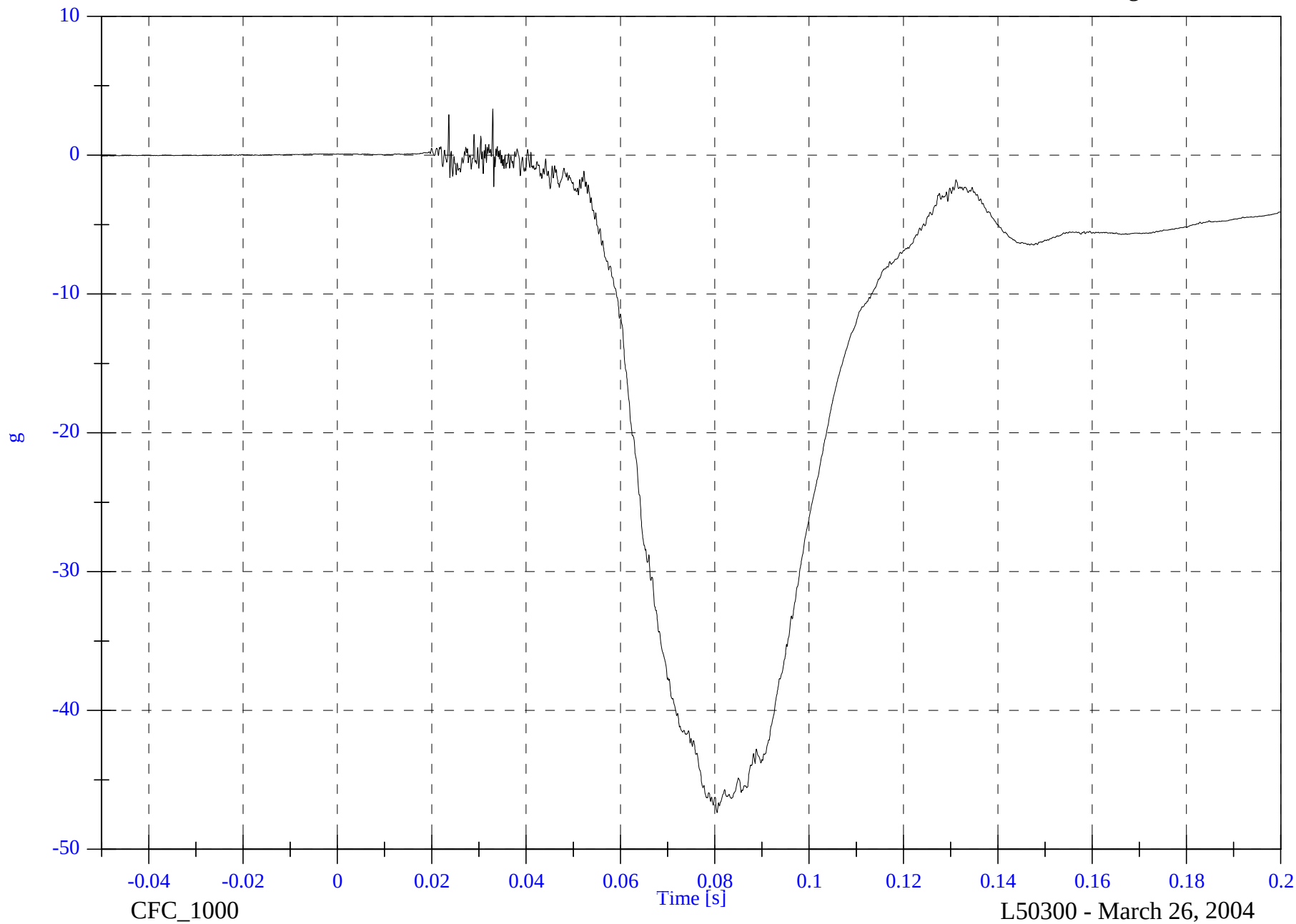
V1P1 Head CG x

Max: 3.3 [g] at 0.033 [s]

Min: -47.4 [g] at 0.080 [s]

B-14

8741-01

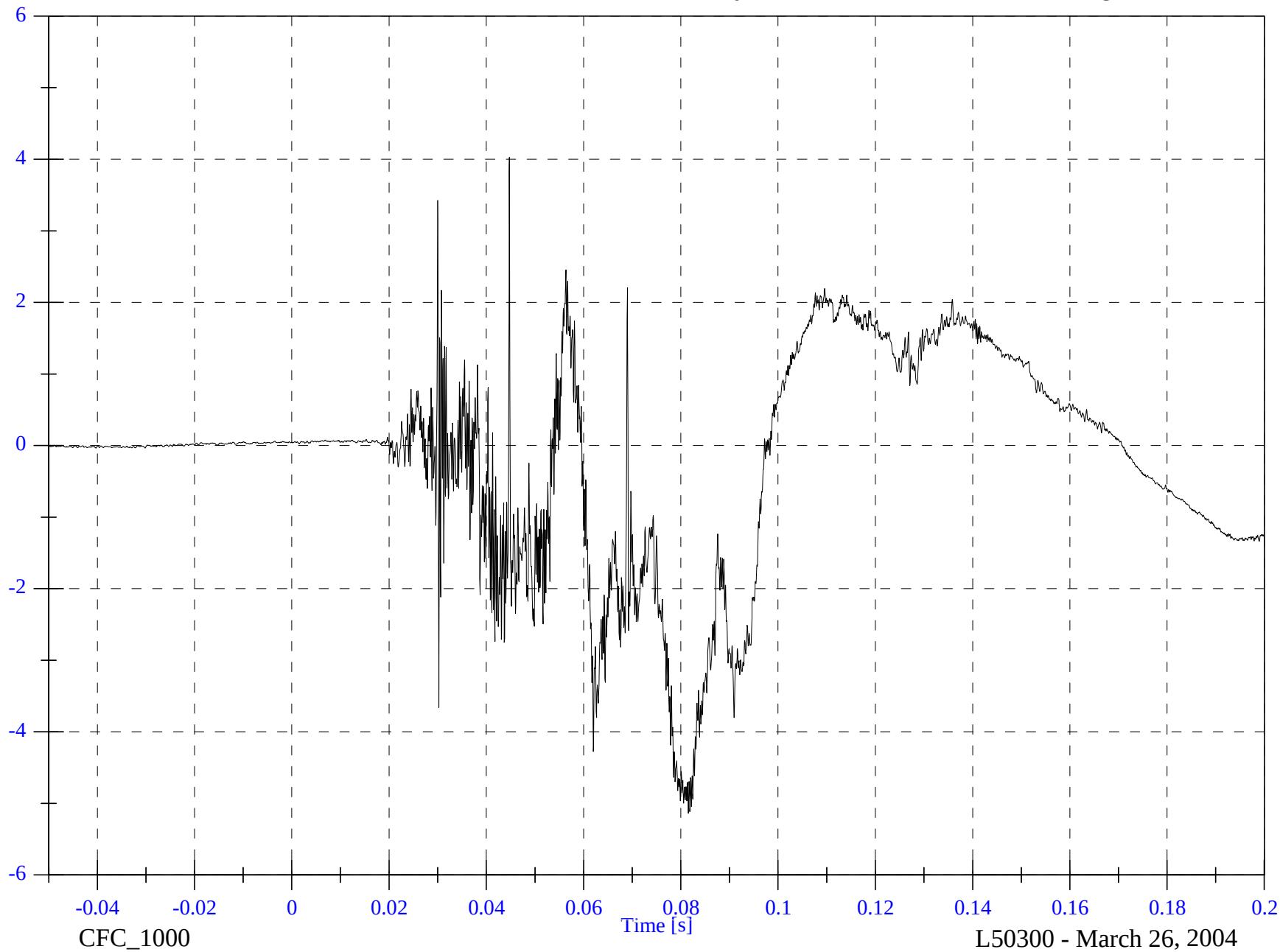


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Head CG y

Max: 4.0 [g] at 0.045 [s]

Min: -5.1 [g] at 0.082 [s]



B-15

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

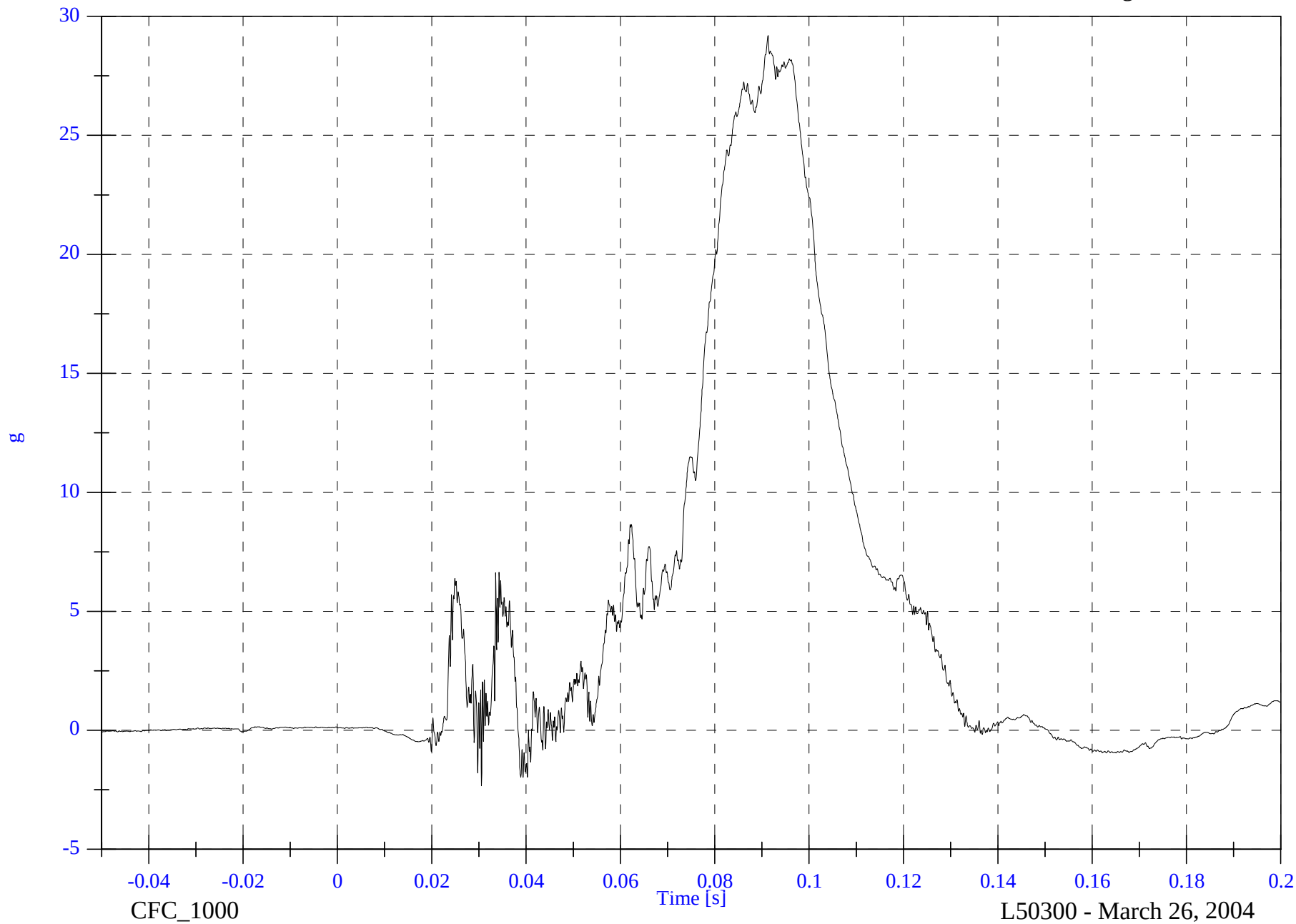
V1P1 Head CG z

Max: 29.2 [g] at 0.091 [s]

Min: -2.3 [g] at 0.031 [s]

B-16

8741-01

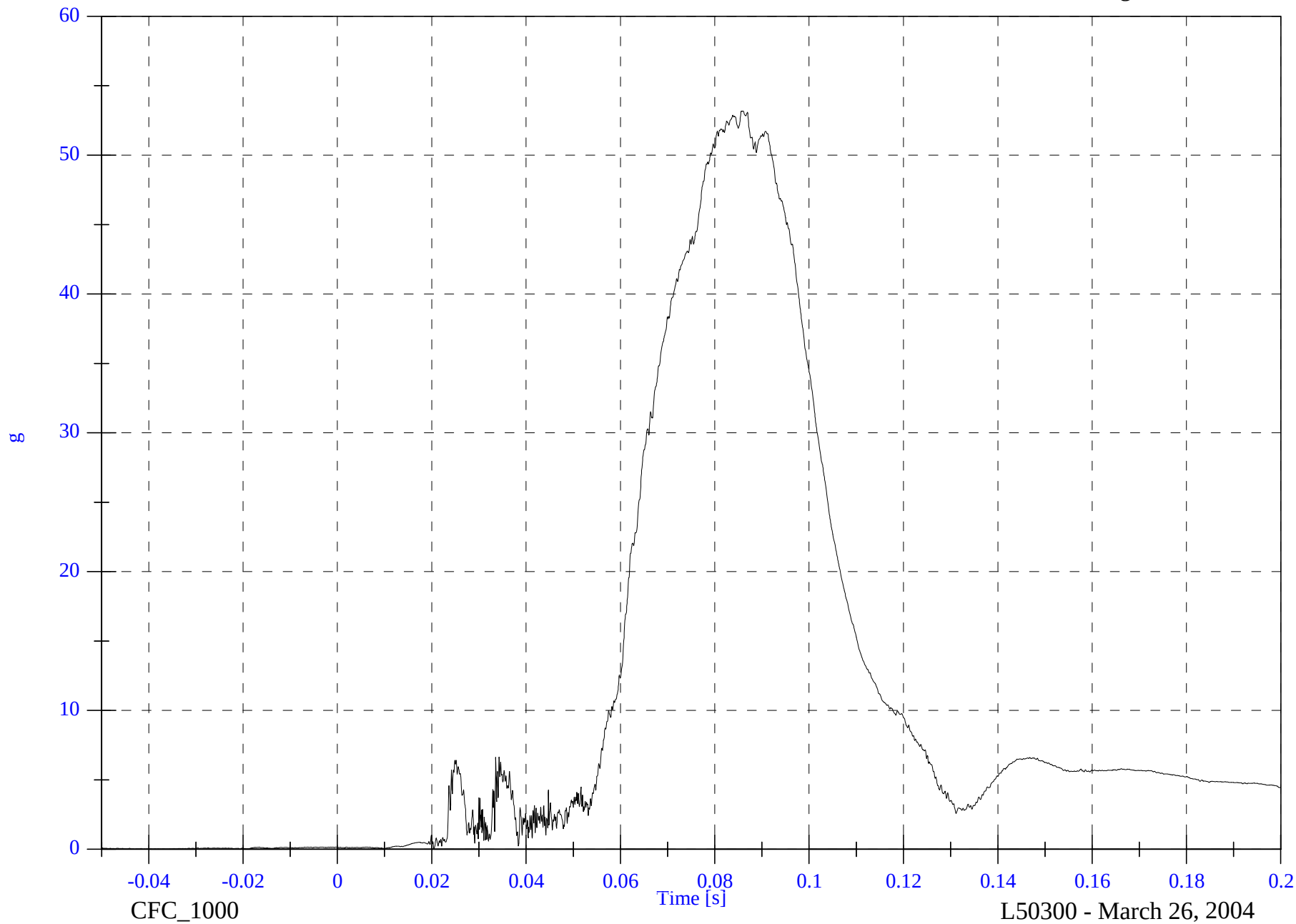


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Head CG Resultant

Max: 53.2 [g] at 0.086 [s]

Min: 0.0 [g] at -0.040 [s]



B-17

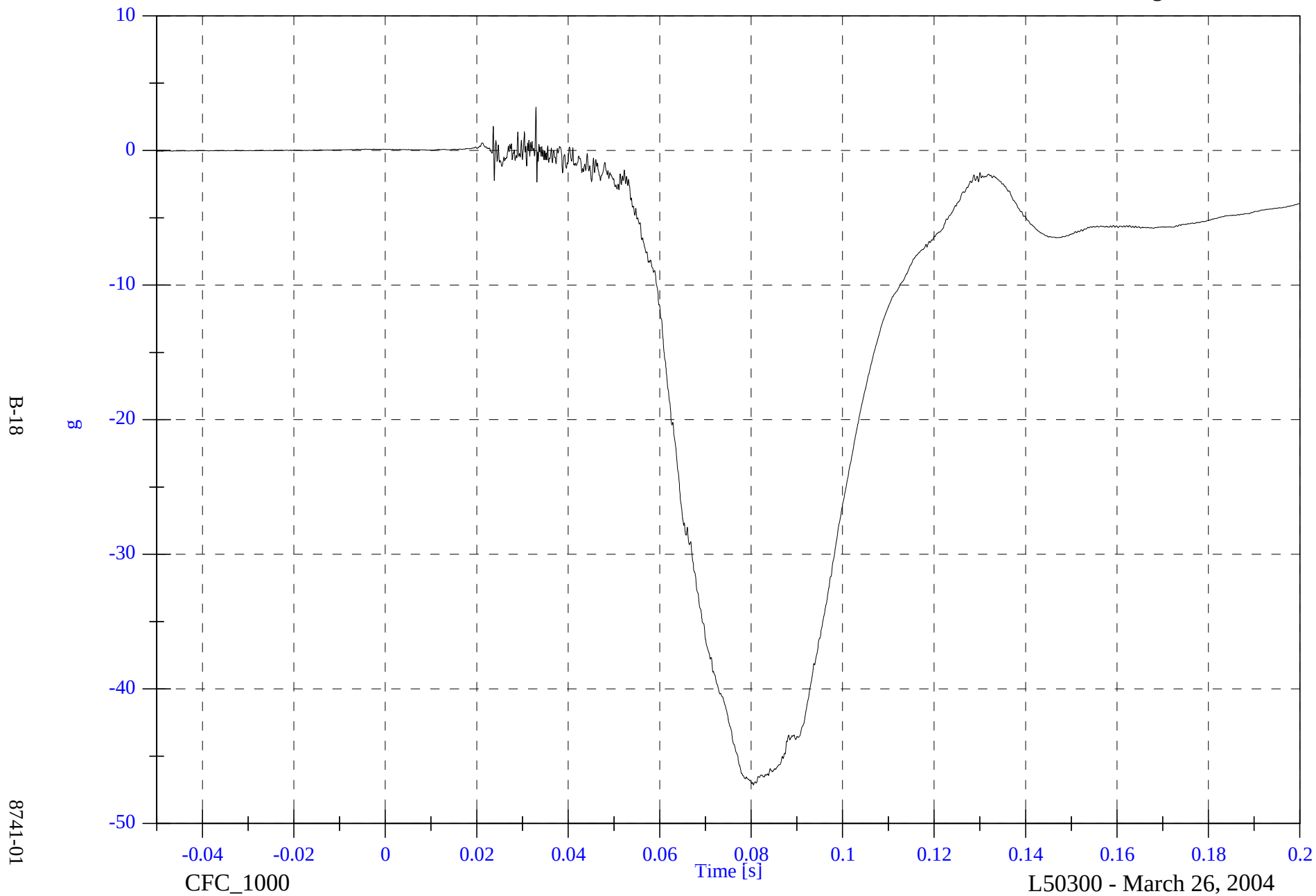
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Head CG Red x

Max: 3.2 [g] at 0.033 [s]

Min: -47.1 [g] at 0.080 [s]

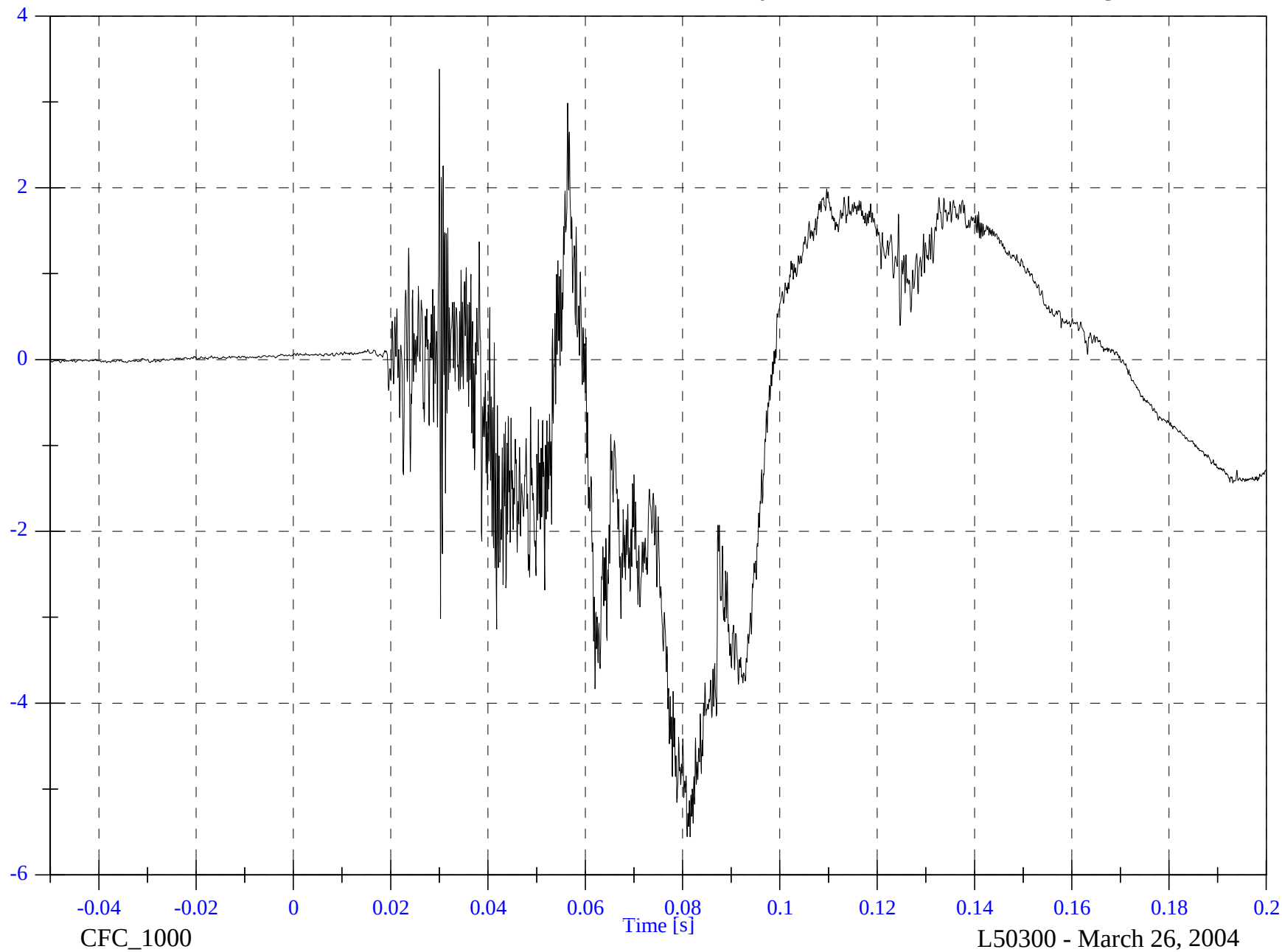


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Head CG Red y

Max: 3.4 [g] at 0.030 [s]

Min: -5.6 [g] at 0.082 [s]



B-19

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

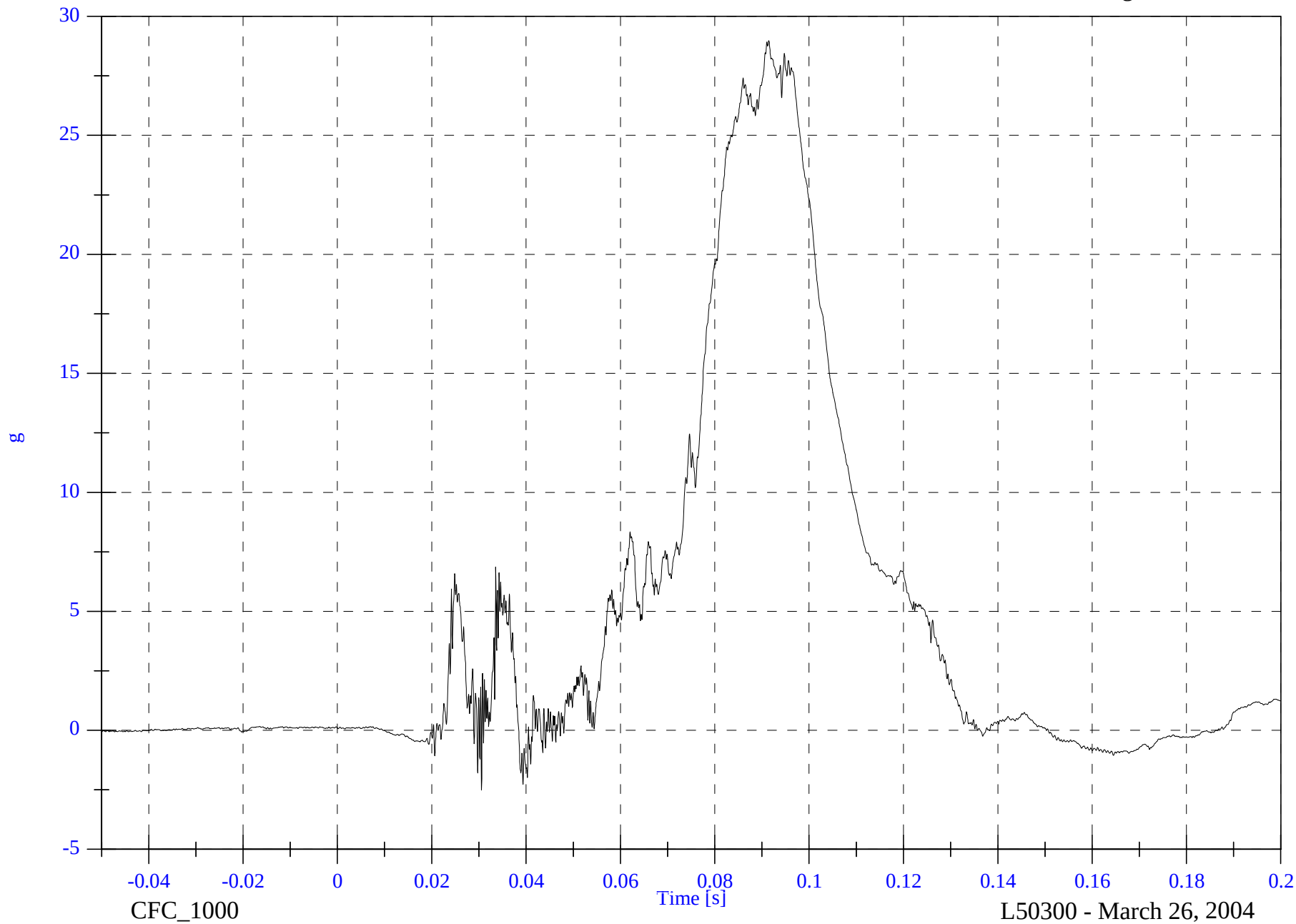
V1P1 Head CG Red z

Max: 29.0 [g] at 0.091 [s]

Min: -2.5 [g] at 0.031 [s]

B-20

8741-01

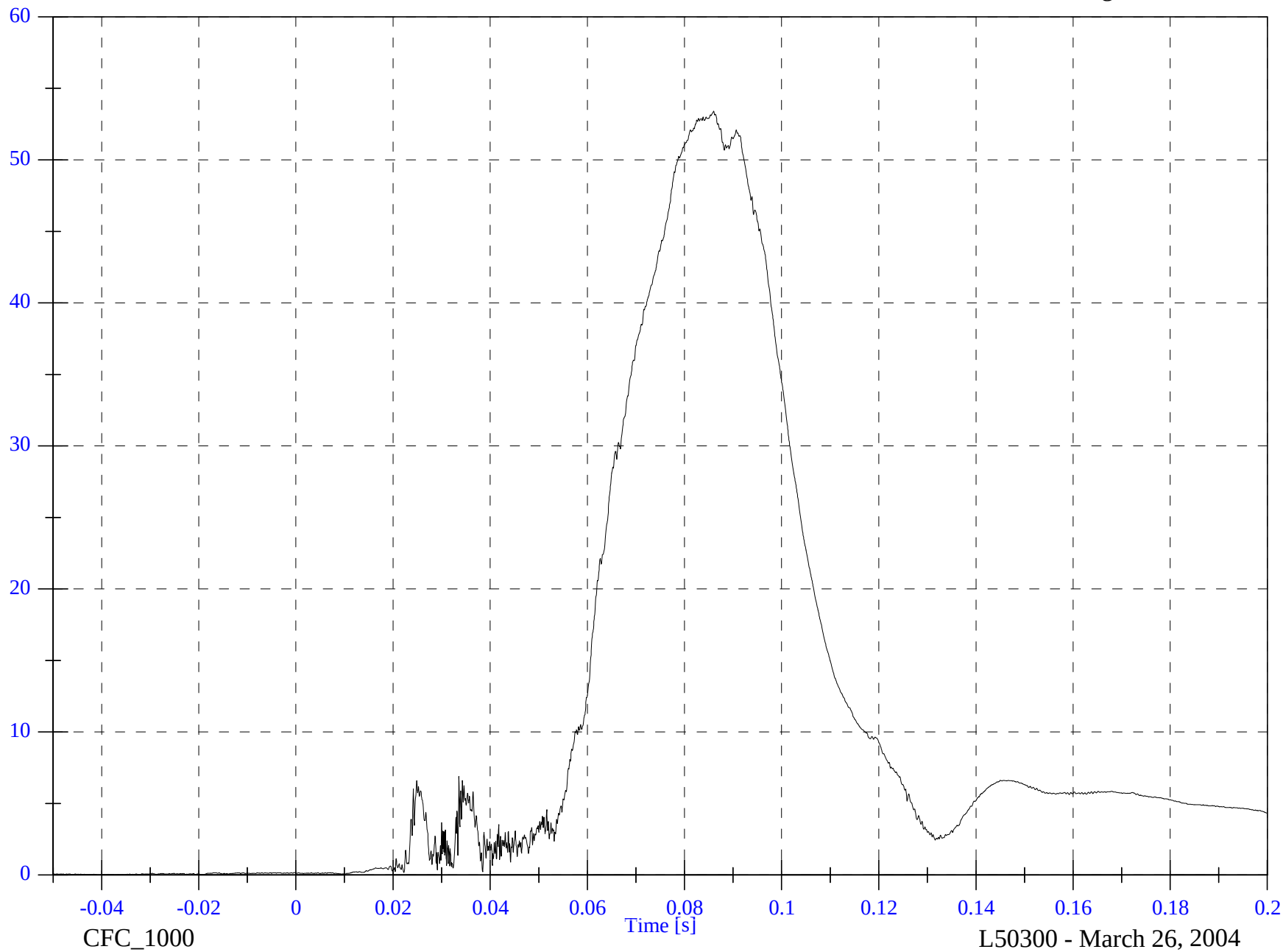


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Head CG Red Resultant

Max: 53.4 [g] at 0.086 [s]

Min: 0.0 [g] at -0.036 [s]



B-21

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Upper Neck Fx

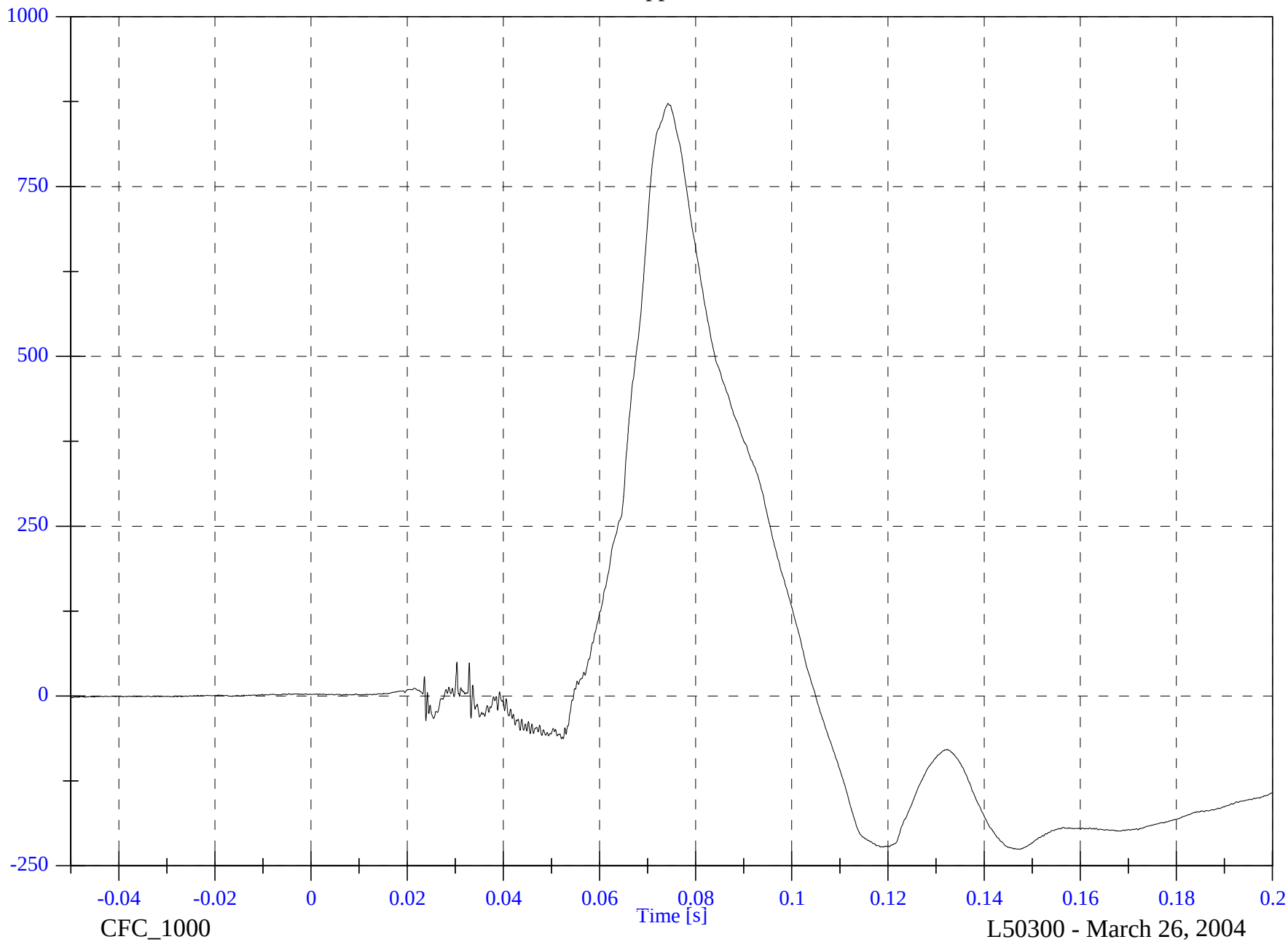
Max: 872.2 [N] at 0.074 [s]

Min: -225.4 [N] at 0.147 [s]

B-22

N

8741-01

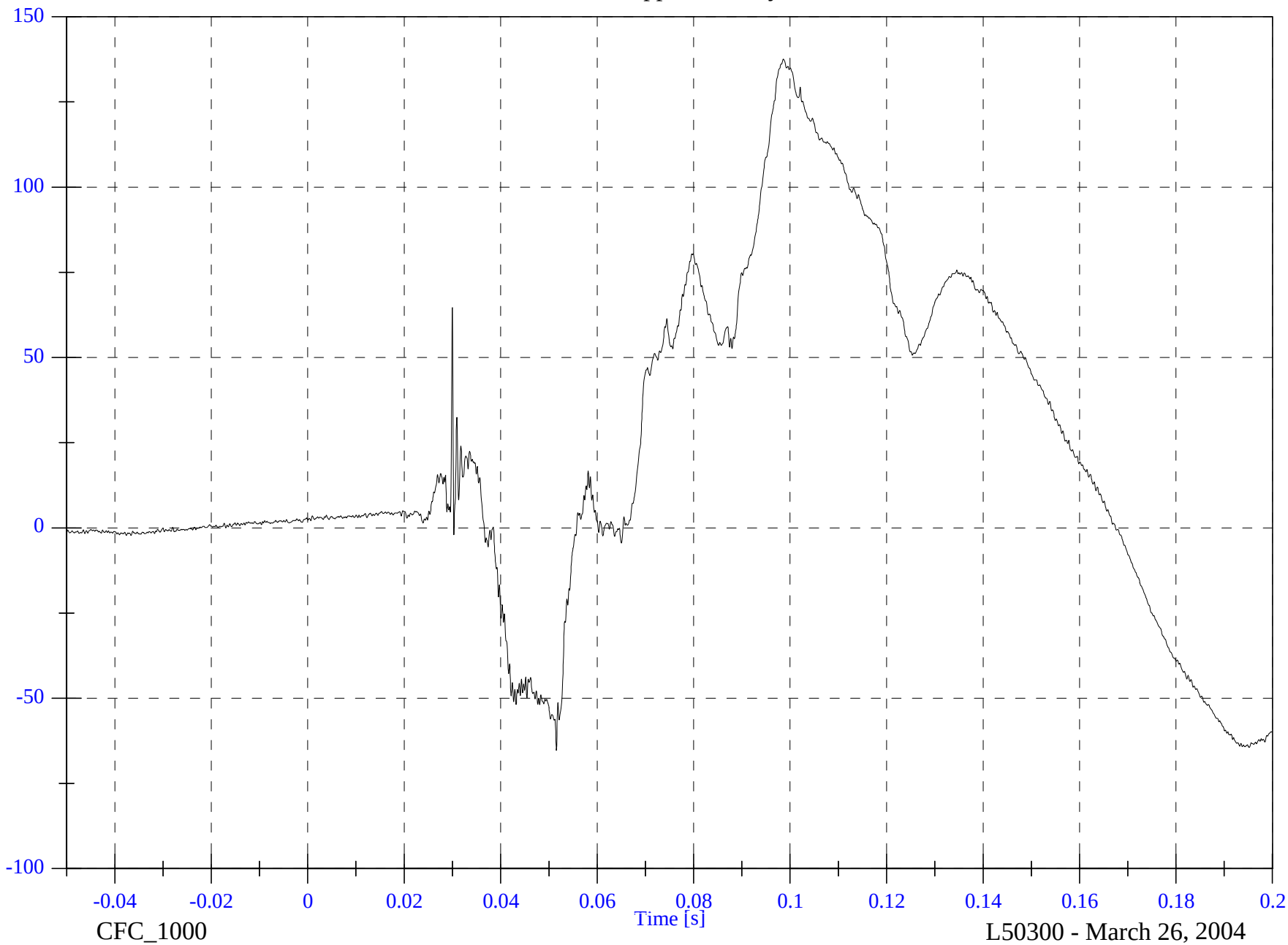


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Upper Neck Fy

Max: 137.6 [N] at 0.099 [s]

Min: -65.3 [N] at 0.052 [s]



B-23

N

8741-01

CFC_1000

Time [s]

L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

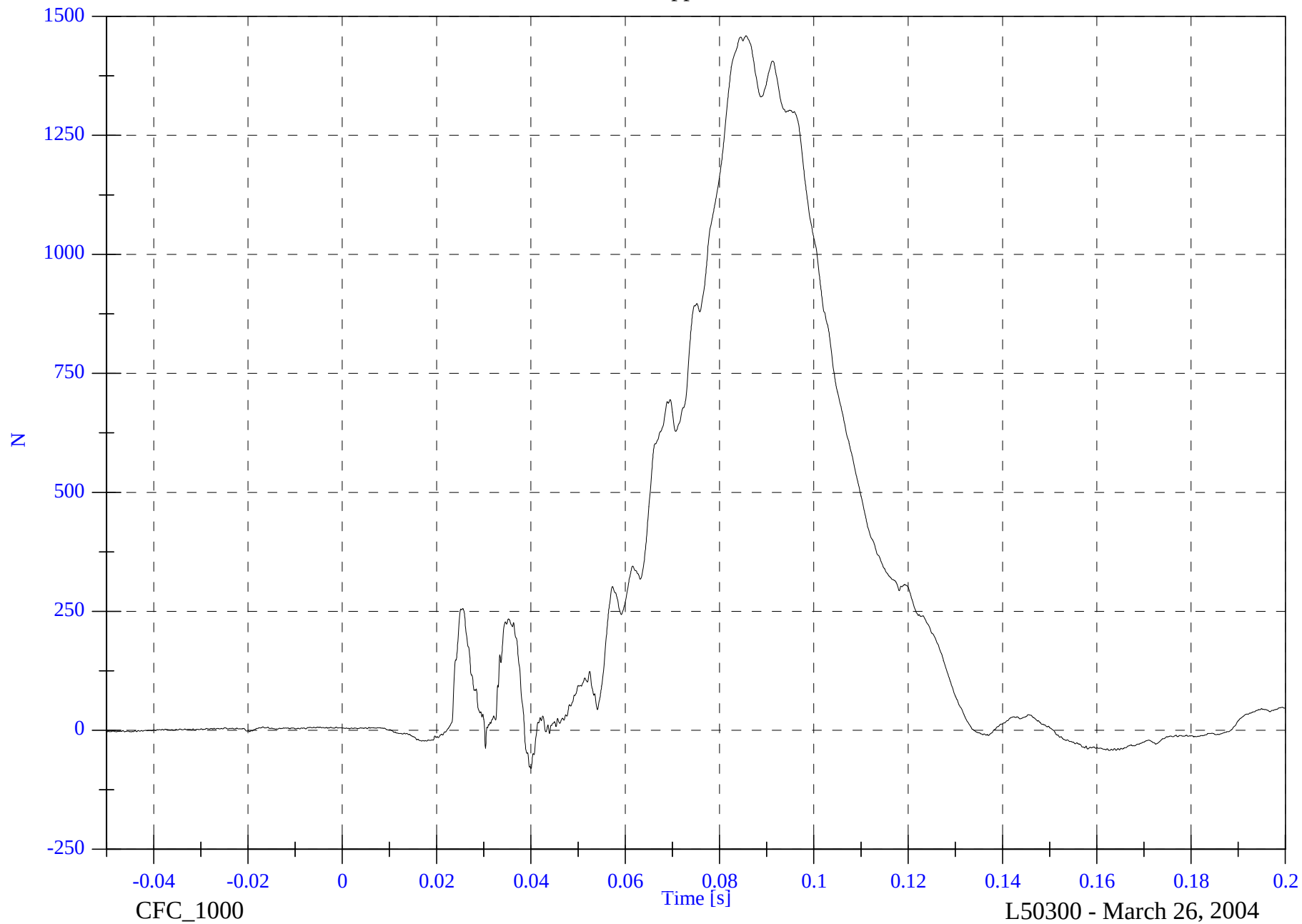
V1P1 Upper Neck Fz

Max: 1459.2 [N] at 0.086 [s]

Min: -80.1 [N] at 0.040 [s]

B-24

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

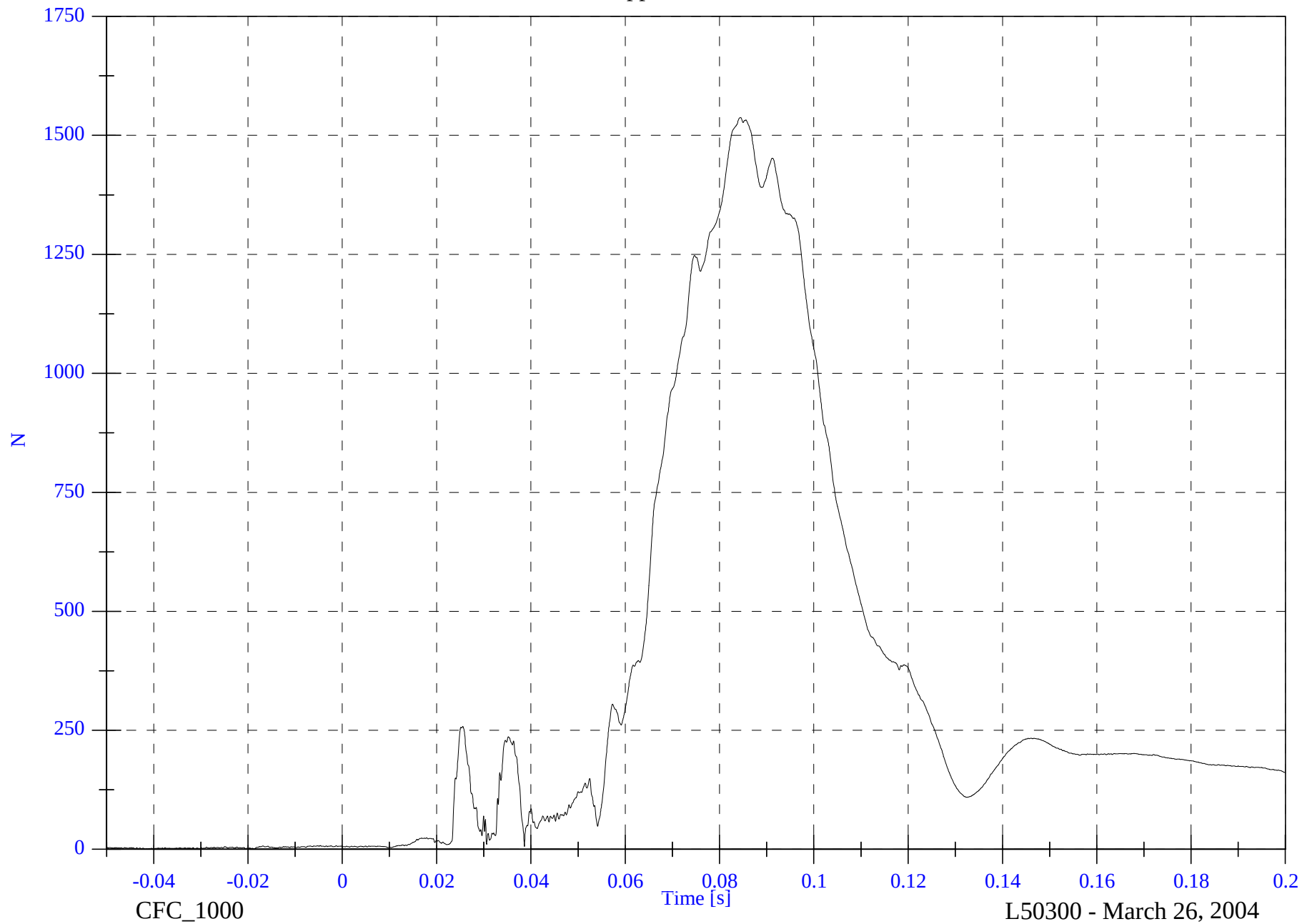
V1P1 Upper Neck F Resultant

Max: 1537.2 [N] at 0.084 [s]

Min: 0.9 [N] at -0.021 [s]

B-25

8741-01

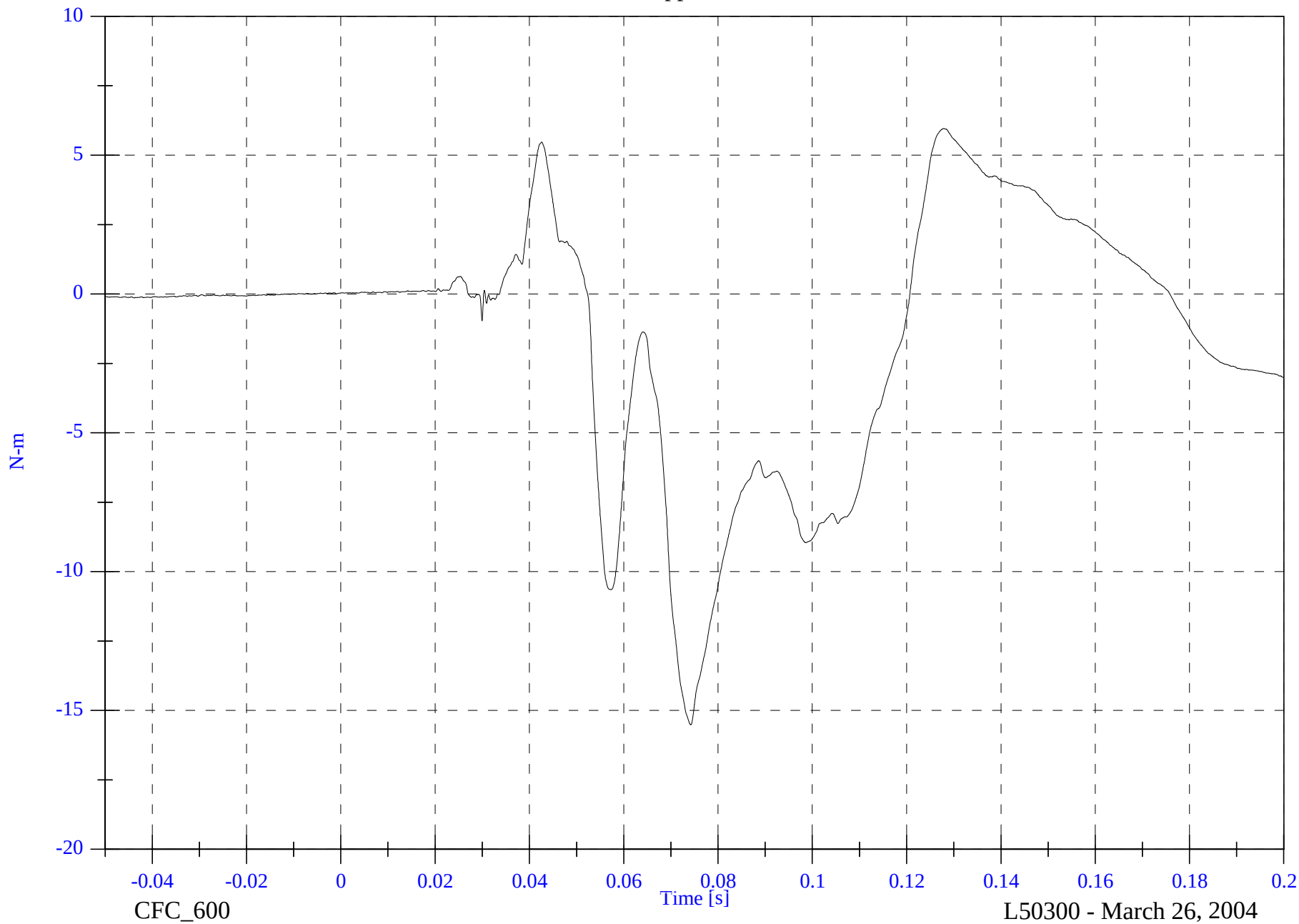


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Upper Neck Mx

Max: 6.0 [N-m] at 0.128 [s]

Min: -15.5 [N-m] at 0.074 [s]



B-26

8741-01

CFC_600

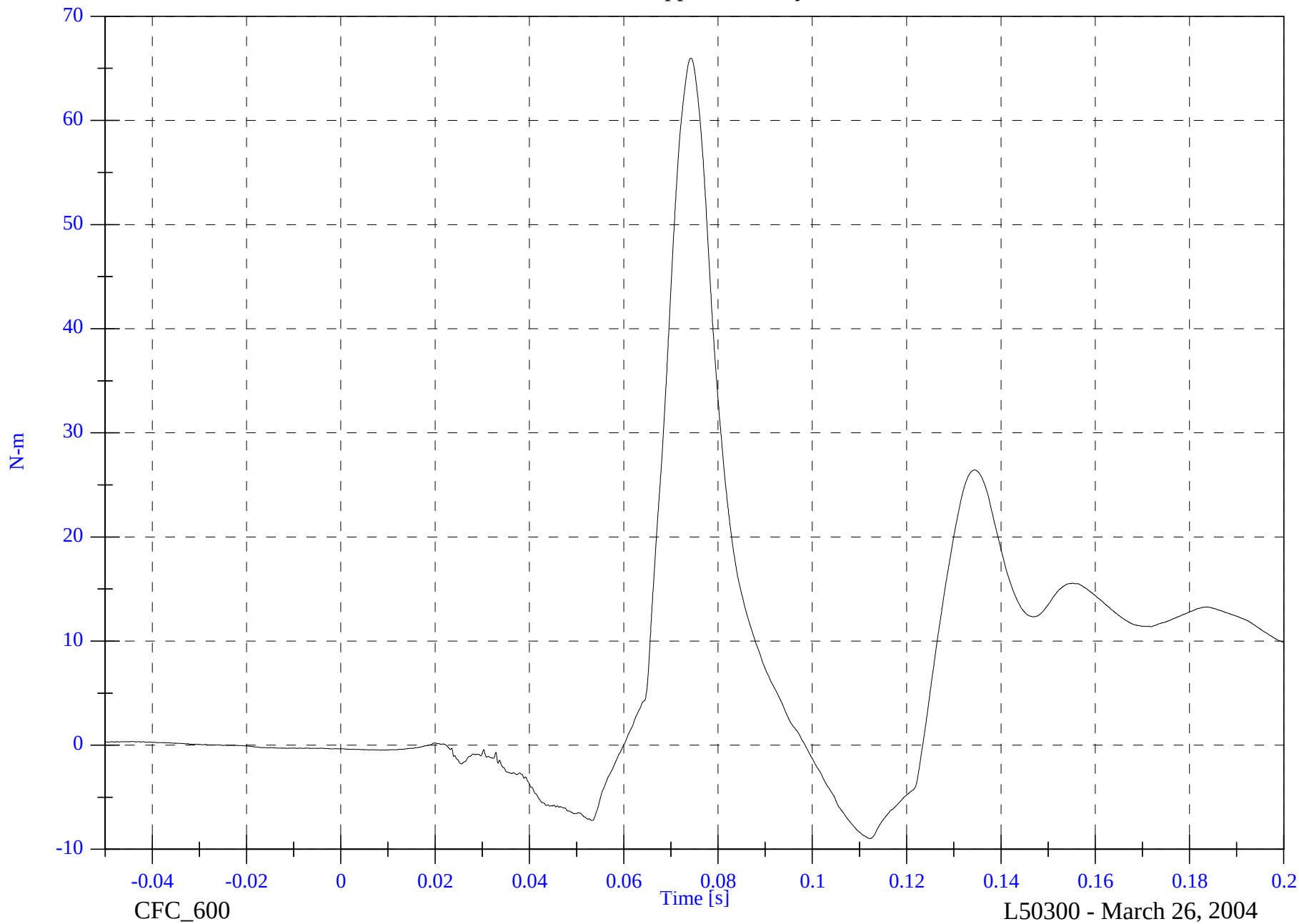
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Upper Neck My

Max: 66.0 [N-m] at 0.074 [s]

Min: -9.0 [N-m] at 0.112 [s]



B-27

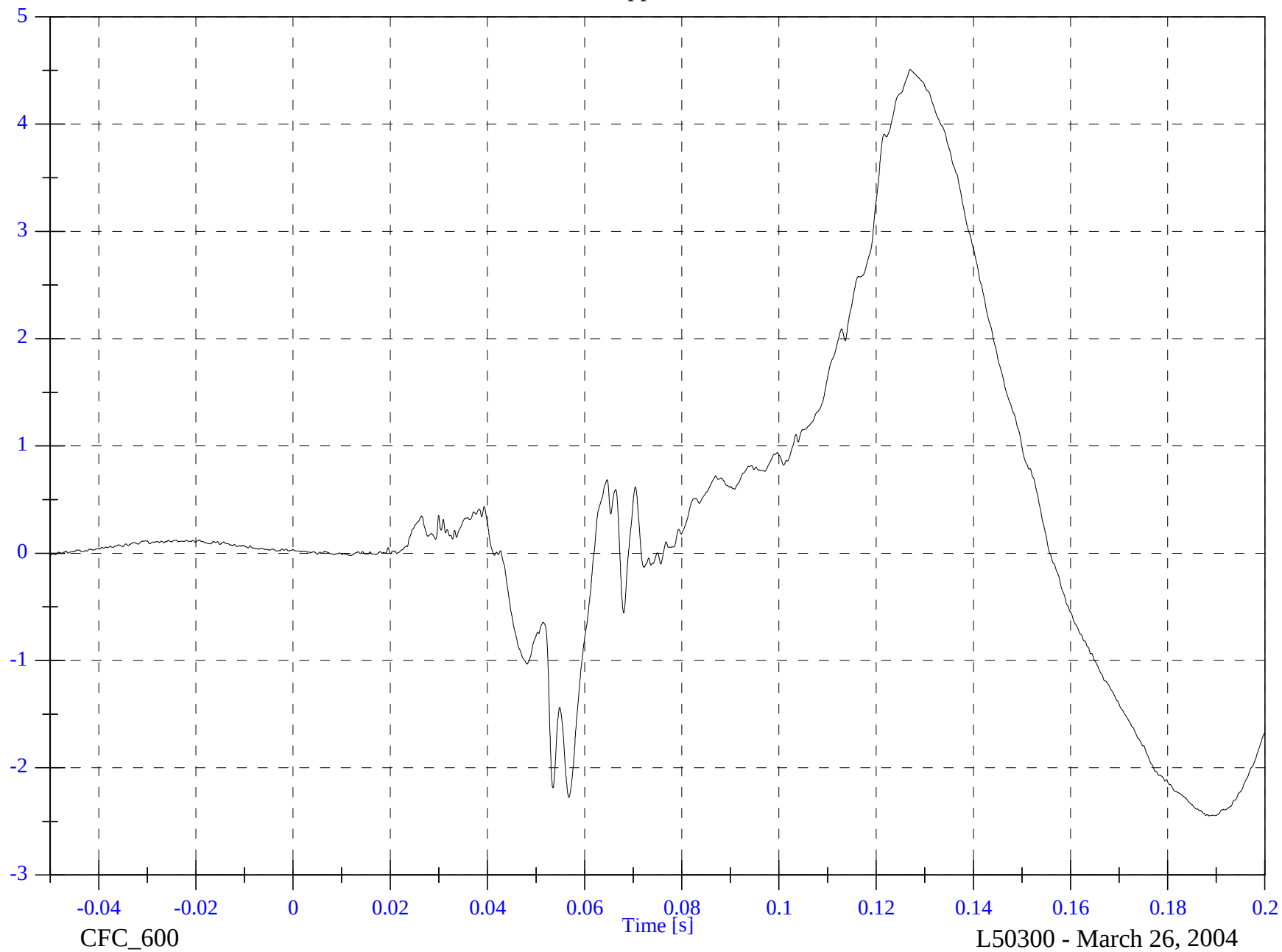
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Upper Neck Mz

Max: 4.5 [N-m] at 0.127 [s]

Min: -2.4 [N-m] at 0.189 [s]



B-28

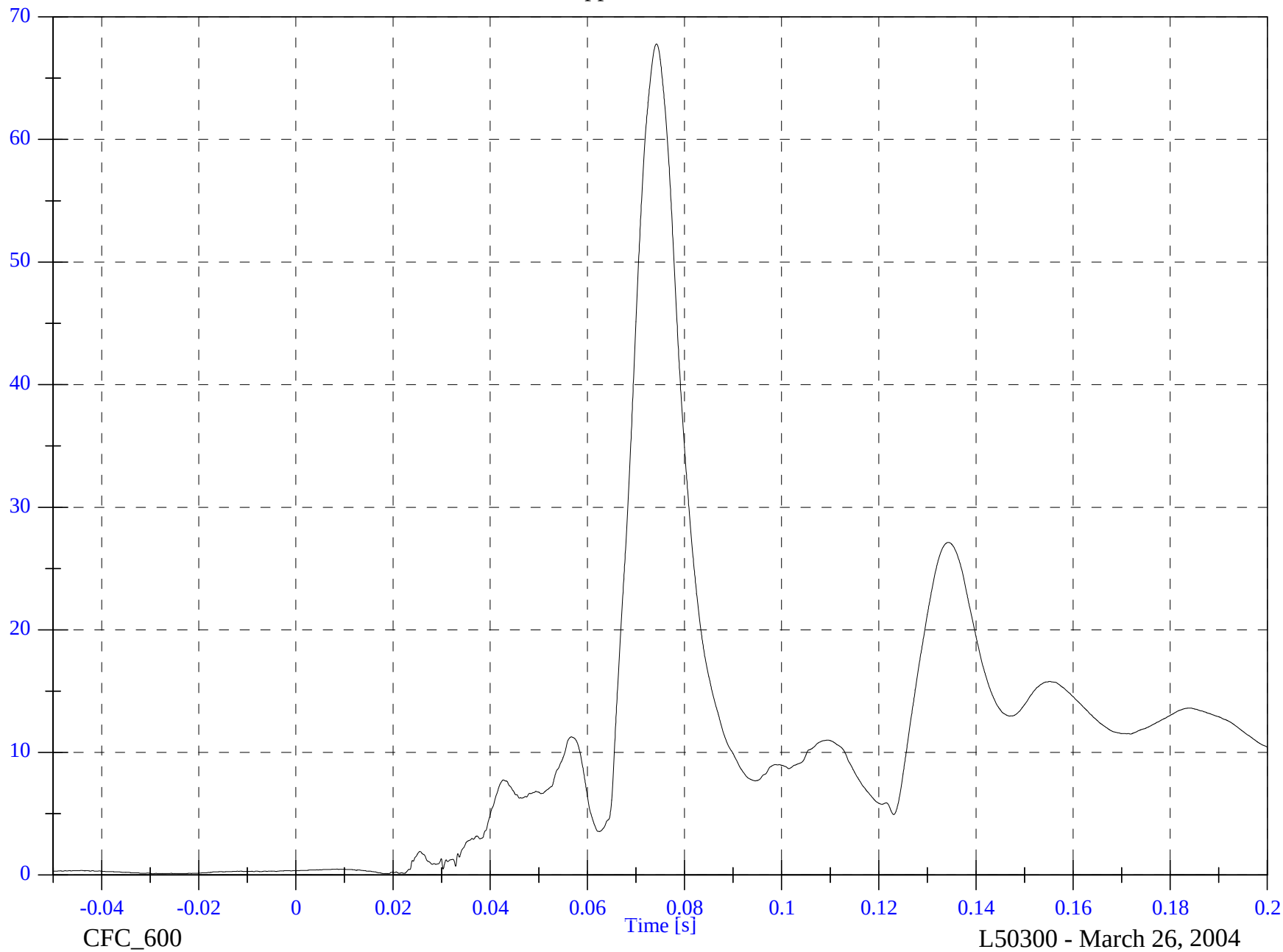
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Upper Neck M Resultant

Max: 67.8 [N-m] at 0.074 [s]

Min: 0.1 [N-m] at -0.030 [s]



B-29

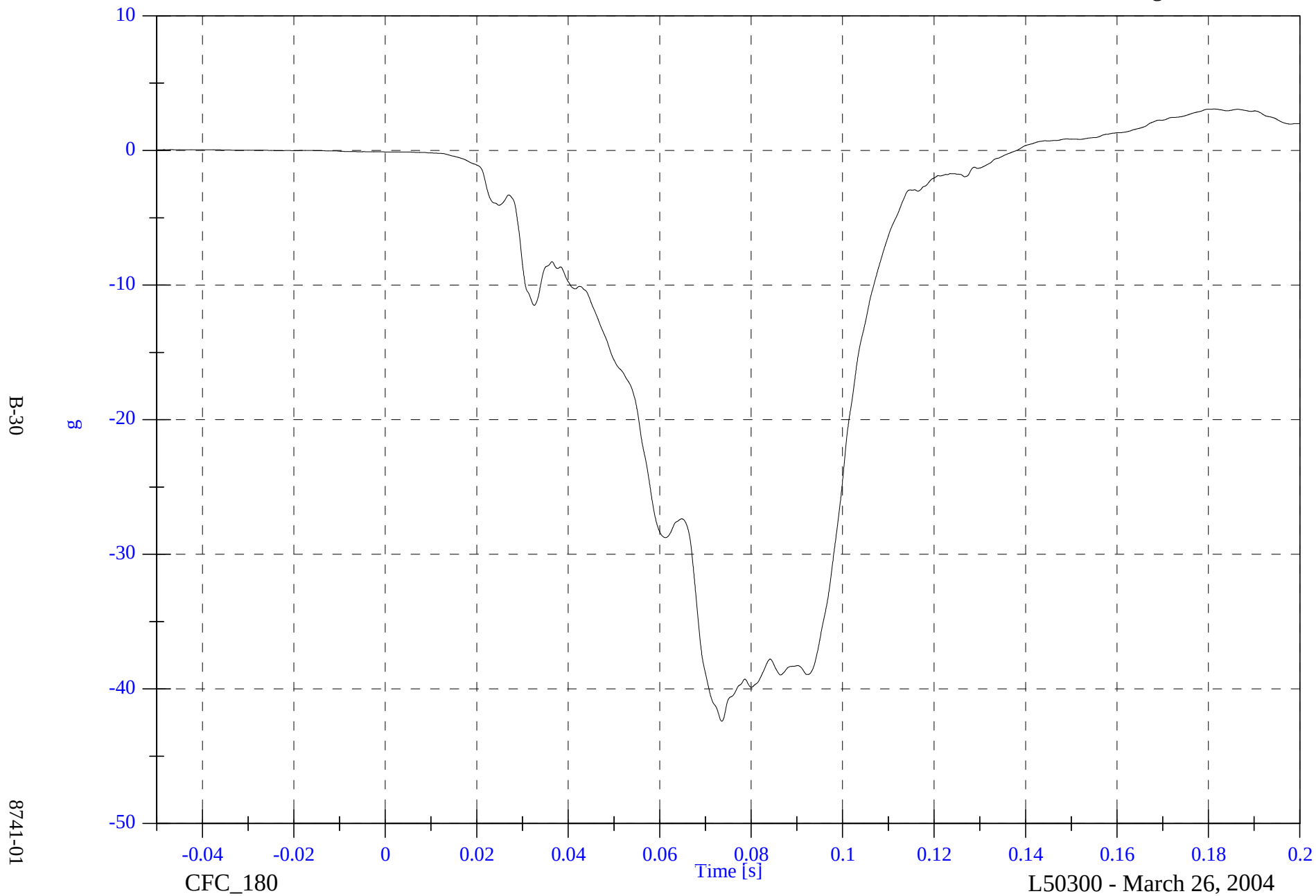
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Chest x

Max: 3.1 [g] at 0.181 [s]

Min: -42.4 [g] at 0.074 [s]



Frontal NCAP- 2005 Chrysler Town & Country

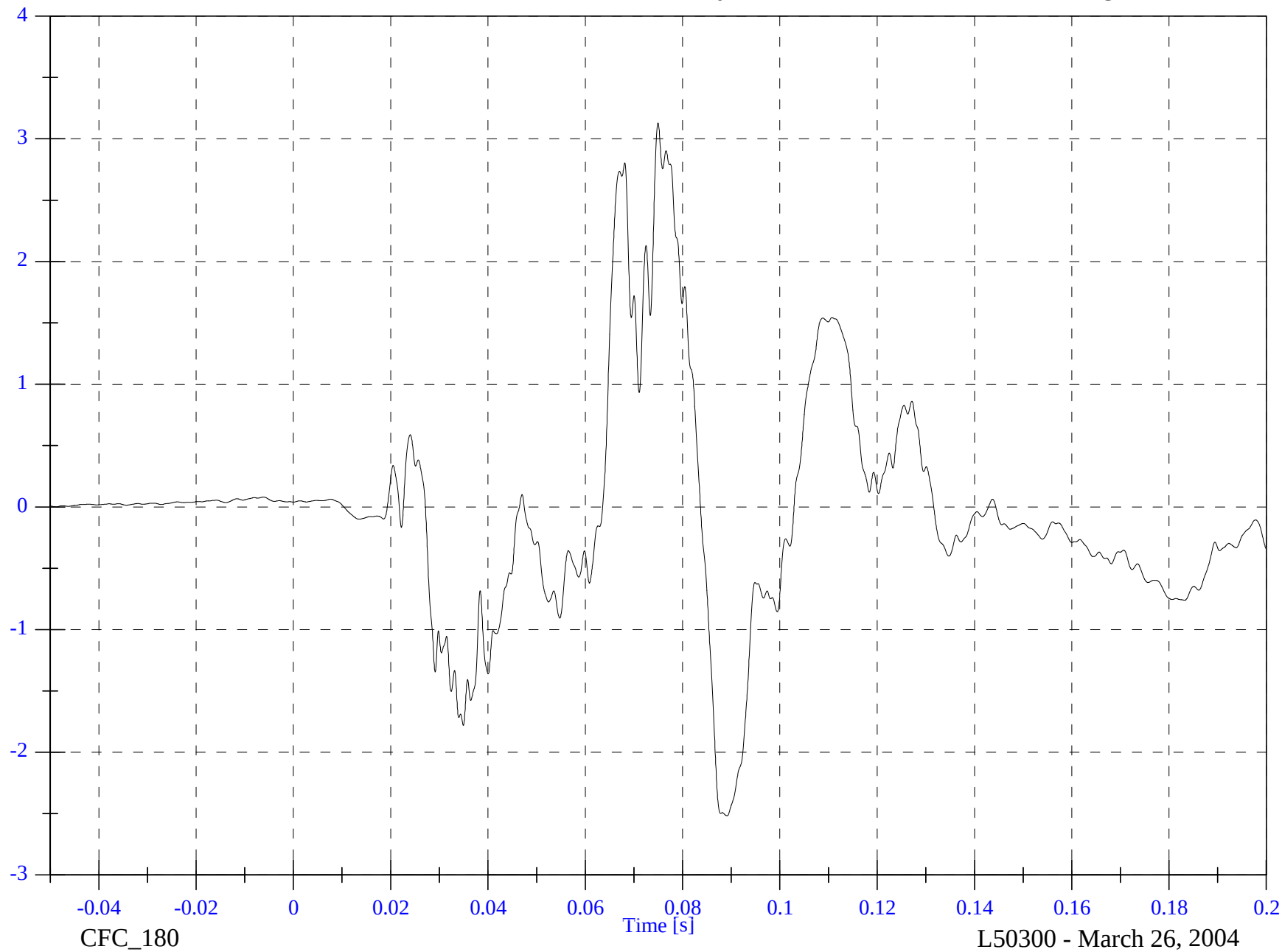
V1P1 Chest y

Max: 3.1 [g] at 0.075 [s]

Min: -2.5 [g] at 0.089 [s]

B-31

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

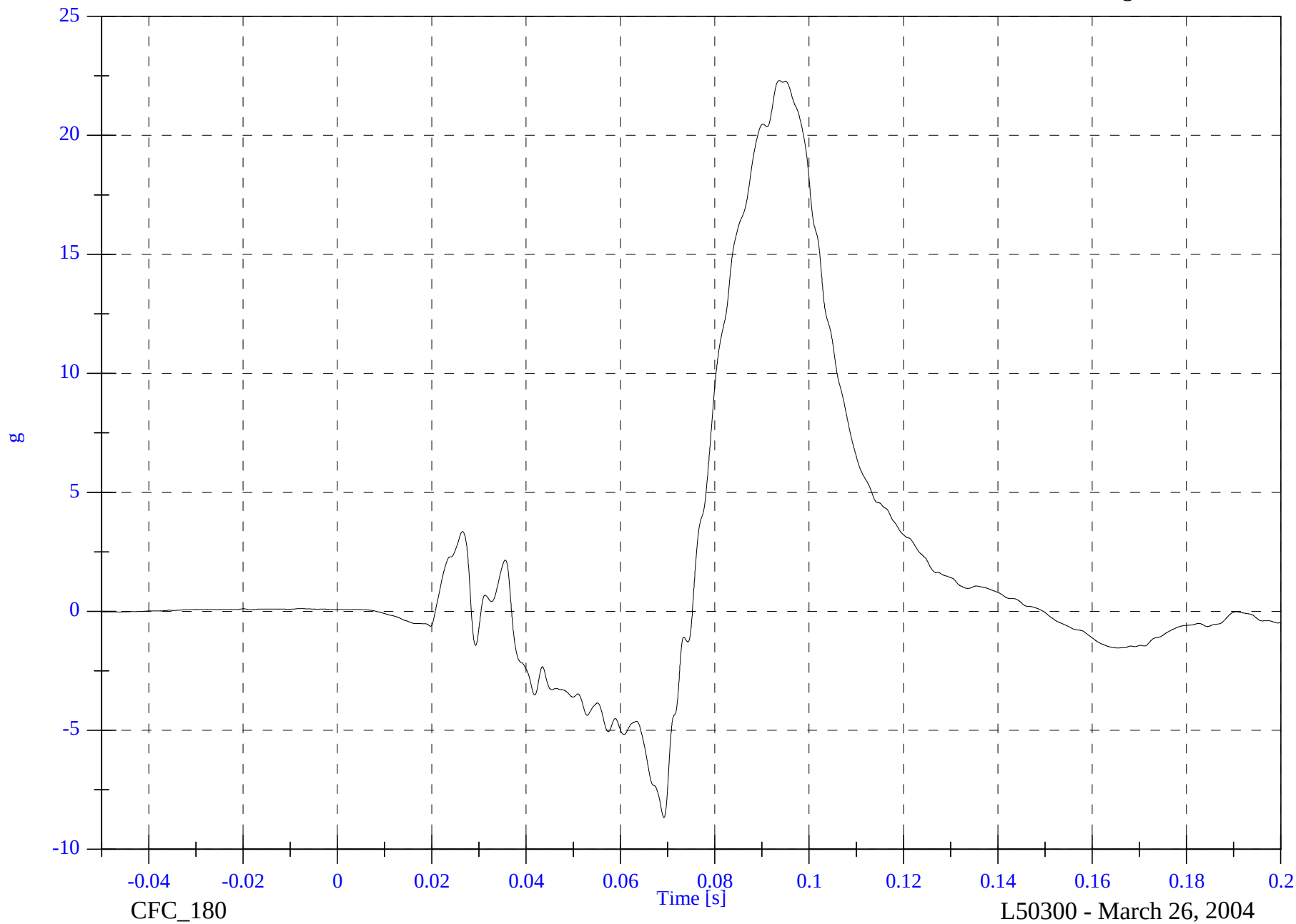
V1P1 Chest z

Max: 22.3 [g] at 0.094 [s]

Min: -8.7 [g] at 0.069 [s]

B-32

8741-01

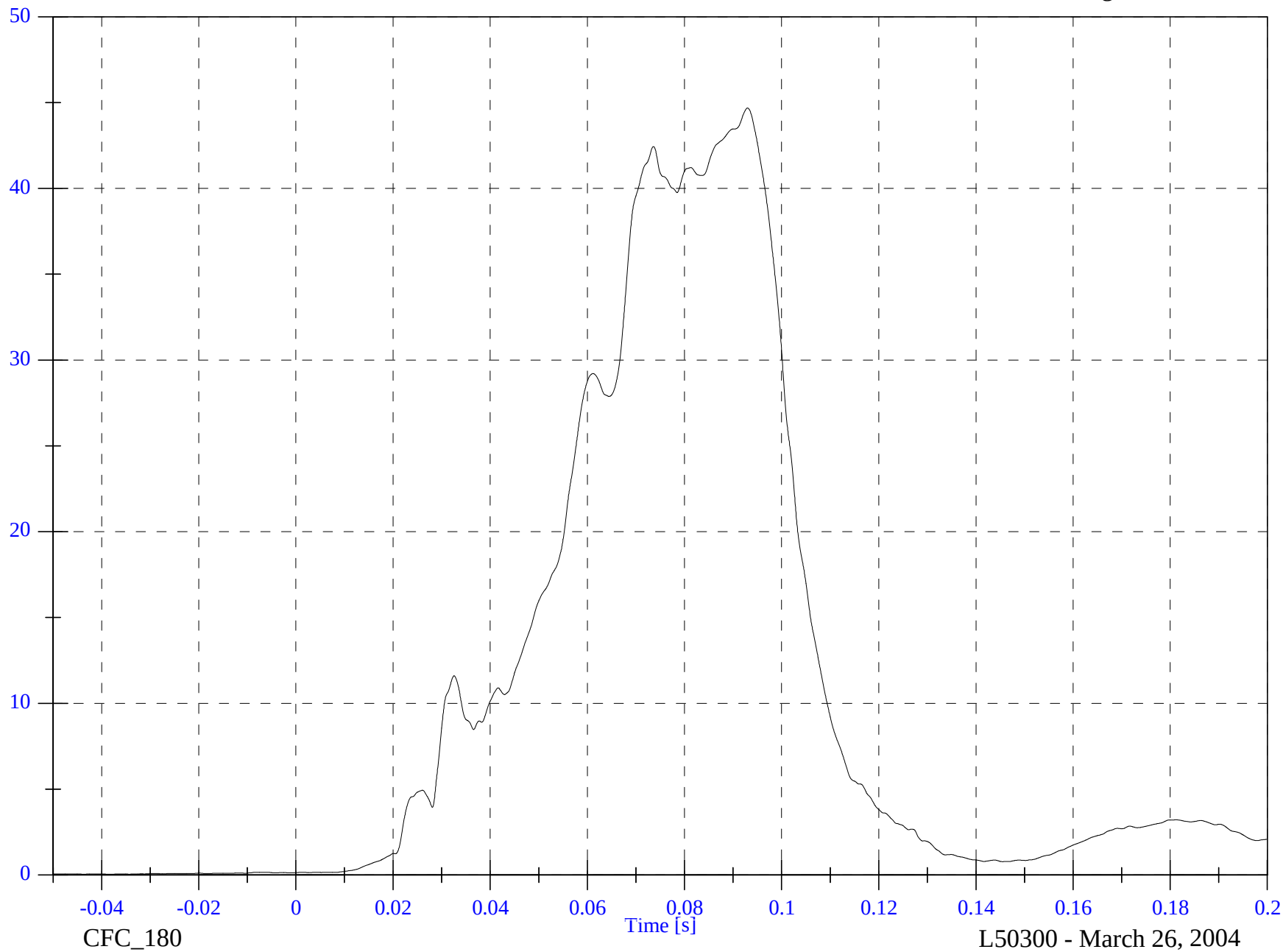


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Chest Resultant

Max: 44.7 [g] at 0.093 [s]

Min: 0.0 [g] at -0.039 [s]



B-33

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

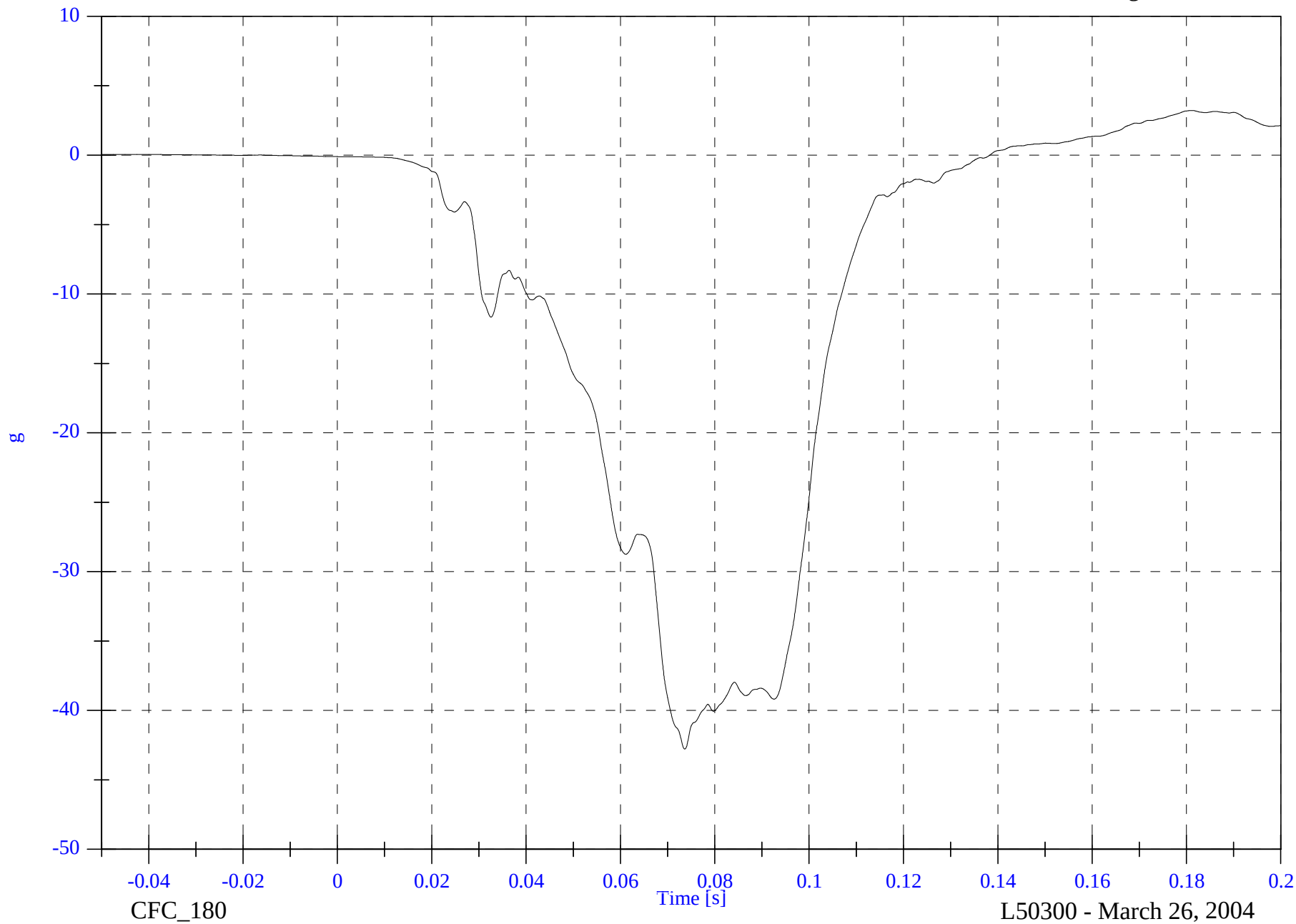
V1P1 Chest Red x

Max: 3.2 [g] at 0.181 [s]

Min: -42.8 [g] at 0.074 [s]

B-34

8741-01

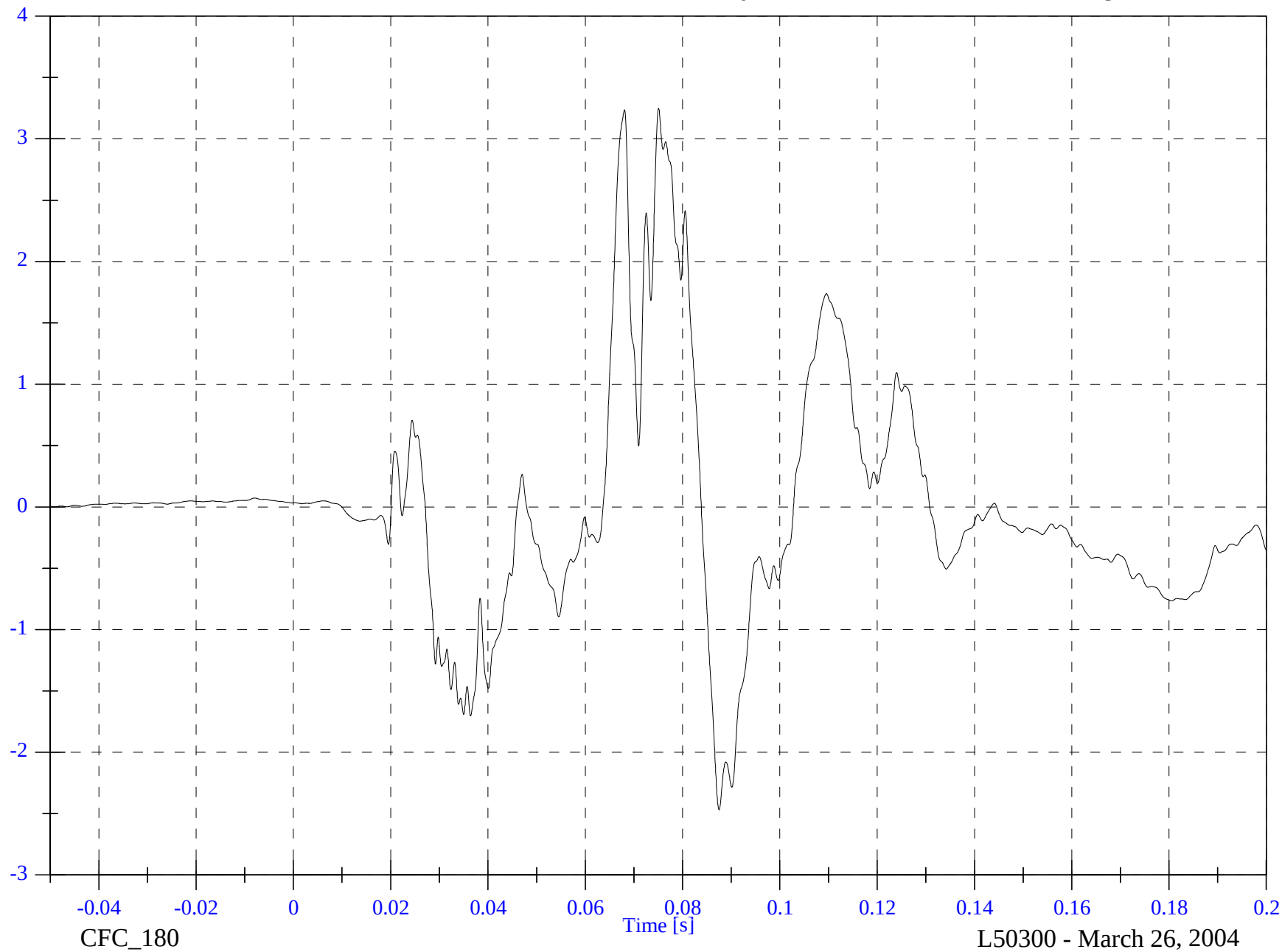


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Chest Red y

Max: 3.2 [g] at 0.075 [s]

Min: -2.5 [g] at 0.087 [s]



B-35

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

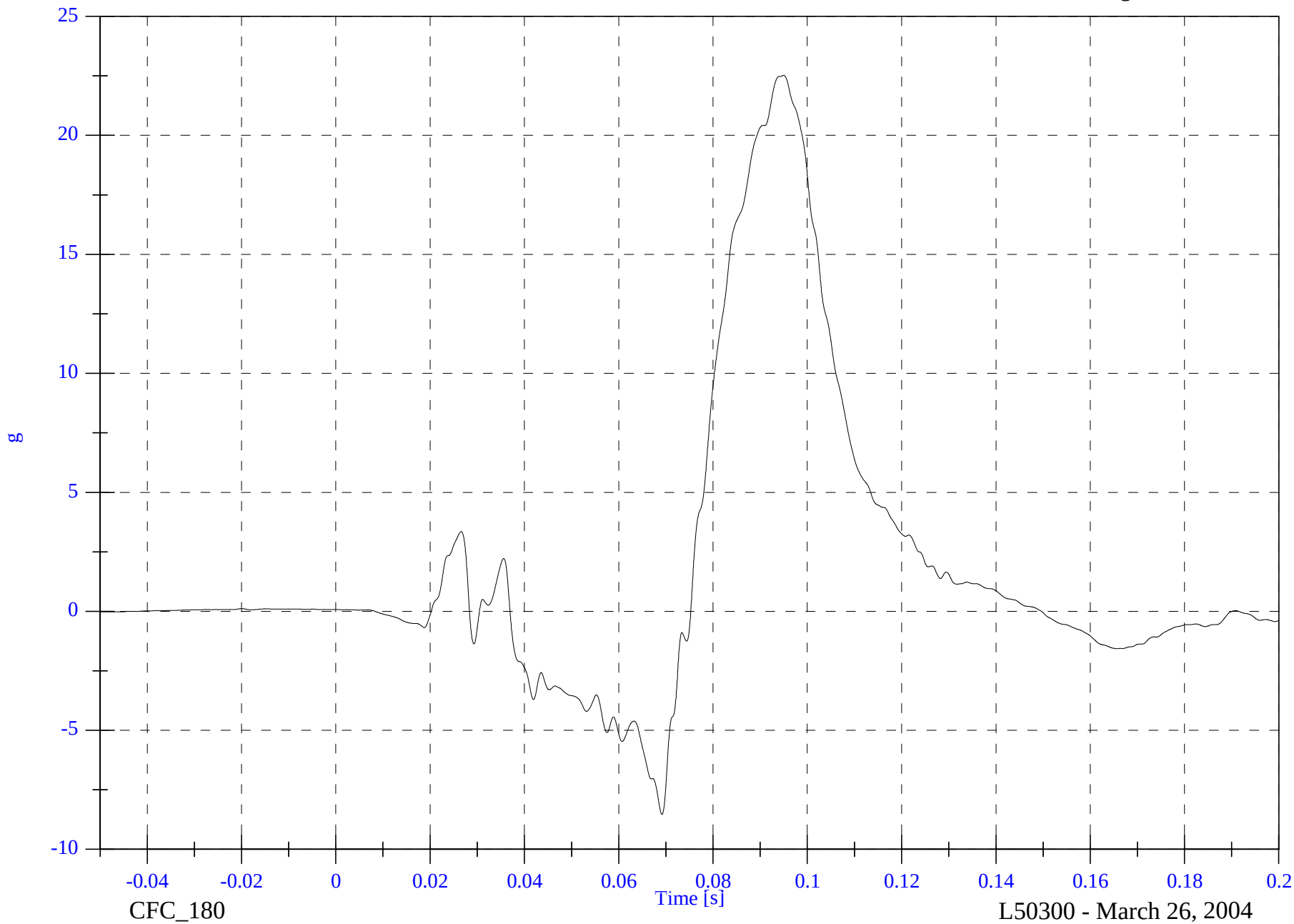
V1P1 Chest Red z

Max: 22.5 [g] at 0.095 [s]

Min: -8.5 [g] at 0.069 [s]

B-36

8741-01

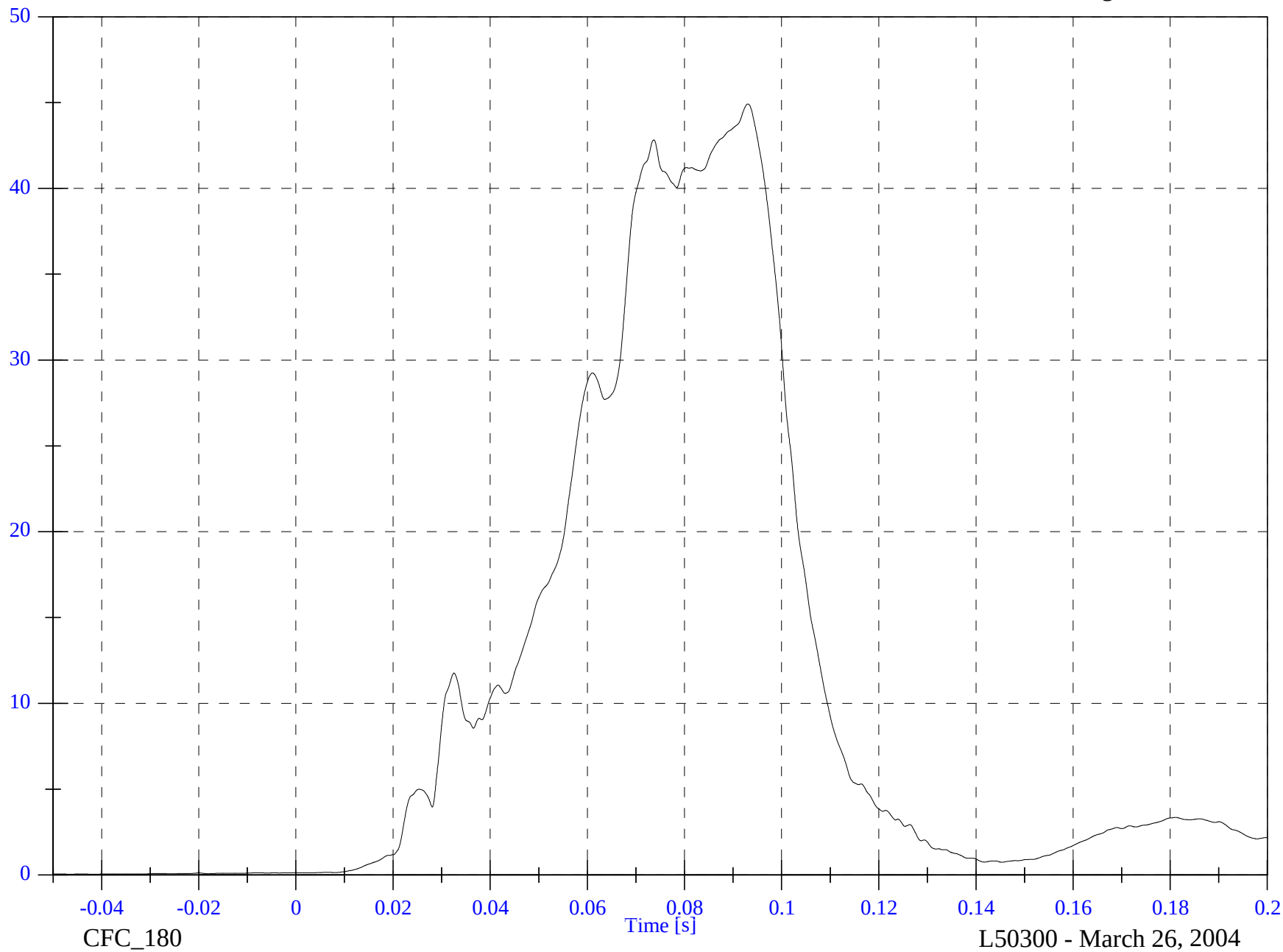


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Chest Red Resultant

Max: 44.9 [g] at 0.093 [s]

Min: 0.0 [g] at -0.042 [s]



B-37

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

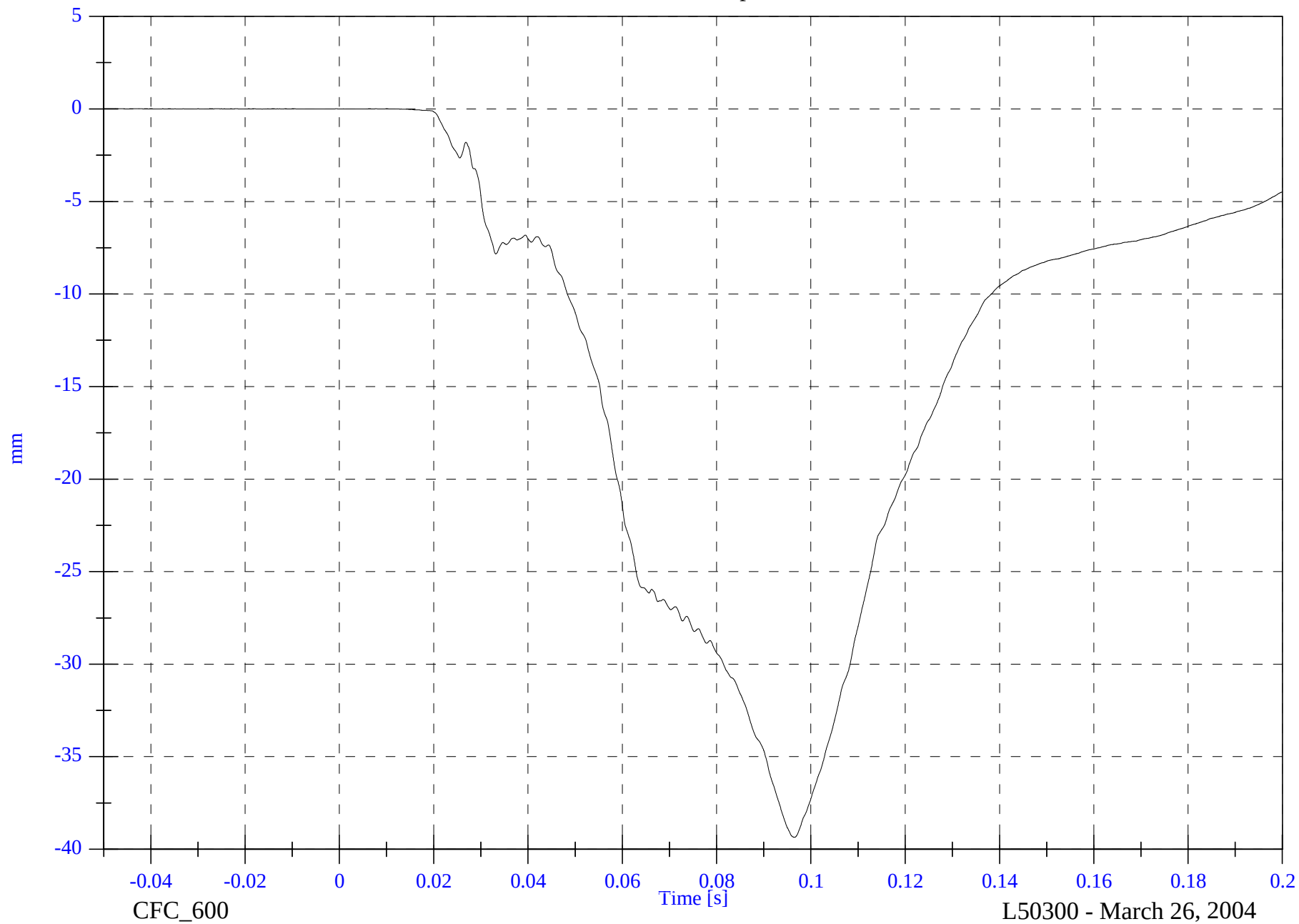
V1P1 Chest Compression

Max: 0.0 [mm] at -0.047 [s]

Min: -39.4 [mm] at 0.096 [s]

B-38

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

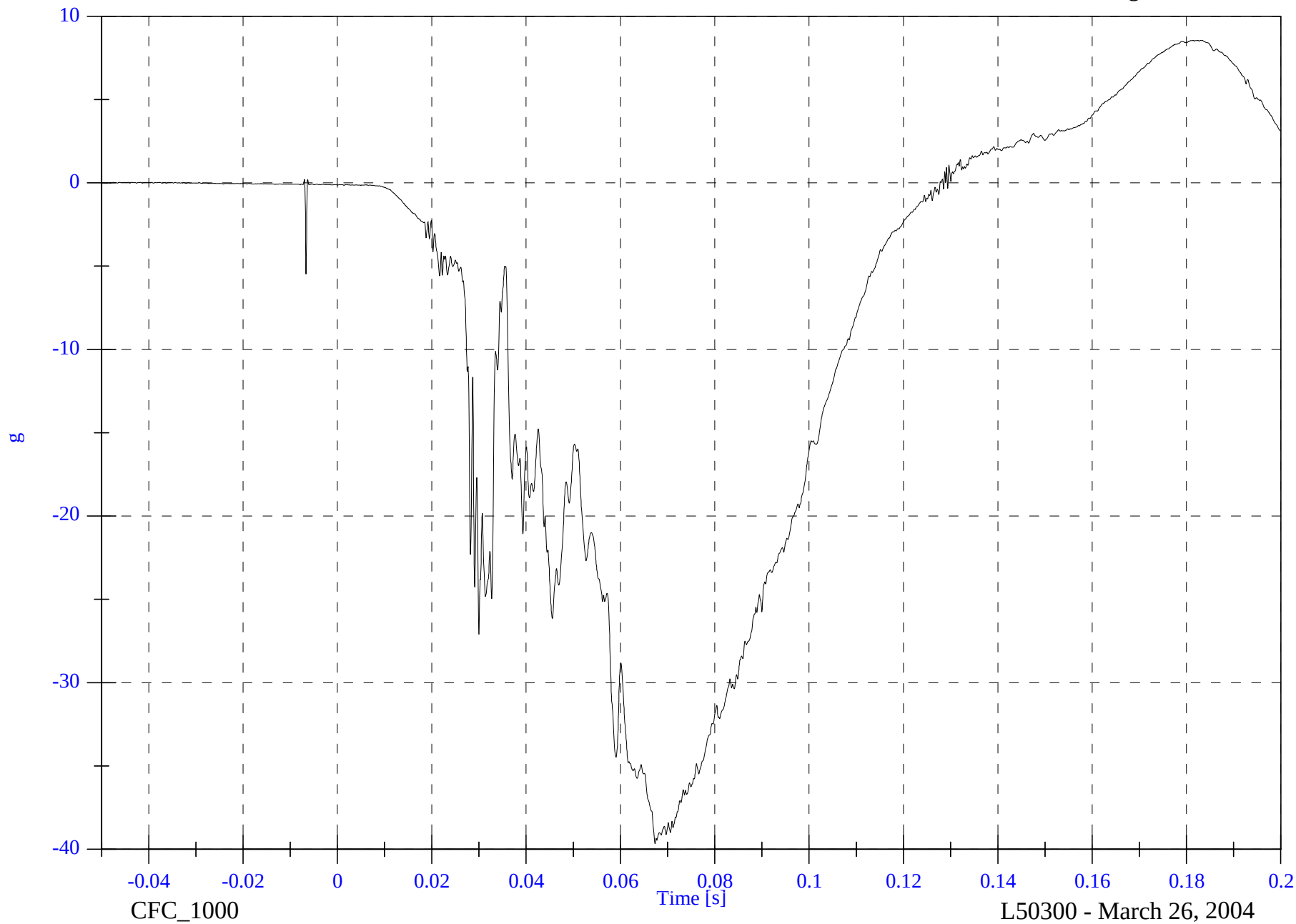
V1P1 Pelvic x

Max: 8.6 [g] at 0.183 [s]

Min: -39.7 [g] at 0.067 [s]

B-39

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

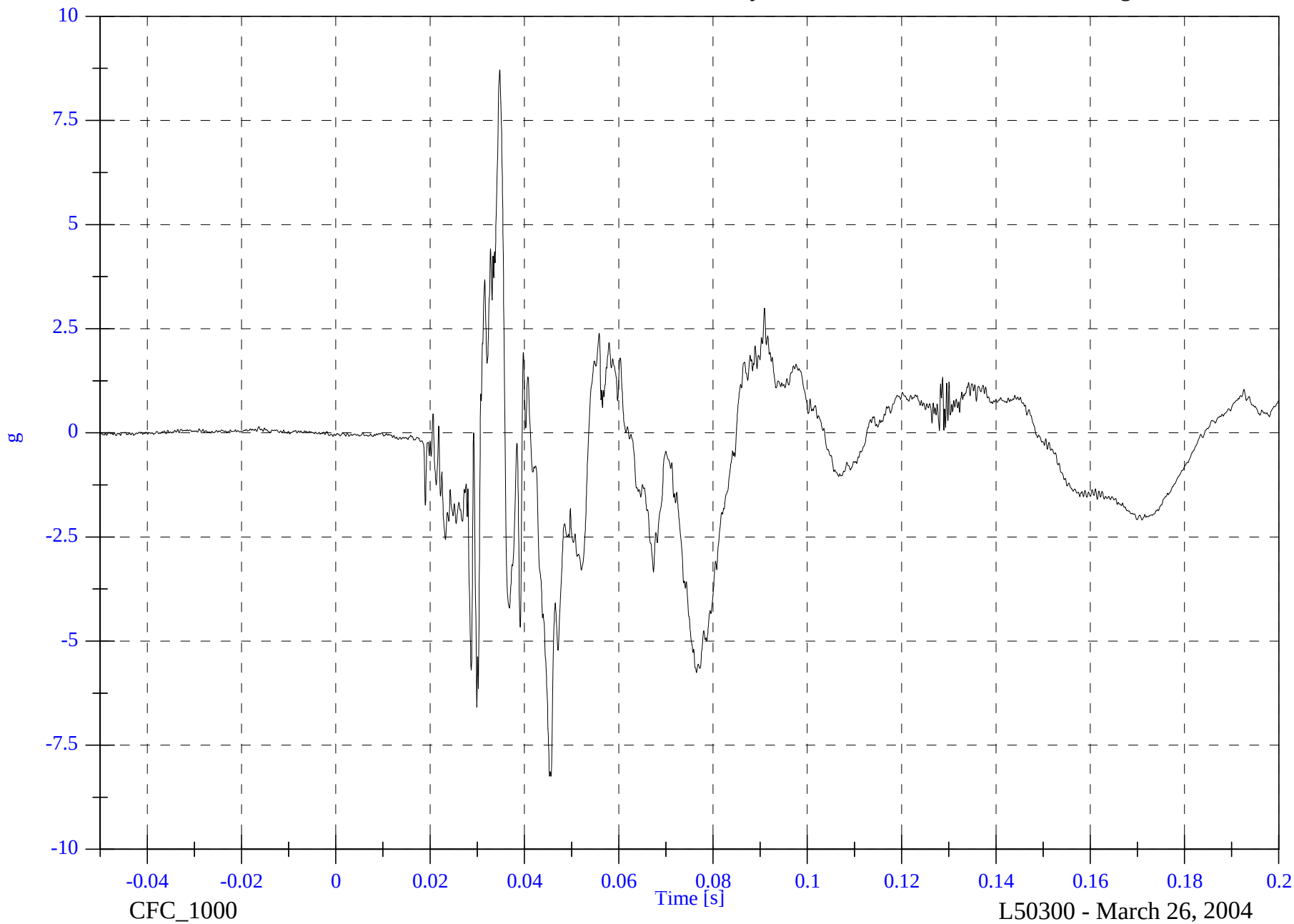
V1P1 Pelvic y

Max: 8.7 [g] at 0.035 [s]

Min: -8.2 [g] at 0.046 [s]

B-40

8741-01

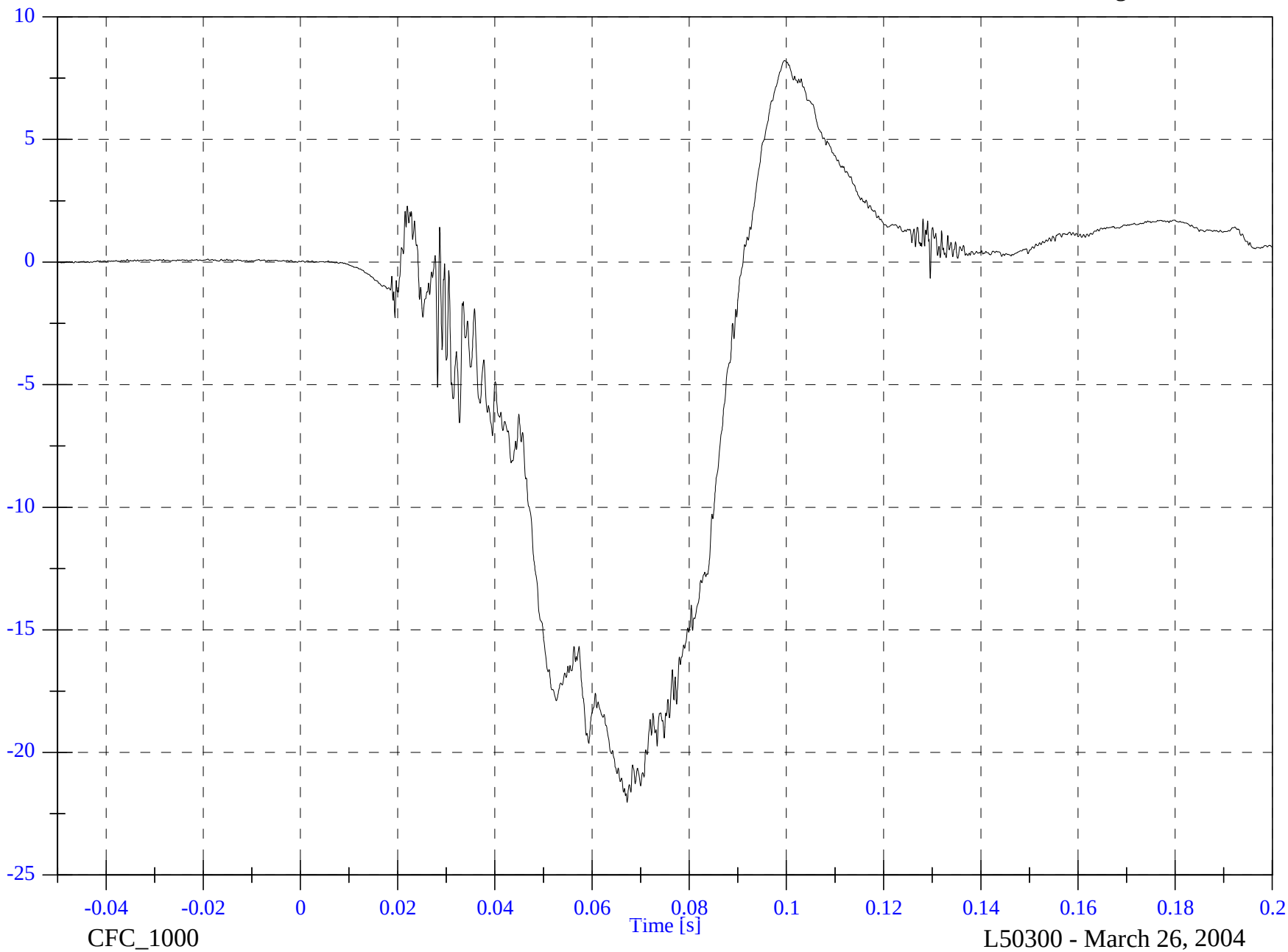


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Pelvic z

Max: 8.2 [g] at 0.100 [s]

Min: -22.0 [g] at 0.067 [s]



B-41

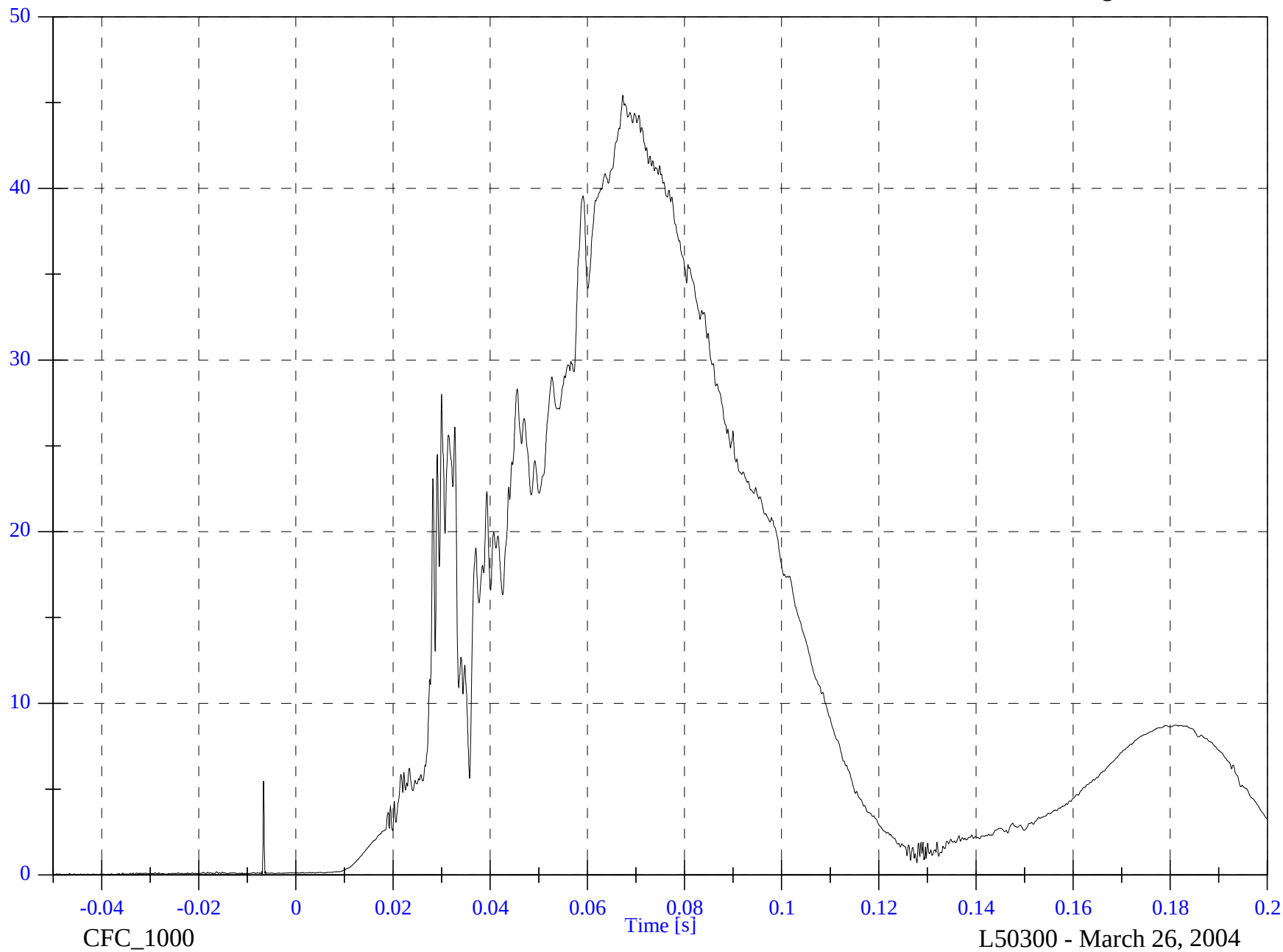
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Pelvic Resultant

Max: 45.4 [g] at 0.067 [s]

Min: 0.0 [g] at -0.048 [s]



B-42

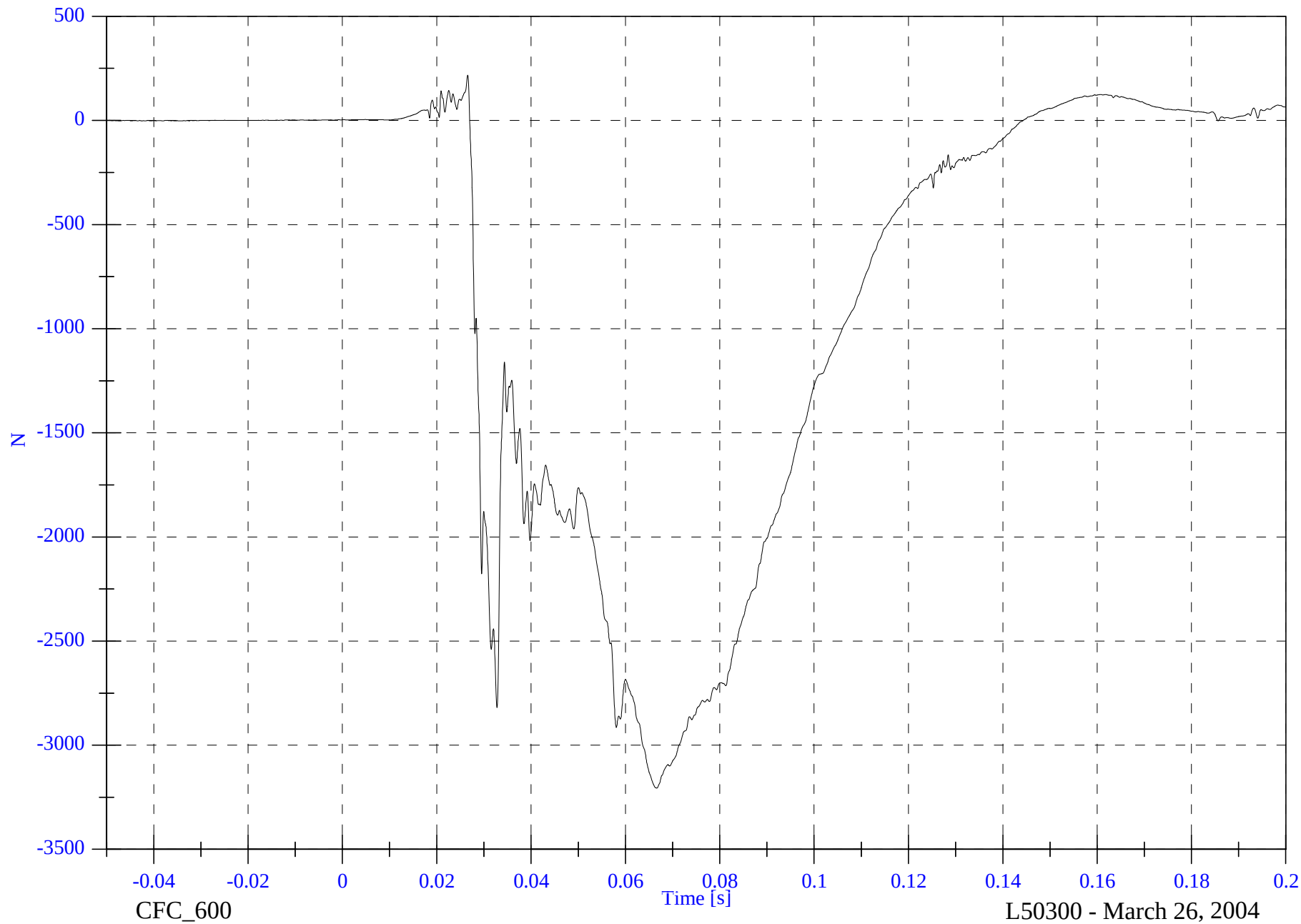
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Left Femur

Max: 217.4 [N] at 0.027 [s]

Min: -3206.1 [N] at 0.067 [s]



B-43

8741-01

CFC_600

Time [s]

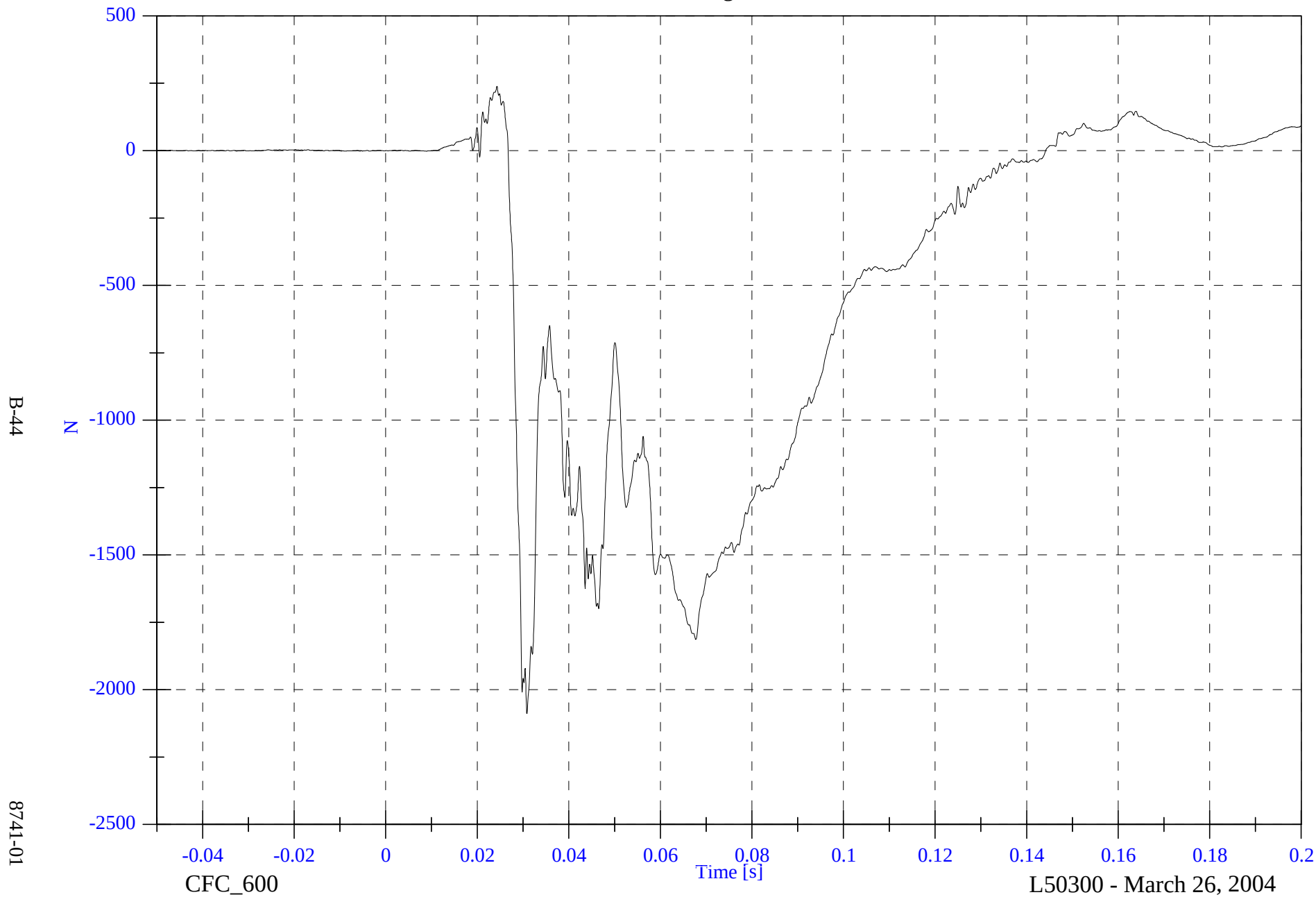
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Right Femur

Max: 239.0 [N] at 0.024 [s]

Min: -2088.6 [N] at 0.031 [s]



Frontal NCAP- 2005 Chrysler Town & Country

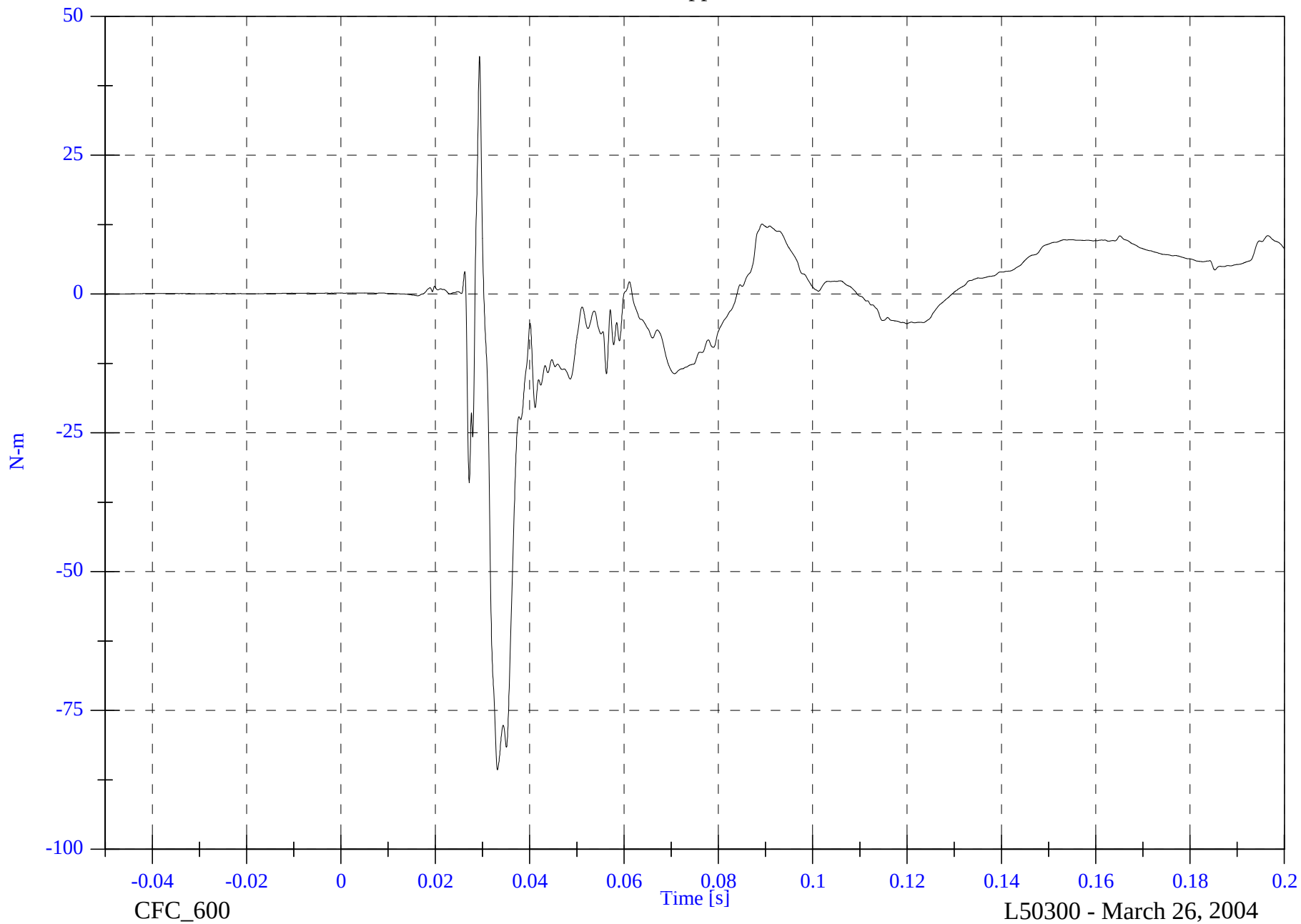
V1P1 Left Upper Tibia Mx

Max: 42.8 [N-m] at 0.029 [s]

Min: -85.7 [N-m] at 0.033 [s]

B-45

8741-01

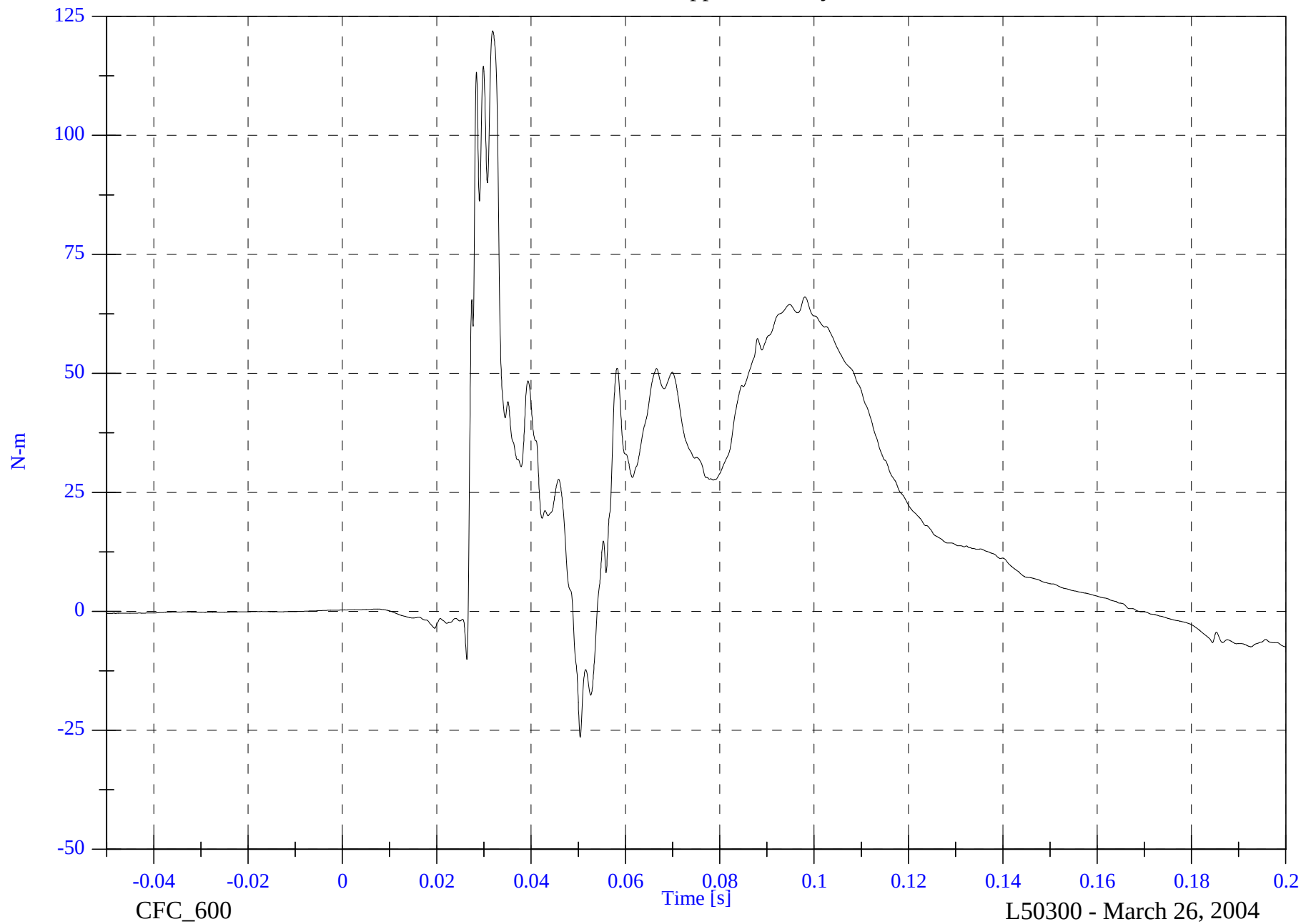


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Left Upper Tibia My

Max: 121.9 [N-m] at 0.032 [s]

Min: -26.5 [N-m] at 0.050 [s]



B-46

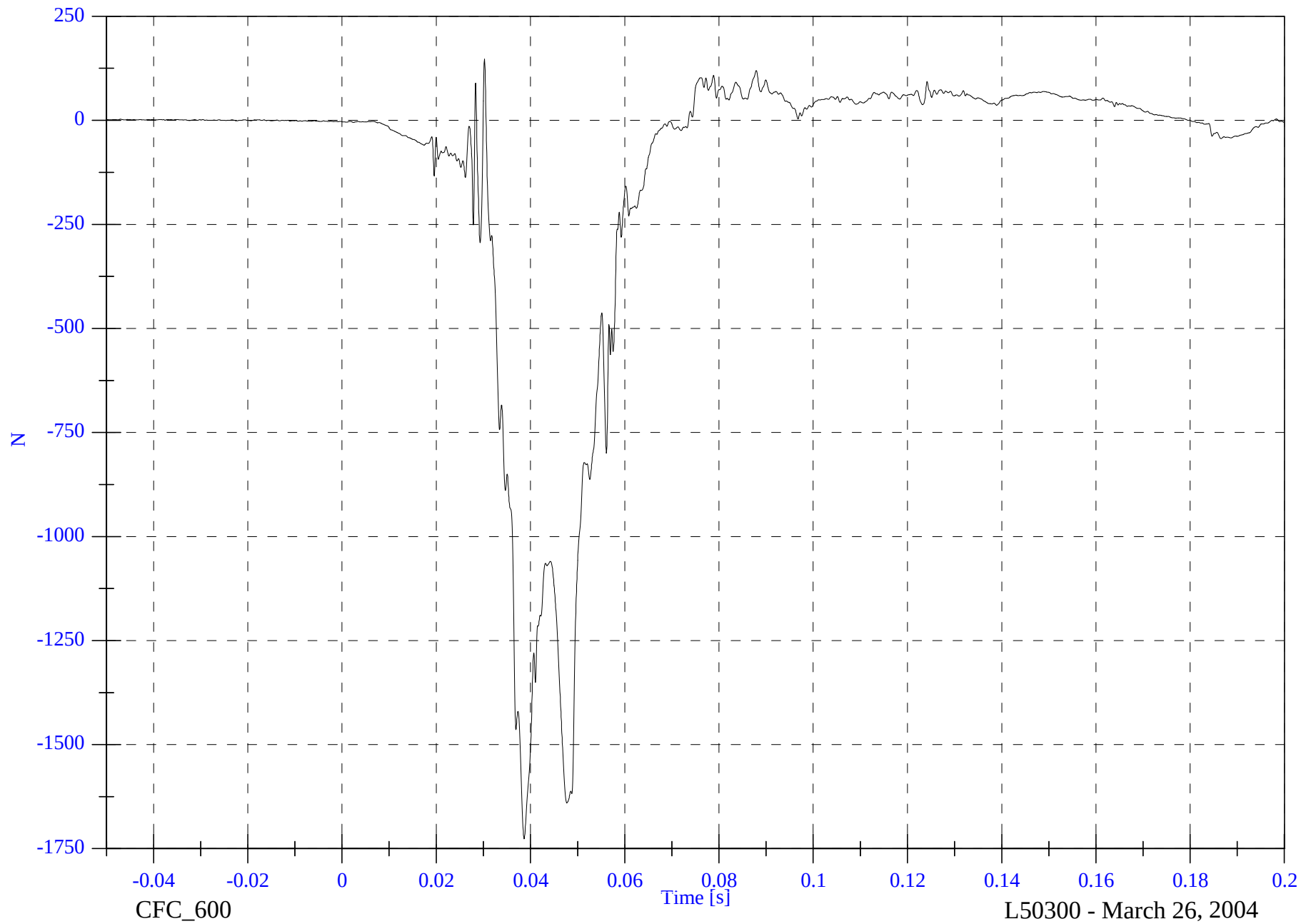
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Left Lower Tibia Fz

Max: 147.2 [N] at 0.030 [s]

Min: -1727.0 [N] at 0.039 [s]



B-47

8741-01

CFC_600

Time [s]

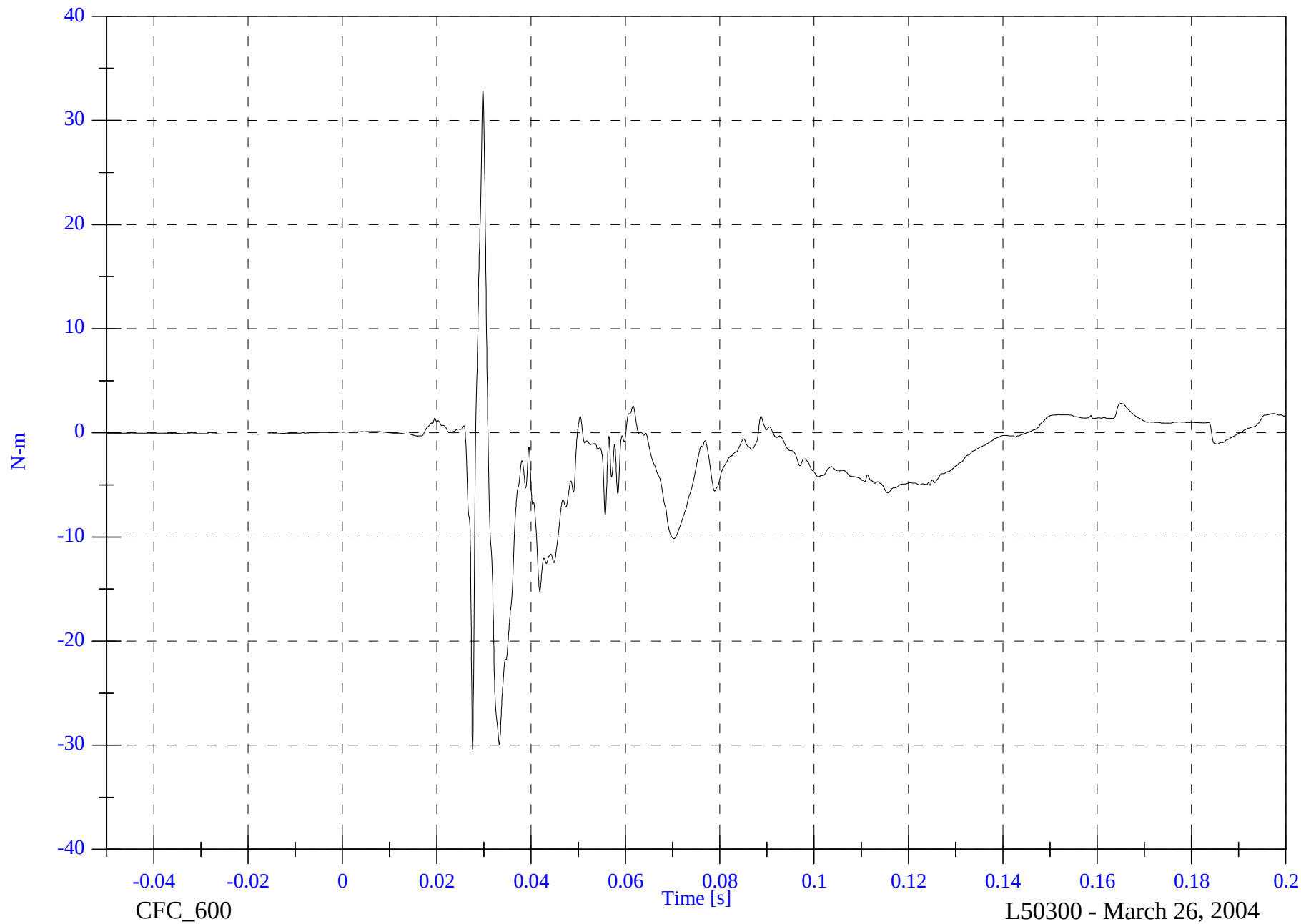
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Left Lower Tibia Mx

Max: 32.9 [N-m] at 0.030 [s]

Min: -30.4 [N-m] at 0.028 [s]



B-48

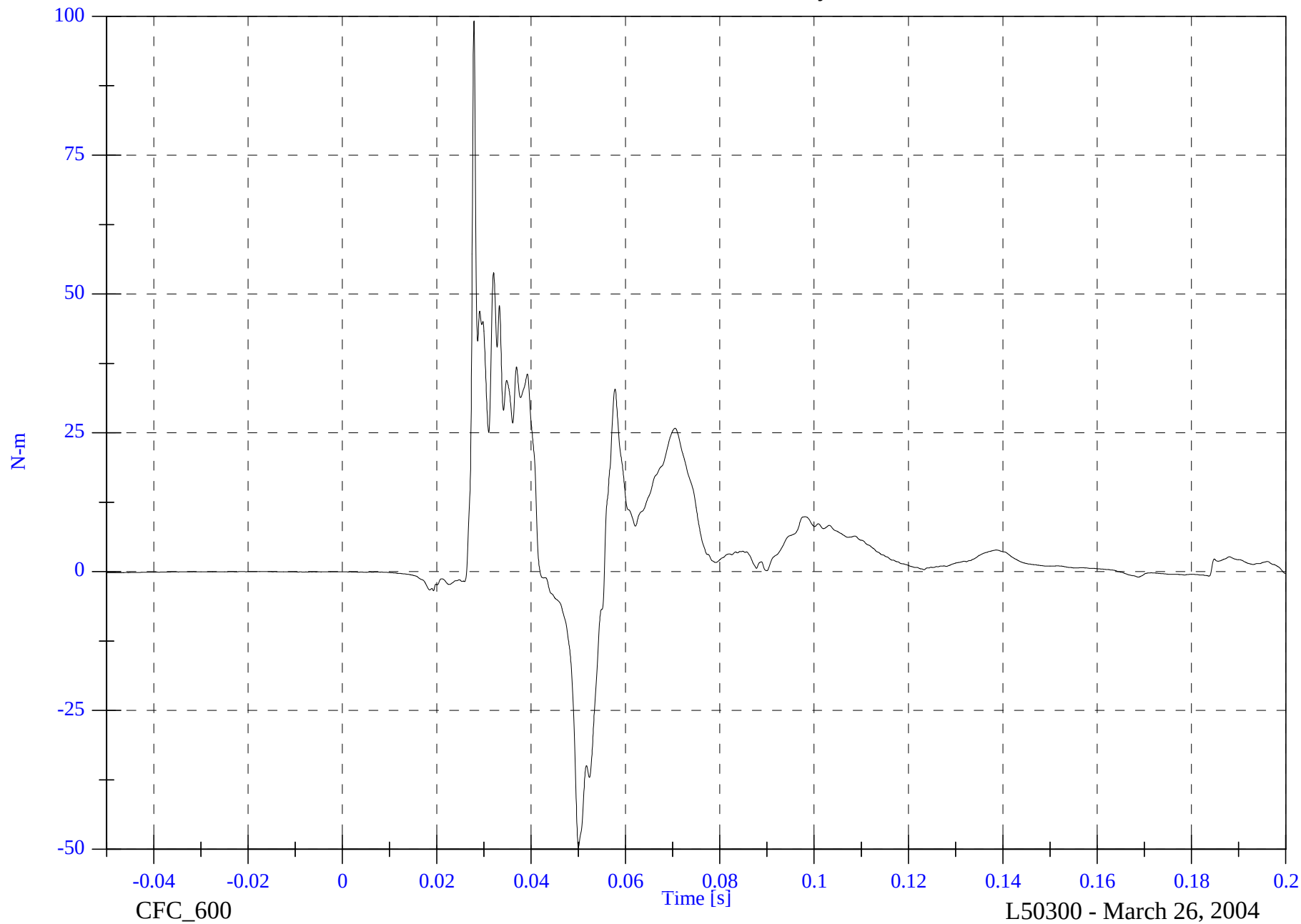
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Left Lower tibia My

Max: 99.2 [N-m] at 0.028 [s]

Min: -49.6 [N-m] at 0.050 [s]



B-49

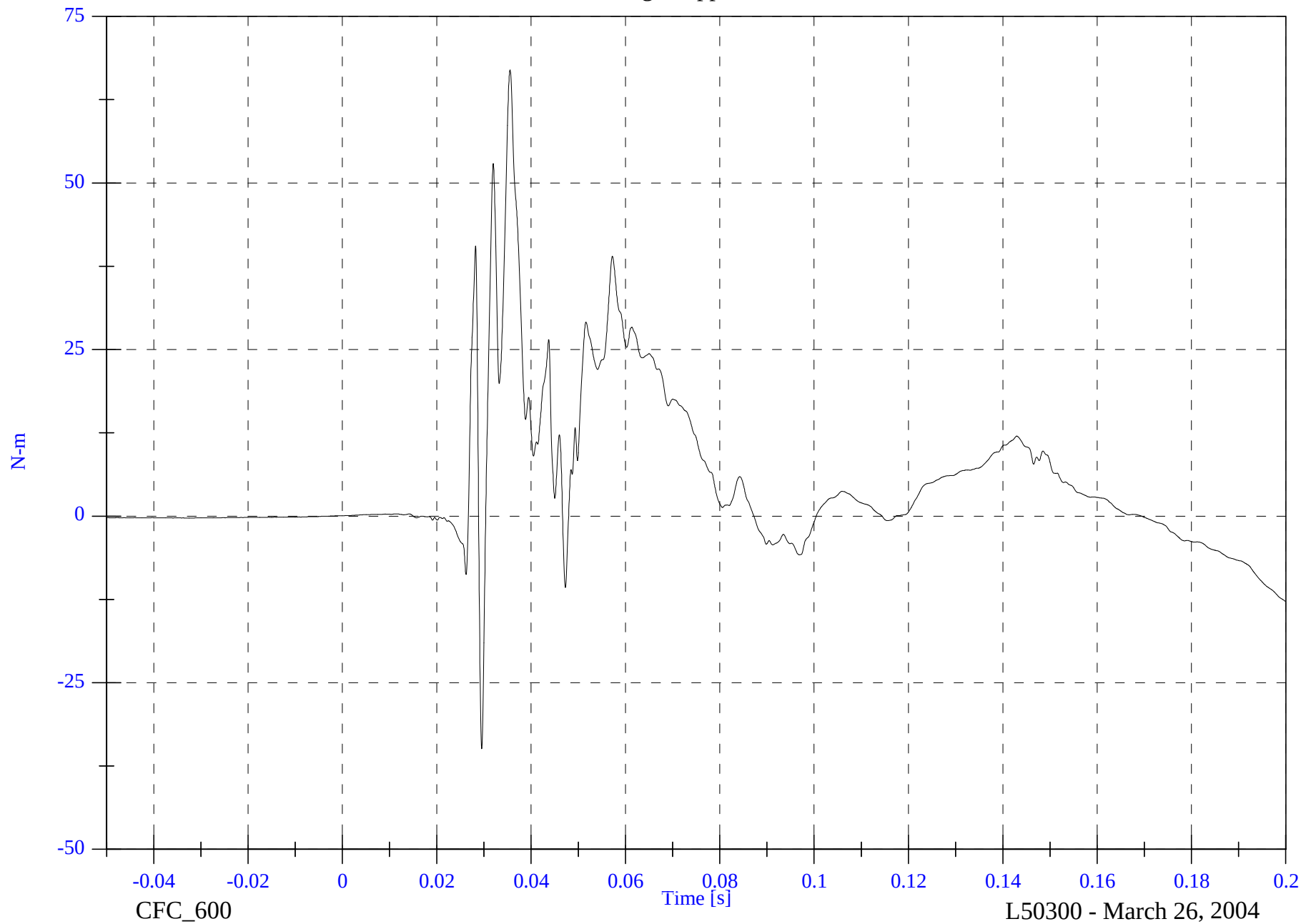
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Right Upper Tibia Mx

Max: 67.0 [N-m] at 0.036 [s]

Min: -34.9 [N-m] at 0.029 [s]

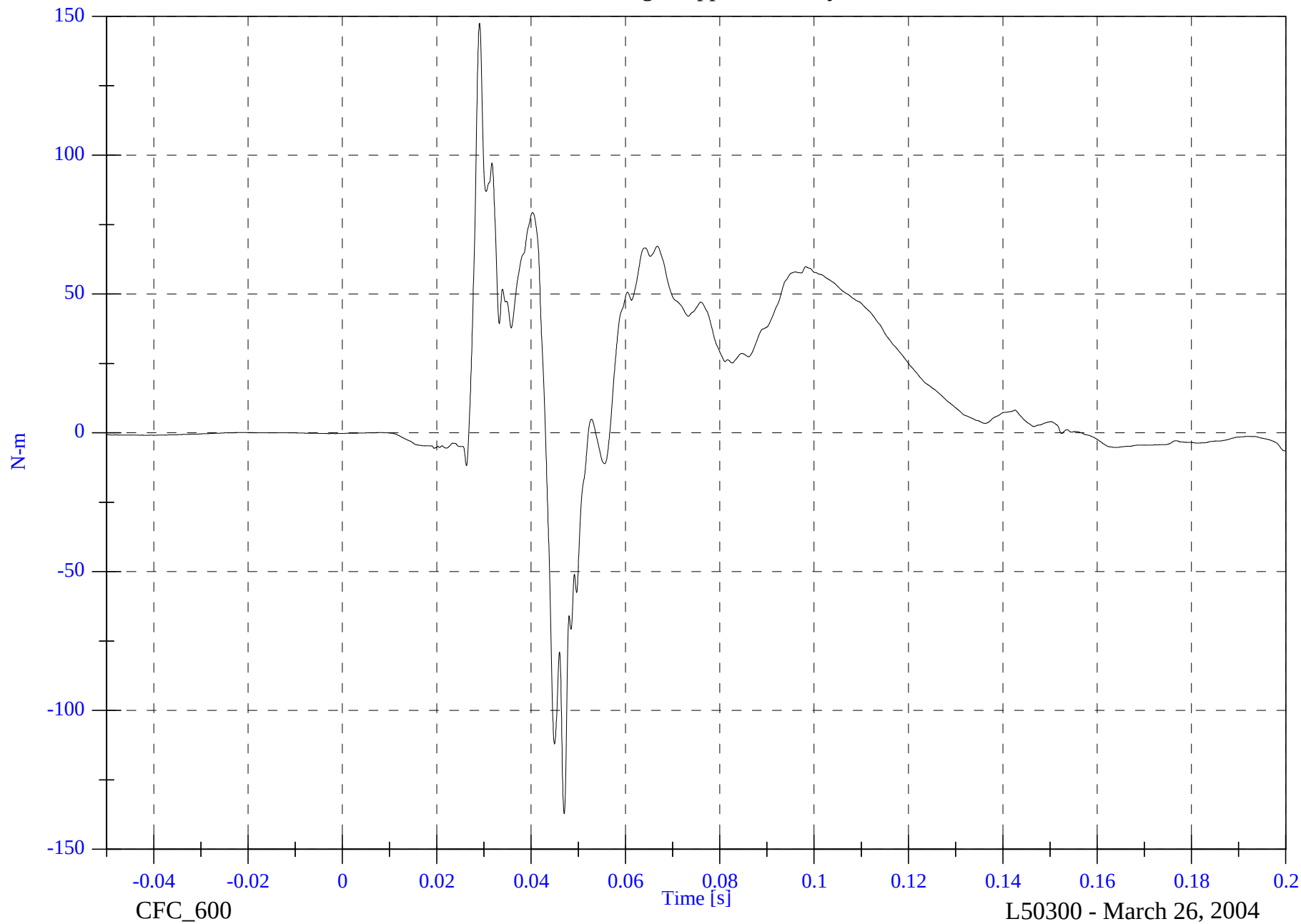


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Right Upper Tibia My

Max: 147.5 [N-m] at 0.029 [s]

Min: -137.2 [N-m] at 0.047 [s]



B-51

8741-01

CFC_600

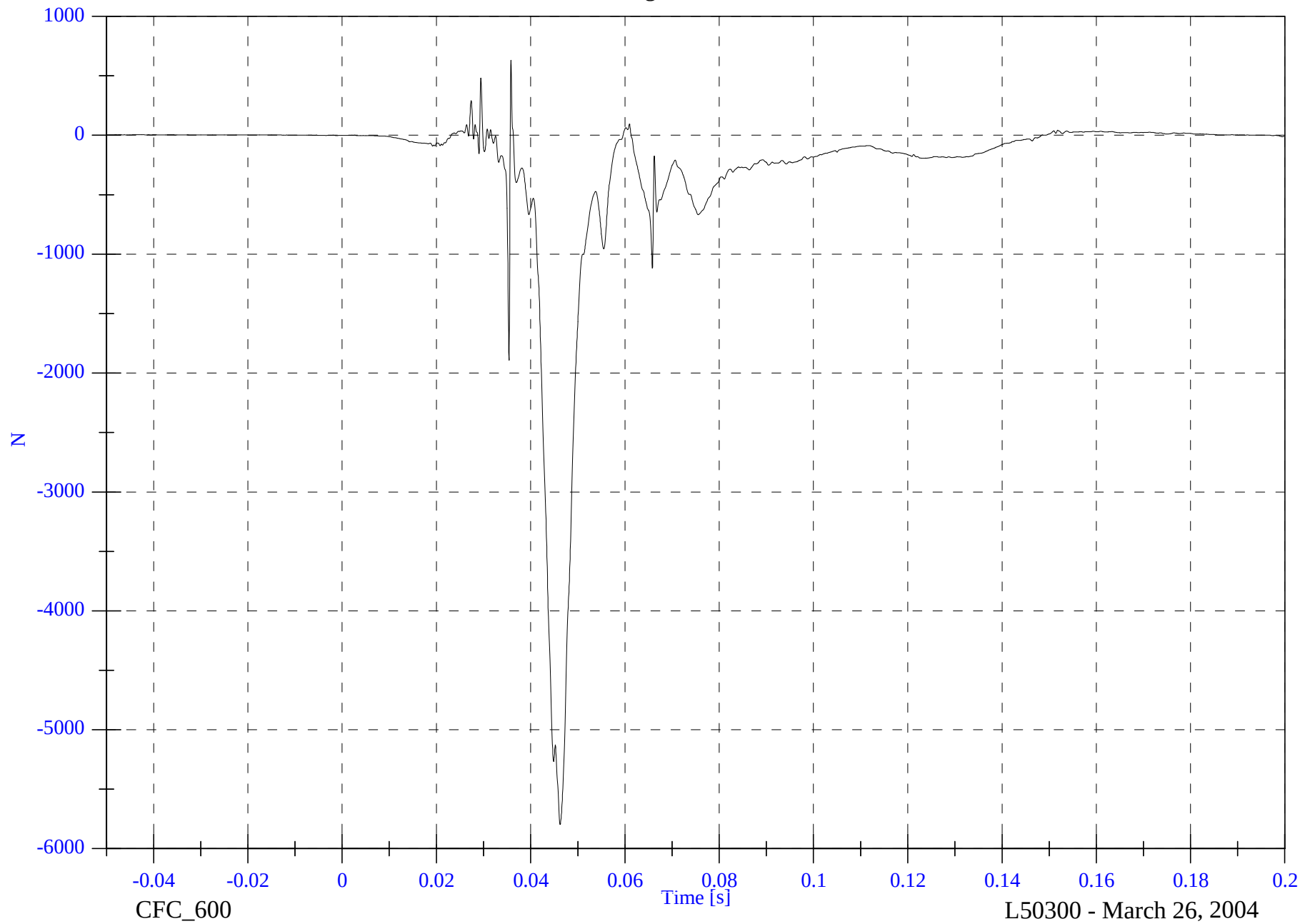
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Right Lower Tibia Fz

Max: 632.4 [N] at 0.036 [s]

Min: -5798.0 [N] at 0.046 [s]



B-52

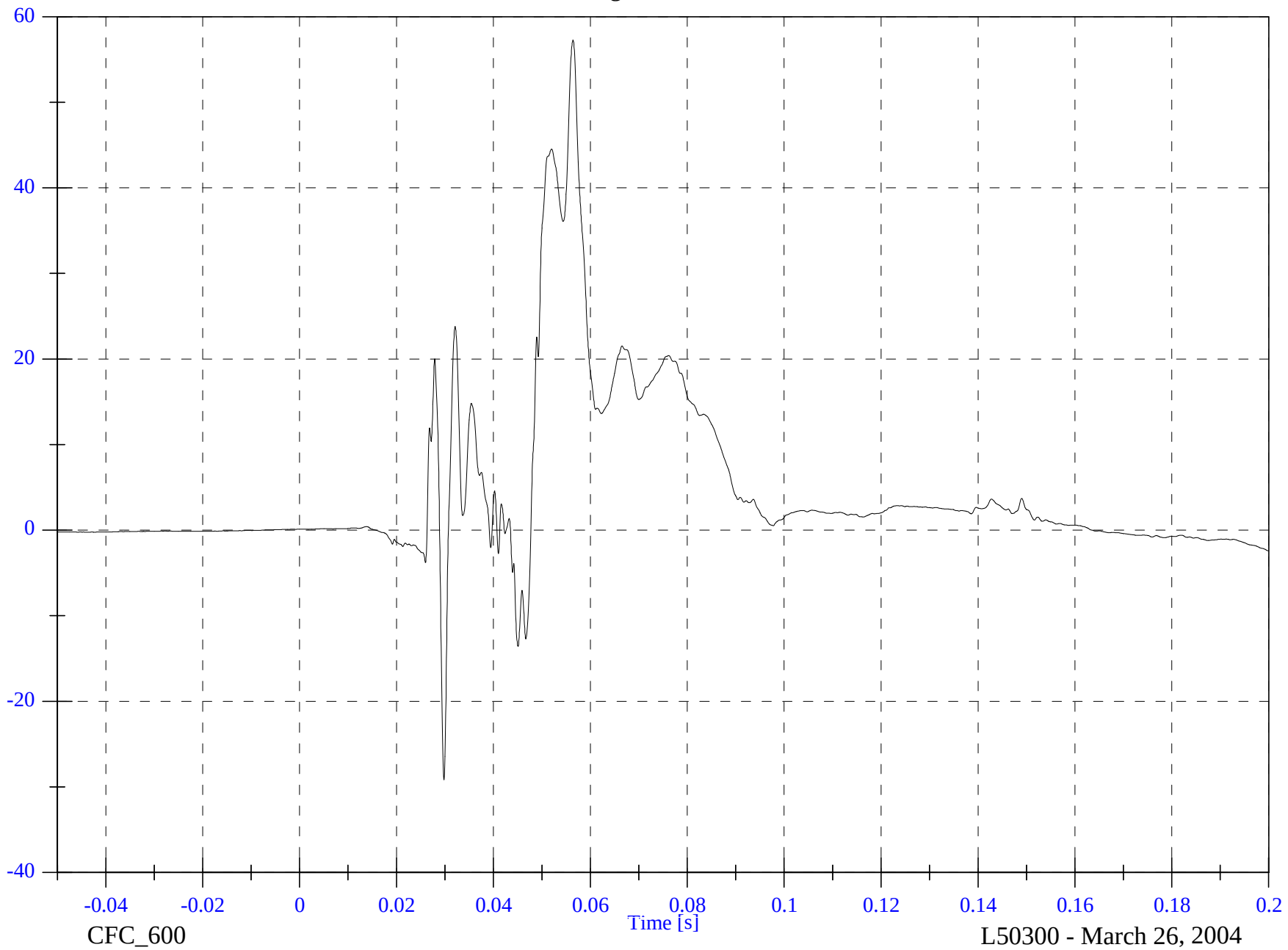
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Right Lower tibia Mx

Max: 57.3 [N-m] at 0.056 [s]

Min: -29.2 [N-m] at 0.030 [s]



B-53

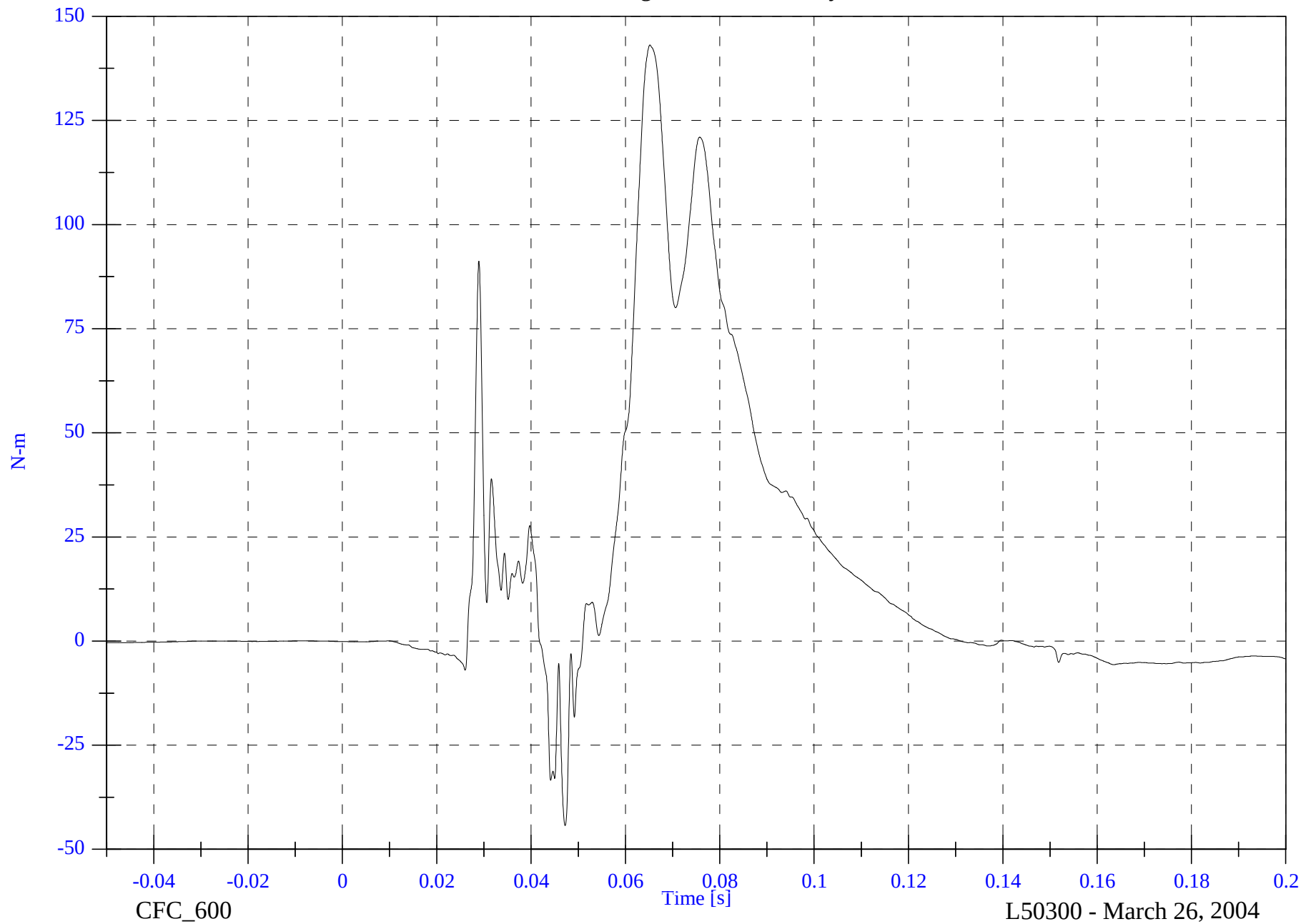
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Right Lower Tibia My

Max: 143.1 [N-m] at 0.065 [s]

Min: -44.3 [N-m] at 0.047 [s]



B-54

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

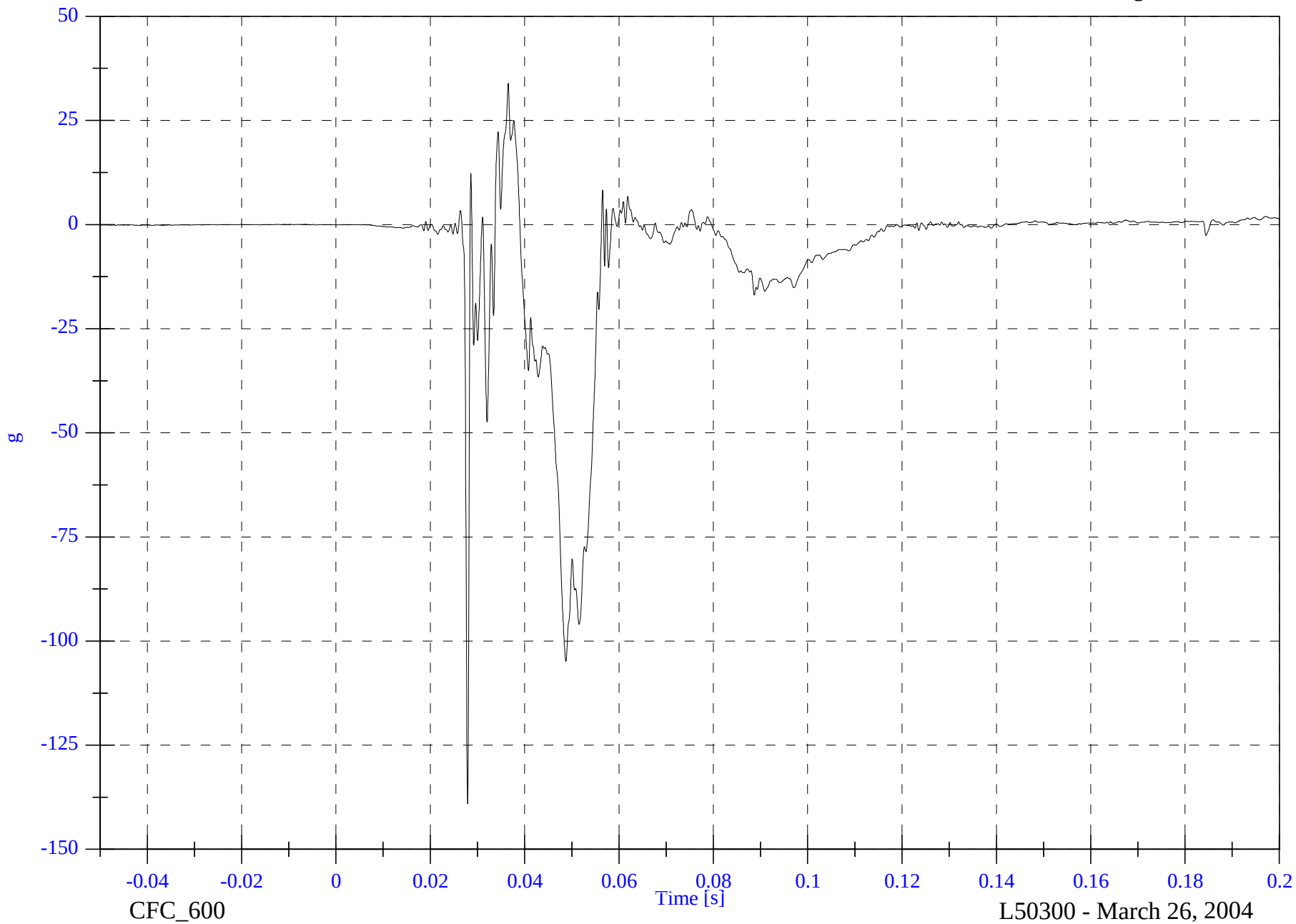
V1P1 Left Foot Aft Ax

Max: 33.9 [g] at 0.036 [s]

Min: -139.0 [g] at 0.028 [s]

B-55

8741-01

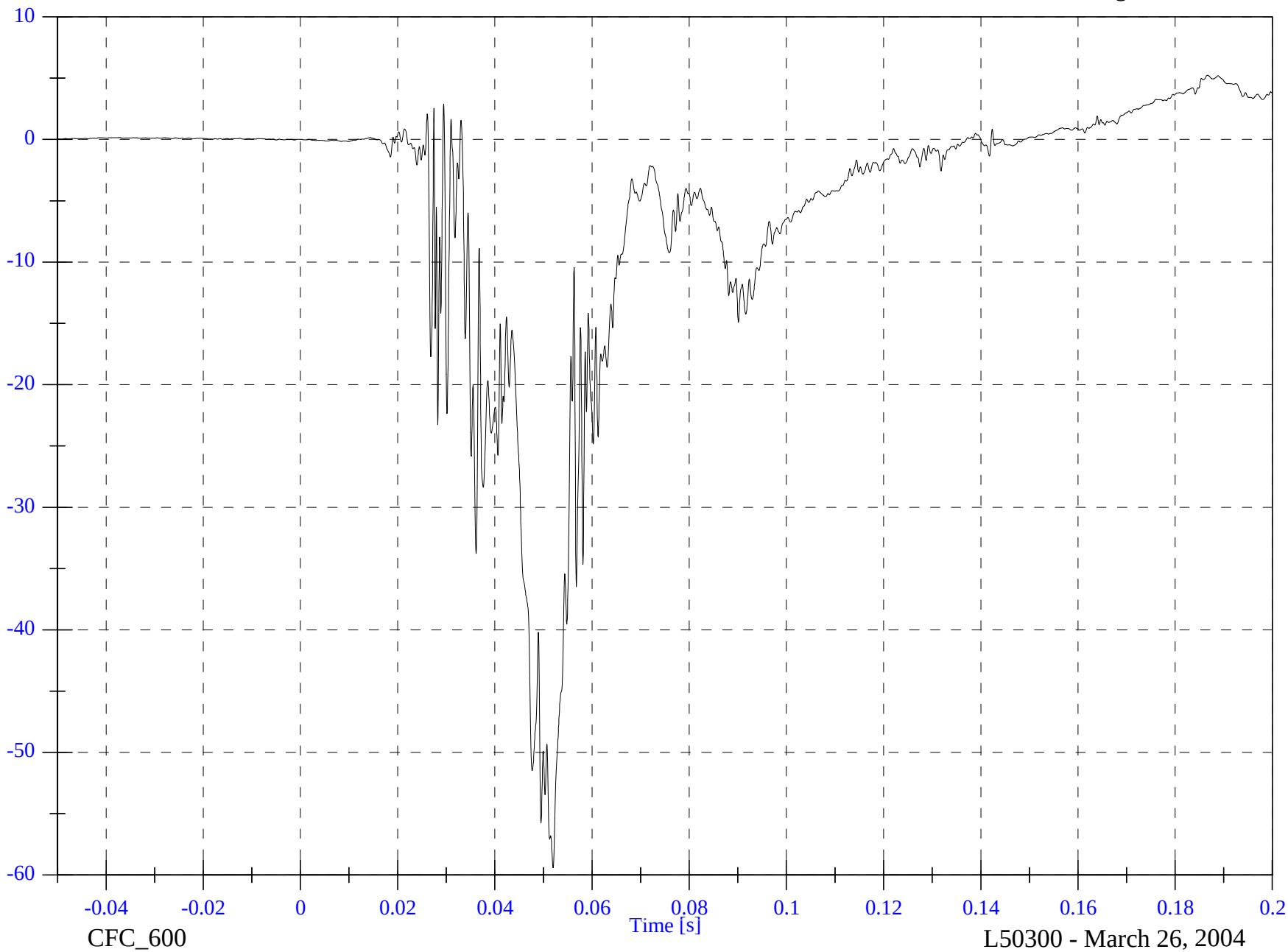


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Left Foot Aft Az

Max: 5.2 [g] at 0.187 [s]

Min: -59.4 [g] at 0.052 [s]



B-56

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

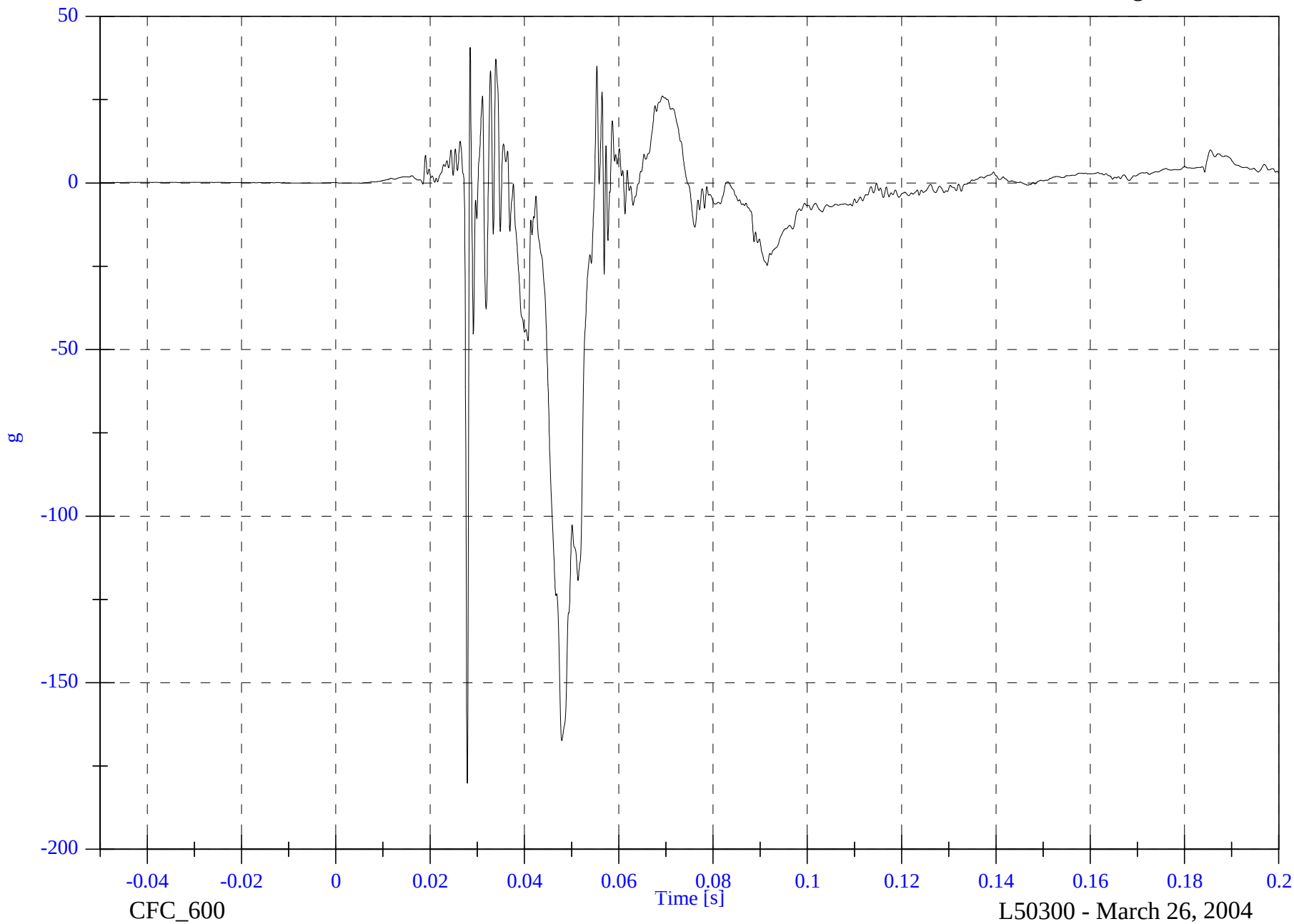
V1P1 Left Foot Fore Az

Max: 40.7 [g] at 0.028 [s]

Min: -180.2 [g] at 0.028 [s]

B-57

8741-01

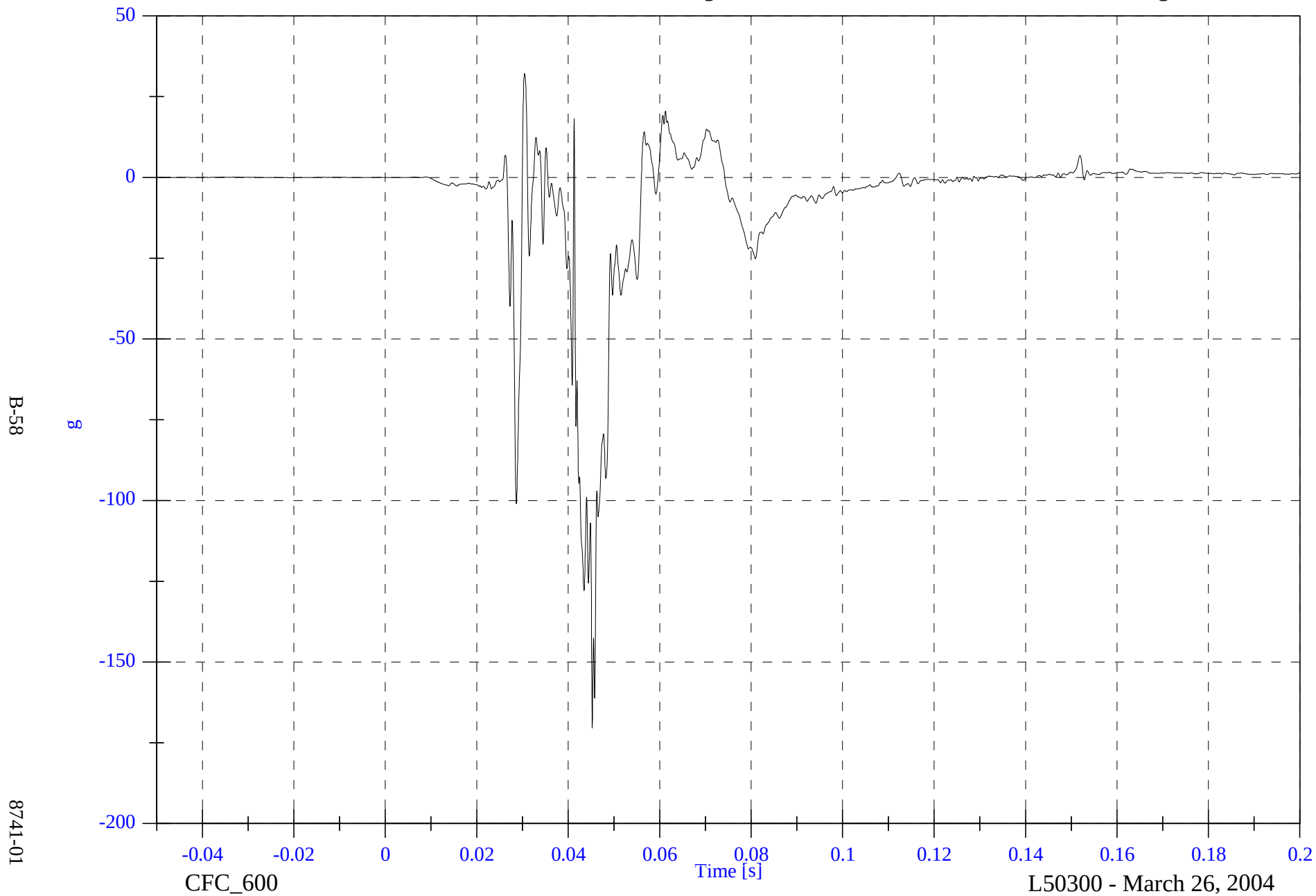


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Right Foot Aft x

Max: 32.2 [g] at 0.030 [s]

Min: -170.4 [g] at 0.045 [s]

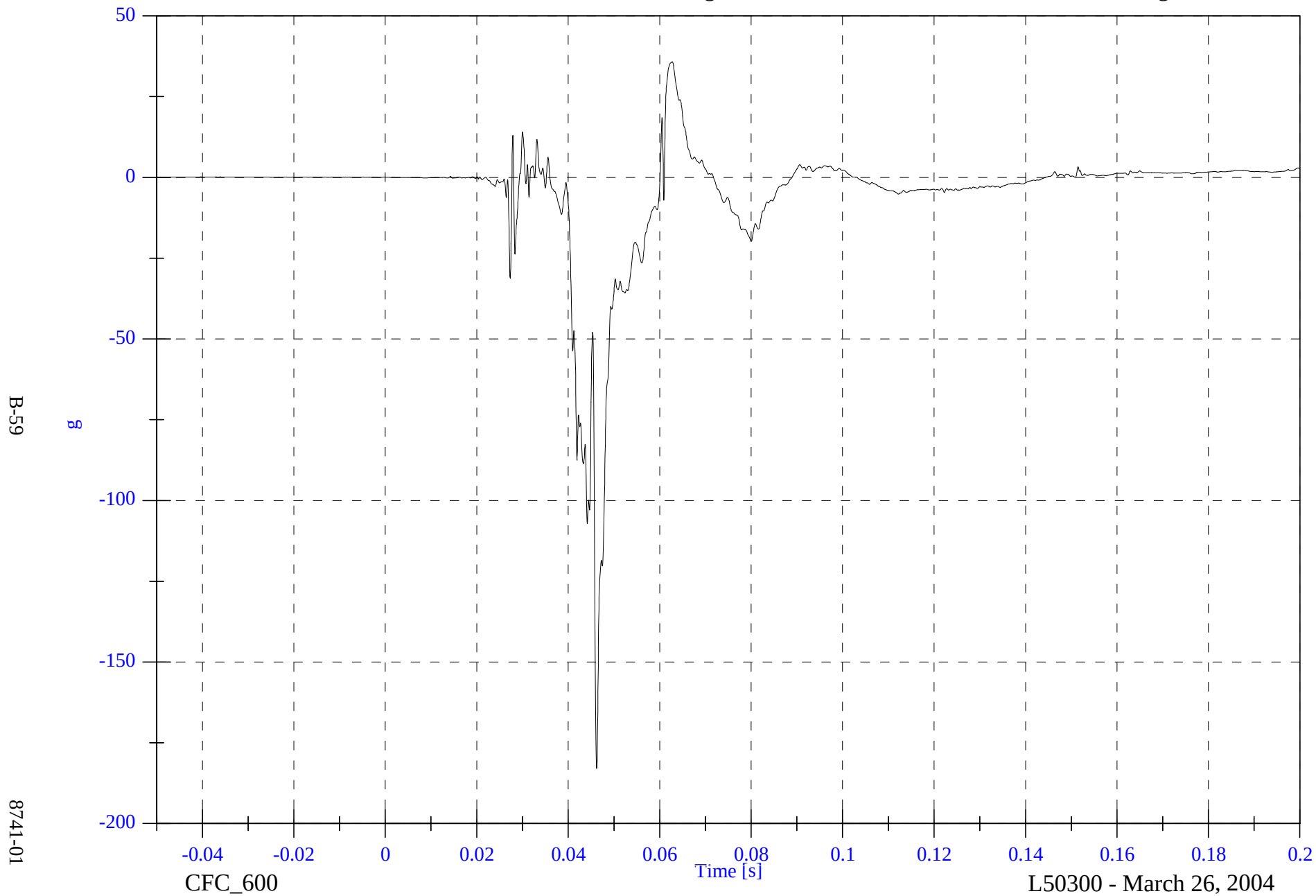


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Right Foot Aft z

Max: 35.8 [g] at 0.063 [s]

Min: -182.9 [g] at 0.046 [s]

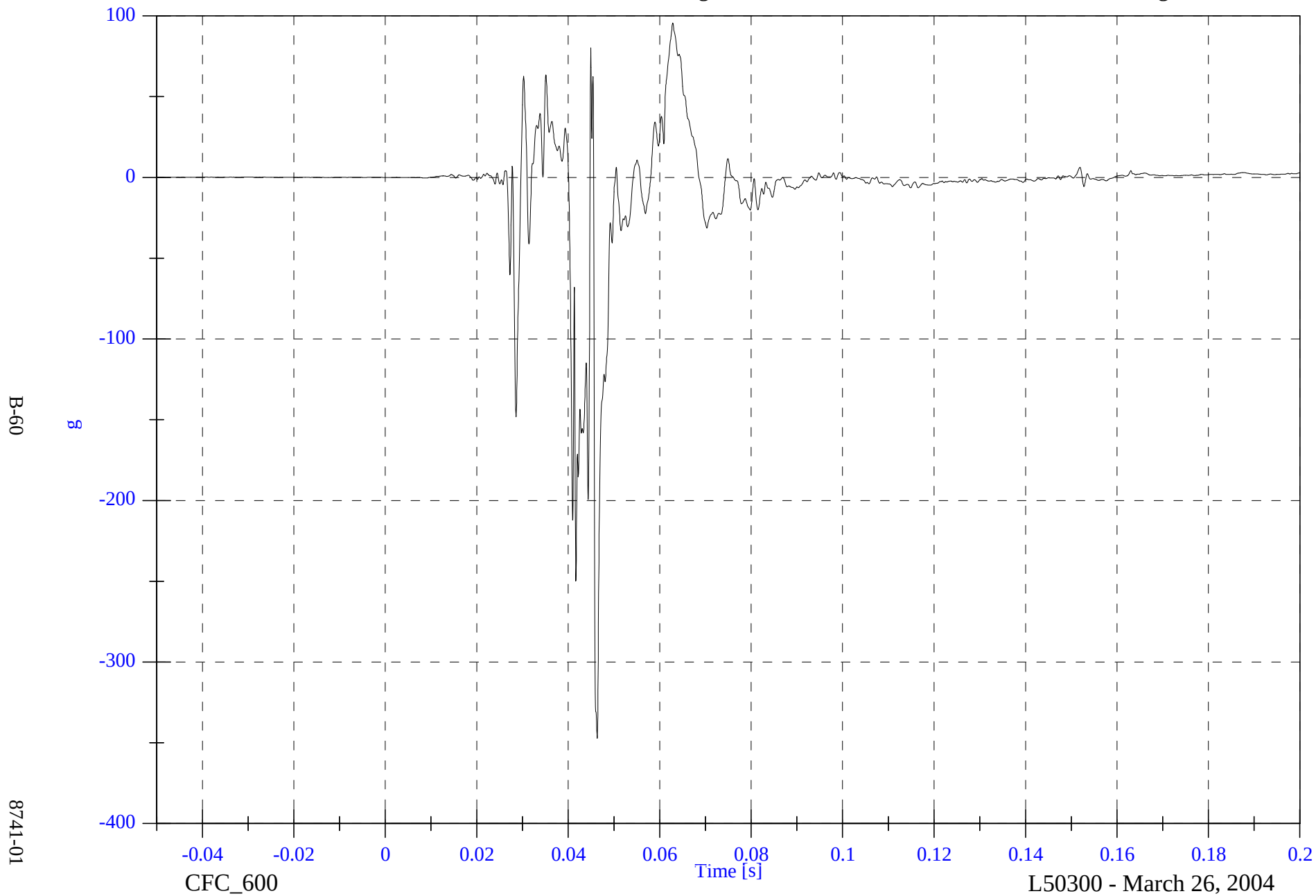


Frontal NCAP- 2005 Chrysler Town & Country

V1P1 Right Foot Fore z

Max: 95.6 [g] at 0.063 [s]

Min: -347.2 [g] at 0.046 [s]



B-60

8741-01

CFC_600

L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

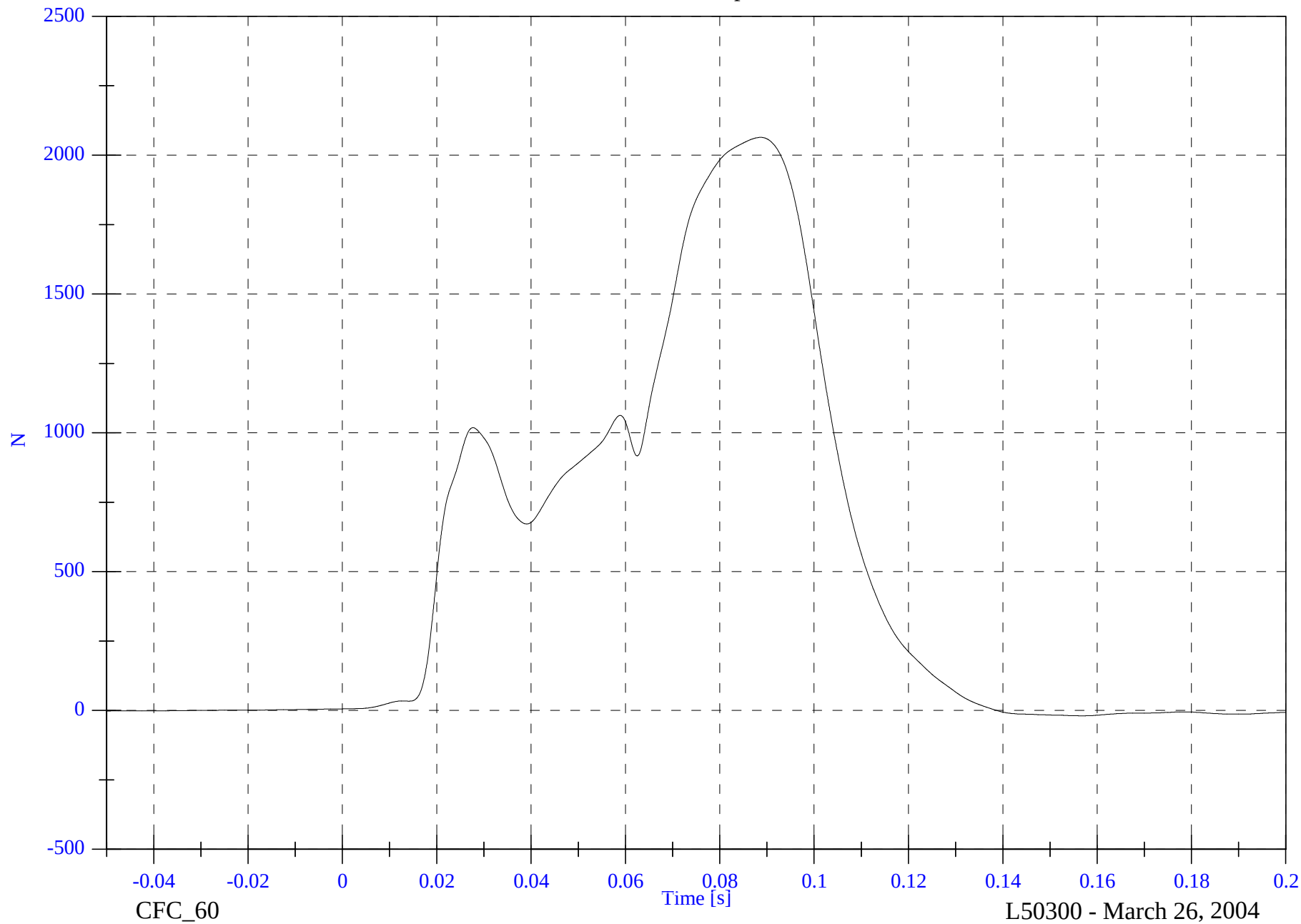
V1 Driver Lap Belt

Max: 2064.1 [N] at 0.089 [s]

Min: -19.2 [N] at 0.157 [s]

B-61

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

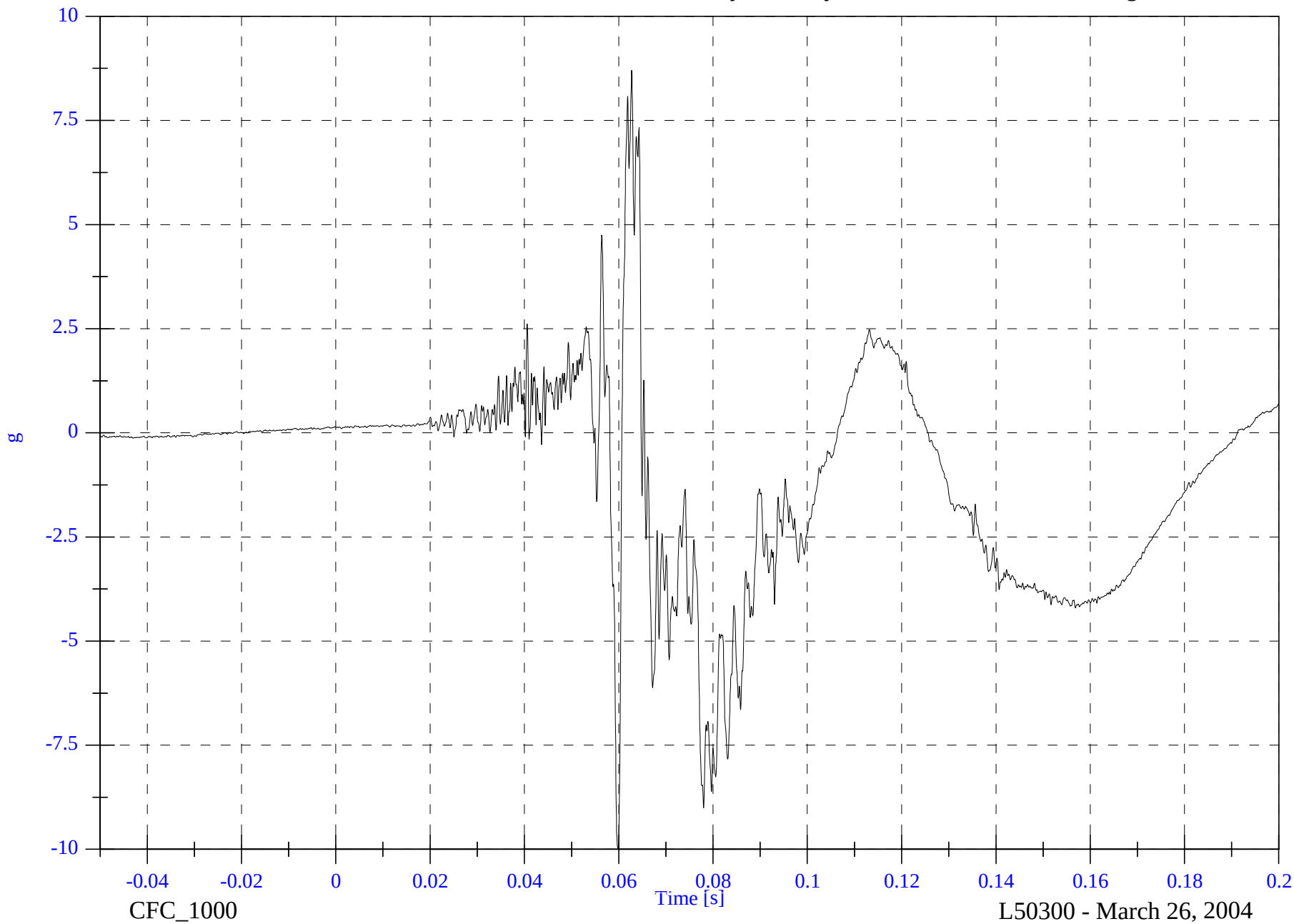
V1P2 Head 9 Array X Arm y

Max: 8.7 [g] at 0.063 [s]

Min: -10.0 [g] at 0.060 [s]

B-62

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

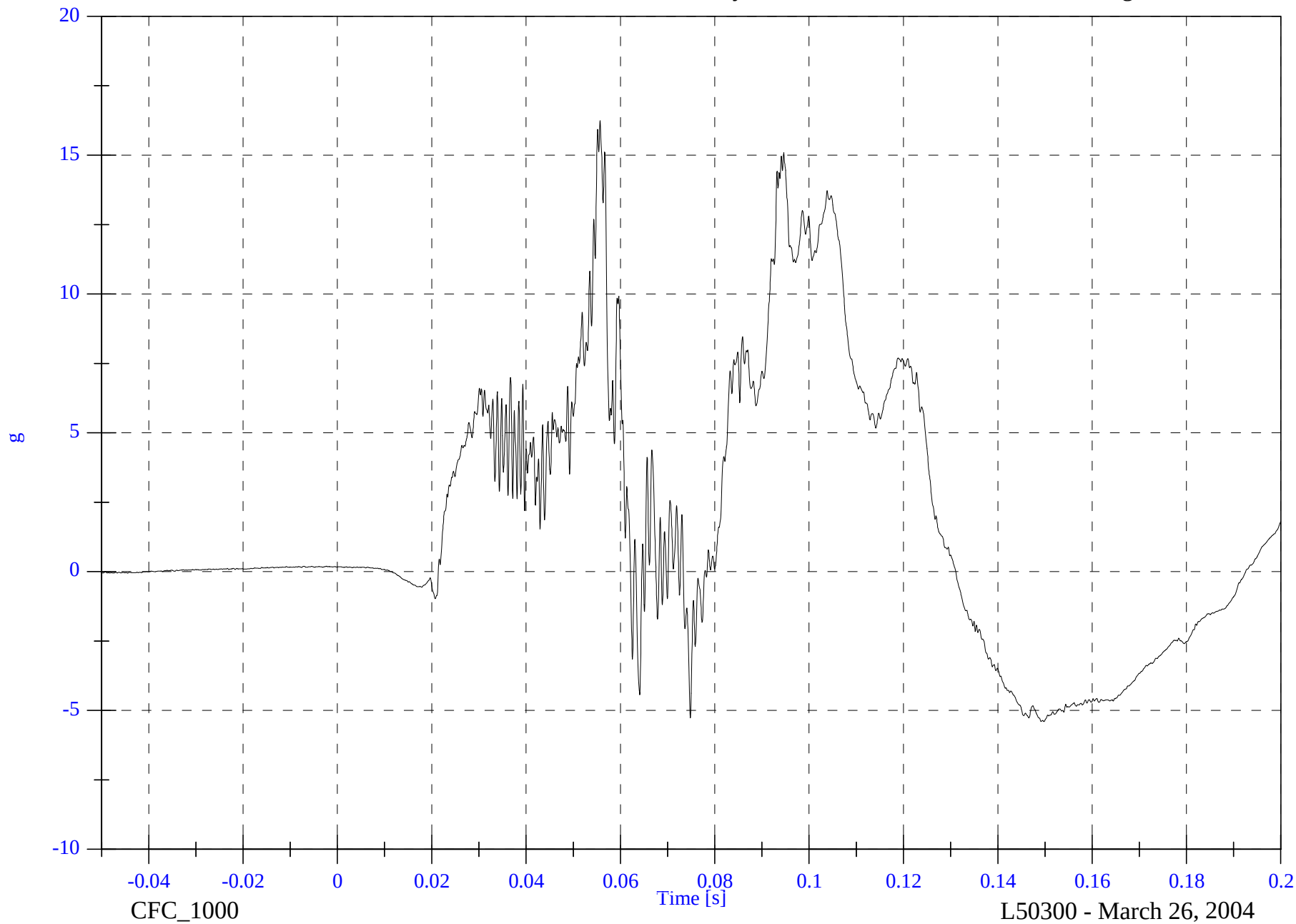
V1P2 Head 9 Array X Arm z

Max: 16.2 [g] at 0.056 [s]

Min: -5.4 [g] at 0.150 [s]

B-63

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

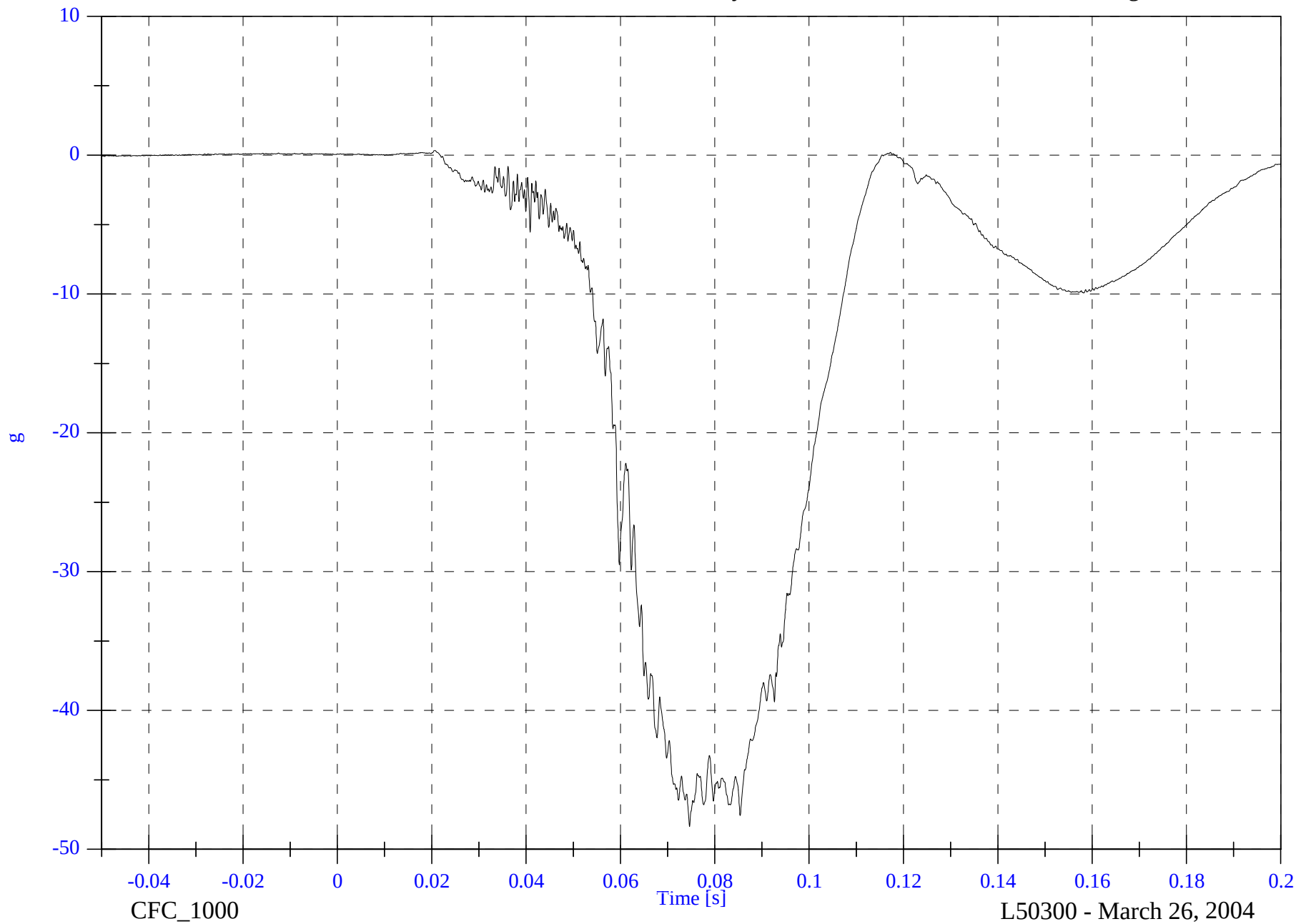
V1P2 Head 9 Array Y Arm x

Max: 0.3 [g] at 0.021 [s]

Min: -48.4 [g] at 0.075 [s]

B-64

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

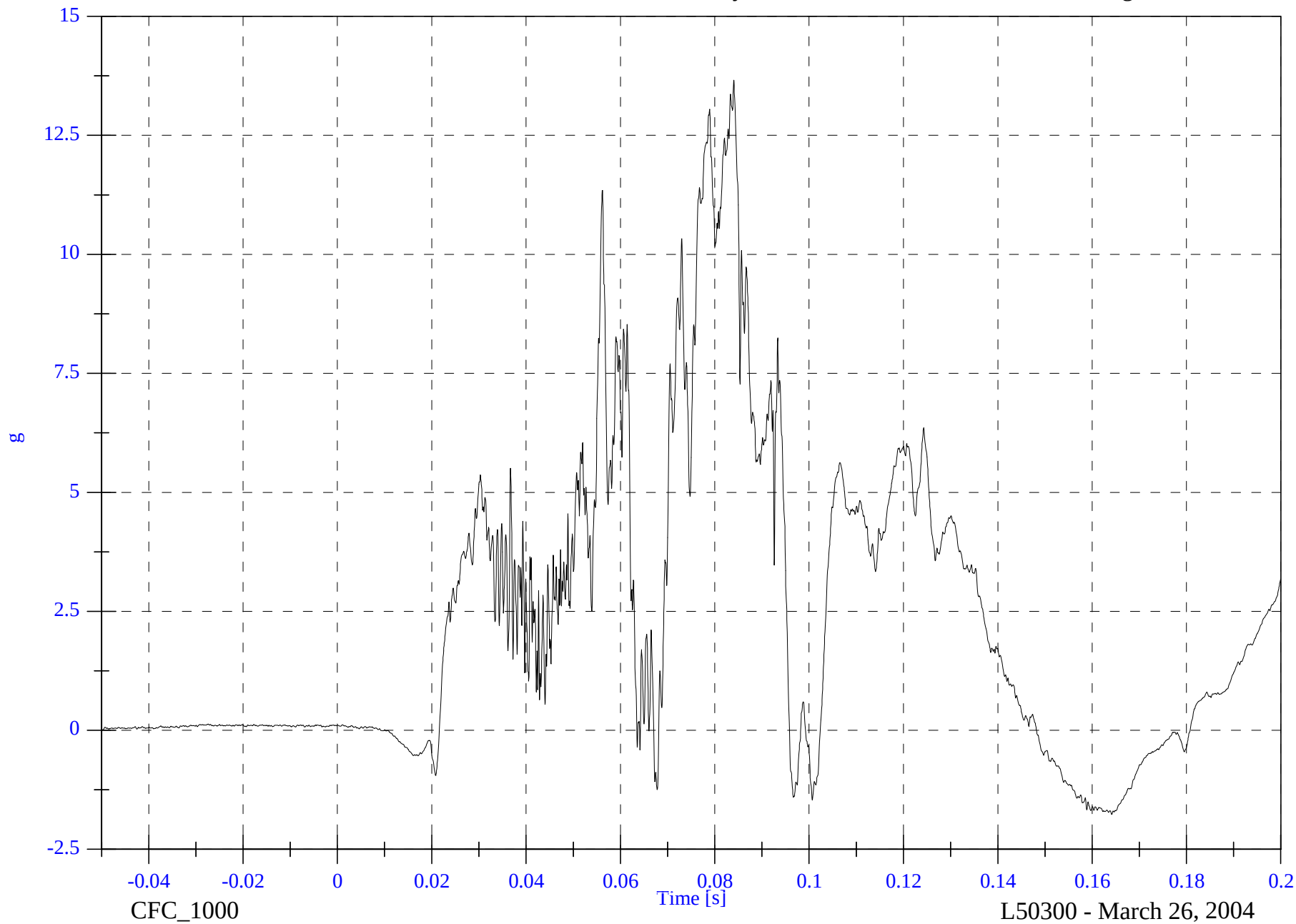
V1P2 Head 9 Array Y Arm z

Max: 13.7 [g] at 0.084 [s]

Min: -1.8 [g] at 0.164 [s]

B-65

8741-01

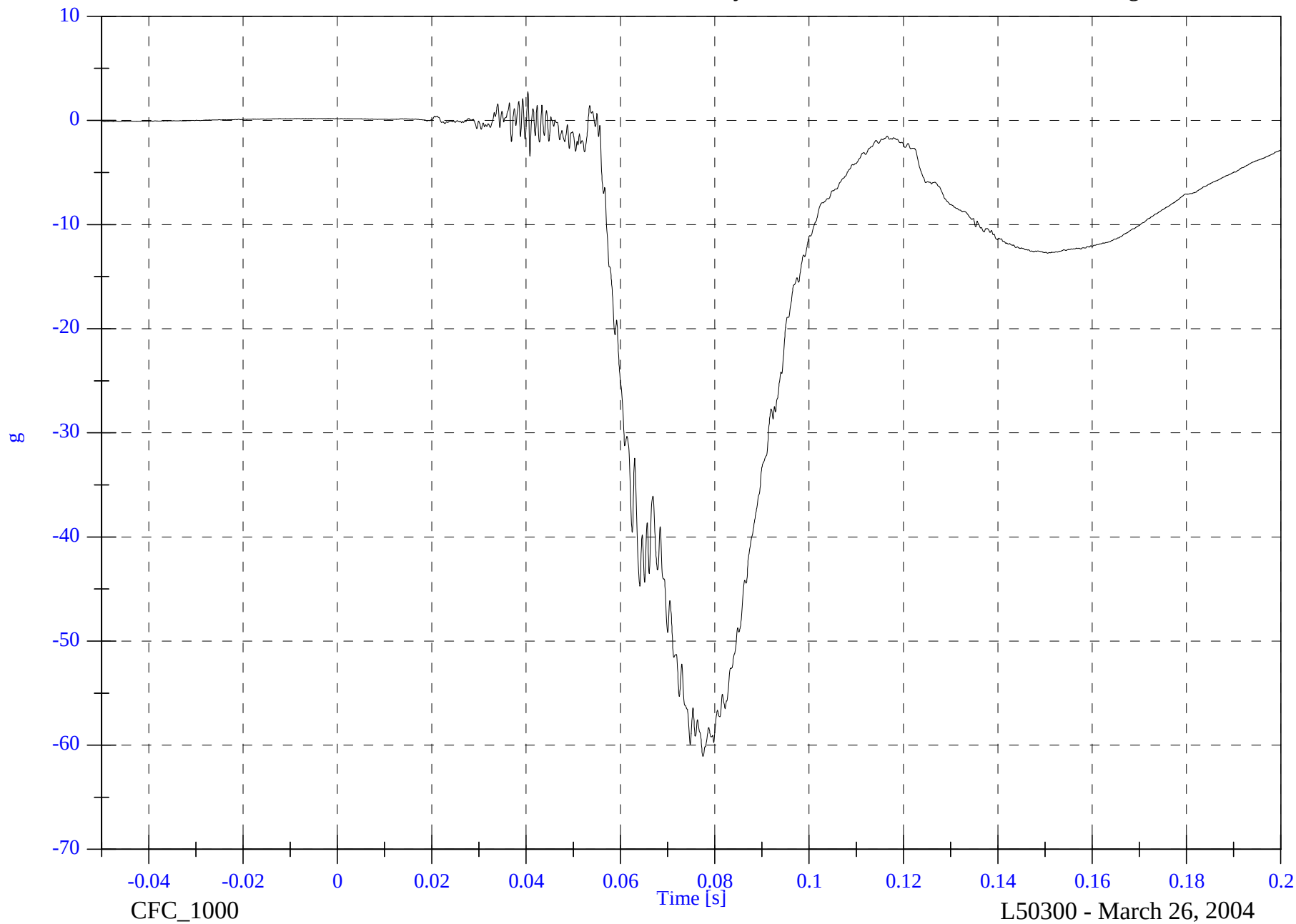


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Head 9 Array Z Arm x

Max: 2.8 [g] at 0.040 [s]

Min: -61.1 [g] at 0.077 [s]



B-66

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

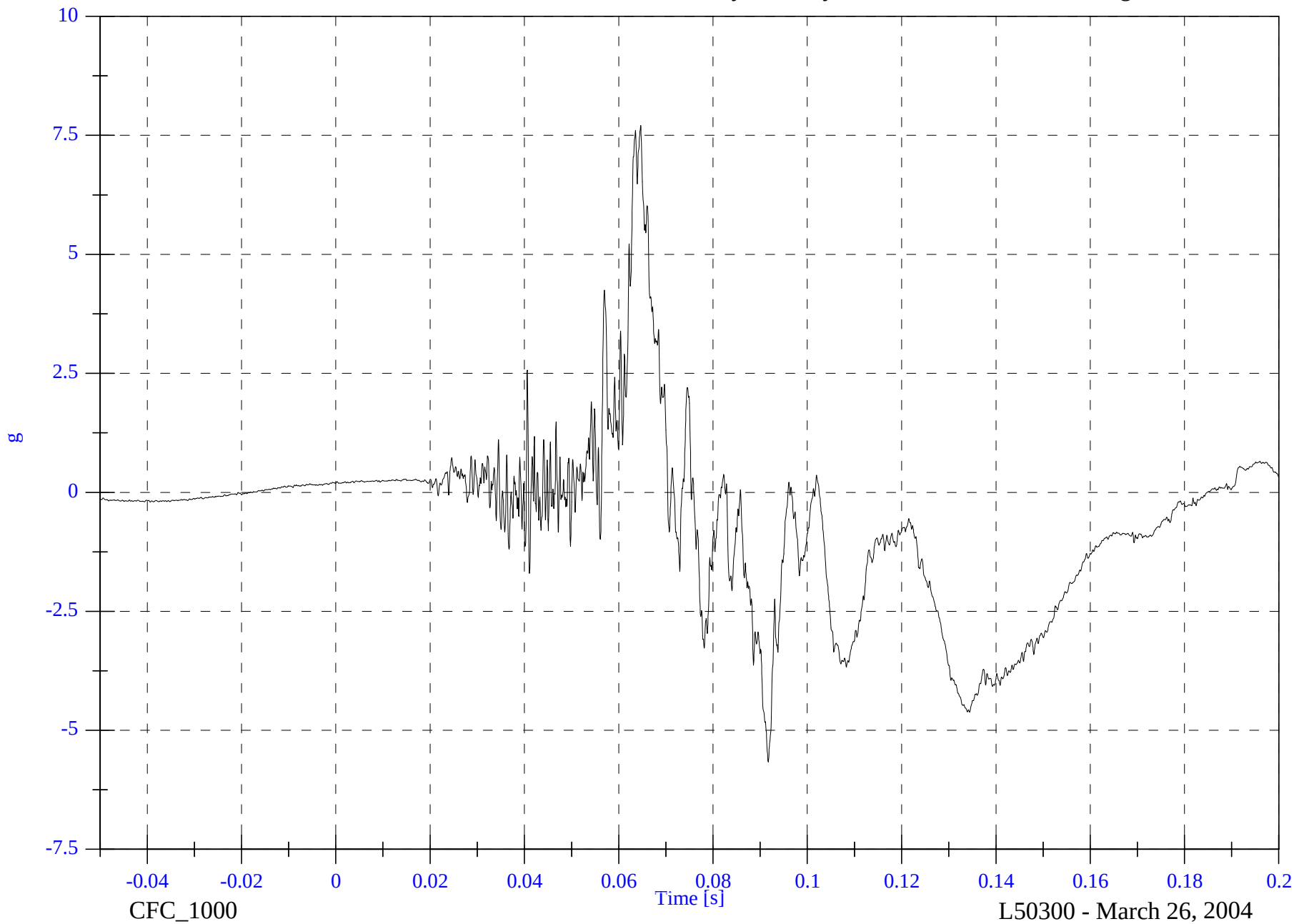
V1P2 Head 9 Array Z Arm y

Max: 7.7 [g] at 0.065 [s]

Min: -5.7 [g] at 0.092 [s]

B-67

8741-01

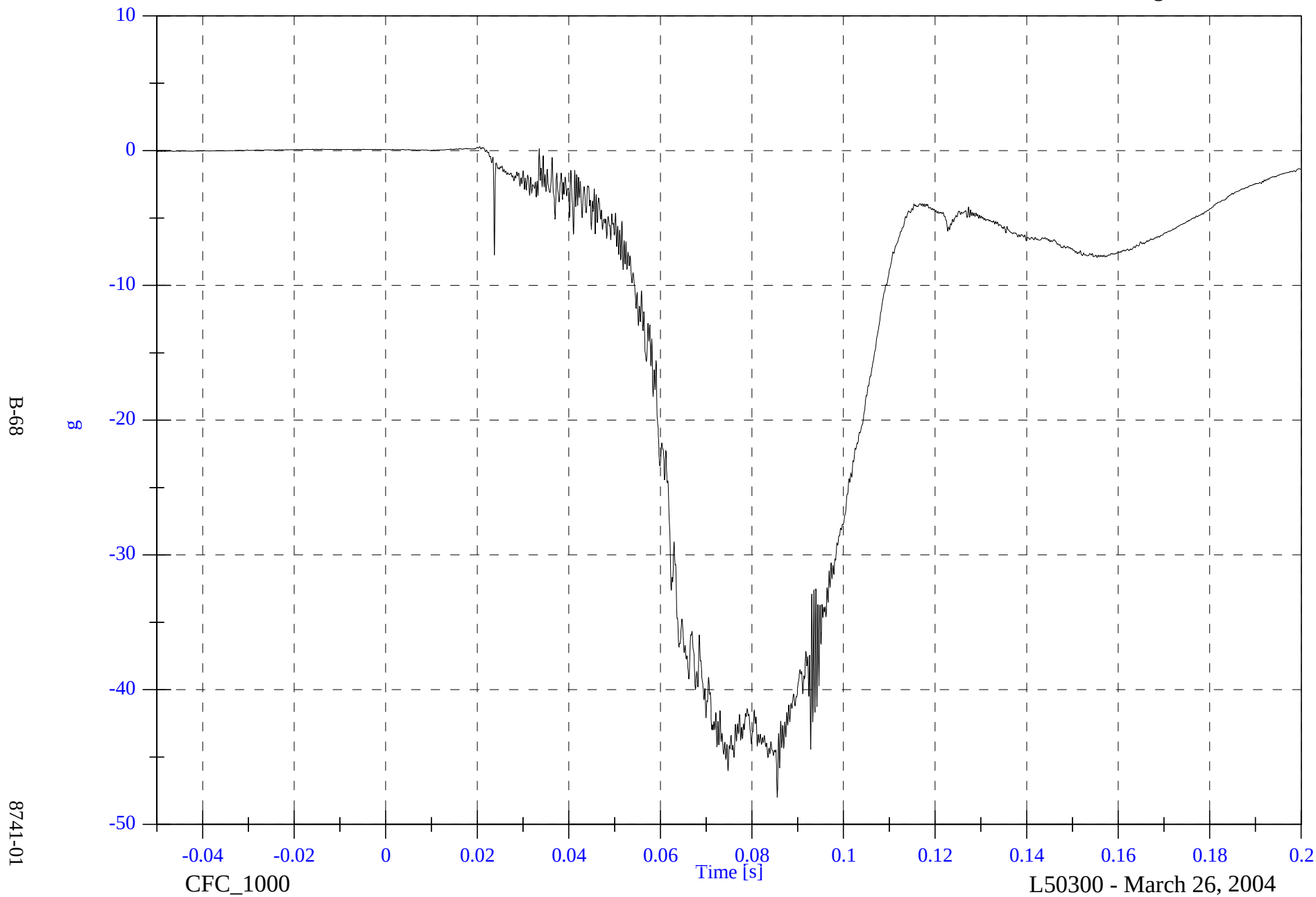


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Head CG x

Max: 0.3 [g] at 0.021 [s]

Min: -48.0 [g] at 0.086 [s]



Frontal NCAP- 2005 Chrysler Town & Country

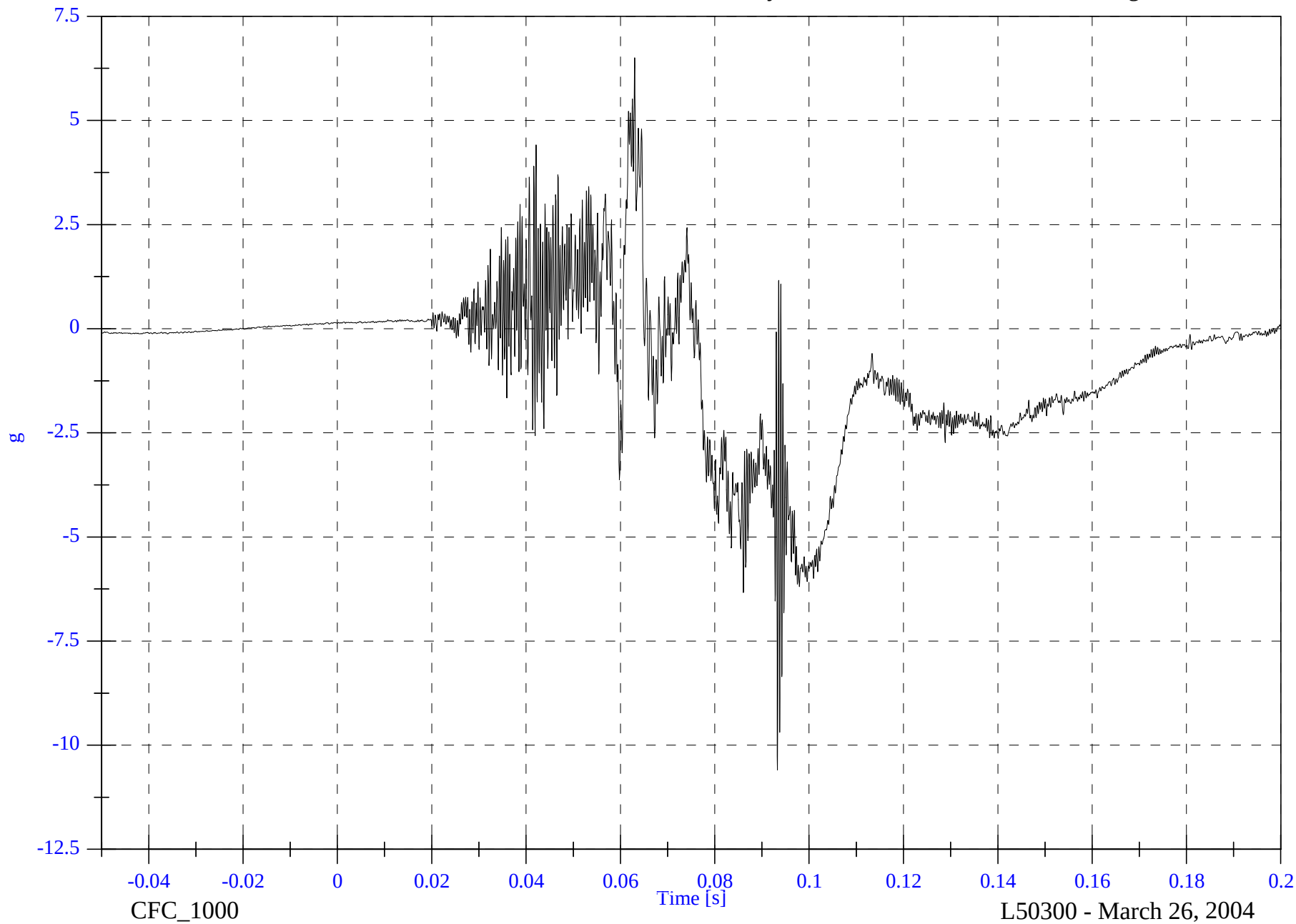
V1P2 Head CG y

Max: 6.5 [g] at 0.063 [s]

Min: -10.6 [g] at 0.093 [s]

B-69

8741-01

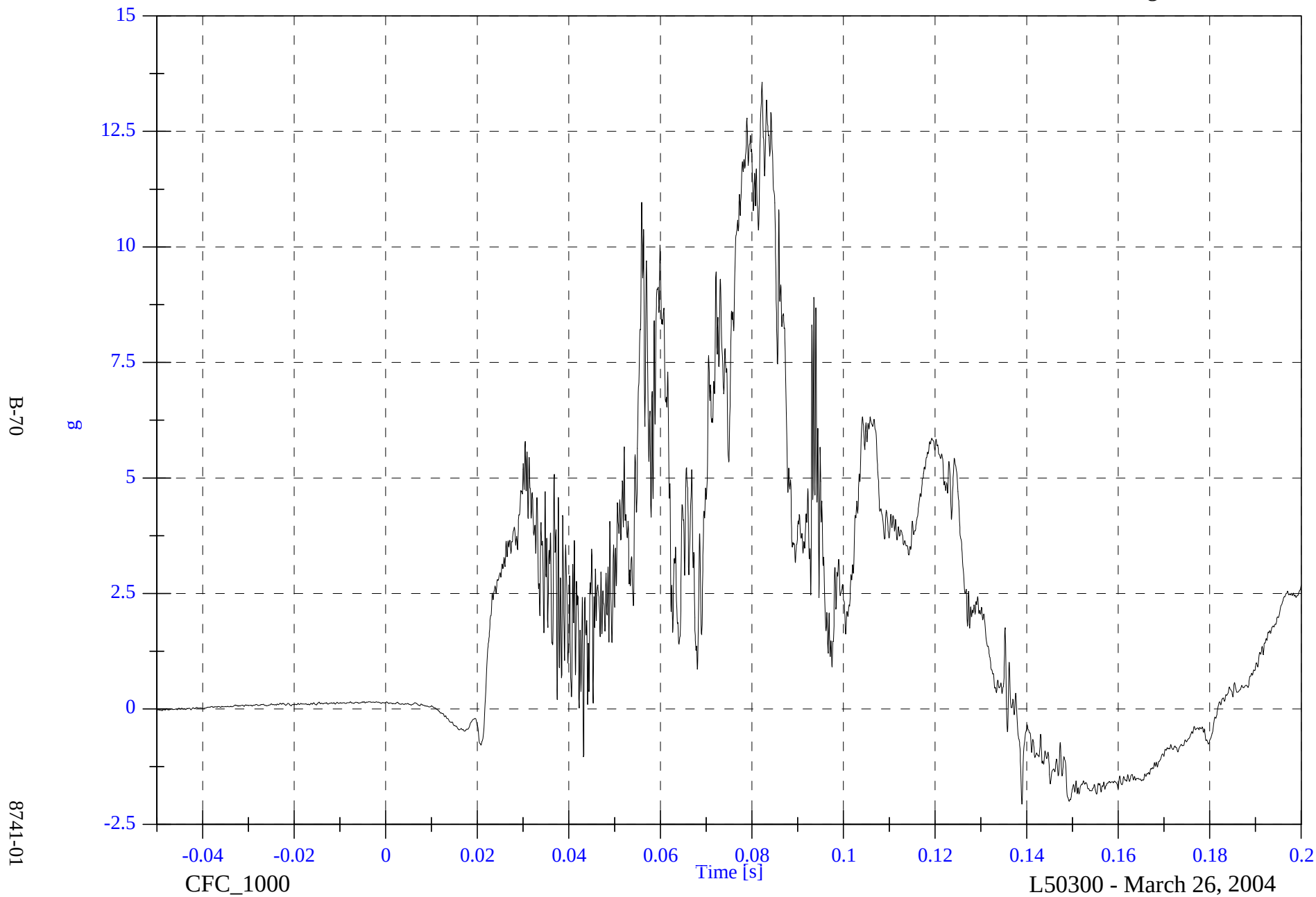


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Head CG z

Max: 13.6 [g] at 0.082 [s]

Min: -2.1 [g] at 0.139 [s]

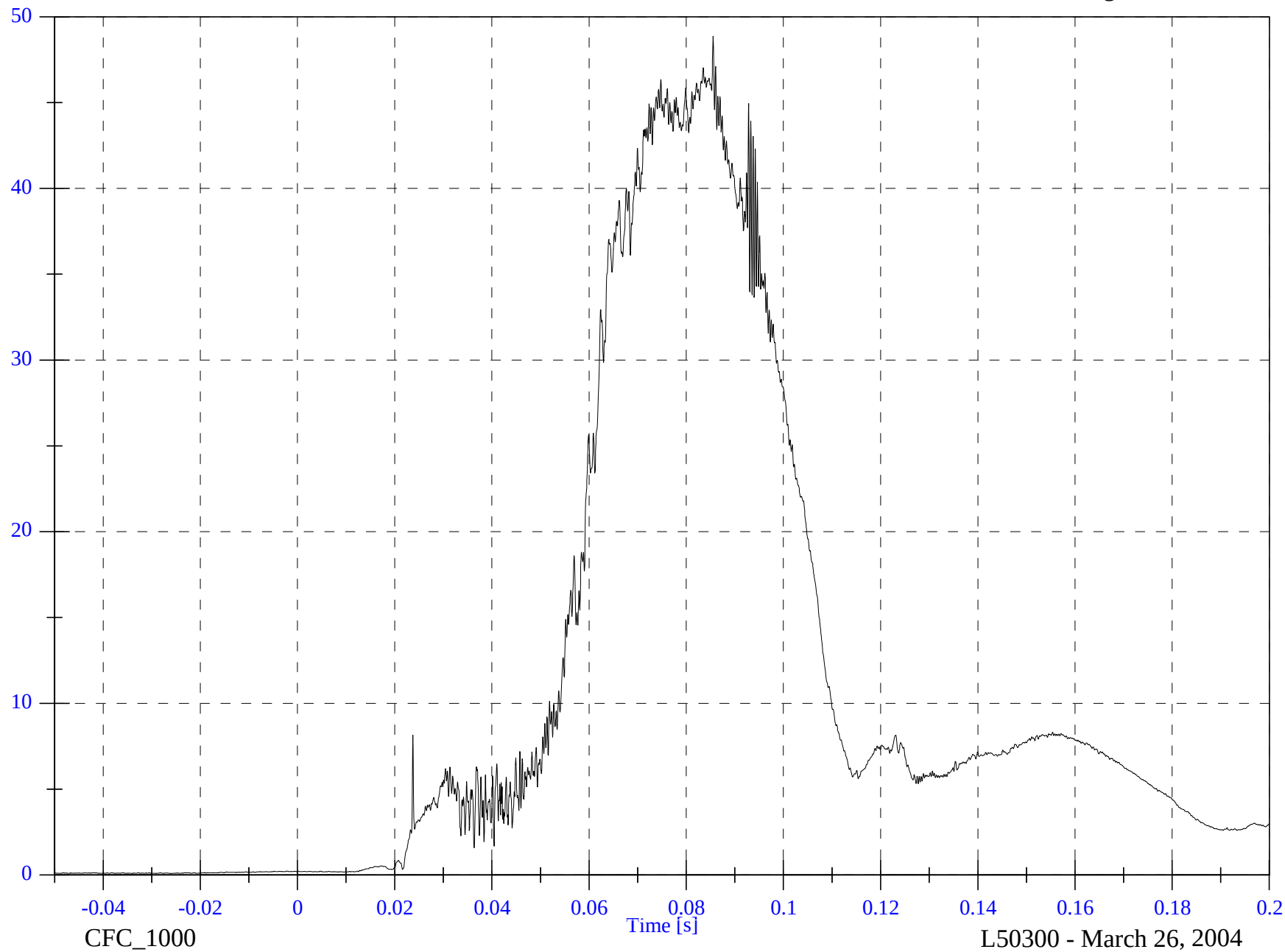


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Head CG Resultant

Max: 48.9 [g] at 0.085 [s]

Min: 0.1 [g] at -0.034 [s]



B-71

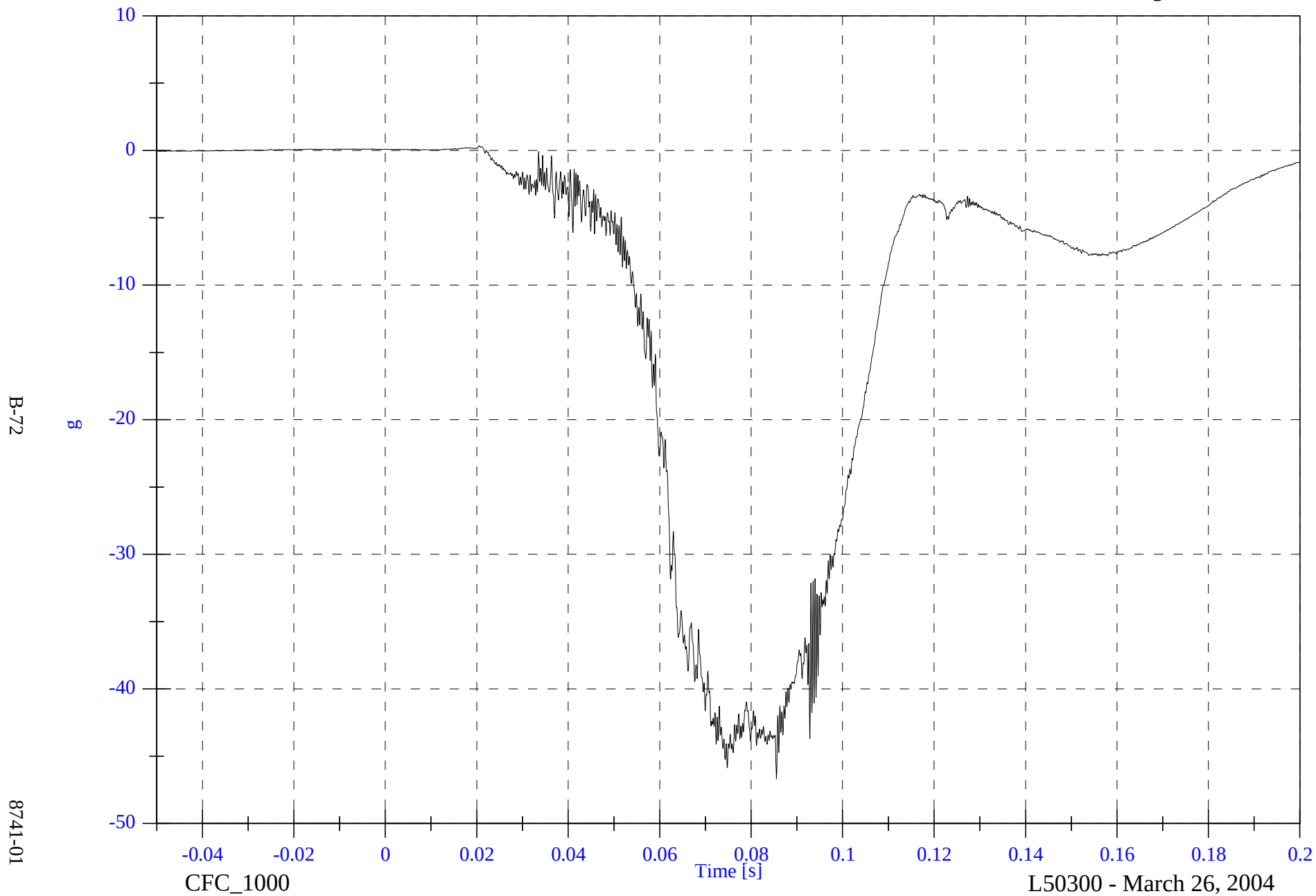
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Head CG Red x

Max: 0.4 [g] at 0.020 [s]

Min: -46.7 [g] at 0.086 [s]

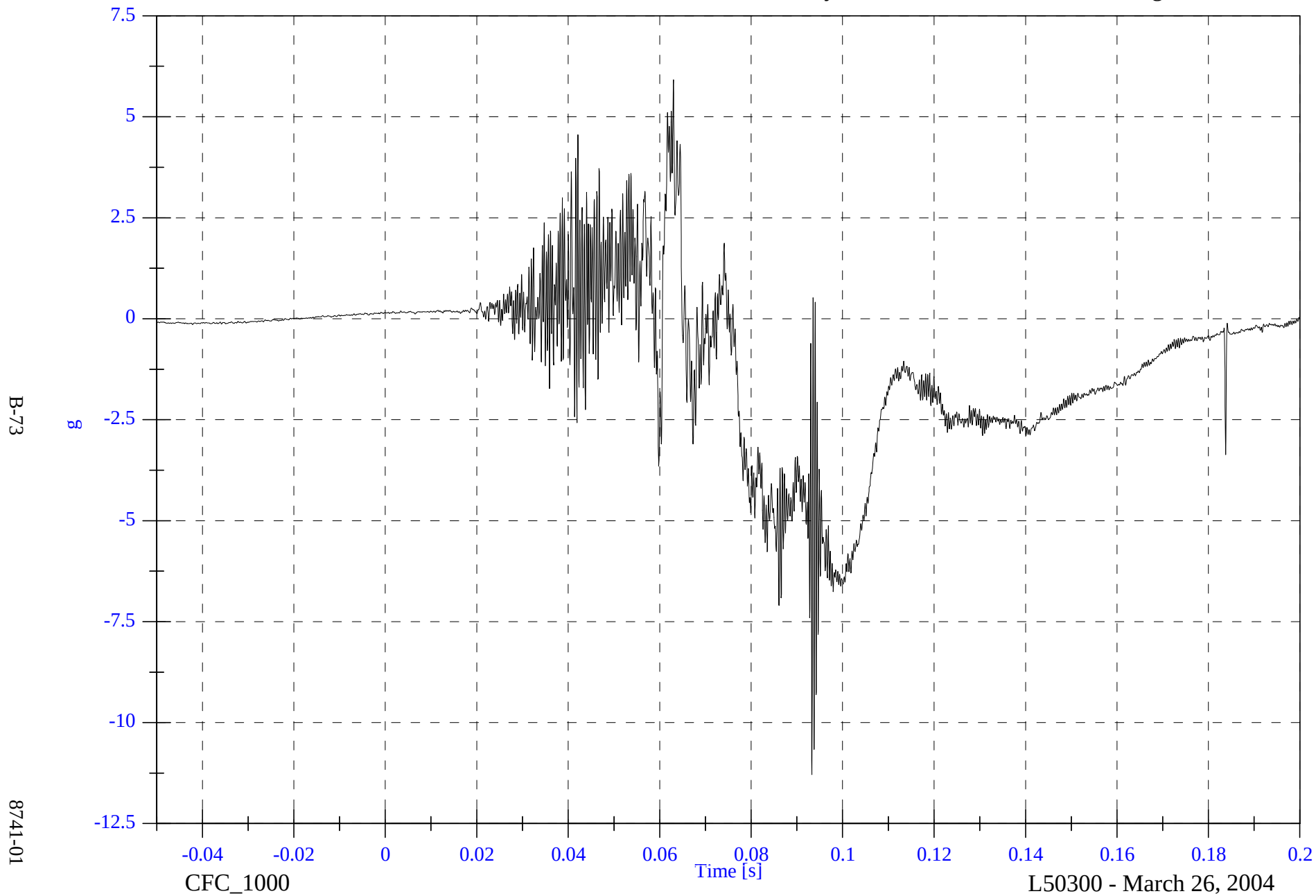


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Head CG Red y

Max: 5.9 [g] at 0.063 [s]

Min: -11.3 [g] at 0.093 [s]

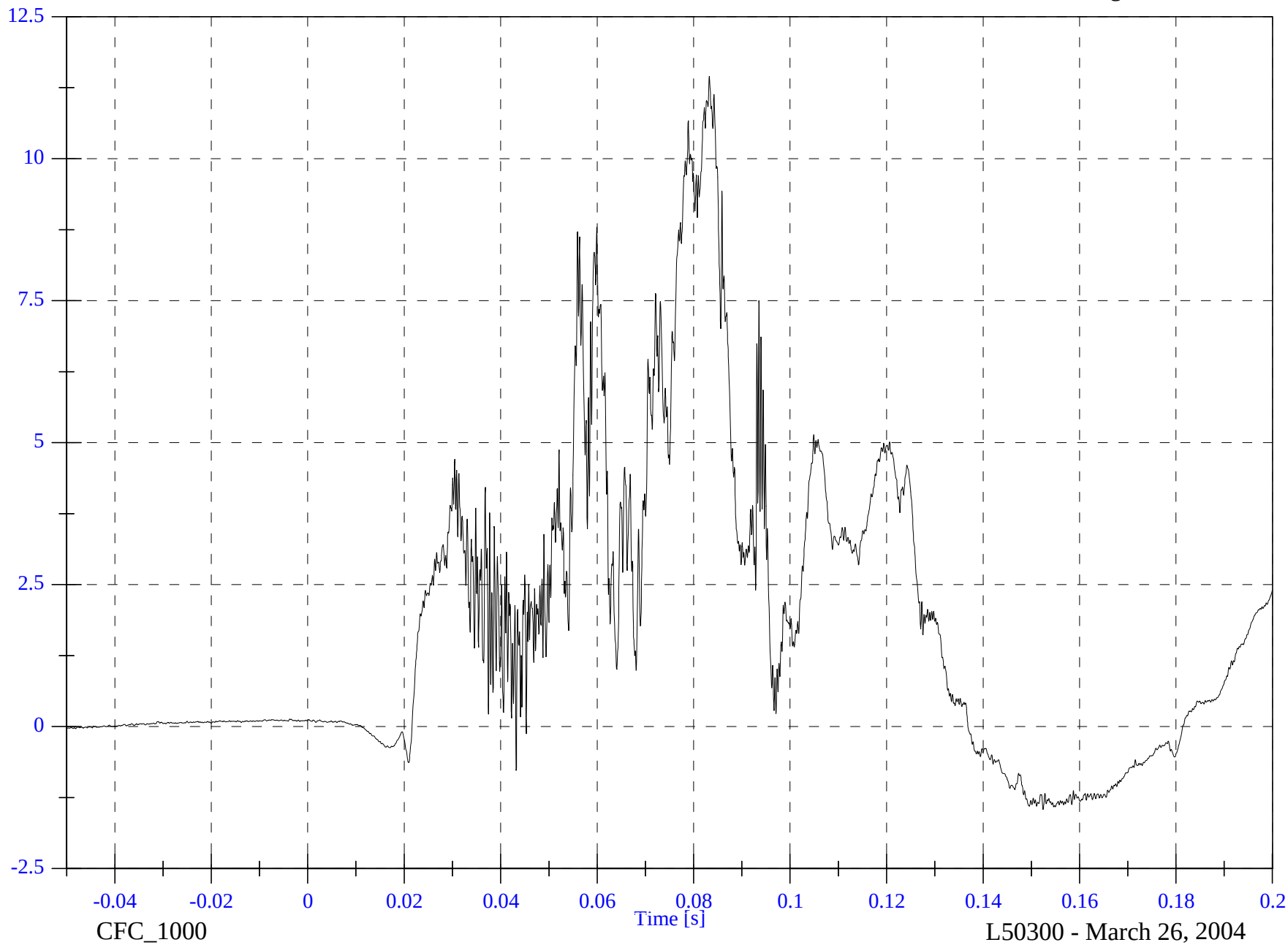


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Head CG Red z

Max: 11.5 [g] at 0.083 [s]

Min: -1.5 [g] at 0.152 [s]



B-74

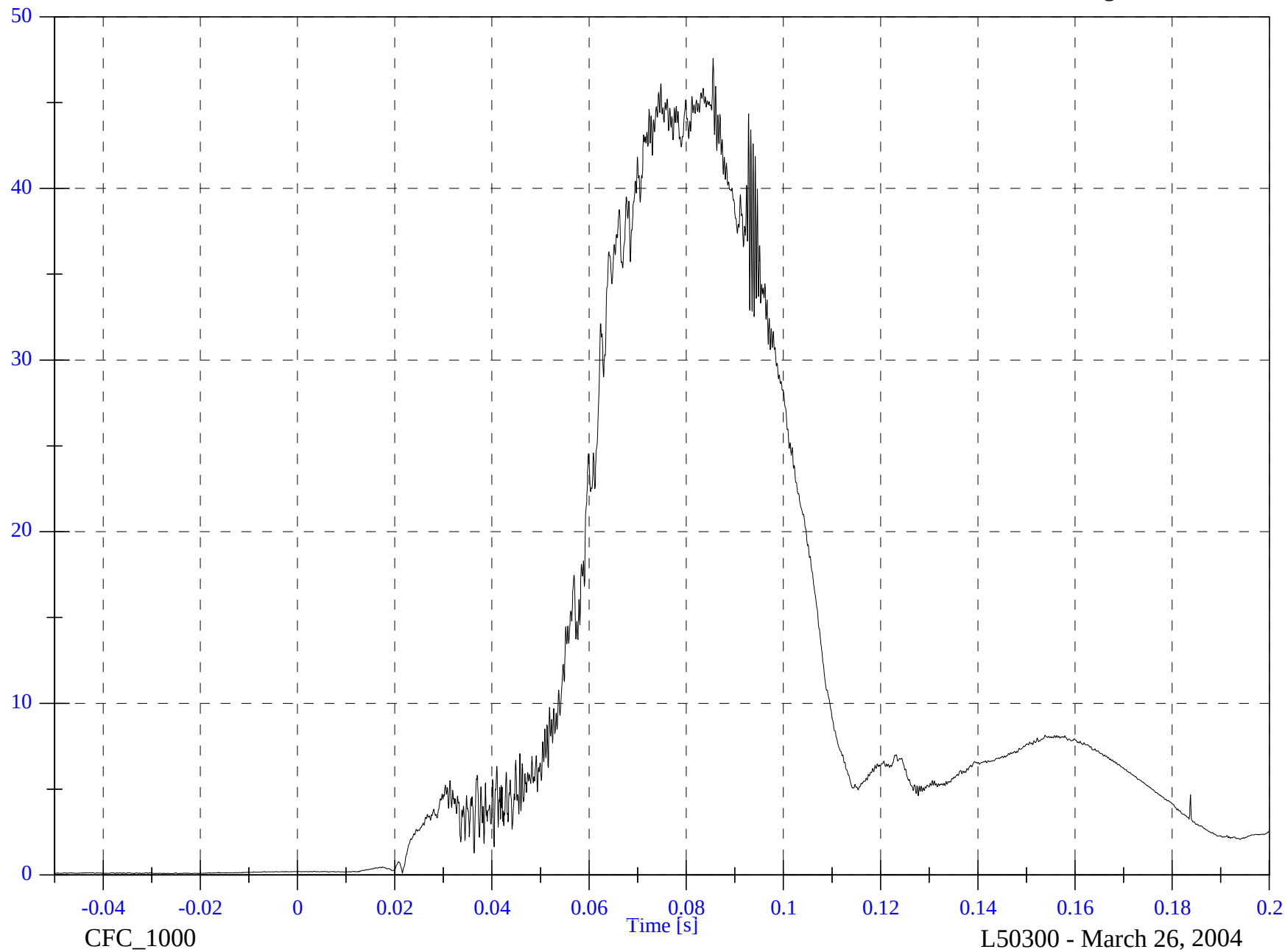
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Head CG Red Resultant

Max: 47.6 [g] at 0.085 [s]

Min: 0.1 [g] at -0.025 [s]



B-75

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Upper Neck Fx

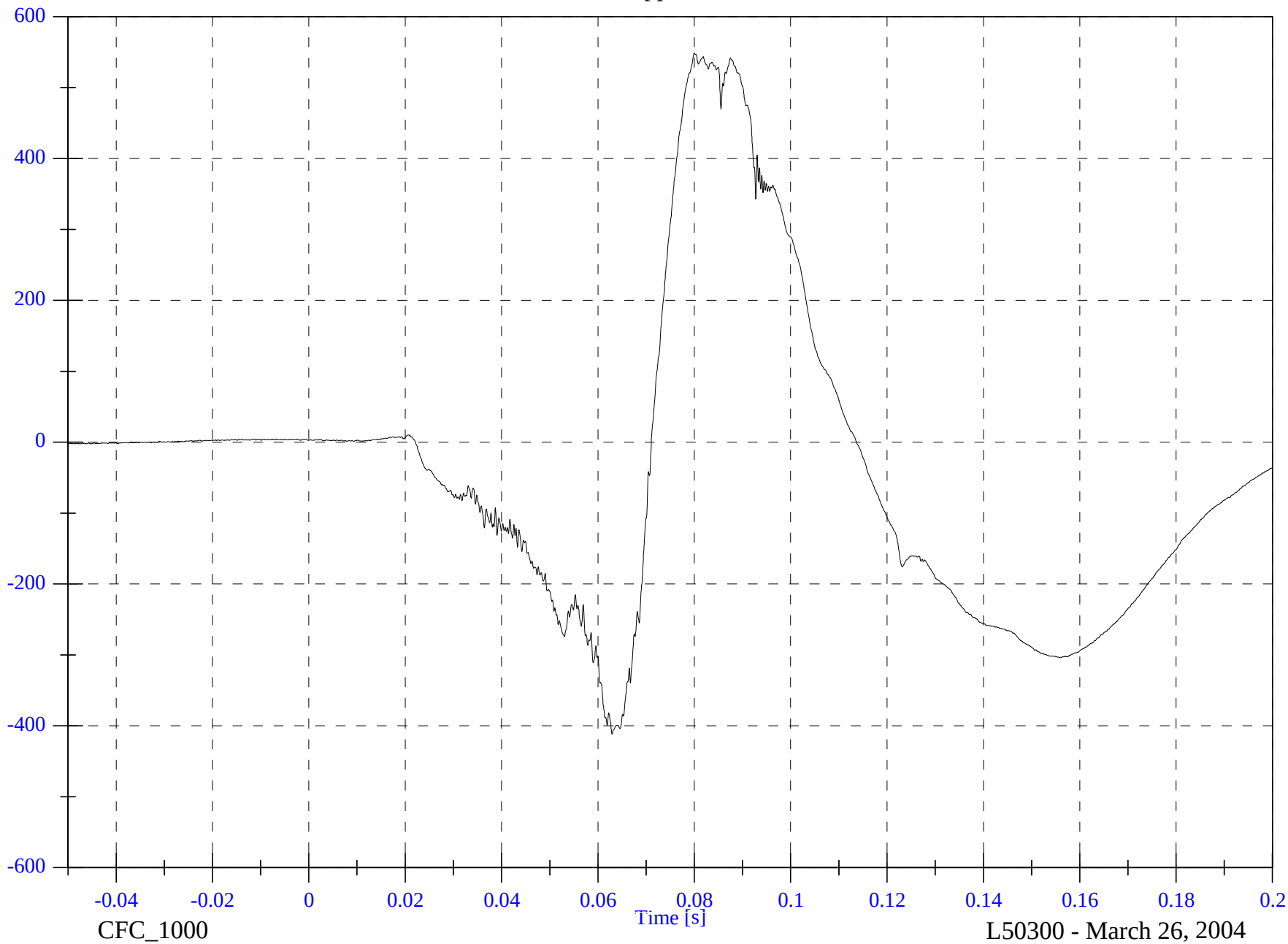
Max: 548.6 [N] at 0.080 [s]

Min: -411.7 [N] at 0.063 [s]

B-76

N

8741-01

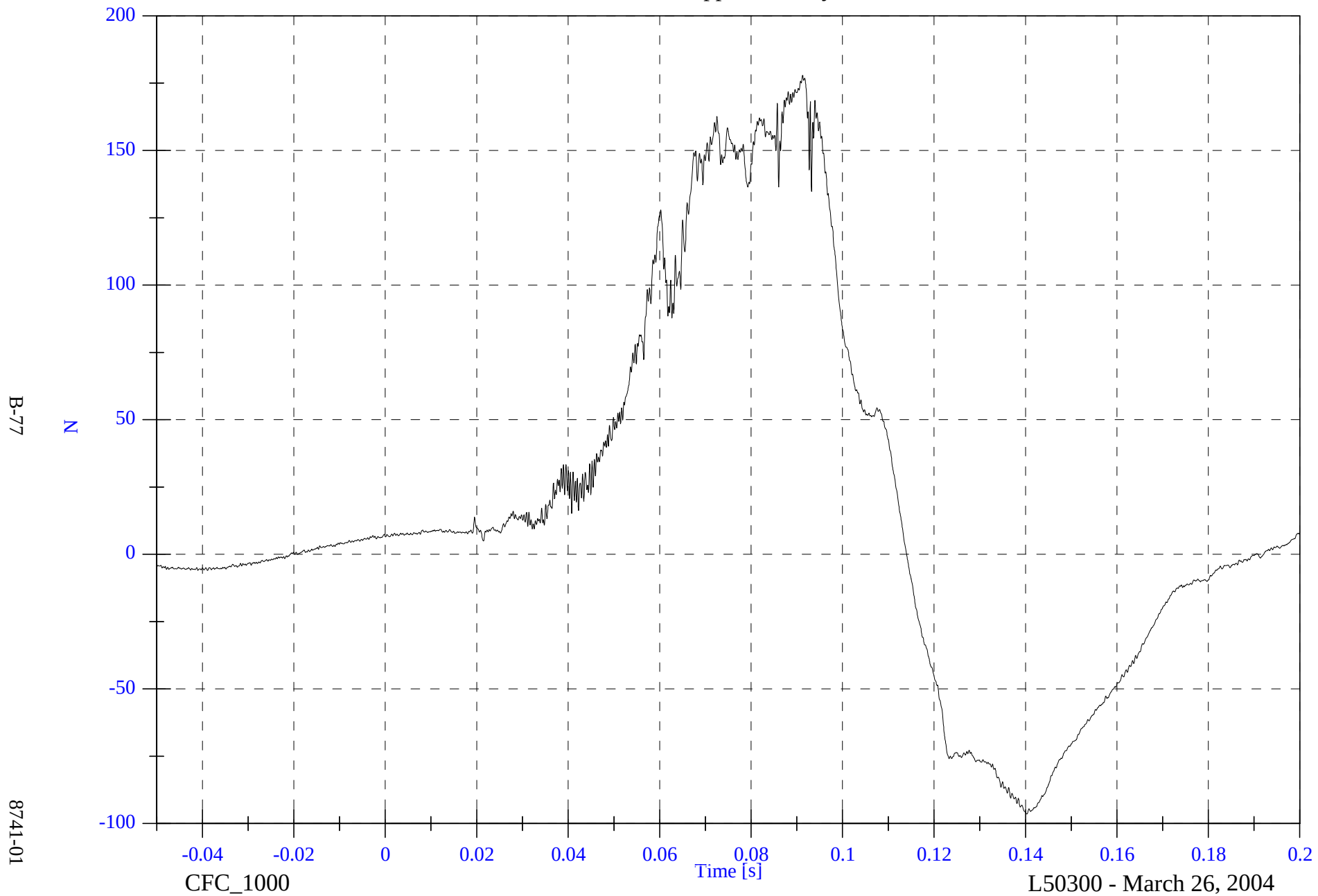


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Upper Neck Fy

Max: 177.9 [N] at 0.091 [s]

Min: -96.4 [N] at 0.140 [s]



Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Upper Neck Fz

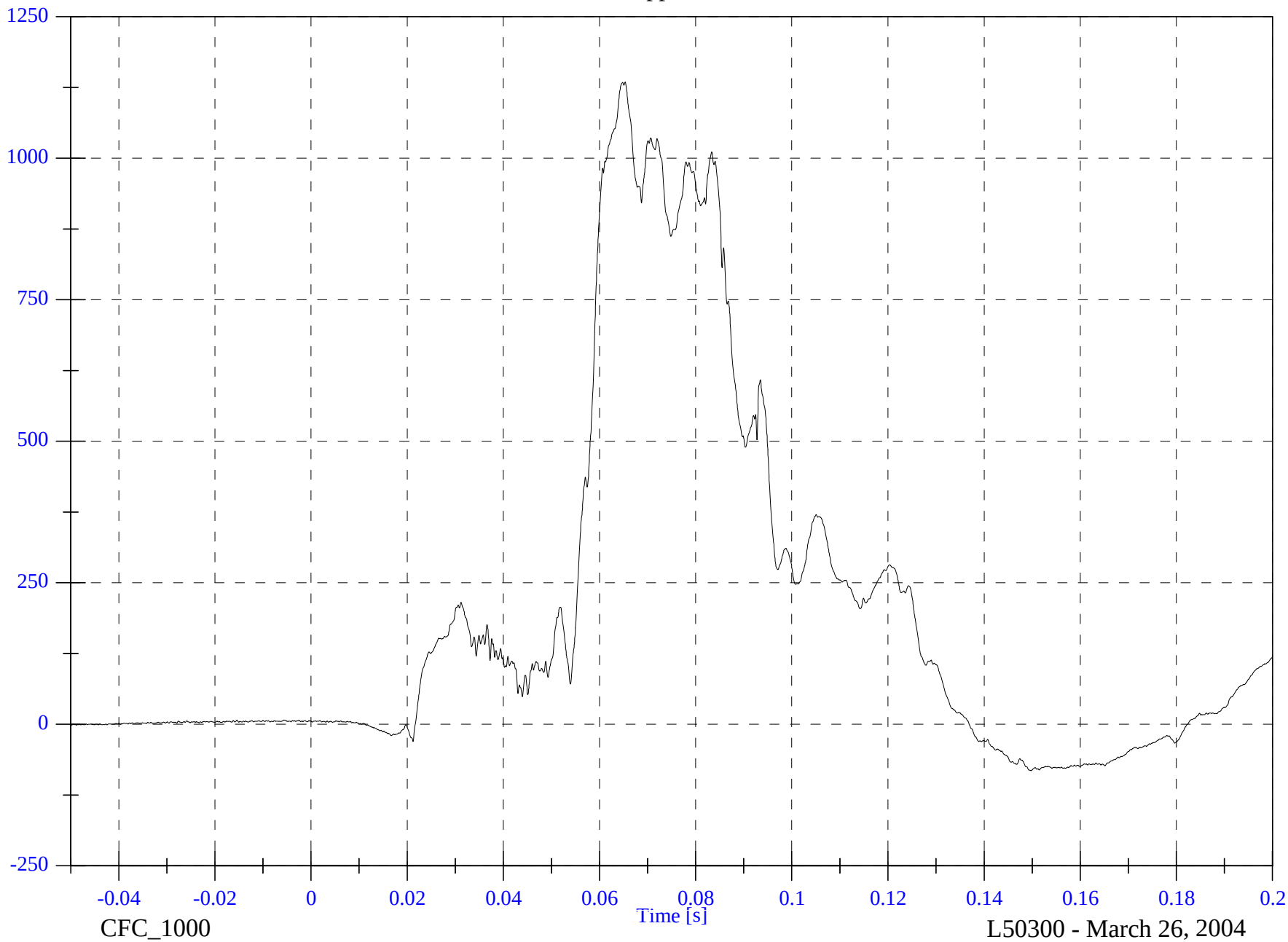
Max: 1134.8 [N] at 0.065 [s]

Min: -81.8 [N] at 0.150 [s]

B-78

N

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Upper Neck F Resultant

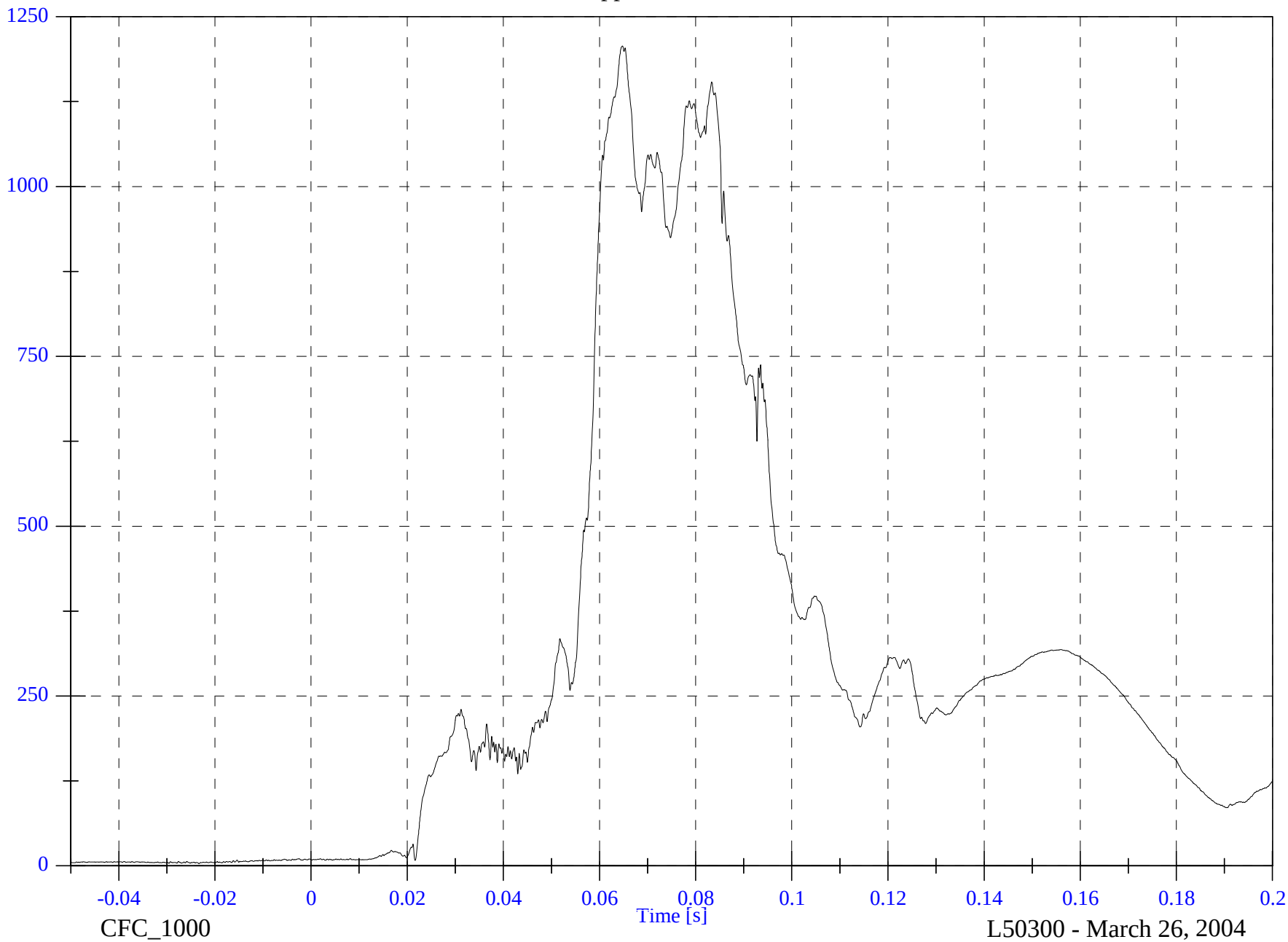
Max: 1206.9 [N] at 0.065 [s]

Min: 3.1 [N] at -0.023 [s]

B-79

N

8741-01

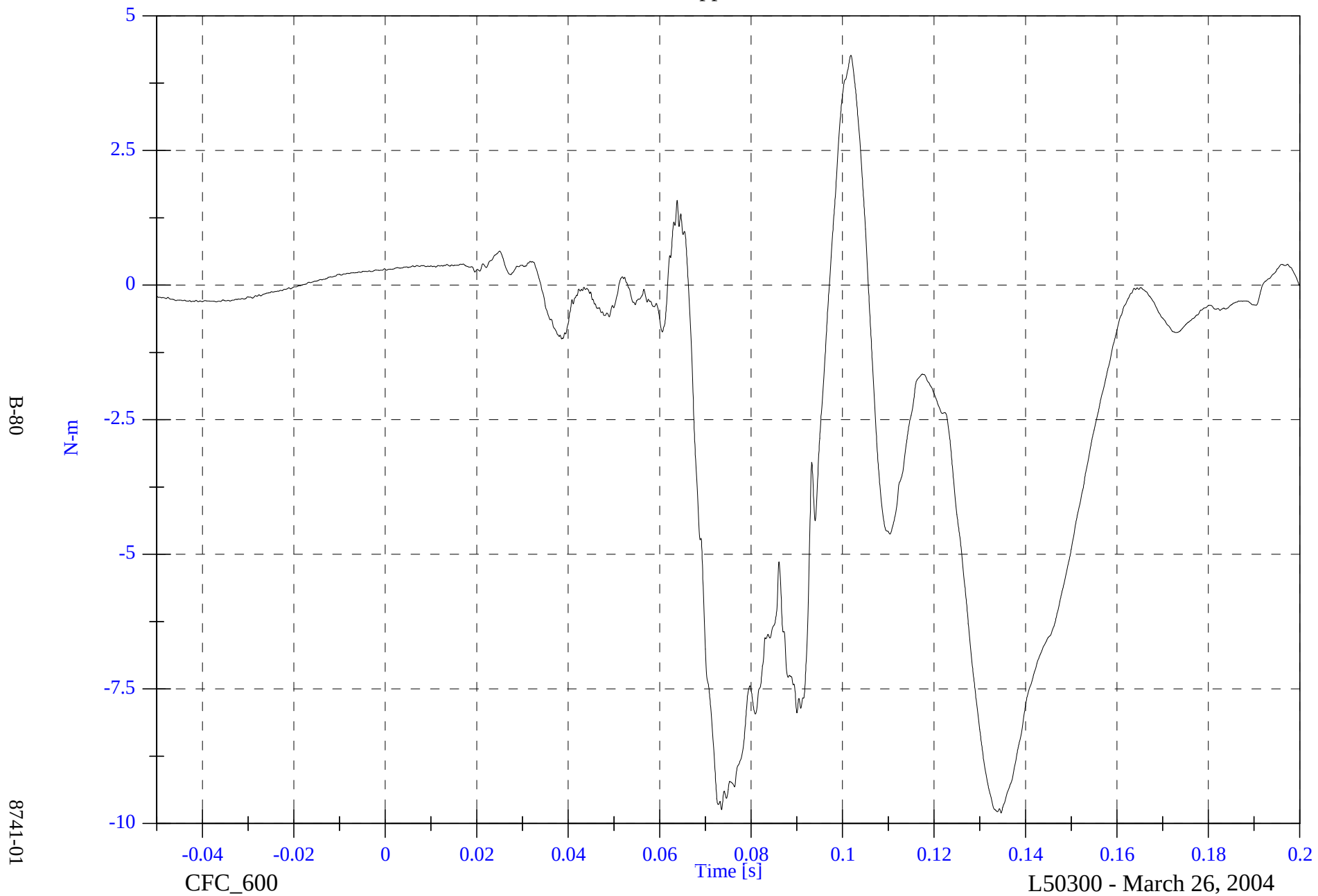


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Upper Neck Mx

Max: 4.3 [N-m] at 0.102 [s]

Min: -9.8 [N-m] at 0.135 [s]



Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Upper Neck My

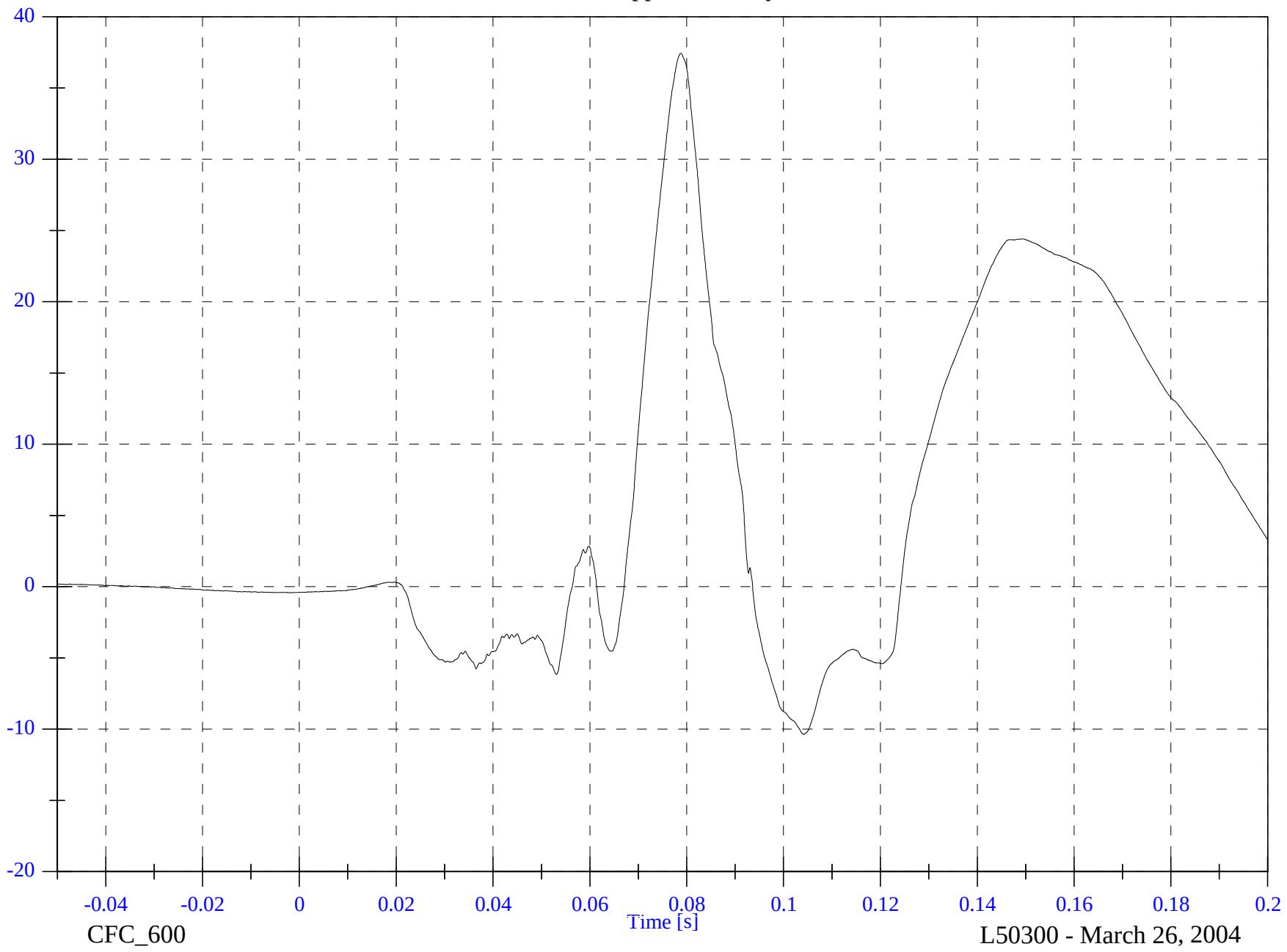
Max: 37.4 [N-m] at 0.079 [s]

Min: -10.4 [N-m] at 0.104 [s]

B-81

N-m

8741-01



CFC_600

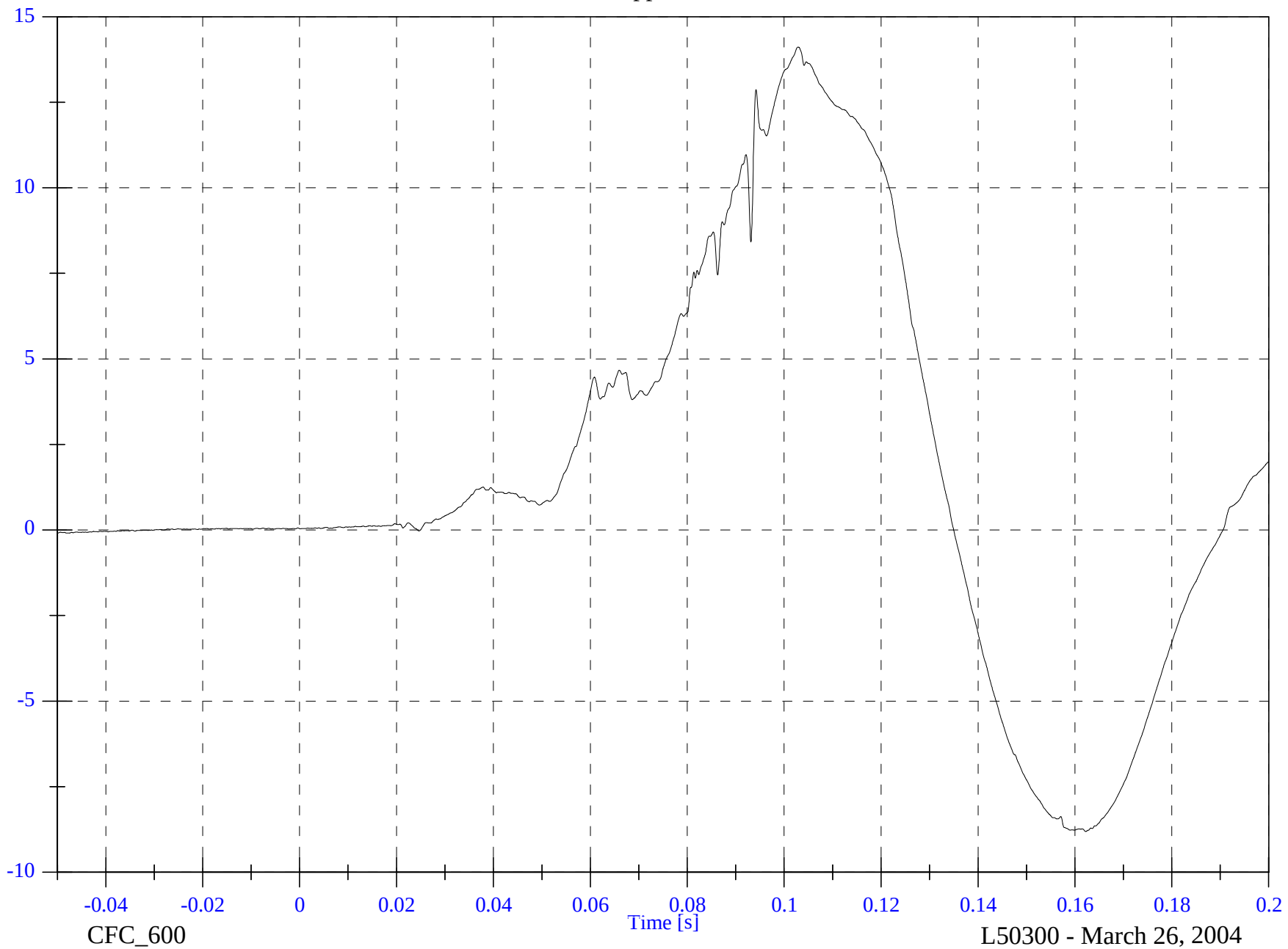
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Upper Neck Mz

Max: 14.1 [N-m] at 0.103 [s]

Min: -8.8 [N-m] at 0.162 [s]



B-82

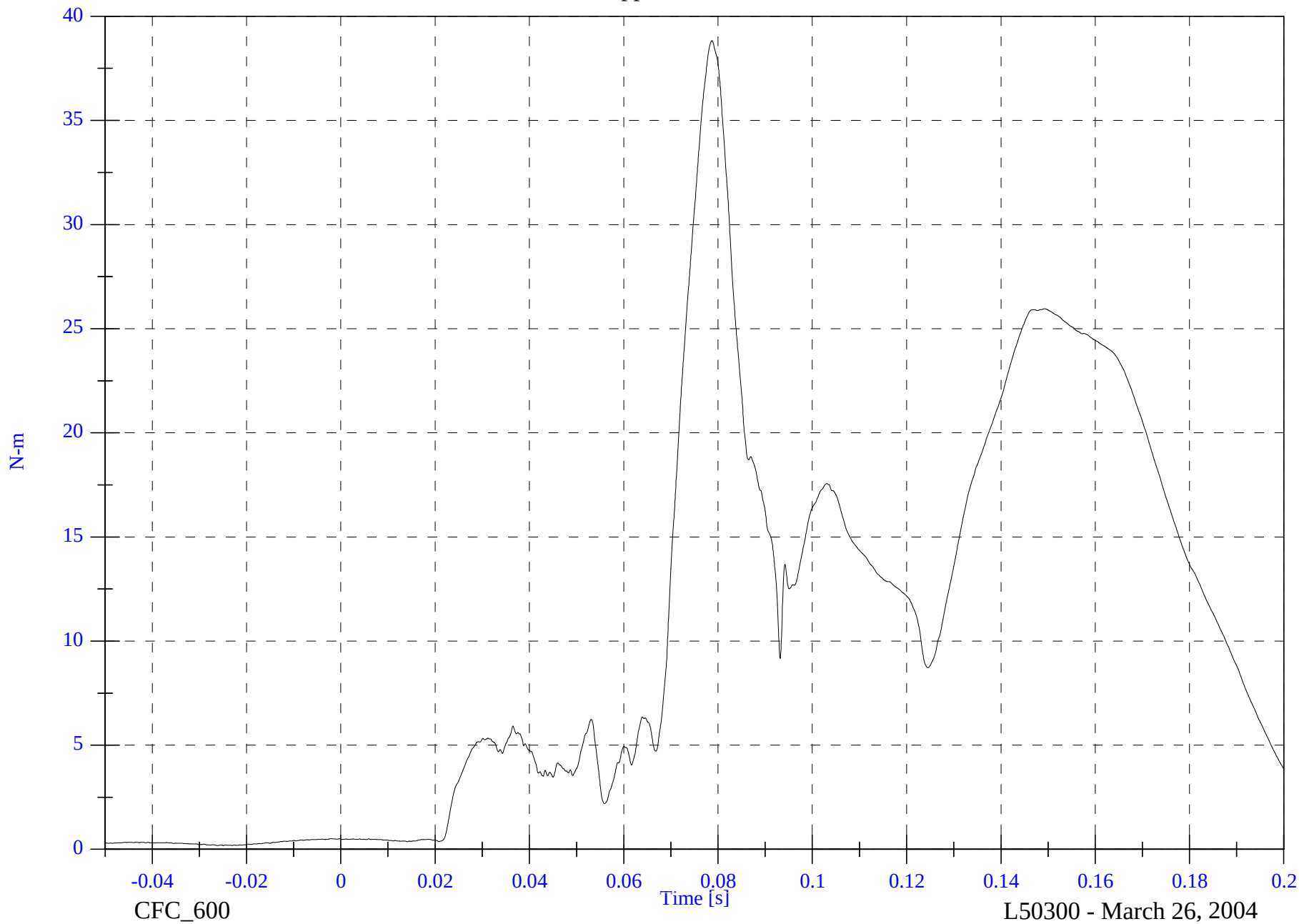
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Upper Neck M Resultant

Max: 38.8 [N-m] at 0.079 [s]

Min: 0.2 [N-m] at -0.025 [s]



B-83

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

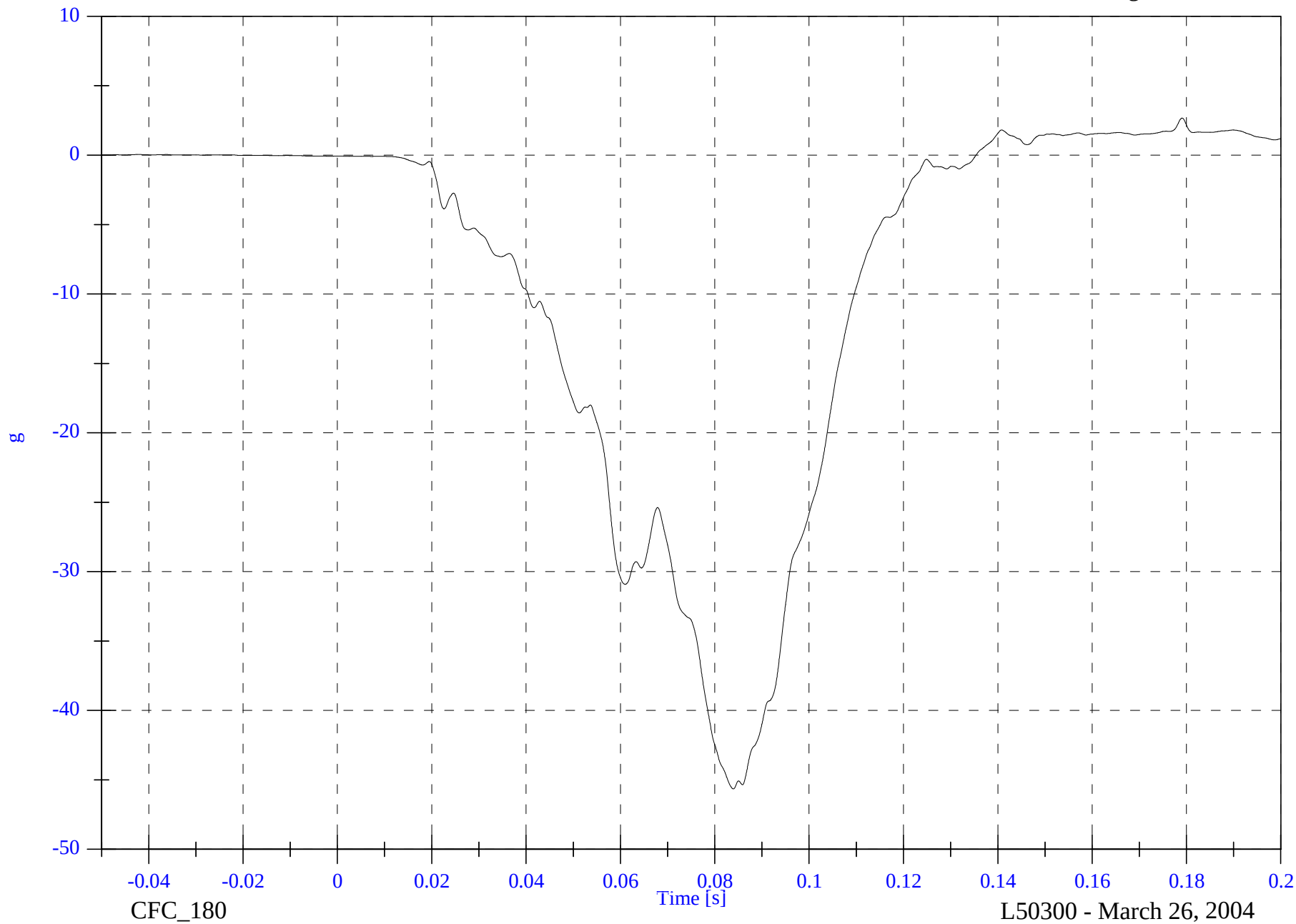
V1P2 Chest x

Max: 2.7 [g] at 0.179 [s]

Min: -45.7 [g] at 0.084 [s]

B-84

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

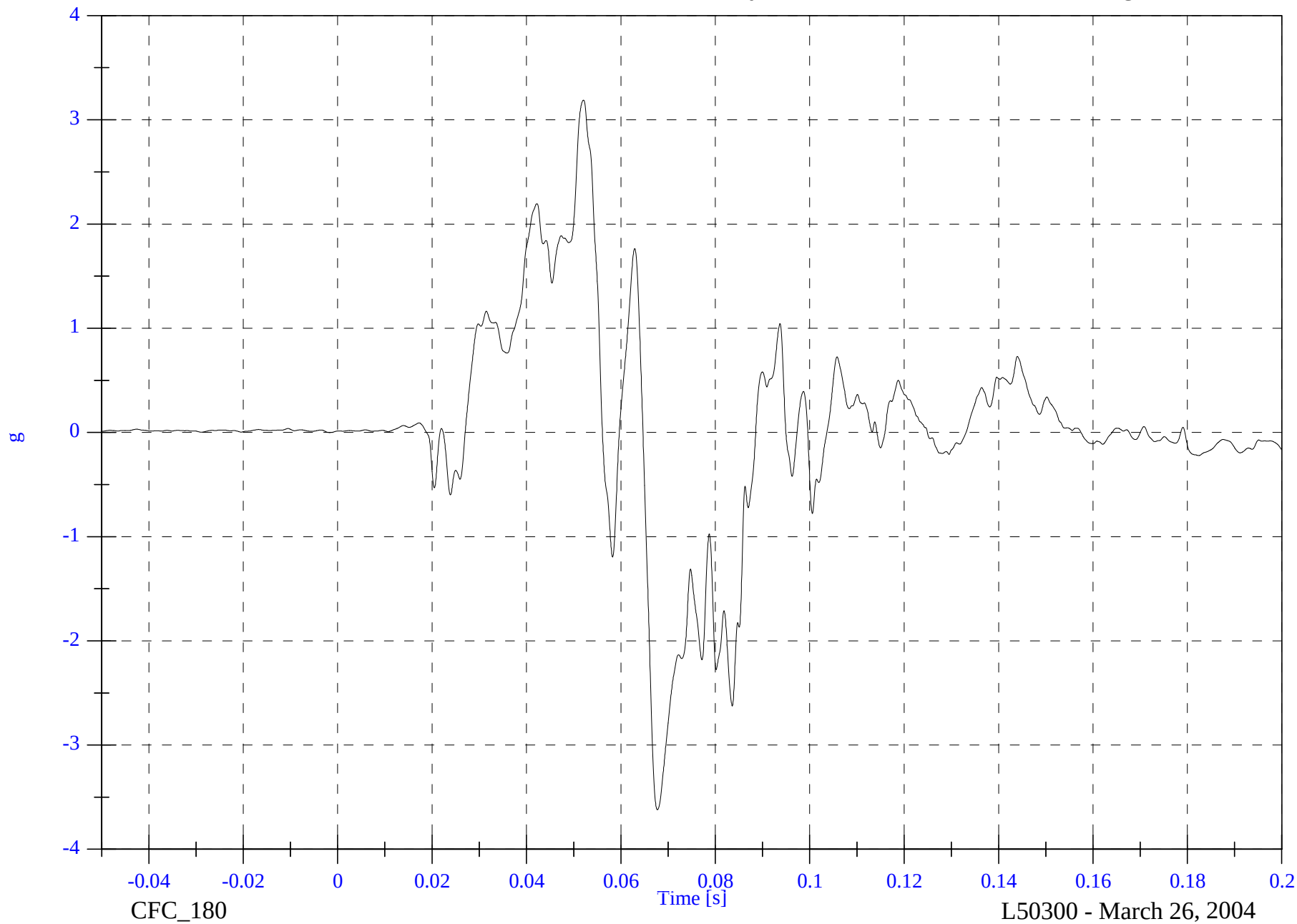
V1P2 Chest y

Max: 3.2 [g] at 0.052 [s]

Min: -3.6 [g] at 0.068 [s]

B-85

8741-01

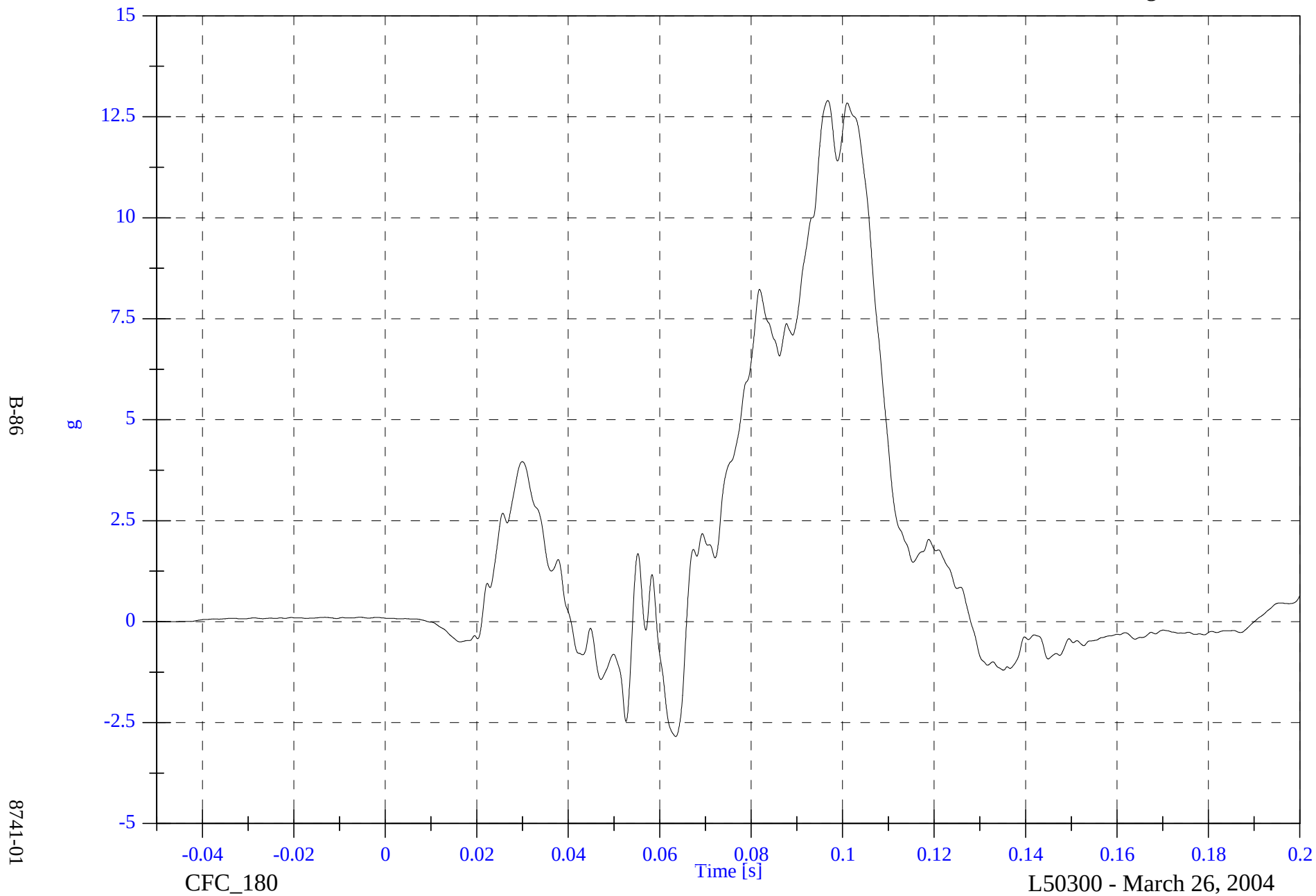


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Chest z

Max: 12.9 [g] at 0.097 [s]

Min: -2.8 [g] at 0.063 [s]



Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Chest Resultant

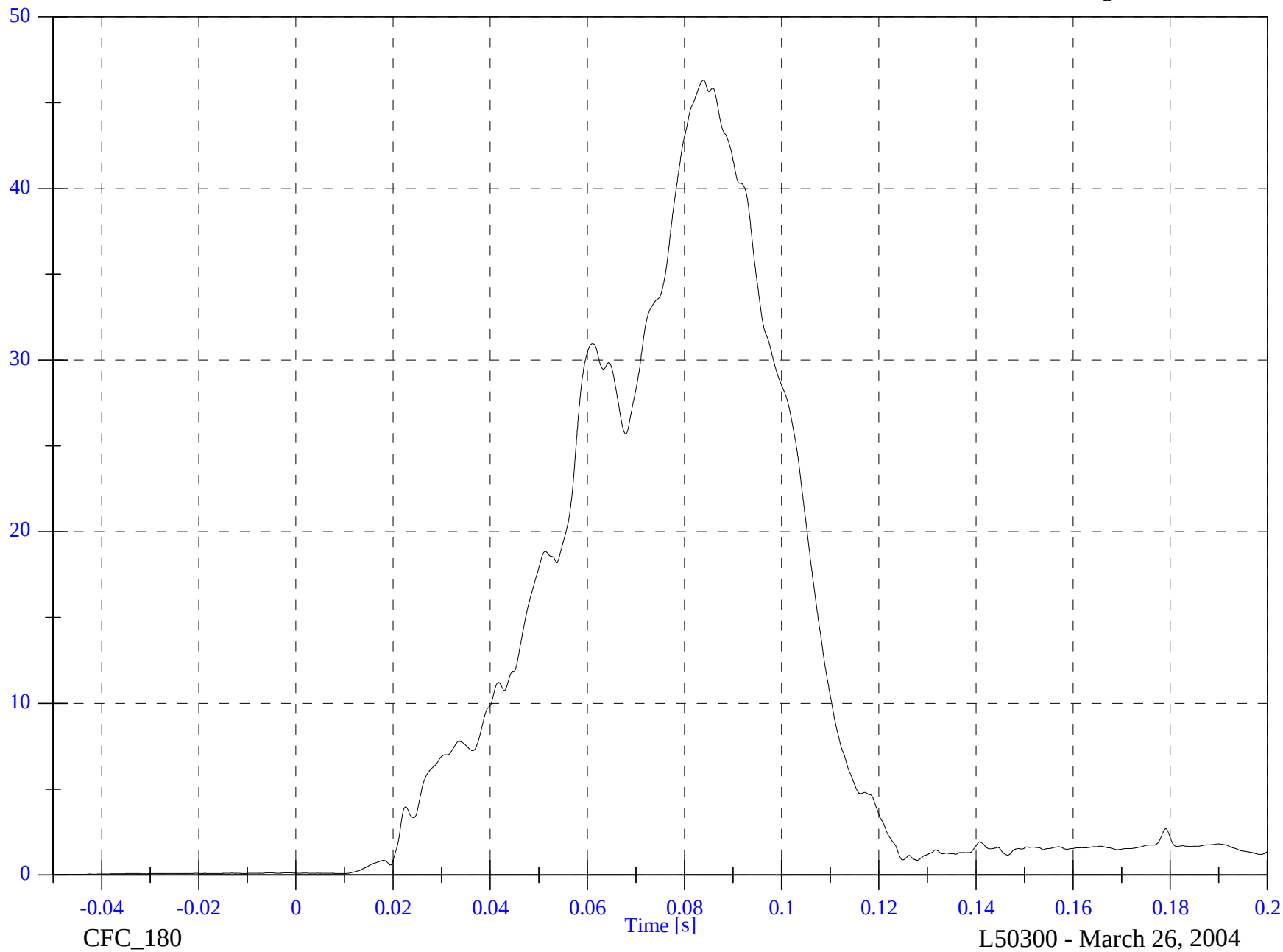
Max: 46.3 [g] at 0.084 [s]

Min: 0.0 [g] at -0.050 [s]

B-87

8741-01

g

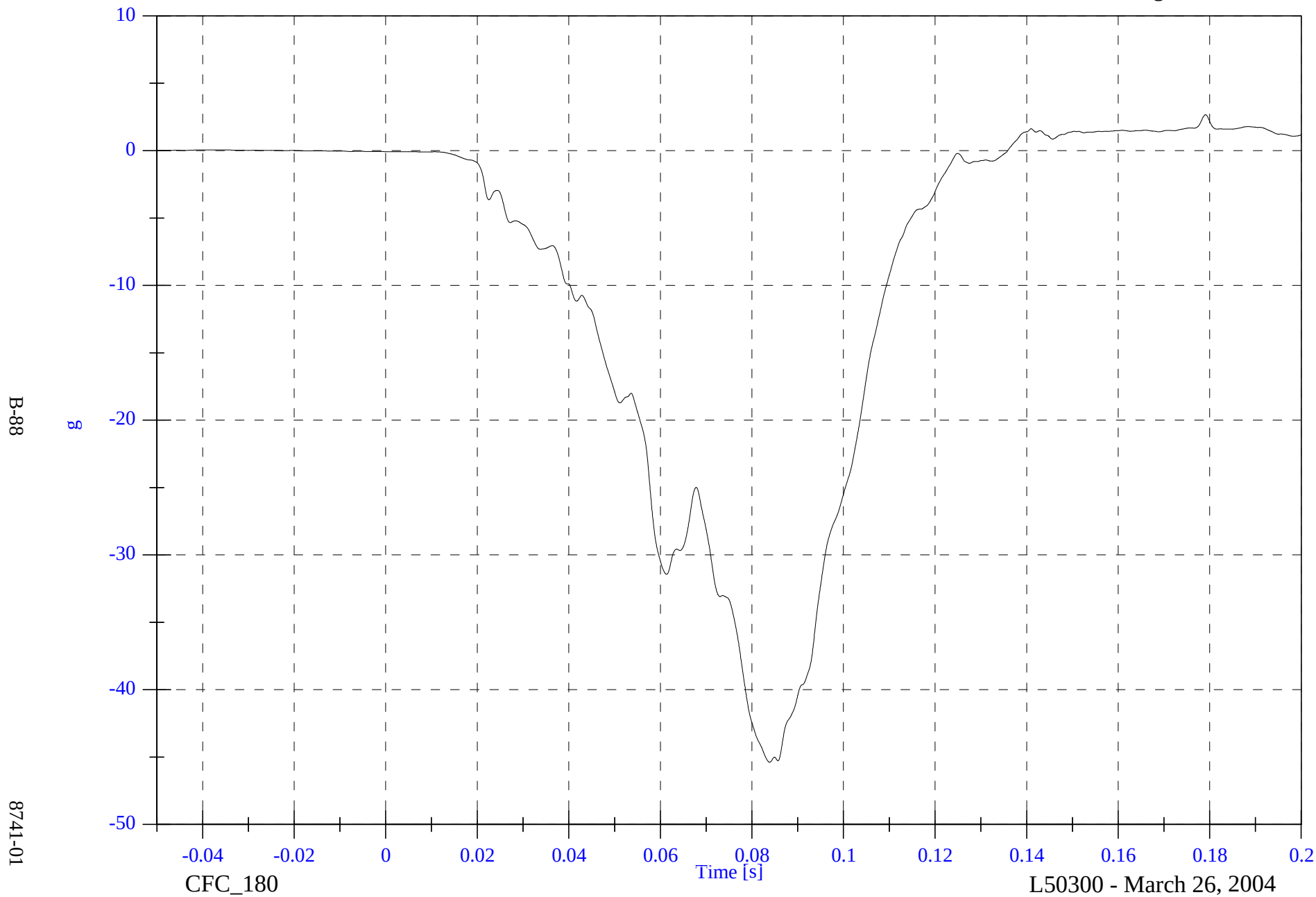


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Chest Red x

Max: 2.7 [g] at 0.179 [s]

Min: -45.4 [g] at 0.084 [s]



Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Chest Red y

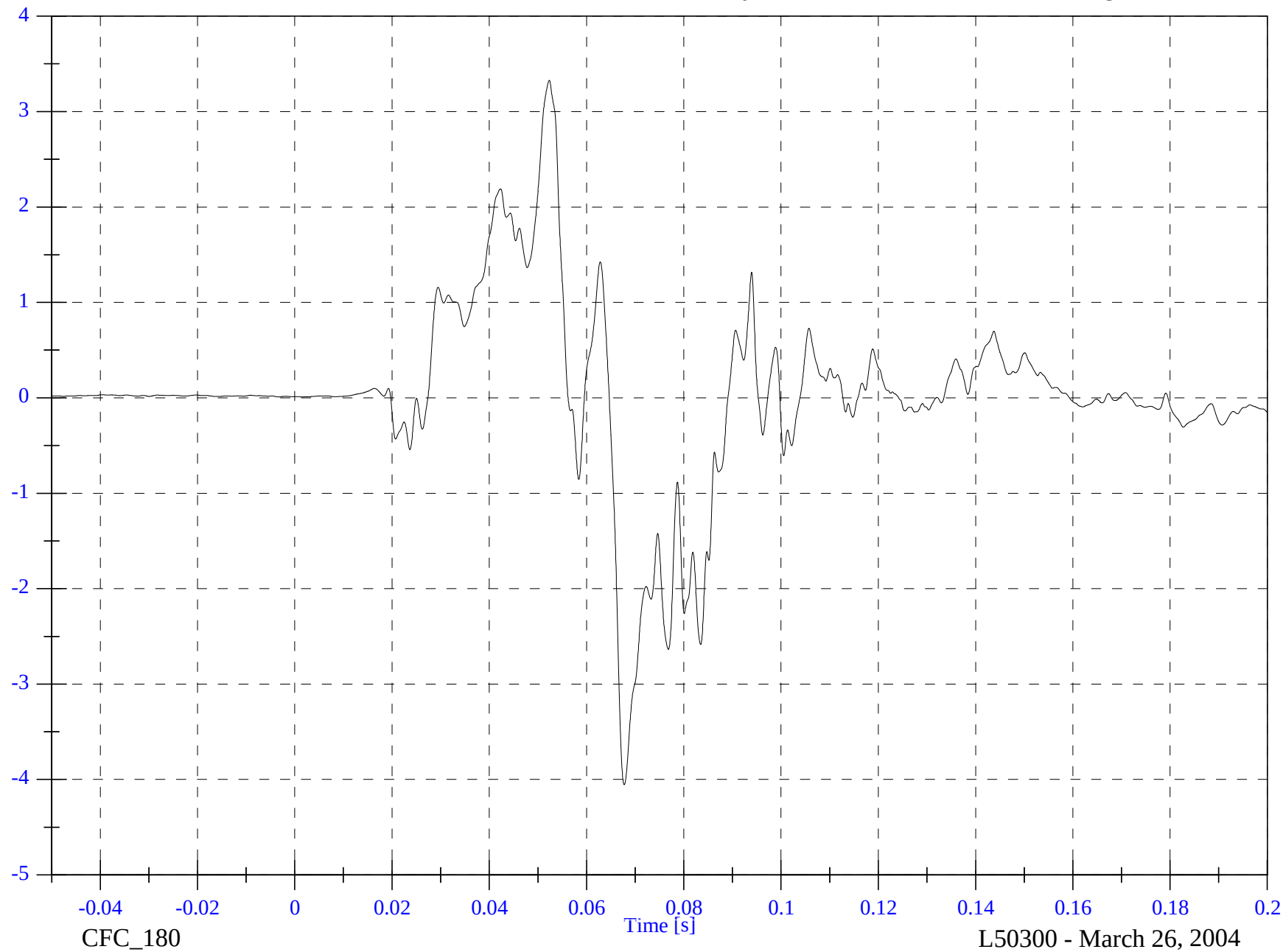
Max: 3.3 [g] at 0.052 [s]

Min: -4.1 [g] at 0.068 [s]

B-89

8741-01

g

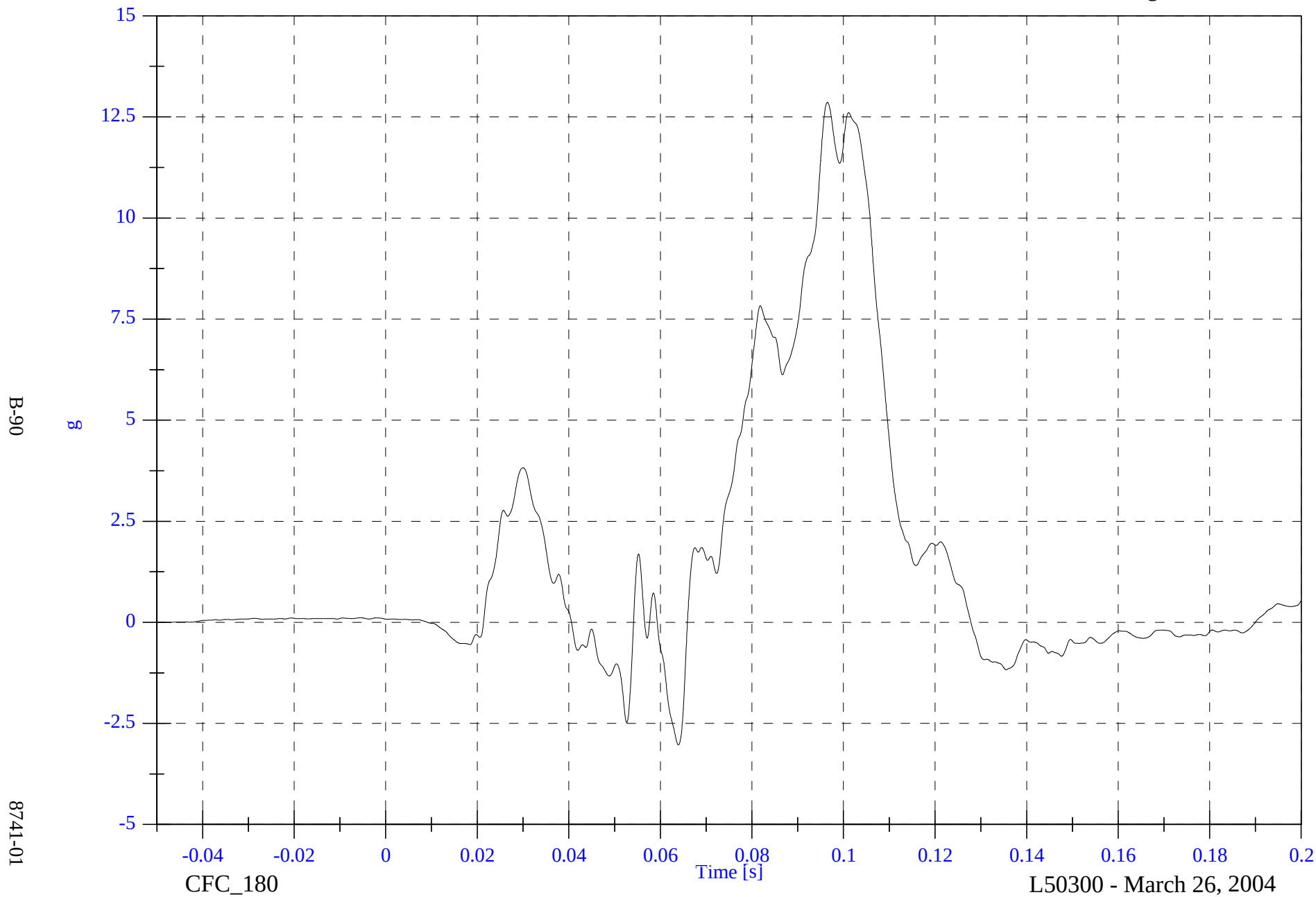


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Chest Red z

Max: 12.9 [g] at 0.096 [s]

Min: -3.0 [g] at 0.064 [s]



Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Chest Red Resultant

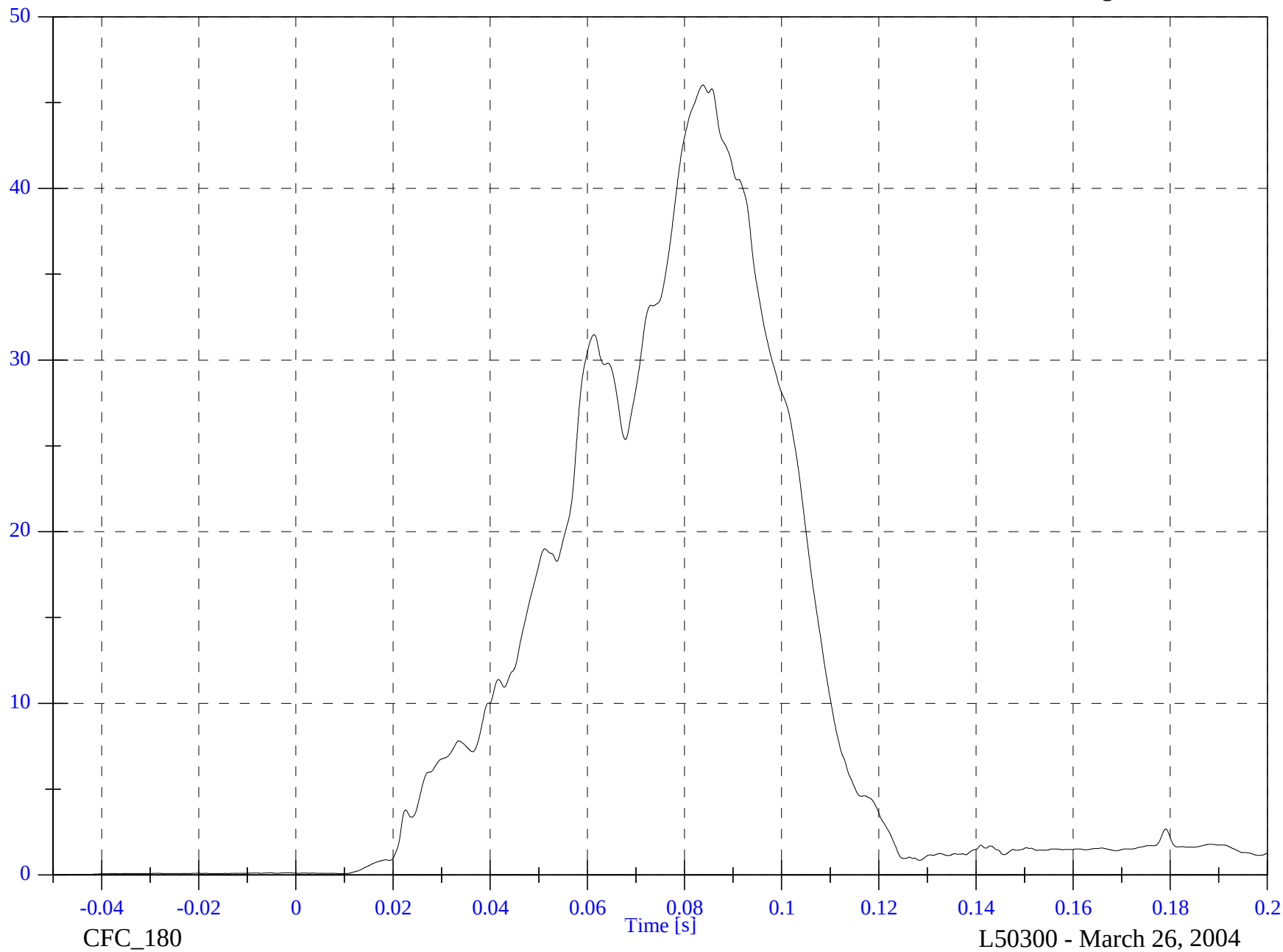
Max: 46.0 [g] at 0.084 [s]

Min: 0.0 [g] at -0.047 [s]

B-91

8741-01

g



Frontal NCAP- 2005 Chrysler Town & Country

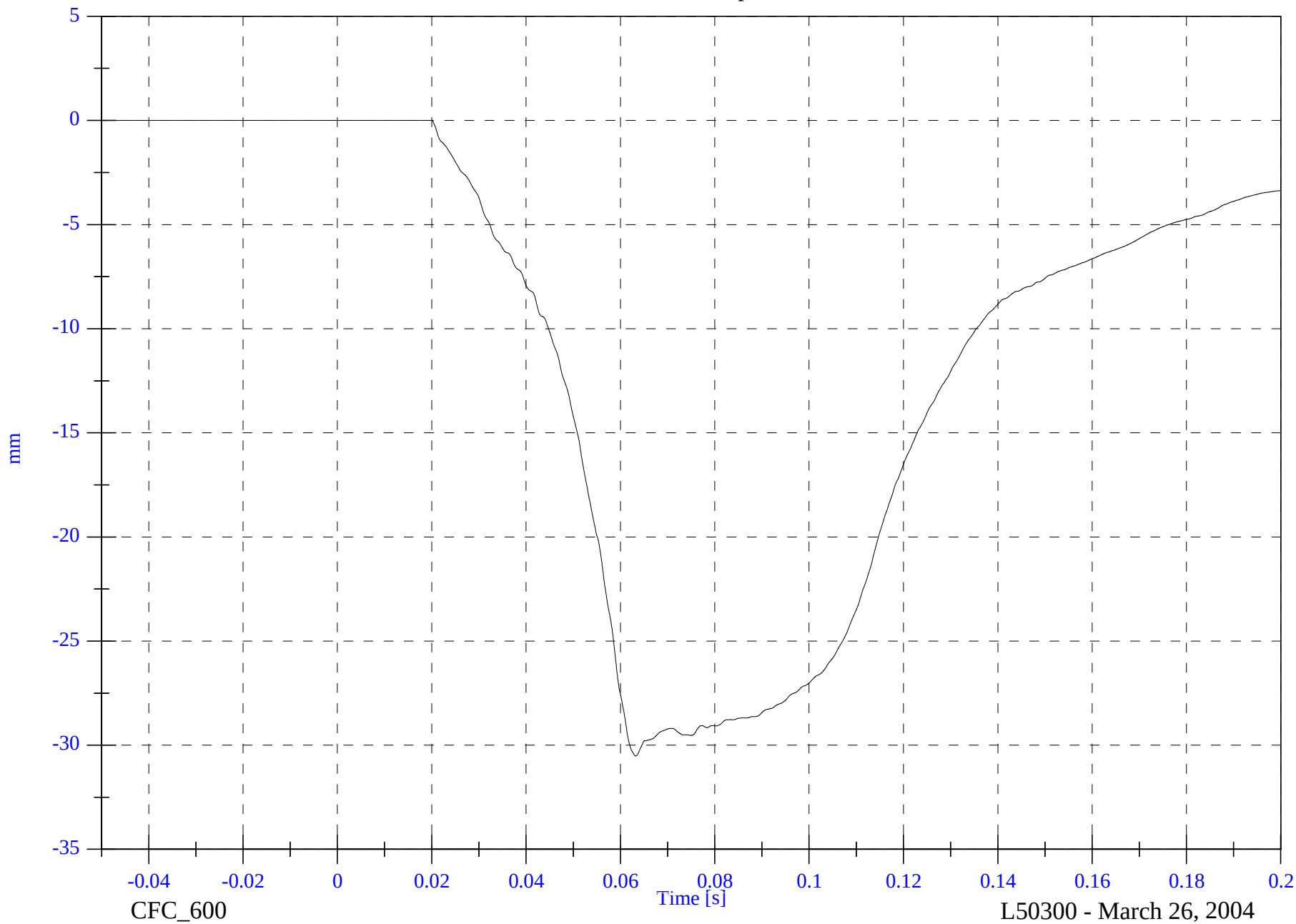
V1P2 Chest Compression

Max: 0.0 [mm] at 0.020 [s]

Min: -30.5 [mm] at 0.063 [s]

B-92

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

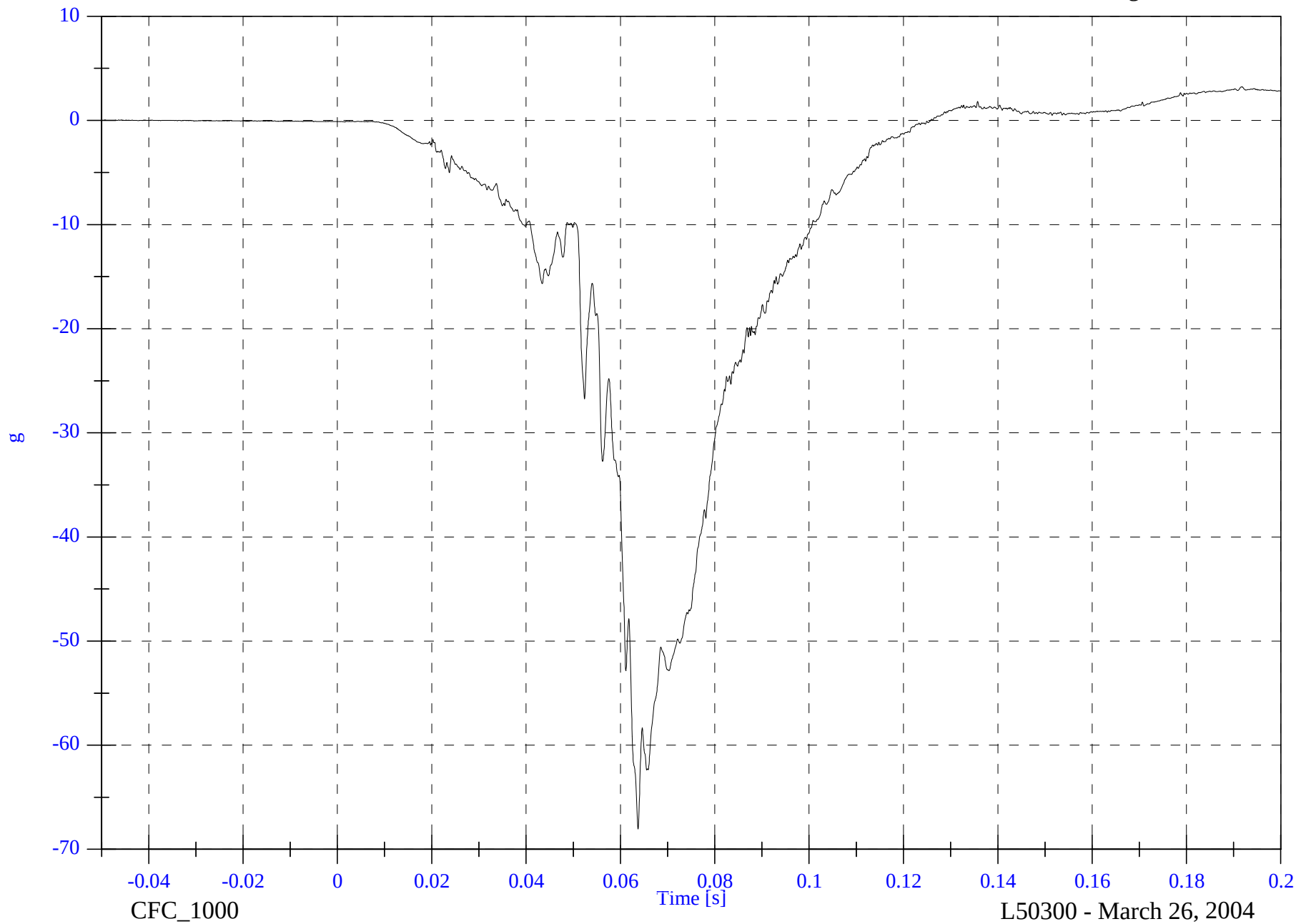
V1P2 Pelvic x

Max: 3.2 [g] at 0.192 [s]

Min: -68.1 [g] at 0.064 [s]

B-93

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

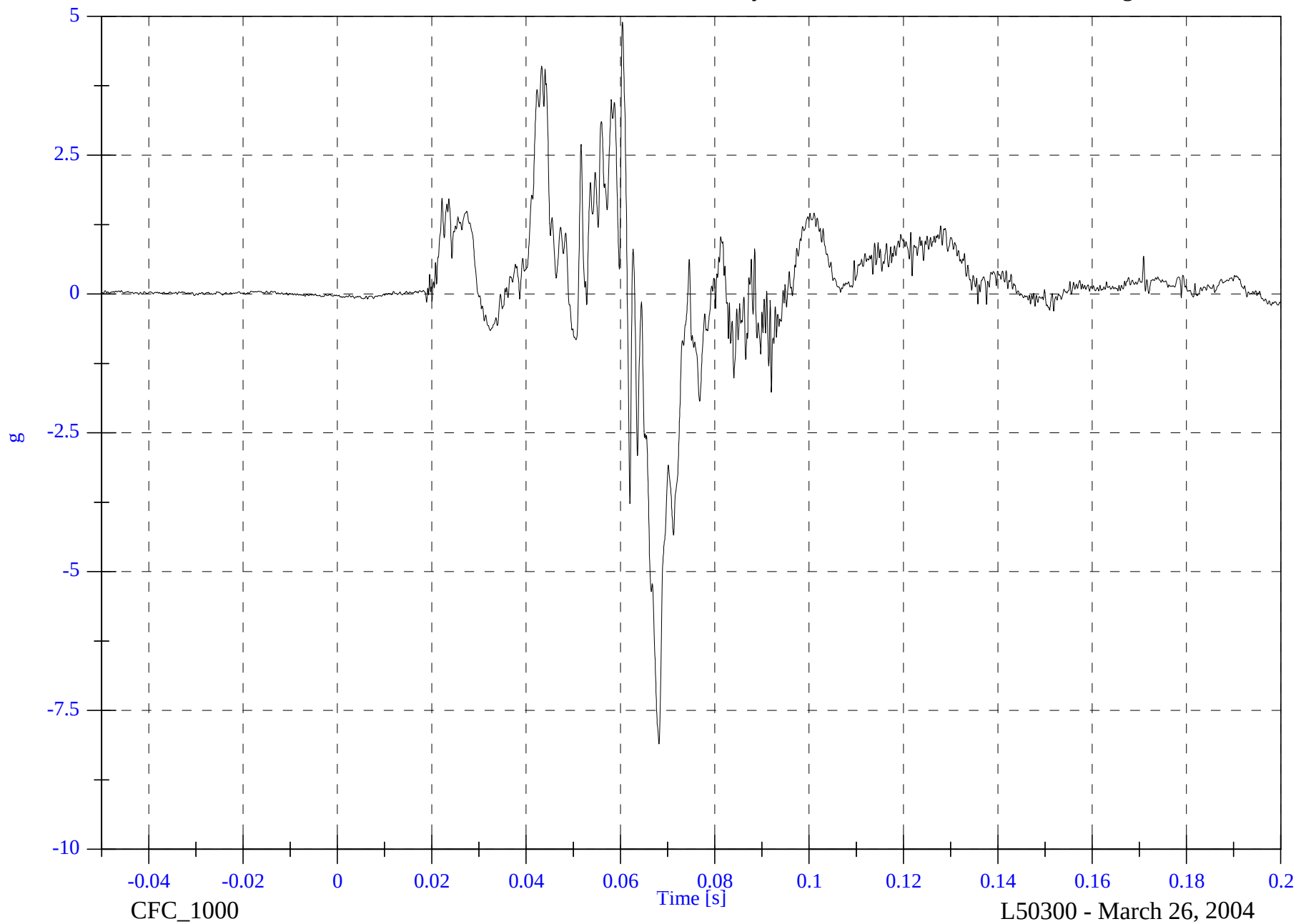
V1P2 Pelvic y

Max: 4.9 [g] at 0.060 [s]

Min: -8.1 [g] at 0.068 [s]

B-94

8741-01

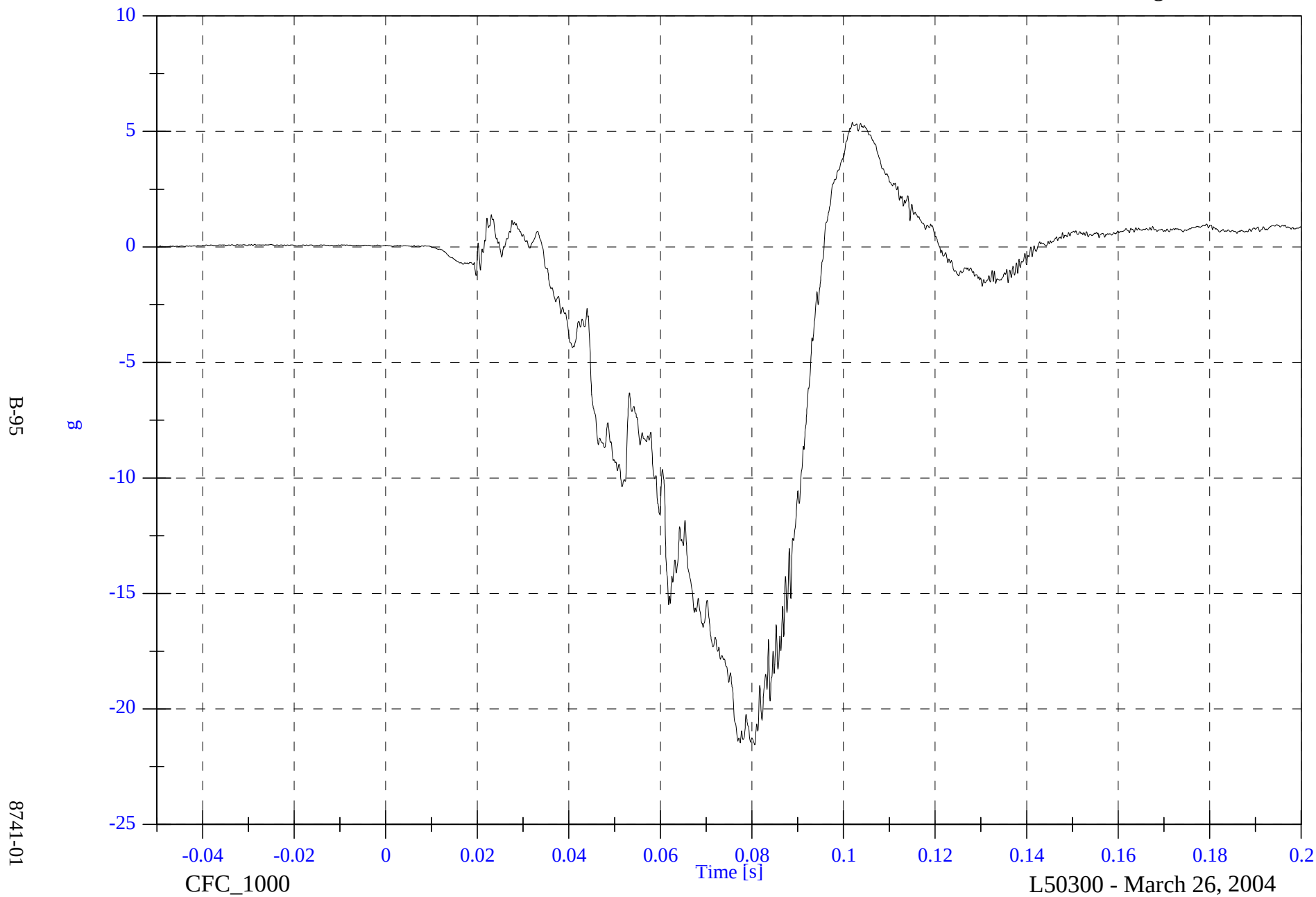


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Pelvic z

Max: 5.4 [g] at 0.102 [s]

Min: -21.6 [g] at 0.081 [s]



Frontal NCAP- 2005 Chrysler Town & Country

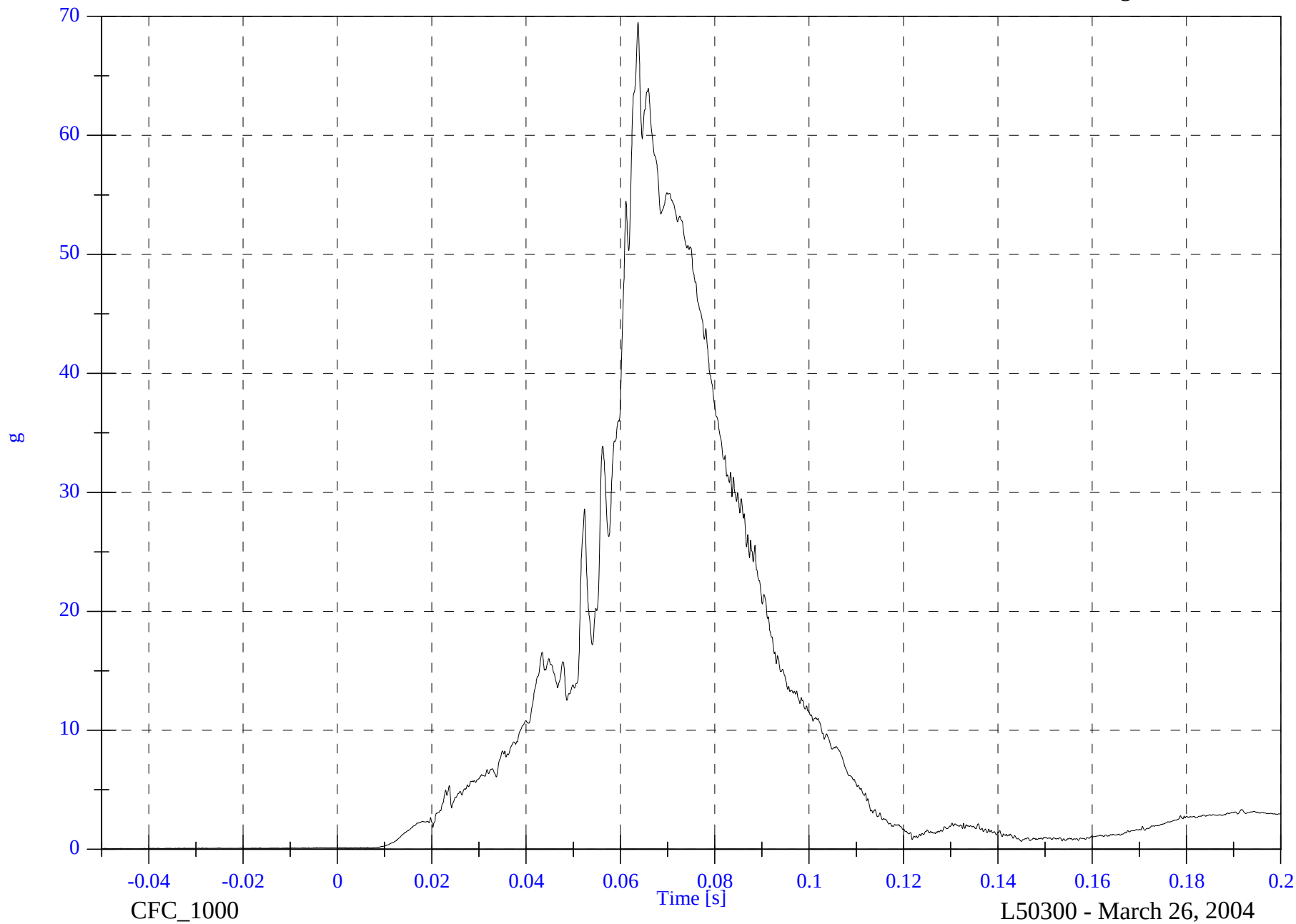
V1P2 Pelvic Resultant

Max: 69.5 [g] at 0.064 [s]

Min: 0.0 [g] at -0.048 [s]

B-96

8741-01

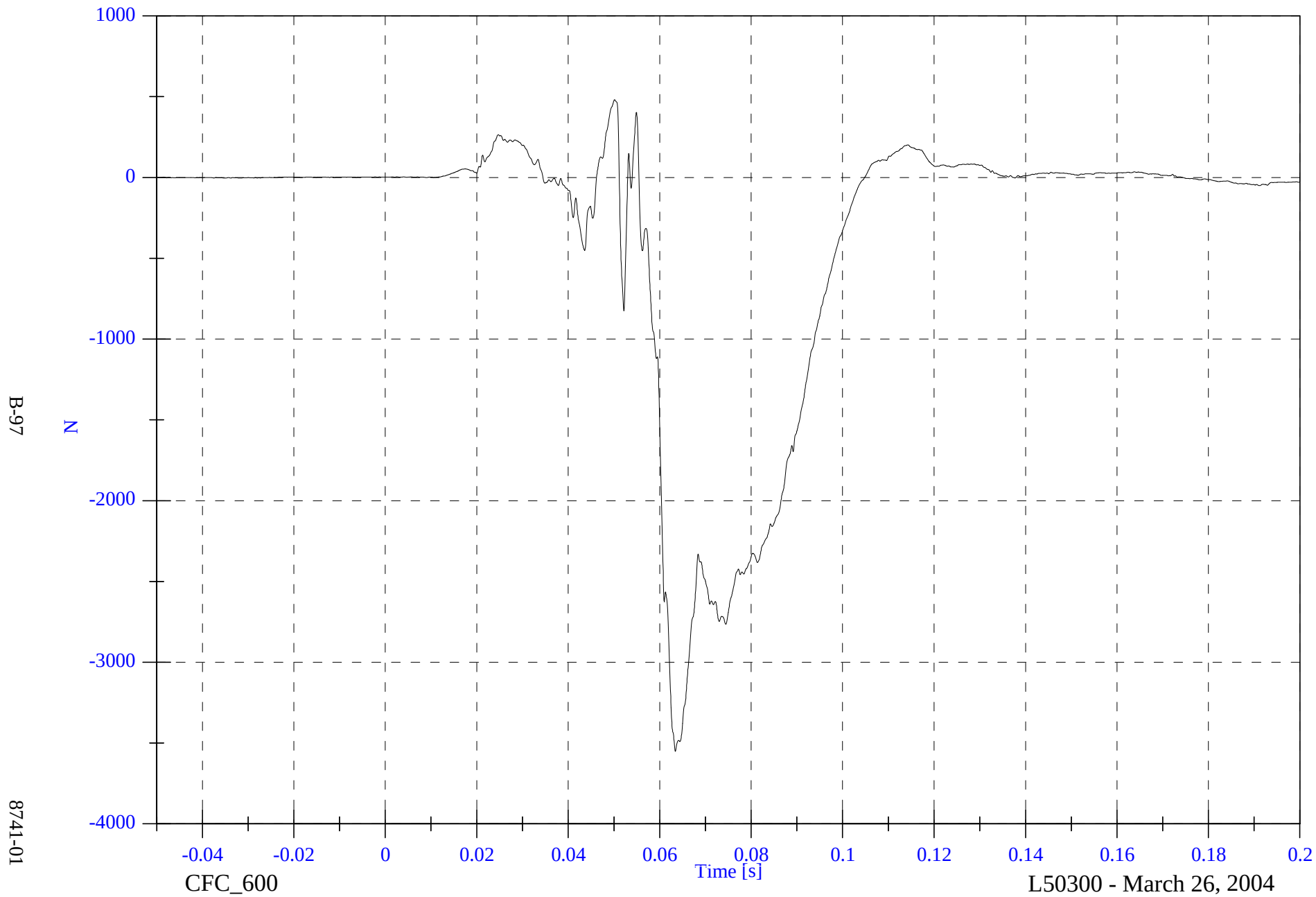


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Left Femur

Max: 481.2 [N] at 0.050 [s]

Min: -3551.3 [N] at 0.063 [s]

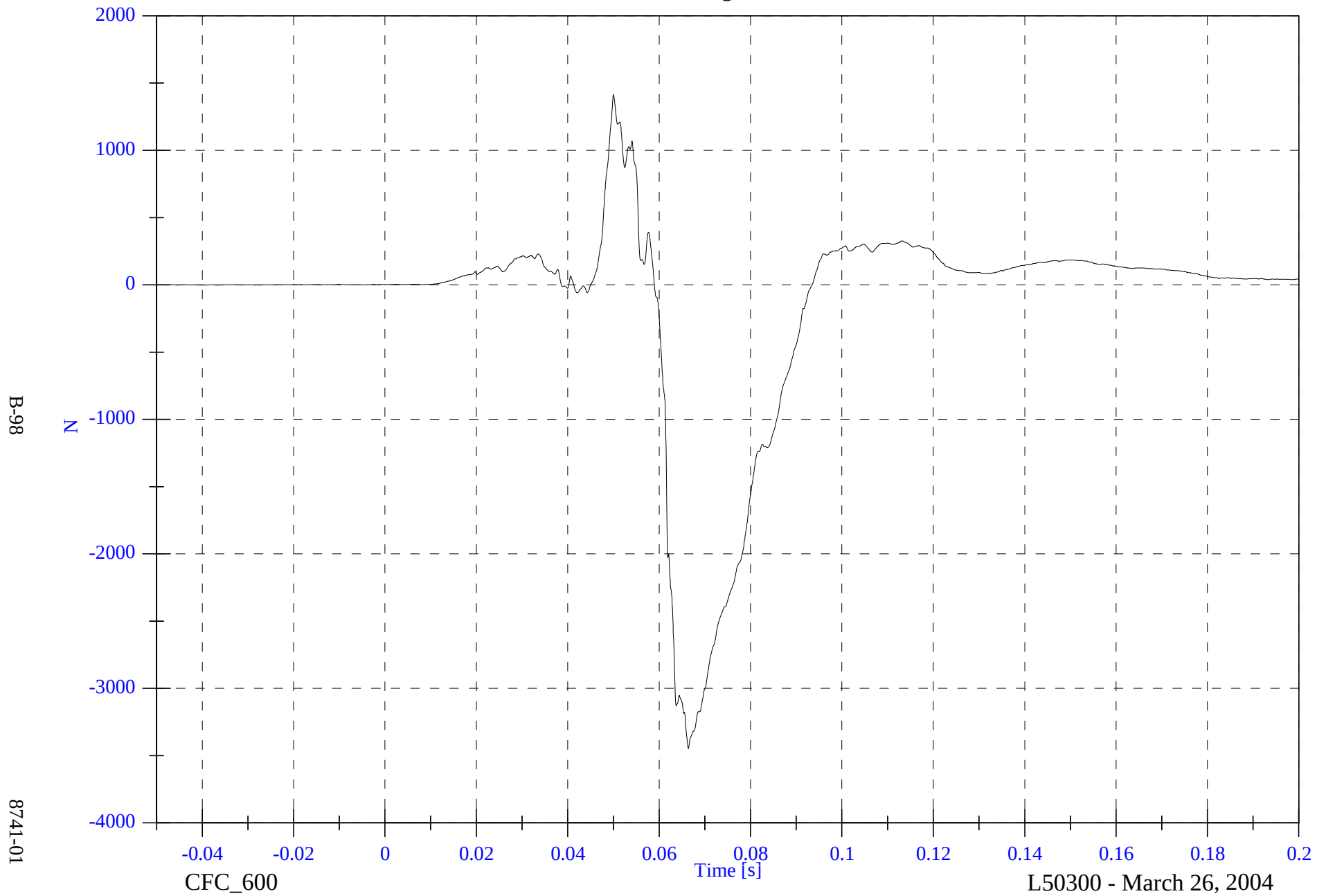


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Right Femur

Max: 1412.7 [N] at 0.050 [s]

Min: -3446.4 [N] at 0.066 [s]

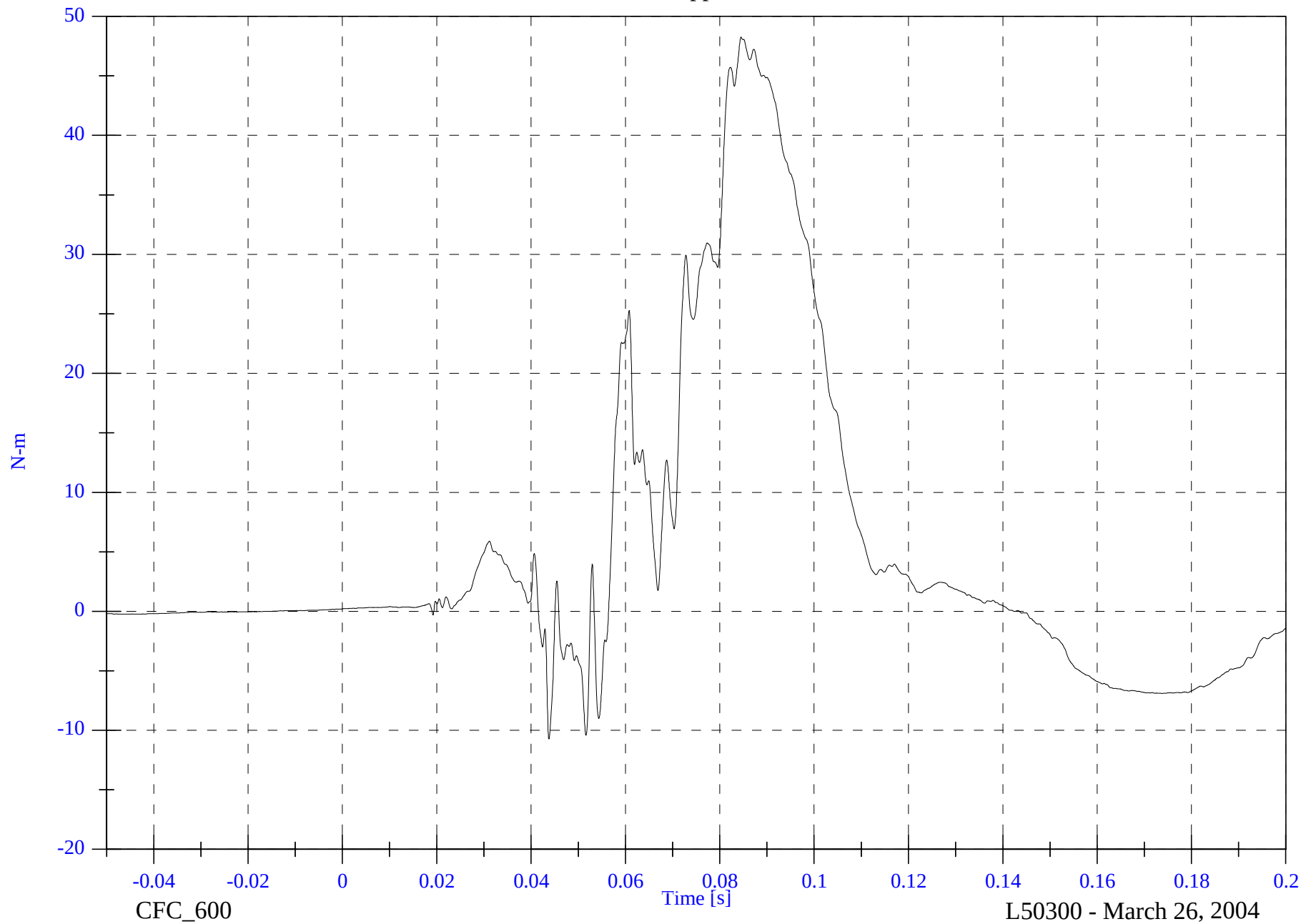


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Left Upper Tibia Mx

Max: 48.3 [N-m] at 0.084 [s]

Min: -10.7 [N-m] at 0.044 [s]



B-99

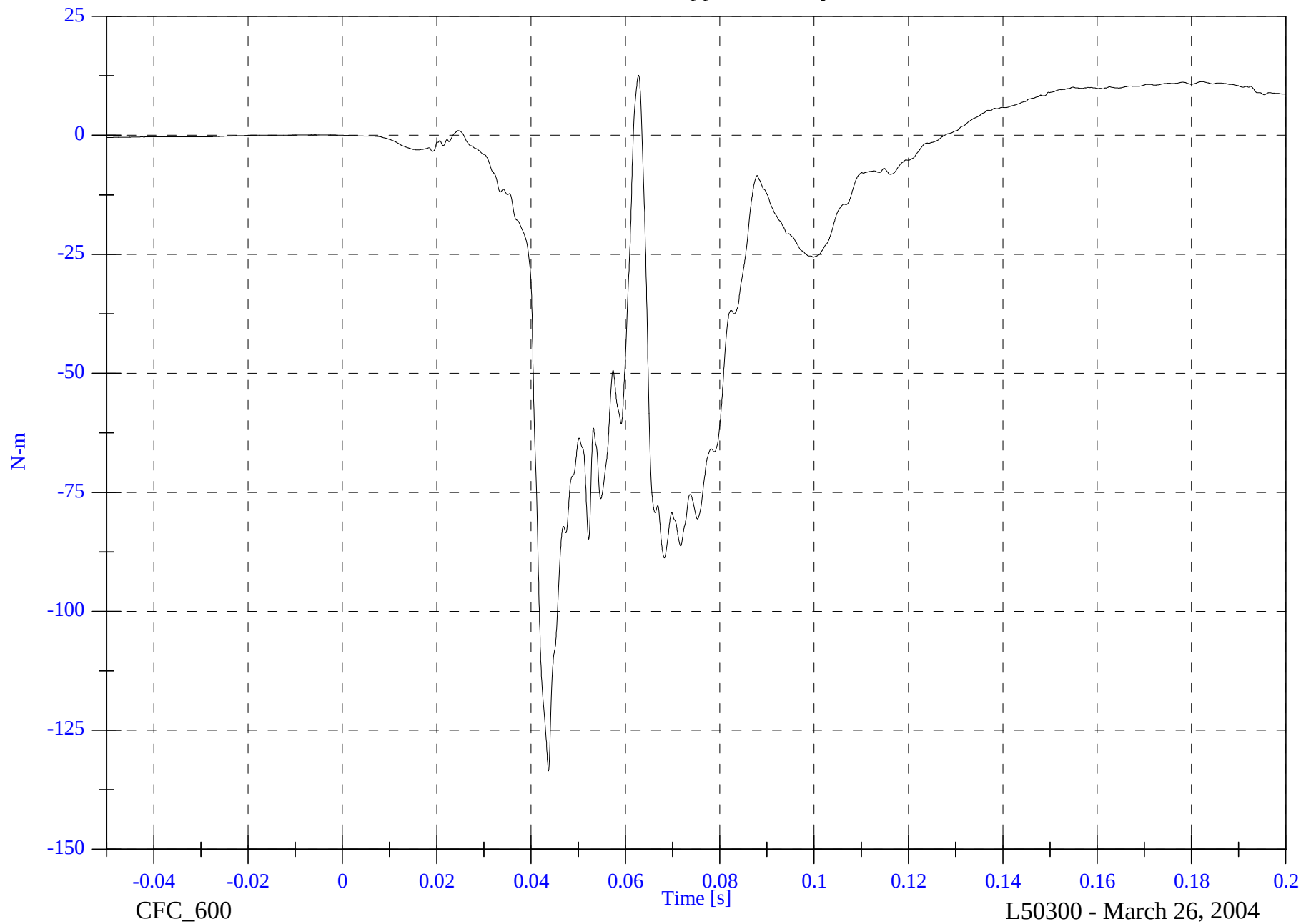
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Left Upper Tibia My

Max: 12.6 [N-m] at 0.063 [s]

Min: -133.6 [N-m] at 0.044 [s]



B-100

8741-01

CFC_600

Time [s]

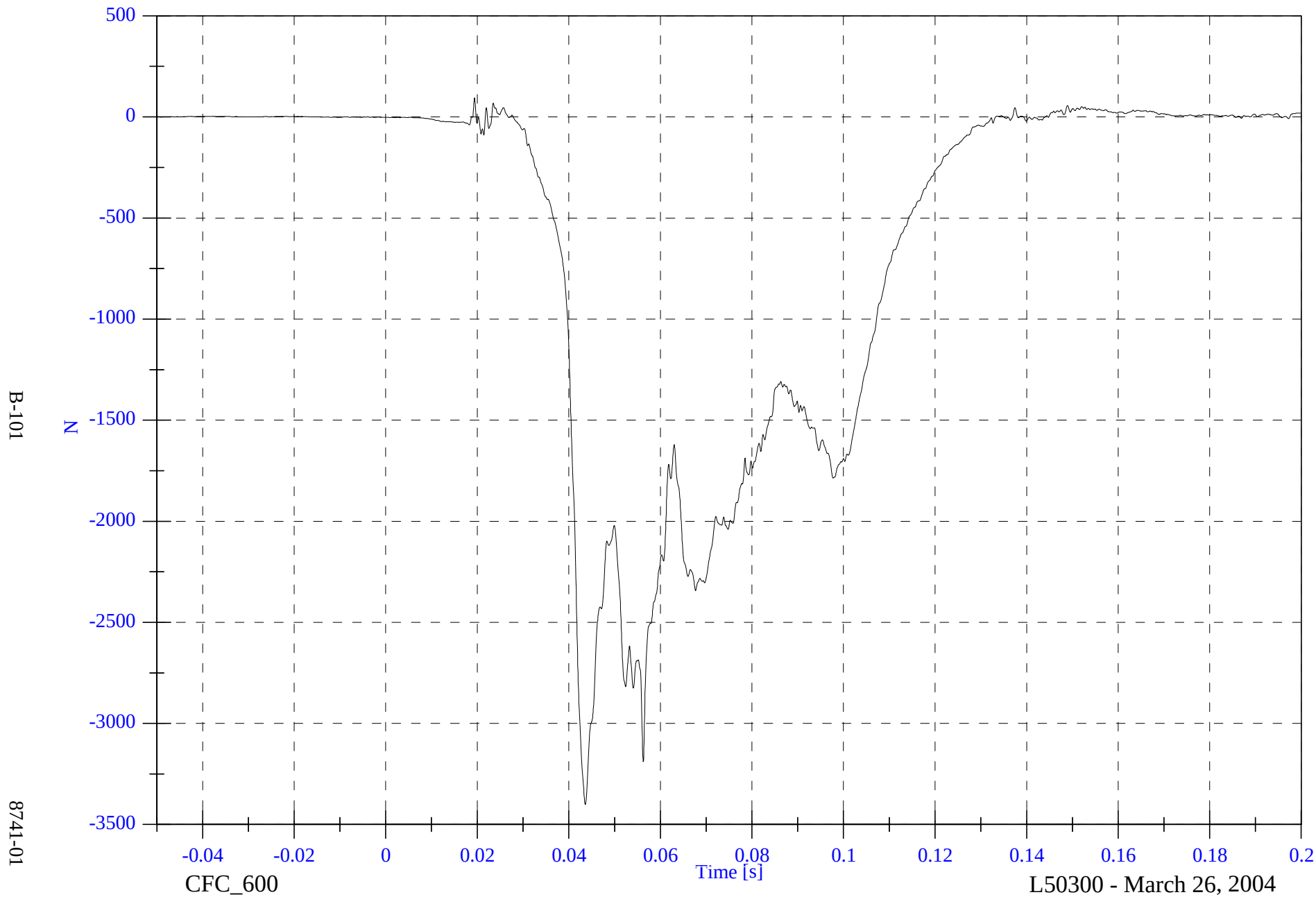
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Left Lower Tibia Fz

Max: 95.0 [N] at 0.019 [s]

Min: -3402.2 [N] at 0.044 [s]

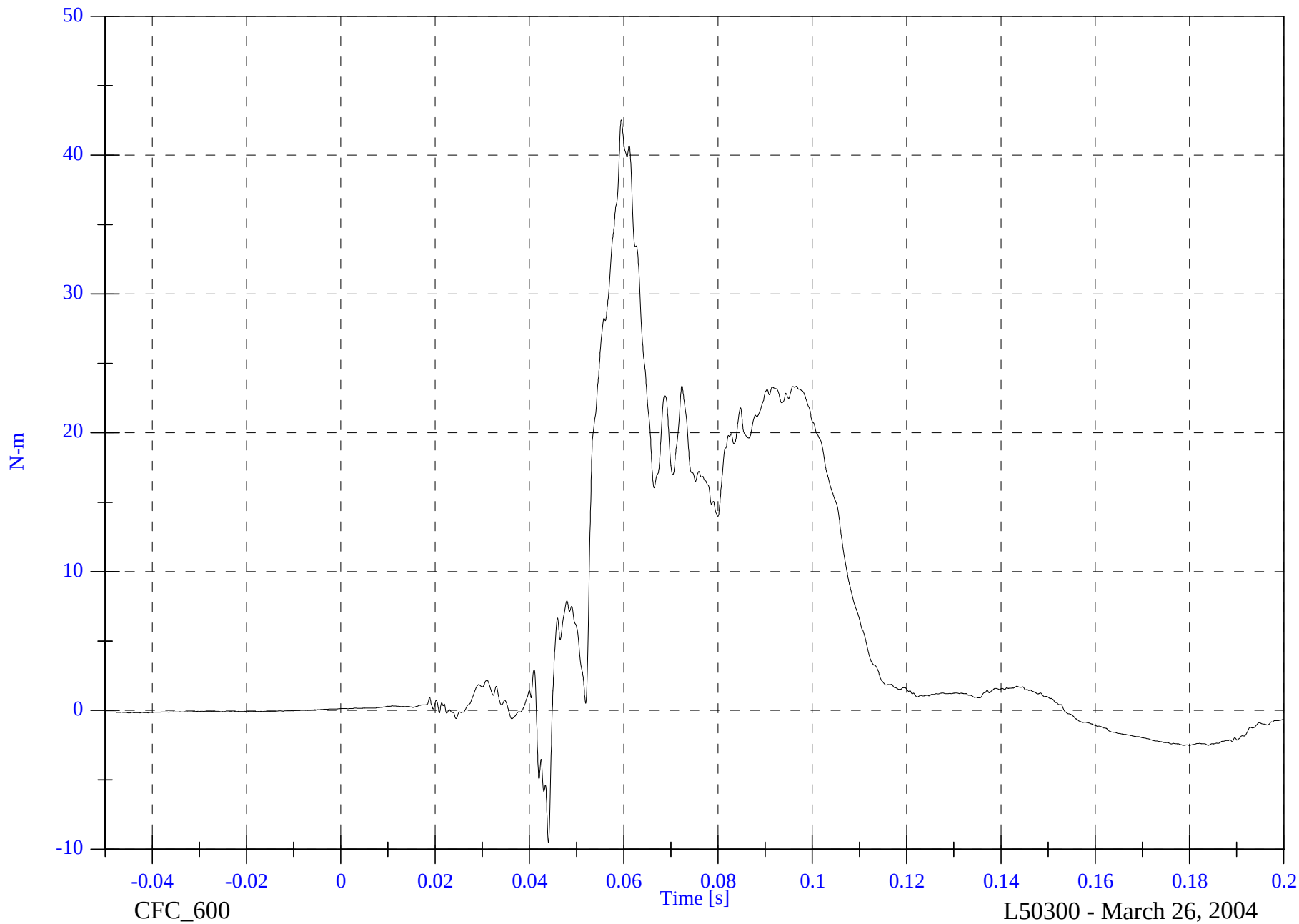


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Left Lower Tibia Mx

Max: 42.5 [N-m] at 0.059 [s]

Min: -9.5 [N-m] at 0.044 [s]



B-102

8741-01

CFC_600

Time [s]

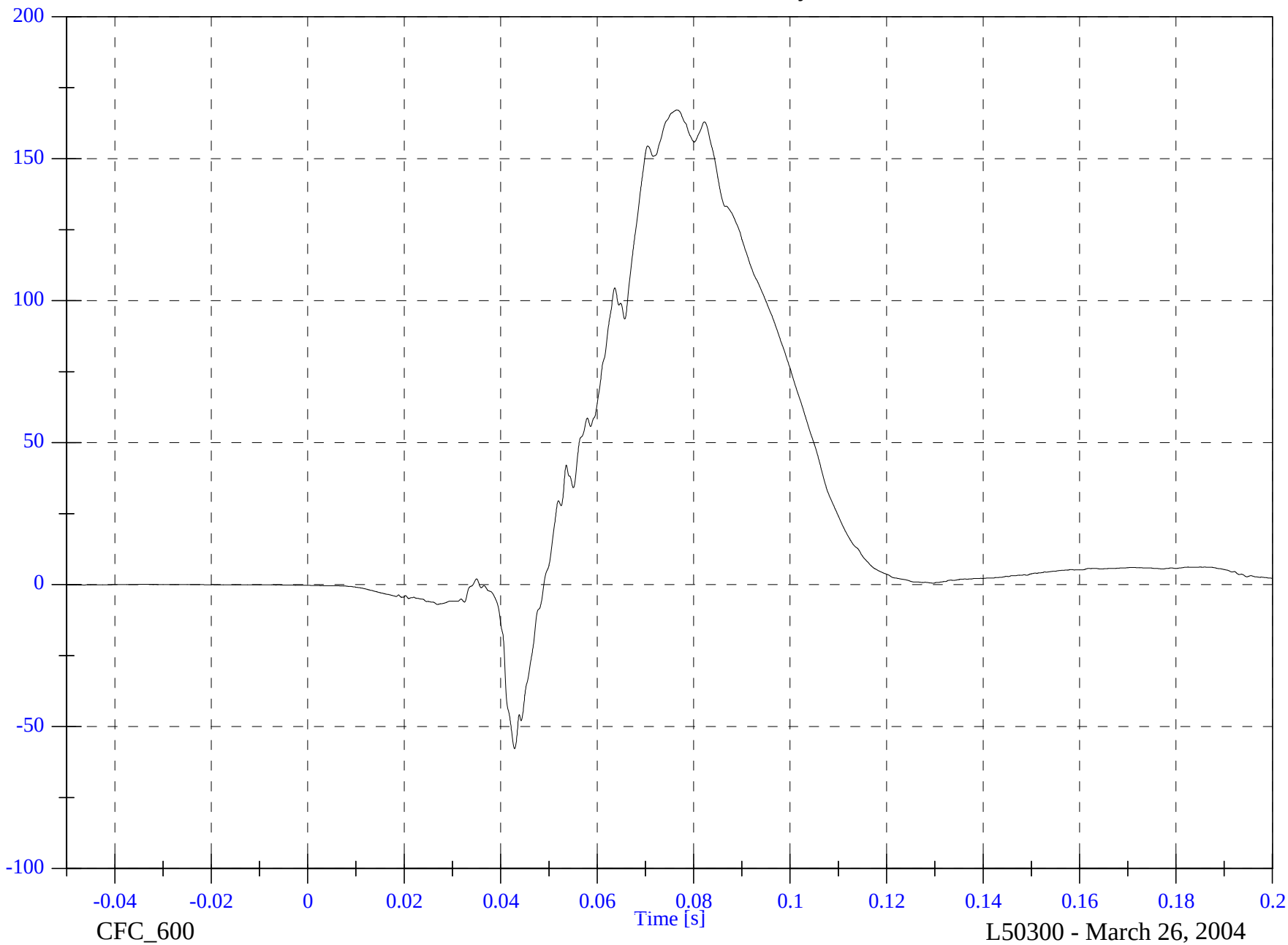
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Left Lower Tibia My

Max: 167.1 [N-m] at 0.076 [s]

Min: -57.7 [N-m] at 0.043 [s]



B-103

8741-01

CFC_600

Time [s]

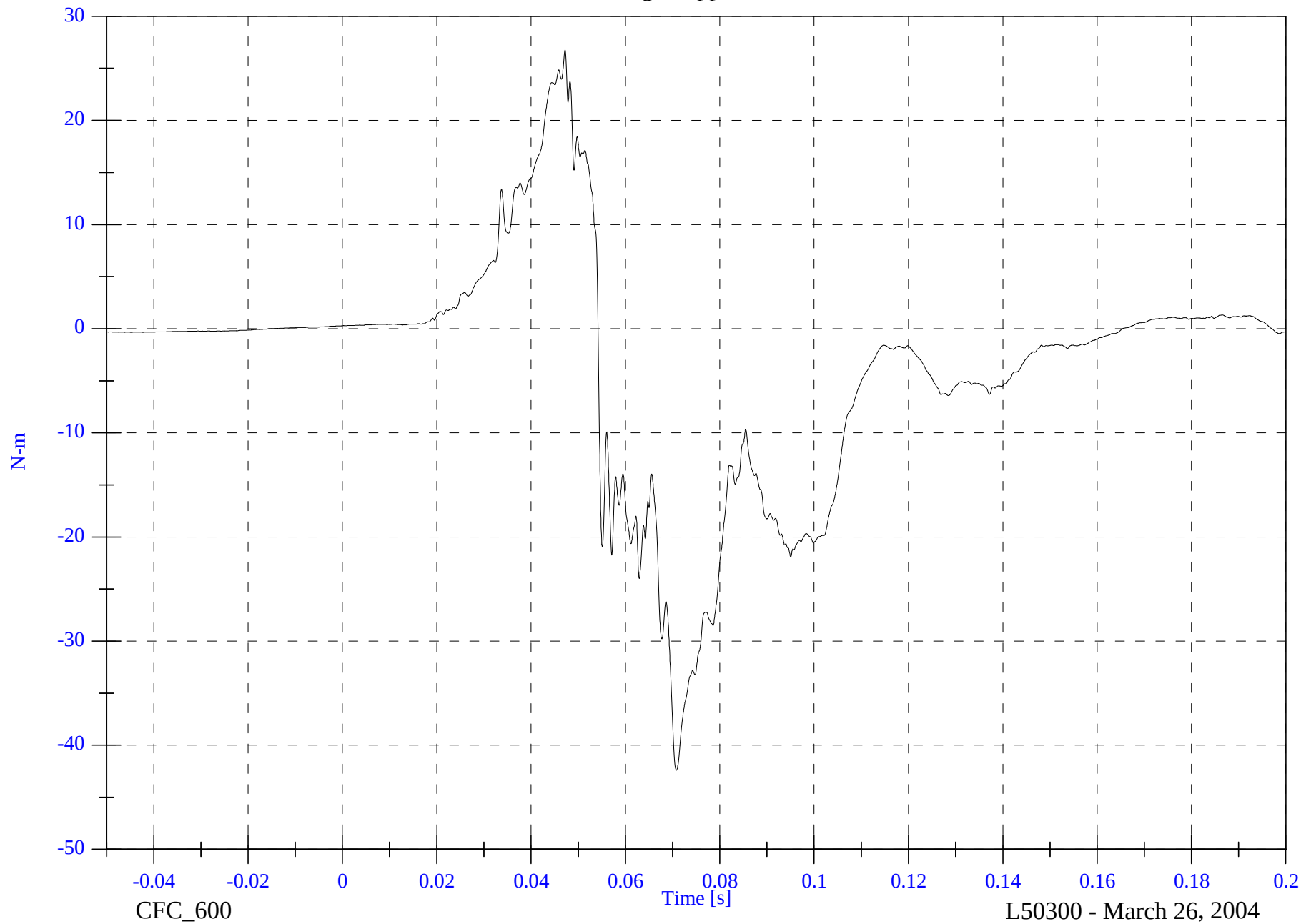
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Right Upper Tibia Mx

Max: 26.8 [N-m] at 0.047 [s]

Min: -42.4 [N-m] at 0.071 [s]



B-104

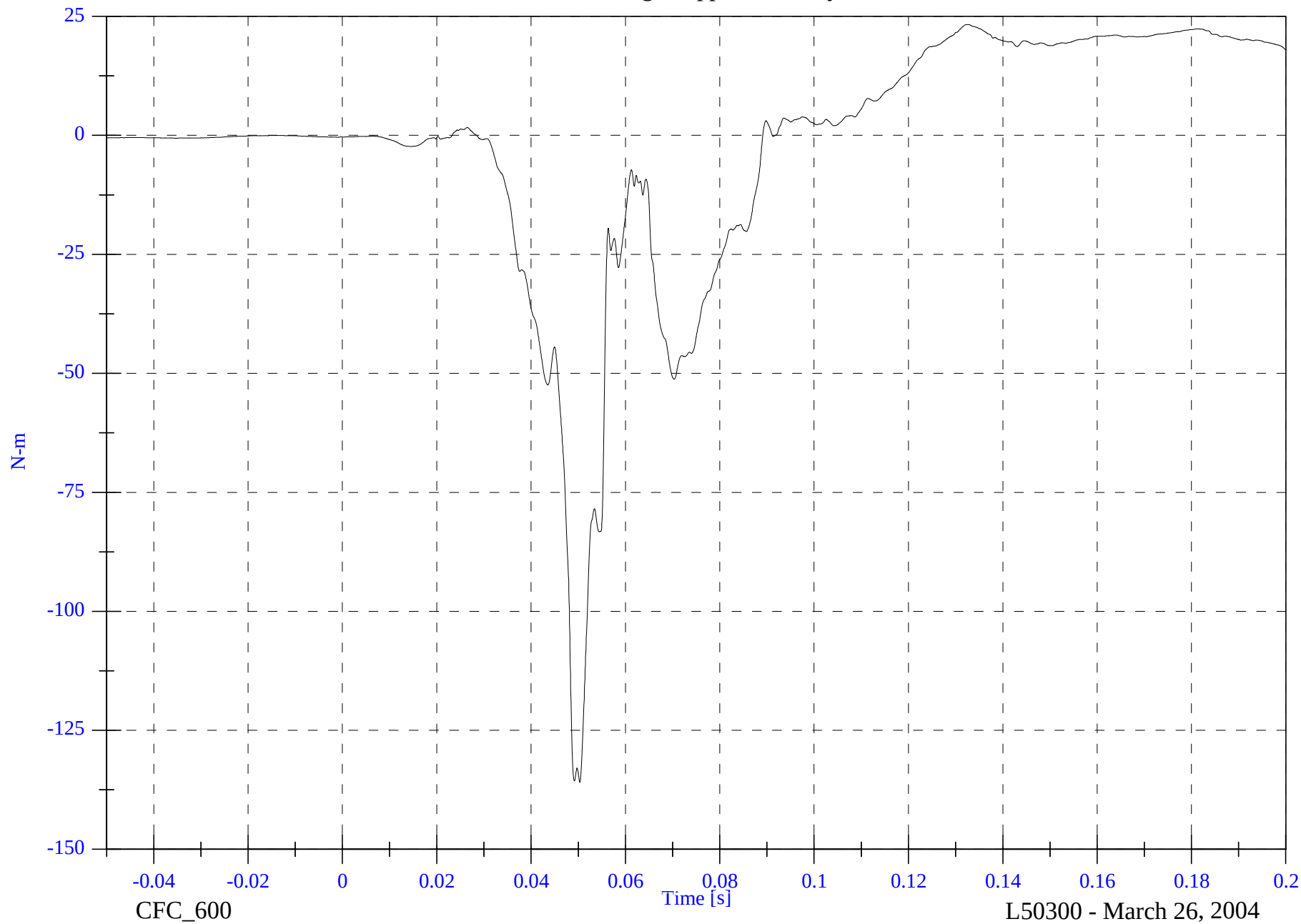
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Right Upper Tibia My

Max: 23.3 [N-m] at 0.132 [s]

Min: -135.9 [N-m] at 0.050 [s]



B-105

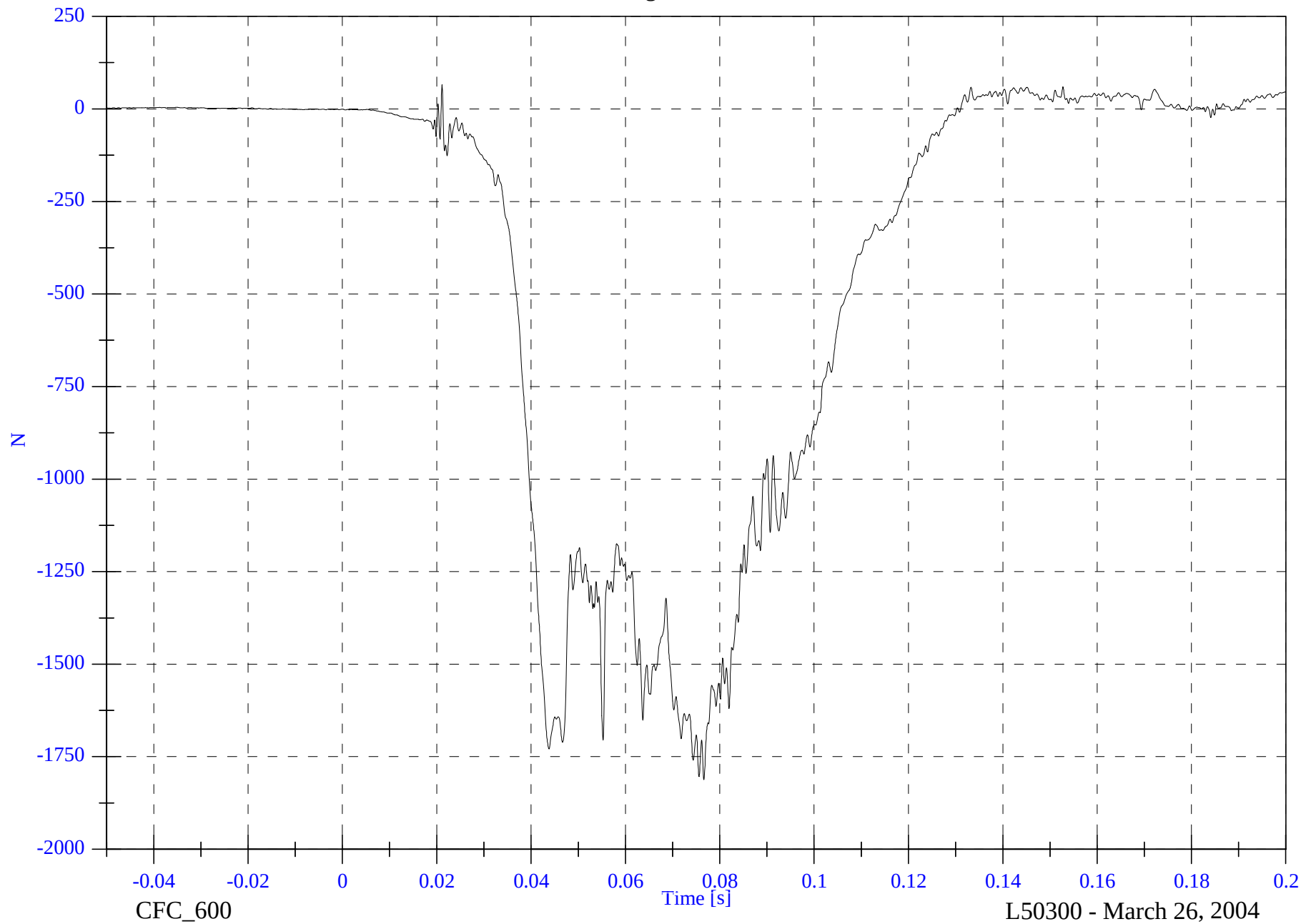
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Right Lower Tibia Fz

Max: 65.5 [N] at 0.021 [s]

Min: -1812.4 [N] at 0.077 [s]



B-106

8741-01

CFC_600

Time [s]

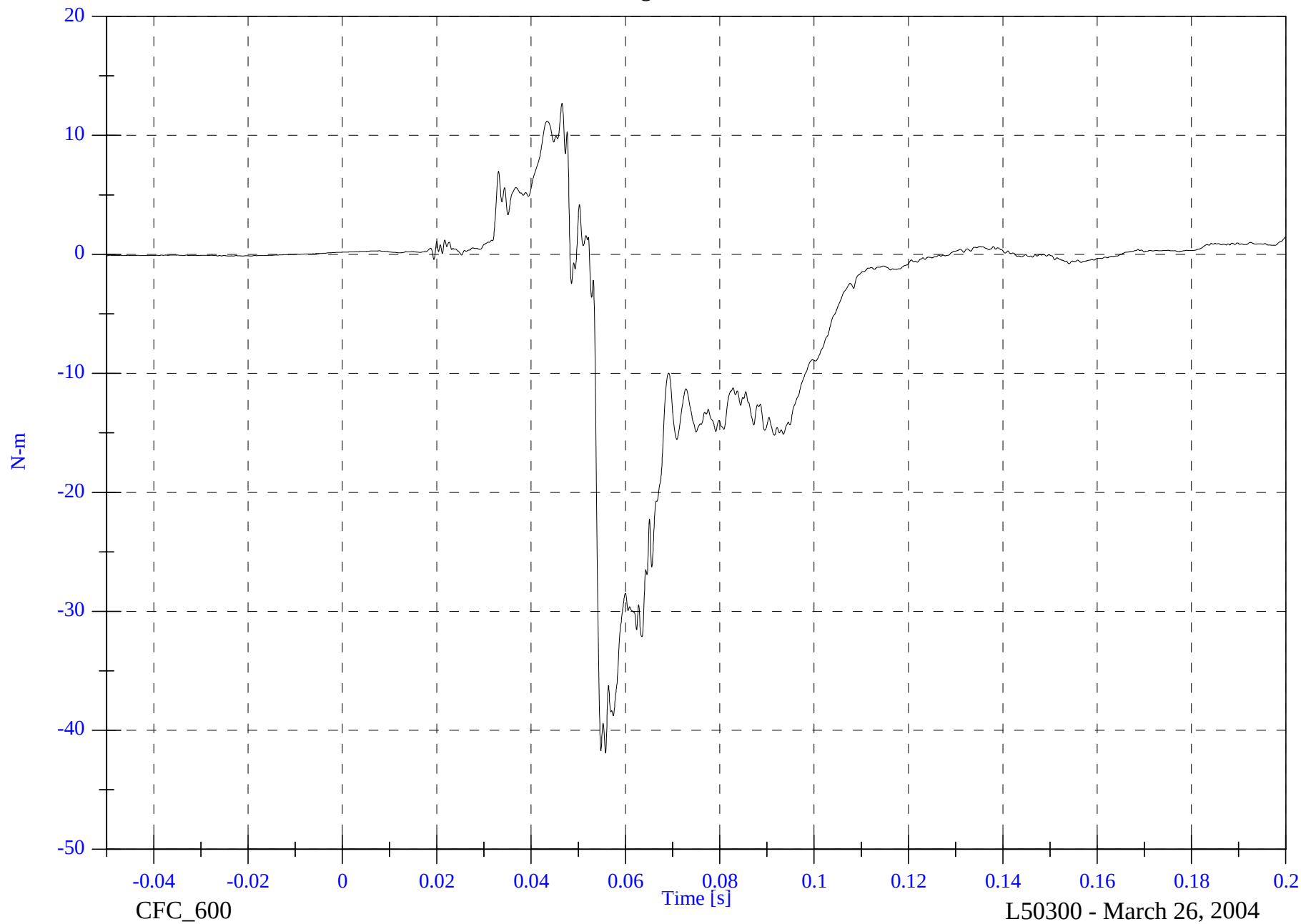
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Right Lower Tibia Mx

Max: 12.7 [N-m] at 0.047 [s]

Min: -41.9 [N-m] at 0.056 [s]



B-107

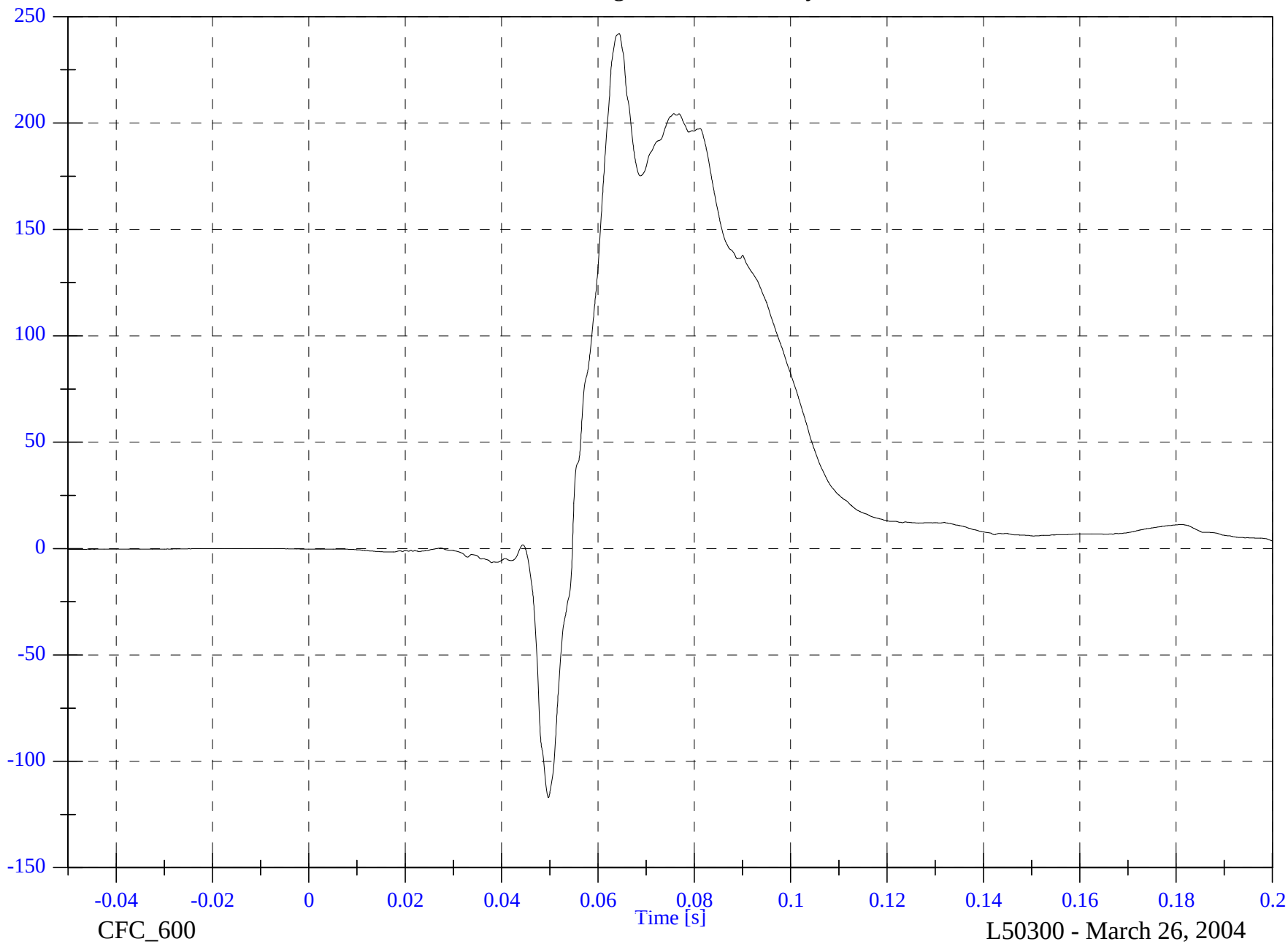
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Right Lower Tibia My

Max: 242.1 [N-m] at 0.064 [s]

Min: -117.1 [N-m] at 0.050 [s]



B-108

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

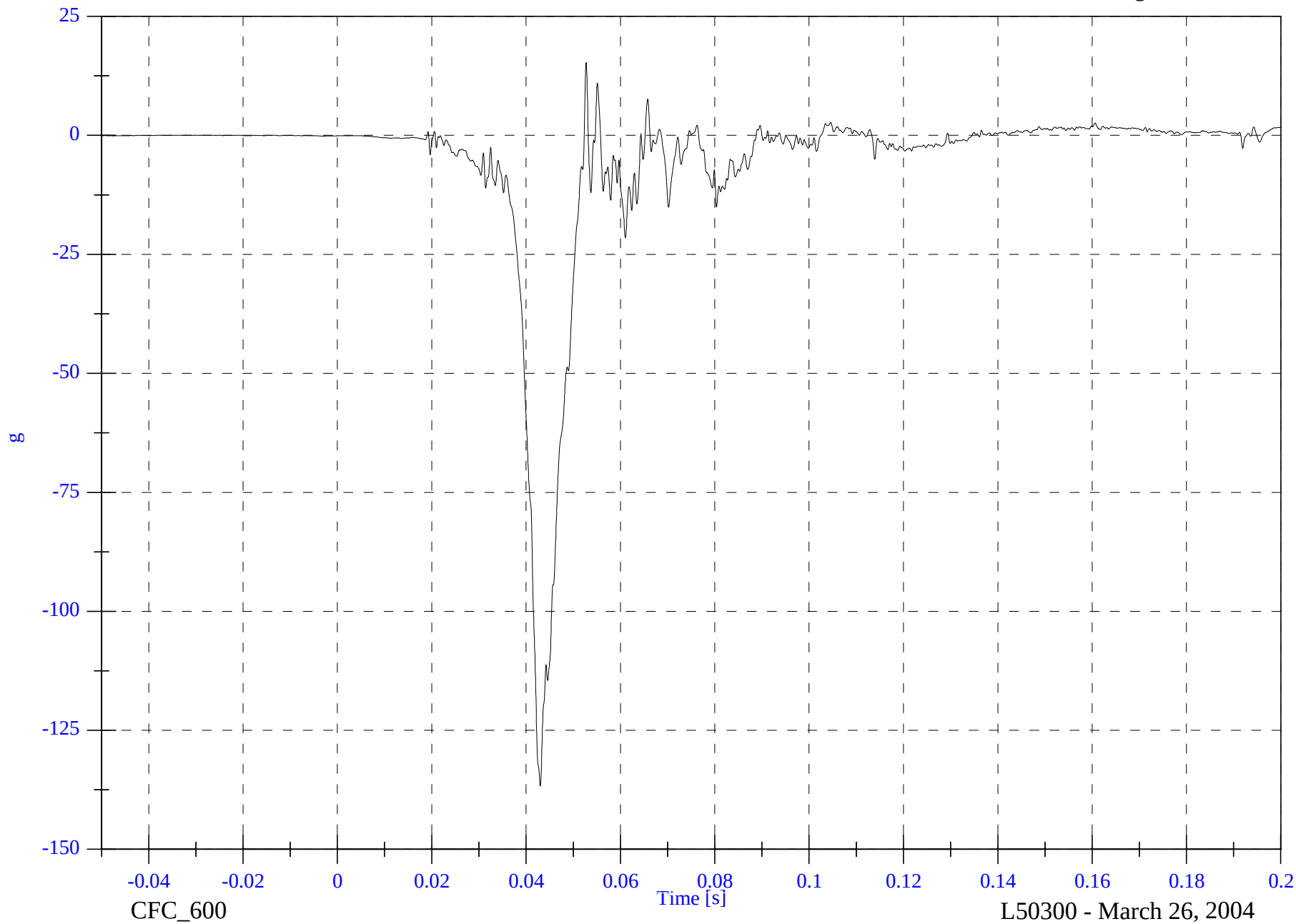
V1P2 Left Foot Aft x

Max: 15.3 [g] at 0.053 [s]

Min: -136.7 [g] at 0.043 [s]

B-109

8741-01

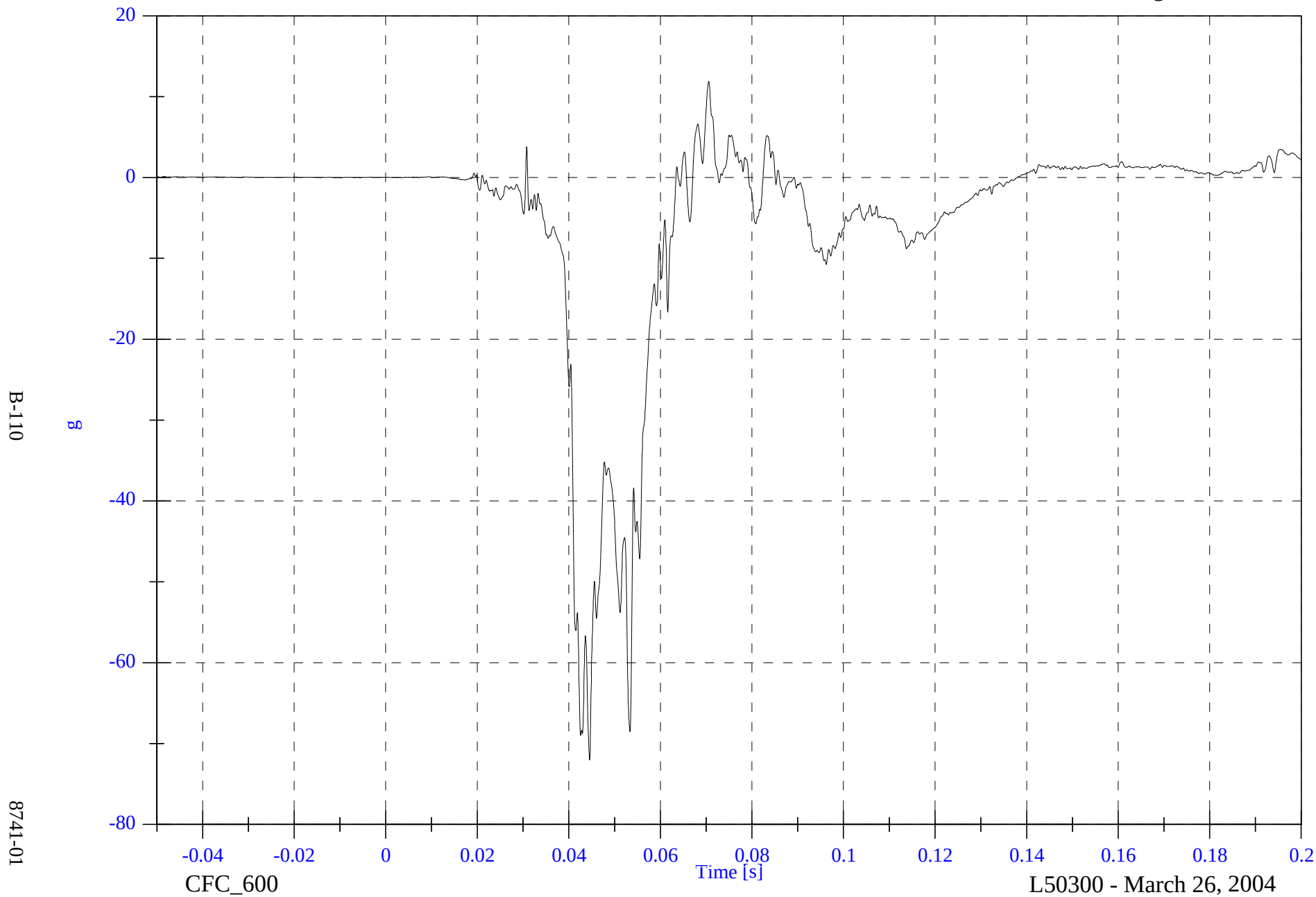


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Left Foot Aft z

Max: 11.9 [g] at 0.071 [s]

Min: -72.0 [g] at 0.045 [s]

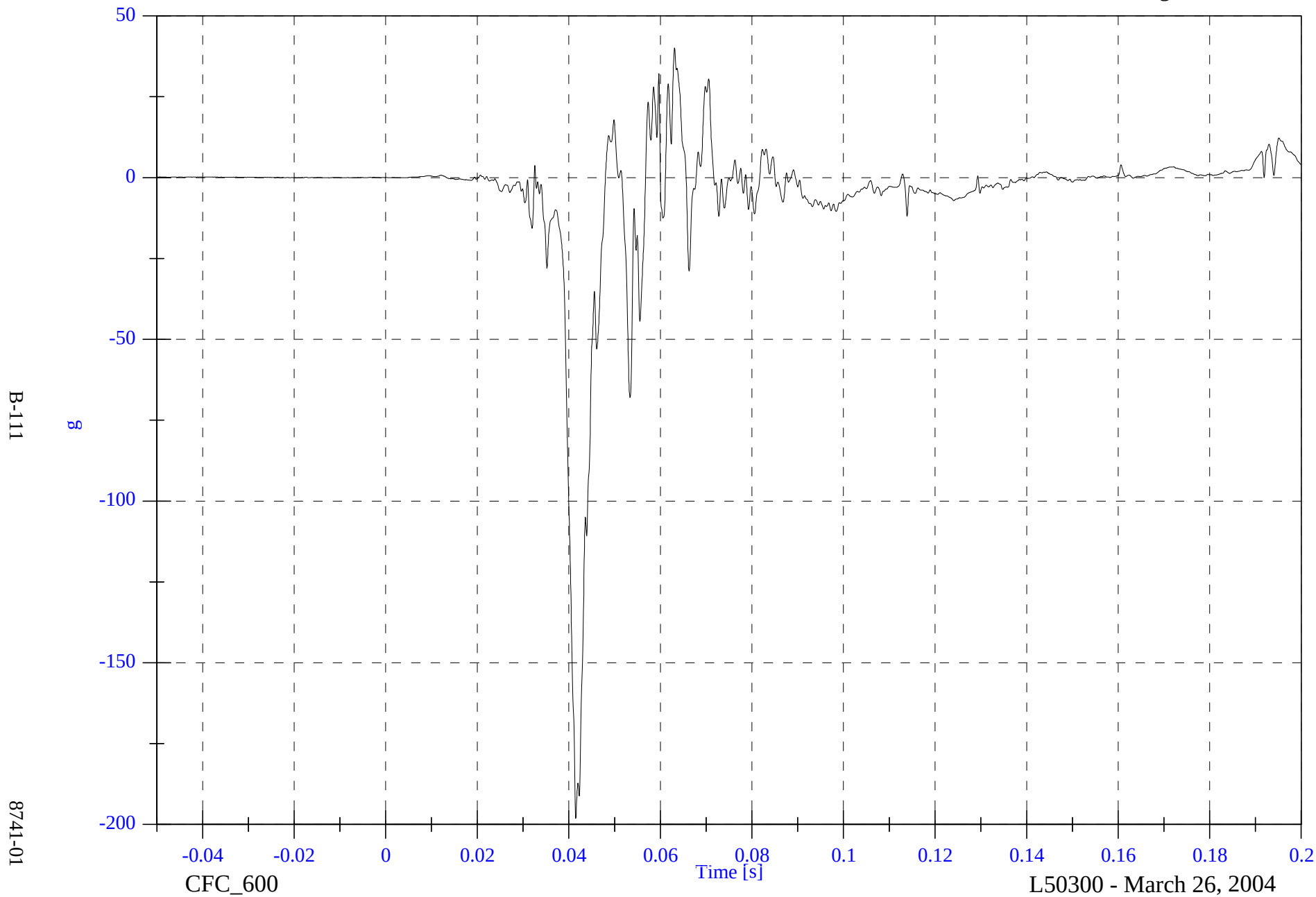


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Left Foot Fore z

Max: 40.1 [g] at 0.063 [s]

Min: -198.1 [g] at 0.042 [s]



Frontal NCAP- 2005 Chrysler Town & Country

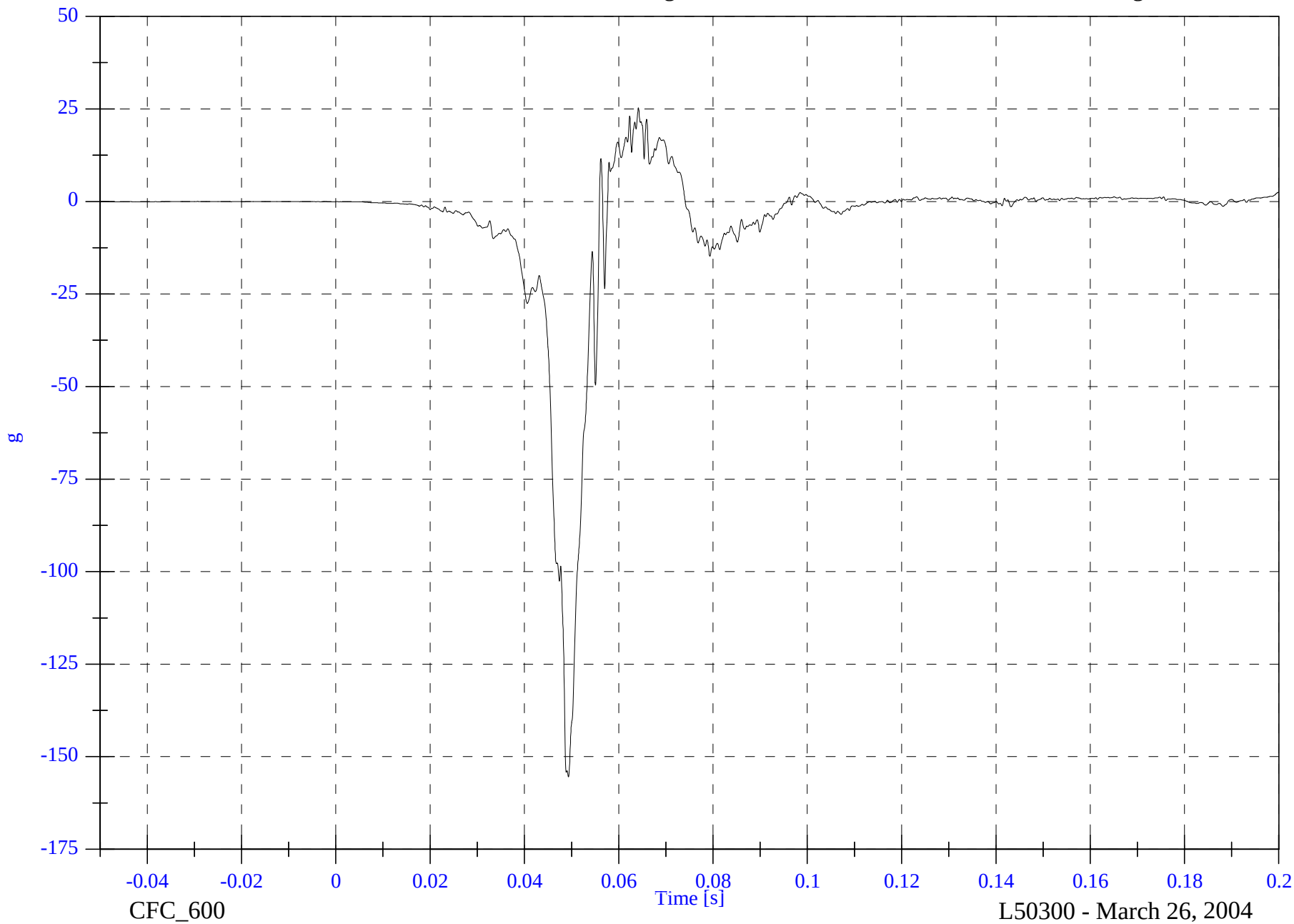
V1P2 Right Foot Aft x

Max: 25.3 [g] at 0.064 [s]

Min: -155.5 [g] at 0.049 [s]

B-112

8741-01

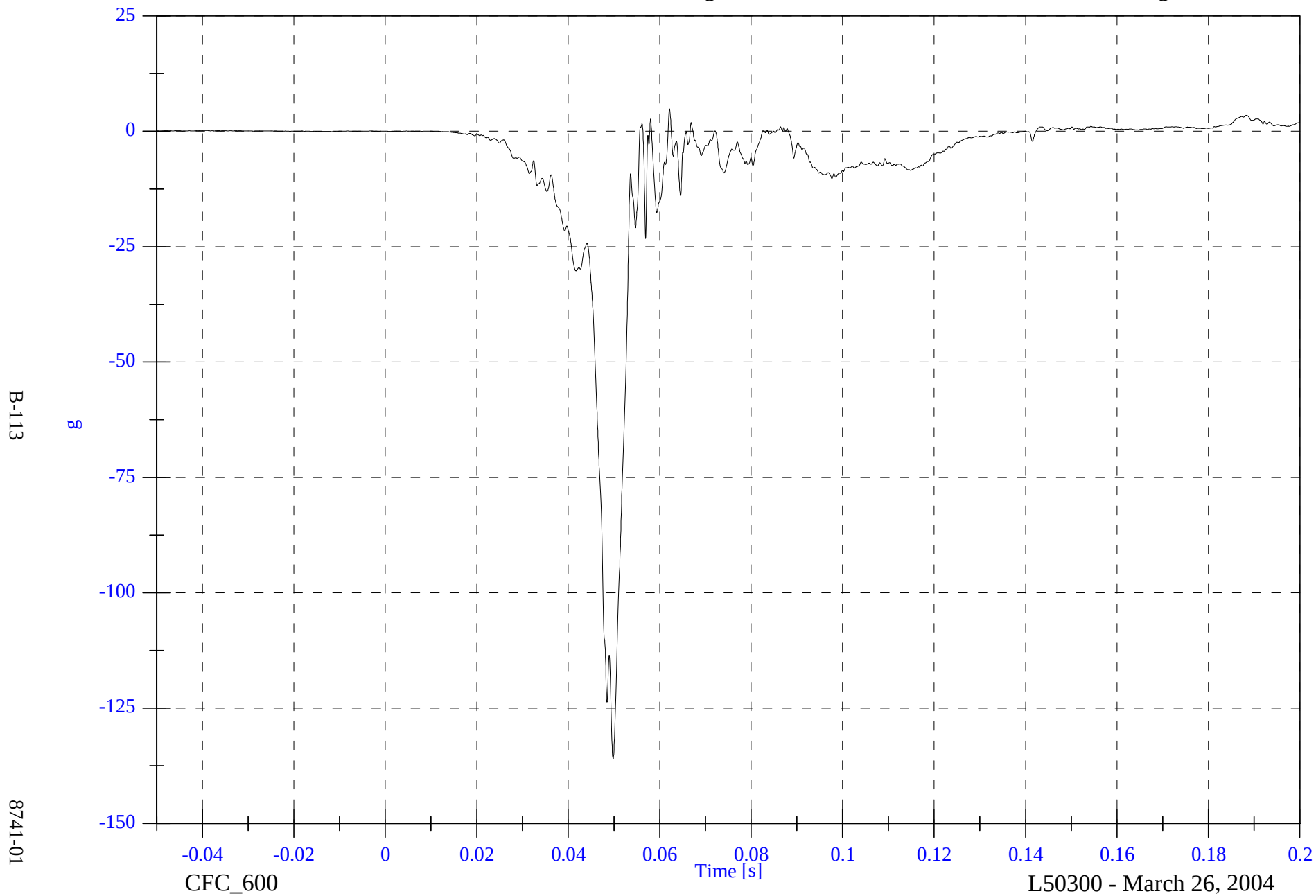


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Right Foot Aft z

Max: 4.9 [g] at 0.062 [s]

Min: -136.0 [g] at 0.050 [s]

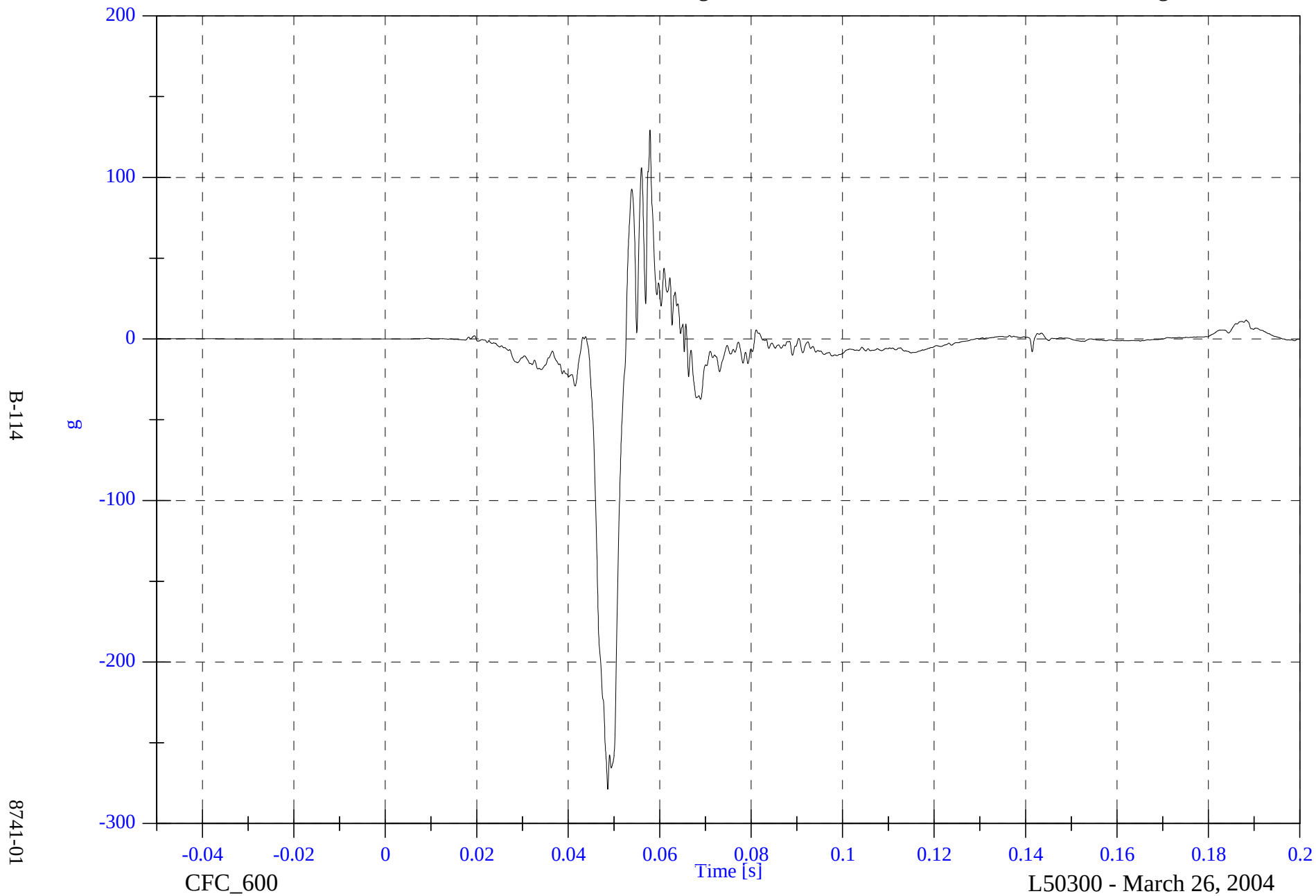


Frontal NCAP- 2005 Chrysler Town & Country

V1P2 Right Foot Fore z

Max: 129.2 [g] at 0.058 [s]

Min: -278.8 [g] at 0.049 [s]

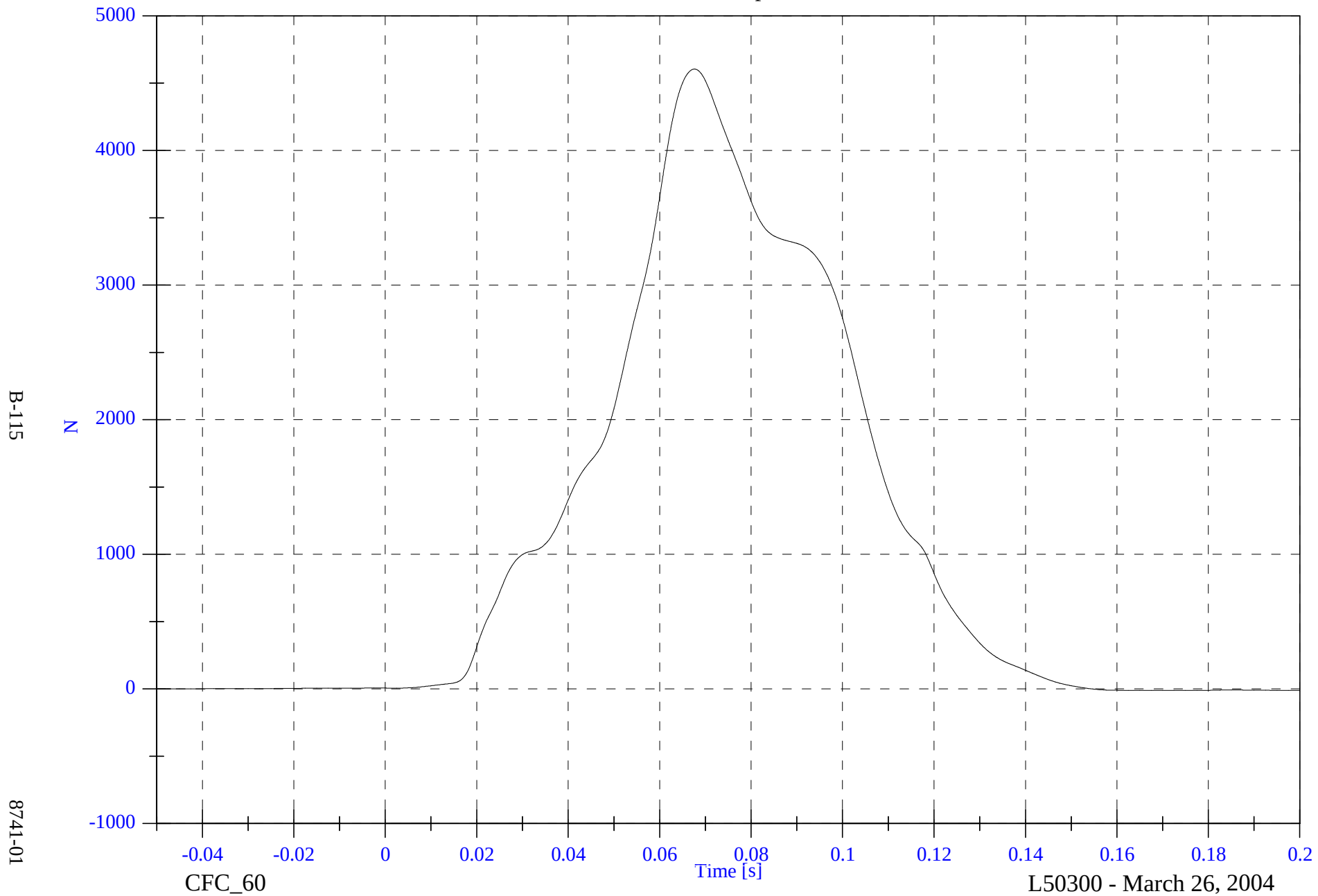


Frontal NCAP- 2005 Chrysler Town & Country

V1 RFP Lap Belt

Max: 4604.3 [N] at 0.068 [s]

Min: -11.3 [N] at 0.178 [s]

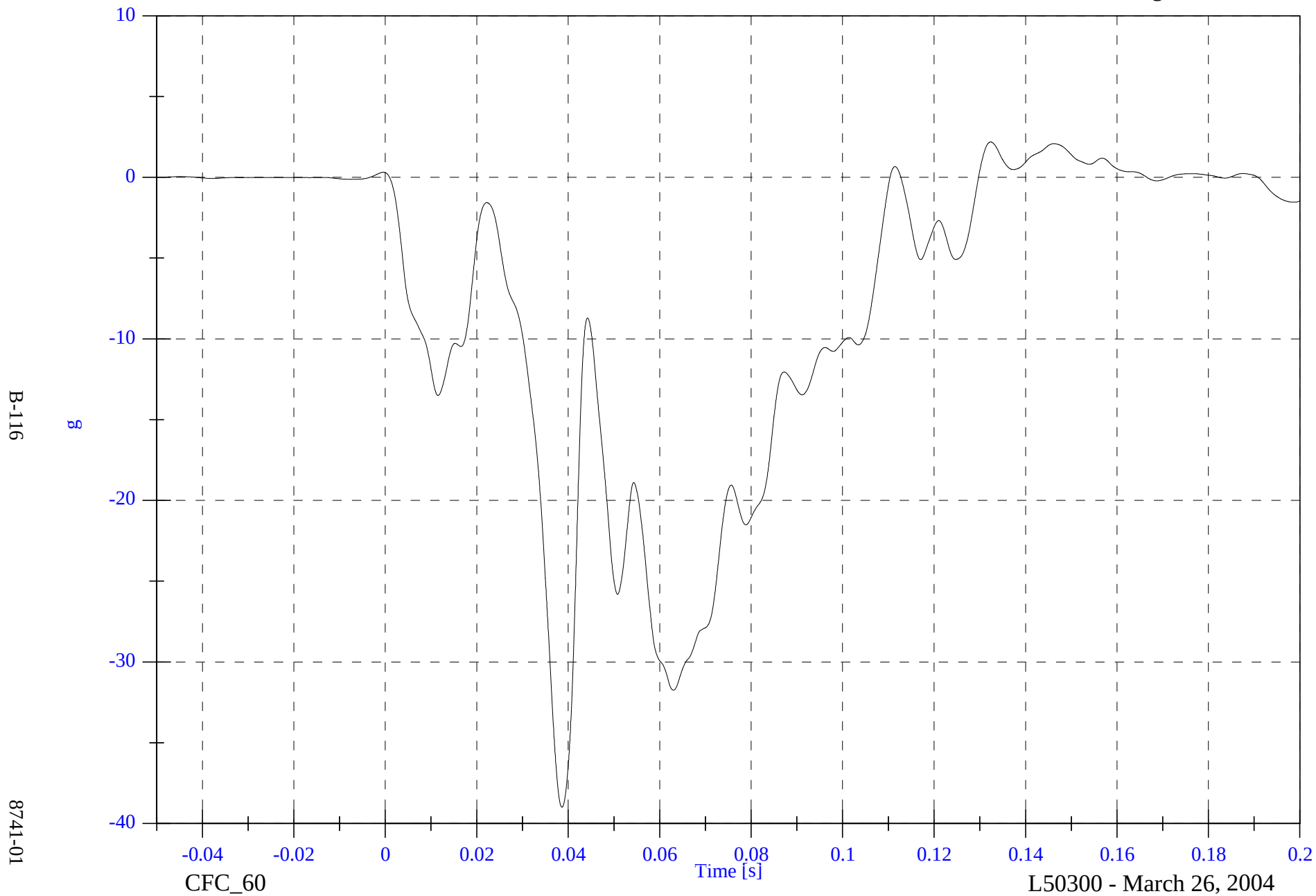


Frontal NCAP- 2005 Chrysler Town & Country

V1 Left Rear #1x

Max: 2.2 [g] at 0.132 [s]

Min: -39.0 [g] at 0.039 [s]

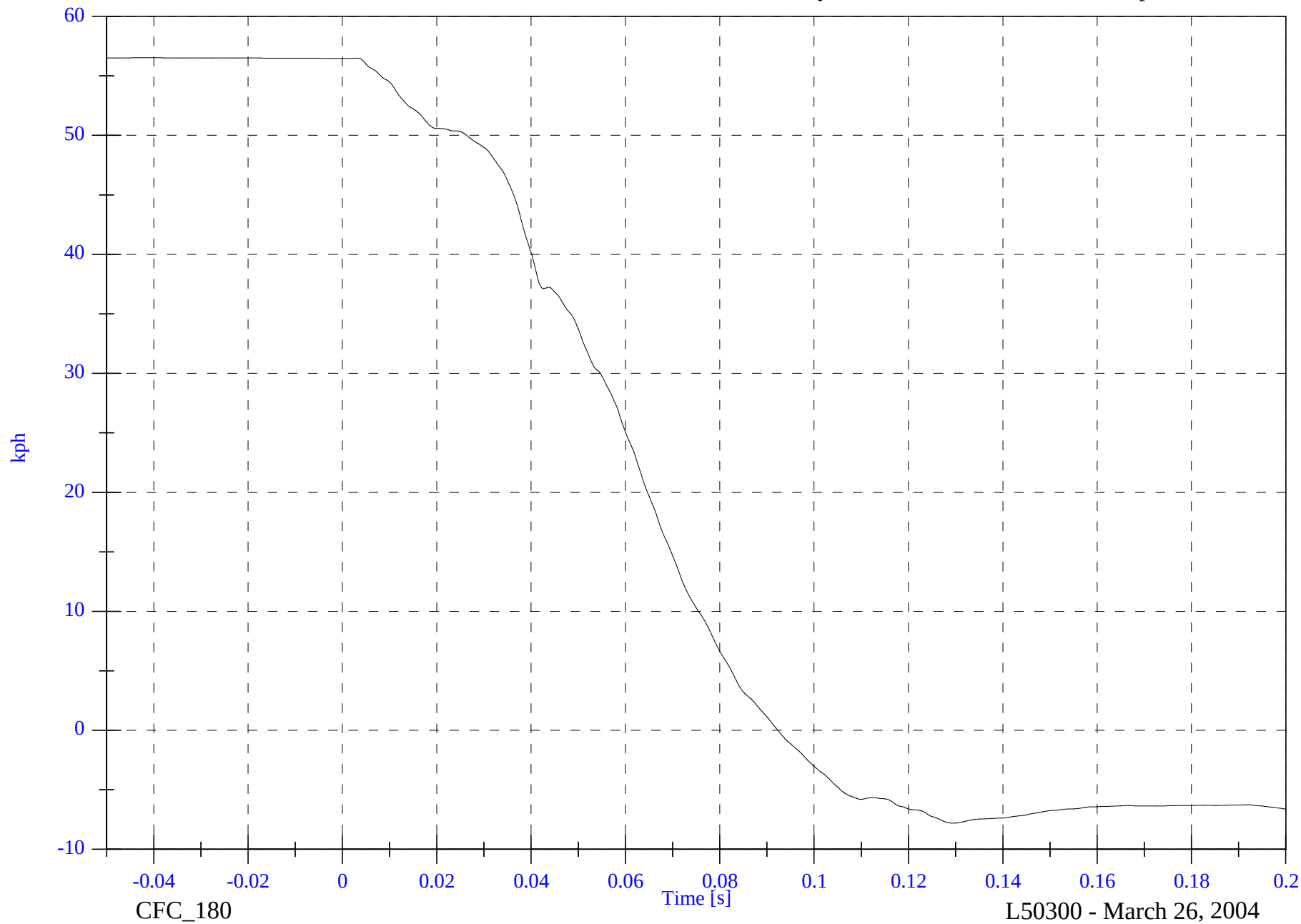


Frontal NCAP- 2005 Chrysler Town & Country

V1 Left Rear #1x Velocity

Max: 56.5 [kph] at -0.042 [s]

Min: -7.8 [kph] at 0.129 [s]



B-117

8741-01

CFC_180

Time [s]

L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

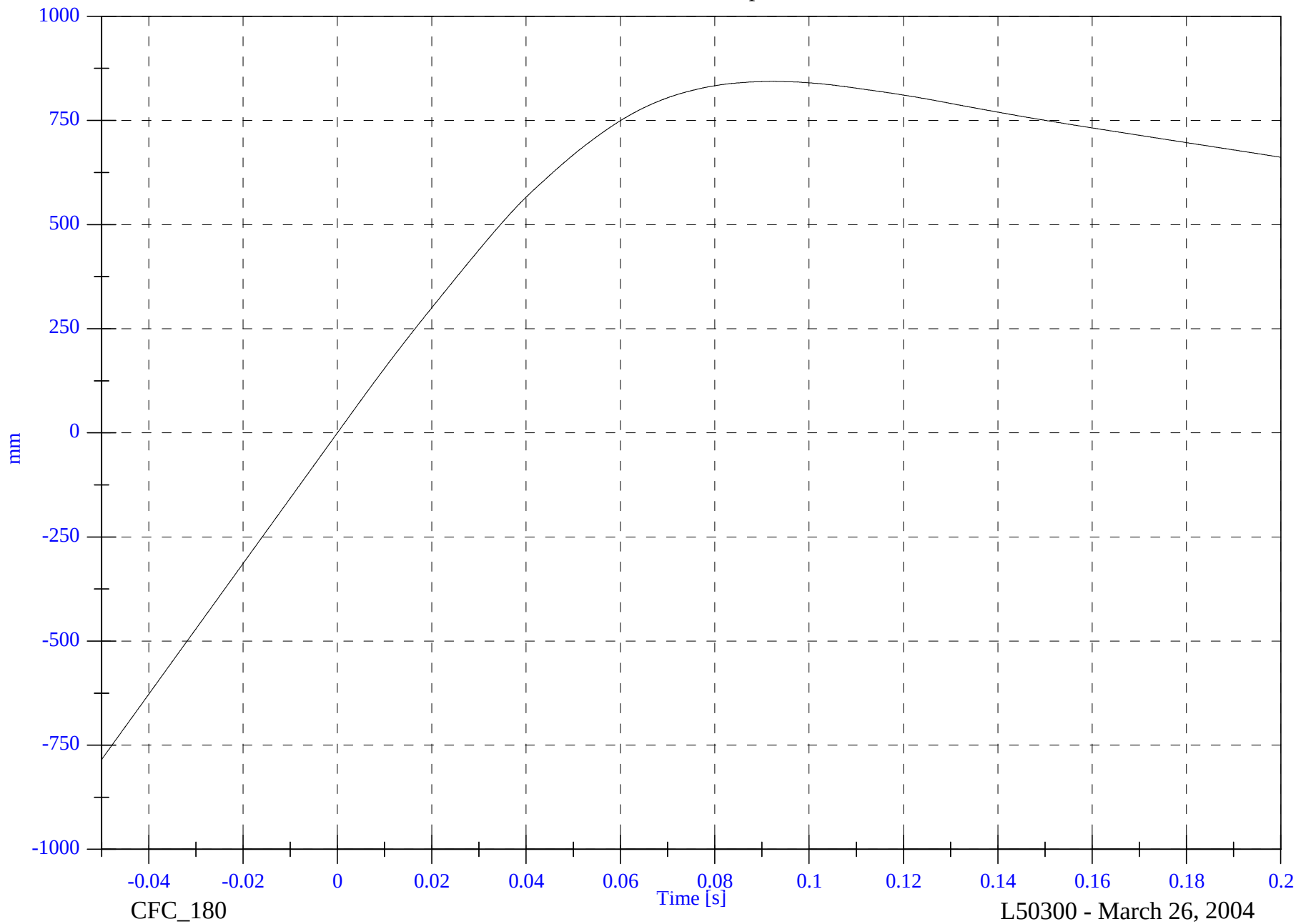
V1 Left Rear #1x Displacement

Max: 843.7 [mm] at 0.092 [s]

Min: -784.6 [mm] at -0.050 [s]

B-118

8741-01



CFC_180

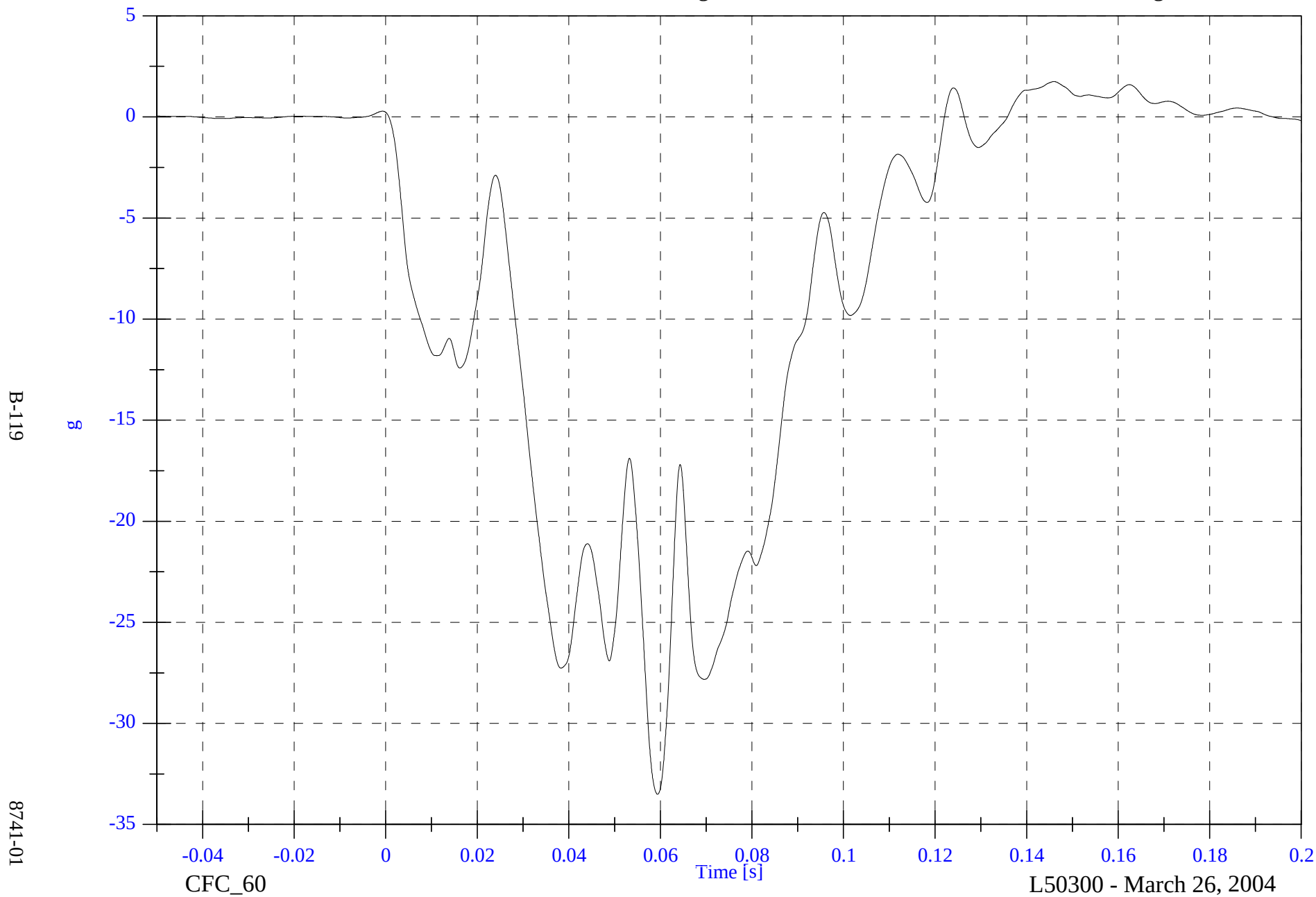
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1 Right Rear #2x

Max: 1.8 [g] at 0.146 [s]

Min: -33.5 [g] at 0.059 [s]

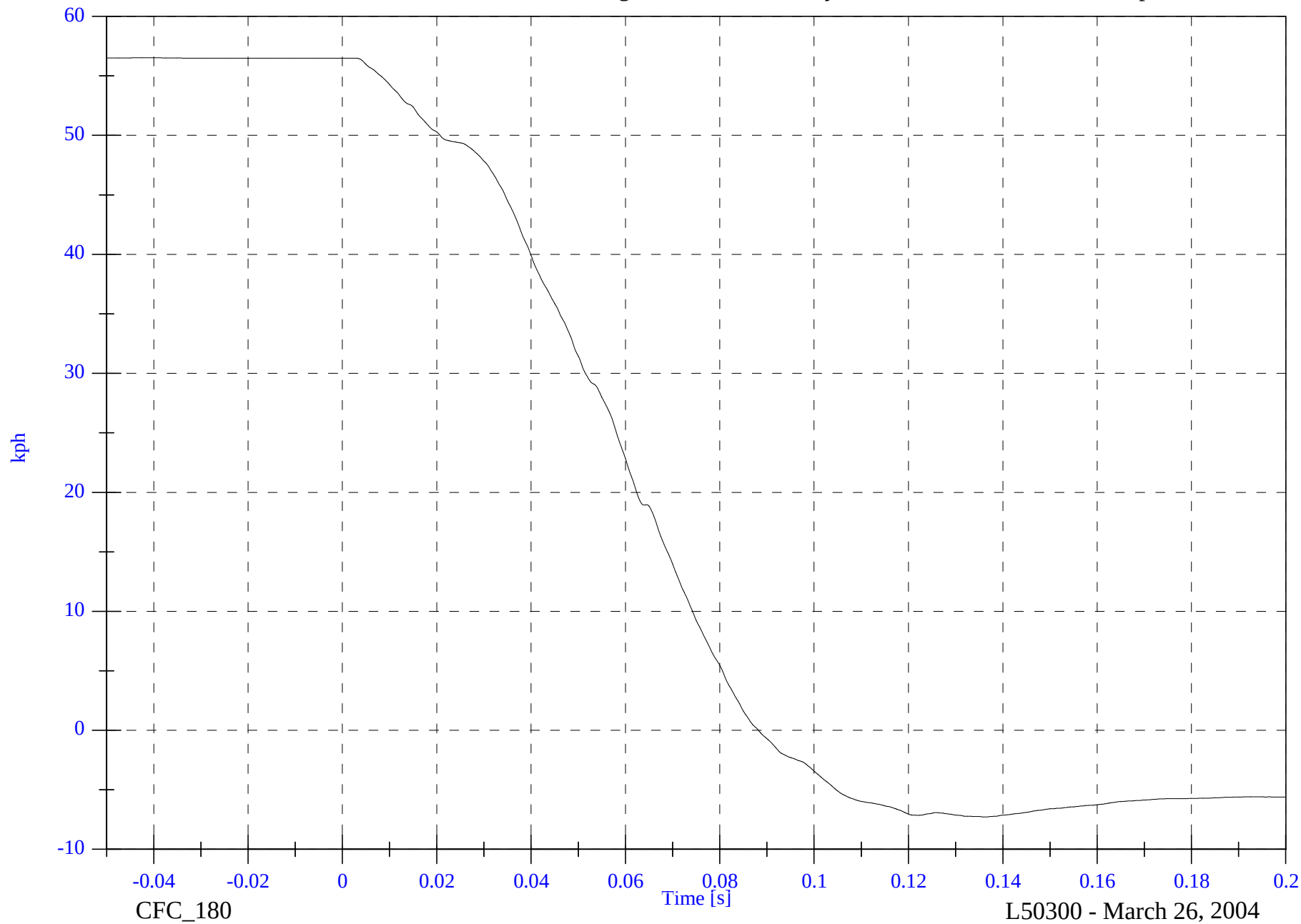


Frontal NCAP- 2005 Chrysler Town & Country

V1 Right Rear #2x Velocity

Max: 56.5 [kph] at -0.042 [s]

Min: -7.3 [kph] at 0.136 [s]



B-120

8741-01

CFC_180

Time [s]

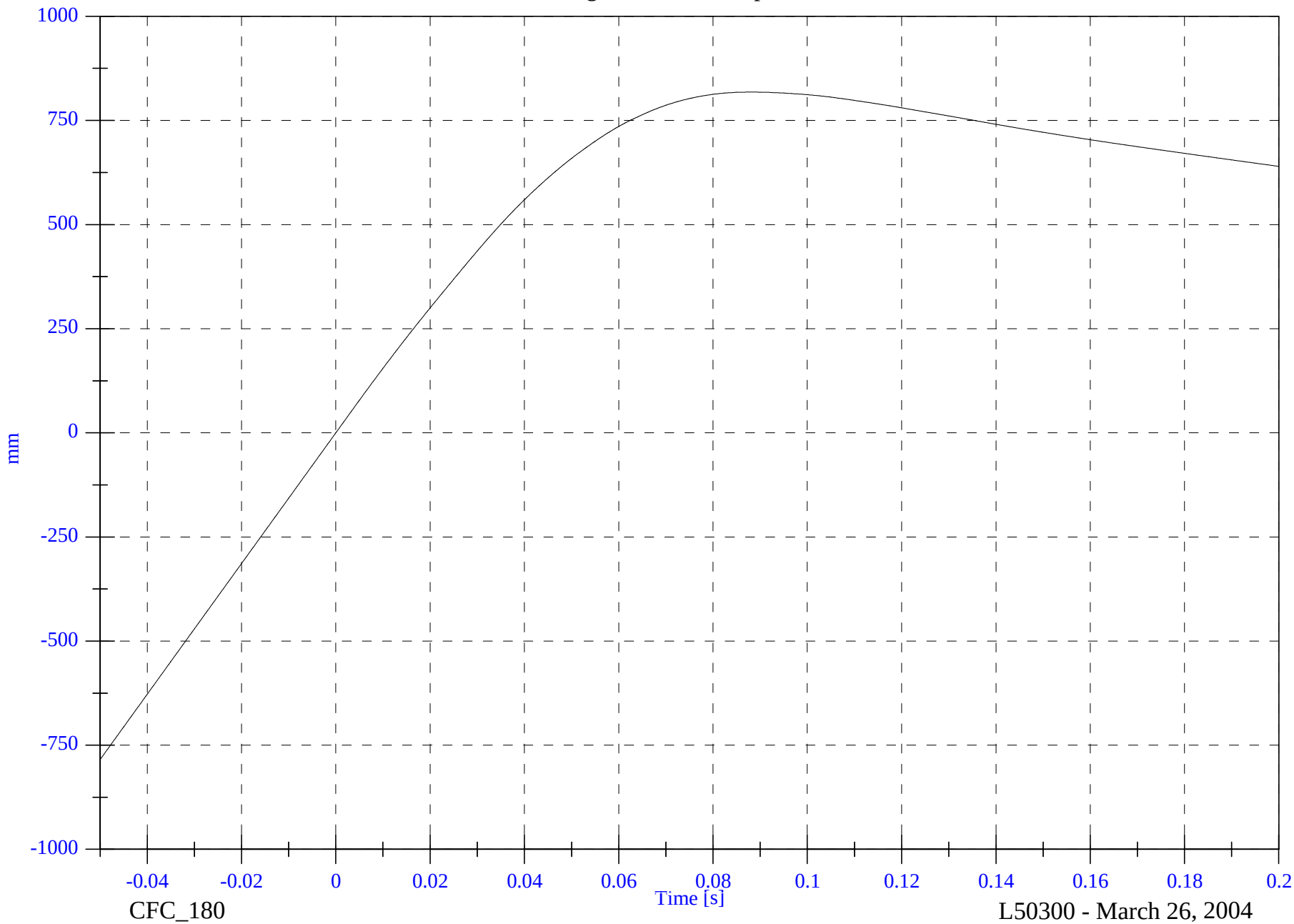
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1 Right Rear #2x Displacement

Max: 818.1 [mm] at 0.088 [s]

Min: -784.6 [mm] at -0.050 [s]



B-121

8741-01

CFC_180

Time [s]

L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

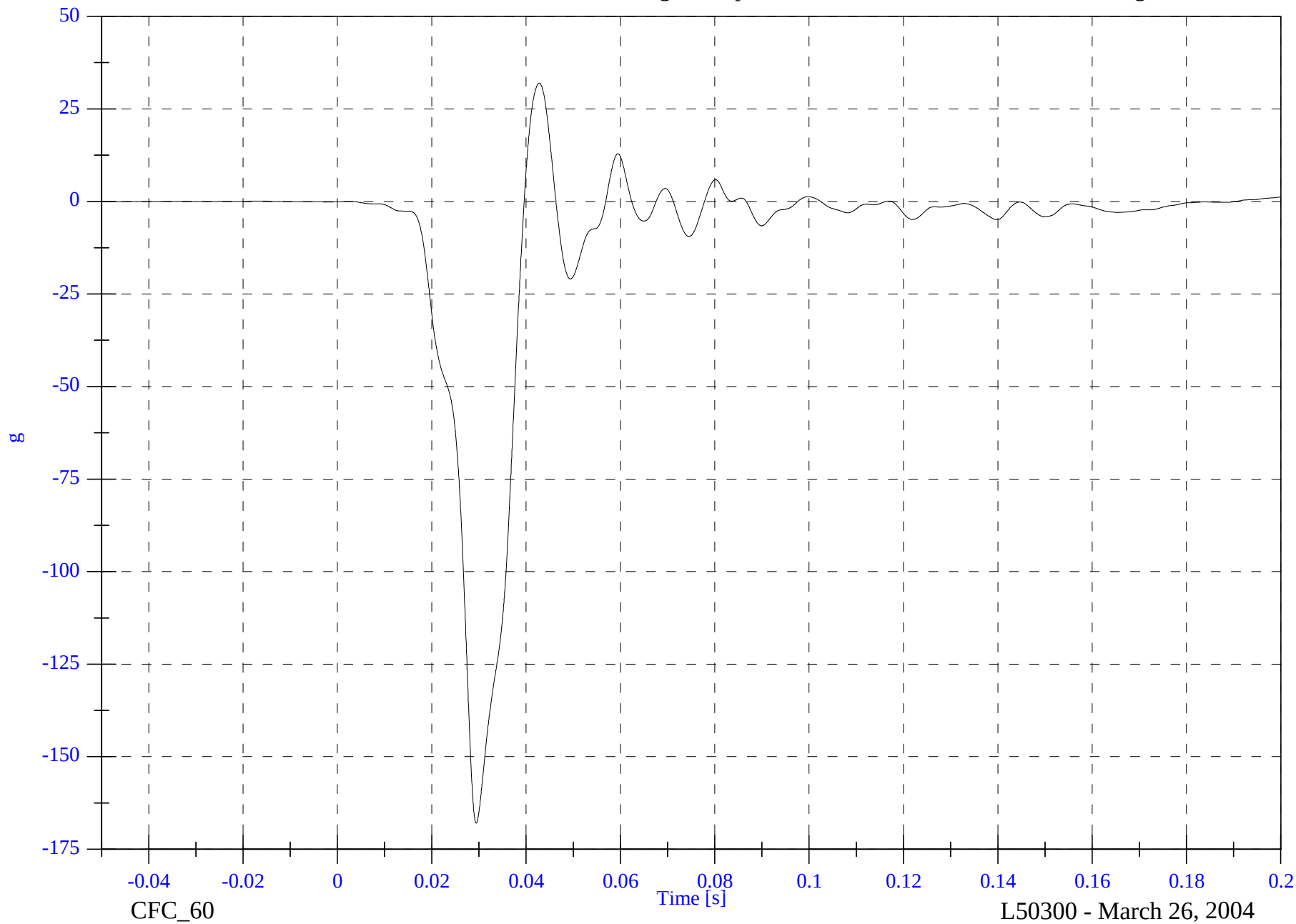
V1 Engine Top #3x

Max: 32.0 [g] at 0.043 [s]

Min: -168.0 [g] at 0.029 [s]

B-122

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

V1 Engine Top #3x Velocity

Max: 56.5 [kph] at -0.050 [s]

Min: -15.1 [kph] at 0.192 [s]



B-123

8741-01

CFC_180

Time [s]

L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

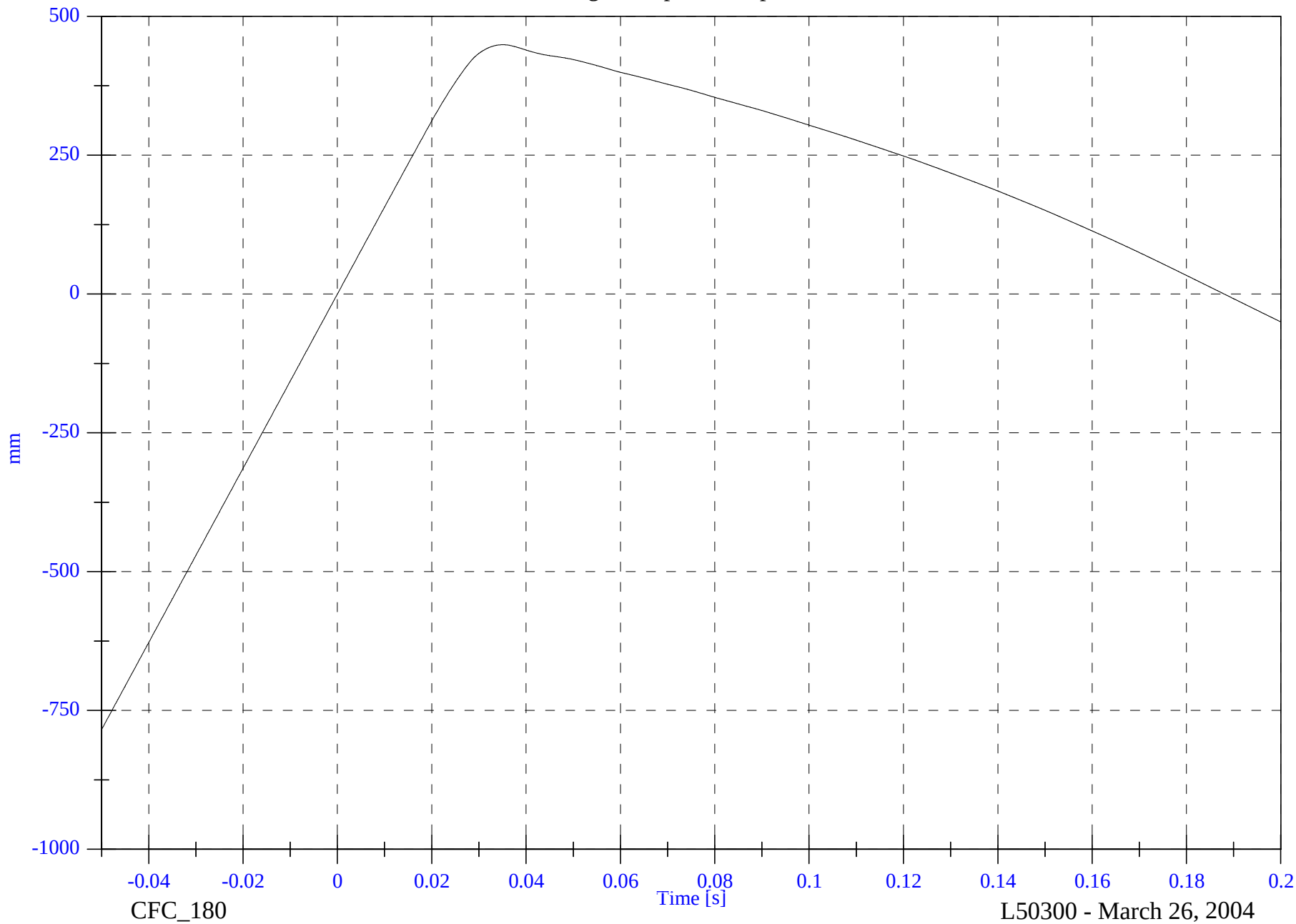
V1 Engine Top #3x Displacement

Max: 448.9 [mm] at 0.035 [s]

Min: -784.4 [mm] at -0.050 [s]

B-124

8741-01

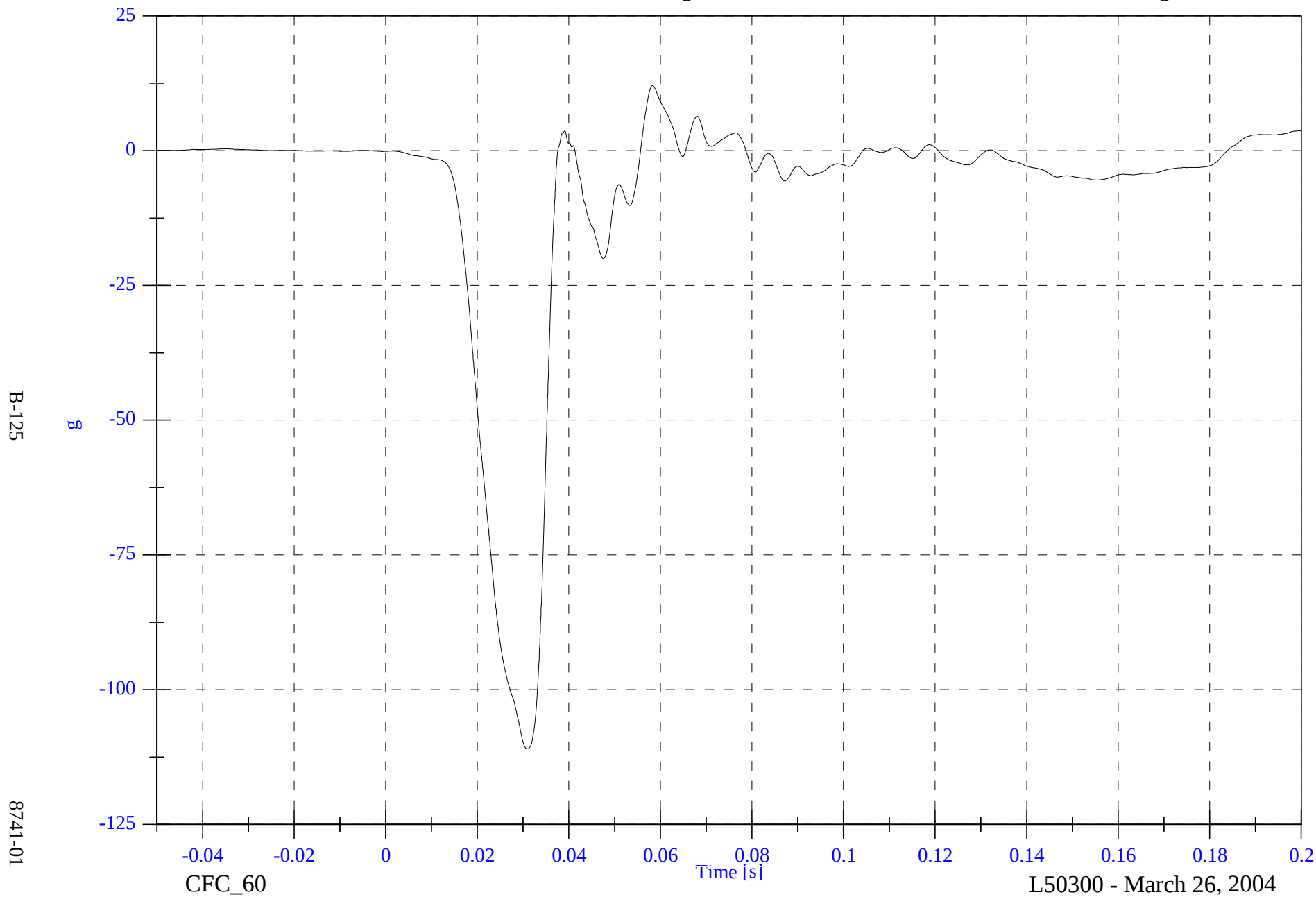


Frontal NCAP- 2005 Chrysler Town & Country

V1 Engine Bottom #4x

Max: 12.1 [g] at 0.058 [s]

Min: -111.0 [g] at 0.031 [s]



B-125

8741-01

CFC_60

Time [s]

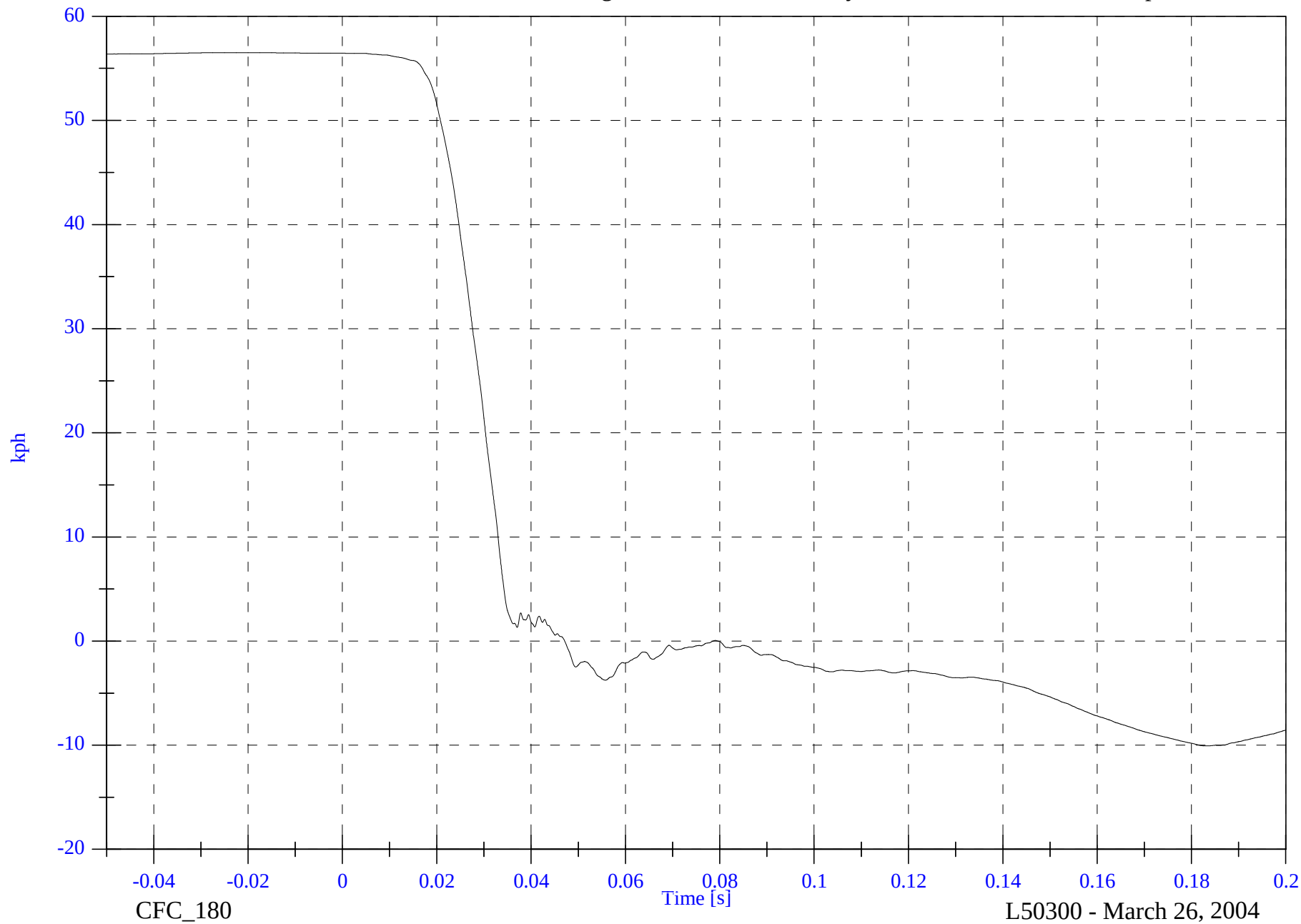
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1 Engine Bottom #4x Velocity

Max: 56.5 [kph] at -0.019 [s]

Min: -10.1 [kph] at 0.183 [s]



B-126

8741-01

CFC_180

Time [s]

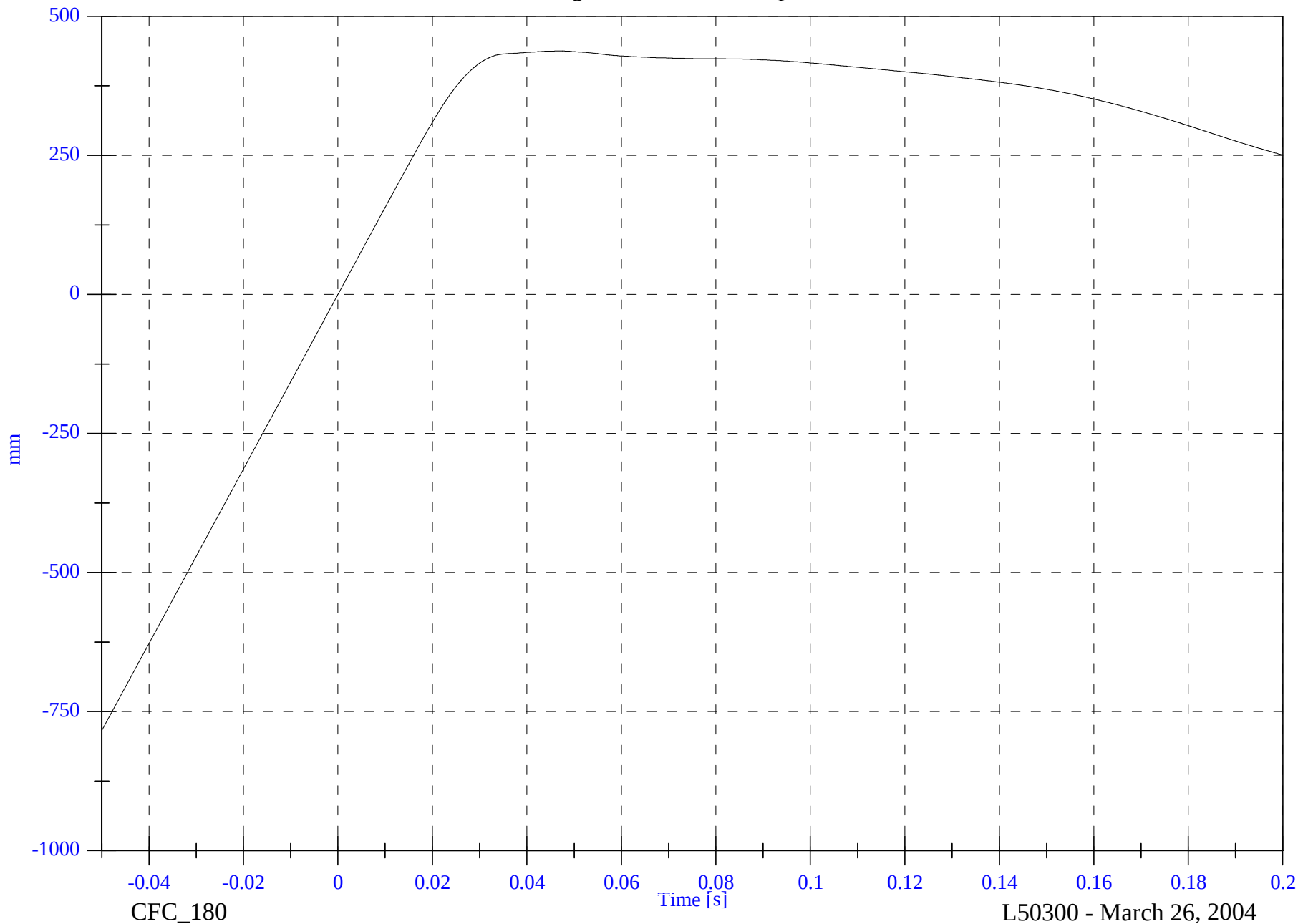
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1 Engine Bottom #4x Displacement

Max: 437.7 [mm] at 0.047 [s]

Min: -784.2 [mm] at -0.050 [s]



B-127

8741-01

CFC_180

L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

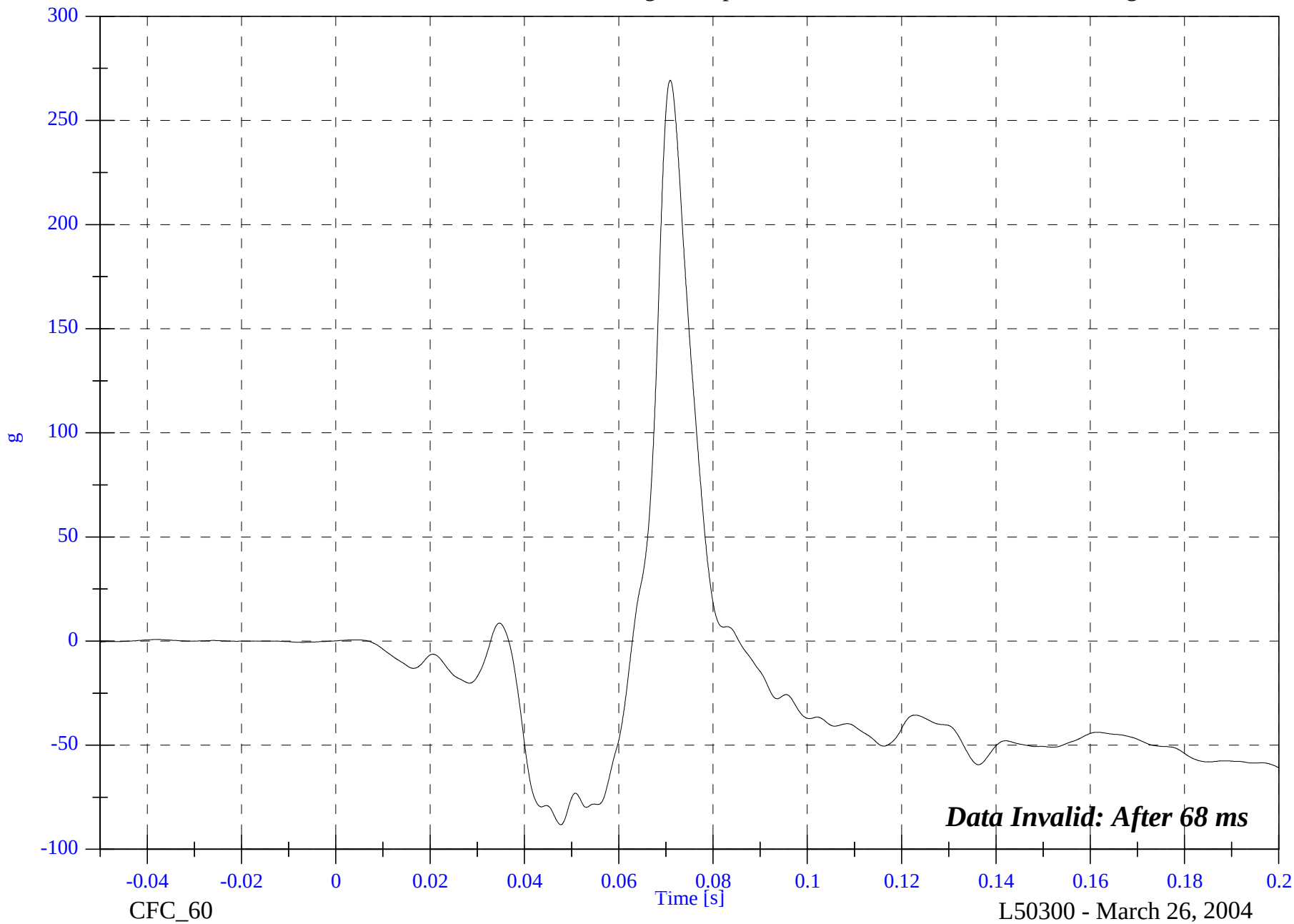
V1 Right Caliper #5x

Max: 269.3 [g] at 0.071 [s]

Min: -88.2 [g] at 0.048 [s]

B-128

8741-01

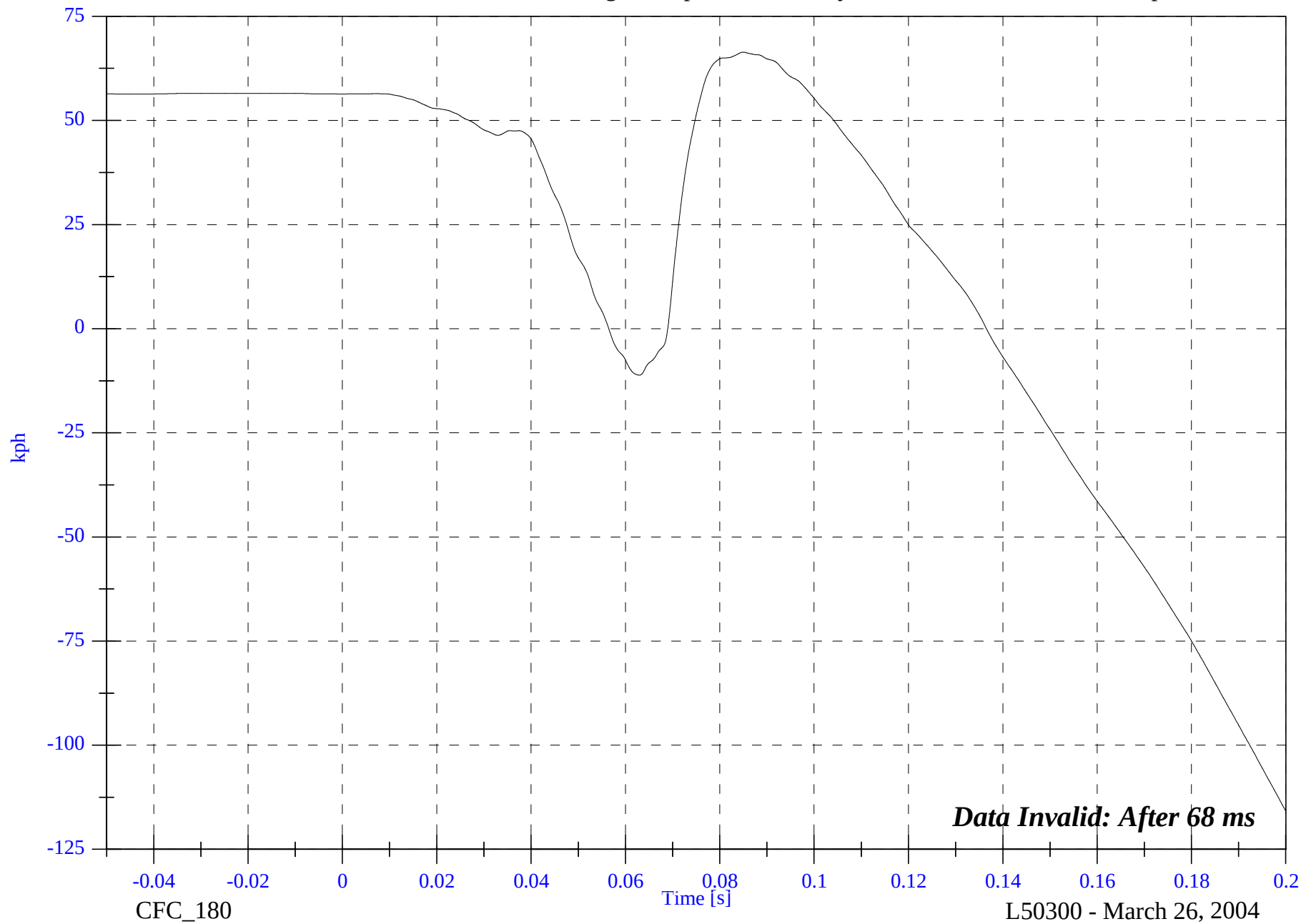


Frontal NCAP- 2005 Chrysler Town & Country

V1 Right Caliper #5x Velocity

Max: 66.4 [kph] at 0.085 [s]

Min: -115.8 [kph] at 0.200 [s]



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8741-01

CFC_180

Time [s]

L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

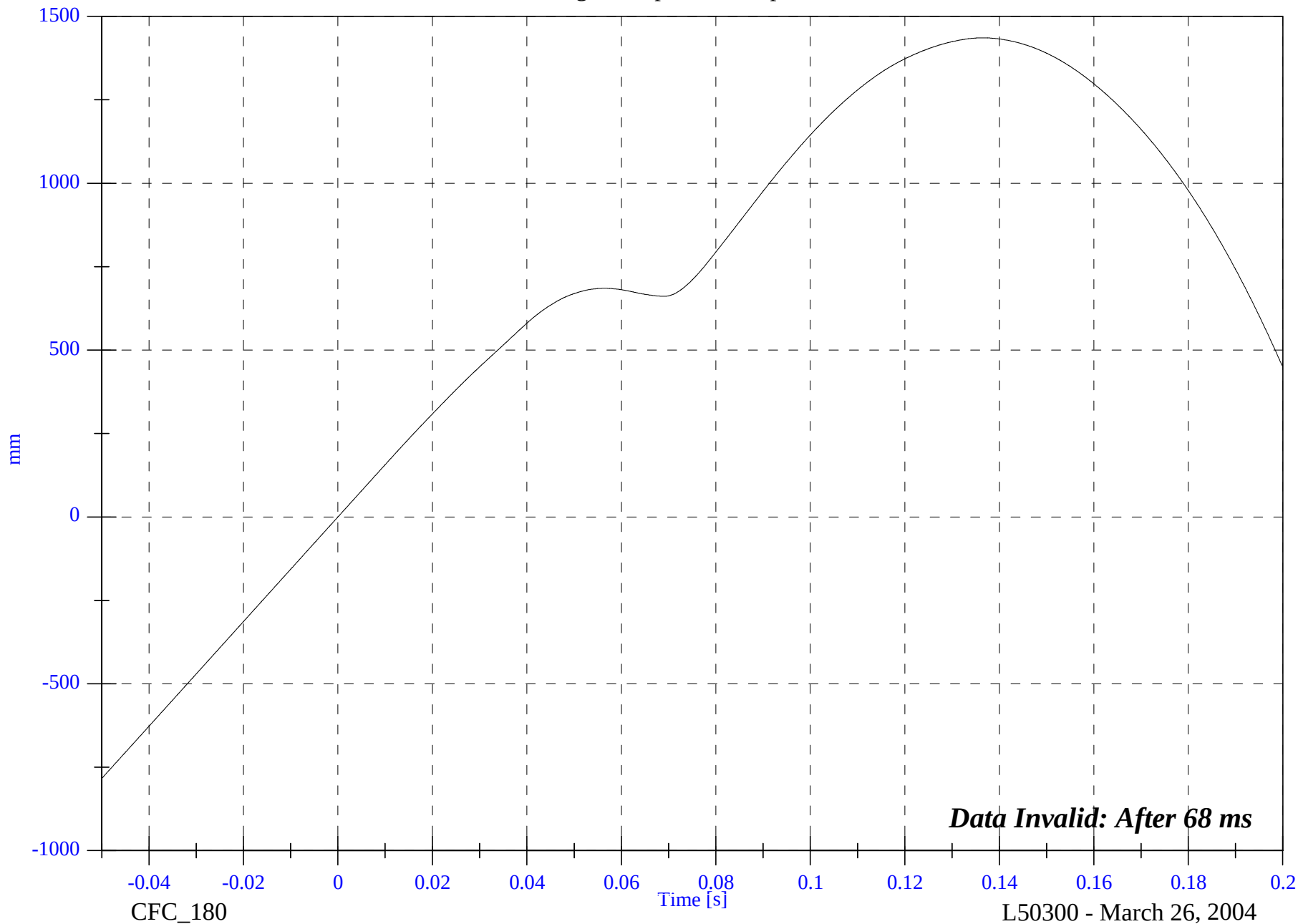
V1 Right Caliper #5x Displacement

Max: 1435.7 [mm] at 0.136 [s]

Min: -783.8 [mm] at -0.050 [s]

B-130

8741-01

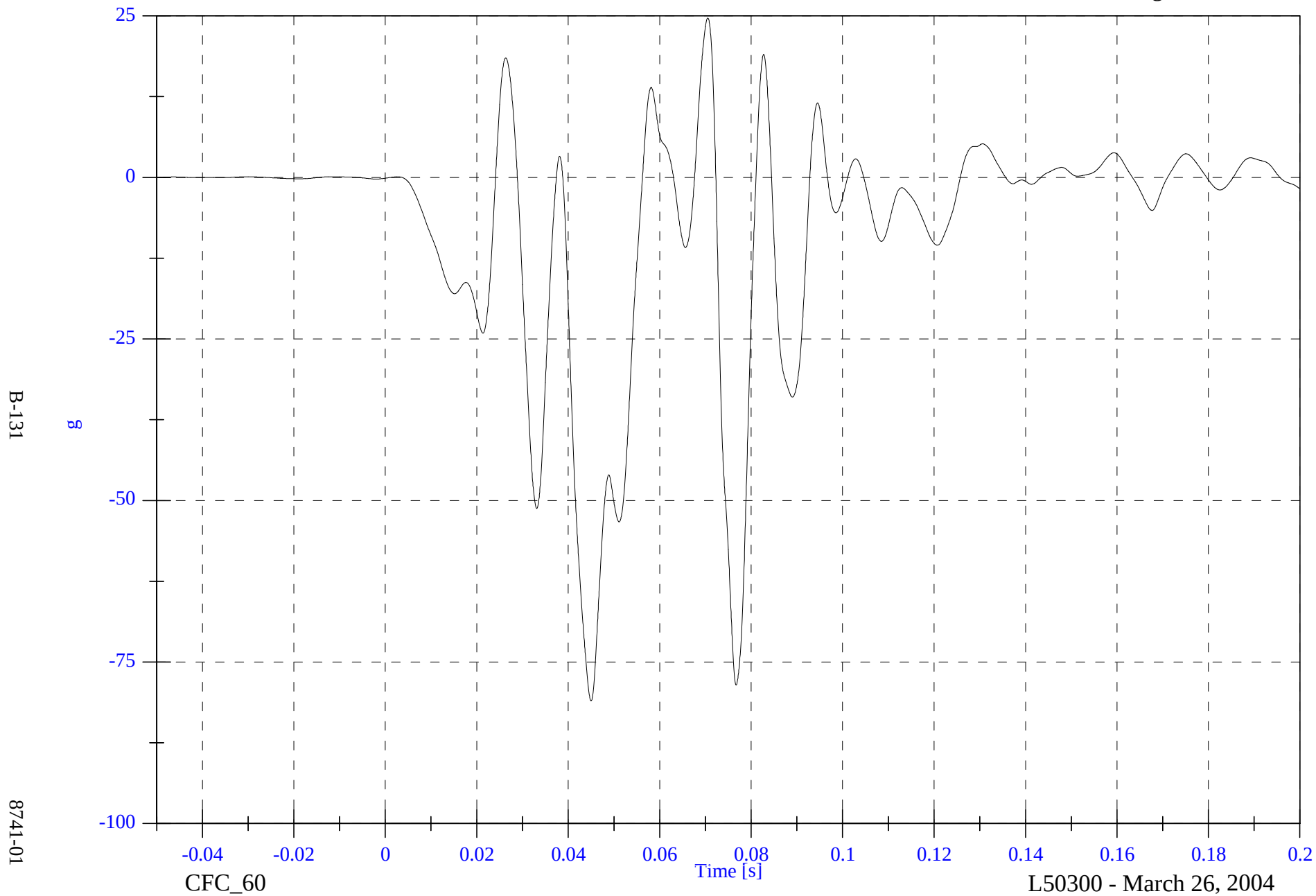


Frontal NCAP- 2005 Chrysler Town & Country

V1 Instrument Panel #6x

Max: 24.7 [g] at 0.070 [s]

Min: -81.0 [g] at 0.045 [s]

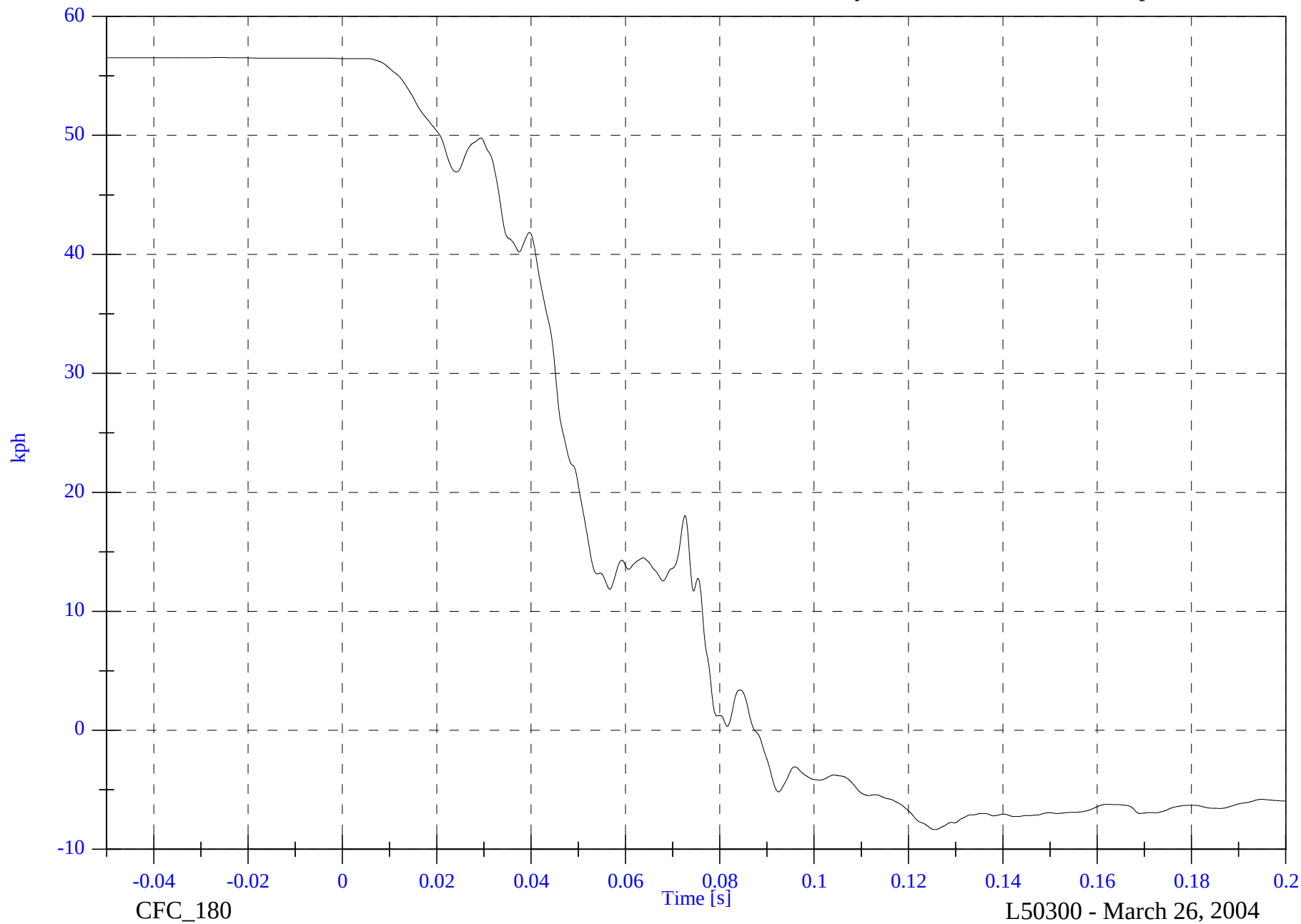


Frontal NCAP- 2005 Chrysler Town & Country

V1 Instrument Panel #6x Velocity

Max: 56.5 [kph] at -0.026 [s]

Min: -8.3 [kph] at 0.126 [s]



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8741-01

CFC_180

Time [s]

L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

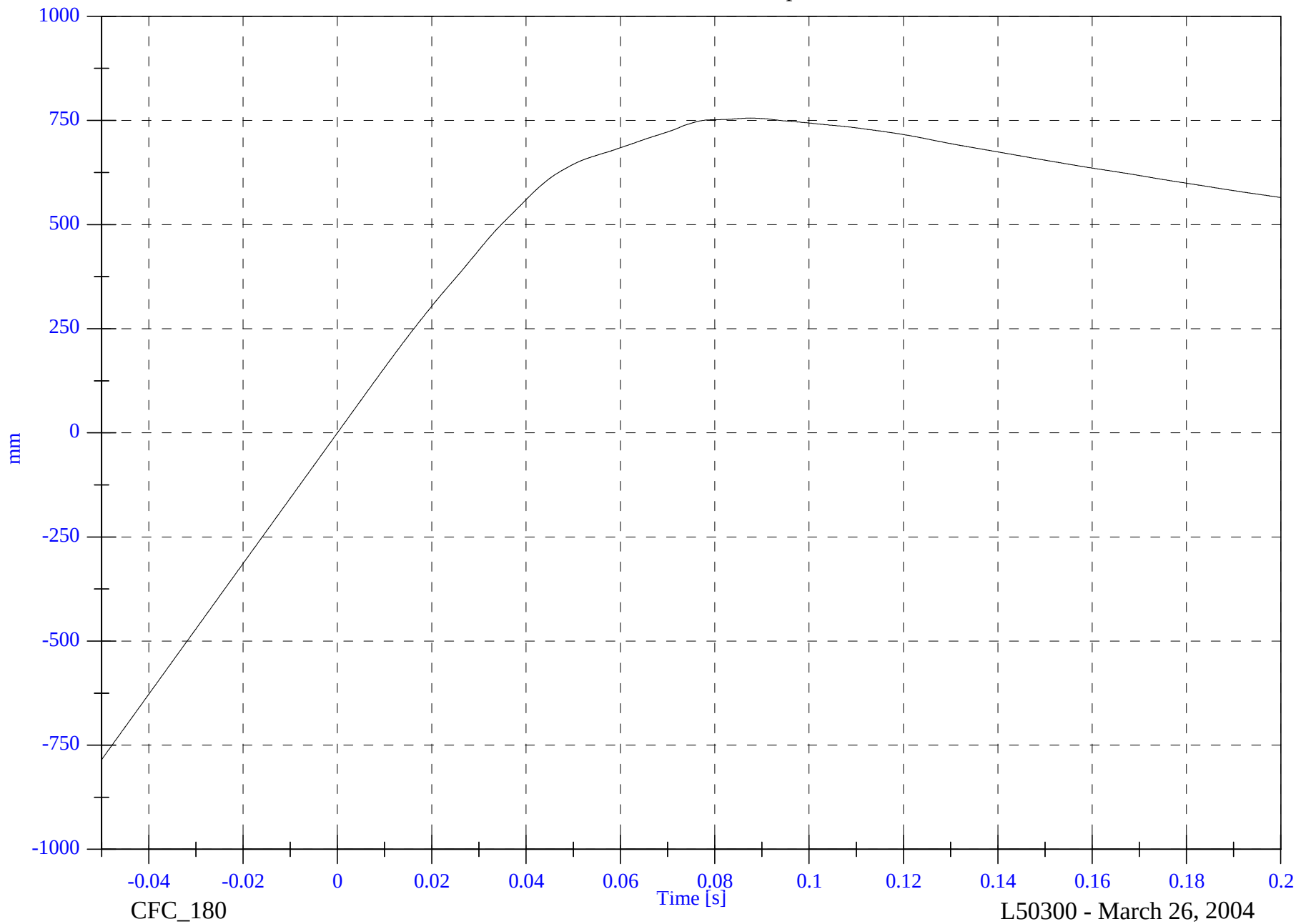
V1 Instrument Panel #6x Displacement

Max: 755.4 [mm] at 0.087 [s]

Min: -784.8 [mm] at -0.050 [s]

B-133

8741-01



CFC_180

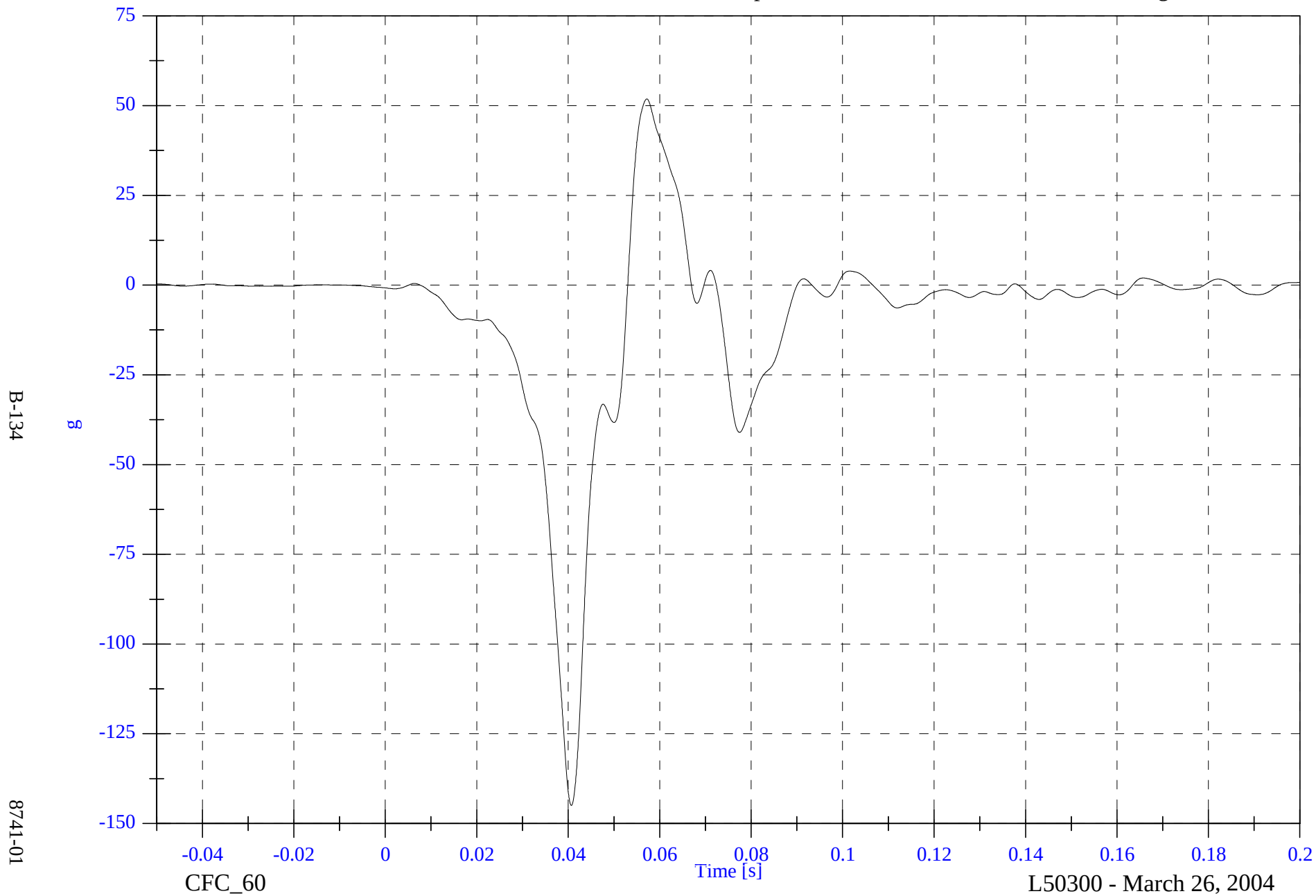
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1 Left Caliper #7x

Max: 51.9 [g] at 0.057 [s]

Min: -144.9 [g] at 0.041 [s]

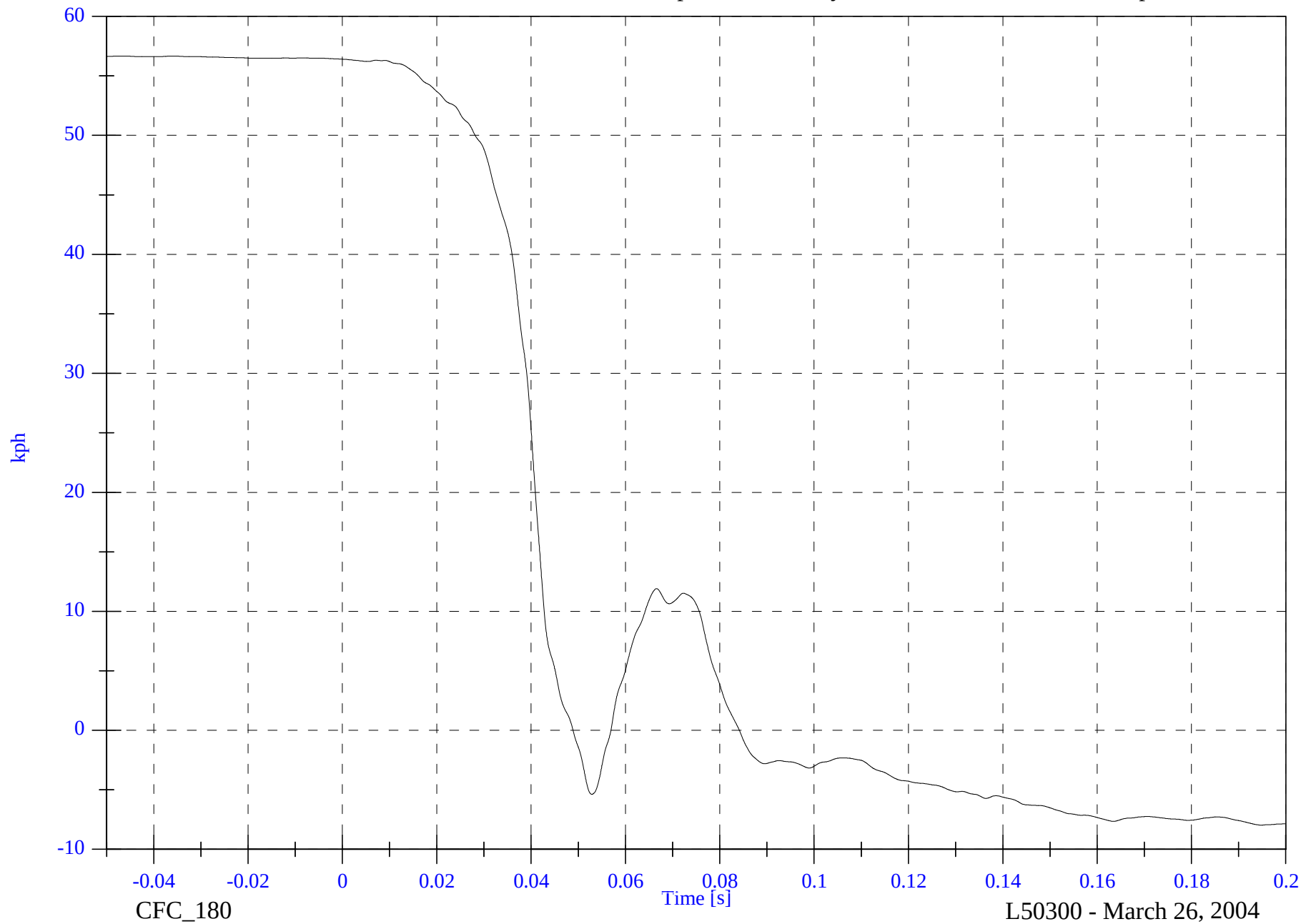


Frontal NCAP- 2005 Chrysler Town & Country

V1 Left Caliper #7x Velocity

Max: 56.7 [kph] at -0.046 [s]

Min: -8.0 [kph] at 0.195 [s]



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8741-01

CFC_180

Time [s]

L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

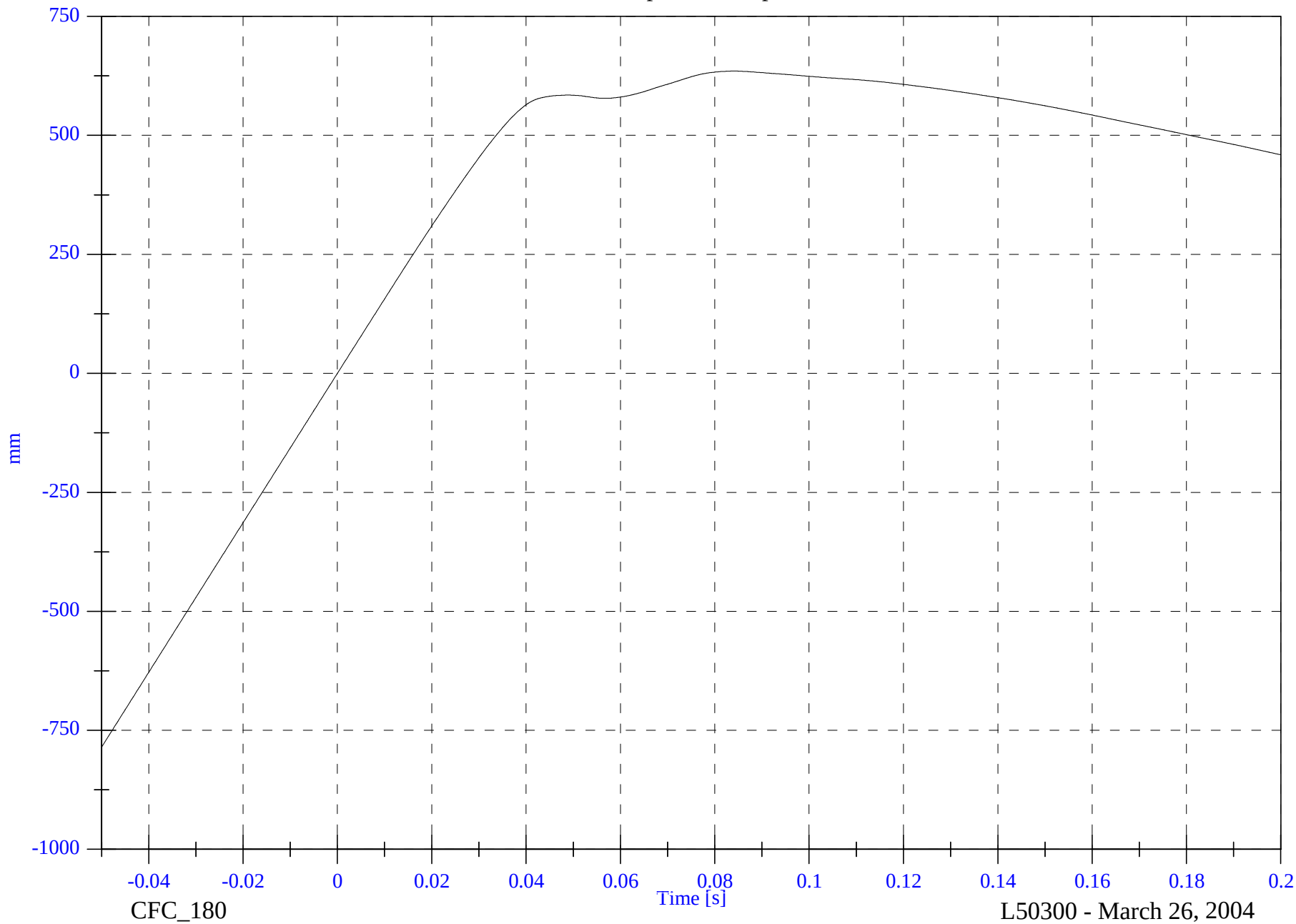
V1 Left Caliper #7x Displacement

Max: 634.8 [mm] at 0.084 [s]

Min: -785.5 [mm] at -0.050 [s]

B-136

8741-01



CFC_180

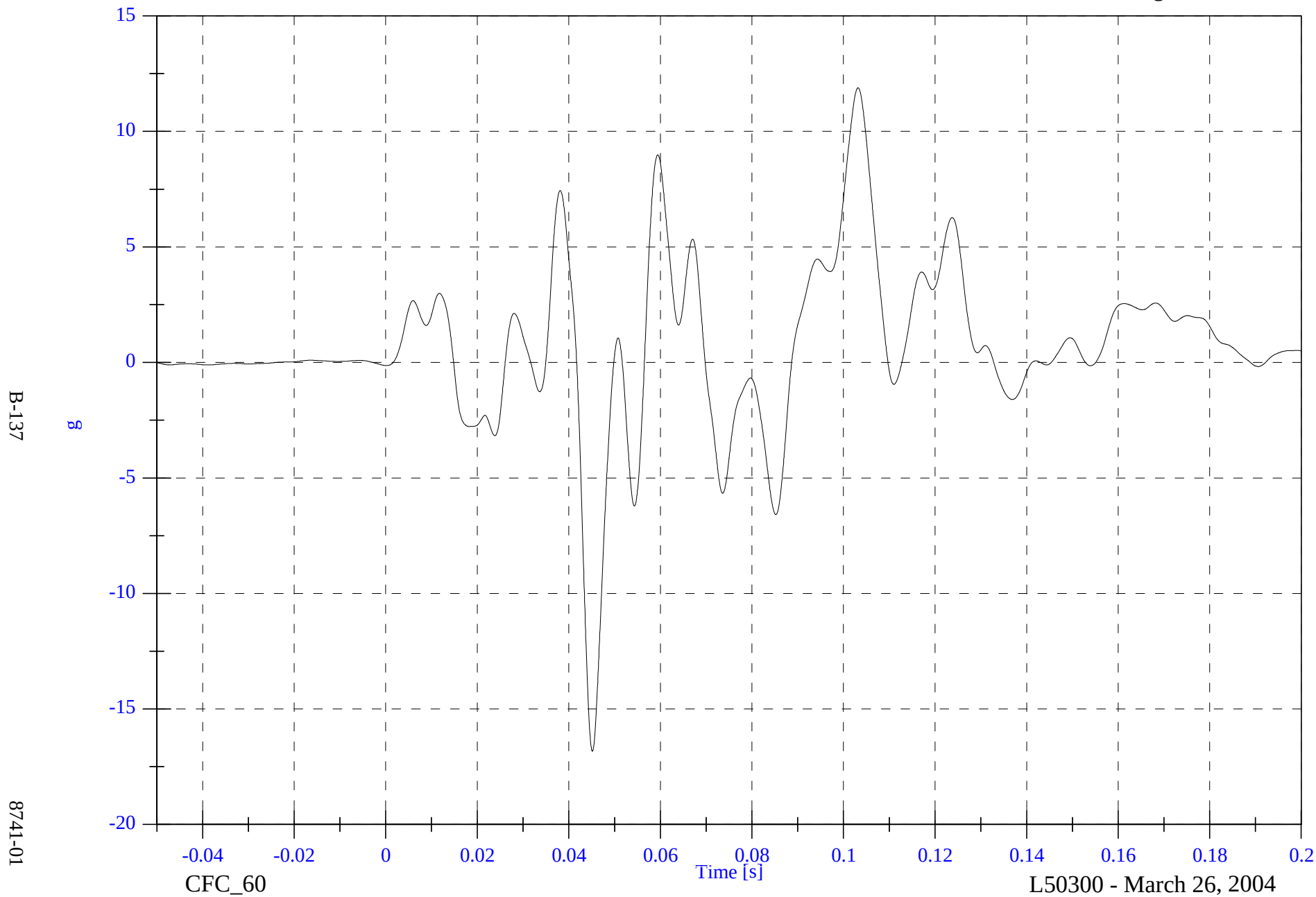
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1 Left Rear #8z

Max: 11.9 [g] at 0.103 [s]

Min: -16.8 [g] at 0.045 [s]

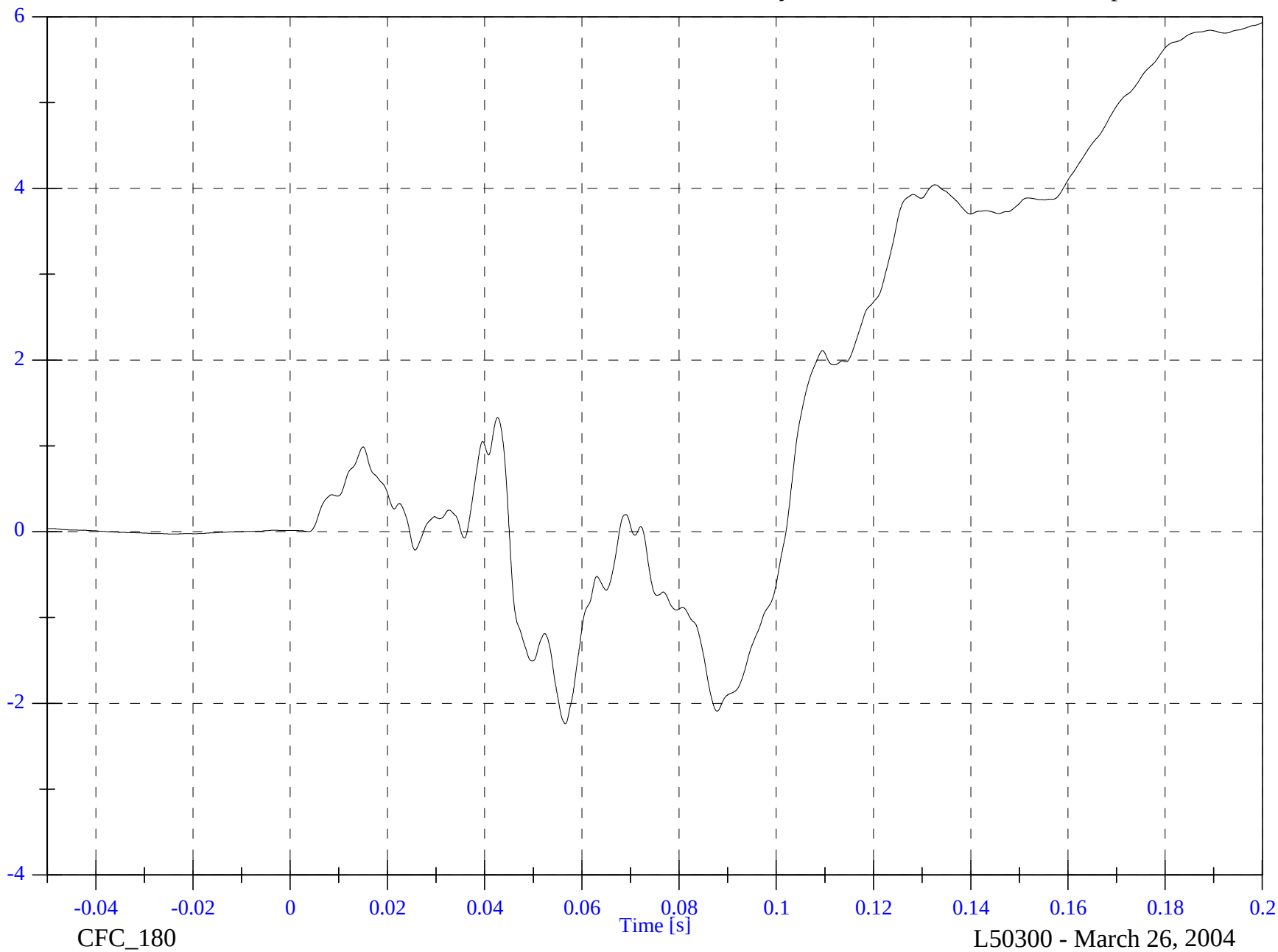


Frontal NCAP- 2005 Chrysler Town & Country

V1 Left Rear #8z Velocity

Max: 5.9 [kph] at 0.200 [s]

Min: -2.2 [kph] at 0.057 [s]



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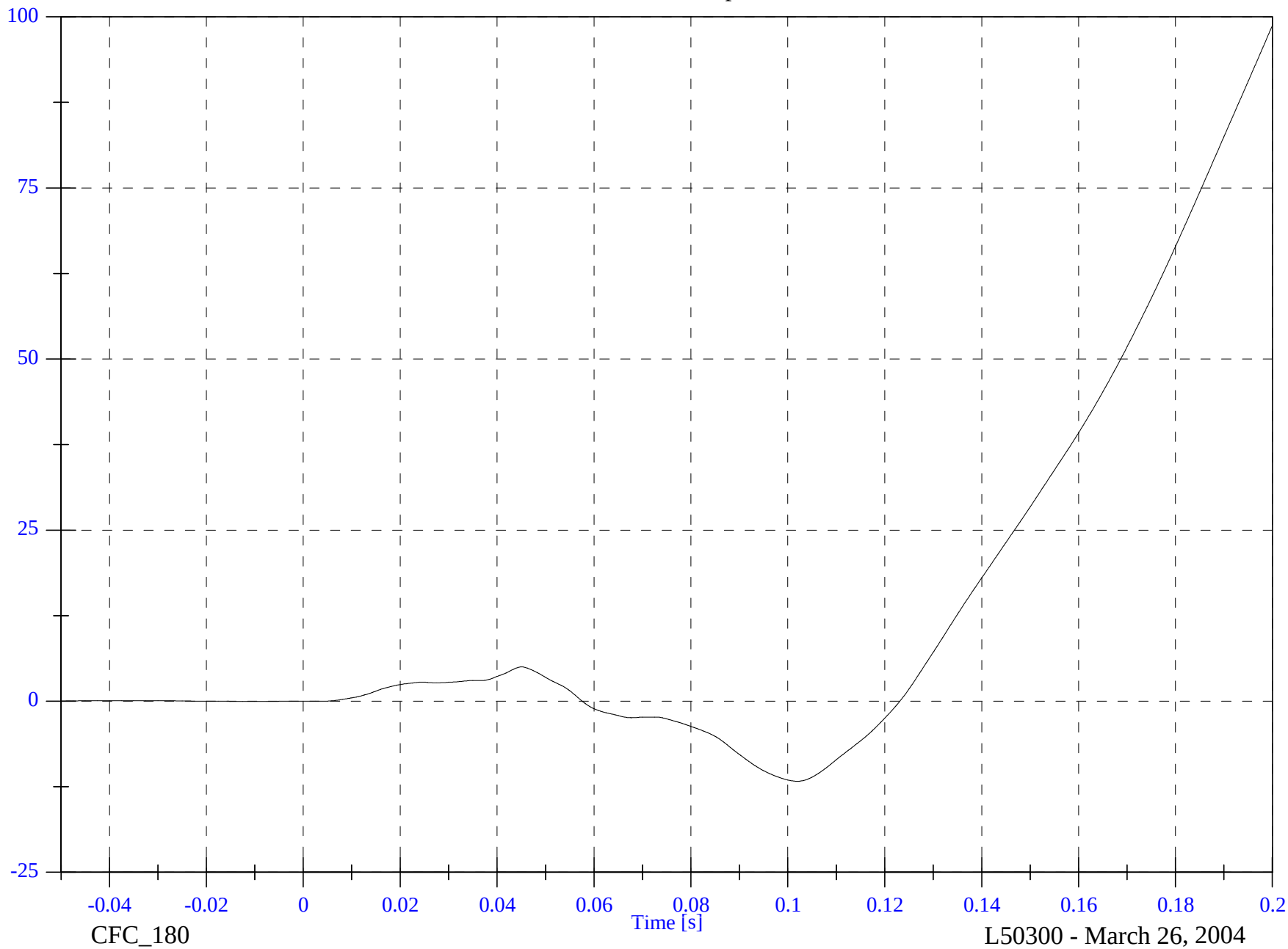
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1 Left Rear #8z Displacement

Max: 98.7 [mm] at 0.200 [s]

Min: -11.7 [mm] at 0.102 [s]



B-139

8741-01

CFC_180

Time [s]

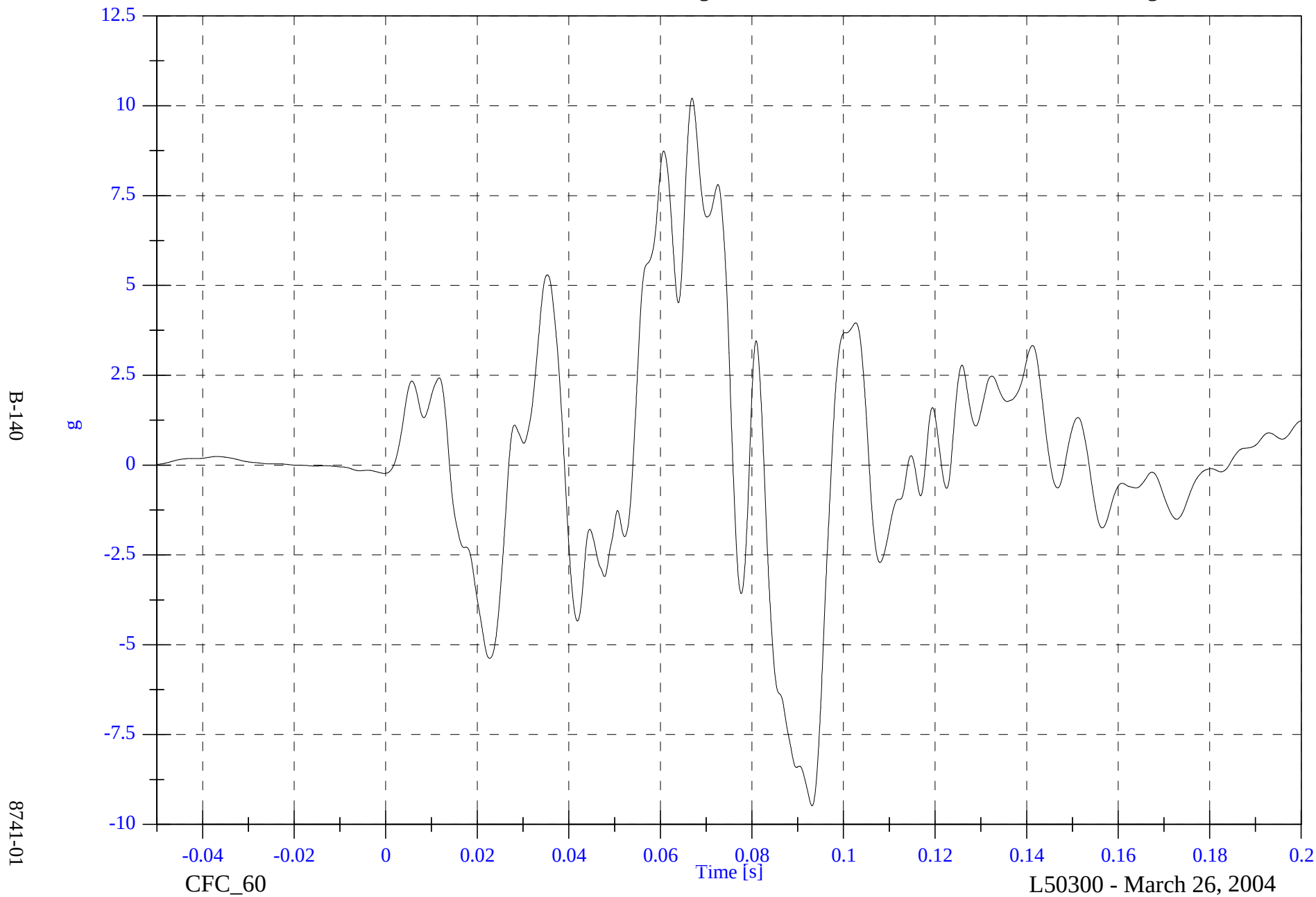
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1 Right Rear #9z

Max: 10.2 [g] at 0.067 [s]

Min: -9.5 [g] at 0.093 [s]

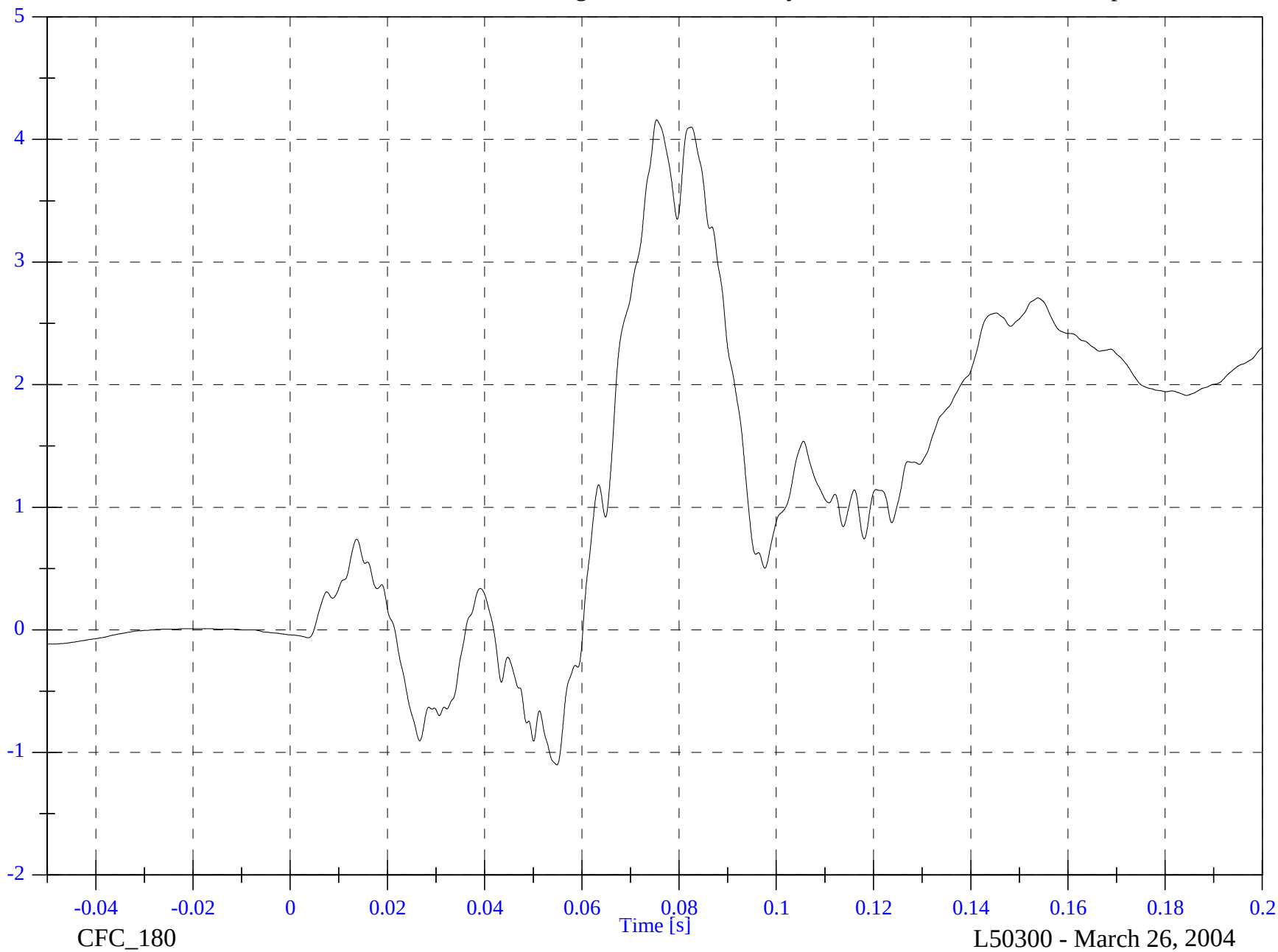


Frontal NCAP- 2005 Chrysler Town & Country

V1 Right Rear #9z Velocity

Max: 4.2 [kph] at 0.075 [s]

Min: -1.1 [kph] at 0.055 [s]



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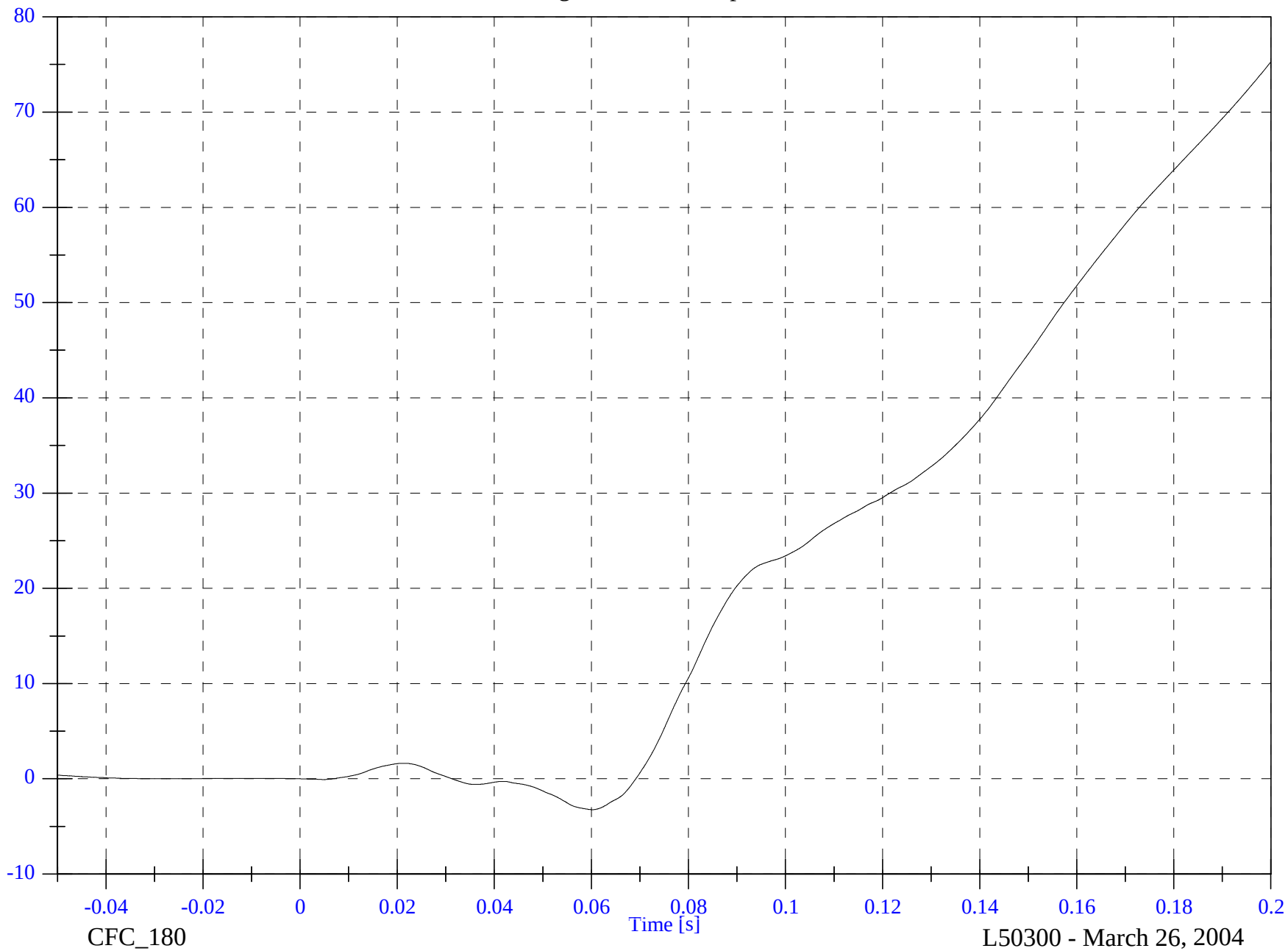
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1 Right Rear #9z Displacement

Max: 75.2 [mm] at 0.200 [s]

Min: -3.2 [mm] at 0.060 [s]



B-142

8741-01

CFC_180

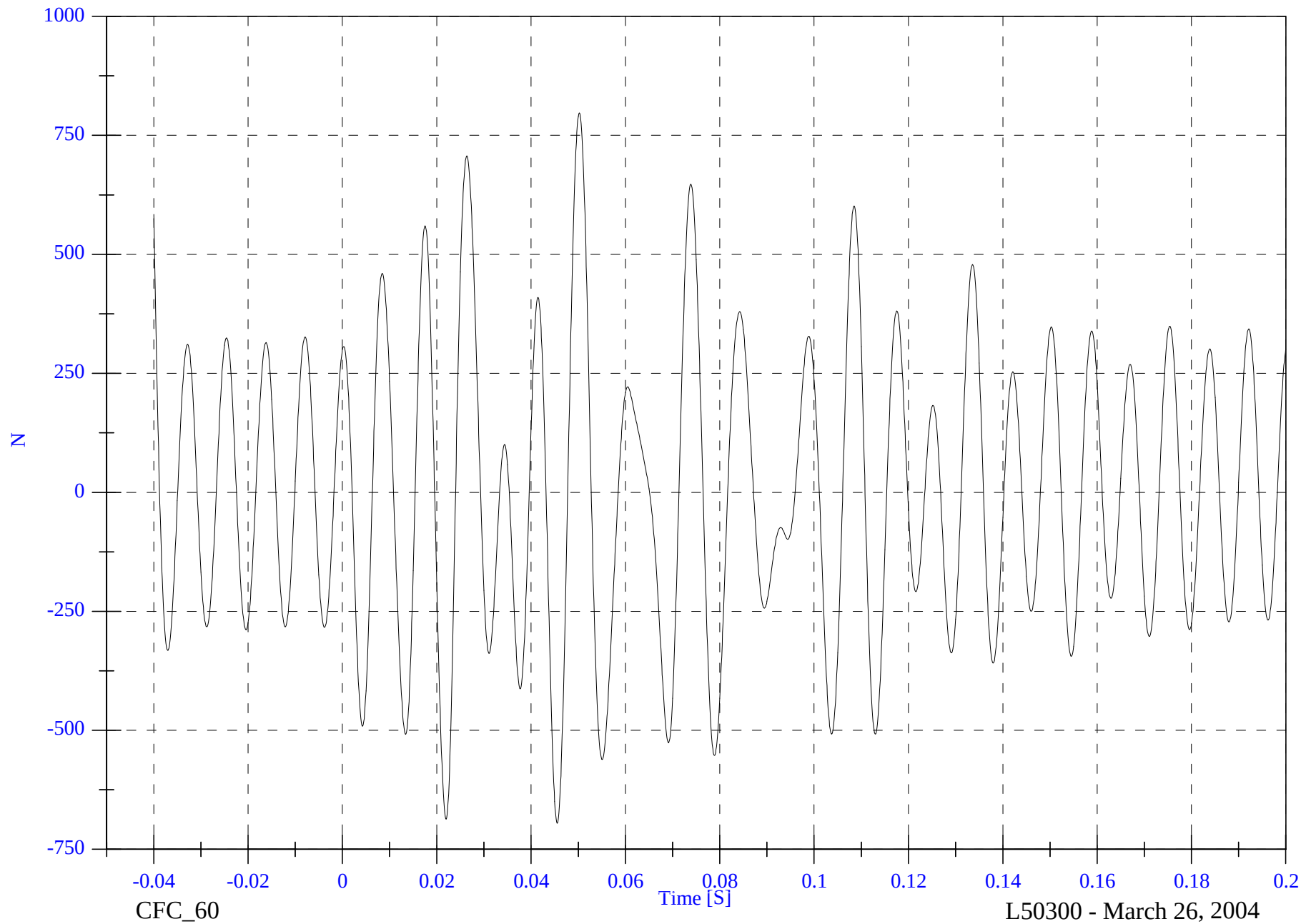
L50300 - March 26, 2004

Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell A1 Fx

Max: 797.3 [N] at 0.050 [S]

Min: -695.5 [N] at 0.045 [S]

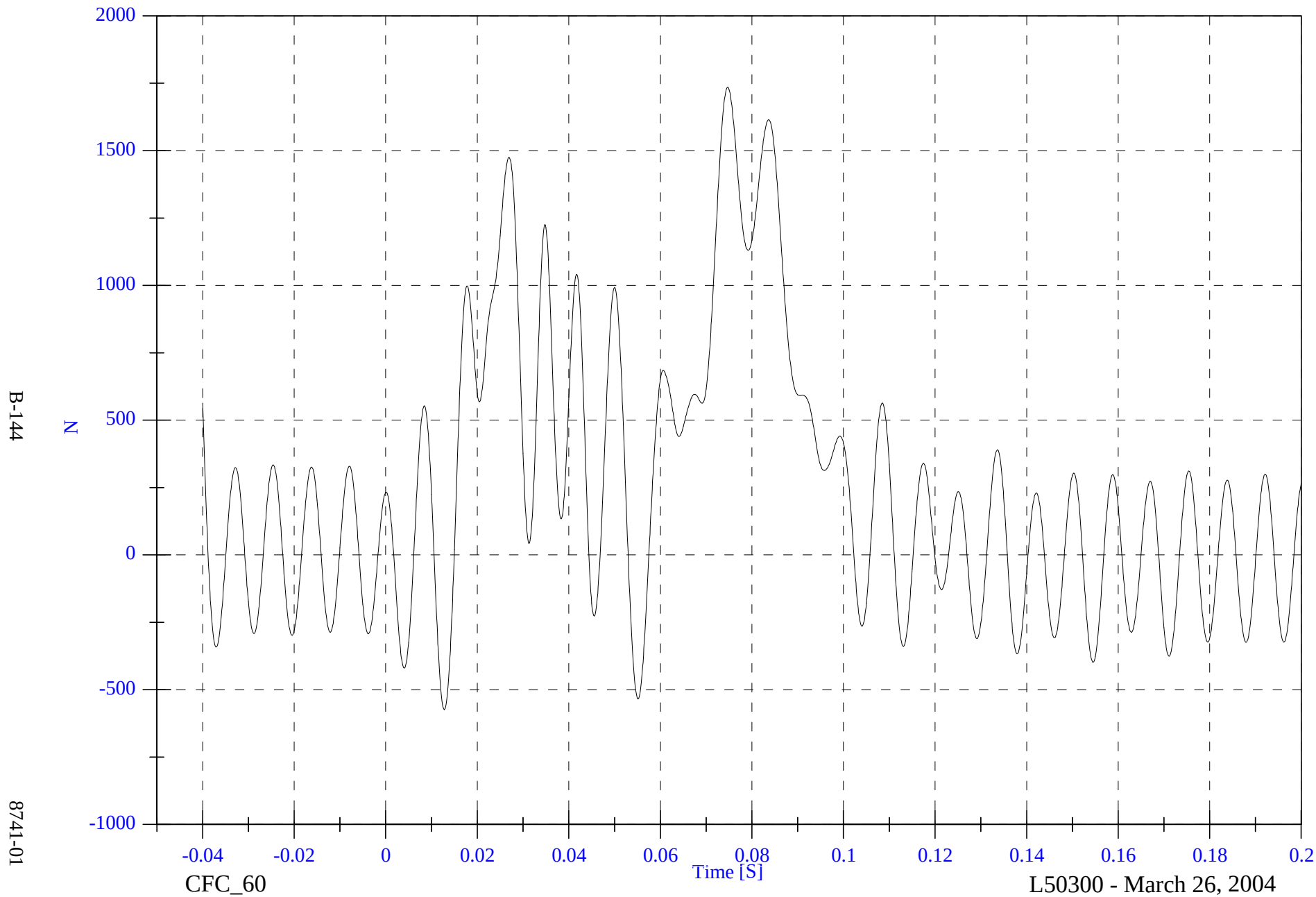


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell A2 Fx

Max: 1735.7 [N] at 0.075 [S]

Min: -574.2 [N] at 0.013 [S]

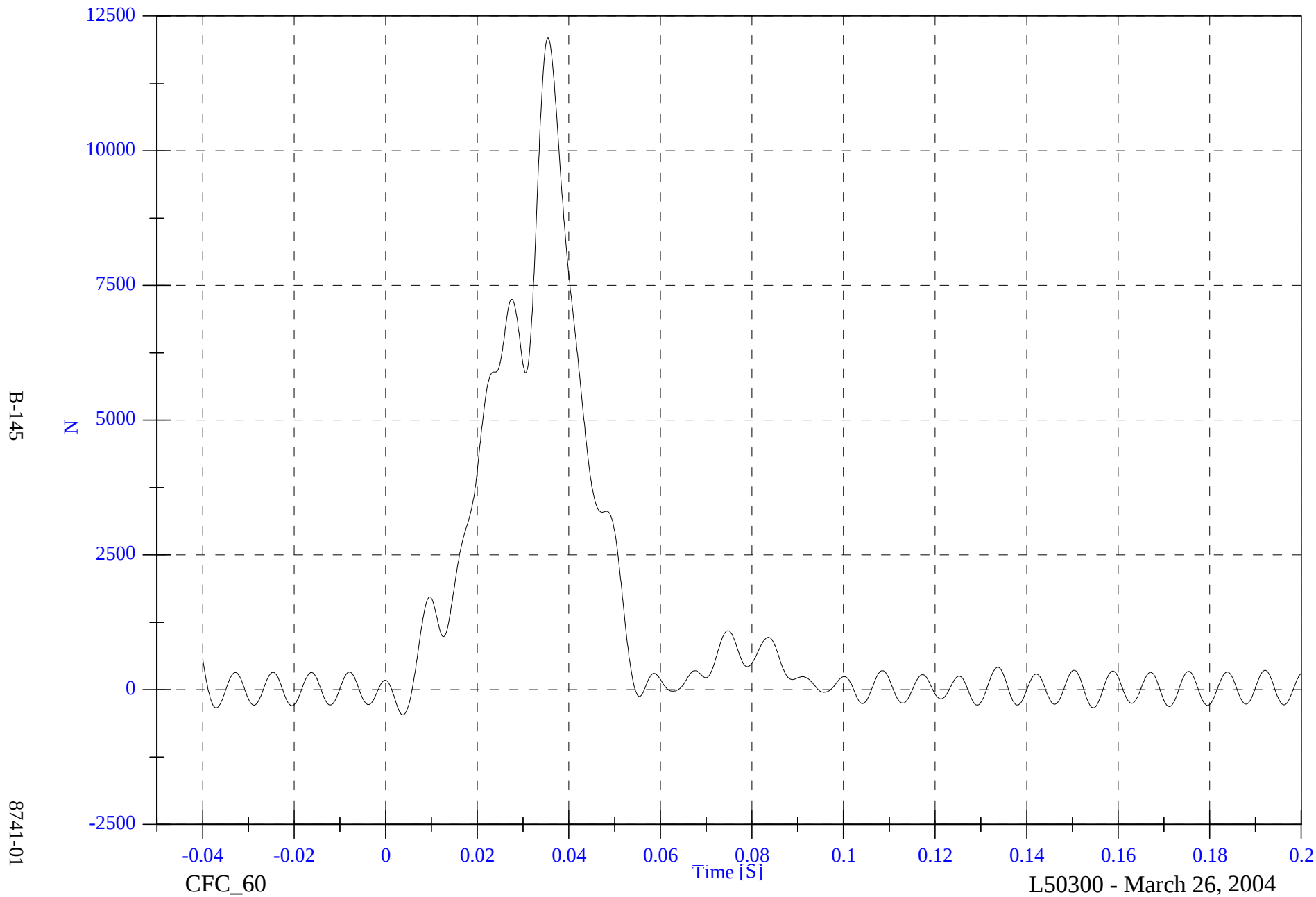


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell A3 Fx

Max: 12090.0 [N] at 0.035 [S]

Min: -465.1 [N] at 0.004 [S]

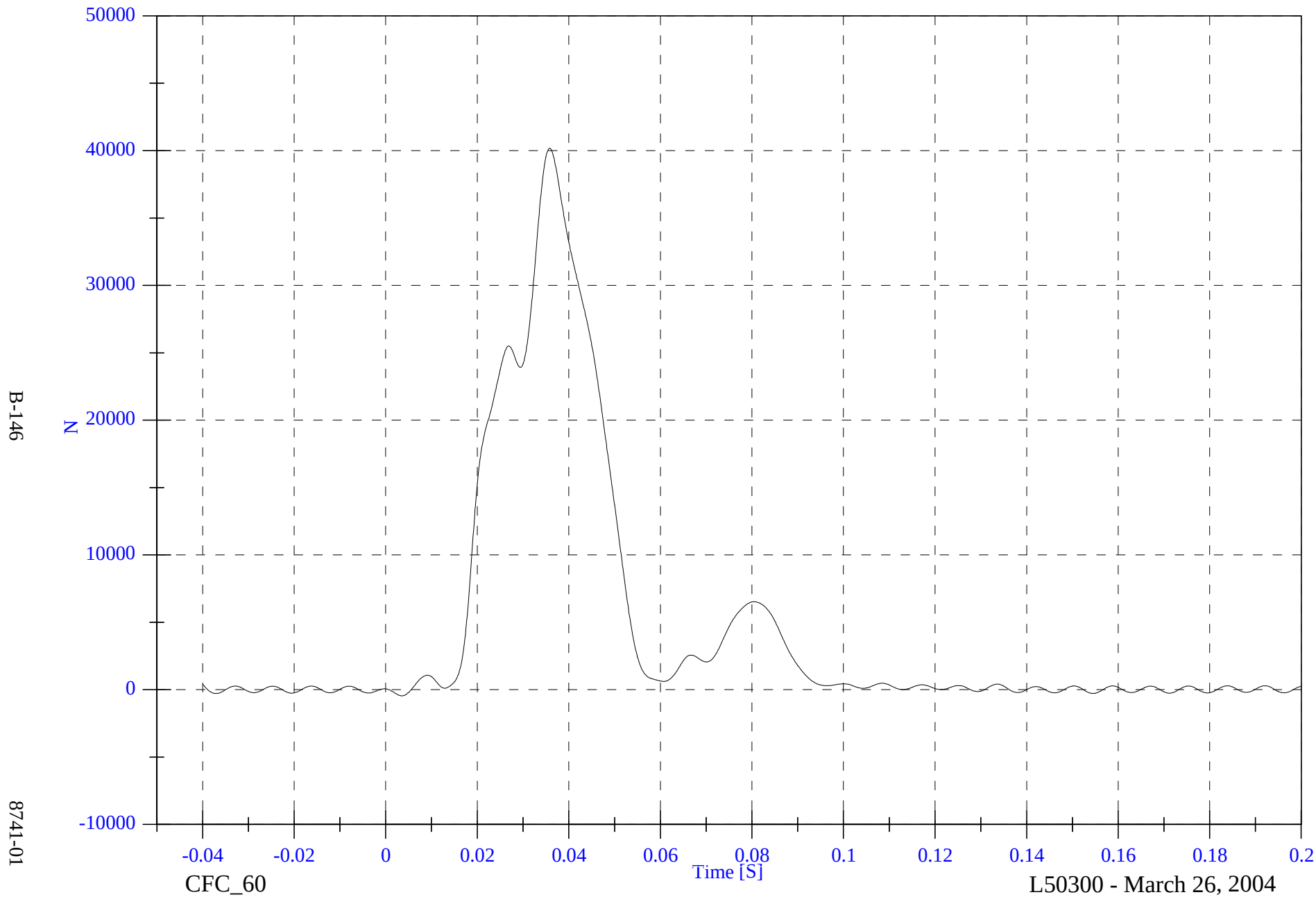


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell A4 Fx

Max: 40178.5 [N] at 0.036 [S]

Min: -451.9 [N] at 0.003 [S]

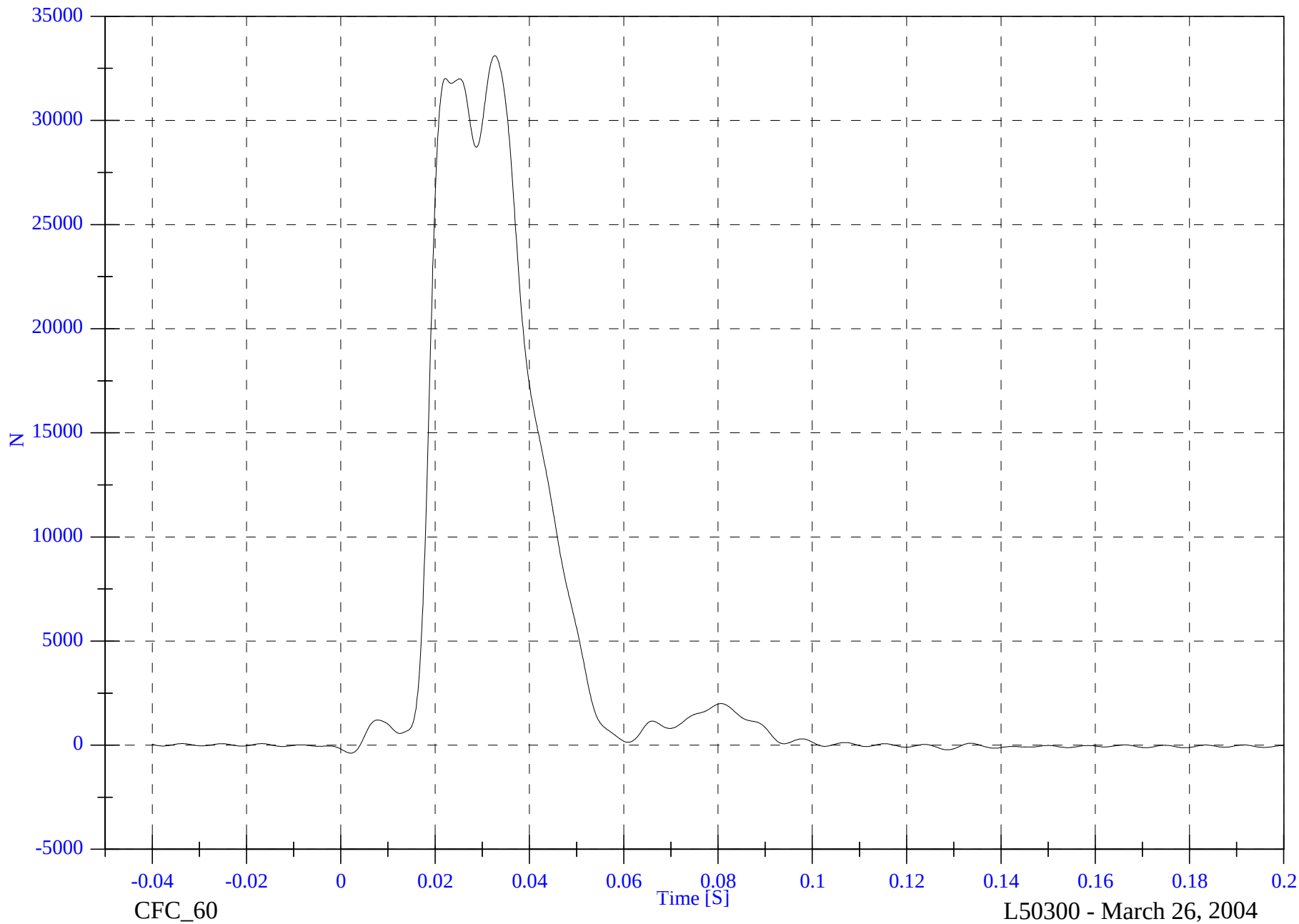


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell A5 Fx

Max: 33111.4 [N] at 0.033 [S]

Min: -382.3 [N] at 0.002 [S]



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8741-01

CFC_60

Time [S]

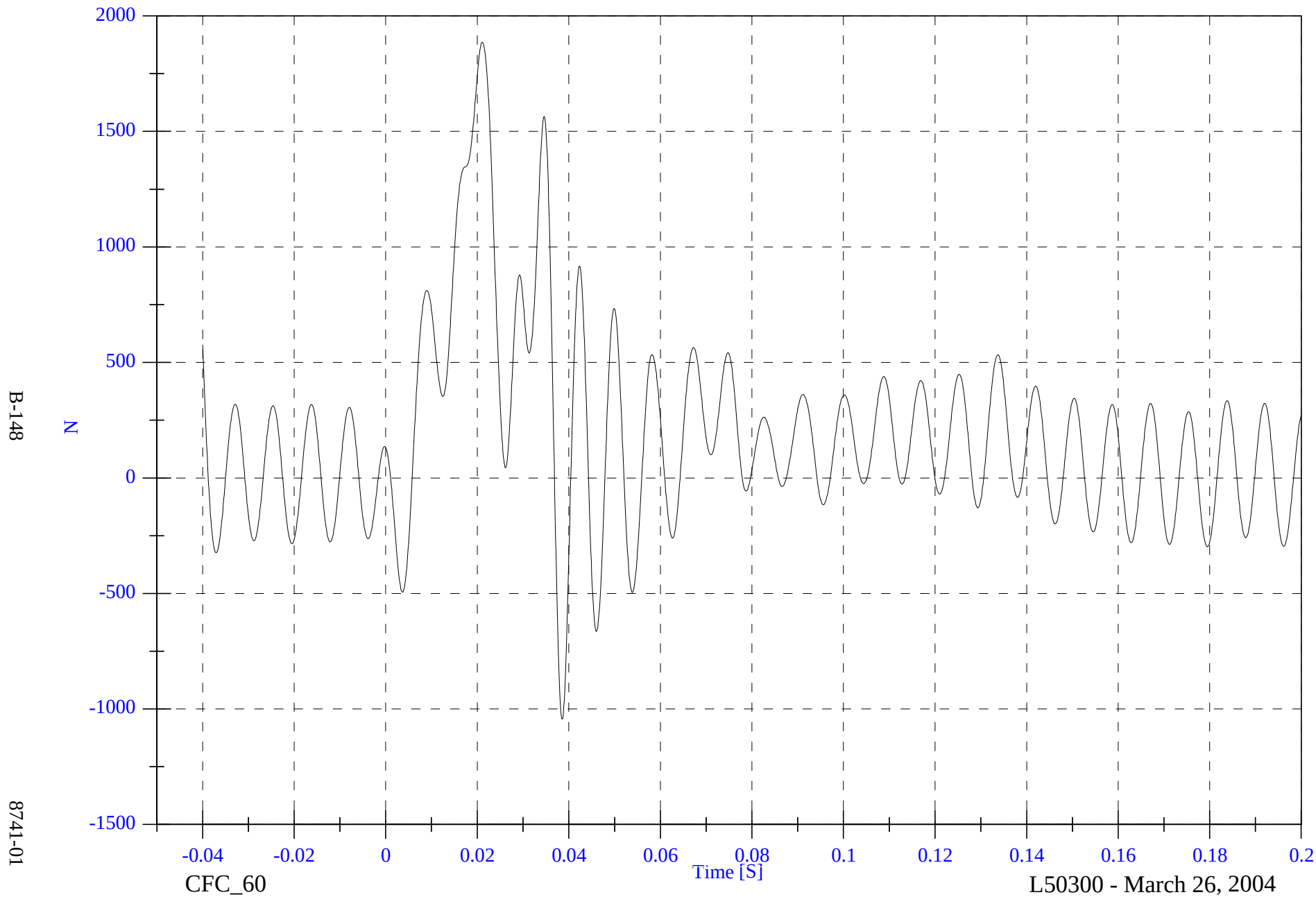
L50300 - March 26, 2004

Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell A6 Fx

Max: 1885.5 [N] at 0.021 [S]

Min: -1043.8 [N] at 0.038 [S]

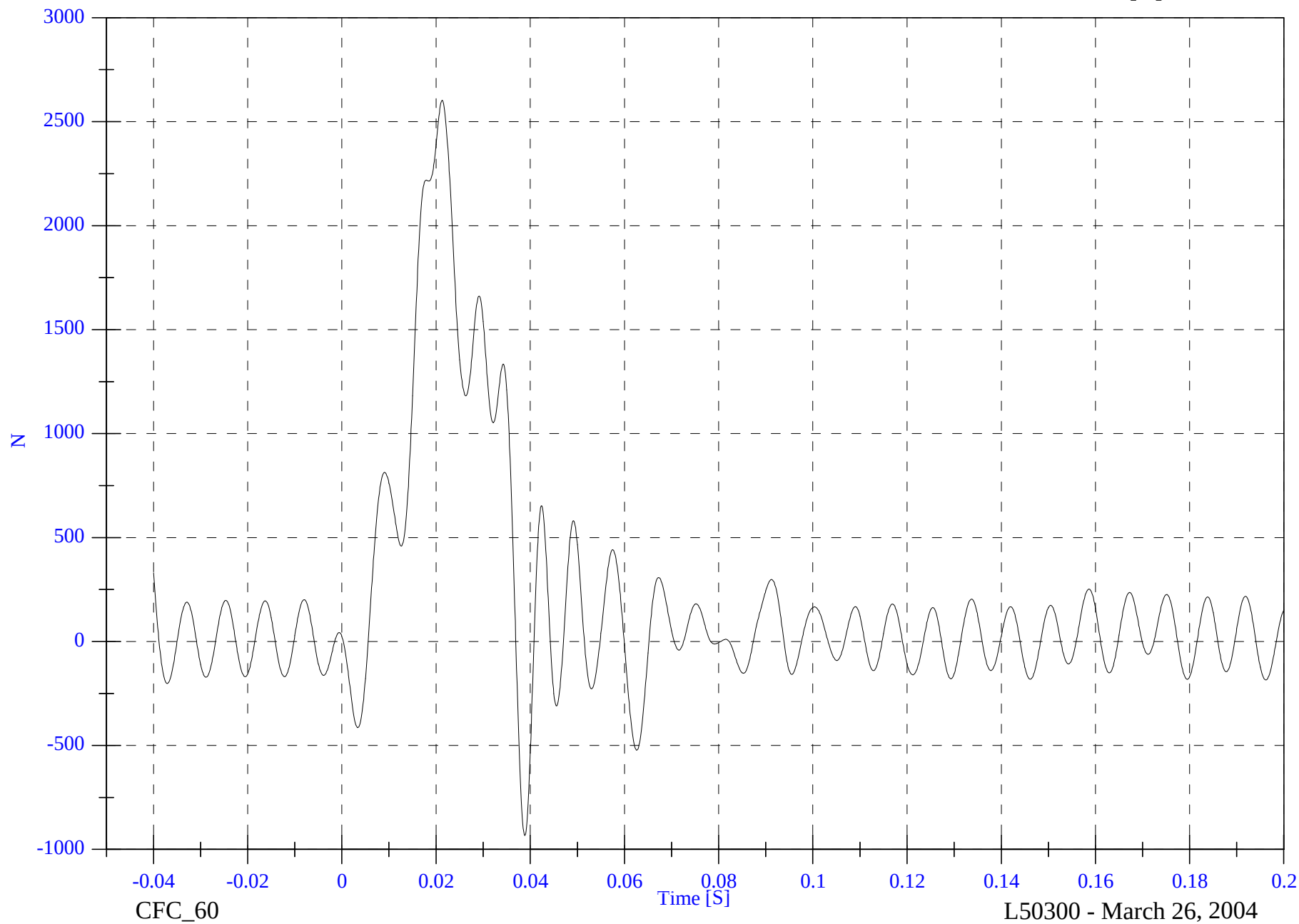


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell A7 Fx

Max: 2603.2 [N] at 0.021 [S]

Min: -933.7 [N] at 0.039 [S]



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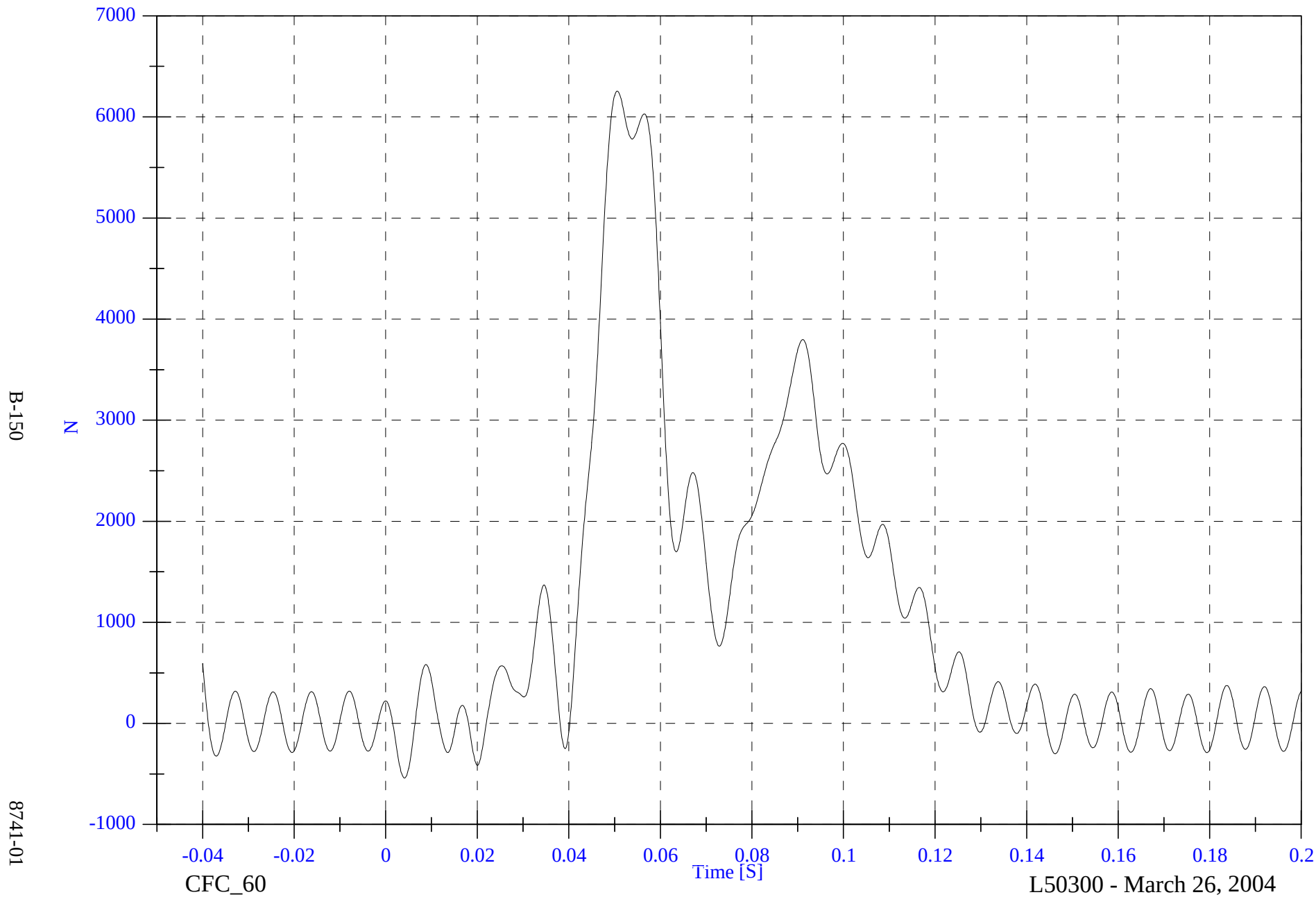
8741-01

Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell A8 Fx

Max: 6256.0 [N] at 0.051 [S]

Min: -540.1 [N] at 0.004 [S]

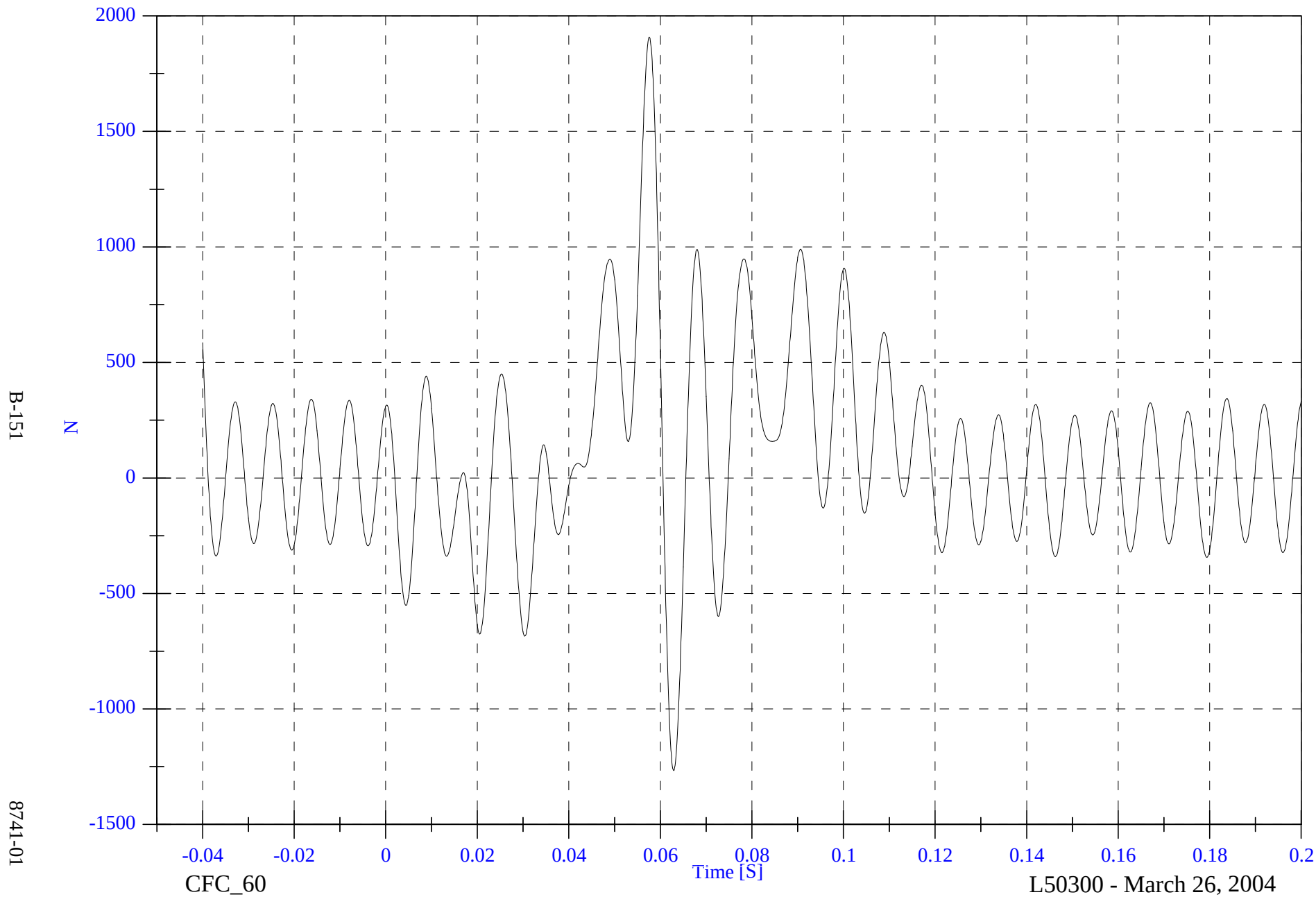


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell A9 Fx

Max: 1907.5 [N] at 0.058 [S]

Min: -1266.6 [N] at 0.063 [S]

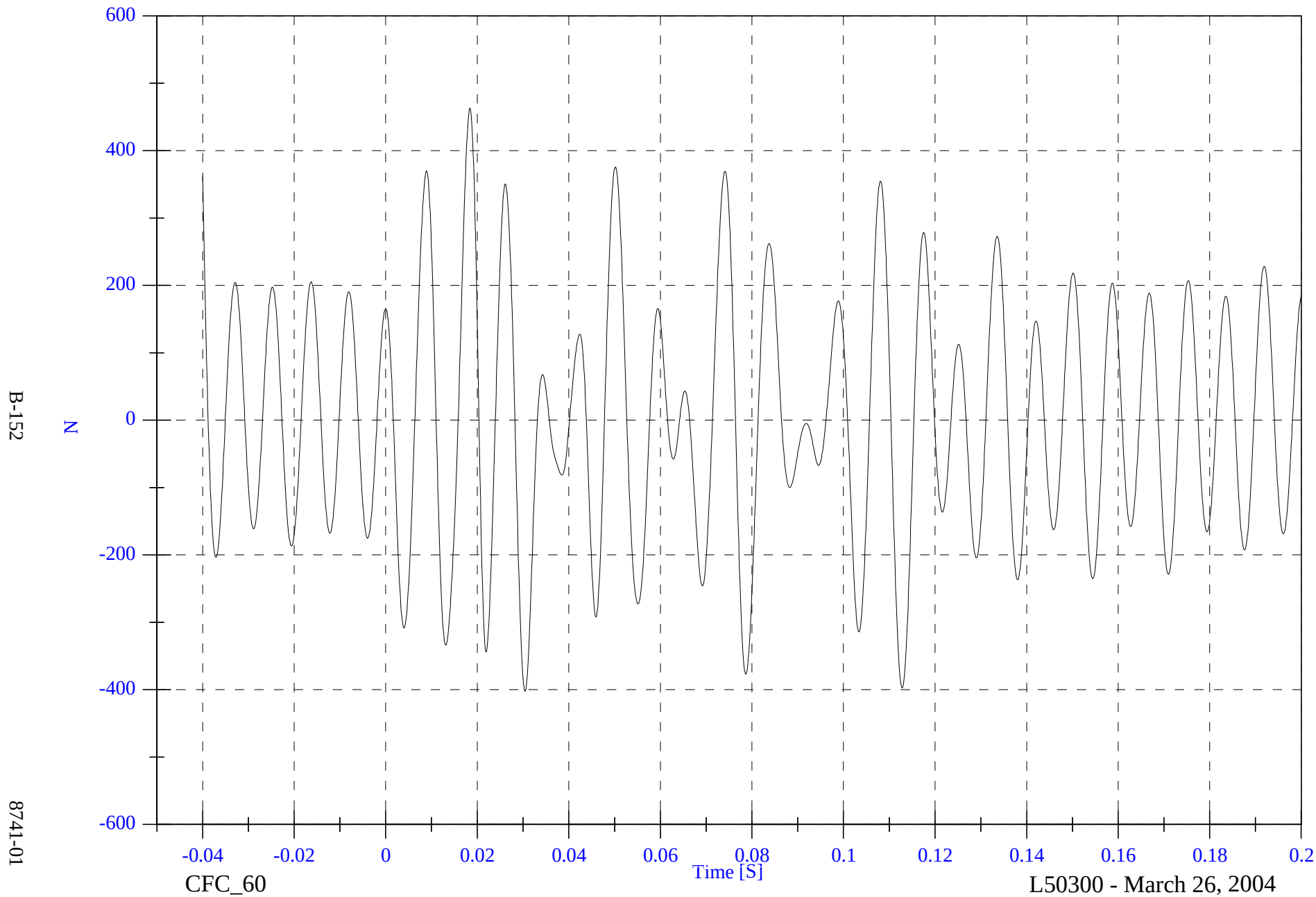


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell B1 Fx

Max: 463.2 [N] at 0.018 [S]

Min: -402.1 [N] at 0.030 [S]

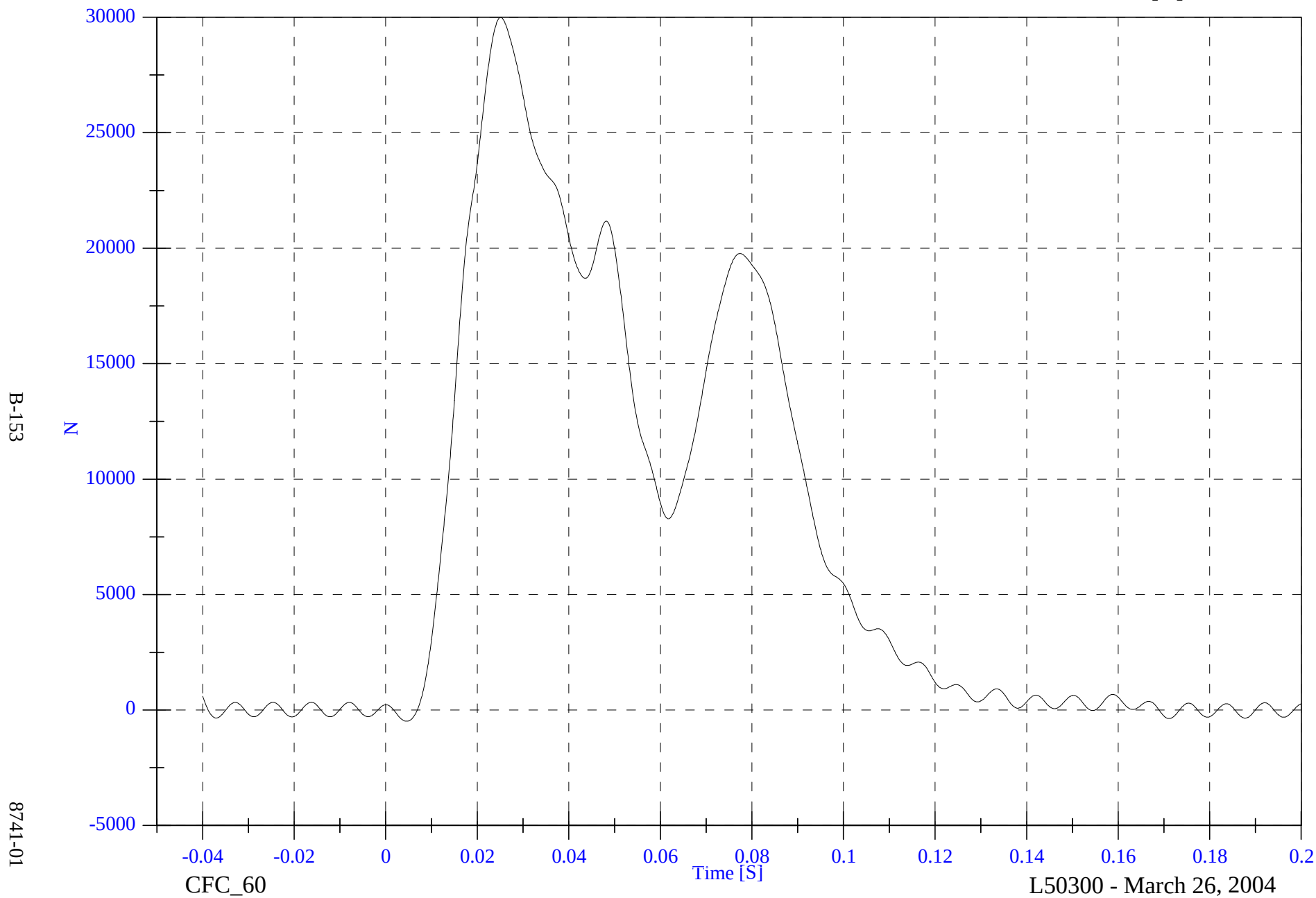


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell B2 Fx

Max: 30004.9 [N] at 0.025 [S]

Min: -485.7 [N] at 0.005 [S]

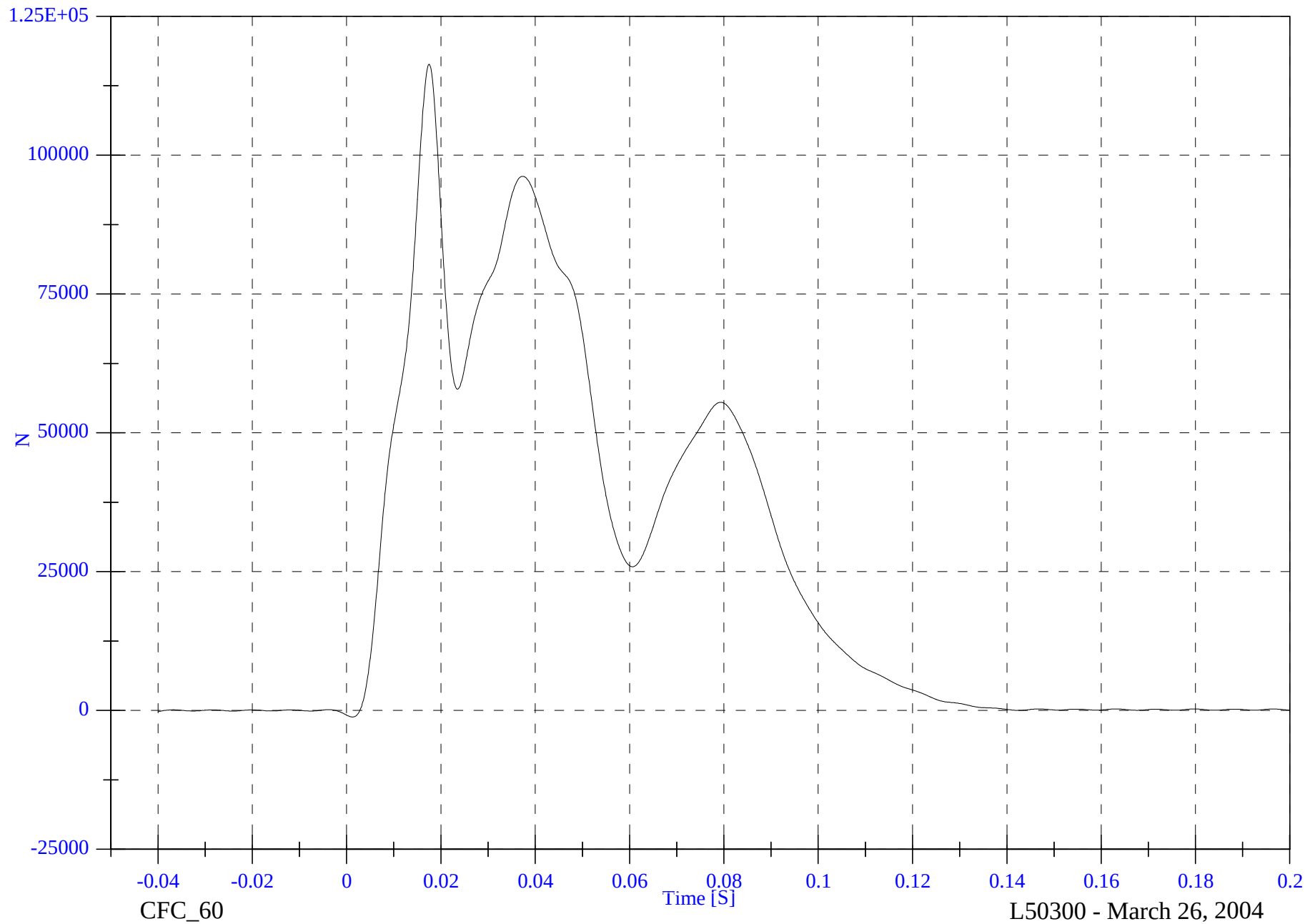


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell B3 Fx

Max: 116373.0 [N] at 0.017 [S]

Min: -1175.5 [N] at 0.001 [S]



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8741-01

CFC_60

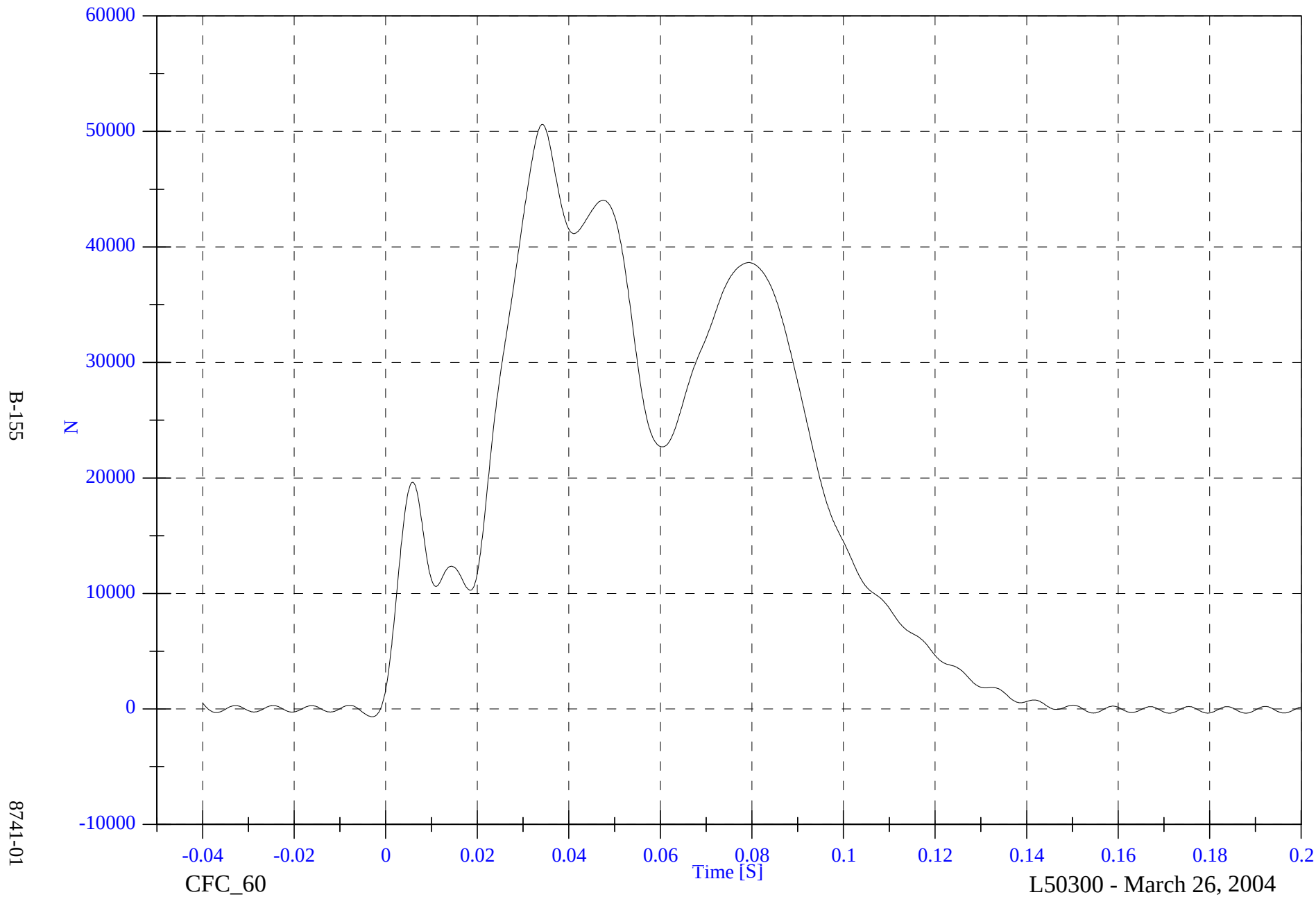
L50300 - March 26, 2004

Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell B4 Fx

Max: 50608.0 [N] at 0.034 [S]

Min: -674.6 [N] at -0.003 [S]

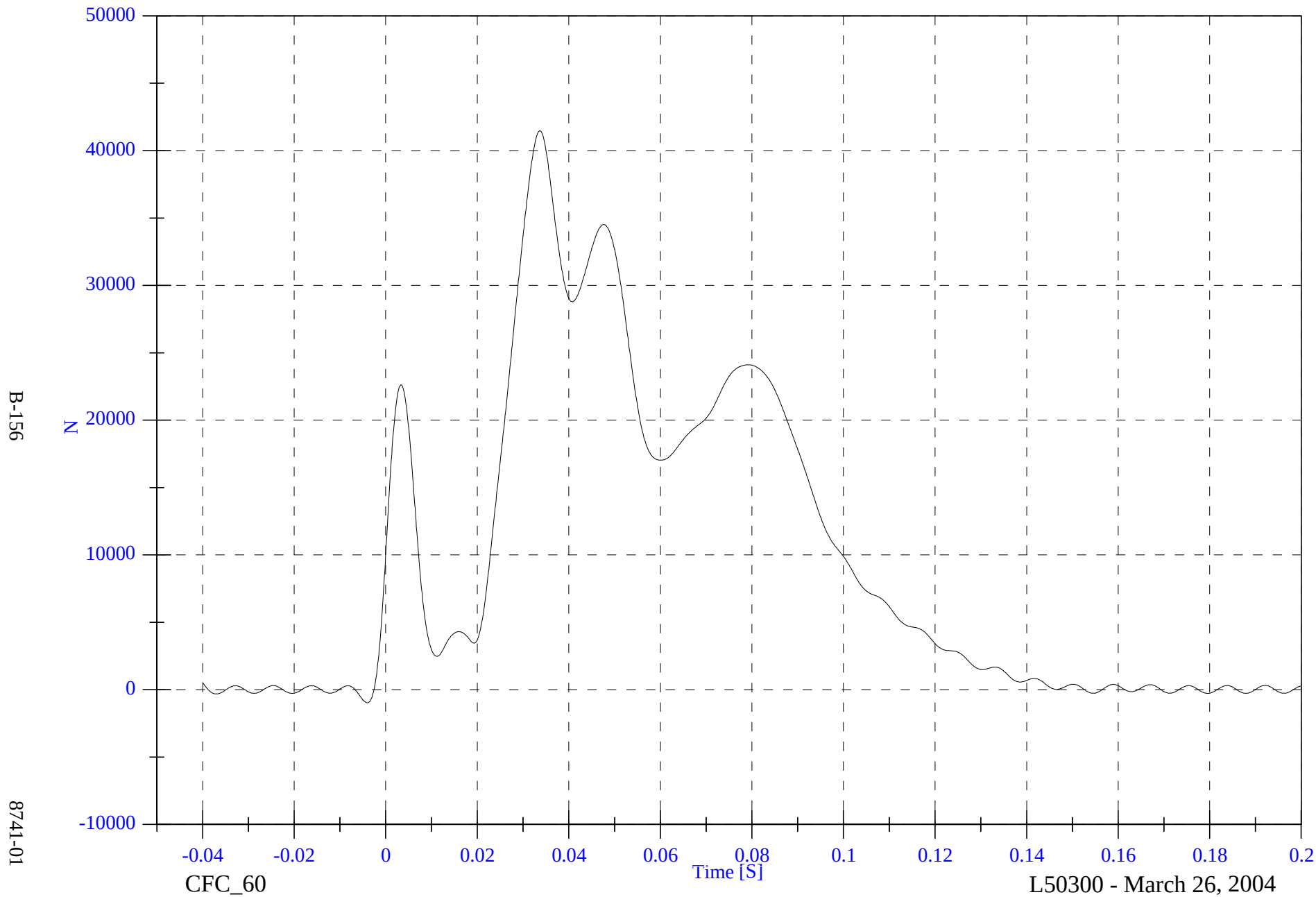


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell B5 Fx

Max: 41473.9 [N] at 0.034 [S]

Min: -970.7 [N] at -0.004 [S]

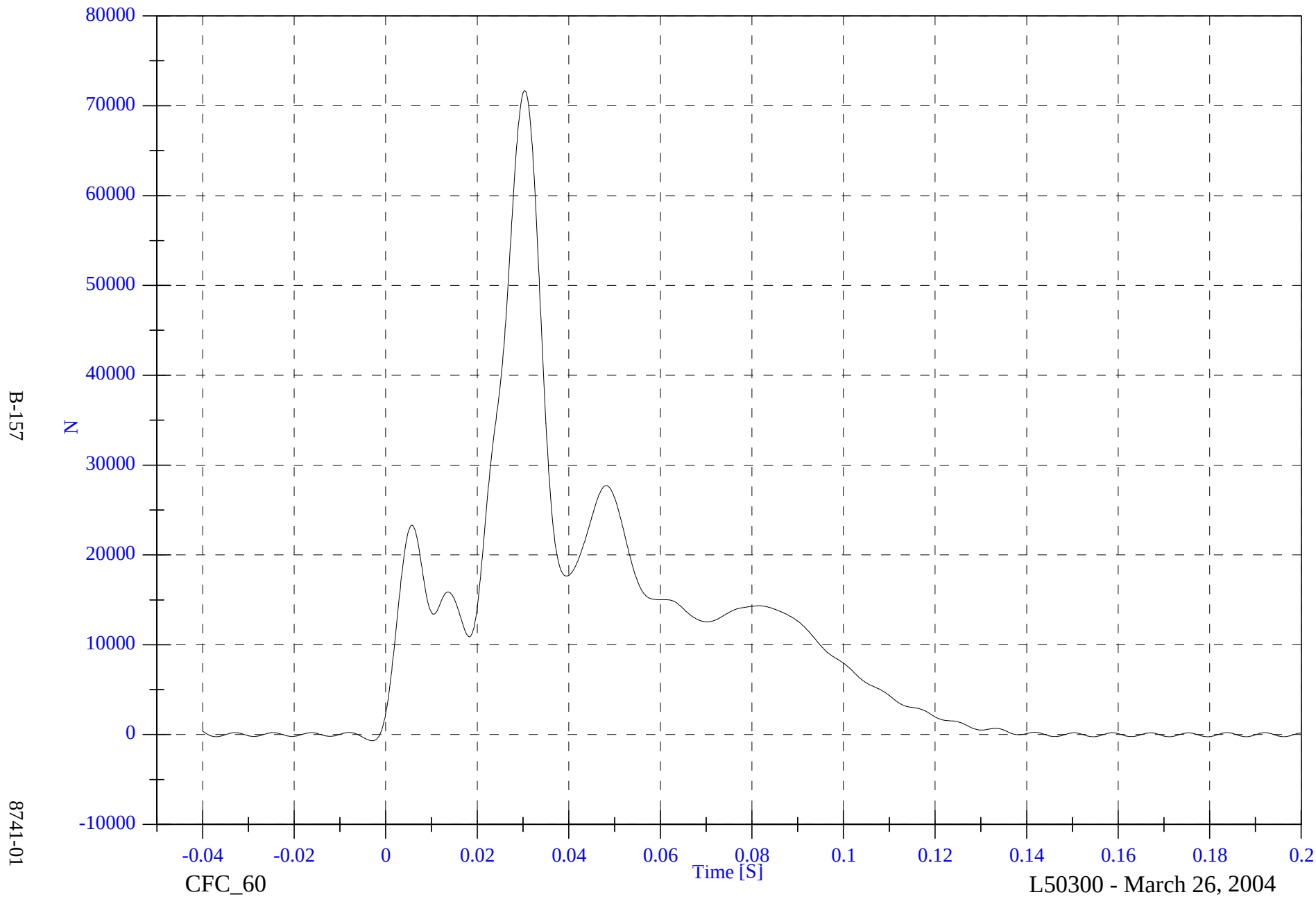


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell B6 Fx

Max: 71675.2 [N] at 0.030 [S]

Min: -682.4 [N] at -0.003 [S]

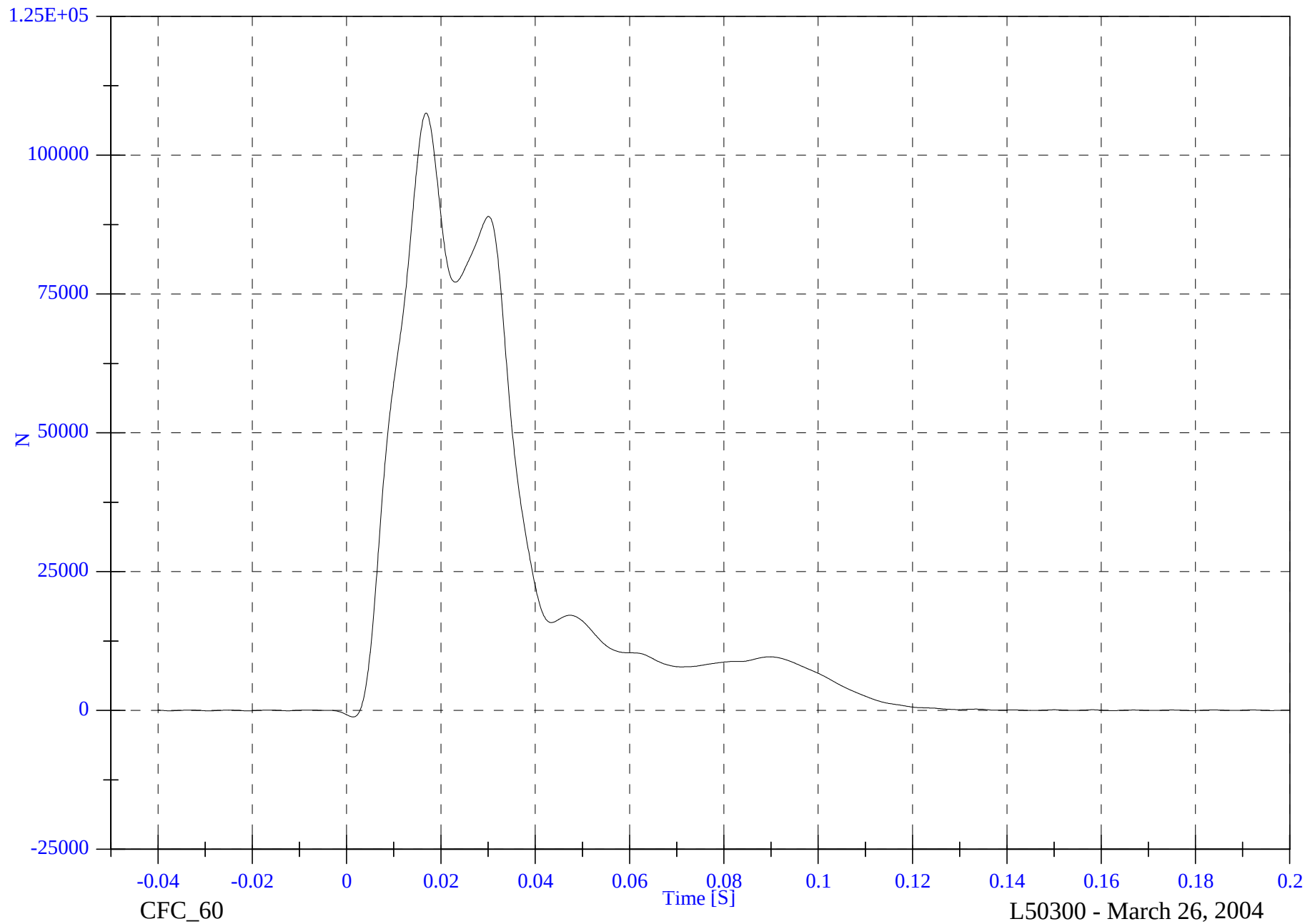


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell B7 Fx

Max: 107582.9 [N] at 0.017 [S]

Min: -1162.4 [N] at 0.001 [S]



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8741-01

CFC_60

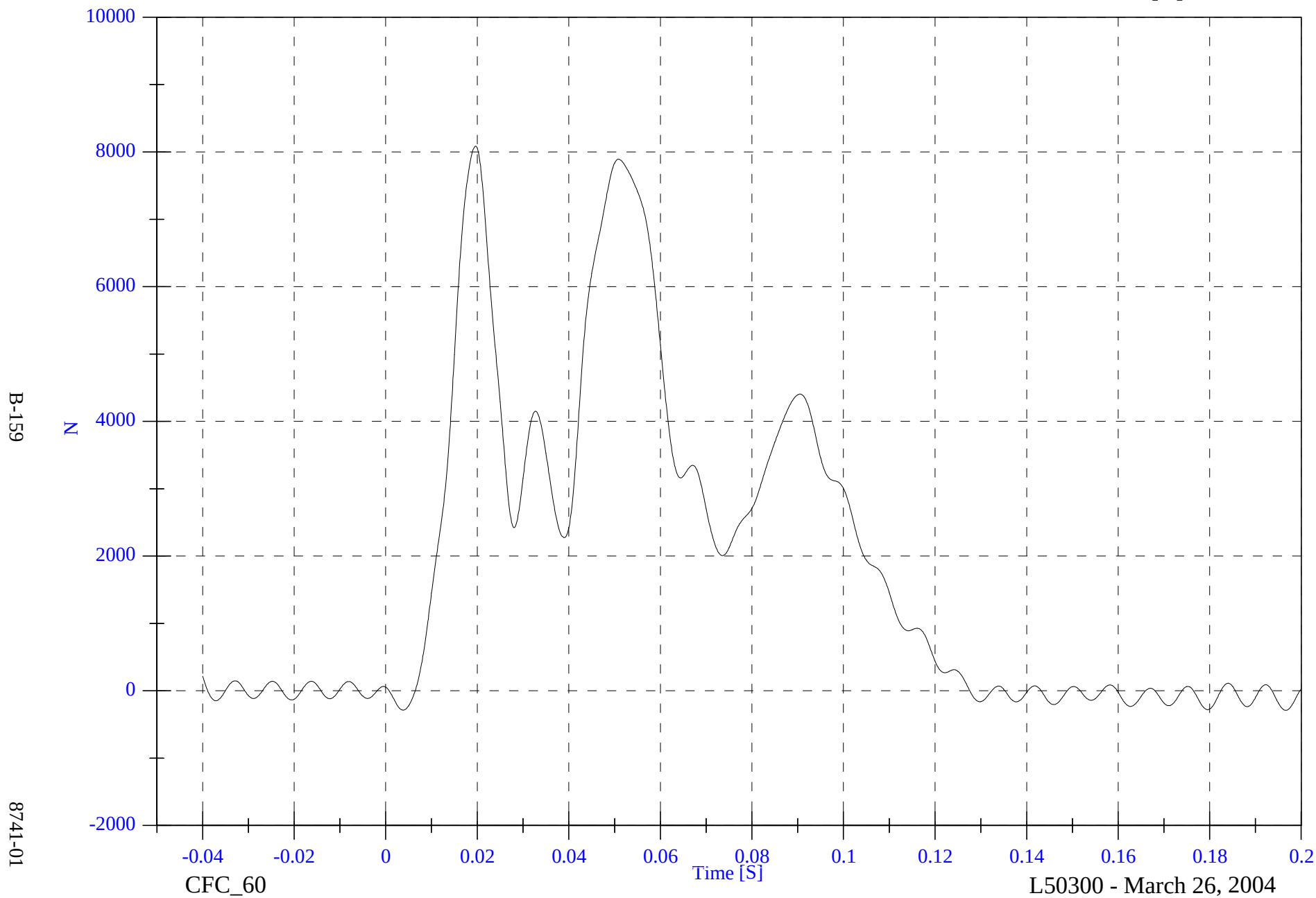
L50300 - March 26, 2004

Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell B8 Fx

Max: 8086.2 [N] at 0.020 [S]

Min: -290.4 [N] at 0.197 [S]

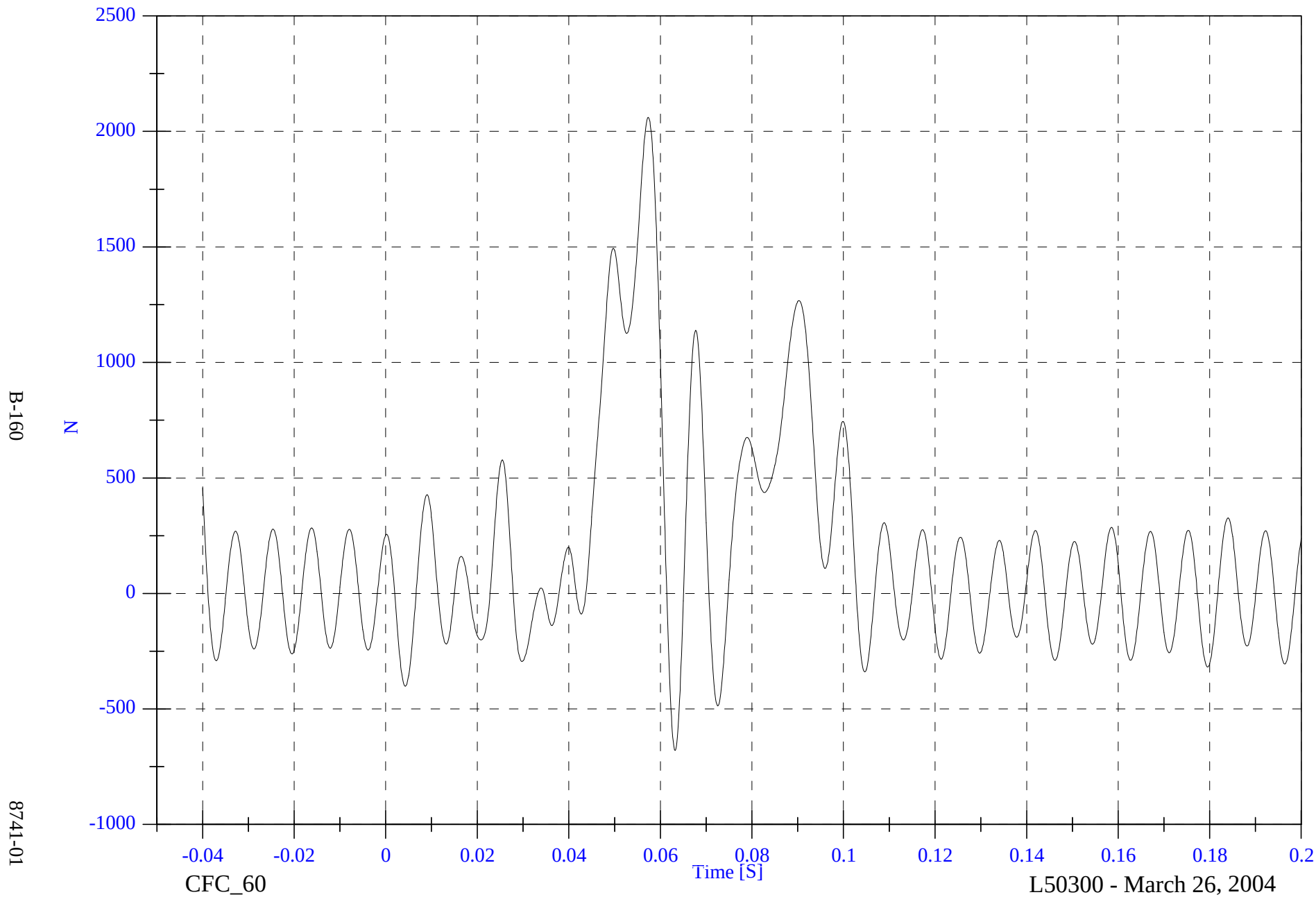


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell B9 Fx

Max: 2060.4 [N] at 0.057 [S]

Min: -679.6 [N] at 0.063 [S]

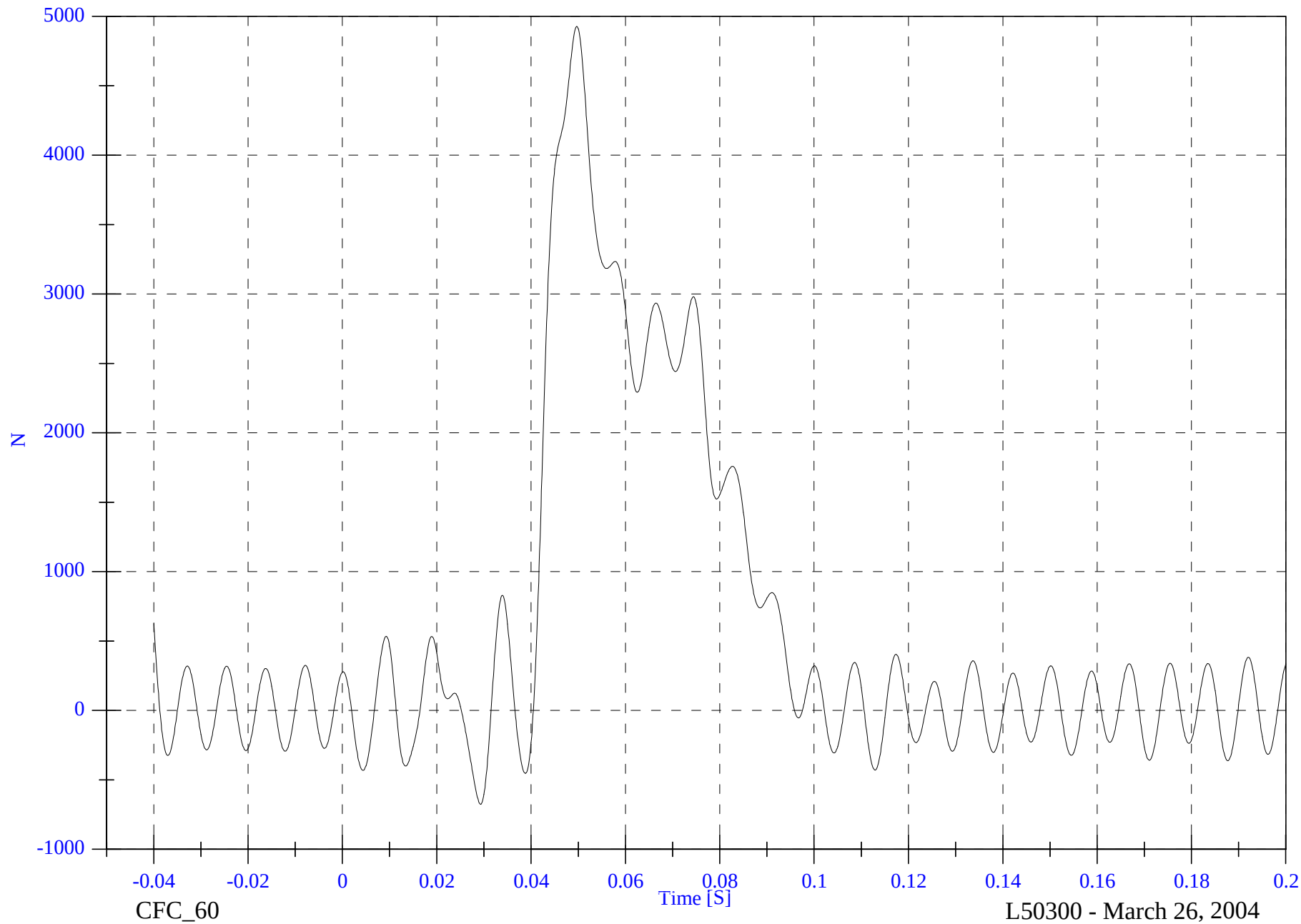


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell C1 Fx

Max: 4927.8 [N] at 0.050 [S]

Min: -675.6 [N] at 0.029 [S]



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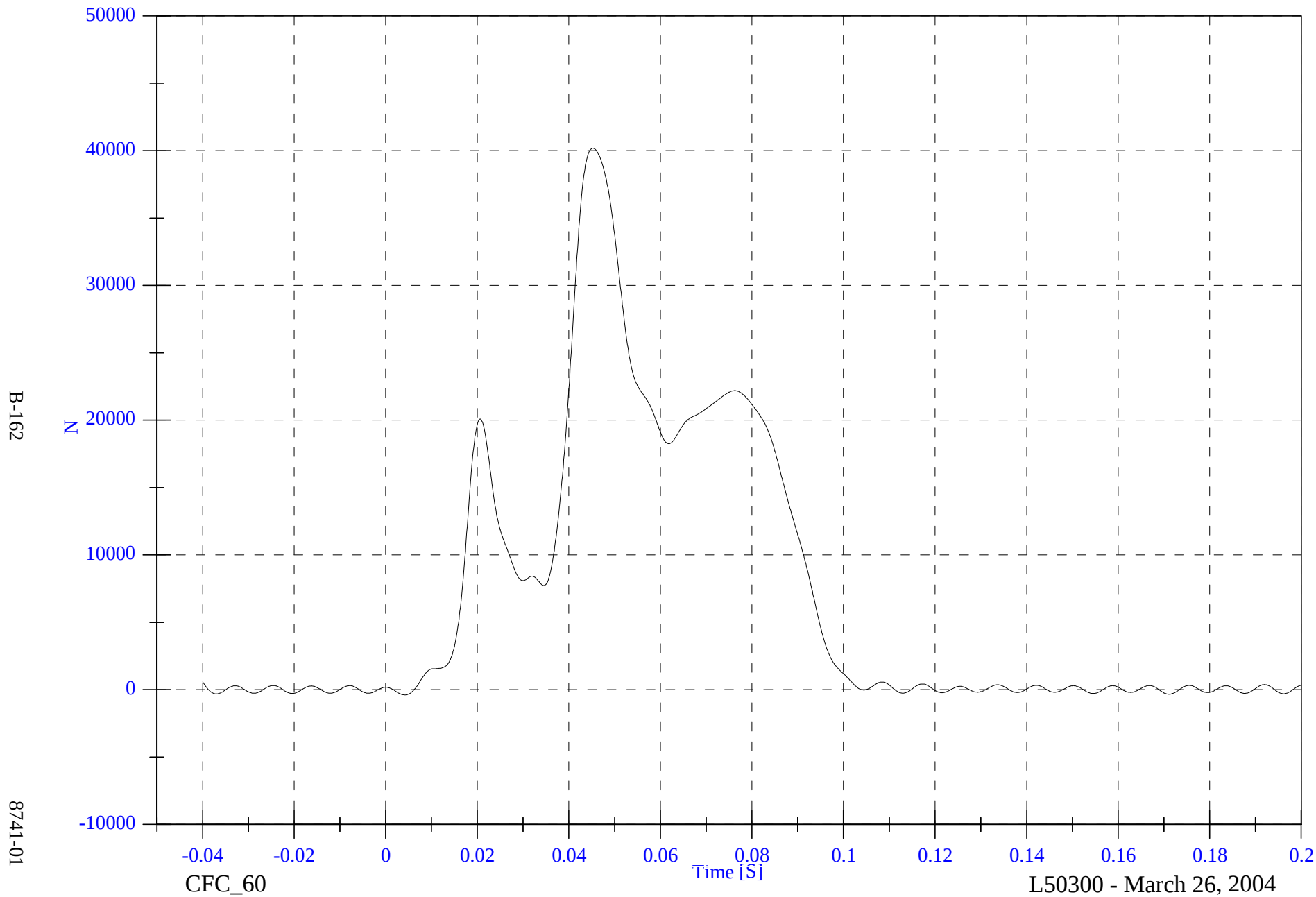
8741-01

Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell C2 Fx

Max: 40182.0 [N] at 0.045 [S]

Min: -387.3 [N] at 0.004 [S]

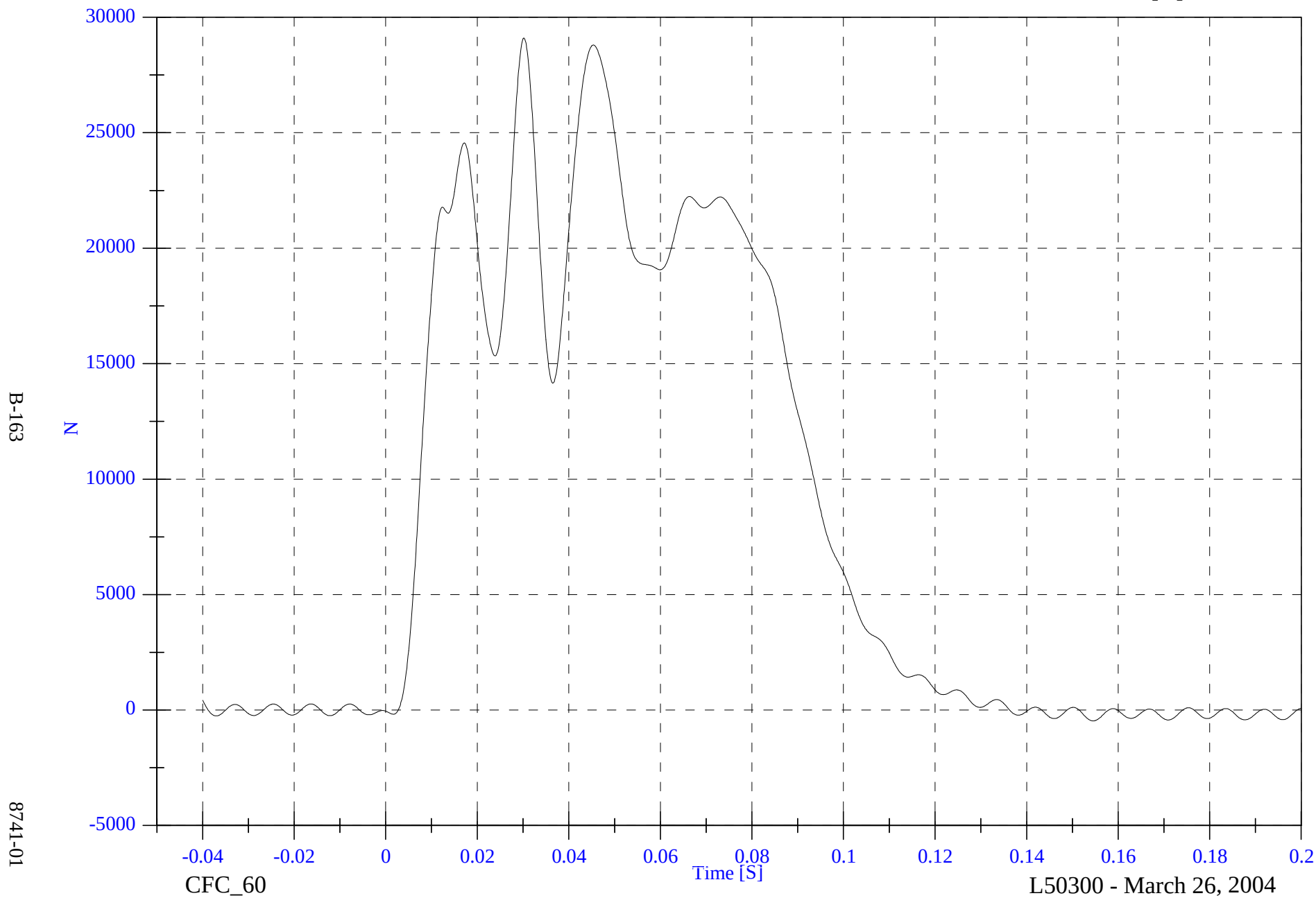


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell C3 Fx

Max: 29099.2 [N] at 0.030 [S]

Min: -469.5 [N] at 0.154 [S]

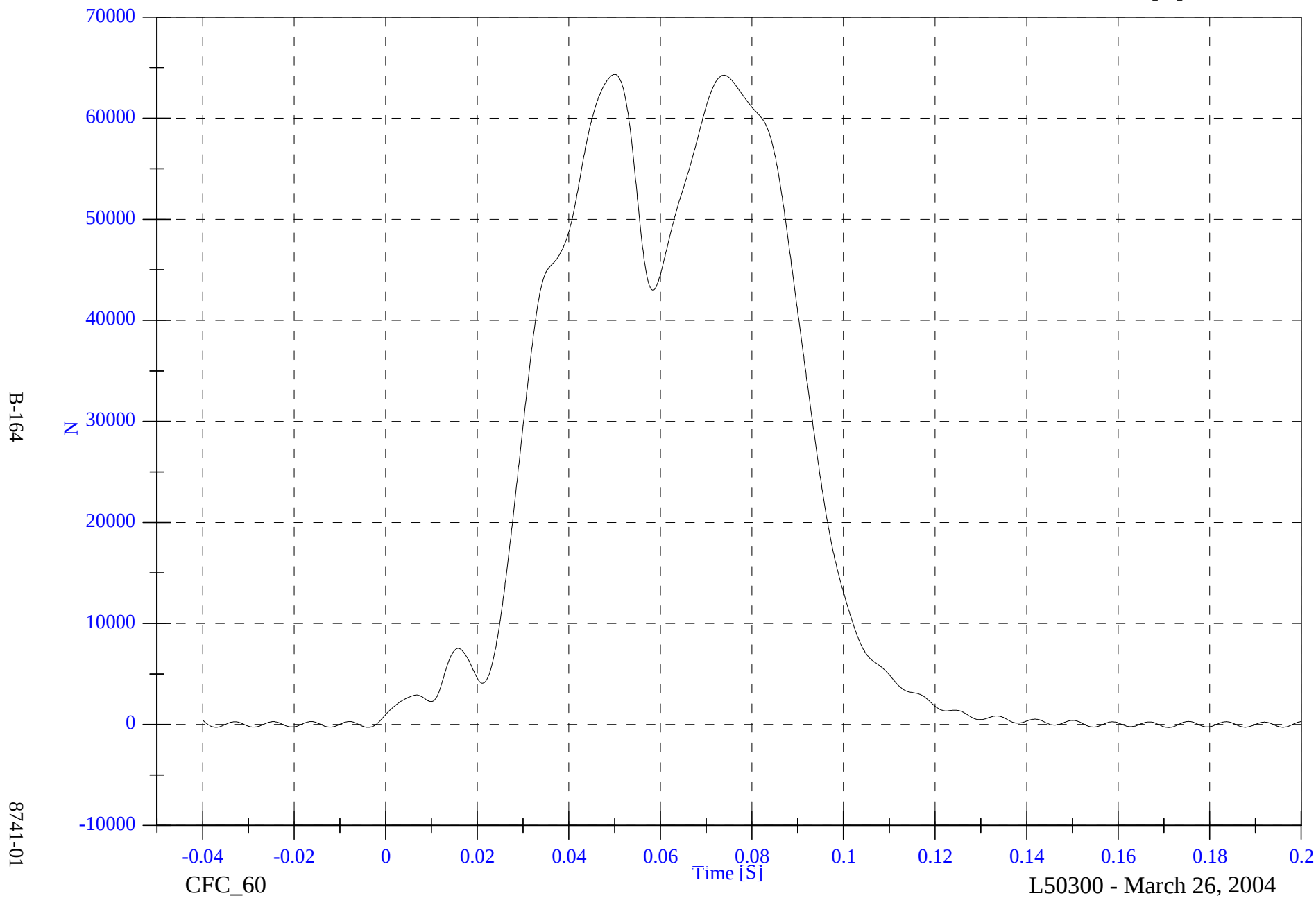


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell C4 Fx

Max: 64343.4 [N] at 0.050 [S]

Min: -299.0 [N] at 0.171 [S]

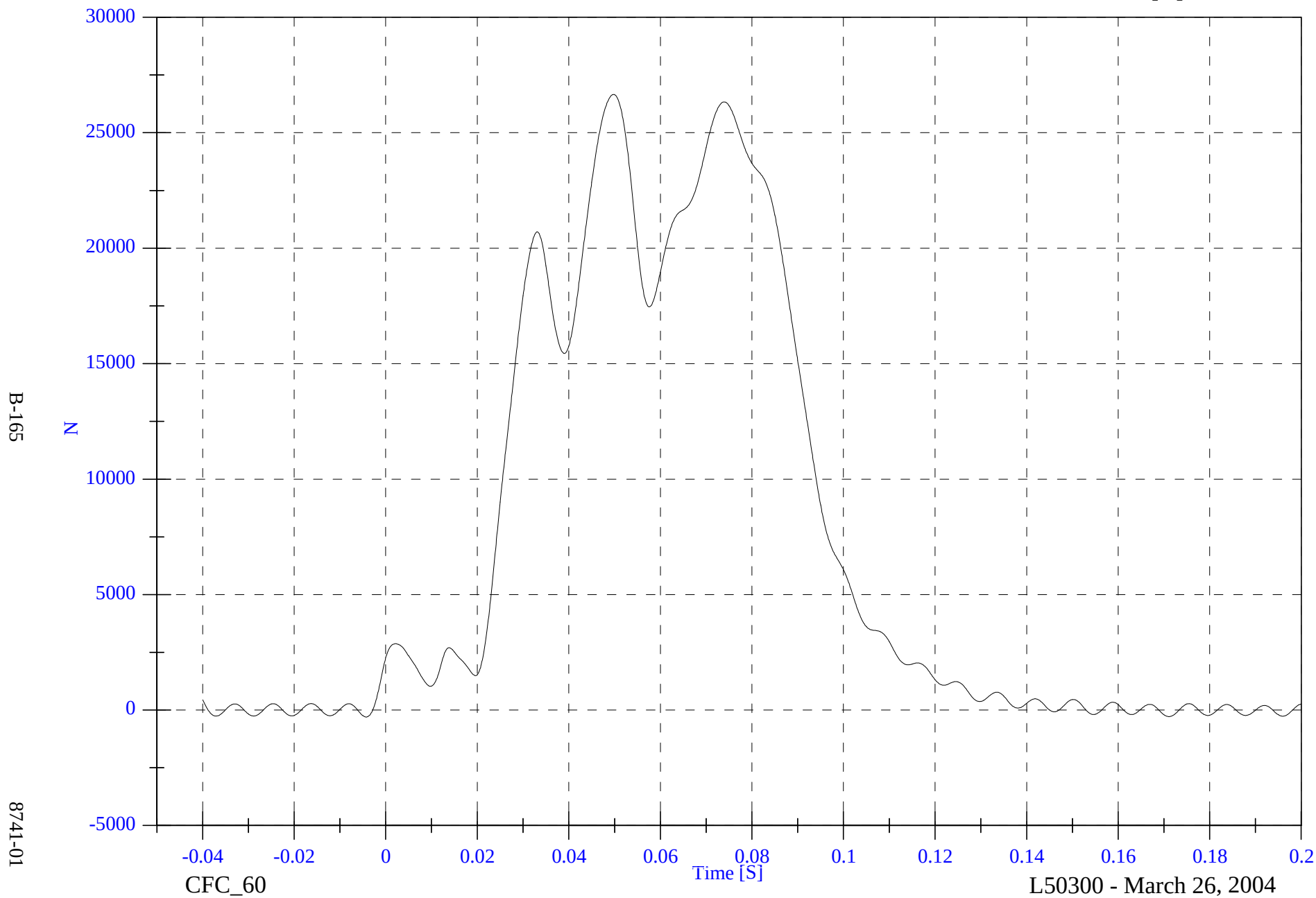


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell C5 Fx

Max: 26655.2 [N] at 0.050 [S]

Min: -299.7 [N] at -0.004 [S]

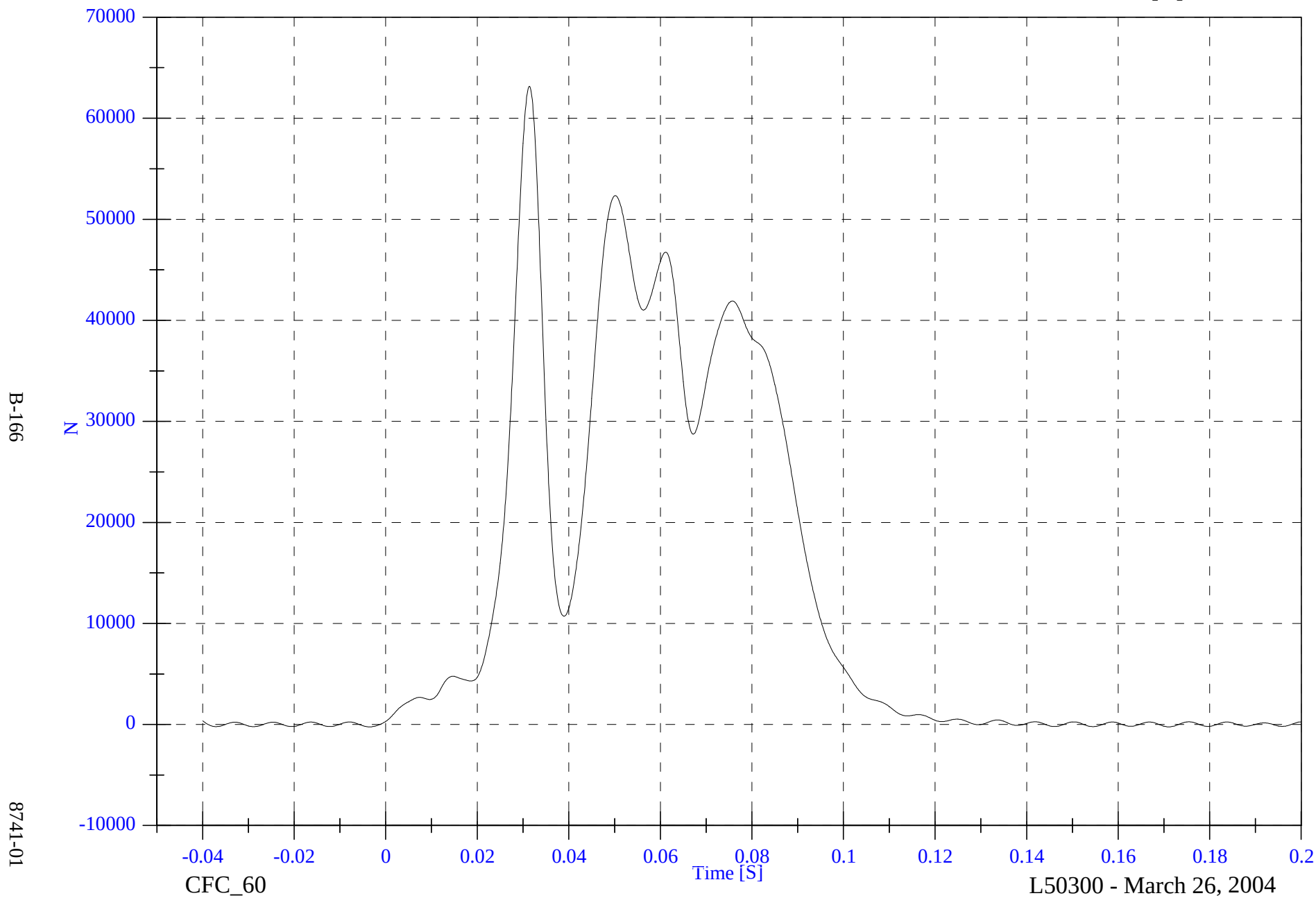


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell C6 Fx

Max: 63166.0 [N] at 0.031 [S]

Min: -234.9 [N] at -0.004 [S]

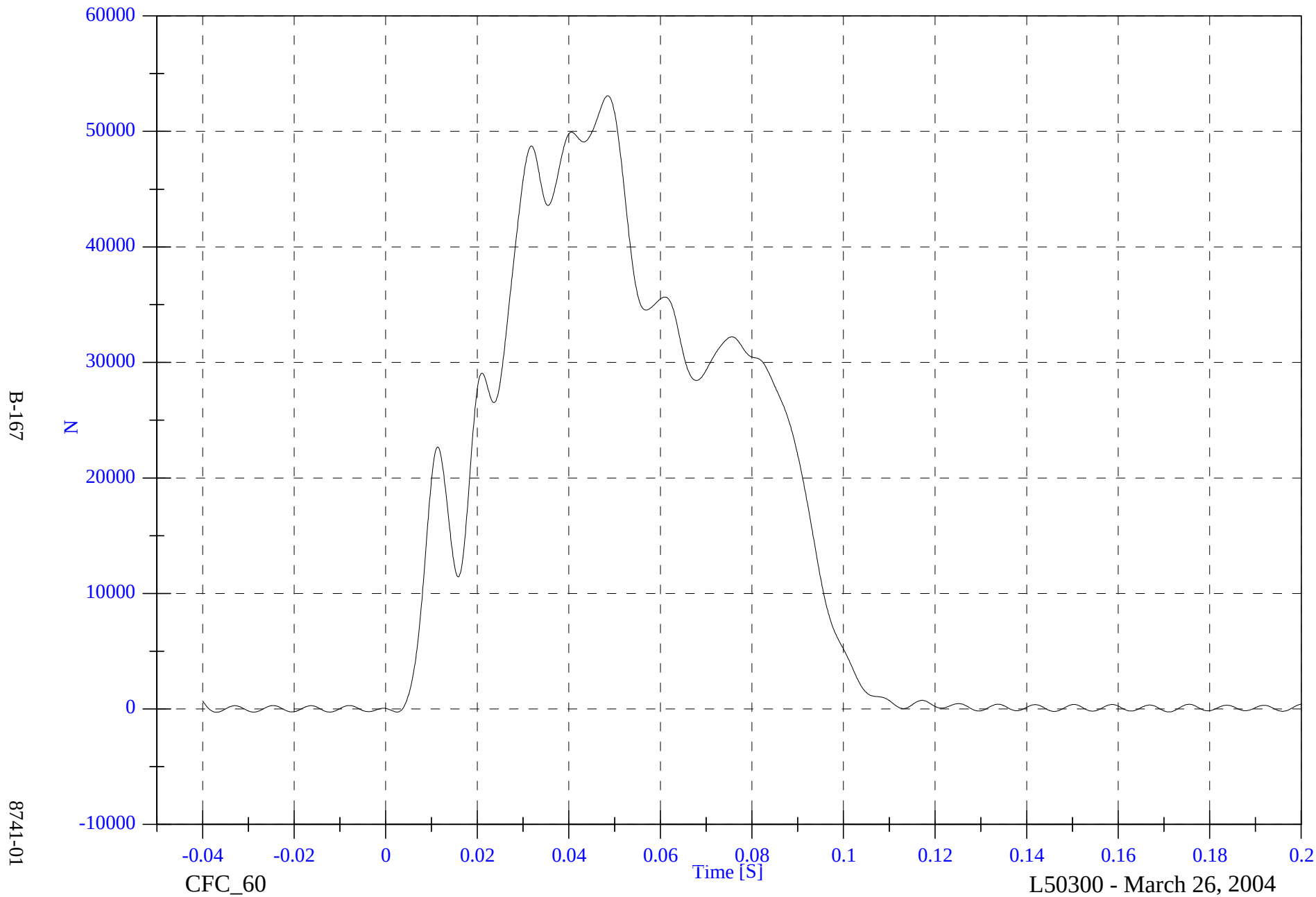


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell C7 Fx

Max: 53080.4 [N] at 0.048 [S]

Min: -284.9 [N] at -0.037 [S]

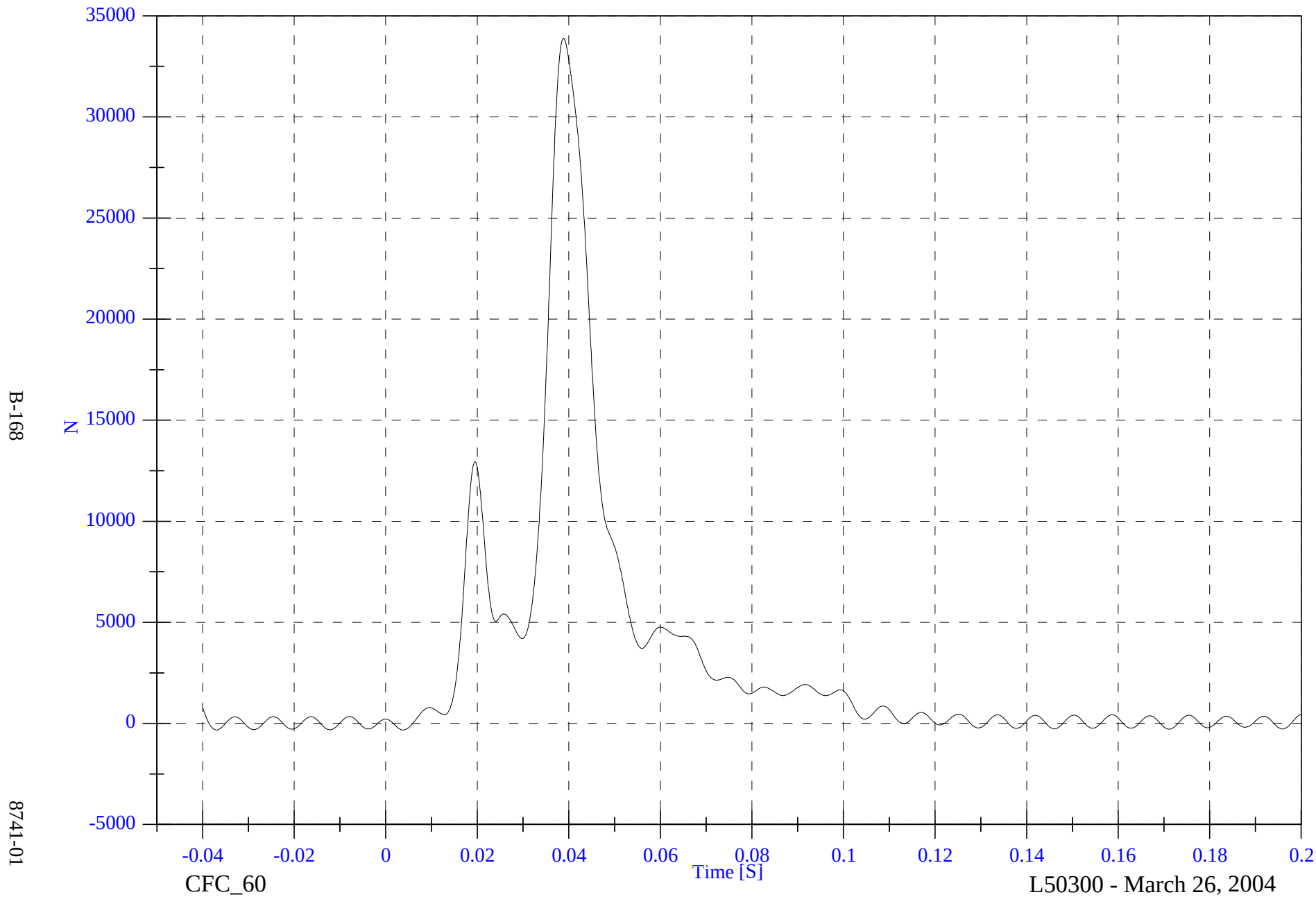


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell C8 Fx

Max: 33887.9 [N] at 0.039 [S]

Min: -326.9 [N] at 0.004 [S]

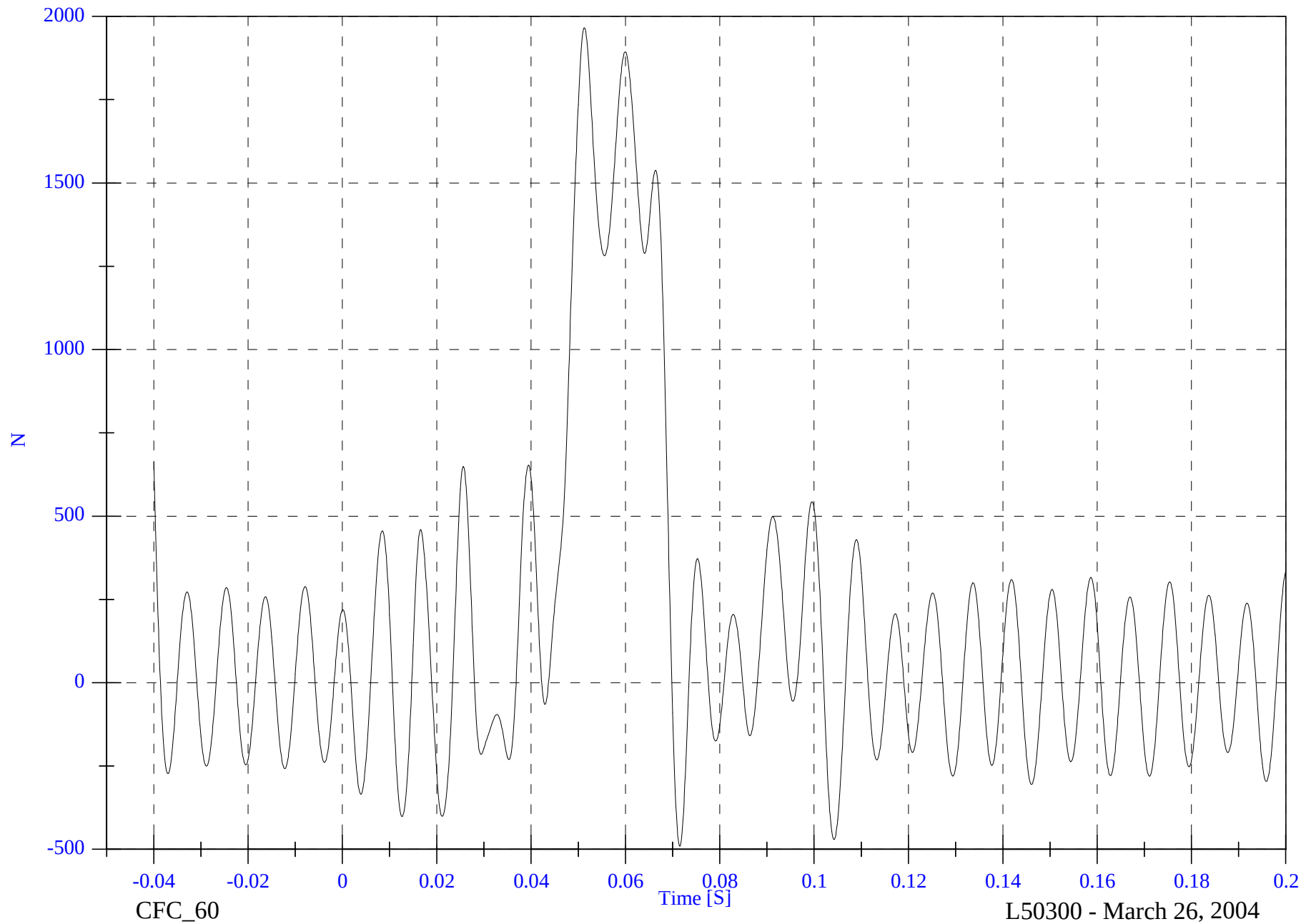


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell C9 Fx

Max: 1965.6 [N] at 0.051 [S]

Min: -491.1 [N] at 0.071 [S]



B-169

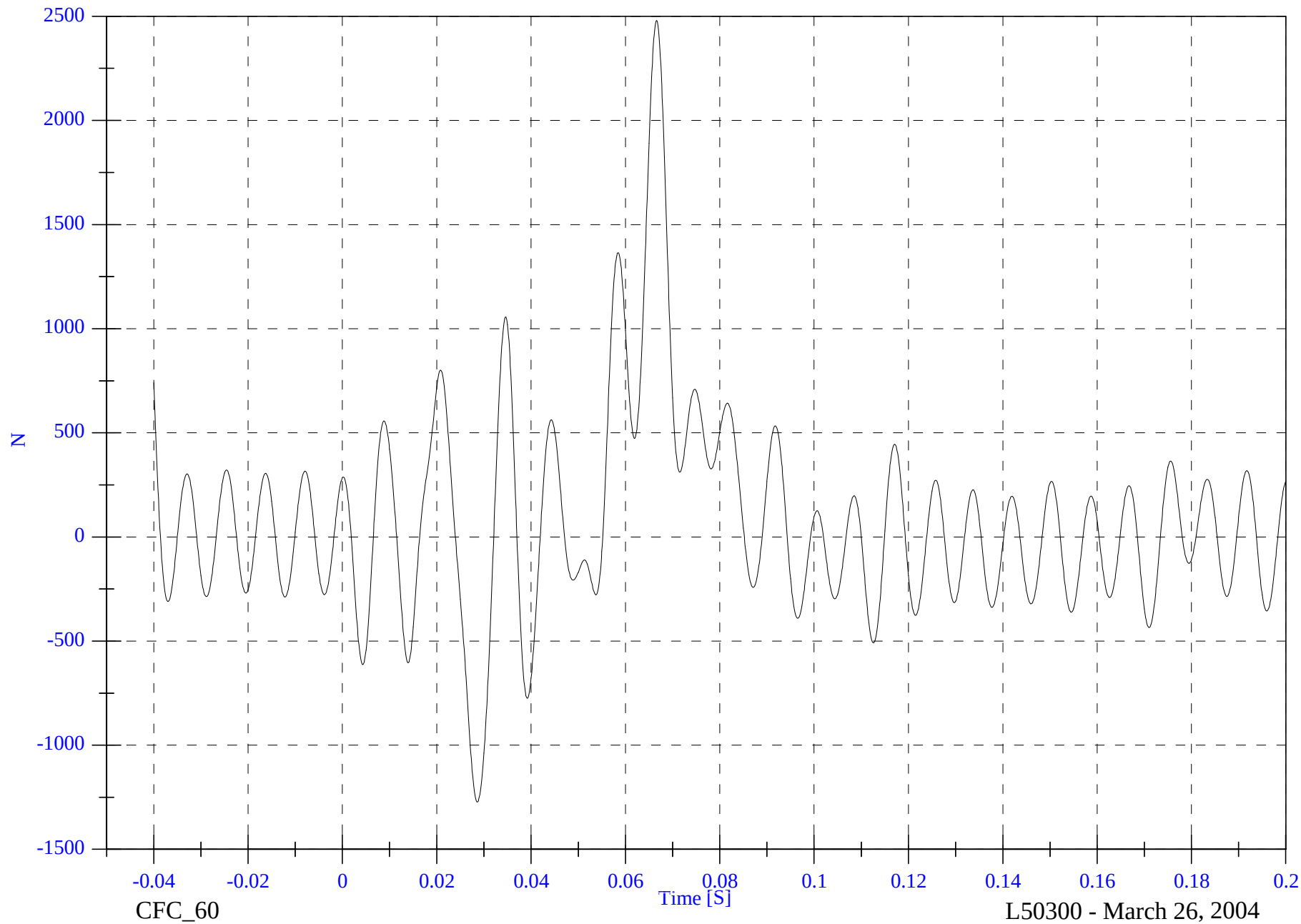
8741-01

Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell D1 Fx

Max: 2480.3 [N] at 0.067 [S]

Min: -1273.2 [N] at 0.029 [S]



B-170

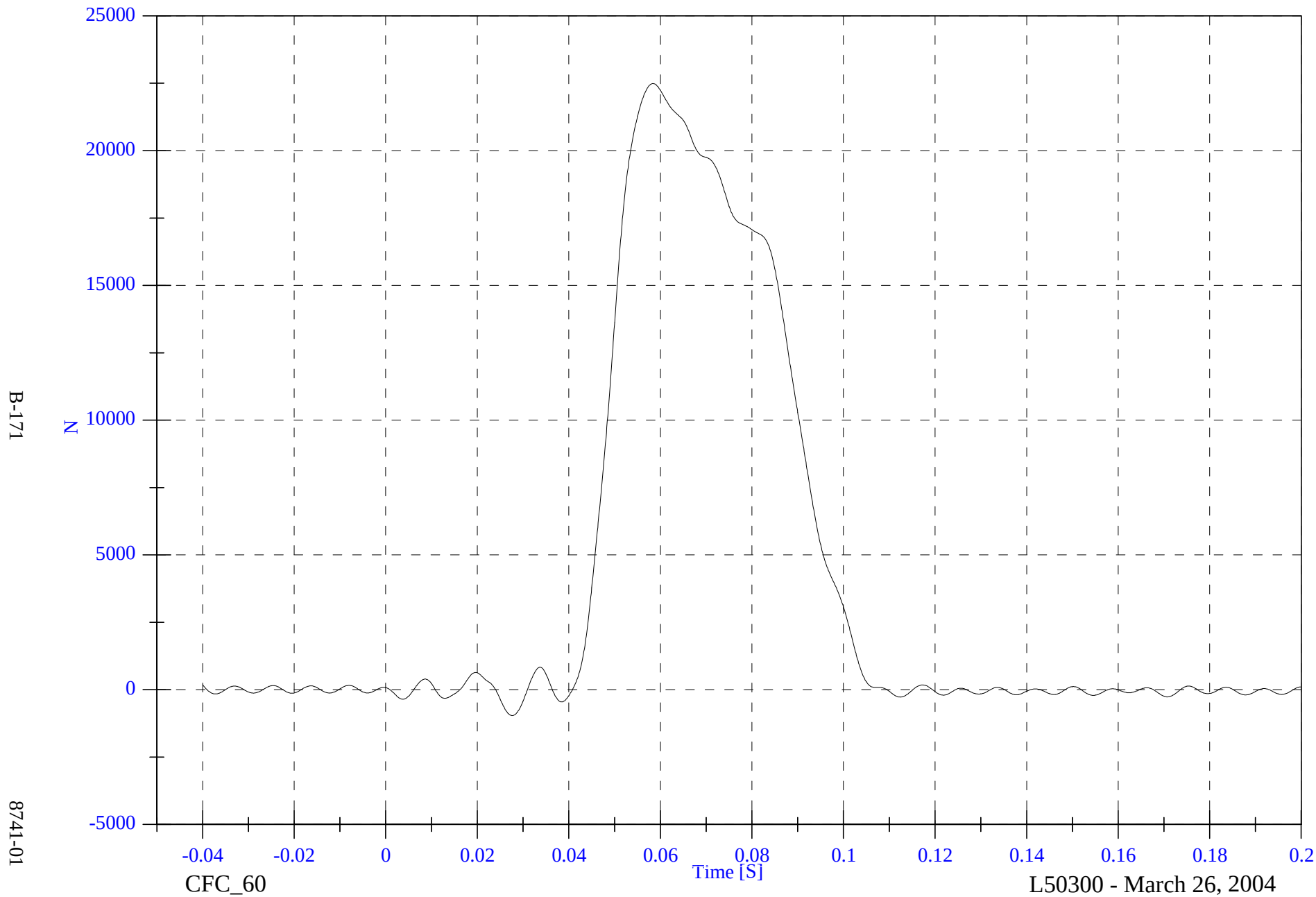
8741-01

Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell D2 Fx

Max: 22488.4 [N] at 0.058 [S]

Min: -959.9 [N] at 0.028 [S]

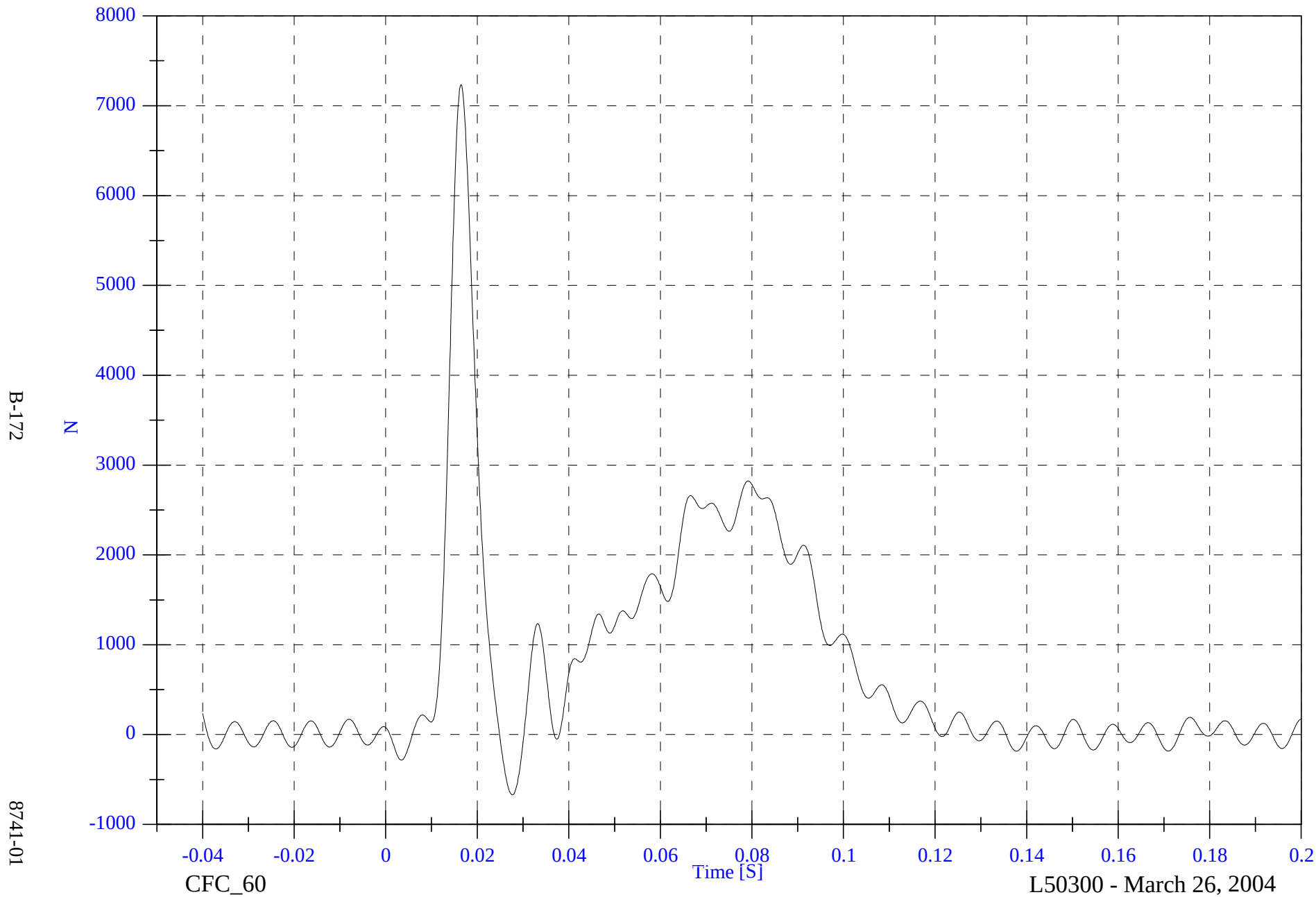


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell D3 Fx

Max: 7233.6 [N] at 0.016 [S]

Min: -670.5 [N] at 0.028 [S]

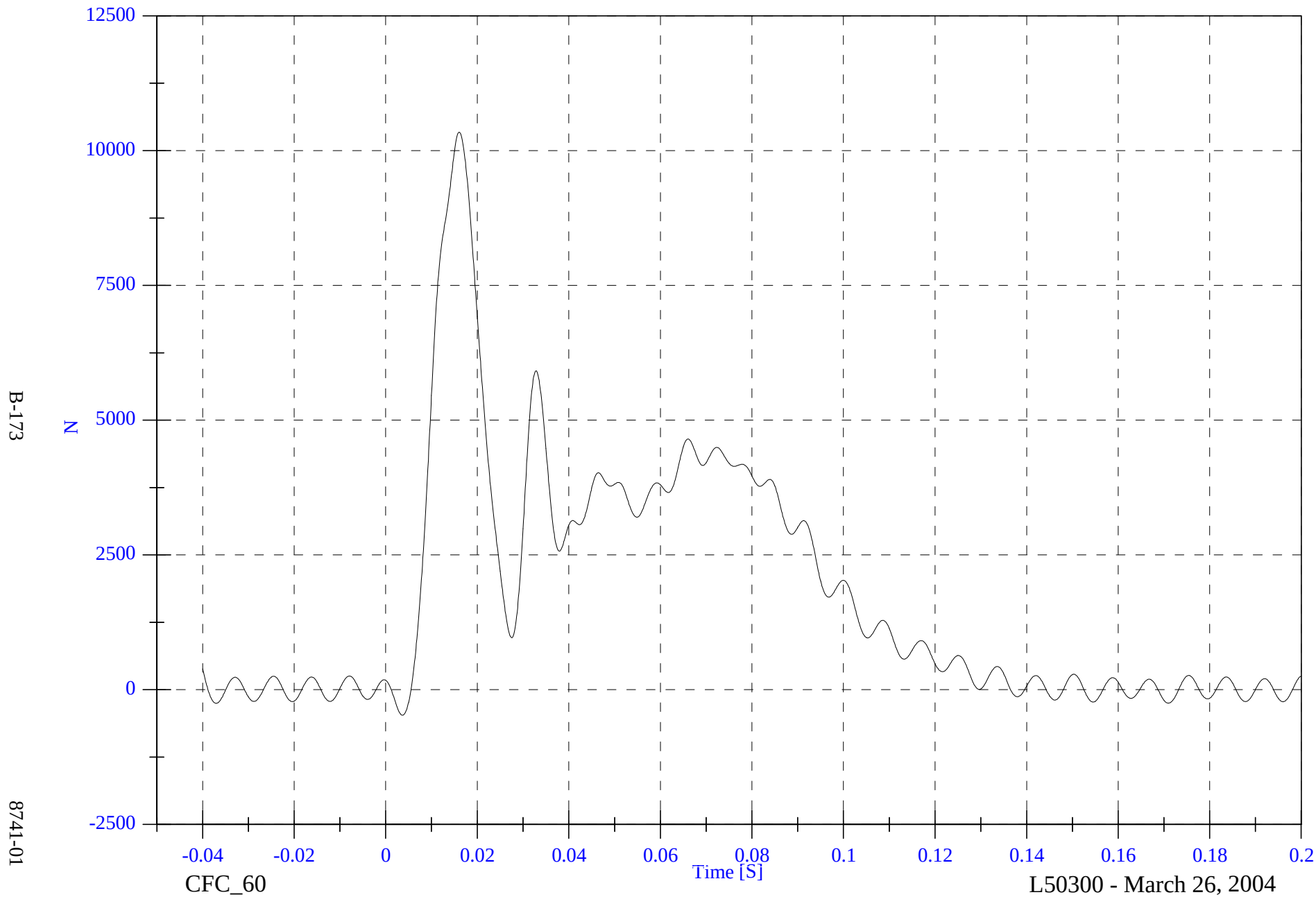


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell D4 Fx

Max: 10341.7 [N] at 0.016 [S]

Min: -473.7 [N] at 0.004 [S]

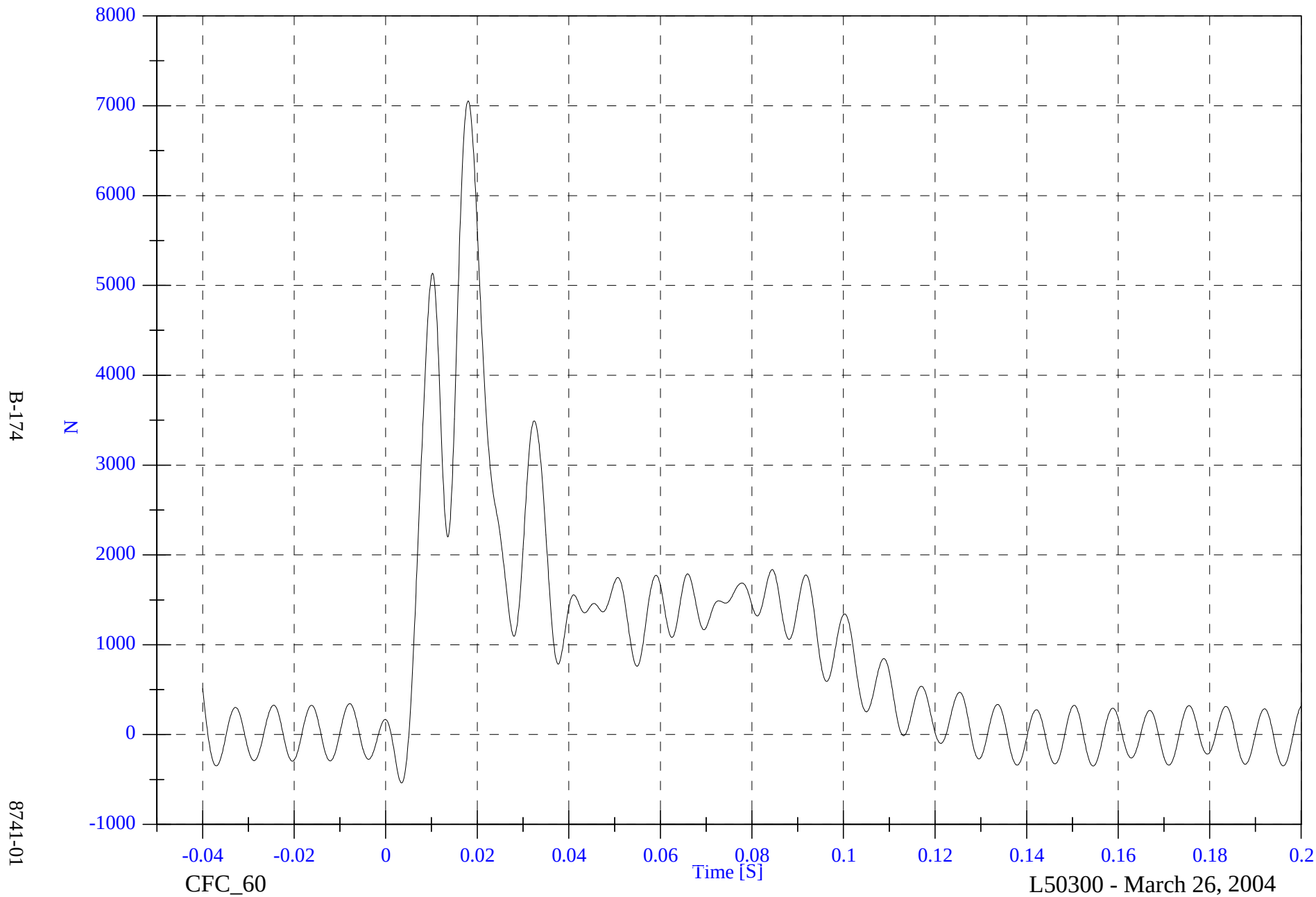


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell D5 Fx

Max: 7054.0 [N] at 0.018 [S]

Min: -538.3 [N] at 0.003 [S]

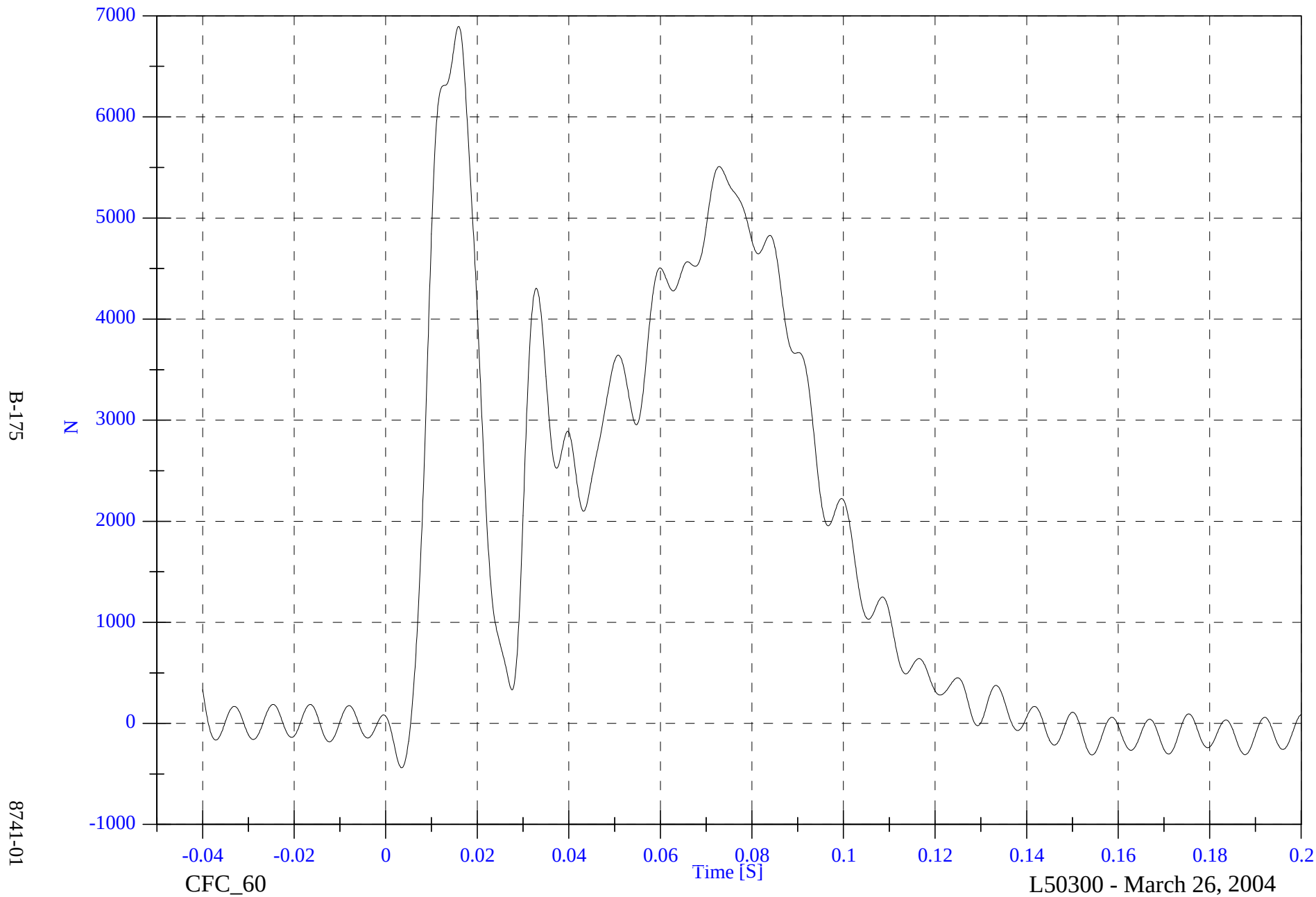


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell D6 Fx

Max: 6895.8 [N] at 0.016 [S]

Min: -439.3 [N] at 0.003 [S]

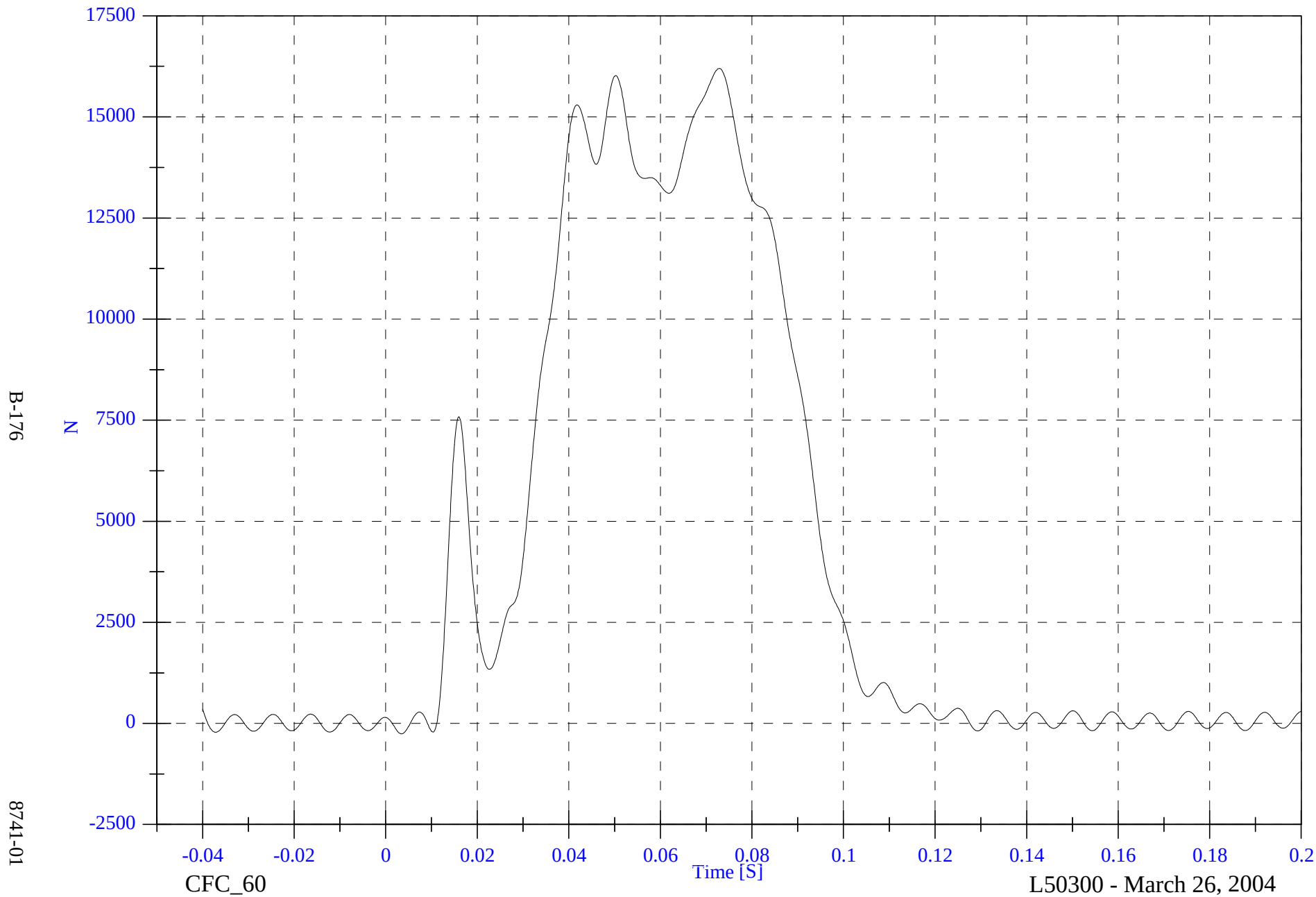


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell D7 Fx

Max: 16199.4 [N] at 0.073 [S]

Min: -258.1 [N] at 0.003 [S]

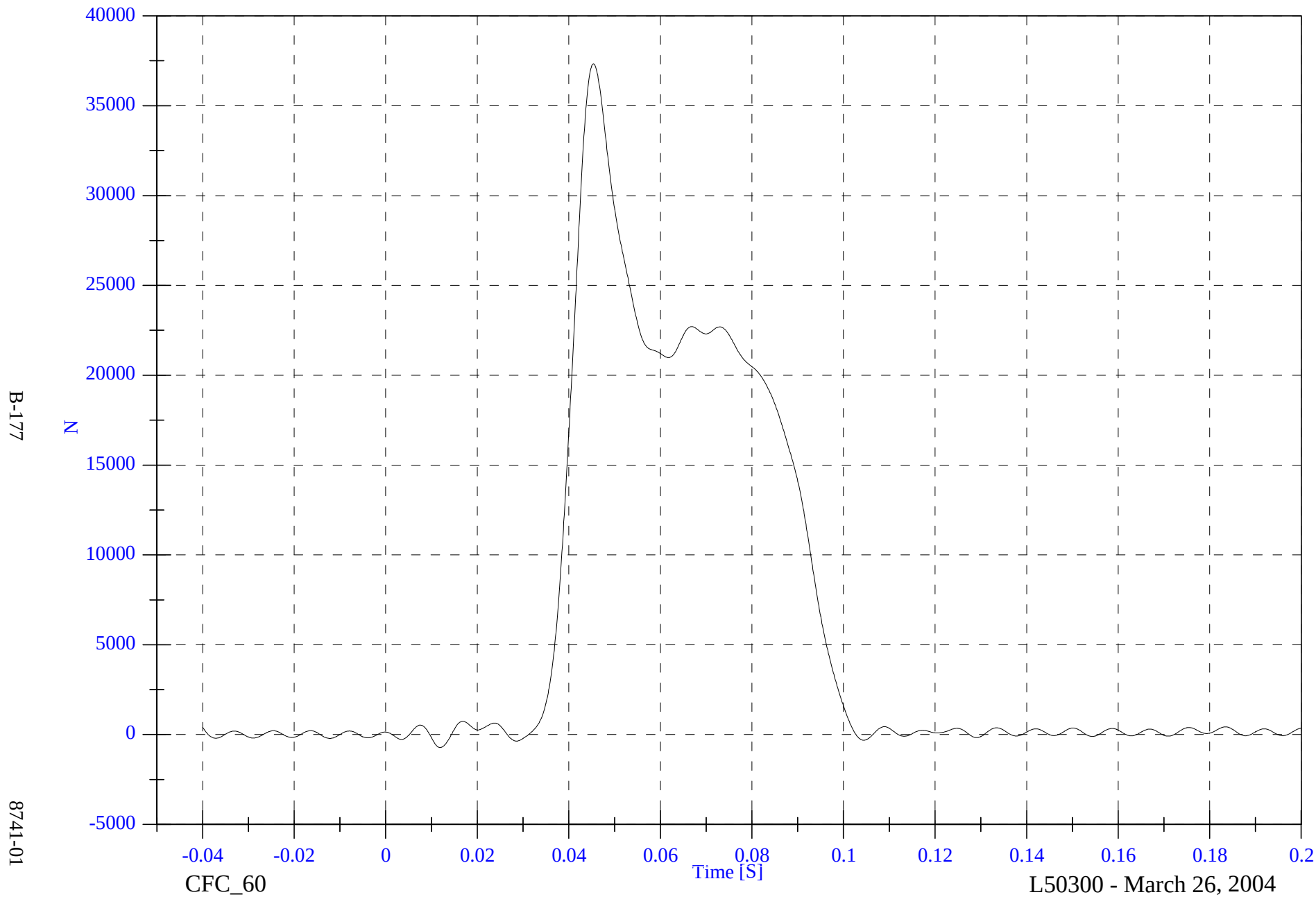


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell D8 Fx

Max: 37330.9 [N] at 0.045 [S]

Min: -718.9 [N] at 0.012 [S]

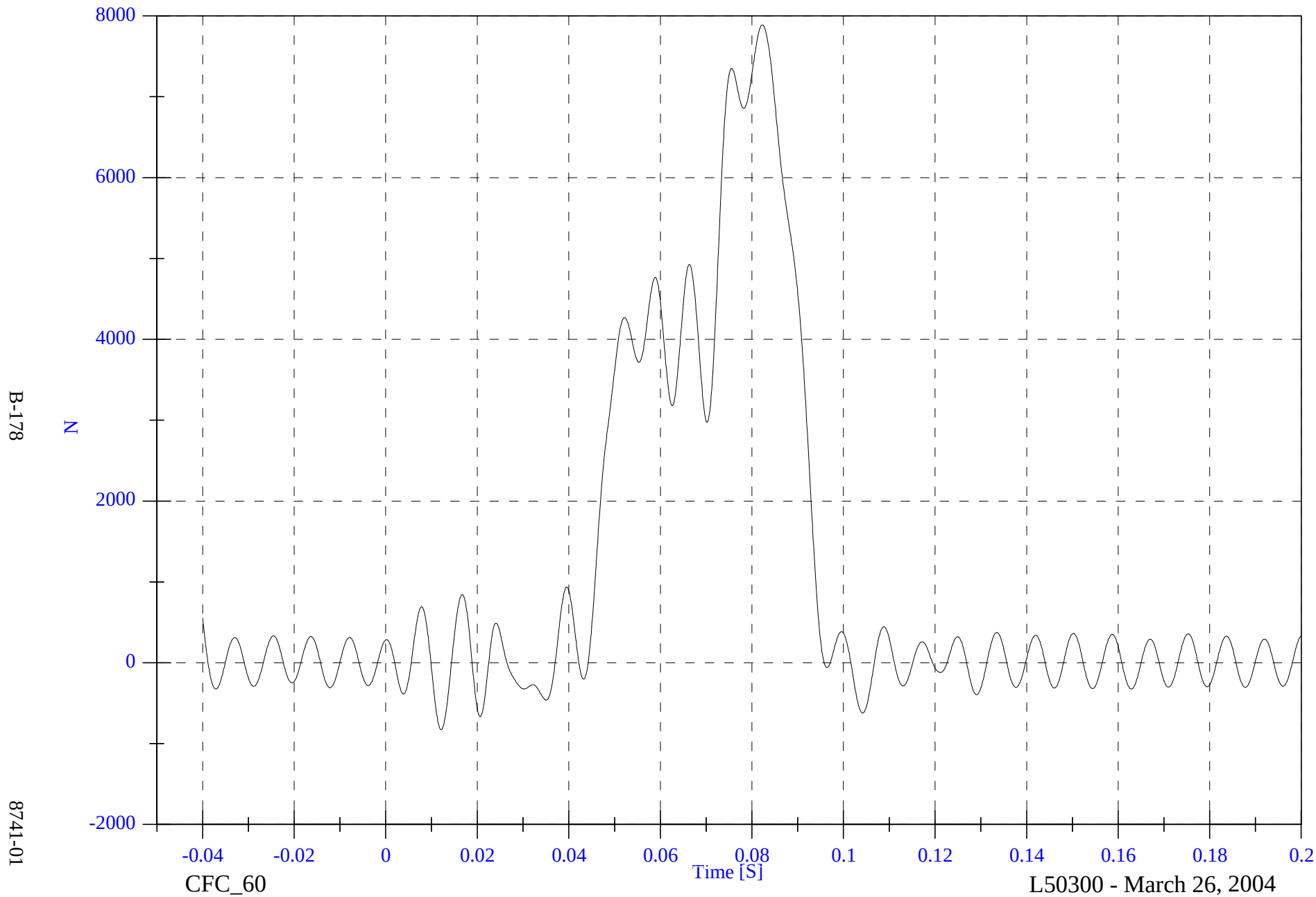


Frontal NCAP - 2005 Chrysler Town & Country

Barrier Load Cell D9 Fx

Max: 7888.8 [N] at 0.082 [S]

Min: -829.8 [N] at 0.012 [S]

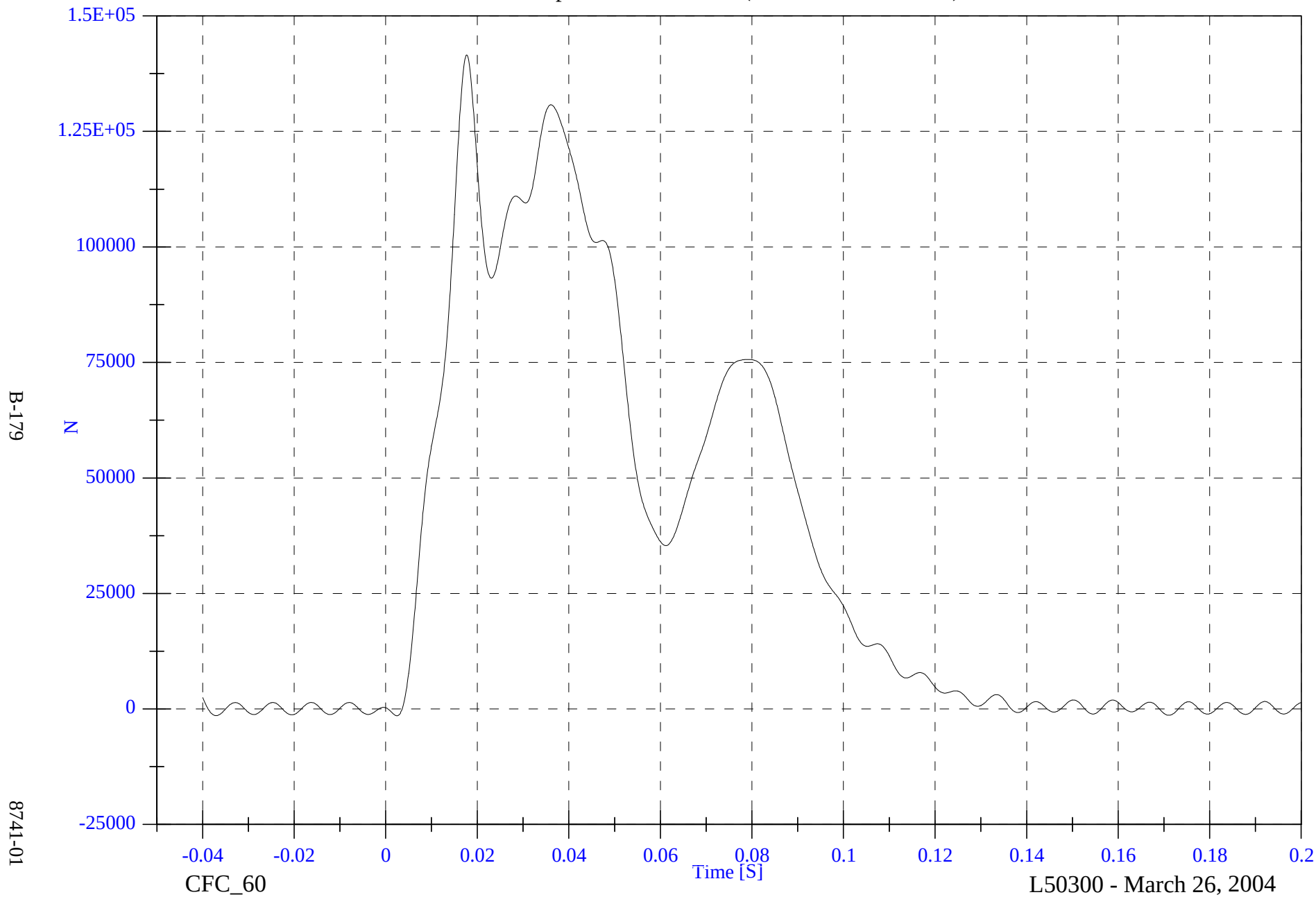


Frontal NCAP - 2005 Chrysler Town & Country

Group 1 Load Cell Sum (A1,A2,A3,B1,B2,B3)

Max: 141537.7 [N] at 0.018 [S]

Min: -1476.8 [N] at 0.002 [S]

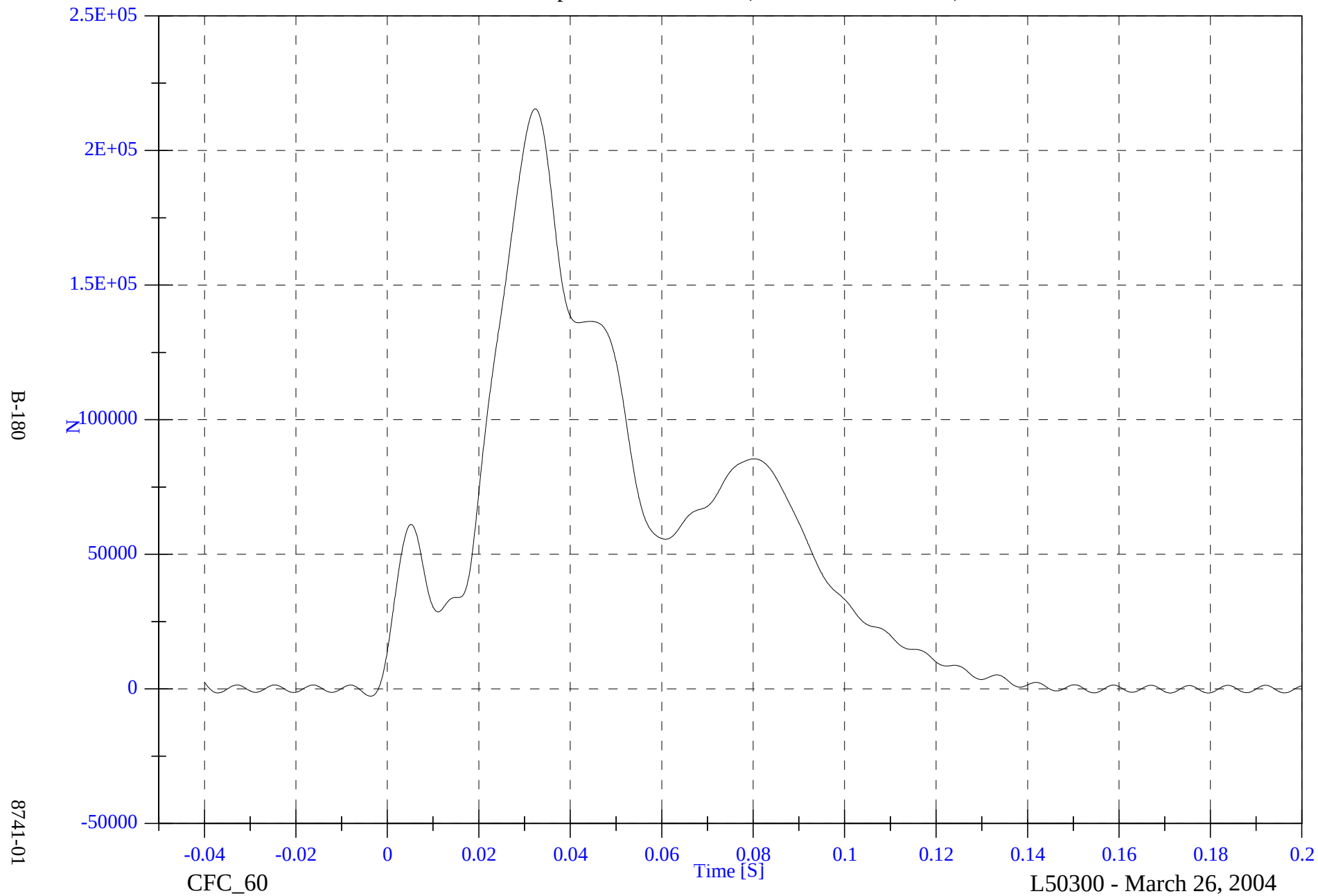


Frontal NCAP - 2005 Chrysler Town & Country

Group 2 Load Cell Sum (A4,A5,A6,B4,B5,B6)

Max: 215431.0 [N] at 0.032 [S]

Min: -2701.4 [N] at -0.004 [S]

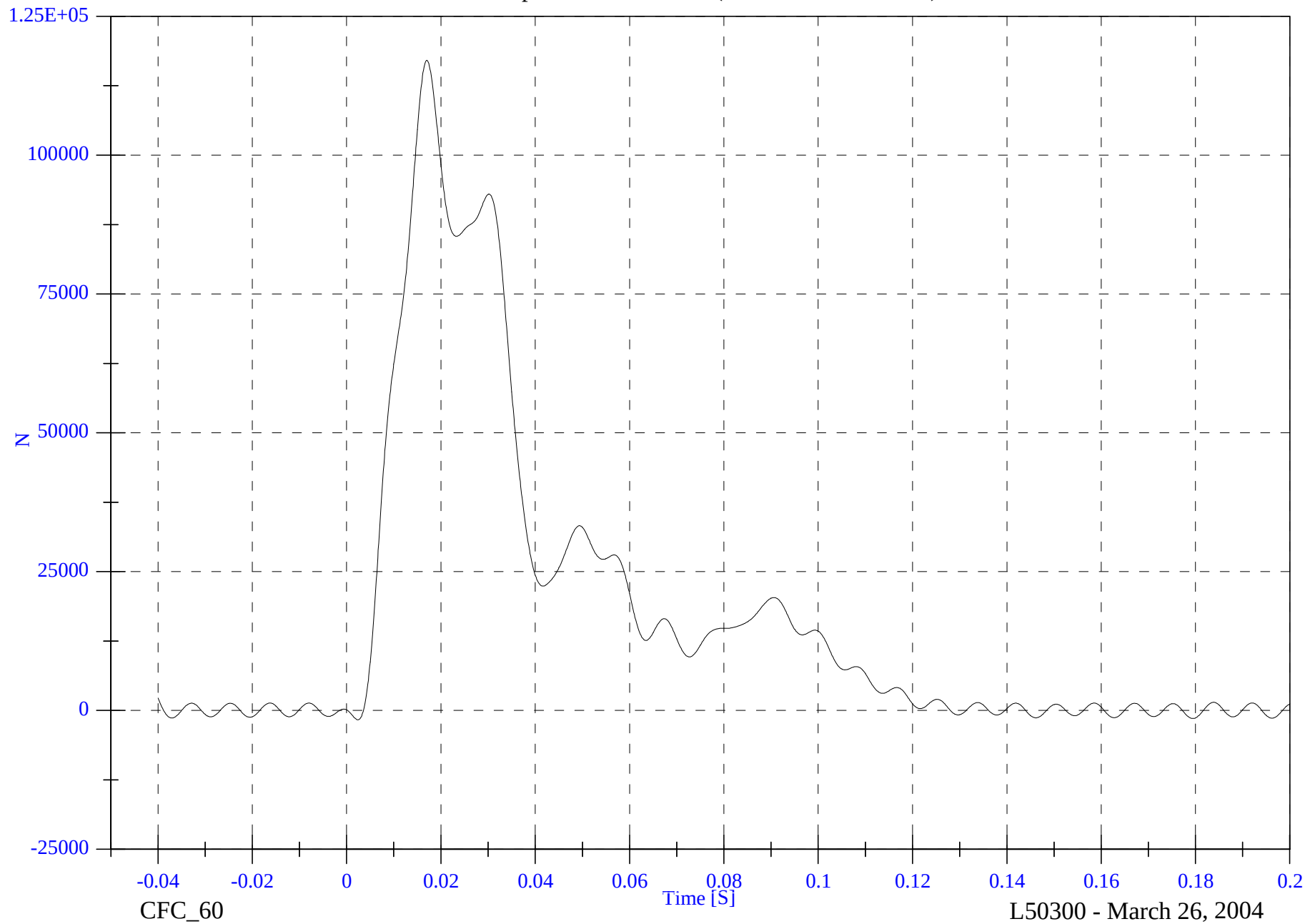


Frontal NCAP - 2005 Chrysler Town & Country

Group 3 Load Cell Sum (A7,A8,A9,B7,B8,B9)

Max: 117072.6 [N] at 0.017 [S]

Min: -1694.7 [N] at 0.002 [S]



B-181

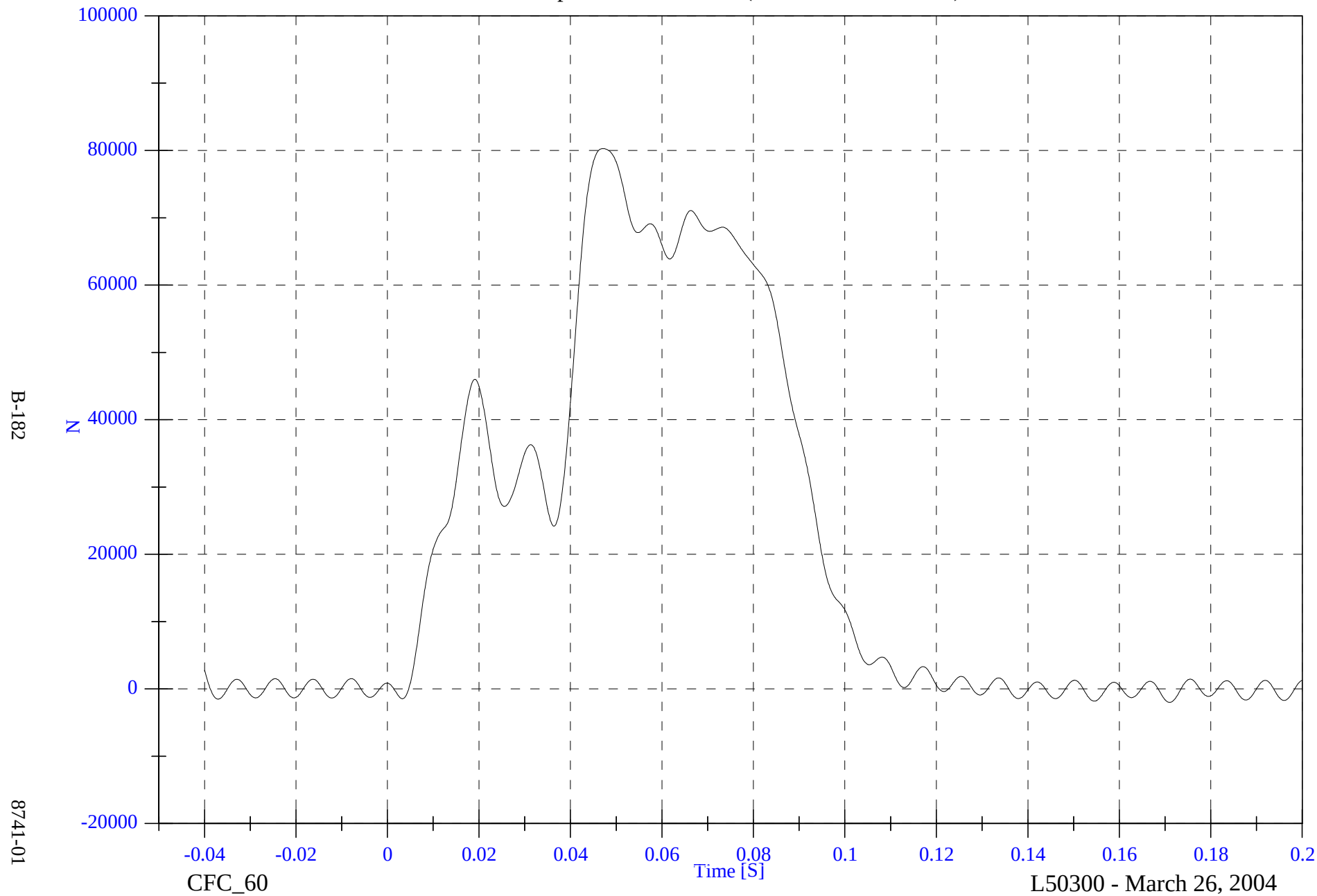
8741-01

Frontal NCAP - 2005 Chrysler Town & Country

Group 4 Load Cell Sum (C1,C2,C3,D1,D2,D3)

Max: 80280.1 [N] at 0.047 [S]

Min: -2001.1 [N] at 0.171 [S]

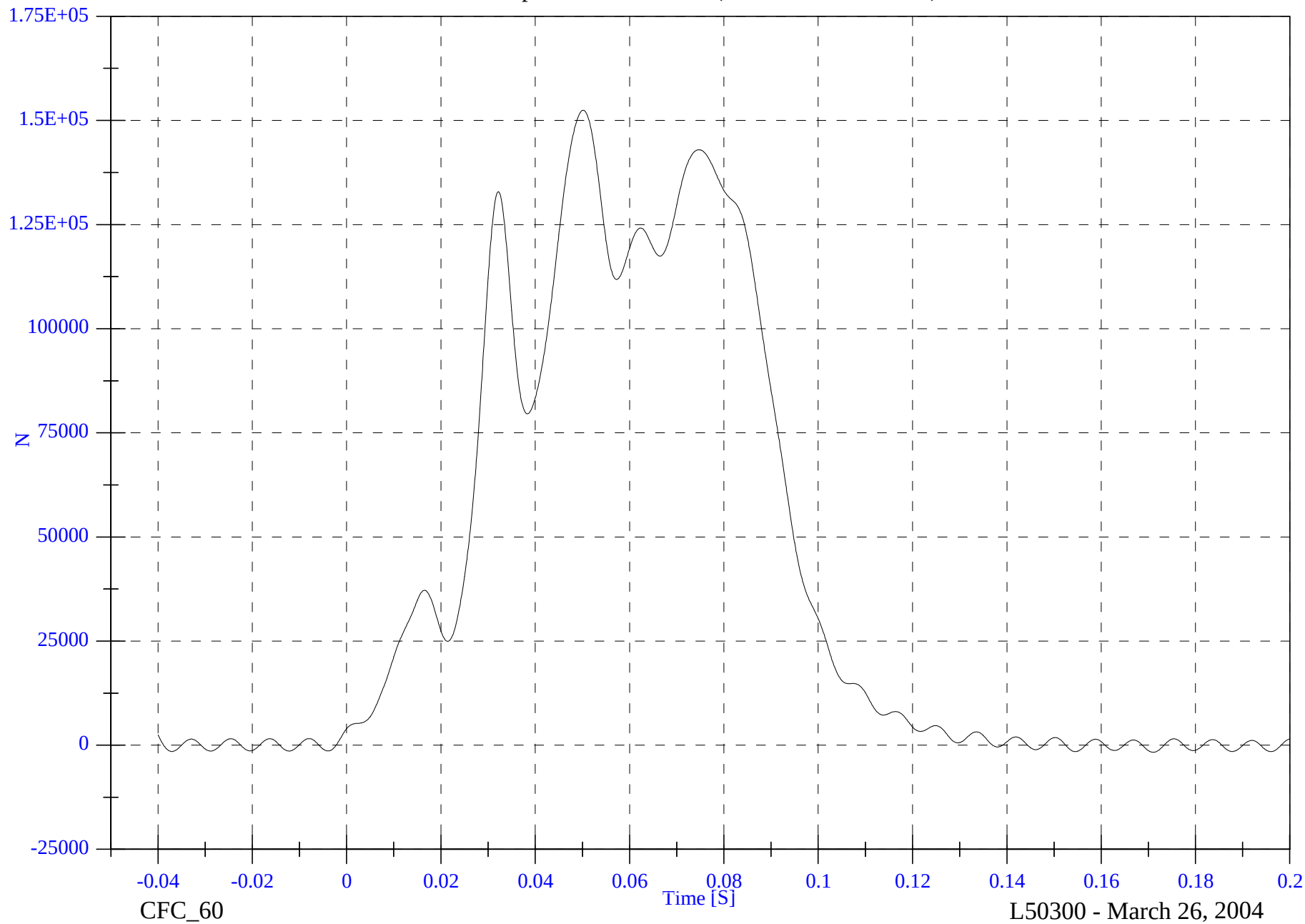


Frontal NCAP - 2005 Chrysler Town & Country

Group 5 Load Cell Sum (C4,C5,C6,D4,D5,D6)

Max: 152438.0 [N] at 0.050 [S]

Min: -1706.0 [N] at 0.171 [S]



B-183

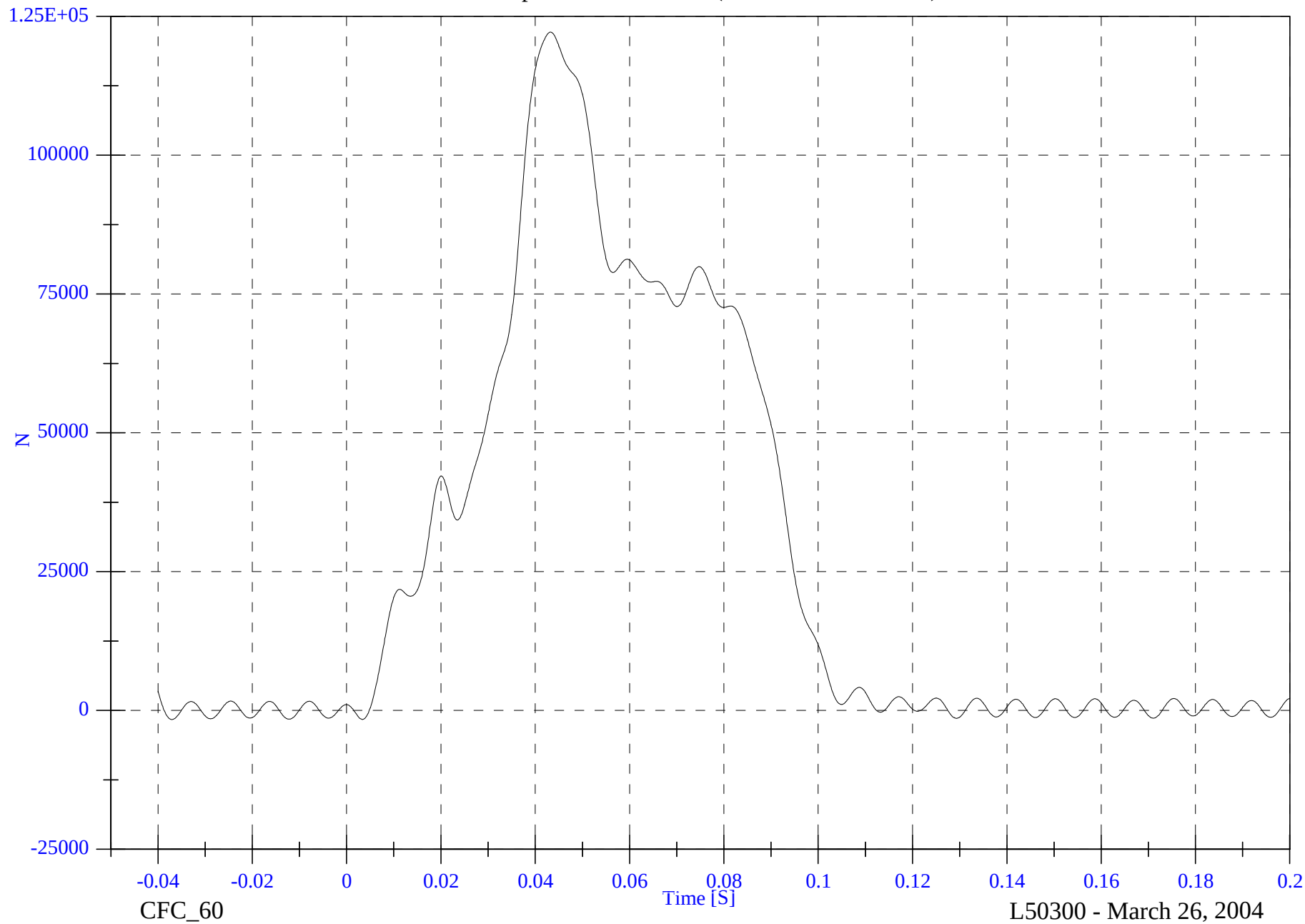
8741-01

Frontal NCAP - 2005 Chrysler Town & Country

Group 6 Load Cell Sum (C7,C8,C9,D7,D8,D9)

Max: 122159.8 [N] at 0.043 [S]

Min: -1622.7 [N] at -0.037 [S]

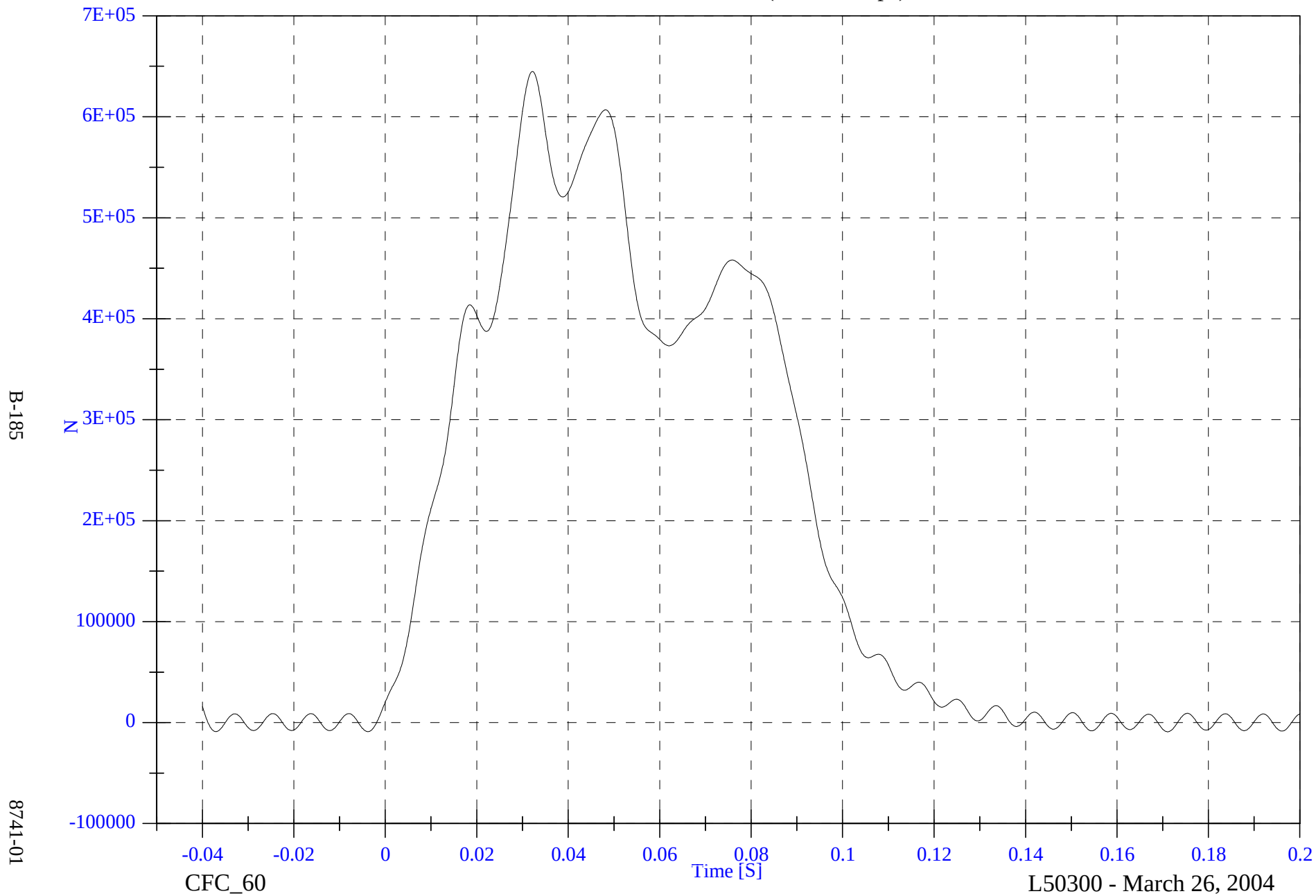


Frontal NCAP - 2005 Chrysler Town & Country

Total Load Cell Sum (All 6 Groups)

Max: 644885.0 [N] at 0.032 [S]

Min: -9072.7 [N] at 0.171 [S]



APPENDIX C

PART 572B/E DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA SHEETS

Appendix C contains the results from certification tests performed on the 50th percentile male anthropomorphic test devices utilized for this crash test. The results indicate that the dummies meet all of the performance requirements of the six standard tests as specified in 49 CFR Part 572, Federal Register, Volume 42, No. 25, dated February 7, 1977.

The tests were conducted at the Dummy Certification Test Facility of General Dynamics . A summary of the test results, and Part 572 specifications are included in this Appendix.

Dummy serial numbers and certification dates are:

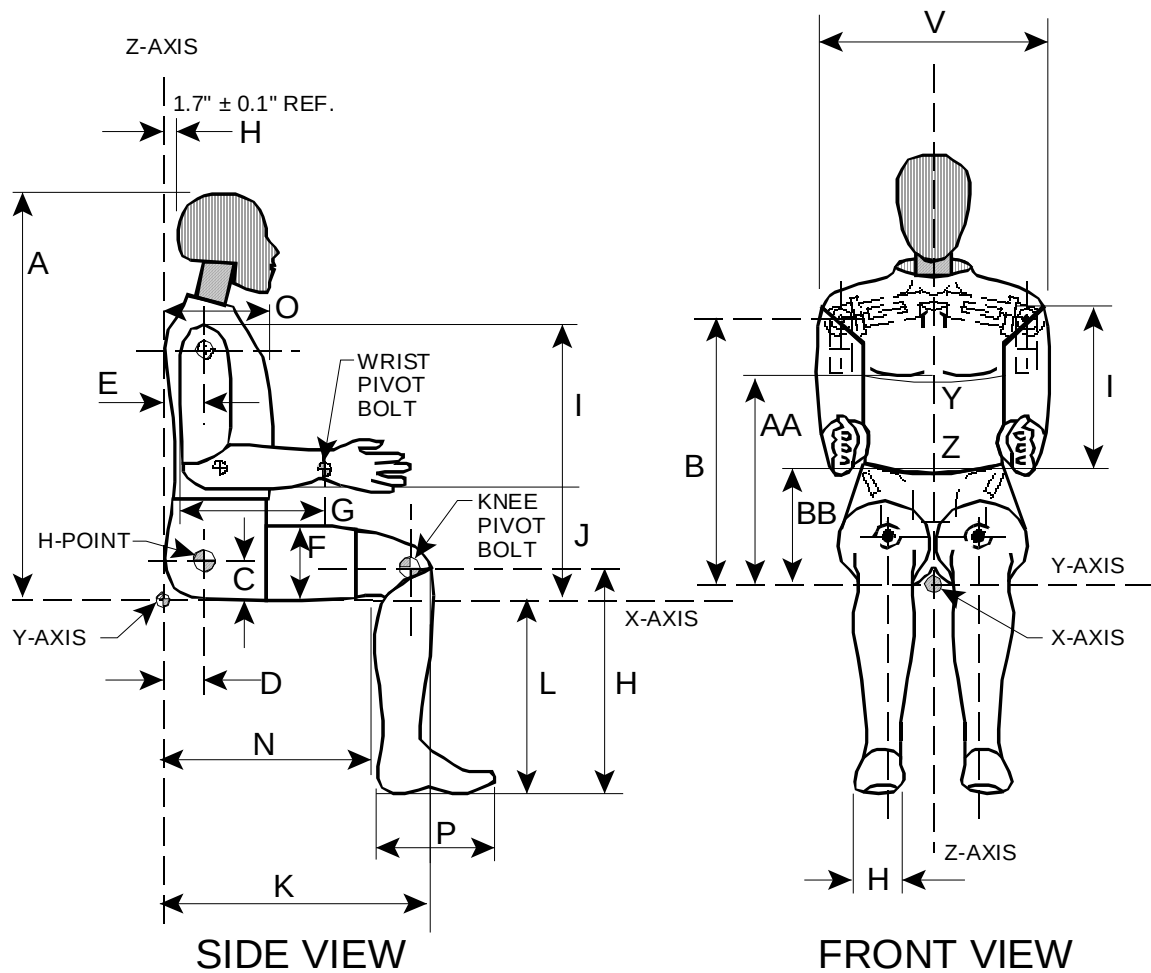
<u>Position No./Location</u>	<u>Serial No.</u>	<u>Completion Date</u>
#1/Driver	150	3/25/2004
#2/Right Front Passenger	245	3/25/2004

Electronic Test Equipment

The complement of signal conditioning, recording and display equipment, in conjunction with dummy certification testing, can be found in New Car Assessment and Standards Inducant Testing Final Report No. 6525-V-1.

DUMMY CONFIGURATION DIMENSIONS

EXTERNAL DIMENSIONS SPECIFICATIONS



NOTE: Figure is referenced to the erect seated position. The curved lumbar does not allow the Hybrid III to be positioned in a perfect erect attitude.
(REF: S572.31(A)(6))

PART 572E
HEAD DROP TEST

Dummy Serial Number 150
Sequential Test Number 1
Date 03-10-04
Workfile 150H 03-10-04

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	66-78 Deg F	70.0
Relative Humidity	10% - 70%	37.0
Peak Resultant Acceleration	225-275 G's	246.14
Peak Lateral Acceleration	15 G's Max	11.13
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572E
NECK FLEXION TEST

Dummy Serial Number	150	
Sequential Test Number	1	
Date	03-11-04	6 Axis Neck Transducer
Workfile	150NF 03-11-04	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	70.0
Relative Humidity		10% - 70%	33.0
Impact Velocity		22.60 - 23.40 Ft/s	22.82
Pendulum Deceleration	10 ms	22.50 - 27.50 G's	25.35
	20 ms	17.60 - 22.60 G's	19.87
	30 ms	12.50 - 18.50 G's	14.08
Max Pendulum G's Above 30 ms		29 G's Max	14.35
Deceleration - Time Curve Decay Time to 5 G's		34 - 42 ms	39.80
D Plane Rotation	Max	64 - 78 Deg	69.12
	Time	57 - 64 ms	58.9
Moment About Occipital Condyle	Max	65 - 80 Ft-Lbs	71.13
	Time	47 - 58 ms	52.5
Rotation Angle - Time Curve Decay Time to Zero		113 - 128 ms	113.0
Positive Moment - Time Curve Decay Time to Zero		97 - 107 ms	105.6

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
NECK EXTENSION TEST

Dummy Serial Number	150	
Sequential Test Number	1	
Date	03-11-04	6 Axis Neck Transducer
Workfile	150NE 03-11-04	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	70.0
Relative Humidity		10% - 70%	33.0
Impact Velocity		19.50 - 20.30 Ft/s	19.67
Pendulum Deceleration	10 ms	17.20 - 21.20 G's	19.28
	20 ms	14.00 - 19.00 G's	16.55
	30 ms	11.00 - 16.00 G's	14.22
Max Pendulum G's Above 30 ms		22 G's Max	14.22
Deceleration - Time Curve Decay Time to 5 G's		38 - 46 ms	40.20
D Plane Rotation	Max	81 - 106 Deg	95.40
	Time	72 - 82 ms	76.50
Moment About Occipital Condyle	Max	-59.0 - -39.0 Ft-Lbs	-45.77
	Time	65 - 79 ms	73.90
Rotation Angle - Time Curve Decay Time to Zero		147 - 174 ms	155.80
Positive Moment - Time Curve Decay Time to Zero		120 - 148 ms	140.30

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572E
THORAX IMPACT TEST

Dummy Serial Number 150
Sequential Test Number 1
Date 03-25-04
Workfile 150T 03-25-04

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	69-72 Deg F	70.0
Relative Humidity	10% - 70%	28.0
Pendulum Velocity	21.6 - 22.4 Ft/s	22.23
Maximum Deflection	2.50 - 2.86 in	2.53
Maximum Resistive Force	1160 - 1325 Lbs	1317.01
Internal Hysteresis	69 - 85 %	72.78

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572E
KNEE IMPACT TEST

Dummy Serial Number 150
Sequential Test Number 1
Date 03-25-04
Workfile 150LF 03-25-04 / 150RF 03-25-04

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	66 - 78 Deg F	70.0
Relative Humidity	10% - 70%	29.0
Probe Velocity	6.8 - 7.0 Ft/s	7.0
Peak Knee Impact Force	1060 - 1300 Lbs	1135.37
RIGHT KNEE		
Temperature	66 - 78 Deg F	70.0
Relative Humidity	10% - 70%	29.0
Probe Velocity	6.8 - 7.0 Ft/s	7.0
Peak Knee Impact Force	1060 - 1300 Lbs	1121.02

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572E
EXTERNAL DIMENSIONS

Dummy Serial Number 150
Sequential Test Number 1
Date 03-25-04

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature			70
Relative Humidity			29
Location for Chest Circumference	AA	16.9 - 17.1 in	17.0
Location for Waist Circumference	BB	8.9 - 9.1 in	9.0
Chest Circumference (With Jacket)	Y	38.2 - 39.4 in	39.2
Waist Circumference	Z	32.9 - 34.1 in	34.0
Chest Depth	O	8.4 - 9.0 in	8.5
H-Point Height	C	3.3 - 3.5 in	3.4
H-Point from Backline	D	5.3 - 5.5 in	5.4
Skull Cap to Backline	H	1.6 - 1.8 in	1.7
Total Sitting Height	A	34.6 - 35.0 in	34.8
Thigh Clearance	F	5.5 - 6.1 in	6.0
Buttock Knee Length	K	22.8 - 23.8 in	23.4
Buttock Popliteal Length	N	17.8 - 18.8 in	18.4
Popliteal Height	L	16.9 - 17.9 in	17.8
Knee Pivot Height	M	19.1 - 19.7 in	19.6
Foot Length	P	9.9 - 10.5 in	10.2
Foot Breadth	W	3.6 - 4.2 in	3.8
Shoulder Pivot from Backline	E	3.3 - 3.7 in	3.7
Shoulder Breadth	V	16.6 - 17.2 in	16.8
Shoulder Pivot Height	B	19.9 - 20.5 in	20.1
Elbow Rest Height	J	7.5 - 8.3 in	8.1
Shoulder - Elbow Length	I	13.0 - 13.6 in	13.2
Back of Elbow to Wrist Pivot	G	11.4 - 12.0 in	11.6

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572E
HEAD DROP TEST

Dummy Serial Number 245
Sequential Test Number 1
Date 03-10-04
Workfile 245H2 03-10-04

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	66-78 Deg F	70.0
Relative Humidity	10% - 70%	37.0
Peak Resultant Acceleration	225-275 G's	242.28
Peak Lateral Acceleration	15 G's Max	4.87
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572E
NECK FLEXION TEST

Dummy Serial Number	245	
Sequential Test Number	1	
Date	03-11-04	6 Axis Neck Transducer
Workfile	245NF 03-11-04	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	70.0
Relative Humidity		10% - 70%	33.0
Impact Velocity		22.60 - 23.40 Ft/s	22.63
Pendulum Deceleration	10 ms	22.50 - 27.50 G's	22.54
	20 ms	17.60 - 22.60 G's	22.17
	30 ms	12.50 - 18.50 G's	15.67
Max Pendulum G's Above 30 ms		29 G's Max	15.67
Deceleration - Time Curve Decay Time to 5 G's		34 - 42 ms	41.00
D Plane Rotation	Max	64 - 78 Deg	65.87
	Time	57 - 64 ms	58.20
Moment About Occipital Condyle	Max	65 - 80 Ft-Lbs	908.99
	Time	47 - 58 ms	49.90
Rotation Angle - Time Curve Decay Time to Zero		113 - 128 ms	113.10
Positive Moment - Time Curve Decay Time to Zero		97 - 107 ms	97.30

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572E
NECK EXTENSION TEST

Dummy Serial Number	245	
Sequential Test Number	1	
Date	03-12-04	6 Axis Neck Transducer
Workfile	245NE 03-12-04	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	70.0
Relative Humidity		10% - 70%	36.0
Impact Velocity		19.50 - 20.30 Ft/s	19.66
Pendulum Deceleration	10 ms	17.20 - 21.20 G's	20.69
	20 ms	14.00 - 19.00 G's	18.79
	30 ms	11.00 - 16.00 G's	14.68
Max Pendulum G's Above 30 ms		22 G's Max	14.68
Deceleration - Time Curve Decay Time to 5 G's		38 - 46 ms	38.10
D Plane Rotation	Max	81 - 106 Deg	88.52
	Time	72 - 82 ms	72.70
Moment About Occipital Condyle	Max	-59.0 - -39.0 Ft-Lbs	-593.01
	Time	65 - 79 ms	67.80
Rotation Angle - Time Curve Decay Time to Zero		147 - 174 ms	149.70
Positive Moment - Time Curve Decay Time to Zero		120 - 148 ms	130.80

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572E
THORAX IMPACT TEST

Dummy Serial Number 245
Sequential Test Number 1
Date 03-24-04
Workfile 245T2 03-24-04

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	69-72 Deg F	72.0
Relative Humidity	10% - 70%	26.0
Pendulum Velocity	21.6 - 22.4 Ft/s	22.01
Maximum Deflection	2.50 - 2.86 in	2.62
Maximum Resistive Force	1160 - 1325 Lbs	1238.66
Internal Hysteresis	69 - 85 %	72.69

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572E
KNEE IMPACT TEST

Dummy Serial Number 245
Sequential Test Number 1
Date 03-25-04
Workfile 245LF 03-25-04

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	66 - 78 Deg F	70.0
Relative Humidity	10% - 70%	29.0
Probe Velocity	6.8 - 7.0 Ft/s	7.0
Peak Knee Impact Force	1060 - 1300 Lbs	1106.67
RIGHT KNEE		
Temperature	66 - 78 Deg F	70.0
Relative Humidity	10% - 70%	29.0
Probe Velocity	6.8 - 7.0 Ft/s	7.0
Peak Knee Impact Force	1060 - 1300 Lbs	1079.96

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572E
EXTERNAL DIMENSIONS

Dummy Serial Number 245
Sequential Test Number 1
Date 03-25-04

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature			70
Relative Humidity			29
Location for Chest Circumference	AA	16.9 - 17.1 in	17.0
Location for Waist Circumference	BB	8.9 - 9.1 in	9.0
Chest Circumference (With Jacket)	Y	38.2 - 39.4 in	39.2
Waist Circumference	Z	32.9 - 34.1 in	34.0
Chest Depth	O	8.4 - 9.0 in	8.5
H-Point Height	C	3.3 - 3.5 in	3.4
H-Point from Backline	D	5.3 - 5.5 in	5.4
Skull Cap to Backline	H	1.6 - 1.8 in	1.7
Total Sitting Height	A	34.6 - 35.0 in	34.8
Thigh Clearance	F	5.5 - 6.1 in	6.0
Buttock Knee Length	K	22.8 - 23.8 in	23.4
Buttock Popliteal Length	N	17.8 - 18.8 in	18.4
Popliteal Height	L	16.9 - 17.9 in	17.5
Knee Pivot Height	M	19.1 - 19.7 in	19.2
Foot Length	P	9.9 - 10.5 in	10.2
Foot Breadth	W	3.6 - 4.2 in	3.8
Shoulder Pivot from Backline	E	3.3 - 3.7 in	3.6
Shoulder Breadth	V	16.6 - 17.2 in	16.8
Shoulder Pivot Height	B	19.9 - 20.5 in	20.2
Elbow Rest Height	J	7.5 - 8.3 in	8.0
Shoulder - Elbow Length	I	13.0 - 13.6 in	13.2
Back of Elbow to Wrist Pivot	G	11.4 - 12.0 in	11.6

Remarks:

Laboratory Technician:

B. Swiecicki

APPENDIX D

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENT CALIBRATION FOR DRIVER DUMMY
(Six Month Calibration Minimum)

DRIVER DUMMY (S/N 150)		Manufacturer	Serial #	Calibration	
				Last	Next
Head 9 Array	X Arm Y	ENDEVCO	AC-P17531	11/21/03	05/21/04
	X Arm Z	ENDEVCO	AC-P14965	11/21/03	05/21/04
	Y Arm X	ENDEVCO	AC-P17563	11/21/03	05/21/04
	Y Arm Z	ENDEVCO	AC-P18551	11/21/03	05/21/04
	Z Arm X	ENDEVCO	AC-P17539	11/21/03	05/21/04
	Z Arm Y	ENDEVCO	AC-P18718	11/21/03	05/21/04
Head	X	ENDEVCO	AC-P16832	11/20/03	05/20/04
	Y	ENDEVCO	AC-P16591	11/20/03	05/20/04
	Z	ENDEVCO	AC-P16286	11/20/03	05/20/04
Head	X (R)	ENDEVCO	AC-P17141	11/20/03	05/20/04
	Y (R)	ENDEVCO	AC-P17242	11/20/03	05/20/04
	Z (R)	ENDEVCO	AC-P17152	11/20/03	05/20/04
Neck Load Cell	X	DENTON	LC-1633FX	08/13/03	02/11/04
	Y	DENTON	LC-1633FY	08/13/03	02/11/04
	Z	DENTON	LC-1633FZ	08/13/03	02/11/04
Neck Moment	X	DENTON	LC-1633MX	08/13/03	02/11/04
	Y	DENTON	LC-1633MY	08/13/03	02/11/04
	Z	DENTON	LC-1633MZ	08/13/03	02/11/04
Chest	X	ENDEVCO	AC-P19216	11/26/03	05/26/04
	Y	ENDEVCO	AC-P16576	12/01/03	05/31/04
	Z	ENDEVCO	AC-P15534	11/26/03	05/26/04
Chest	X (R)	ENDEVCO	AC-P23303	11/26/03	05/26/04
	Y (R)	ENDEVCO	AC-P15526	12/01/03	05/31/04
	Z (R)	ENDEVCO	AC-P19255	12/01/03	05/31/04
Chest Deflection	X	SERVO	DS-150	12/19/03	06/18/04
Pelvic	X	ENDEVCO	AC-P21393	12/04/03	06/03/04
	Y	ENDEVCO	AC-P23788	12/04/03	06/03/04
	Z	ENDEVCO	AC-P16845	12/04/03	06/03/04

INSTRUMENT CALIBRATION FOR DRIVER DUMMY
(Six Month Calibration Minimum)

DRIVER DUMMY (S/N 150)		Manufacturer	Serial #	Calibration	
				Last	Next
Left Femur Load Cell	Fz	DENTON	LC-255	12/03/03	06/02/04
Right Femur Load Cell	Fz	GSE	LC-420	12/03/03	06/02/04
Left Upper Tibia	Mx	DENTON	LC-199MX	09/26/03	03/26/04
	My	DENTON	LC-199MY	09/26/03	03/26/04
Left Lower Tibia	Fz	DENTON	LC-128FZ	09/26/03	03/26/04
	Mx	DENTON	LC-128MX	09/26/03	03/26/04
	My	DENTON	LC-128MY	09/26/03	03/26/04
Right Upper Tibia	Mx	DENTON	LC-200MX	09/26/03	03/26/04
	My	DENTON	LC-200MY	09/26/03	03/26/04
Right Lower Tibia	Fz	DENTON	LC-129FZ	09/26/03	03/26/04
	Mx	DENTON	LC-129MX	09/26/03	03/26/04
	My	DENTON	LC-129MY	09/26/03	03/26/04
Left Foot Rear	X	ENDEVCO	AC-J30491	01/16/04	07/16/04
	Z	ENDEVCO	AC-J31026	01/16/04	07/16/04
Left Foot Front	Z	ENDEVCO	AC-J32831	01/16/04	07/16/04
Right Foot Rear	X	ENDEVCO	AC-J32838	01/16/04	07/16/04
	Z	ENDEVCO	AC-J32174	11/24/03	05/24/04
Right Foot Front	Z	ENDEVCO	AC-J32143	11/24/03	05/24/04
Lap Belt Load Cell		FIRST TECHNOLOGY	LC-170	10/10/03	04/09/04

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(Six Month Calibration Minimum)

				Calibration	
PASSENGER DUMMY (S/N 245)		Manufacturer	Serial #	Last	Next
Head 9 Array	X Arm Y	ENDEVCO	AC-P32453	01/22/04	07/22/04
	X Arm Z	ENDEVCO	AC-P32289	01/22/04	07/22/04
	Y Arm X	ENDEVCO	AC-P32146	01/23/04	07/23/04
	Y Arm Z	ENDEVCO	AC-P32225	01/23/04	07/23/04
	Z Arm X	ENDEVCO	AC-P32217	01/23/04	07/23/04
	Z Arm Y	ENDEVCO	AC-P32276	01/23/04	07/23/04
	Head	X	ENDEVCO	AC-P32464	01/22/04
Y		ENDEVCO	AC-P32295	01/22/04	07/22/04
Z		ENDEVCO	AC-P32227	01/22/04	07/22/04
Head	X (R)	ENDEVCO	AC-P32139	01/22/04	07/22/04
	Y (R)	ENDEVCO	AC-P32197	01/22/04	07/22/04
	Z (R)	ENDEVCO	AC-P32455	11/12/03	05/12/04
Neck Load Cell	X	DENTON	LC-1634FX	08/18/03	02/16/04
	Y	DENTON	LC-1634FY	08/18/03	02/16/04
	Z	DENTON	LC-1634FZ	08/18/03	02/16/04
Neck Moment	X	DENTON	LC-1634MX	08/18/03	02/16/04
	Y	DENTON	LC-1634MY	08/18/03	02/16/04
	Z	DENTON	LC-1634MZ	08/18/03	02/16/04
Chest	X	ENDEVCO	AC-P17235	11/26/03	05/26/04
	Y	ENDEVCO	AC-P23640	11/24/03	05/24/04
	Z	ENDEVCO	AC-P17285	11/26/03	05/26/04
Chest	X (R)	ENDEVCO	AC-P17283	11/26/03	05/26/04
	Y (R)	ENDEVCO	AC-P16863	11/24/03	05/24/04
	Z (R)	ENDEVCO	AC-P14393	11/26/03	05/26/04
Chest Deflection	X	SERVO	DS-245	12/19/03	06/18/04
Pelvic	X	ENDEVCO	AC-P18739	11/26/03	05/26/04
	Y	ENDEVCO	AC-P19212	11/26/03	05/26/04
	Z	ENDEVCO	AC-P18738	11/26/03	05/26/04

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(Six Month Calibration Minimum)

PASSENGER DUMMY (S/N 245)		Manufacturer	Serial #	Calibration	
				Last	Next
Left Femur Load Cell	Fz	GSE	LC-657	12/03/03	06/02/04
Right Femur Load Cell	Fz	GSE	LC-653	12/03/03	06/02/04
Left Upper Tibia	Mx	DENTON	LC-265MX	09/26/03	03/26/04
	My	DENTON	LC-265MY	09/26/03	03/26/04
Left Lower Tibia	Fz	DENTON	LC-178FZ	09/26/03	03/26/04
	Mx	DENTON	LC-178MX	09/26/03	03/26/04
	My	DENTON	LC-178MY	09/26/03	03/26/04
Right Upper Tibia	Mx	DENTON	LC-264MX	09/26/03	03/26/04
	My	DENTON	LC-264MY	09/26/03	03/26/04
Right Lower Tibia	Fz	DENTON	LC-177FZ	09/26/03	03/26/04
	Mx	DENTON	LC-177MX	09/26/03	03/26/04
	My	DENTON	LC-177MY	09/26/03	03/26/04
Left Foot Rear	X	ENDEVCO	AC-J20084	01/30/04	07/30/04
	Z	ENDEVCO	AC-AGRP4	01/30/04	07/30/04
Left Foot Front	Z	ENDEVCO	AC-J28727	01/30/04	07/30/04
Right Foot Rear	X	ENDEVCO	AC-AJ7F6	01/30/04	07/30/04
	Z	ENDEVCO	AC-J27079	01/30/04	07/30/04
Right Foot Front	Z	ENDEVCO	AC-J23997	01/30/04	07/30/04
Lap Belt Load Cell		FIRST TECHNOLOGY	LC-175	10/10/03	04/09/04

INSTRUMENT CALIBRATION FOR VEHICLE ACCELEROMETERS
(Six Month Calibration Minimum)

	Manufacturer	Serial #	Calibration	
			Last	Next
Left Seat Rear Crossmember X	GS SENSORS	AC-9440-023	12/03/03	06/02/04
Right Rear Seat Crossmember X	GS SENSORS	AC-9444-038	12/03/03	06/02/04
Top of Engine	GS SENSORS	AC-9440-006	12/16/03	06/15/04
Bottom of Engine	GS SENSORS	AC-9440-034	12/03/03	06/02/04
Right Disc Brake Caliper	GS SENSORS	AC-9440-045	12/16/03	06/15/04
Instrument Panel	ENDEVCO	AC-P16616	03/17/04	09/15/04
Left Disc Brake Caliper	GS SENSORS	AC-9440-032	01/19/04	07/19/04
Left Seat Rear Crossmember Z	GS SENSORS	AC-9440-046	12/03/03	06/02/04
Right Seat Rear Crossmember Z	GS SENSORS	AC-9440-029	12/03/03	06/02/04

REPORT NUMBER: 8741-01

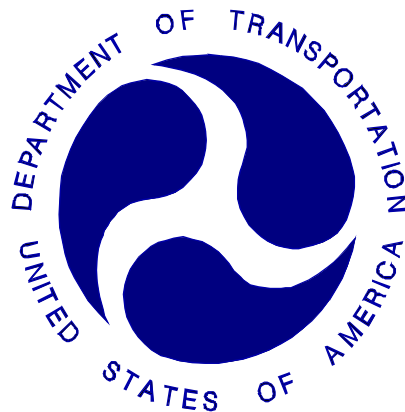
NEW CAR ASSESSMENT PROGRAM (NCAP)
FRONTAL BARRIER IMPACT TEST

EVENFLO VANGUARD 5 LATCH AND TOP TETHER
CENTURY STE 1500 LATCH AND TOP TETHER

NHTSA NUMBER: L50300

GENERAL DYNAMICS REPORT NUMBER: 8741-01

GENERAL DYNAMICS
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March 26, 2004

FINAL REPORT

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Rulemaking
Office of Crashworthiness Standards
Mail Code: NVS-111
400 Seventh Street, SW, Room No. 5313
Washington, DC 20590

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4. Title and Subtitle Final Report of Evenflo Vanguard 5 LATCH and top Tether Convertible and Century STE 1500 LATCH and top Tether Convertible NHTSA No.: L50300				5. Report Date March 26, 2004	
				6. Performing Organization Code CAL	
7. Author(s) Lawrence Q. Valvo, Project Engineer David J. Travale, Program Manager				8. Performing Organization Report No. 8741-01	
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15. Supplementary Notes					
16. Abstract This CRS test was performed in conjunction with a New Car Assessment Program (NCAP) load cell barrier test. An Evenflo Vanguard 5 forward facing convertible CRS was secured in Position 3 (P3) with the LATCH system and top tether. A Century STE 1500 forward facing convertible CRS was secured in Position 4 (P4) with the LATCH system and top tether. This test was conducted at the General Dynamics Crash Test Facility in Buffalo, New York, on March 26, 2004.					
ATD Position		HIC 15		HIC 36	
P3 (Right Rear) (044)		531.4		811.7	
P4 (Left Rear) (142)		699.1		1049.5	
				Clip (3 ms)	
				48.4	
				49.0	
17. Key Words New Car Assessment Program (NCAP)				18. Distribution Statement	
				<u>Copies of this report are available from:</u> National Highway Traffic Safety Administration Technical Reference Division Room 5111 (NAD-52) 400 Seventh St., S.W. Washington, D.C. 20590 Telephone No. (202) 366-4946 ATTN: Robert Hornicle	
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SECTION 1

PURPOSE AND SUMMARY OF TEST L50300

The purpose of this test was to obtain CRS performance data in a frontal impact NCAP condition. The 56.49 kph NCAP frontal impact test was conducted in accordance with the Office of Crashworthiness Standards (OCS) NCAP Laboratory Test Procedure.

SUMMARY

A forward facing convertible 5-point belt CRS and a 3 year old child dummy (serial no. 044) was secured in the right rear occupant position (Position 3 or P3). A forward facing convertible 5-point belt CRS and a 3 year old child dummy (serial no. 142) was secured in the left rear occupant position (Position 4 or P4). Both 3 Year Old Hybrid III (P572 P) child dummies were instrumented with head, head rear Z-direction, chest, and pelvic triaxial accelerometers, a chest displacement sensor, and upper and lower six axial neck load cells. The dummies were calibrated previous to this test and the certification information is found in section 5.

The right rear child dummy's HIC (15 ms) was 531.4, maximum chest deceleration over 3 ms was 48.4 g's. The left rear child dummy's HIC (15 ms) was 699.1, maximum chest deceleration over 3 ms was 49.0 g's.

SECTION 2
DATA SHEET NO. 1
CRASH TEST SUMMARY

TEST DUMMY INFORMATION:

DESCRIPTION	Position #3 CRS	Position #4 CRS
ATD Type/Serial No.	Hybrid III 3C/044	Hybrid III 3C /142
Restraint System:	Evenflo Vanguard 5 LATCH and top Tether	Century STE 1500 LATCH and top Tether

Number of Data Channels 54

Number of Cameras: 1 Real Time

2 High Speed

POST TEST DOOR OPENING

DESCRIPTION	FRONT	REAR
Left Side Doors	Closed, Latched and Operable without tools	Closed, Latched and Operable without tools
Right Side Doors	Closed, Latched and Operable without tools	Closed, Latched and Operable without tools
Hatch/Other Door	N/A	N/A

POST TEST SEAT DATA

LOCATION	SEAT MOVEMENT (mm)	SEAT BACK FAILURE
P1 (Left Front)	2	None
P2 (Right Front)	2	None
P3 (Right Rear)	0	None
P4 (Left Rear)	0	None

VISIBLE DUMMY CONTACT POINTS

	Position #3 CRS	Position #4 CRS
Head Contact:	The chin to the chest and the back of the head to the top of the child restraint seat back.	The chin to the chest and the back of the head to the top of the child restraint seat back.
Upper Torso Contact:	None	None
Lower Torso Contact:	None	None
Left Knee Contact:	None	None
Right Knee Contact:	None	None

DATA SHEET NO. 2

CRS PARAMETER DATA

CRS: Evenflo Vanguard 5 LATCH and top Tether/Century STE 1500 LATCH and top Tether

NHTSA No. L50300

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Delivered Weight of Vehicle with Maximum Fluids = 1948.0 kg (A)

AS TESTED WEIGHT OF VEHICLE

(2 P572E + 1 P572P w/ CRS + 1 P572P w/ CRS +CARGO + EQUIPMENT & INSTRUMENTATION):

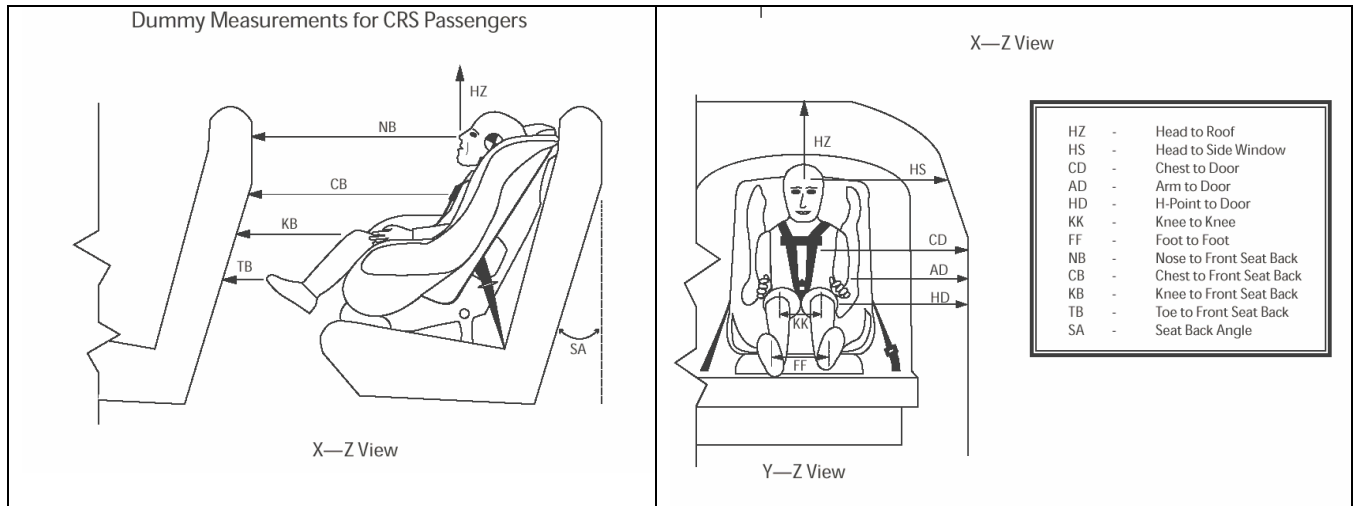
Left Front	=	<u>560.0</u>	kg	Left Rear	=	<u>526.5</u>	kg
Right Front	=	<u>612.5</u>	kg	Right Rear	=	<u>530.0</u>	kg
TOTAL FRONT	=	<u>1172.5</u>	kg	TOTAL REAR	=	<u>1056.5</u>	kg
TOTAL TEST WEIGHT =		<u>2229.0</u>	kg				

DATA SHEET NO. 3

CHILD DUMMY POSITIONING IN VEHICLE

CRS: Evenflo Vanguard 5 LATCH and top Tether/Century STE 1500 LATCH and top Tether

NHTSA No. L50300



Measurement	P3 CRS (044)	P4 CRS (142)
SA	16.5	16.5
HS	456	460
CD	458	508
AD	300	306
HD	350	360
HZ	425	455
NB	786	698
CB	760	688
KK	132	140
FF	120	105
KB – LEFT	520	480
KB – RIGHT	519	482
TB – LEFT	265	208
TB – RIGHT	256	199

All dimensions in mm (unless noted)

P3 – Right Rear Passenger (CRS #1)

P4 – Left Rear Passenger (CRS #2)

DATA SHEET 4

CHILD DUMMY INJURY CRITERIA VALUES

CRS: Evenflo Vanguard 5 LATCH and top Tether/Century STE 1500 LATCH and top Tether

NHTSA No. L50300

		MAXIMUM VALUE							
		Position #3				Position #4			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Head X	g	66.7	194.7	-39.1	123.9	42.2	182.7	-29.2	112.2
Head Y	g	15.0	123.7	-18.4	130.6	3.0	183.0	-2.8	194.6
Head Z	g	67.4	95.0	-8.1	48.9	74.6	87.9	-20.0	60.8
Head Resultant	g	72.2	194.0	-	-	76.8	87.9	-	-
Head Rear Z	g	80.2	90.9	-36.9	194.7	96.9	92.6	-40.0	60.6
Upper Neck Fx	N	28.5	186.6	-750.6	123.6	50.7	173.1	-657.9	110.1
Upper Neck Fy	N	104.5	95.7	-52.9	198.4	73.1	157.9	-70.2	117.4
Upper Neck Fz	N	1916.0	95.1	-212.5	48.5	2117.7	93.7	-565.4	60.8
Upper Neck F Resultant	N	1940.4	94.6	-	-	2187.1	94.3	-	-
Upper Neck Mx	N-m	5.9	100.4	-4.7	80.6	8.4	109.4	-4.1	123.4
Upper Neck My	N-m	1.7	82.5	-13.9	124.1	6.2	147.9	-15.6	196.3
Upper Neck Mz	N-m	2.9	83.7	-0.7	100.0	3.7	117.1	-4.8	134.8
Upper Neck M Resultant	N-m	14.2	123.8	-	-	16.1	196.4	-	-
Lower Neck Fx	N	199.6	195.8	-1343.7	88.5	223.5	180.6	-2004.7	97.7
Lower Neck Fy	N	59.9	133.6	-202.7	108.8	114.3	105.7	-62.3	187.8
Lower Neck Fz	N	1509.6	97.7	-486.3	71.8	1339.2	88.0	-818.5	61.4
Lower Neck F Resultant	N	1886.9	94.5	-	-	2303.9	93.9	-	-
Lower Neck Mx	N-m	16.7	96.4	-4.8	199.6	11.7	133.1	-8.9	118.5
Lower Neck My	N-m	100.7	89.1	-14.3	195.8	138.3	97.8	-14.0	180.4
Lower Neck Mz	N-m	9.8	85.8	-1.4	125.3	7.7	107.0	-2.6	120.7
Lower Neck M Resultant	N-m	101.8	89.1	-	-	138.3	97.8	-	-
Chest X	g	4.9	159.6	-46.5	96.0	14.5	199.9	-41.1	92.5
Chest Y	g	7.4	83.9	-1.9	176.8	6.2	110.9	-5.9	157.9
Chest Z	g	15.6	102.0	-44.2	71.2	24.7	96.4	-42.4	63.7
Chest Resultant	g	49.6	71.7	-	-	49.3	71.4	-	-
Chest Displacement	g	0.0	-40.6	-18.0	125.6	0.1	25.9	-20.1	103.3

† Transducer mount was loose, data is questionable.

DATA SHEET 4

CHILD DUMMY INJURY CRITERIA VALUES (CONTINUED)

CRS: Evenflo Vanguard 5 LATCH and top Tether/Century STE 1500 LATCH and top Tether

NHTSA No. L50300

		MAXIMUM VALUE							
		Position #3				Position #4			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Pelvic X	g	8.9	147.4	-59.2	68.1	8.2†	116.9	-39.3†	65.0
Pelvic Y	g	7.8	67.9	-2.8	192.5	10.5	108.9	-6.3	172.8
Pelvic Z	g	11.9	199.9	-53.3	68.1	16.4	186.2	-44.4	65.1
Pelvic Resultant	g	80.0	68.1	-	-	59.2†	65.1	-	-
Tether Belt Load	N	876.2	98.3	-61.2	43.3	730.7	102.8	-40.1	190.6

† P4 Pelvic X channel opened from 38 to 41 ms.

DATA SHEET 4

CHILD DUMMY INJURY CRITERIA VALUES (CONTINUED)

CRS: Evenflo Vanguard 5 LATCH and top Tether/Century STE 1500 LATCH and top Tether

NHTSA No. L50300

HEAD INJURY CRITERIA (HIC)								
HIC15					HIC36			
HIC	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂		HIC	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂
Position #3 - Right	531.4	88.0	103.0	66.0	811.7	79.3	115.3	55.1
Position #4 - Left	699.1	83.1	98.1	73.7	1049.5	75.3	111.3	61.1

CLIP SUMMARY*				
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #3 - Right	48.4	70.3	73.3	609.8
Position #4 - Left	49.0	69.5	72.5	699.1

* The maximum chest resultant acceleration is defined as the maximum acceleration which exceeds 0.003 seconds in duration.

DATA SHEET NO. 5

CRS PERFORMANCE DATA

CRS: Evenflo Vanguard 5 LATCH and top Tether/Century STE 1500 LATCH and top Tether

NHTSA No. L50300

		MAXIMUM VALUE			
DESCRIPTION	Unit	Positive	Time (ms)	Negative	Time (ms)
P3 CRS X	g	11.7	193.9	-70.5	65.4
P3 CRS Y	g	5.6	61.6	-3.8	113.3
P3 CRS Z	g	11.2	70.7	-15.1	198.8
P3 CRS Resultant	g	71.0	65.4	-	-
P4 CRS X	g	9.7	180.5	-60.5	53.1
P4 CRS Y	g	12.4	55.2	-19.2	51.6
P4 CRS Z	g	25.0	197.2	-18.0	184.1
P4 CRS Resultant	g	61.8	52.9	-	-

DATA SHEET NO. 5**CRS PERFORMANCE DATA (CONTINUED)**CRS: Evenflo Vanguard 5 LATCH and top Tether/Century STE 1500 LATCH and top TetherNHTSA No. L50300**POSITION #3 CRS POST-TEST INSPECTION (Serial No. 3691331 P1 10NOV03)**

LOCATION	DAMAGE	REMARKS
Upper Tether Strap	No	None
Upper Tether Buckle	No	None
Upper Tether Hook	No	None
Vehicle Upper Tether Anchor	No	None
Lower Anchor Strap	No	None
Lower Anchor Buckle	No	None
Lower Anchor Hooks	No	None
Vehicle Lower CRS Anchors	No	None
Five Point Harness Connections	No	None
Cracks on CRS	No	None
Fabric Tears on CRS	No	None
Vehicle Seat Structure	No	None
Vehicle Seat Fabric Tears	No	None
Child Dummy	No	None

POSITION #4 CRS POST-TEST INSPECTION (Serial No. 44164ELM)

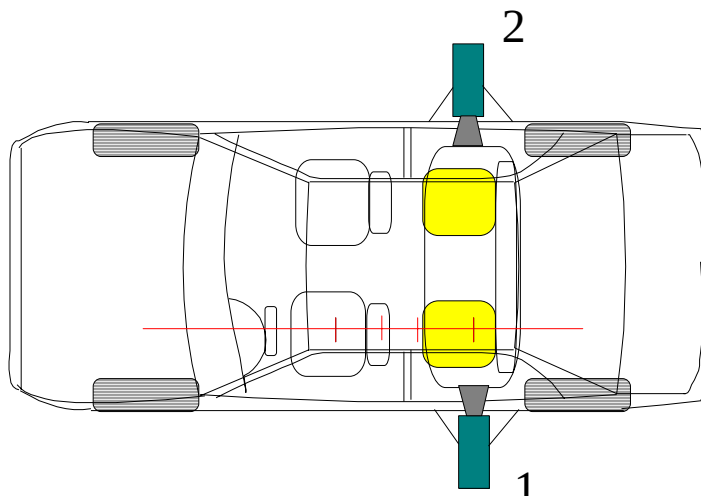
LOCATION	DAMAGE	REMARKS
Upper Tether Strap	No	None
Upper Tether Buckle	No	None
Upper Tether Hook	No	None
Vehicle Upper Tether Anchor	No	None
Lower Anchor Strap	No	None
Lower Anchor Buckle	No	None
Lower Anchor Hooks	No	None
Vehicle Lower CRS Anchors	No	None
Five Point Harness Connections	No	None
Cracks on CRS	No	None
Fabric Tears on CRS	No	None
Vehicle Seat Structure	No	None
Vehicle Seat Fabric Tears	No	None
Child Dummy	No	None

DATA SHEET NO. 6

CRS CAMERA DATA

CRS: Evenflo Vanguard 5 LATCH and top Tether/Century STE 1500 LATCH and top Tether

NHTSA No. L50300



Camera No.	View	Coordinates (millimeters)			Angle** (deg.)	Lens (mm)	Film Speed (fps)
		X*	Y*	Z*			
1	Left side CRS lateral view	970	2615	1235	-7.0	24-70	1000
2	Right side CRS lateral view	970	2615	1255	-7.0	24-70	1000

* Reference (from point of impact); all measurements accurate to within ± 6 mm

** = referenced to horizontal plane

X = film plane to monorail centerline

Y = film plane to impact location

Z = film plane to ground

SECTION 3

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Manufactured in 10NOV03
Model # 3691331 P1

Figure 3-1 CLOSE-UP VIEW OF POSITION 3 CRS LABEL



Figure 3-2 PRE-TEST FRONTAL VIEW OF POSITION 3 CRS



Figure 3-3 POST-TEST FRONTAL VIEW OF POSITION 3 CRS



Figure 3-4 PRE-TEST REAR VIEW OF POSITION 3 CRS



Figure 3-5 POST-TEST REAR VIEW OF POSITION 3 CRS



Figure 3-6 PRE-TEST LEFT SIDE VIEW OF POSITION 3 CRS



Figure 3-7 POST-TEST LEFT SIDE VIEW OF POSITION 3 CRS



Figure 3-8 PRE-TEST RIGHT SIDE VIEW OF POSITION 3 CRS



Figure 3-9 POST-TEST RIGHT SIDE VIEW OF POSITION 3 CRS

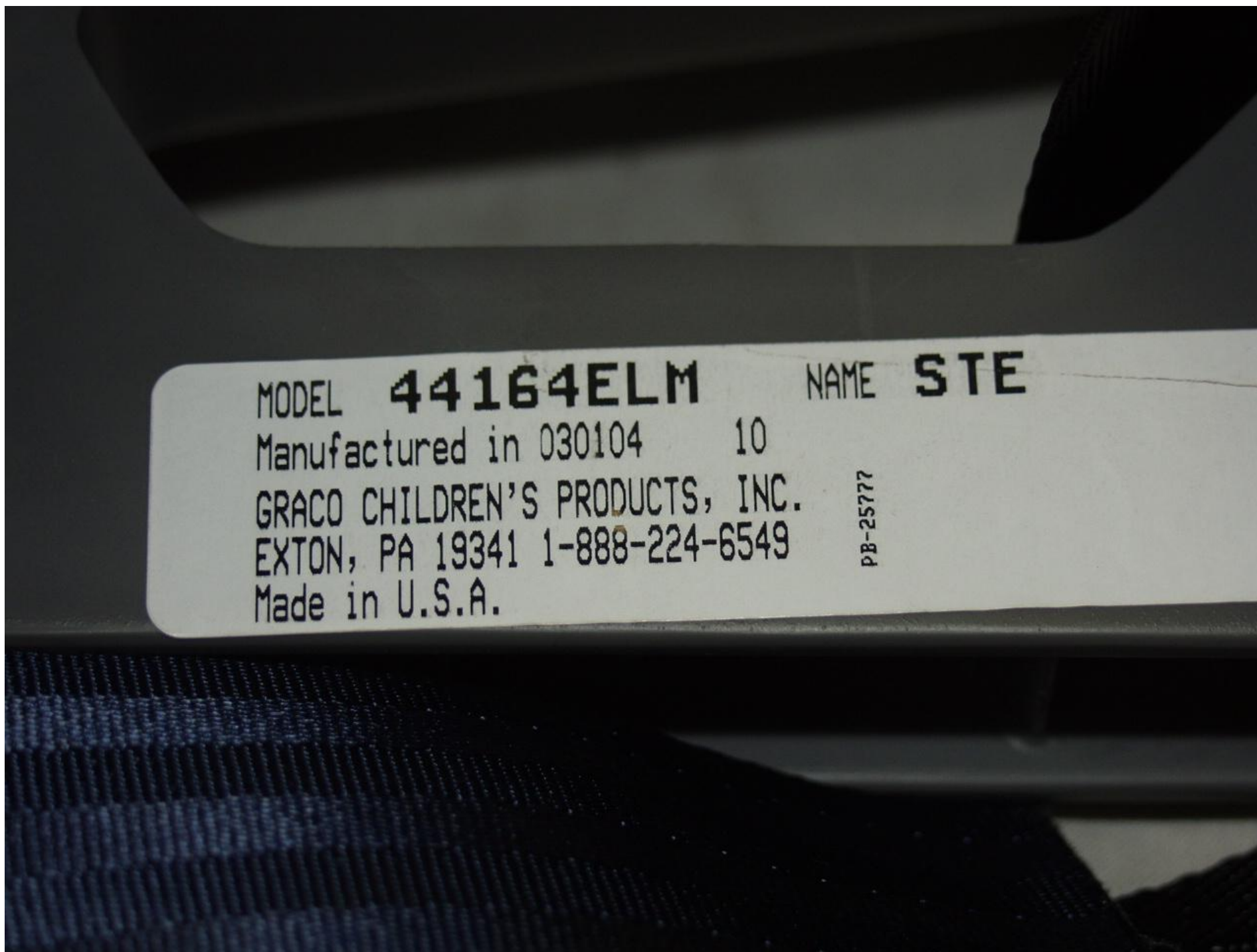


Figure 3-10 CLOSE-UP VIEW OF POSITION 4 CRS LABEL



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Figure 3-12 POST-TEST FRONTAL VIEW OF POSITION 4 CRS



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Figure 3-27 PRE-TEST POSITION 3 FRONT VIEW



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Figure 3-30 POST-TEST POSITION 4 FRONT VIEW

SECTION 4

CHILD DUMMY RESPONSE AND CRS DATA TRACES

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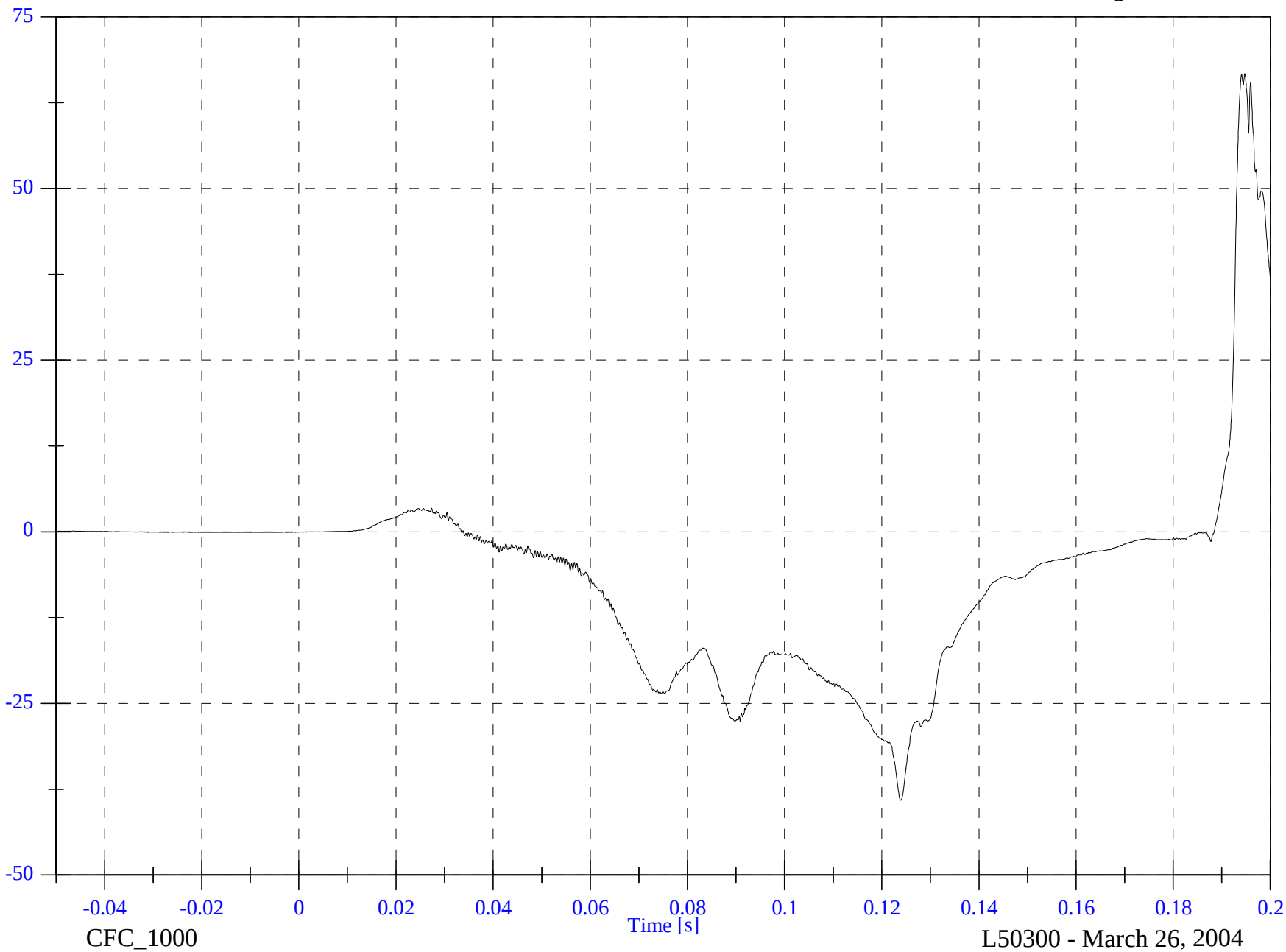
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Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Head x

Max: 66.7 [g] at 0.195 [s]

Min: -39.1 [g] at 0.124 [s]



4-4

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Head y

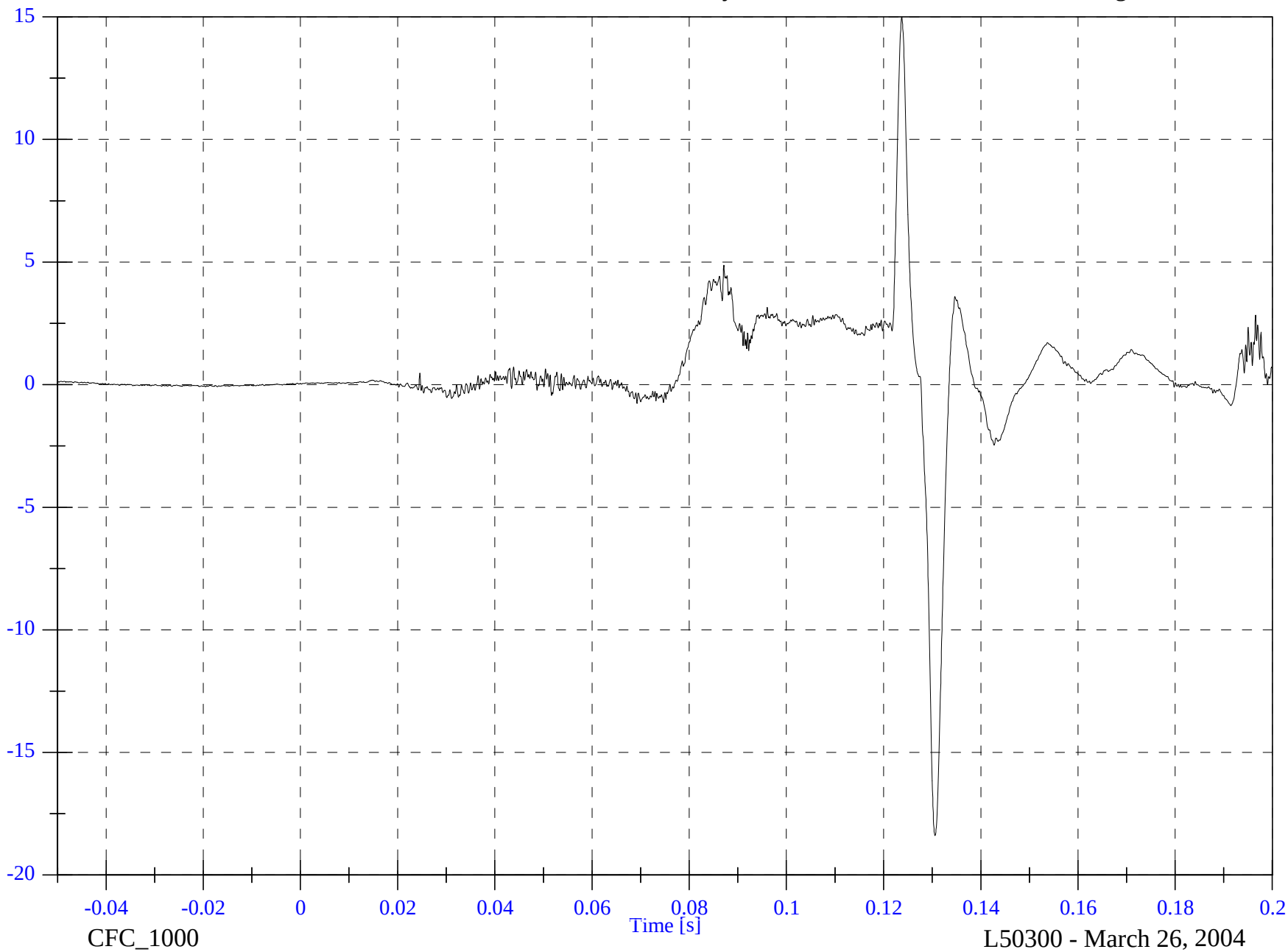
Max: 15.0 [g] at 0.124 [s]

Min: -18.4 [g] at 0.131 [s]

4-5

g

8741-01

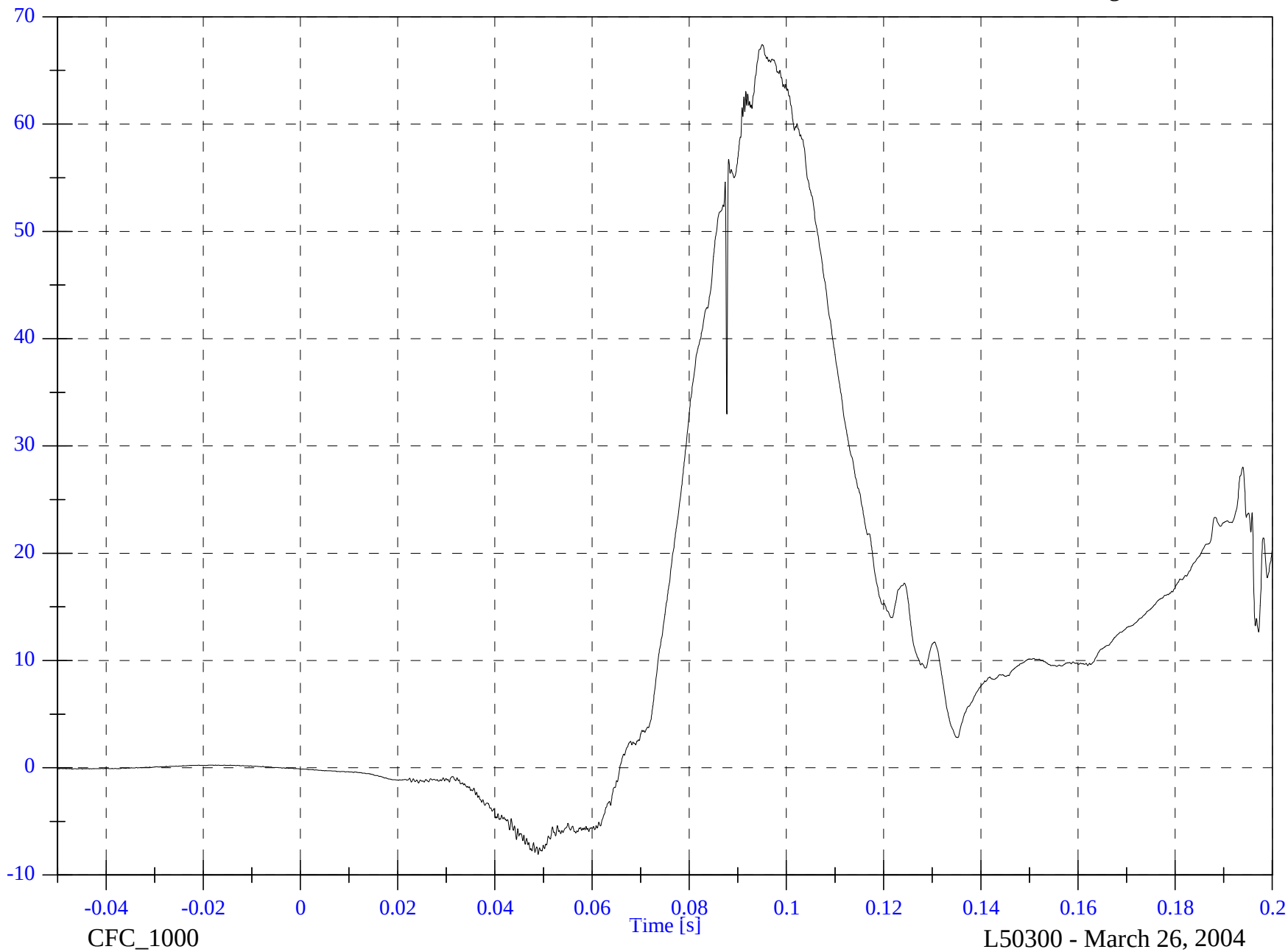


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Head z

Max: 67.4 [g] at 0.095 [s]

Min: -8.1 [g] at 0.049 [s]



4-6

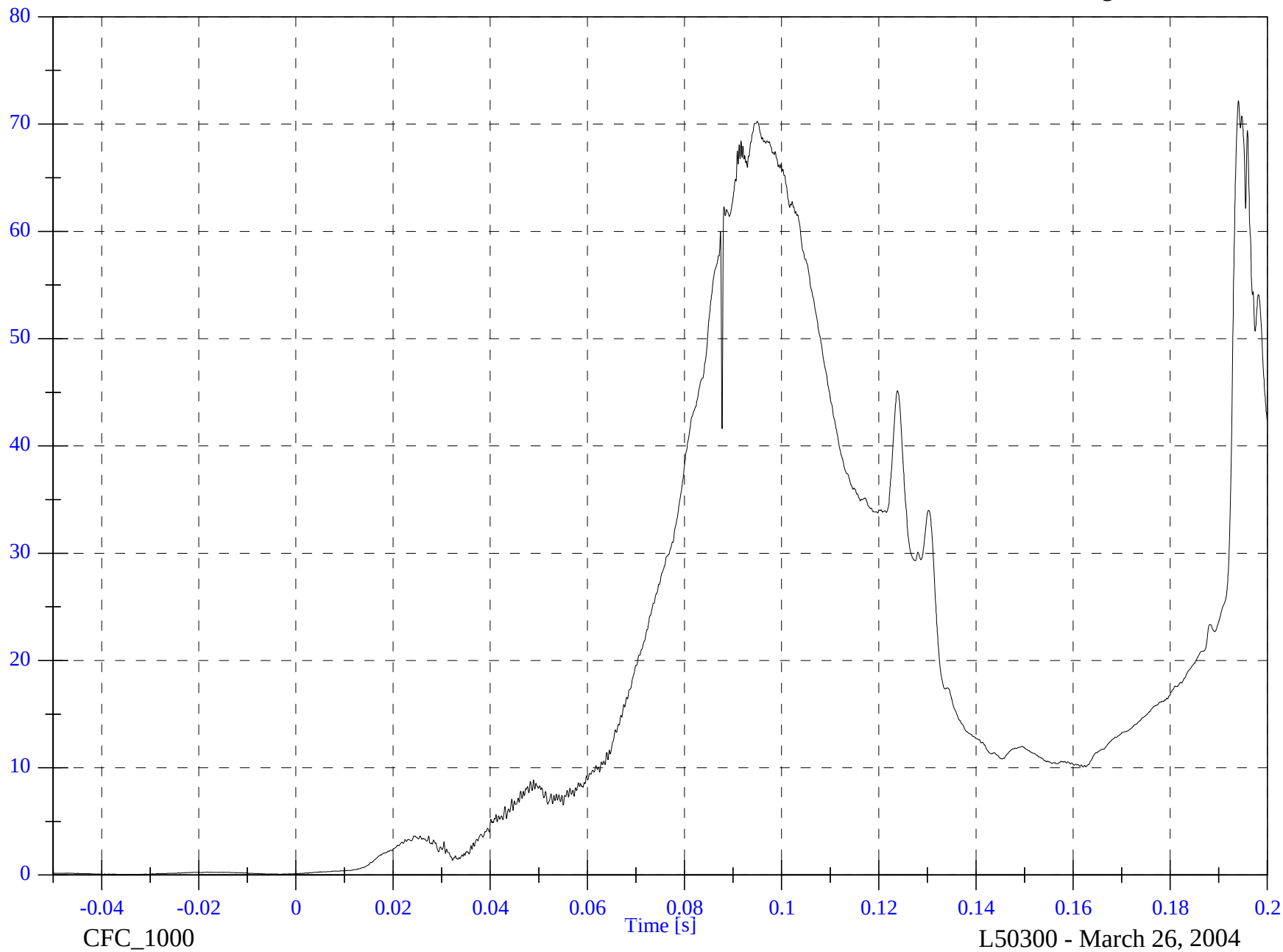
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Head Resultant

Max: 72.2 [g] at 0.194 [s]

Min: 0.0 [g] at -0.037 [s]



4-7

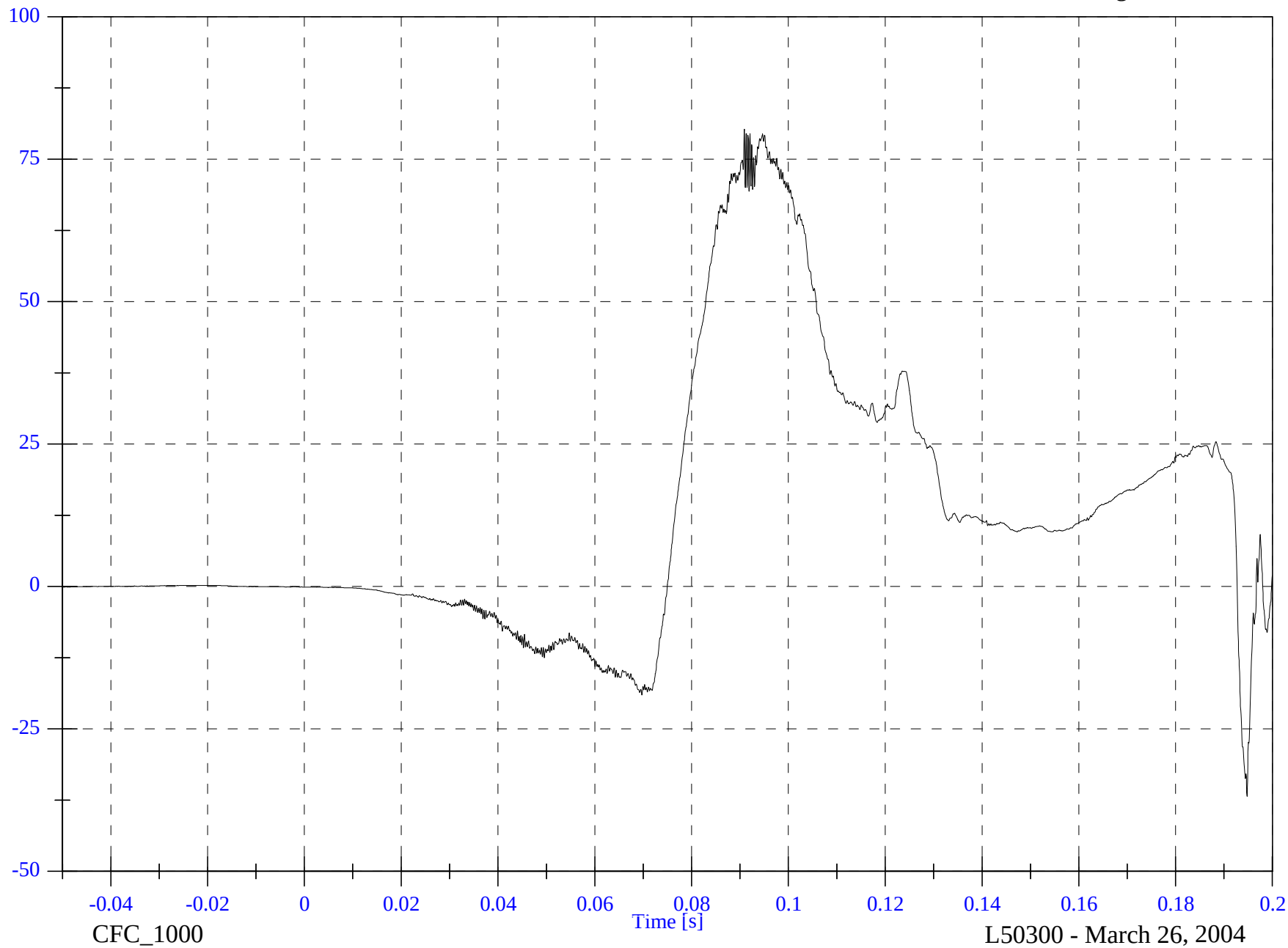
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Head Rear z

Max: 80.2 [g] at 0.091 [s]

Min: -36.9 [g] at 0.195 [s]



4-8

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Upper Neck Fx

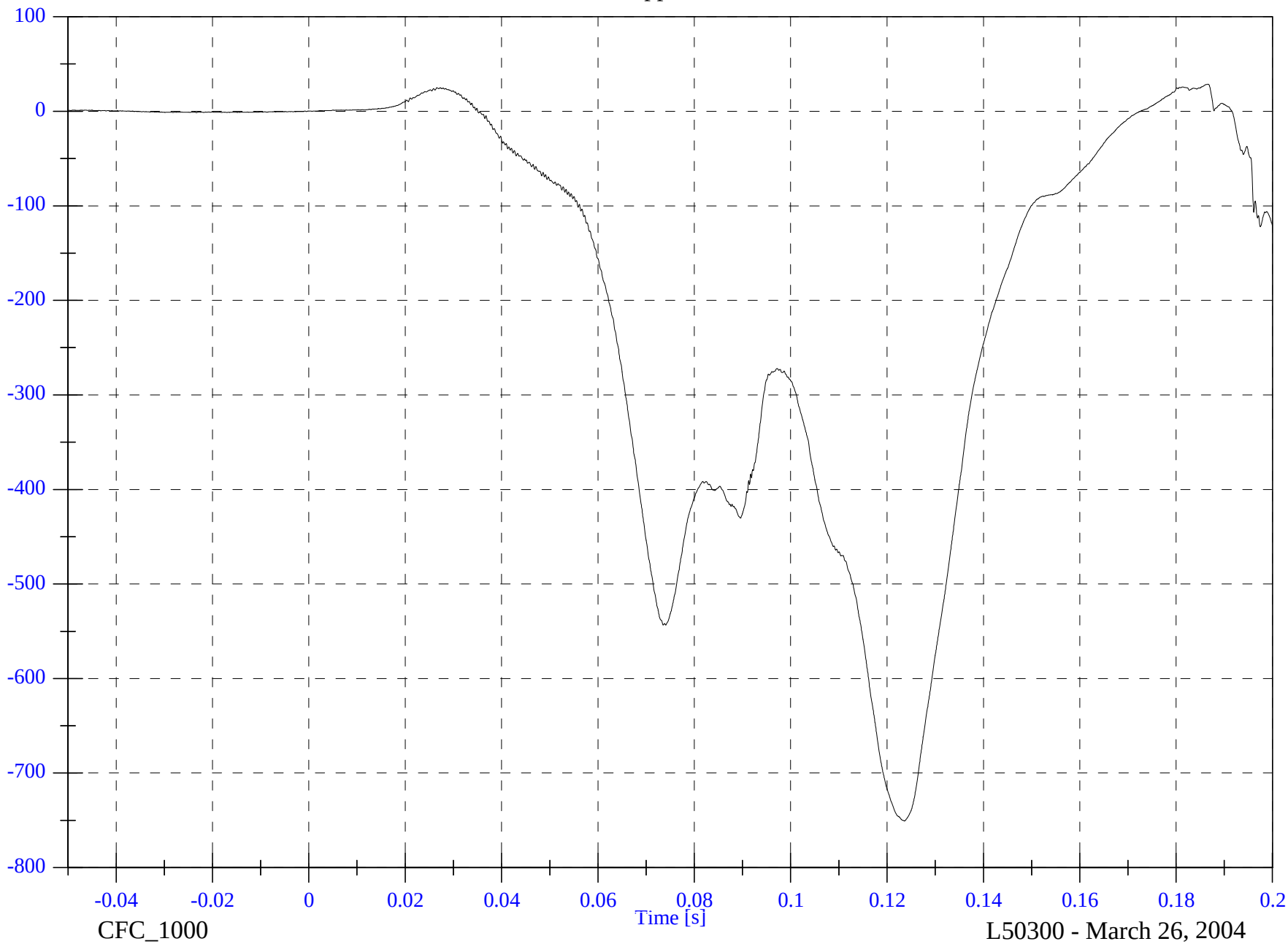
Max: 28.5 [N] at 0.187 [s]

Min: -750.6 [N] at 0.124 [s]

4-9

N

8741-01

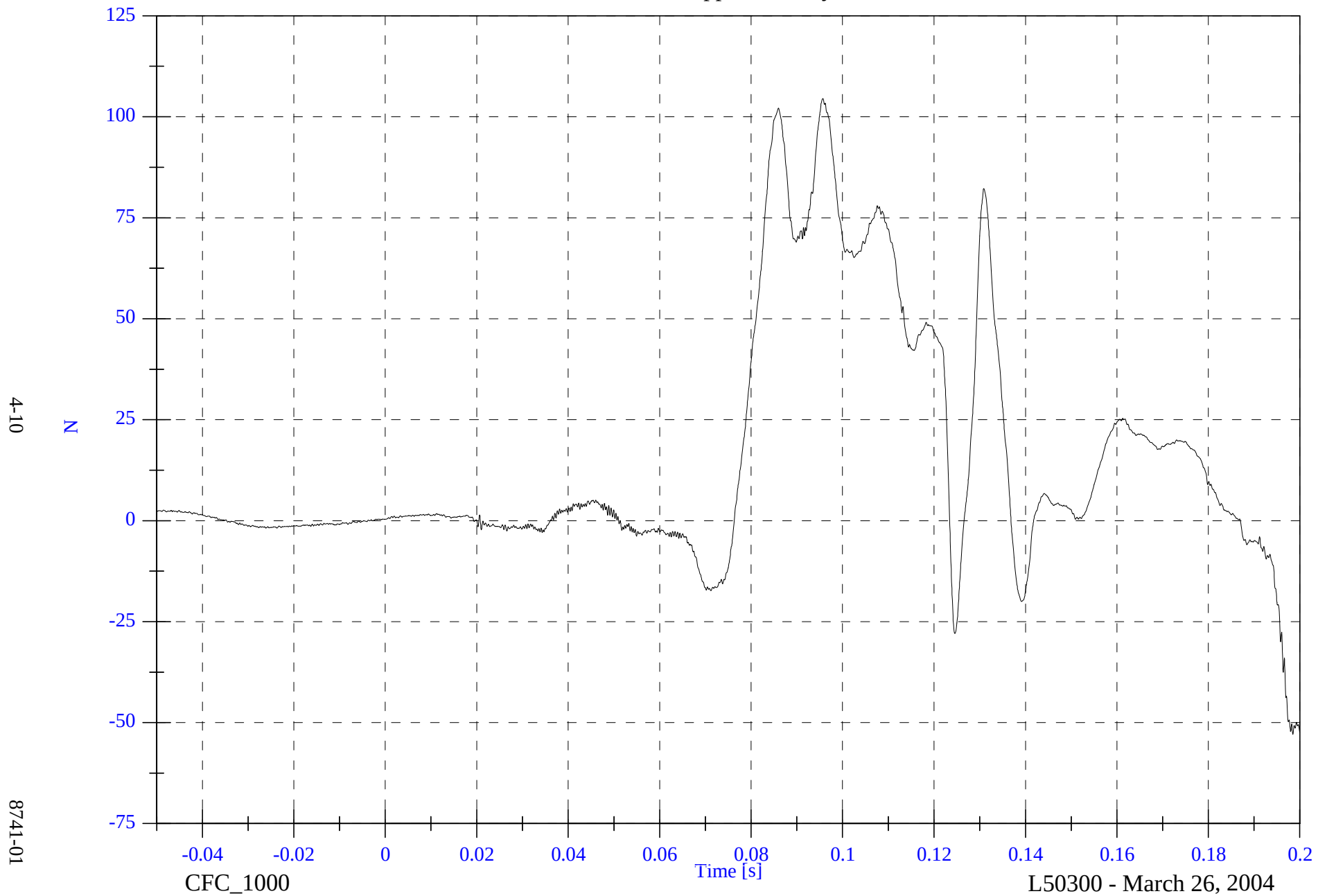


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Upper Neck Fy

Max: 104.5 [N] at 0.096 [s]

Min: -52.9 [N] at 0.198 [s]

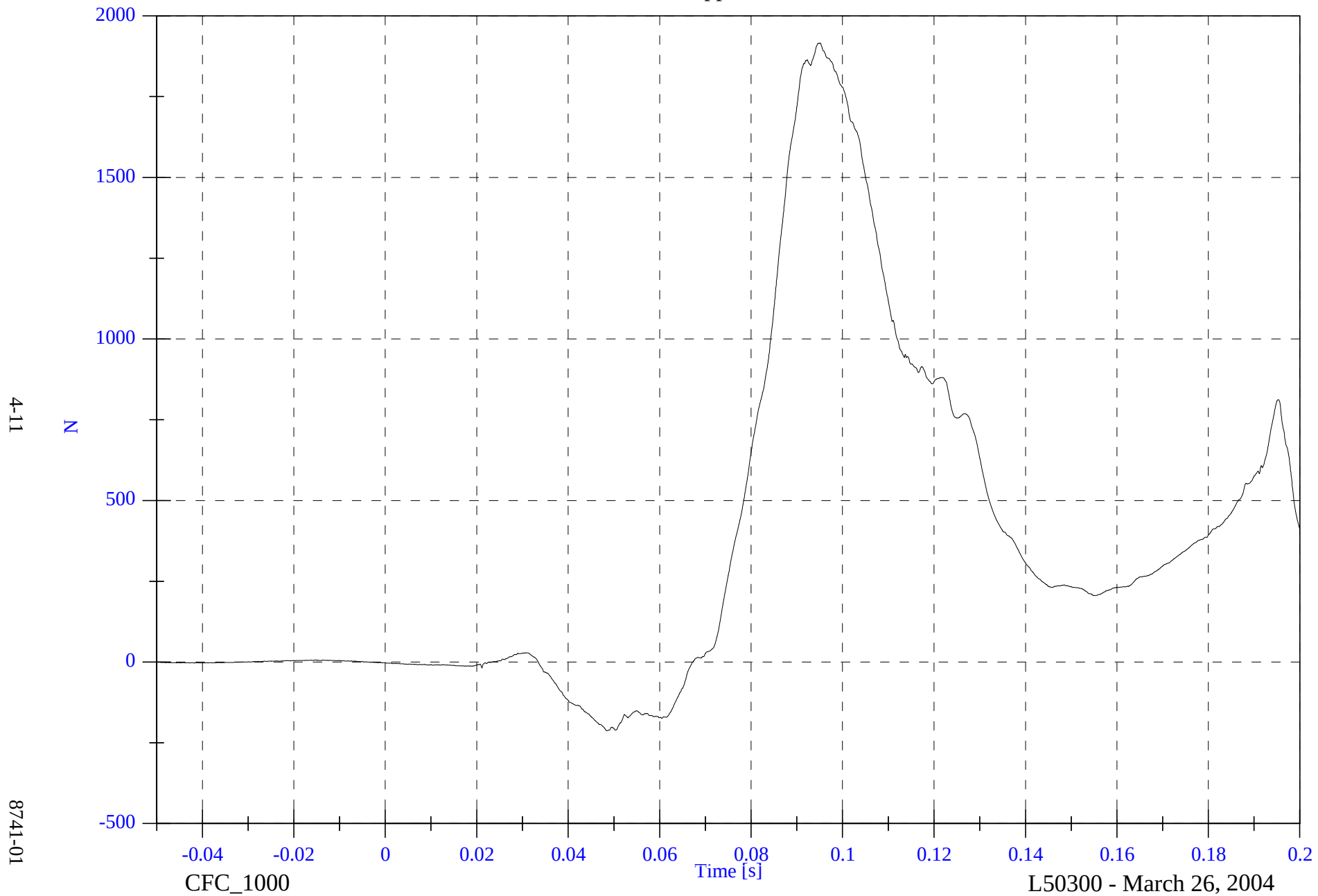


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Upper Neck Fz

Max: 1916.0 [N] at 0.095 [s]

Min: -212.5 [N] at 0.048 [s]

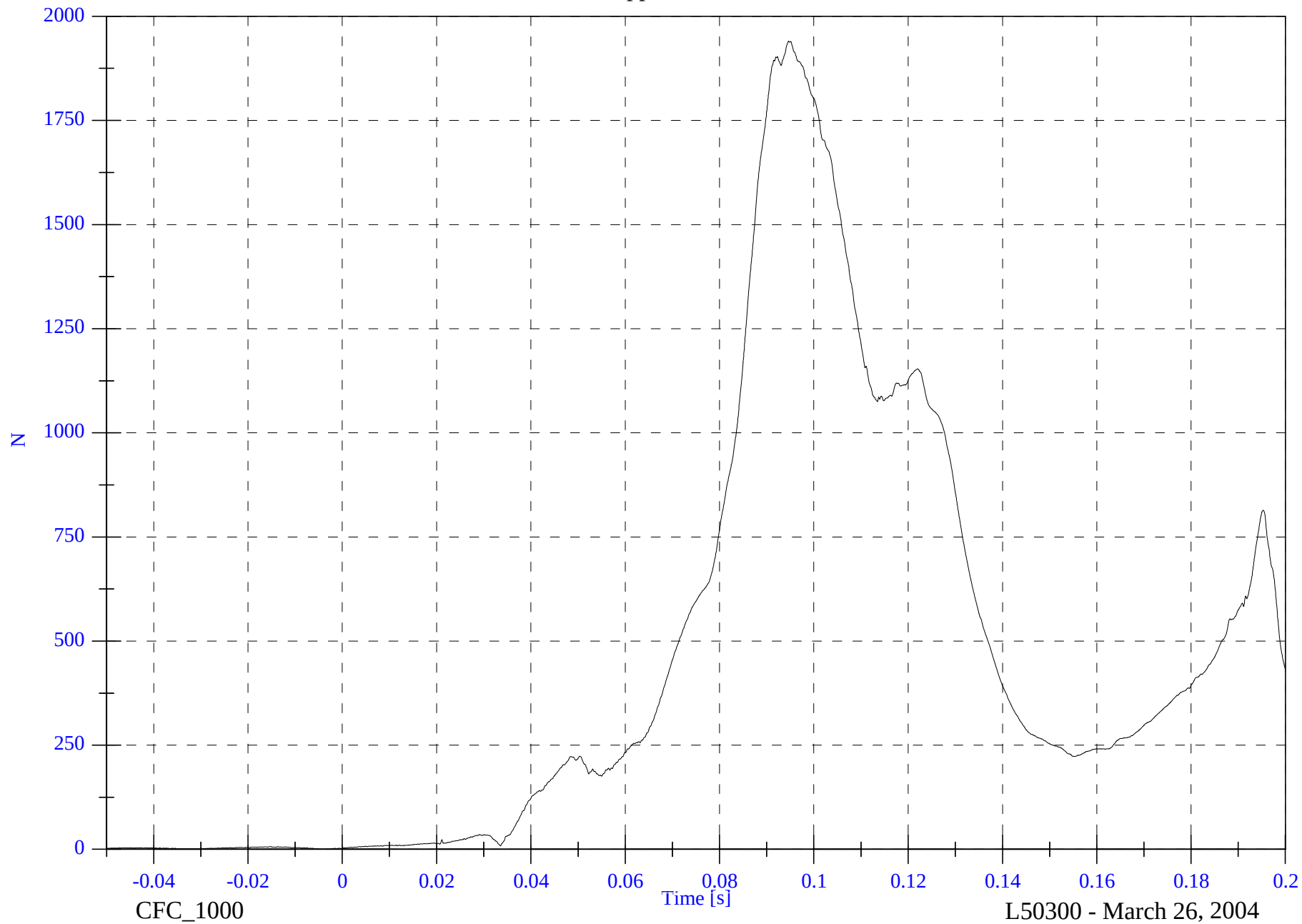


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Upper Neck F Resultant

Max: 1940.4 [N] at 0.095 [s]

Min: 0.4 [N] at -0.004 [s]



4-12

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Upper Neck Mx

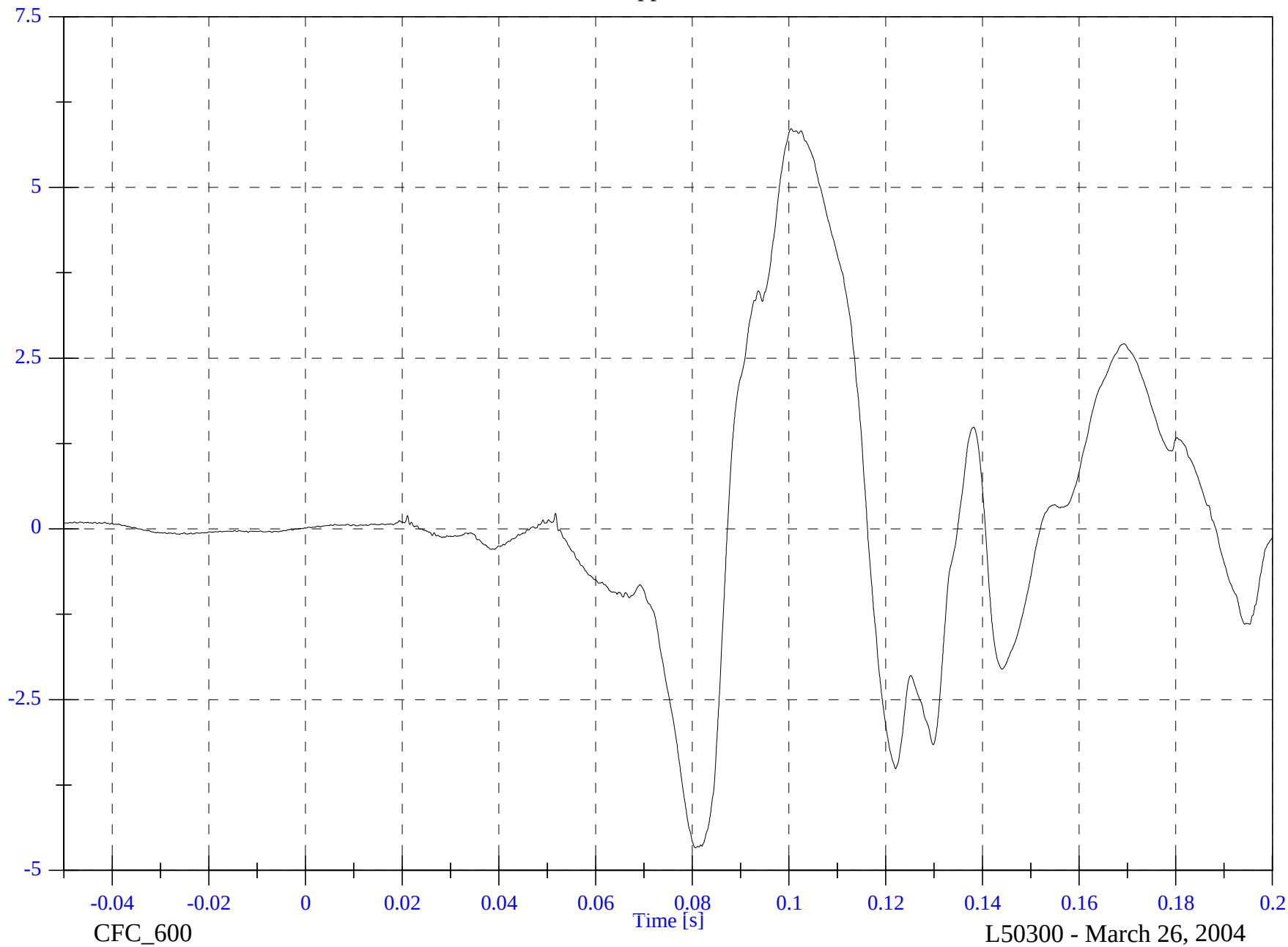
Max: 5.9 [N-m] at 0.100 [s]

Min: -4.7 [N-m] at 0.081 [s]

4-13

N-m

8741-01

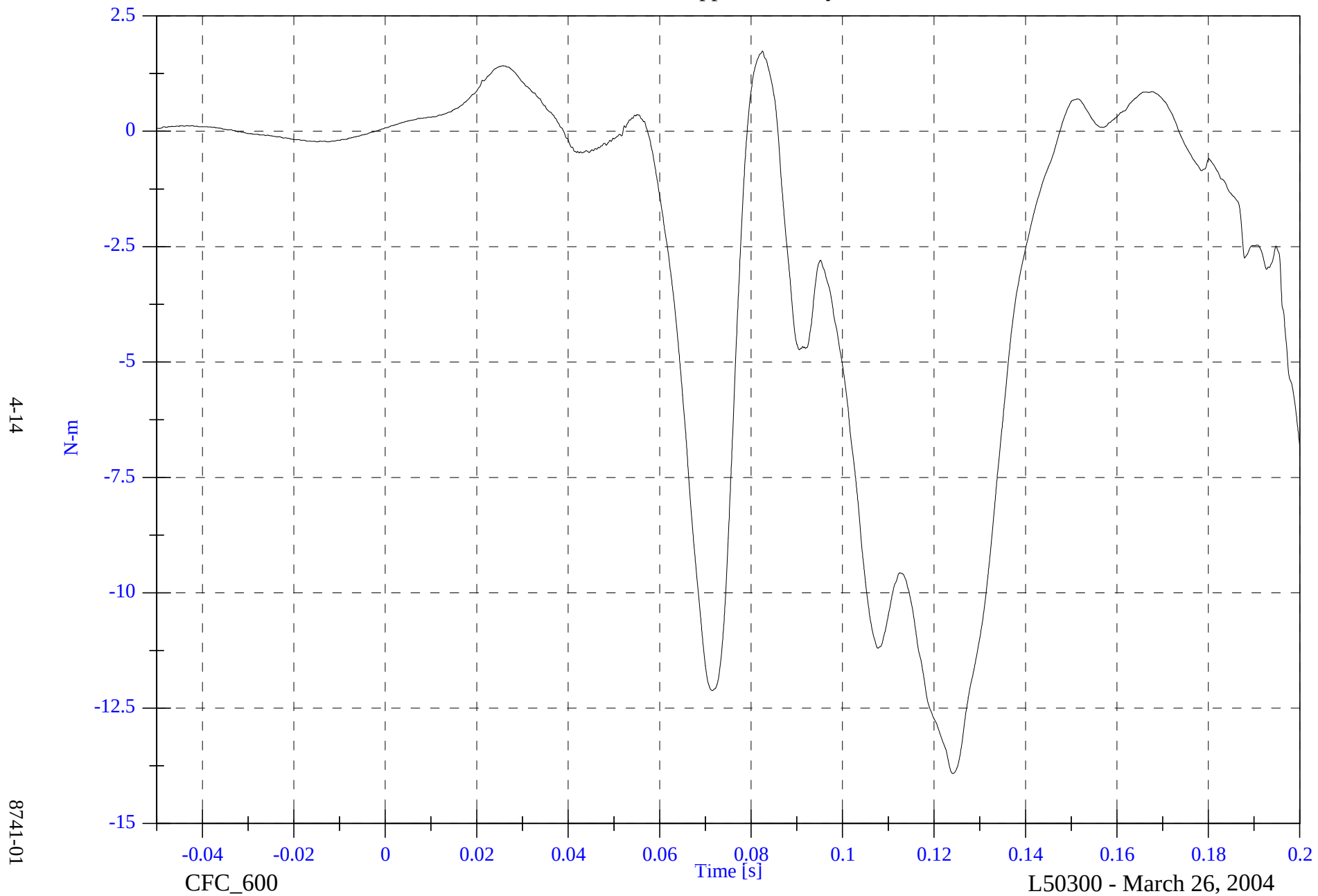


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Upper Neck My

Max: 1.7 [N-m] at 0.083 [s]

Min: -13.9 [N-m] at 0.124 [s]

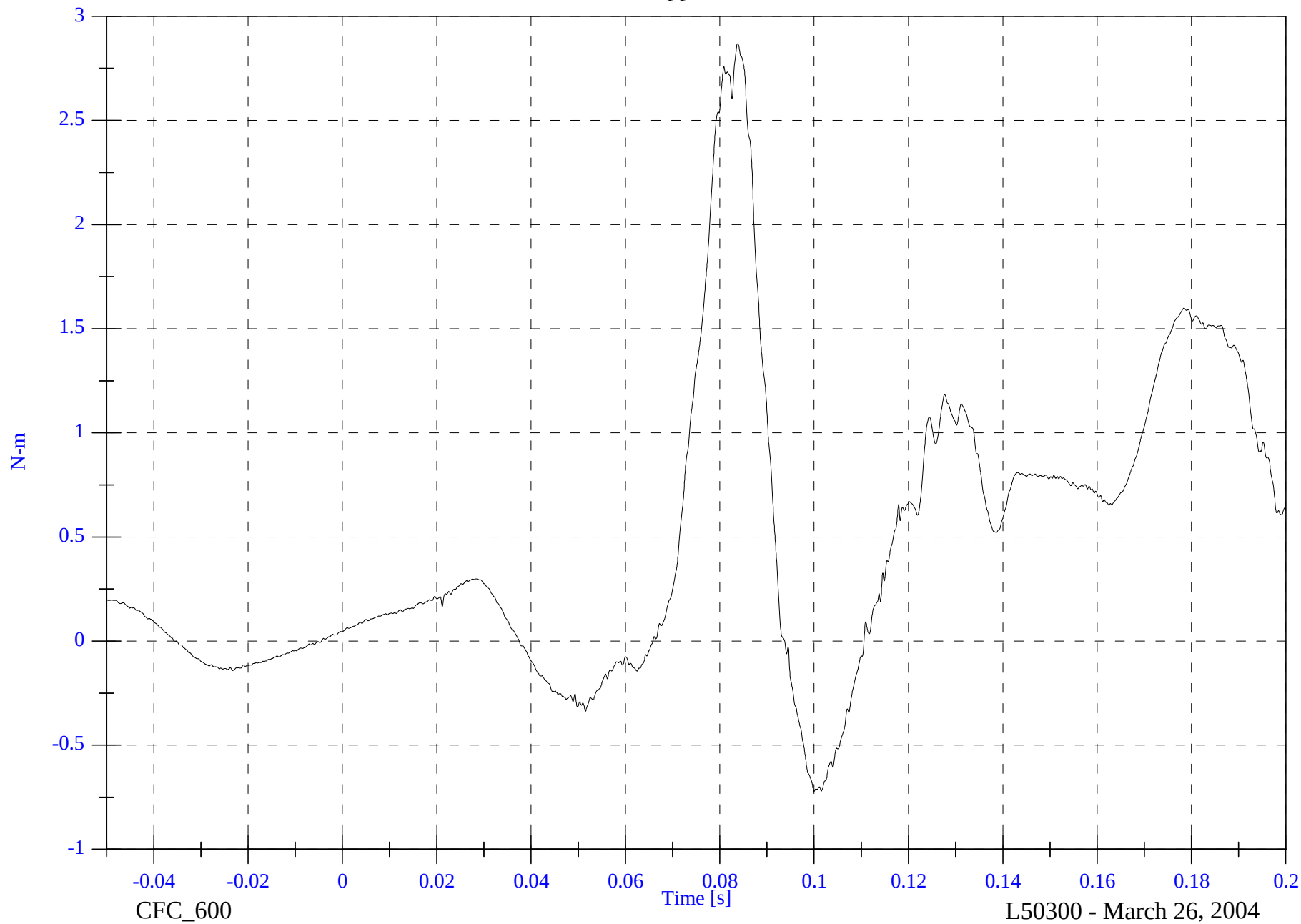


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Upper Neck Mz

Max: 2.9 [N-m] at 0.084 [s]

Min: -0.7 [N-m] at 0.100 [s]



4-15

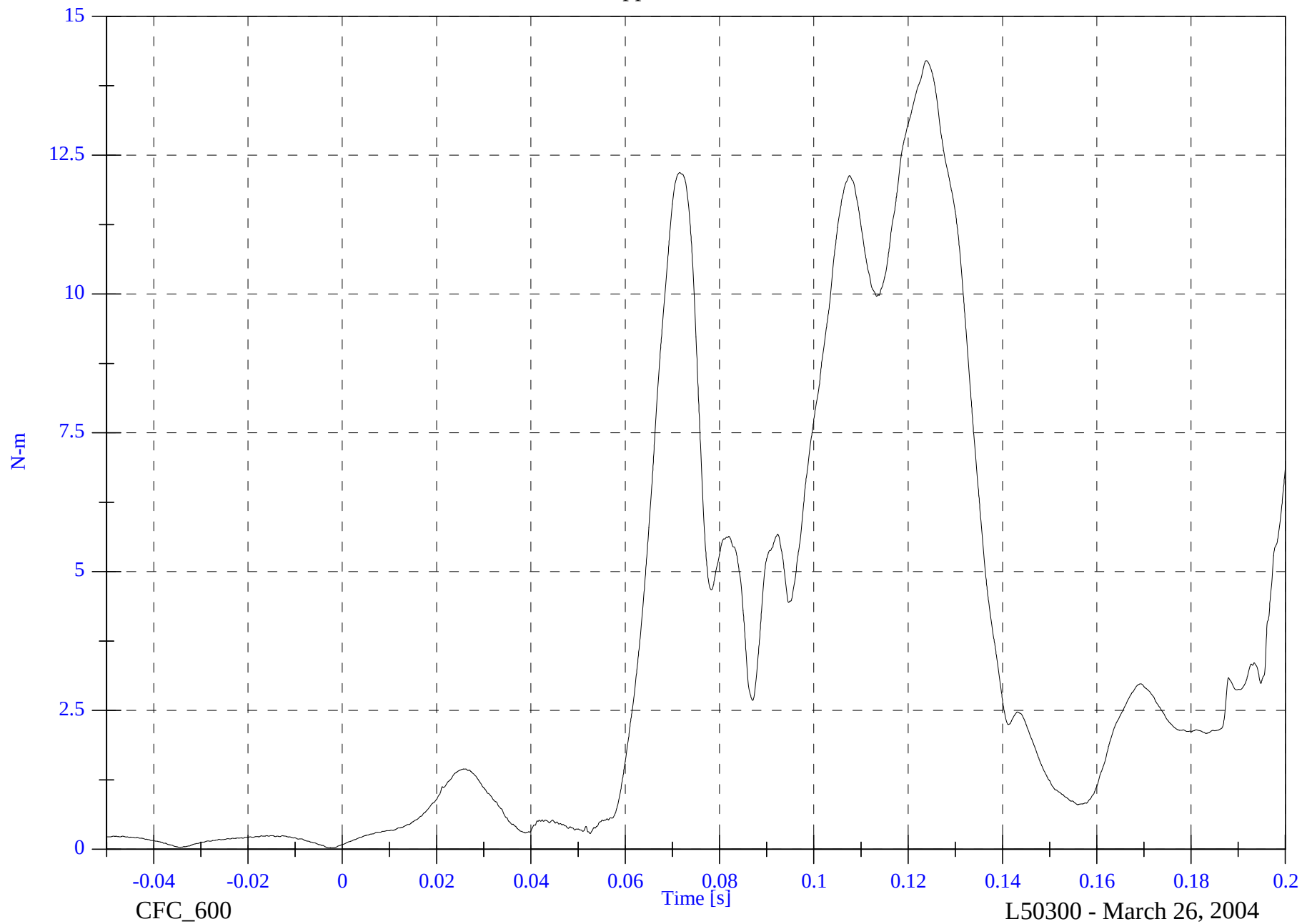
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Upper Neck M Resultant

Max: 14.2 [N-m] at 0.124 [s]

Min: 0.0 [N-m] at -0.003 [s]



4-16

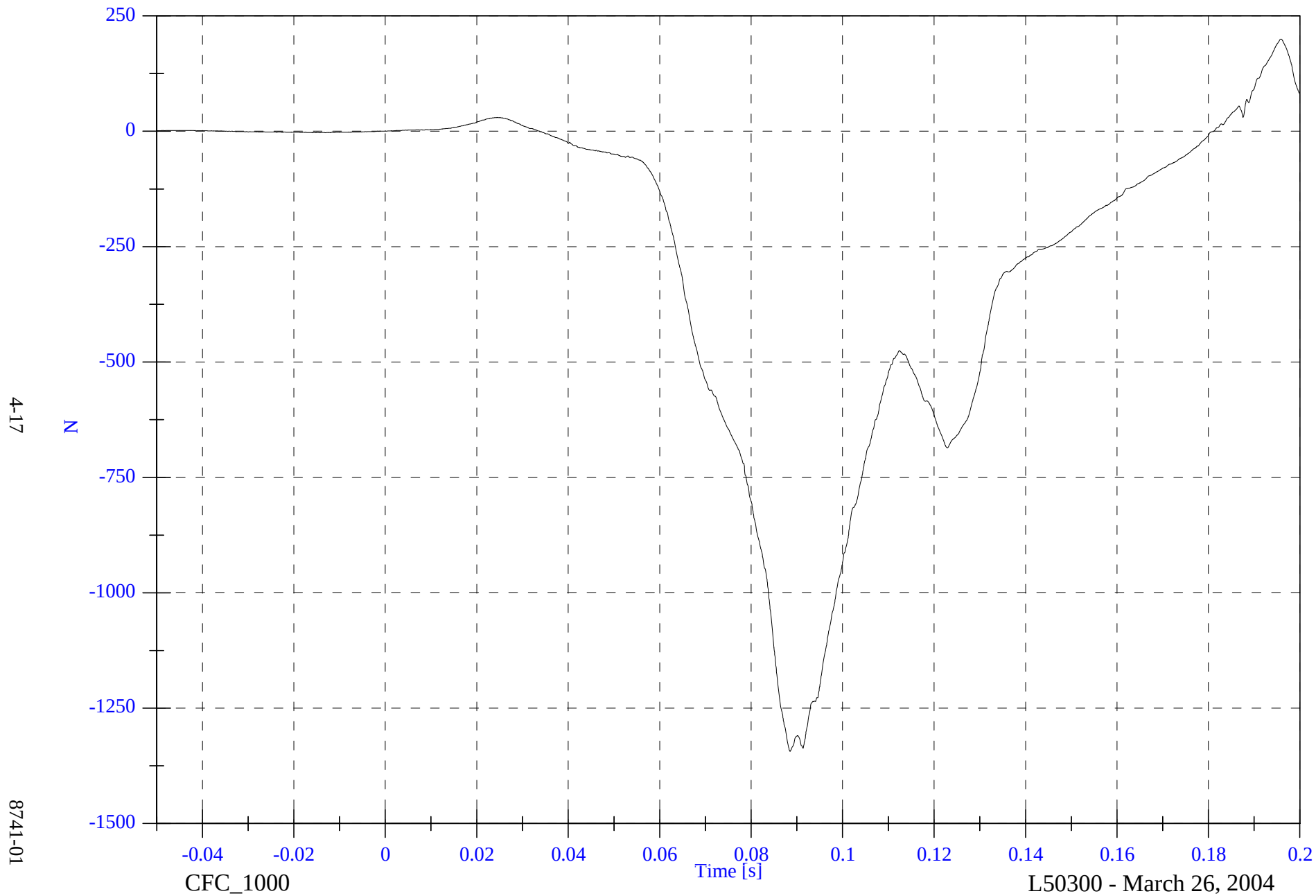
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Lower Neck Fx

Max: 199.6 [N] at 0.196 [s]

Min: -1343.7 [N] at 0.088 [s]

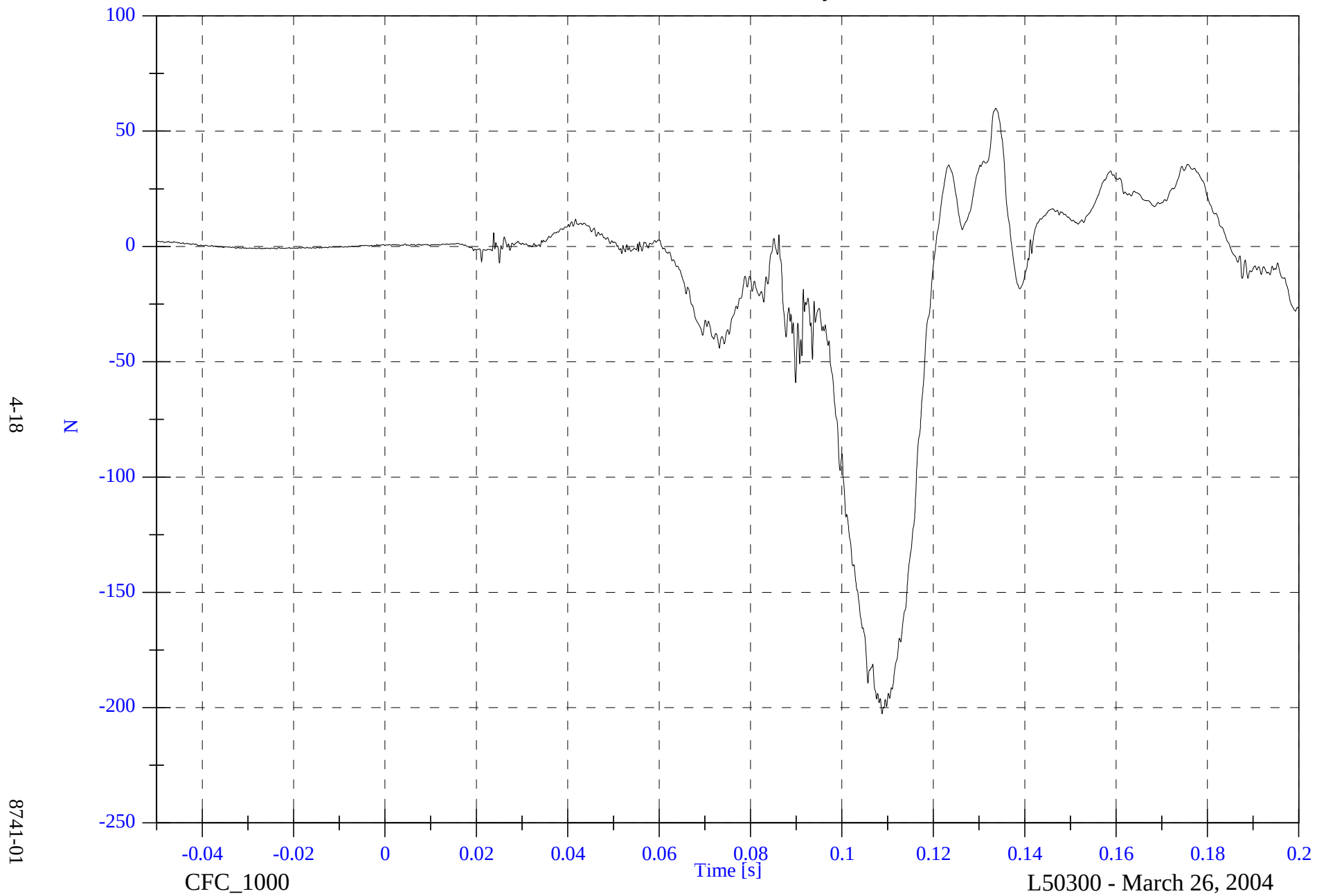


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Lower Neck Fy

Max: 59.9 [N] at 0.134 [s]

Min: -202.7 [N] at 0.109 [s]



Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Lower Neck Fz

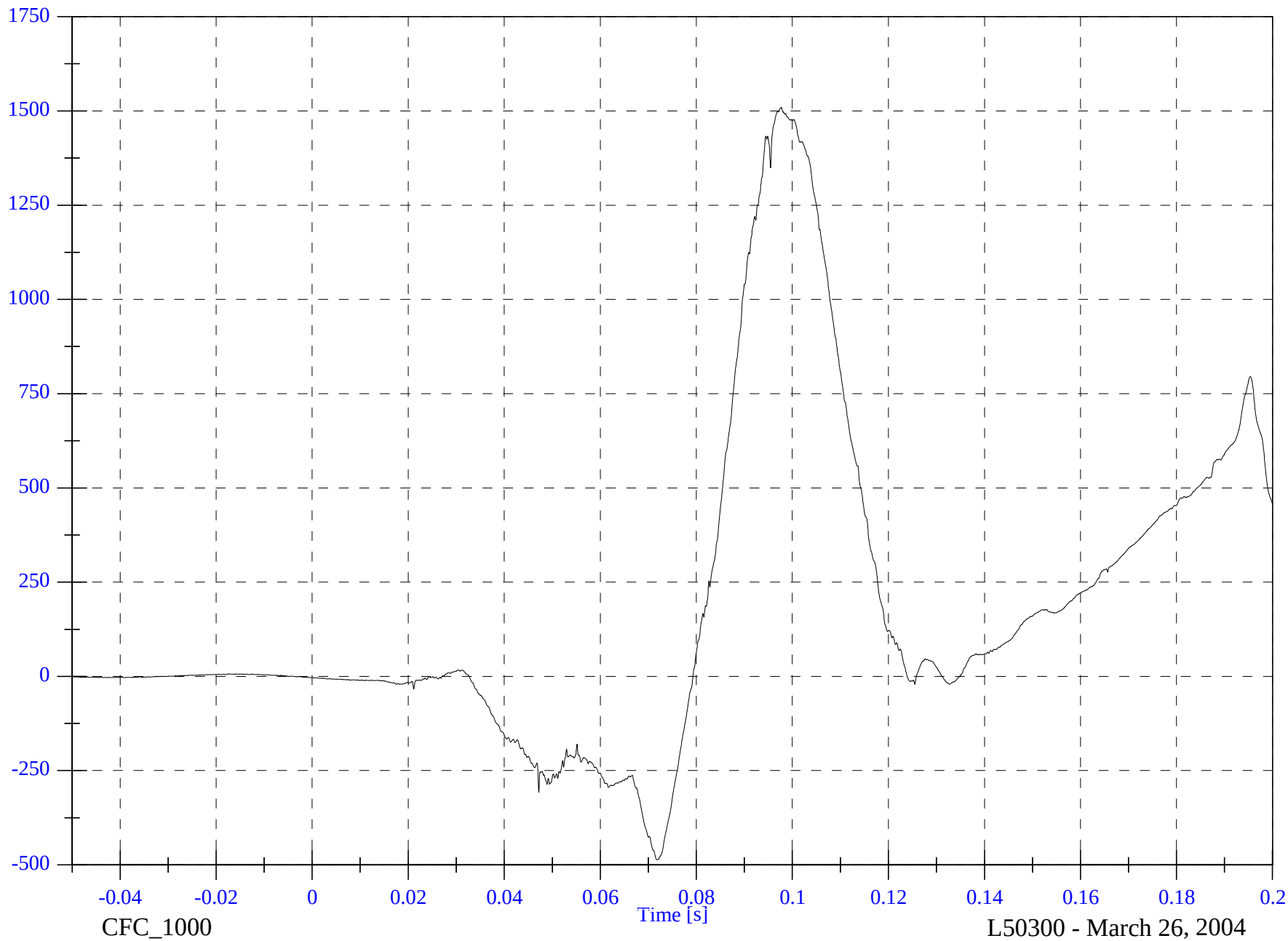
Max: 1509.6 [N] at 0.098 [s]

Min: -486.3 [N] at 0.072 [s]

4-19

N

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Lower Neck F Resultant

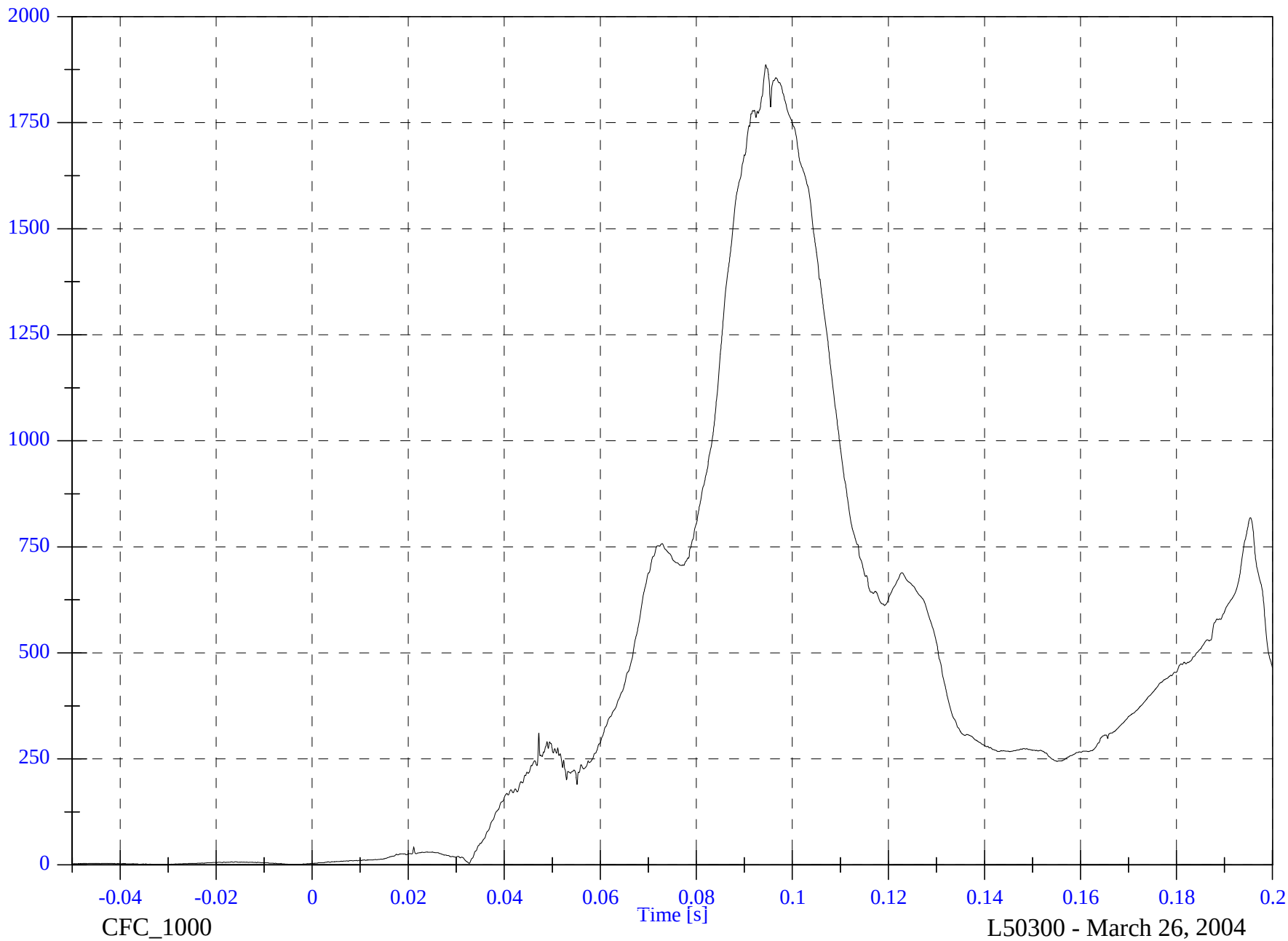
Max: 1886.9 [N] at 0.094 [s]

Min: 0.8 [N] at -0.033 [s]

4-20

N

8741-01

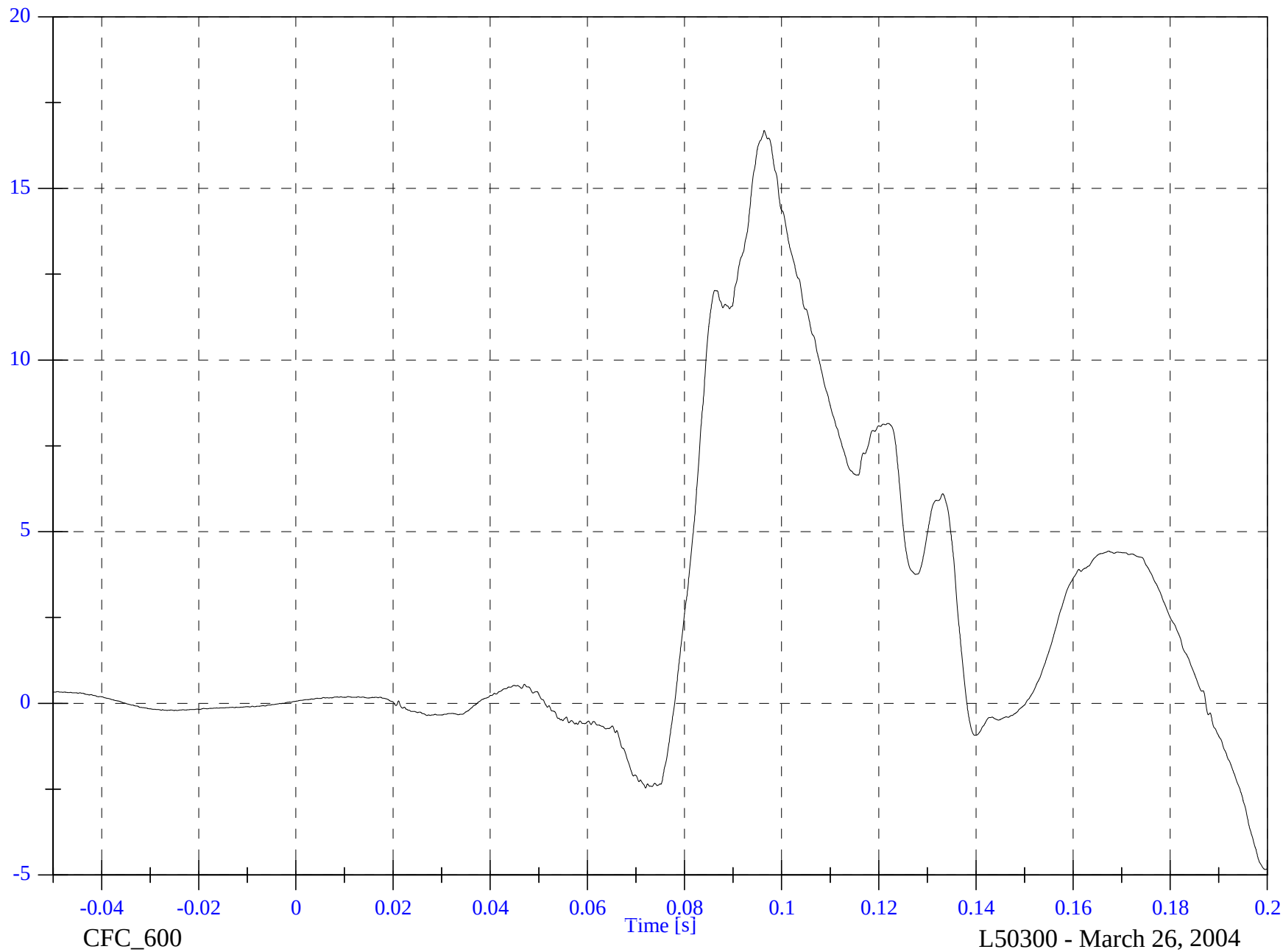


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Lower Neck Mx

Max: 16.7 [N-m] at 0.096 [s]

Min: -4.8 [N-m] at 0.200 [s]



4-21

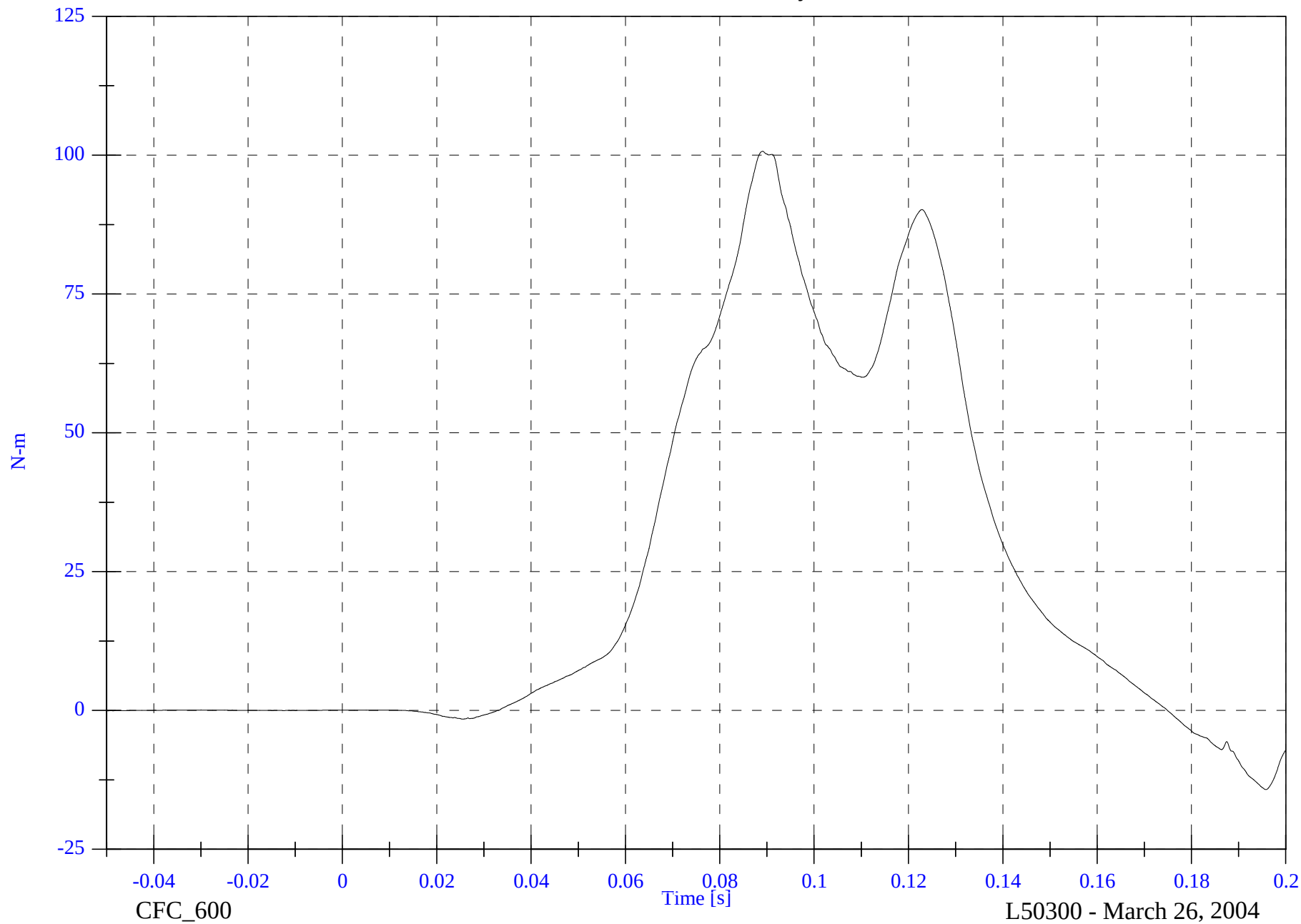
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Lower Neck My

Max: 100.7 [N-m] at 0.089 [s]

Min: -14.3 [N-m] at 0.196 [s]



4-22

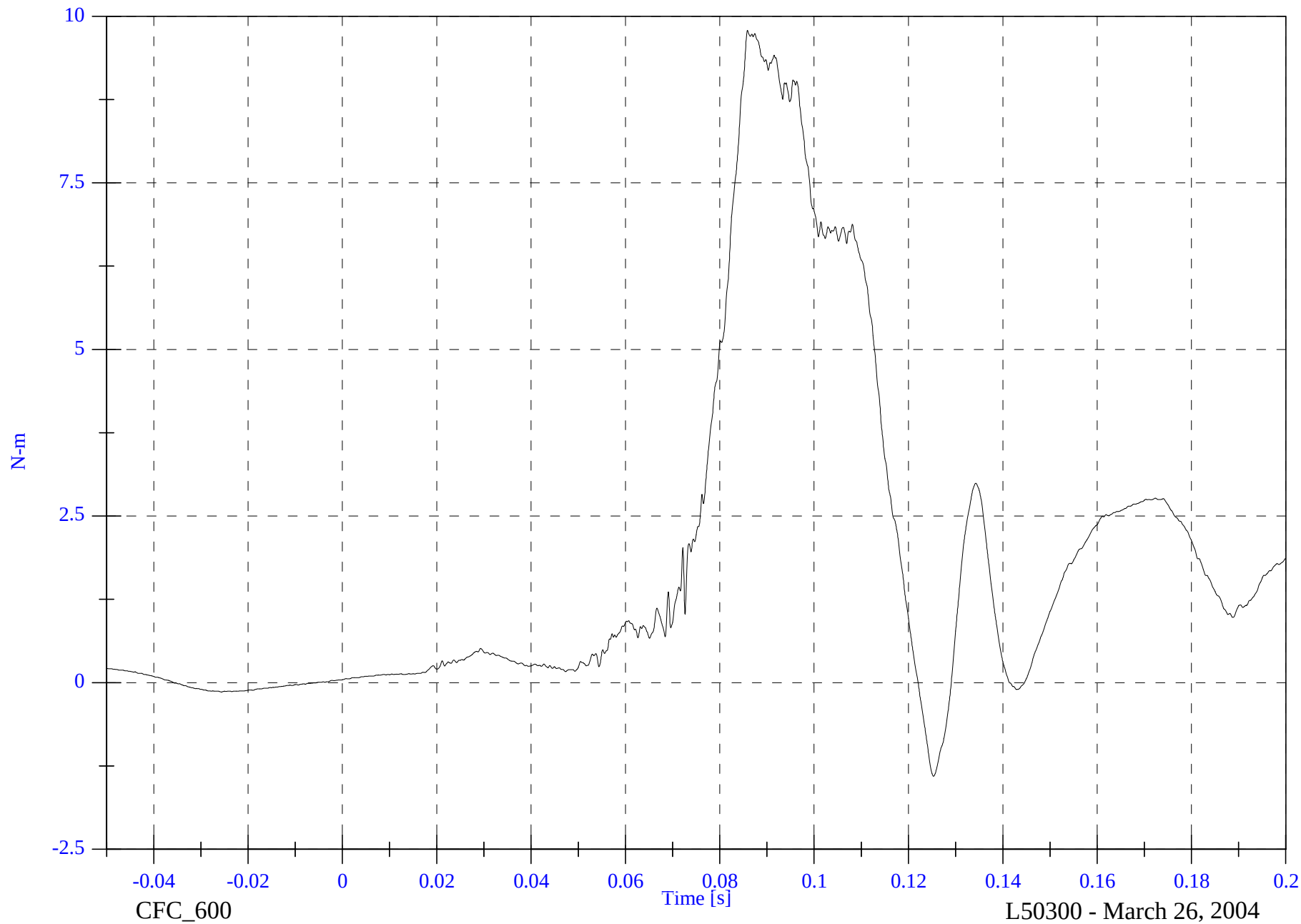
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Lower Neck Mz

Max: 9.8 [N-m] at 0.086 [s]

Min: -1.4 [N-m] at 0.125 [s]



4-23

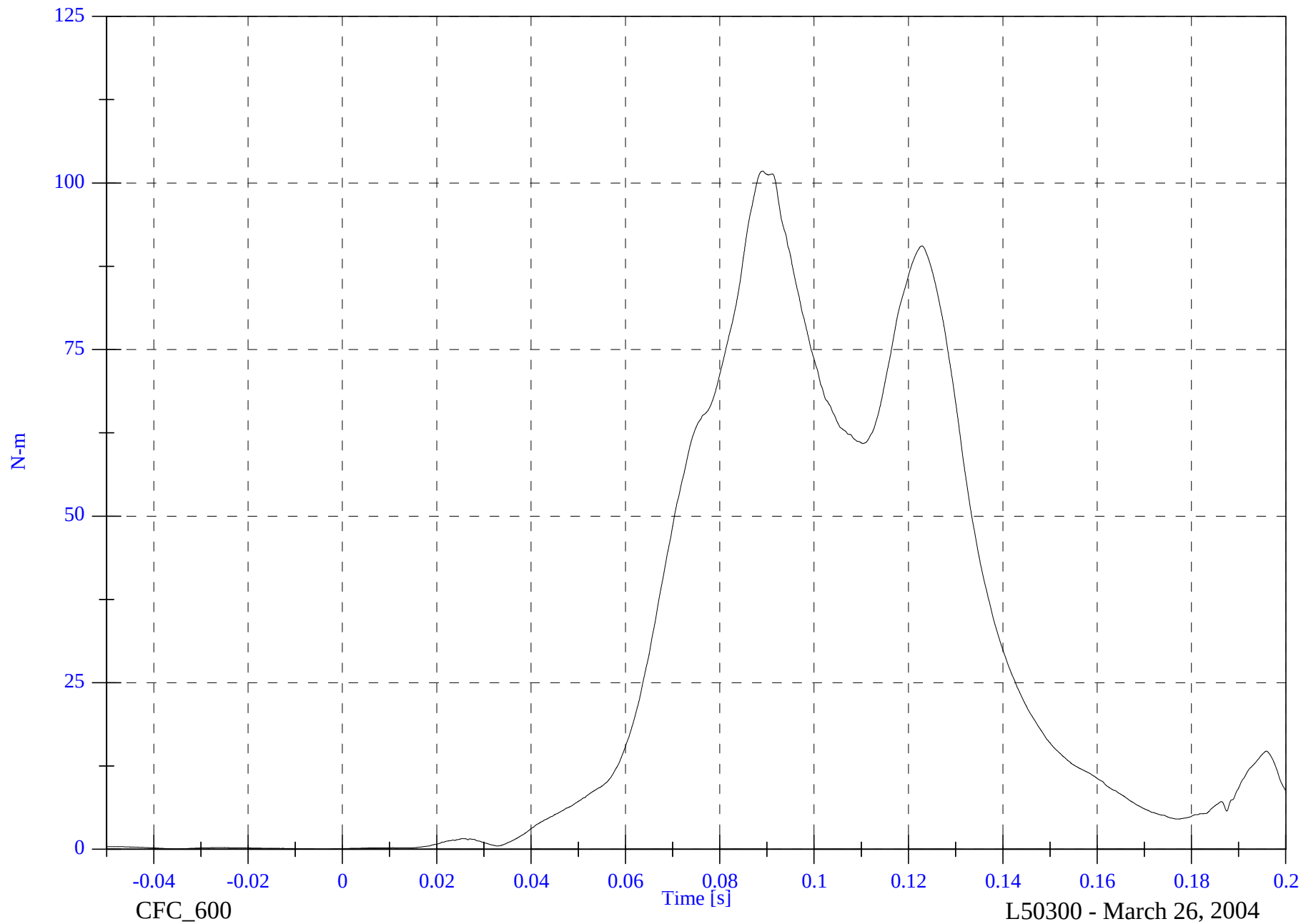
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Lower Neck M Resultant

Max: 101.8 [N-m] at 0.089 [s]

Min: 0.0 [N-m] at -0.003 [s]



4-24

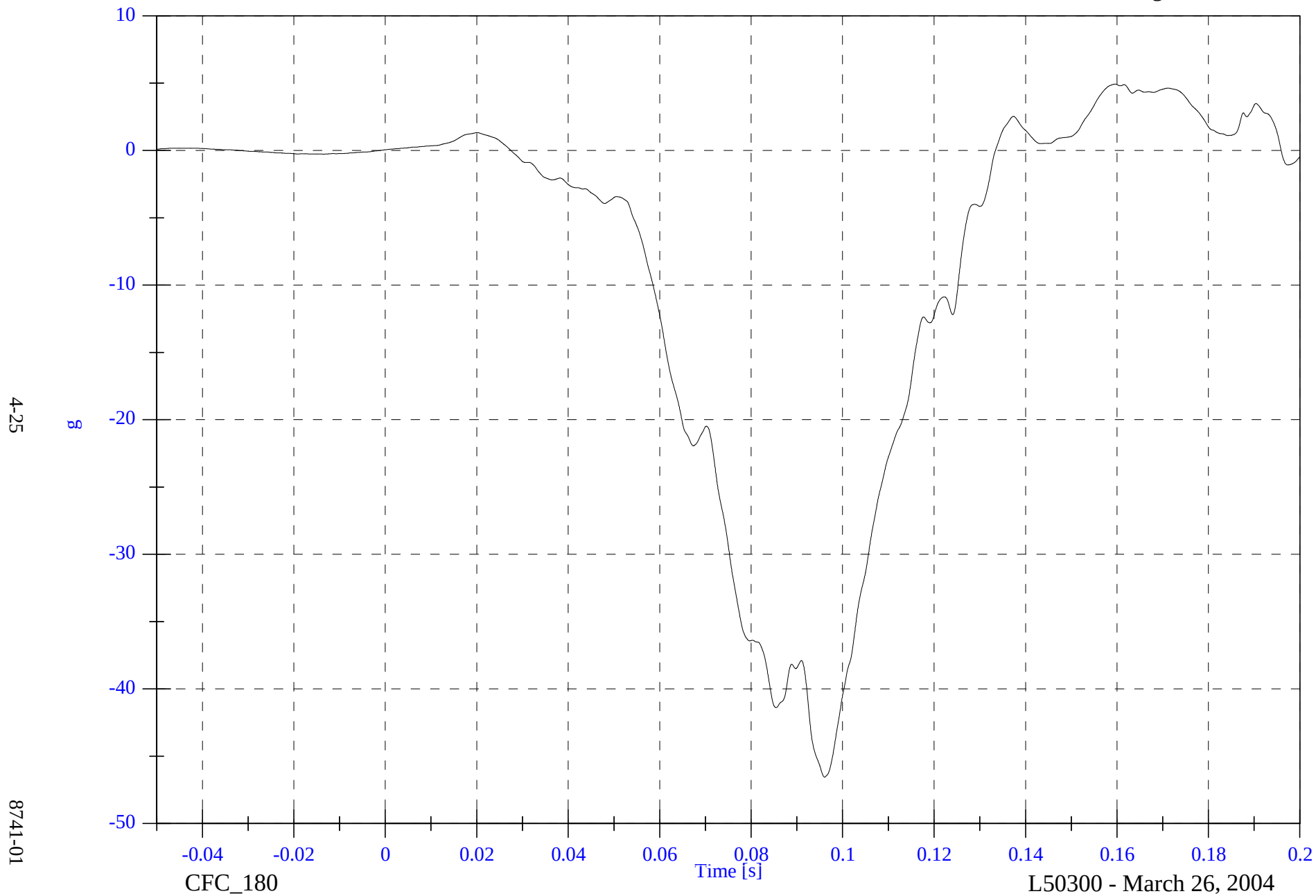
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Chest x

Max: 4.9 [g] at 0.160 [s]

Min: -46.5 [g] at 0.096 [s]

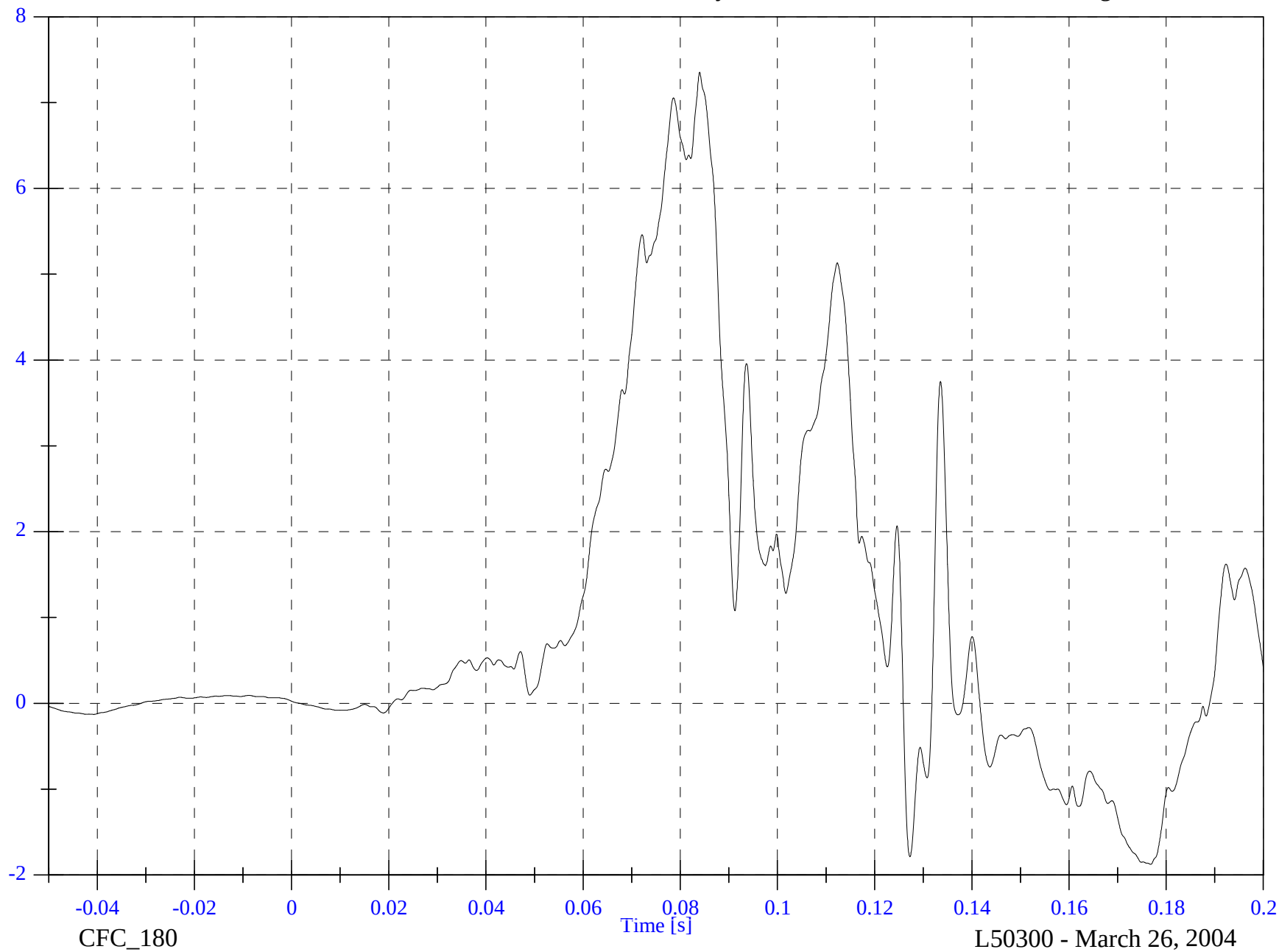


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Chest y

Max: 7.4 [g] at 0.084 [s]

Min: -1.9 [g] at 0.177 [s]



4-26

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

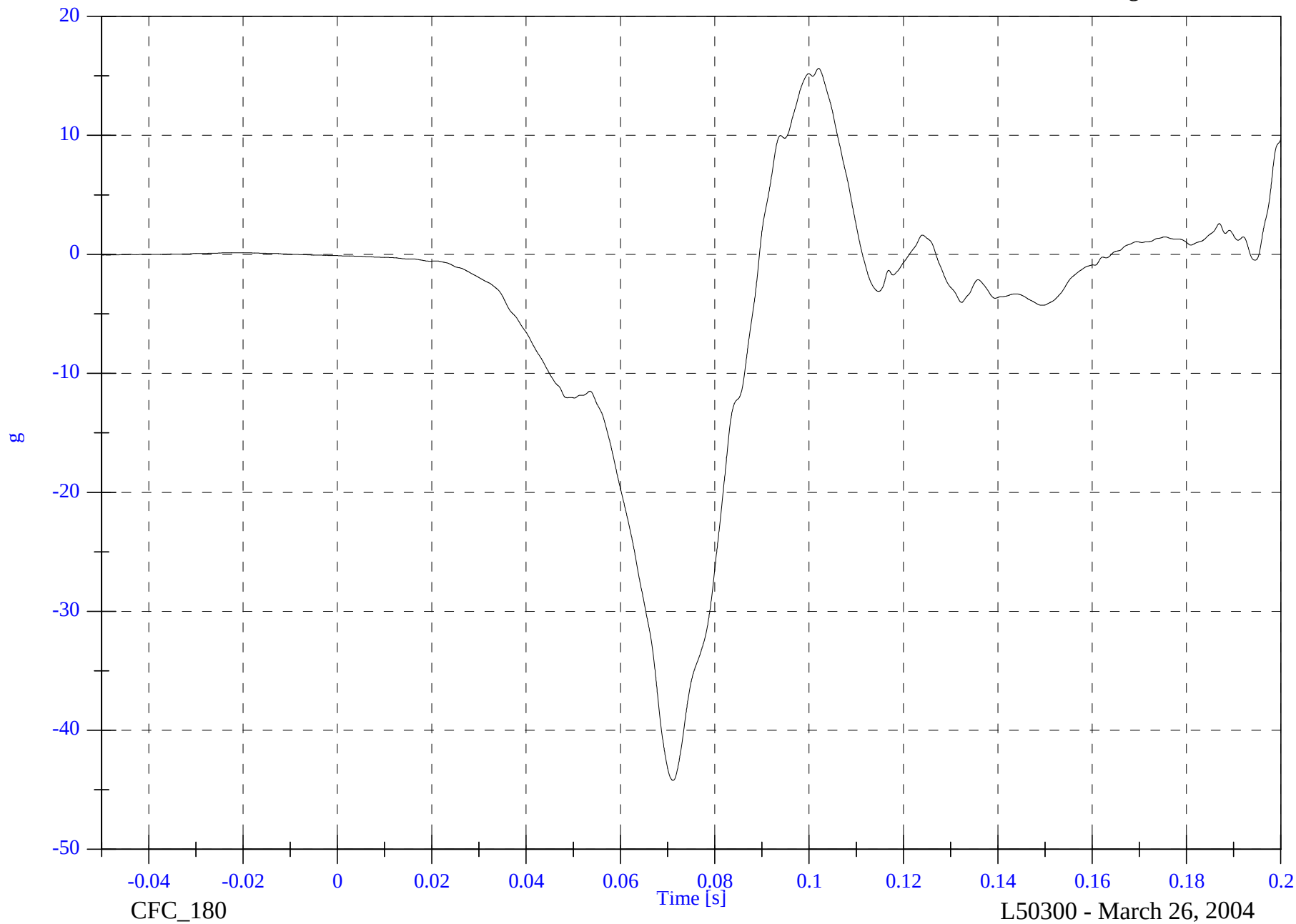
V1P3 Chest z

Max: 15.6 [g] at 0.102 [s]

Min: -44.2 [g] at 0.071 [s]

4-27

8741-01

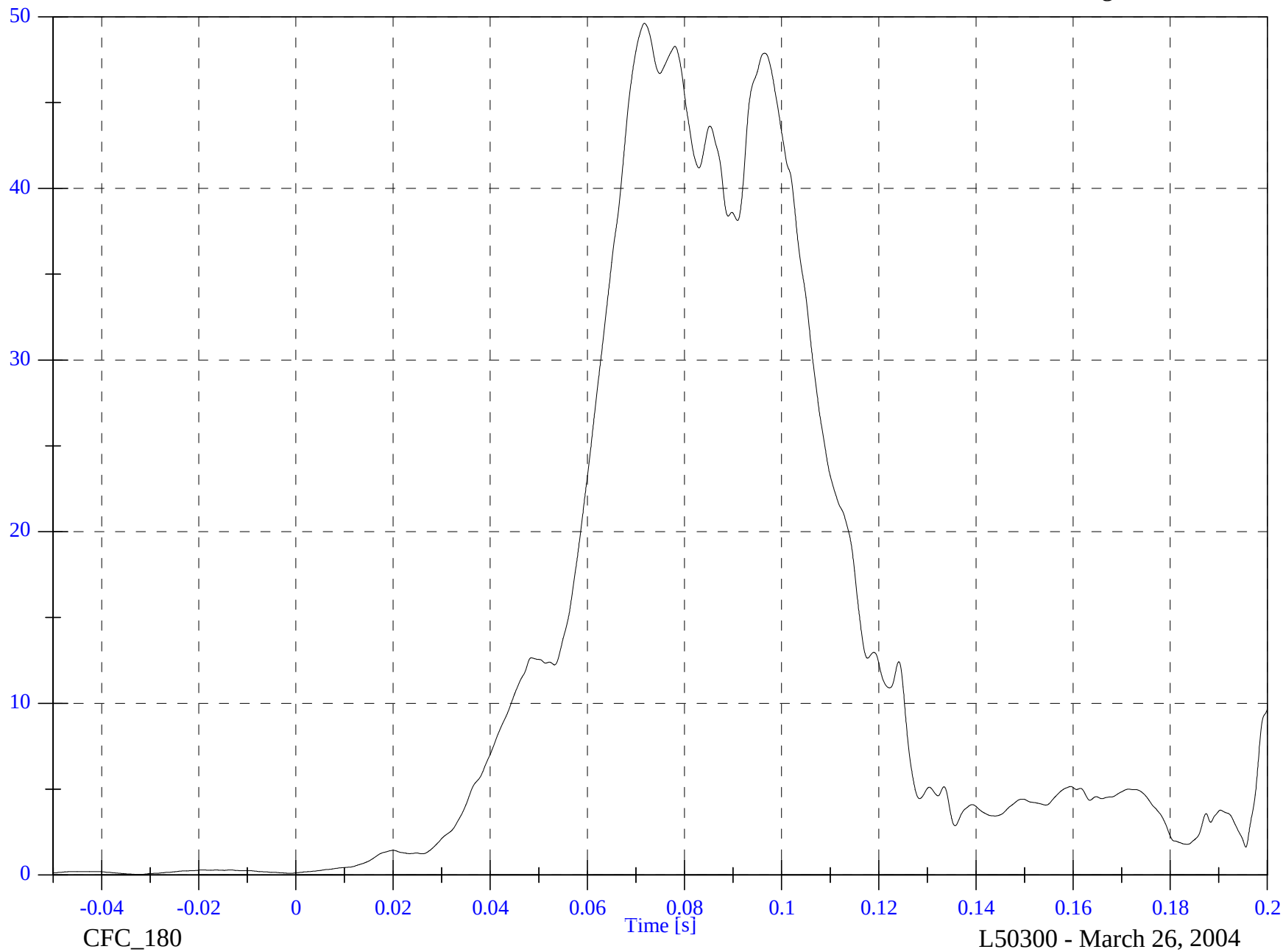


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Chest Resultant

Max: 49.6 [g] at 0.072 [s]

Min: 0.0 [g] at -0.032 [s]



4-28

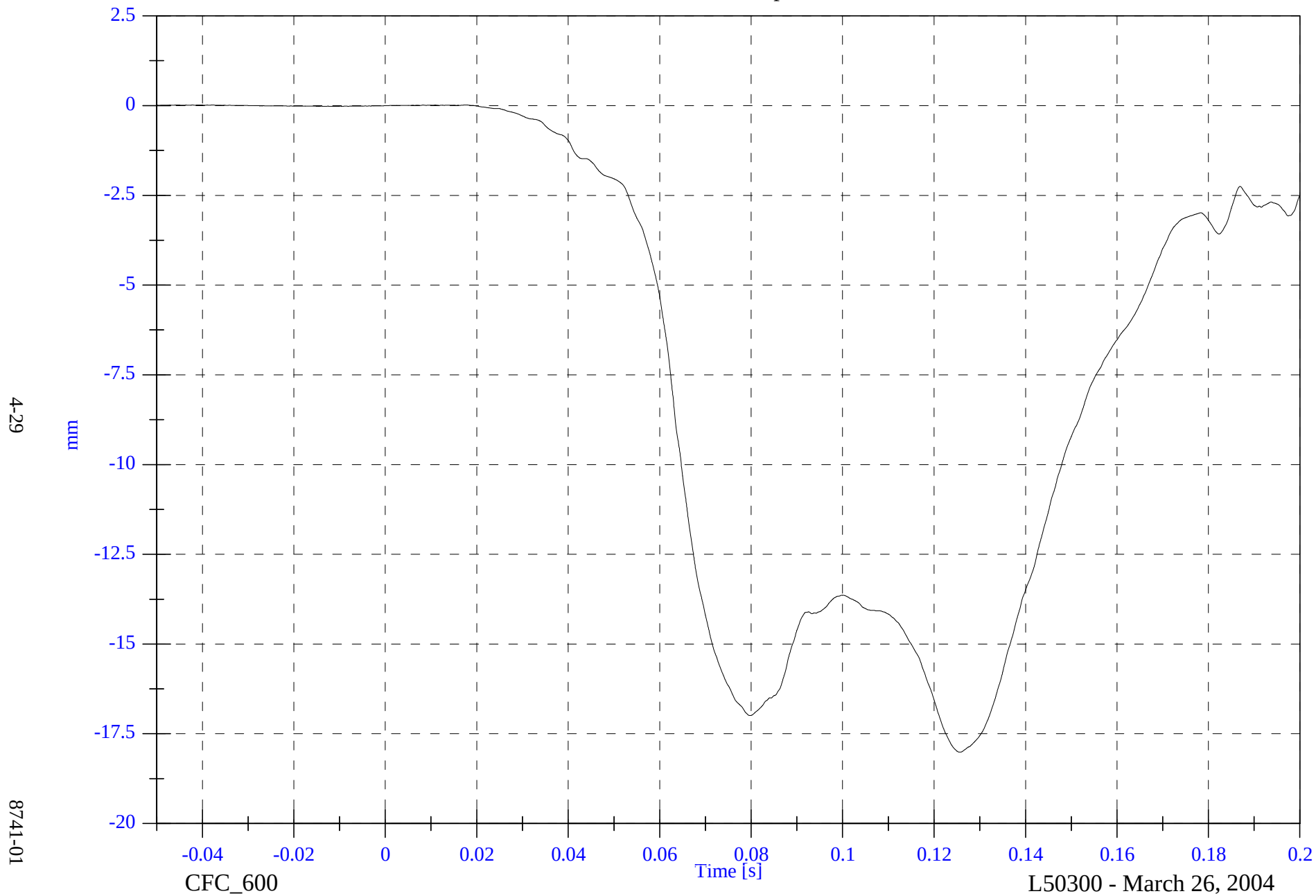
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Chest Compression

Max: 0.0 [mm] at -0.041 [s]

Min: -18.0 [mm] at 0.126 [s]

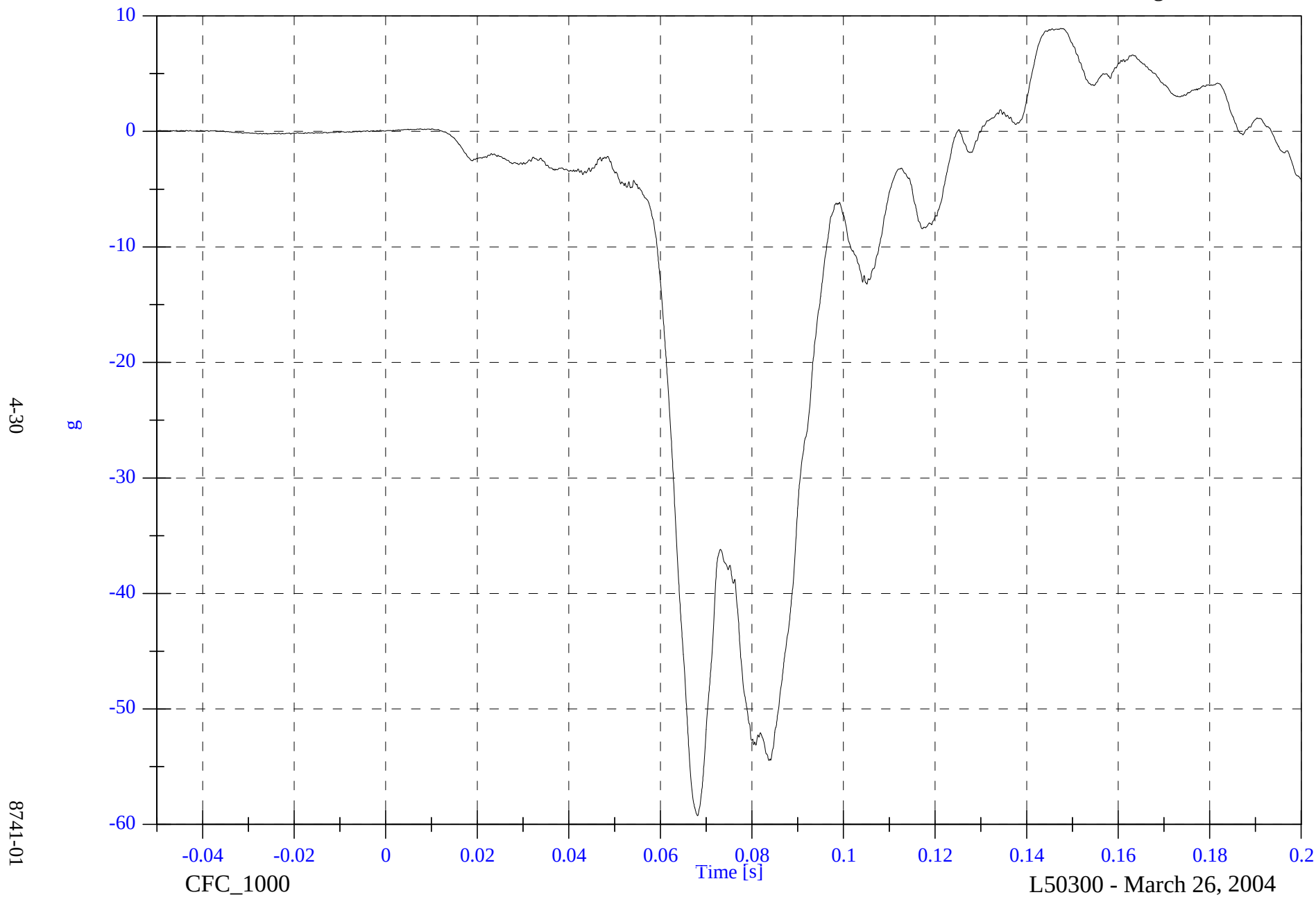


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Pelvic x

Max: 8.9 [g] at 0.147 [s]

Min: -59.2 [g] at 0.068 [s]



Frontal NCAP- 2005 Chrysler Town & Country

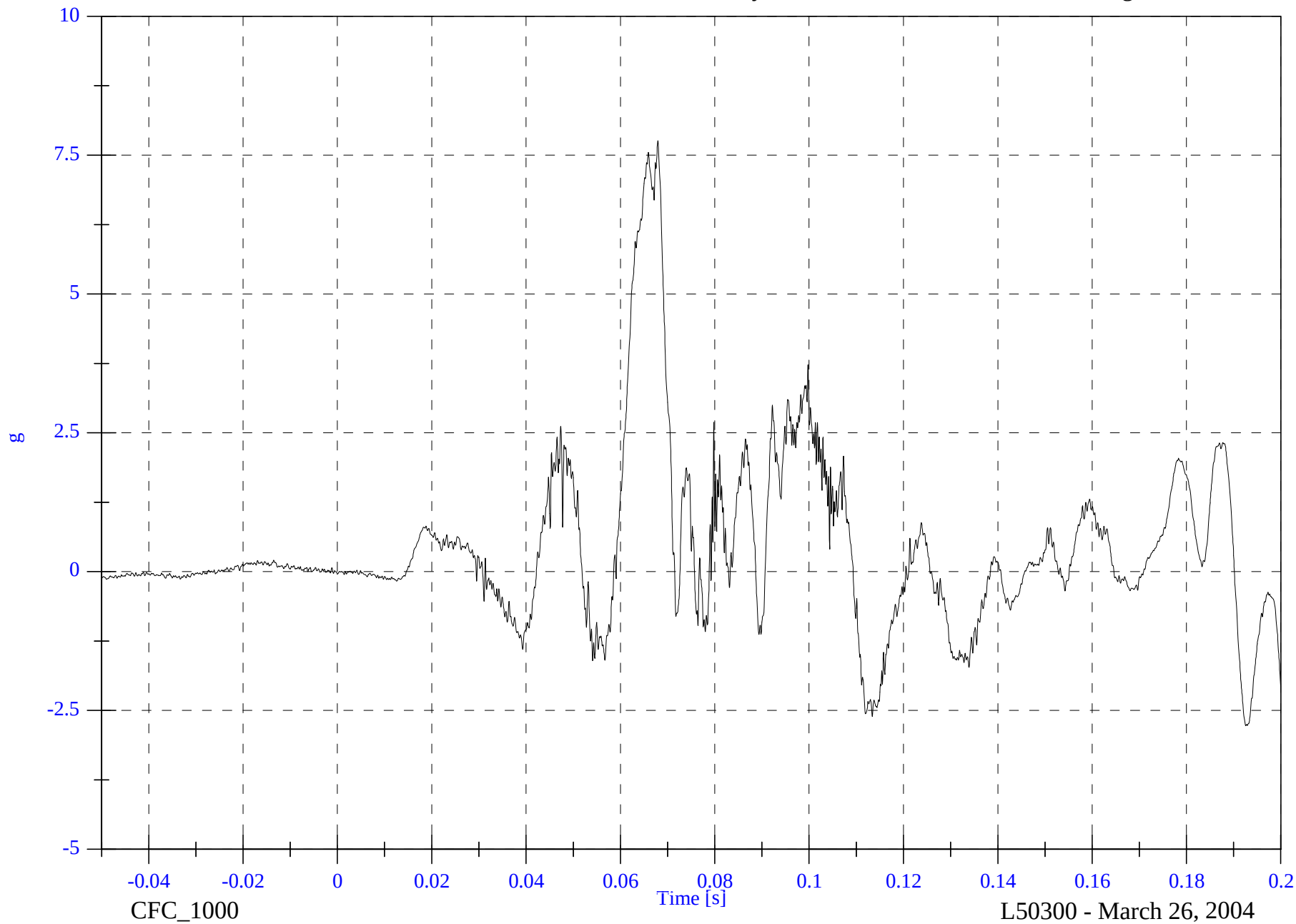
V1P3 Pelvic y

Max: 7.8 [g] at 0.068 [s]

Min: -2.8 [g] at 0.193 [s]

4-31

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

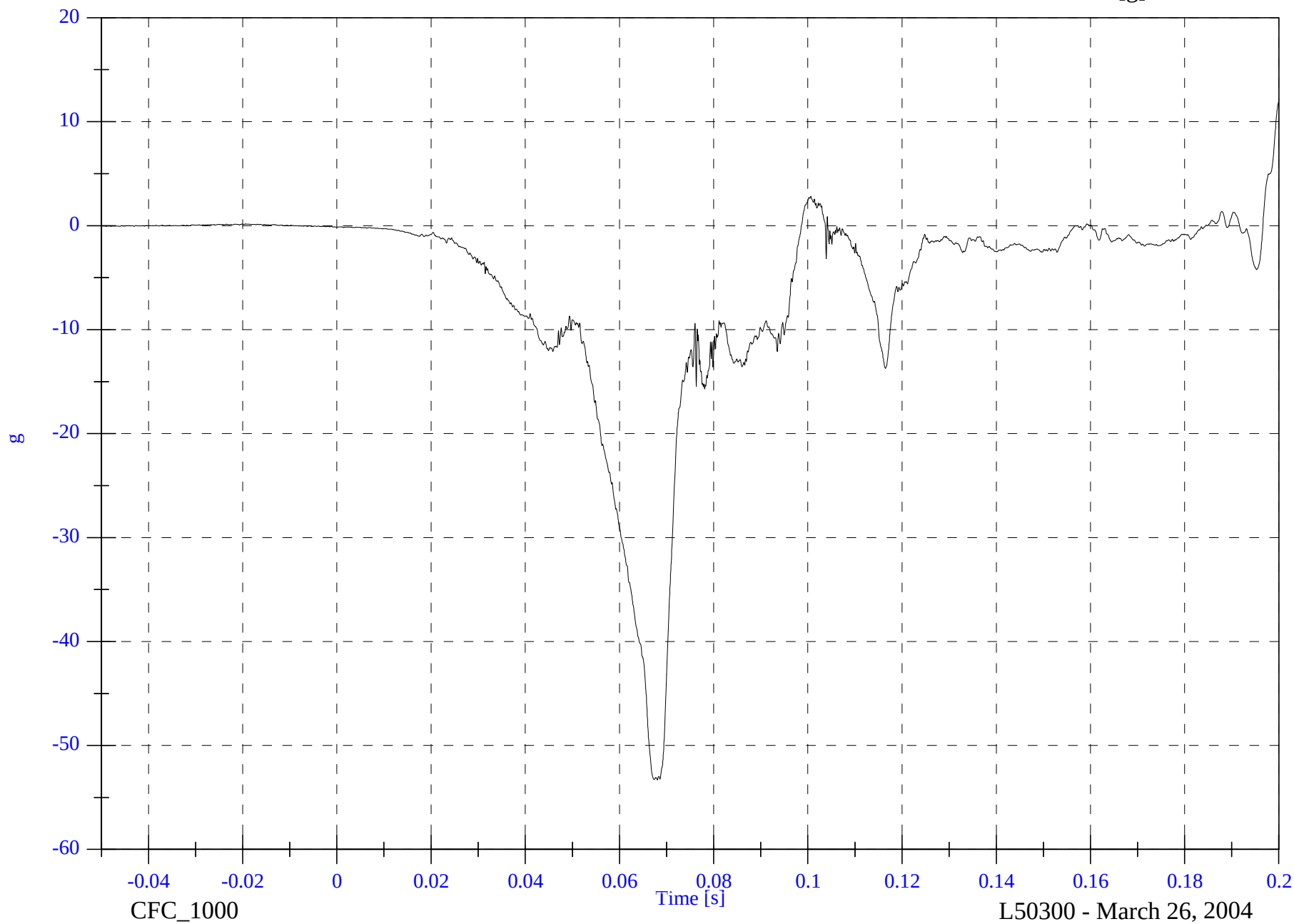
V1P3 Pelvic z

Max: 11.9 [g] at 0.200 [s]

Min: -53.3 [g] at 0.068 [s]

4-32

8741-01

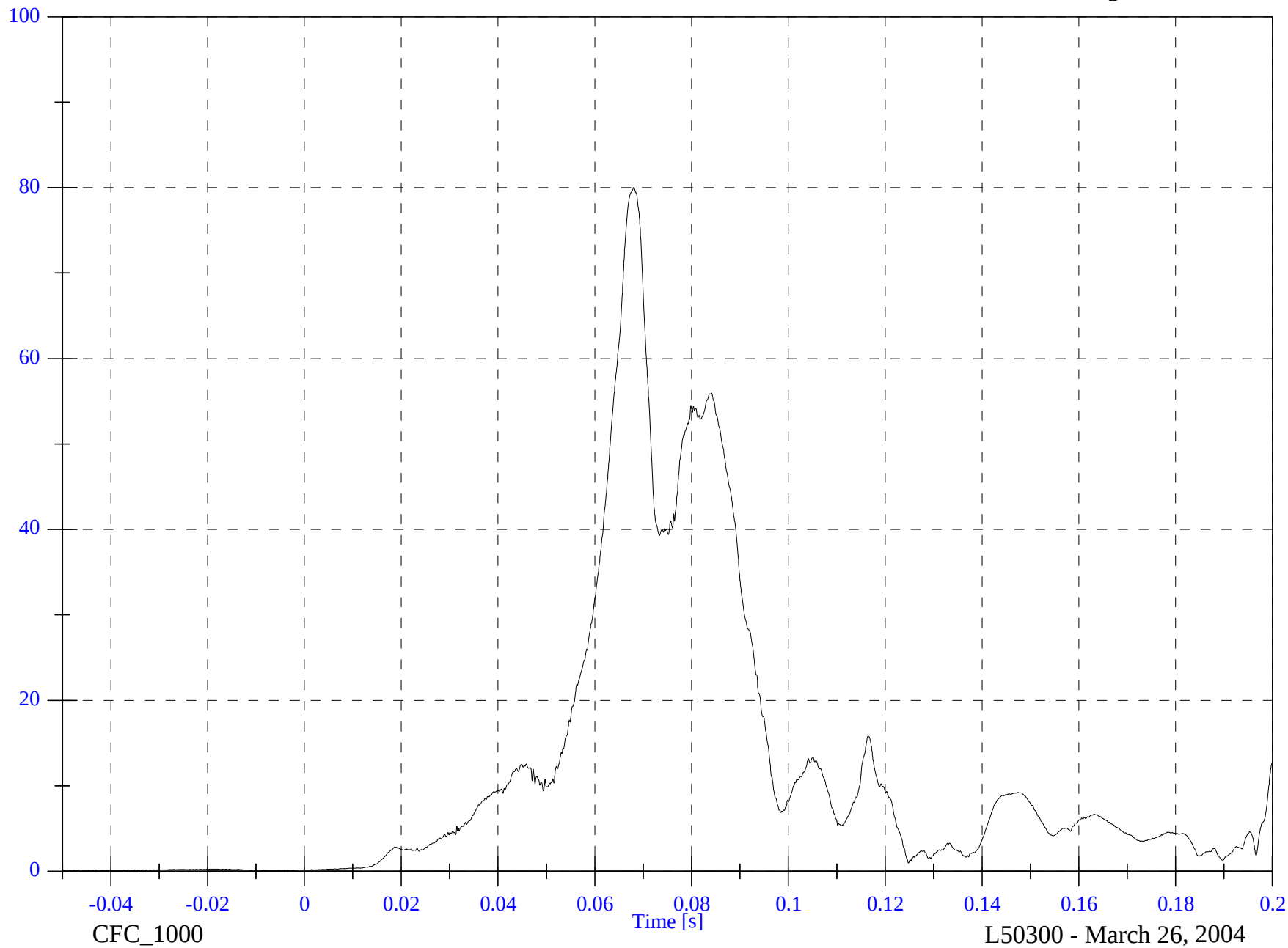


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Pelvic Resultant

Max: 80.0 [g] at 0.068 [s]

Min: 0.0 [g] at -0.004 [s]



4-33

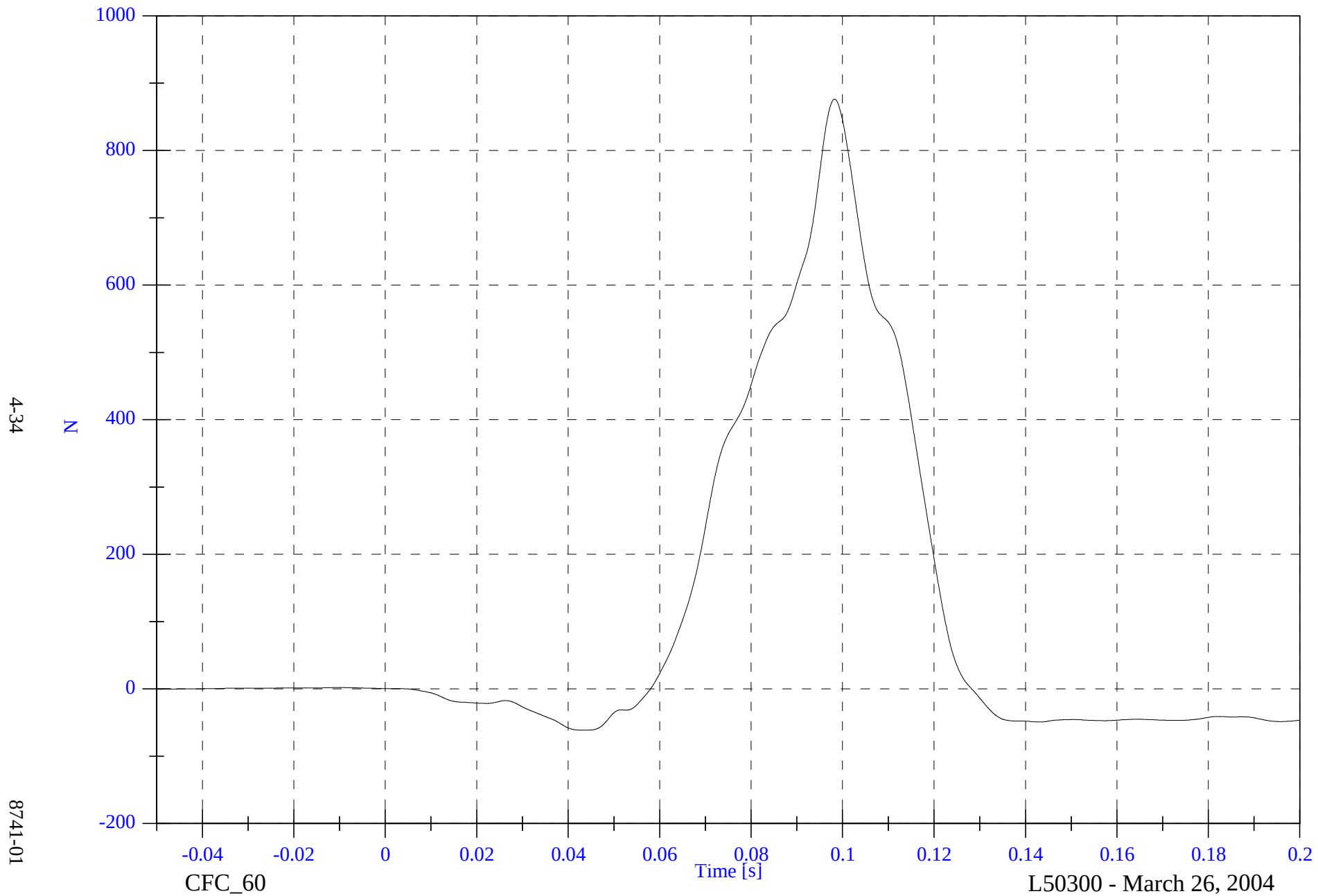
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 Tether Belt

Max: 876.2 [N] at 0.098 [s]

Min: -61.2 [N] at 0.043 [s]



Frontal NCAP- 2005 Chrysler Town & Country

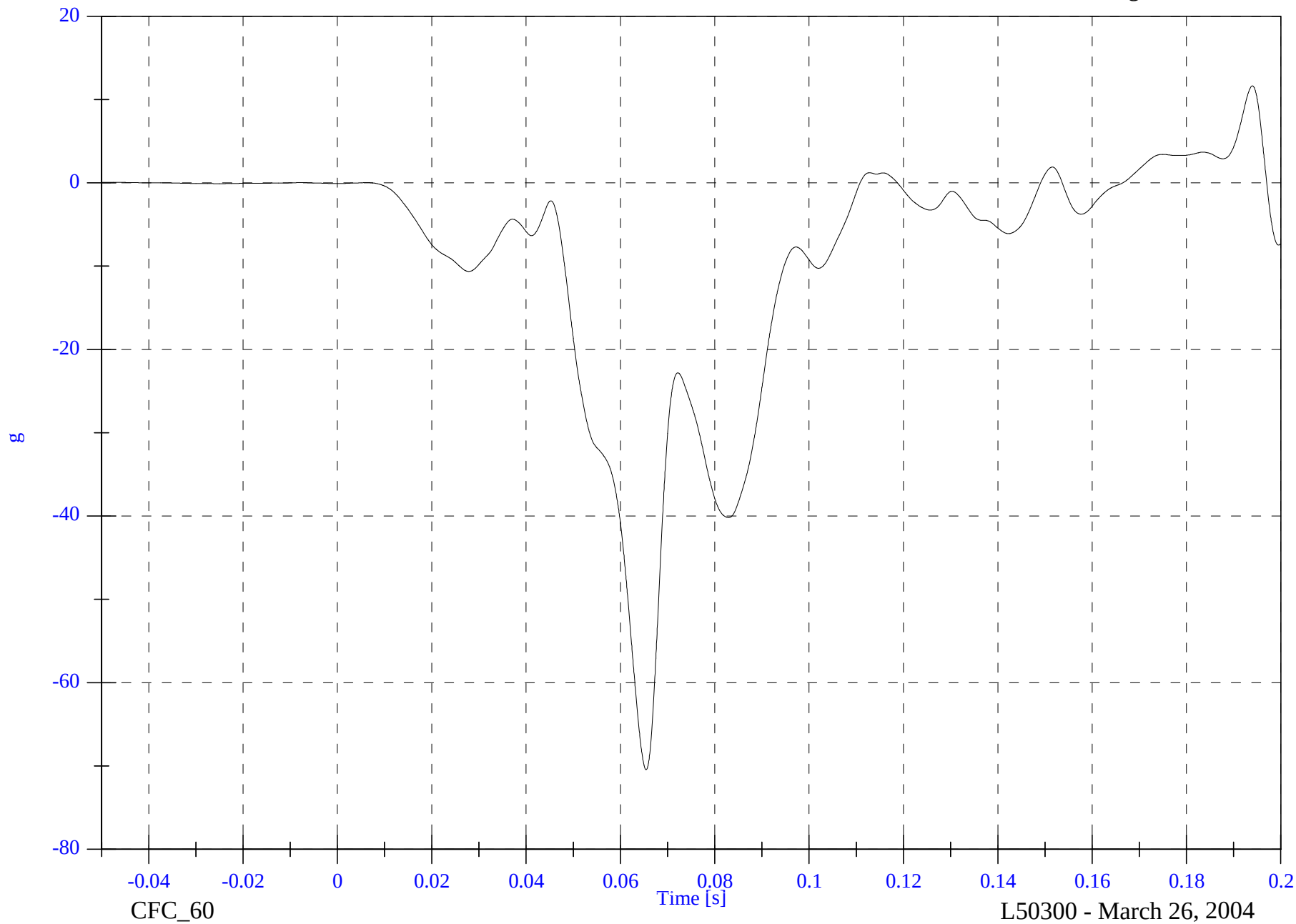
V1P3 CRS x

Max: 11.7 [g] at 0.194 [s]

Min: -70.5 [g] at 0.065 [s]

4-35

8741-01

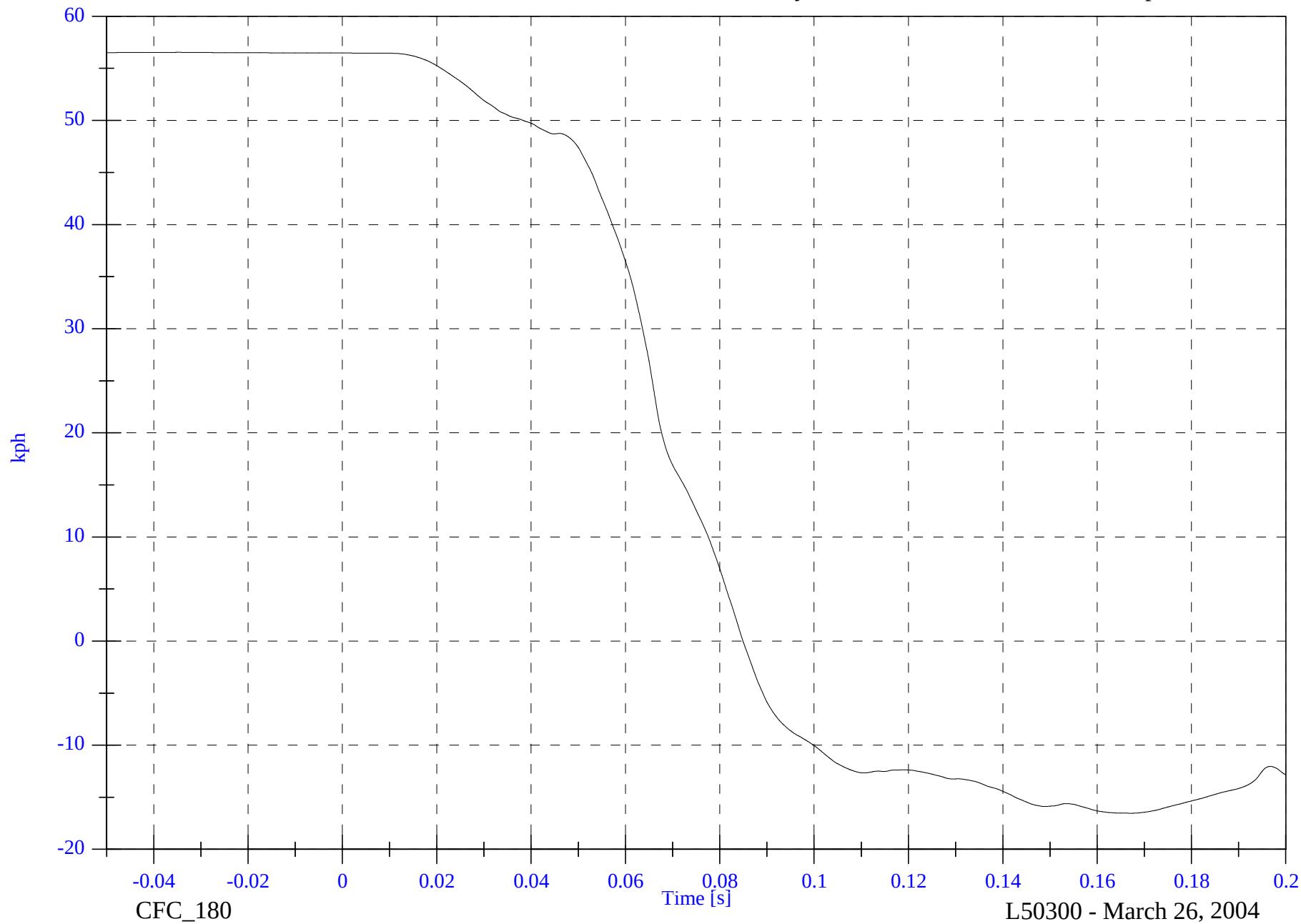


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 CRS x Velocity

Max: 56.5 [kph] at -0.035 [s]

Min: -16.5 [kph] at 0.167 [s]



4-36

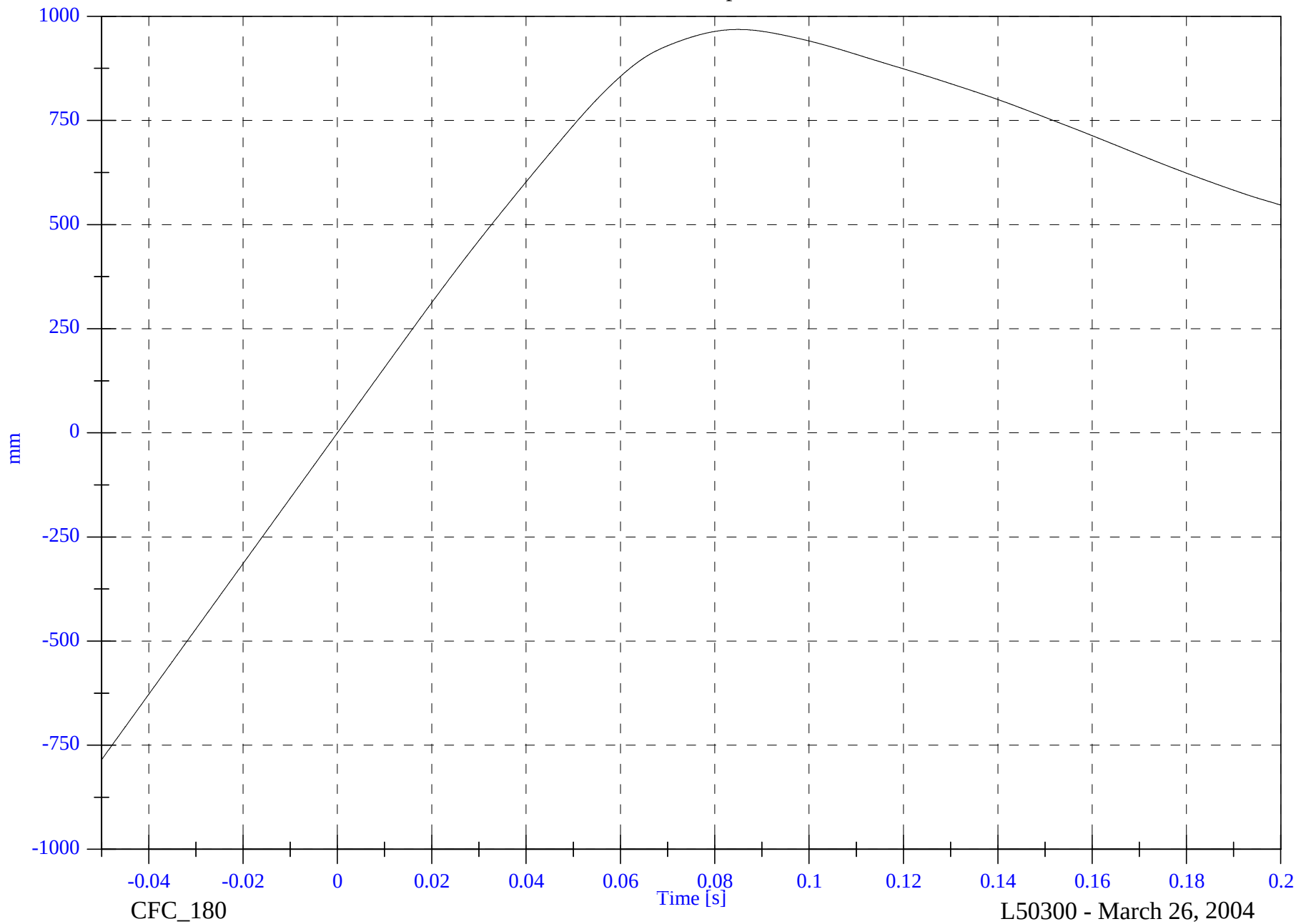
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 CRS x Displacement

Max: 968.5 [mm] at 0.085 [s]

Min: -784.9 [mm] at -0.050 [s]



4-37

8741-01

CFC_180

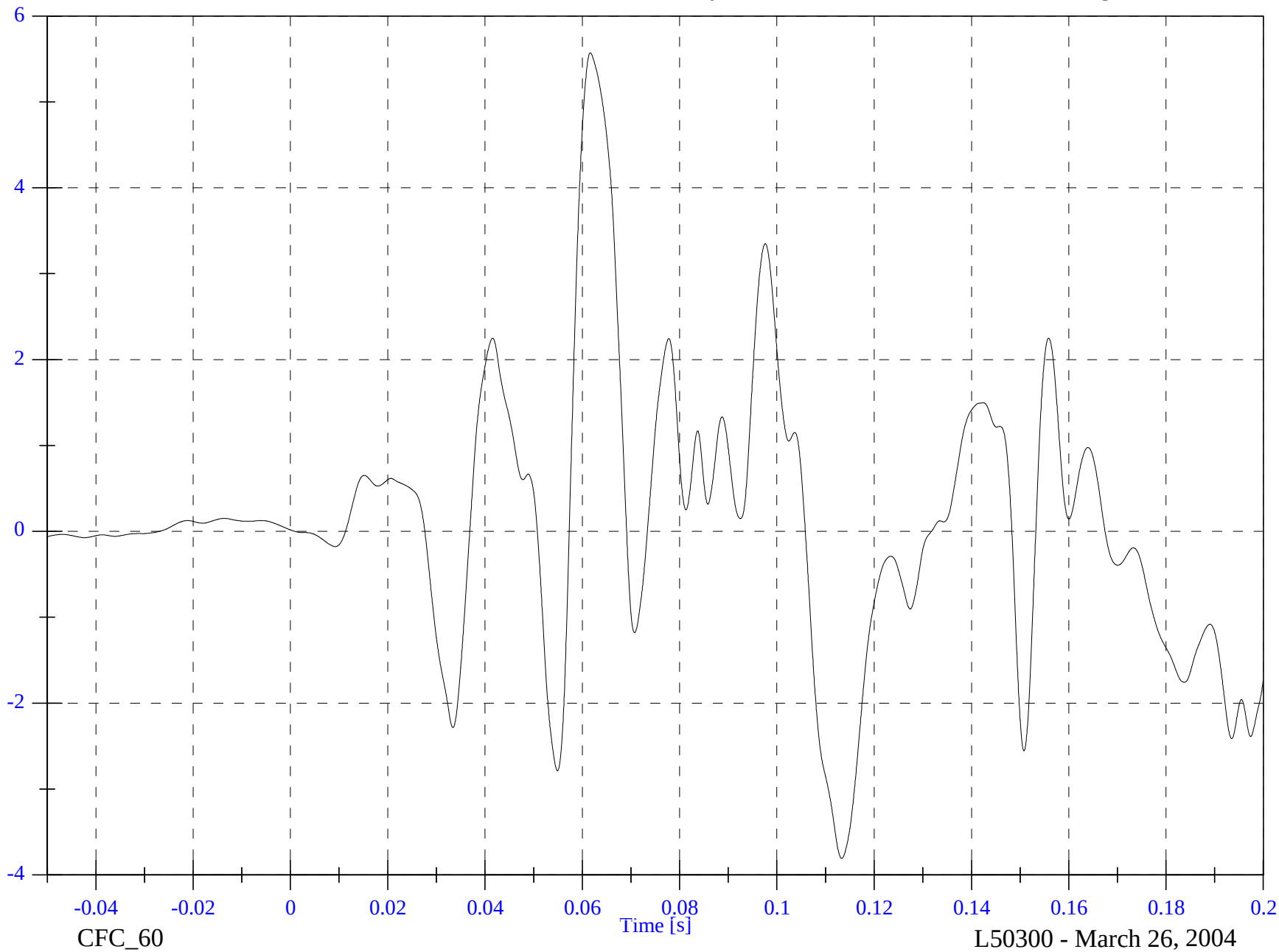
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P3 CRS y

Max: 5.6 [g] at 0.062 [s]

Min: -3.8 [g] at 0.113 [s]



Frontal NCAP- 2005 Chrysler Town & Country

V1P3 CRS y Velocity

Max: 3.0 [kph] at 0.105 [s]

Min: -0.2 [kph] at 0.037 [s]

4-39

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

V1P3 CRS y Displacement

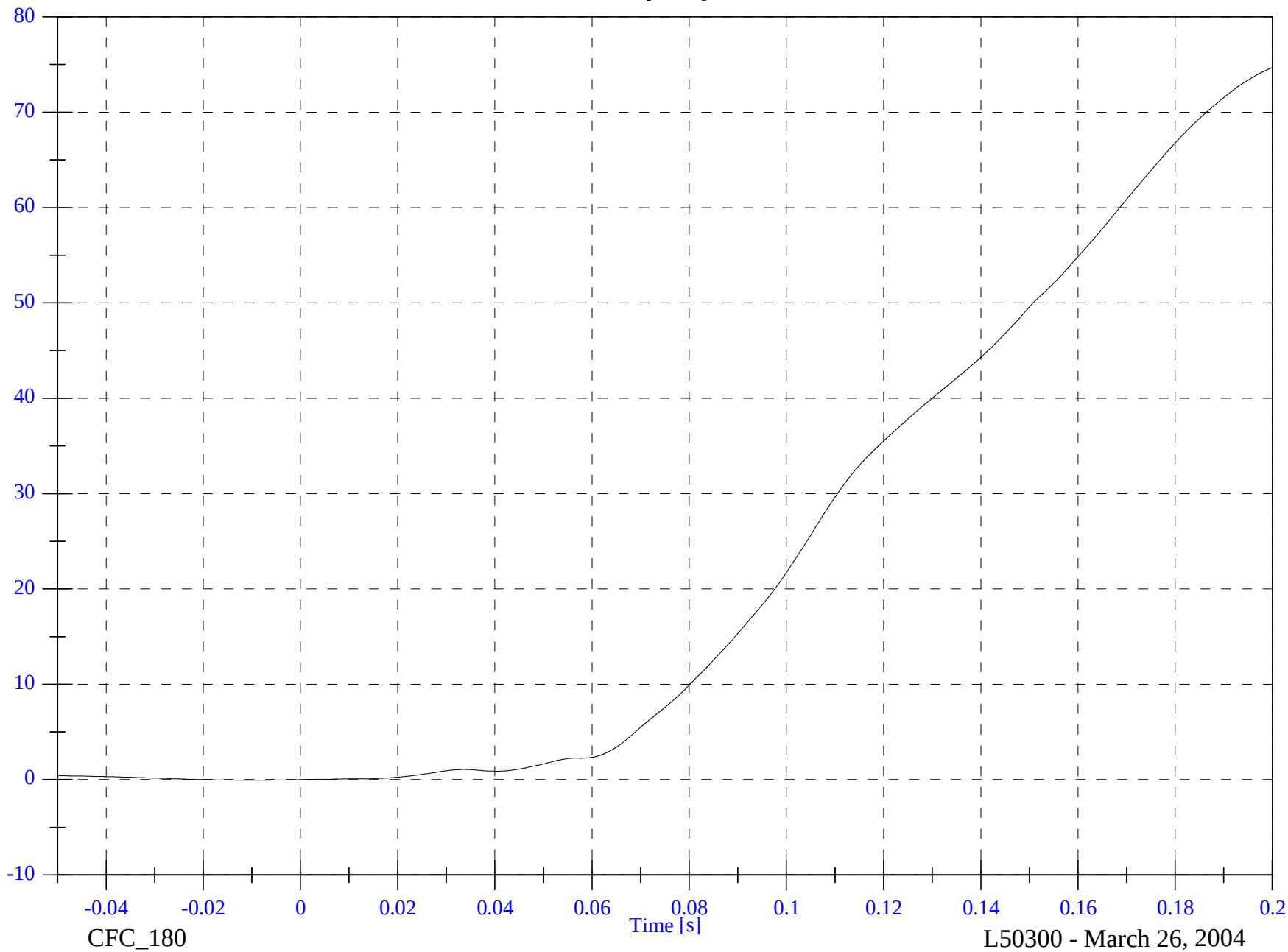
Max: 74.7 [mm] at 0.200 [s]

Min: -0.1 [mm] at -0.010 [s]

4-40

mm

8741-01

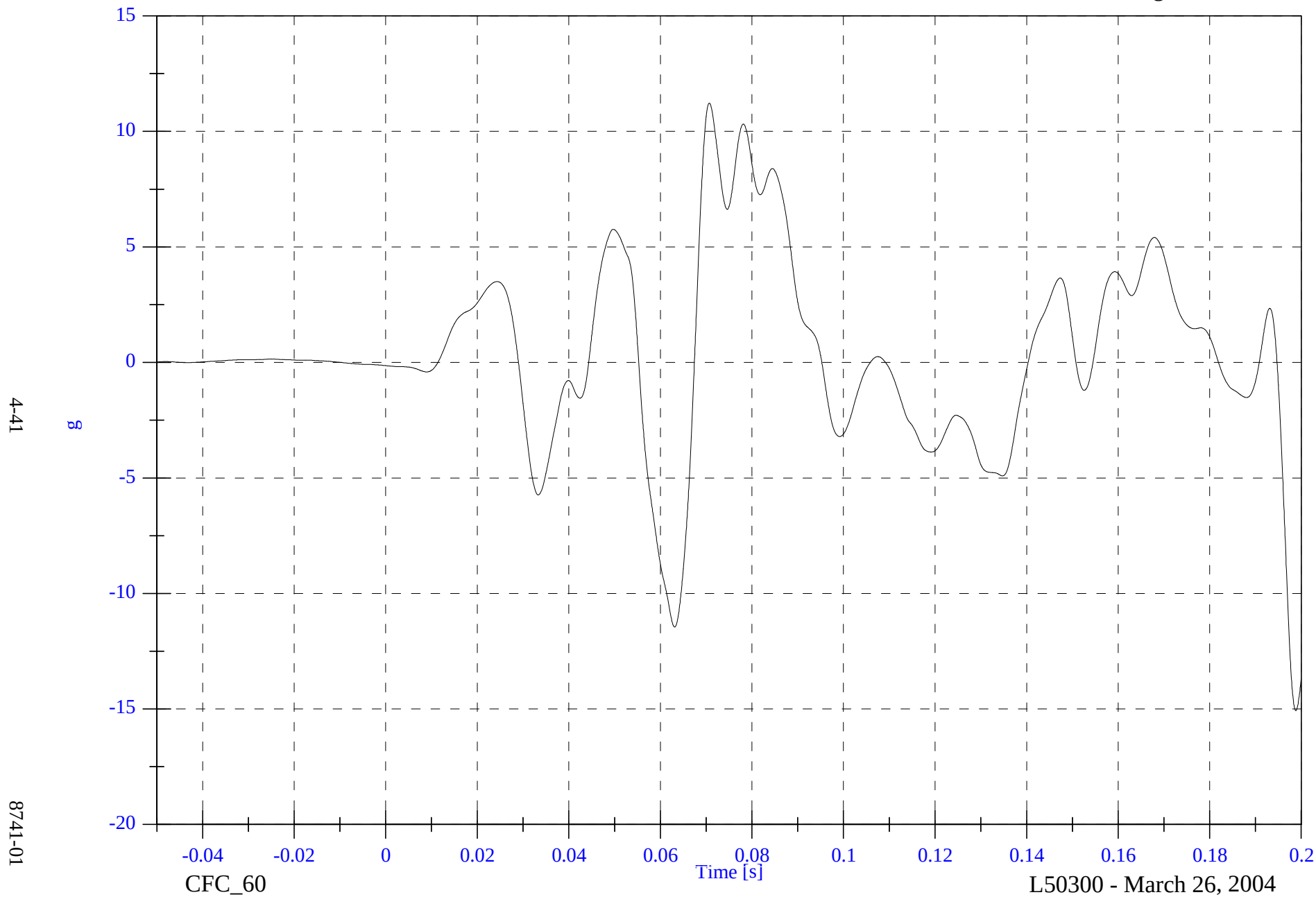


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 CRS z

Max: 11.2 [g] at 0.071 [s]

Min: -15.1 [g] at 0.199 [s]

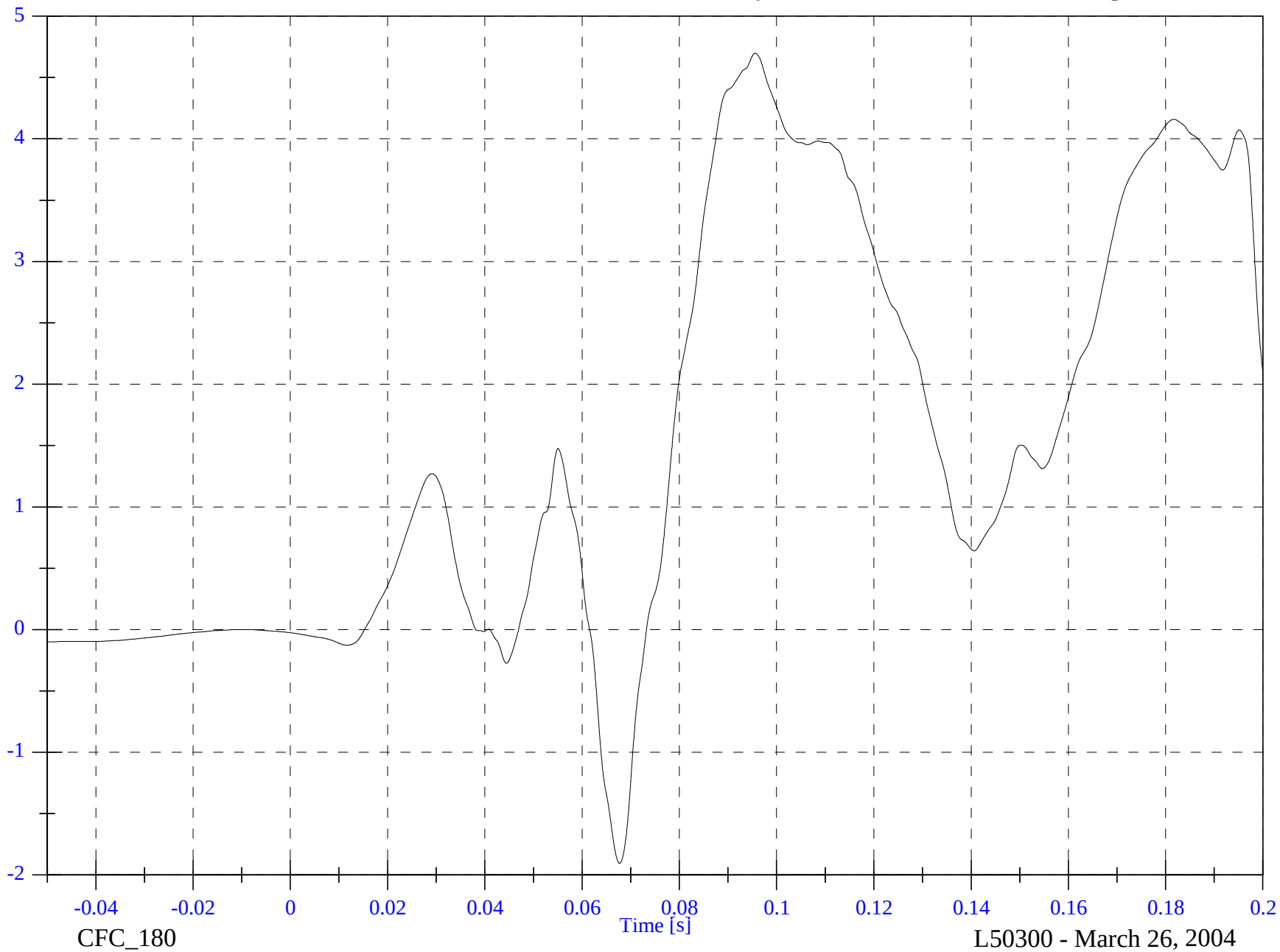


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 CRS z Velocity

Max: 4.7 [kph] at 0.096 [s]

Min: -1.9 [kph] at 0.068 [s]



4-42

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

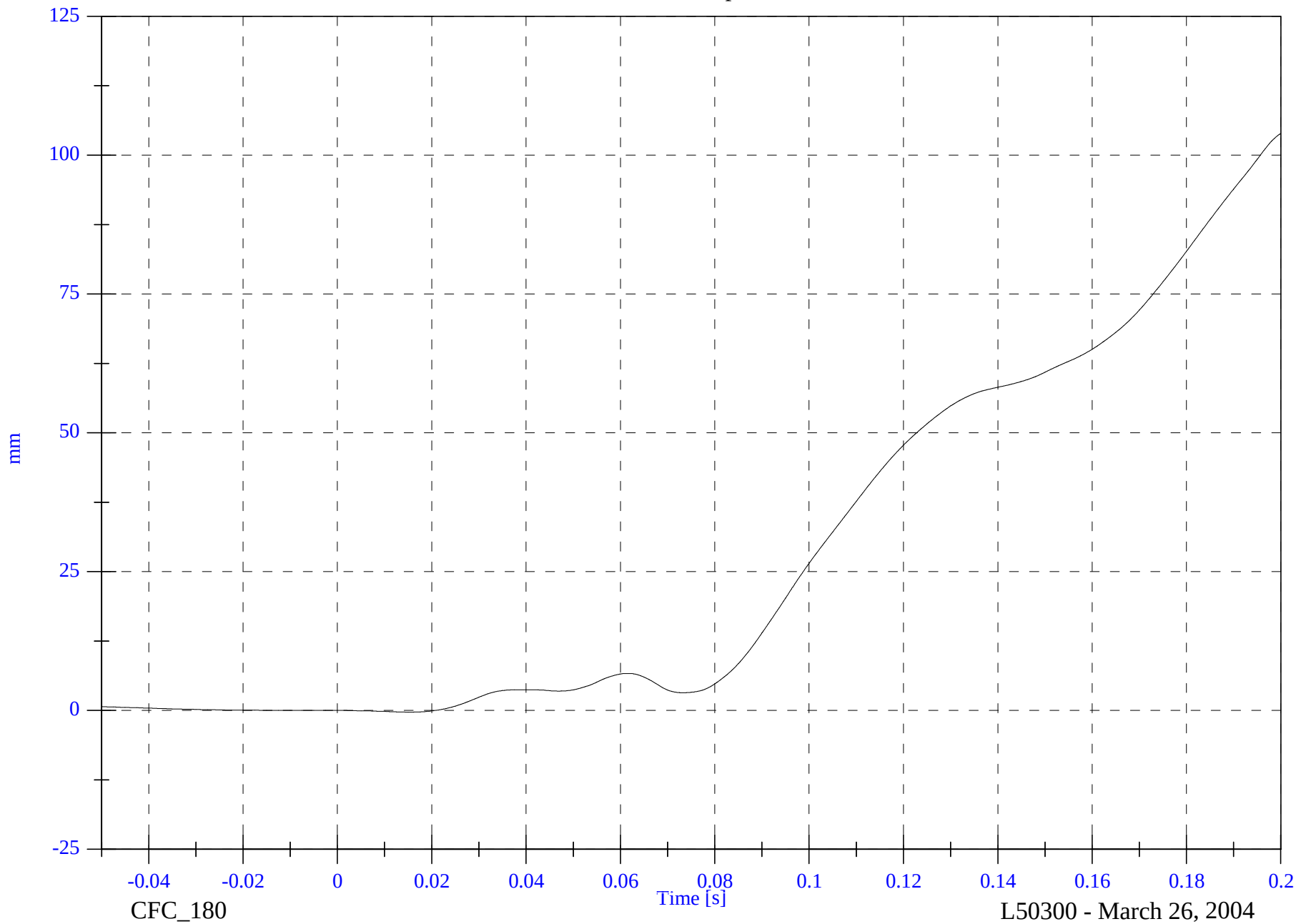
V1P3 CRS z Displacement

Max: 103.9 [mm] at 0.200 [s]

Min: -0.3 [mm] at 0.015 [s]

4-43

8741-01

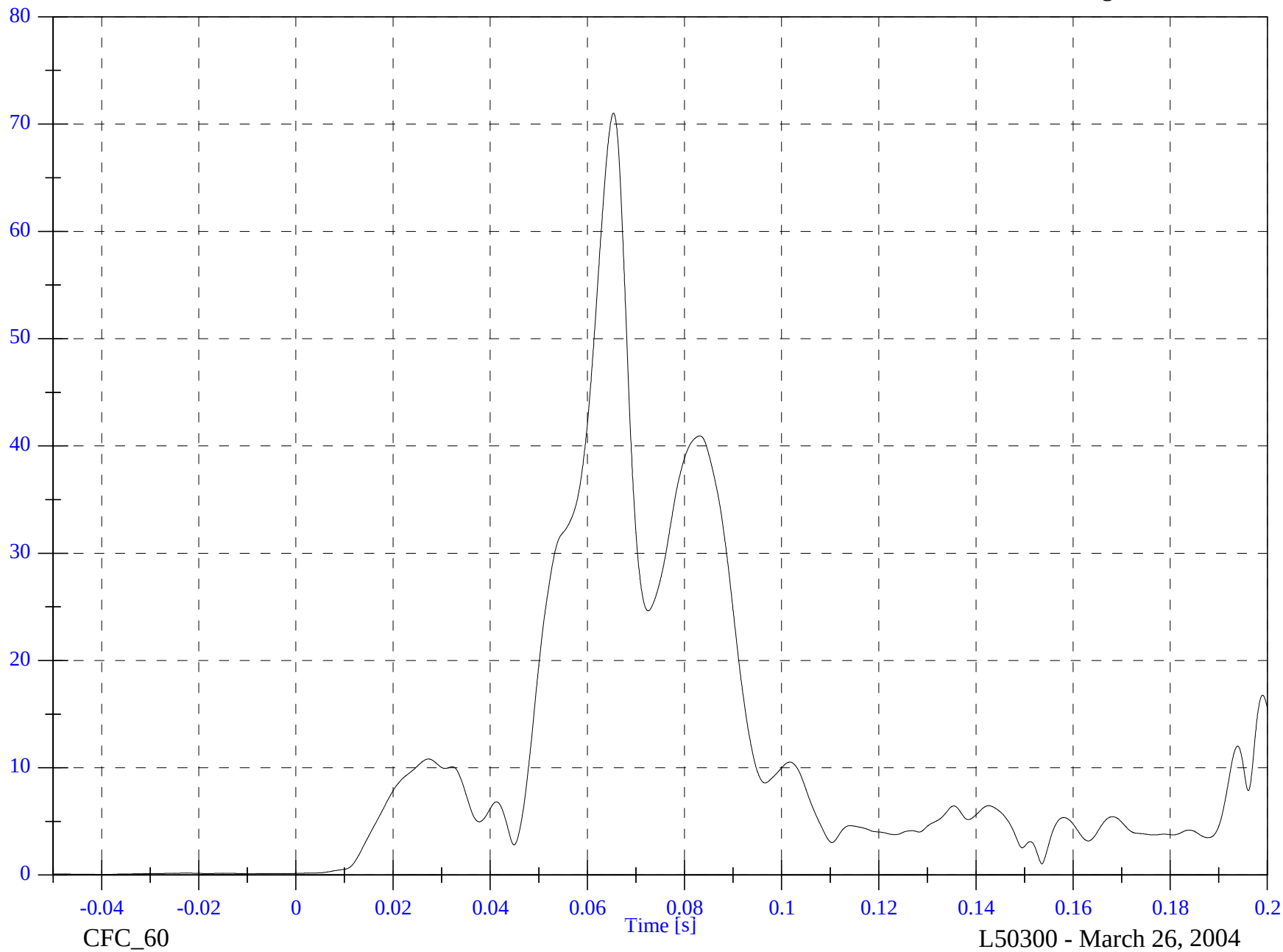


Frontal NCAP- 2005 Chrysler Town & Country

V1P3 CRS Resultant

Max: 71.0 [g] at 0.065 [s]

Min: 0.1 [g] at -0.039 [s]



4-44

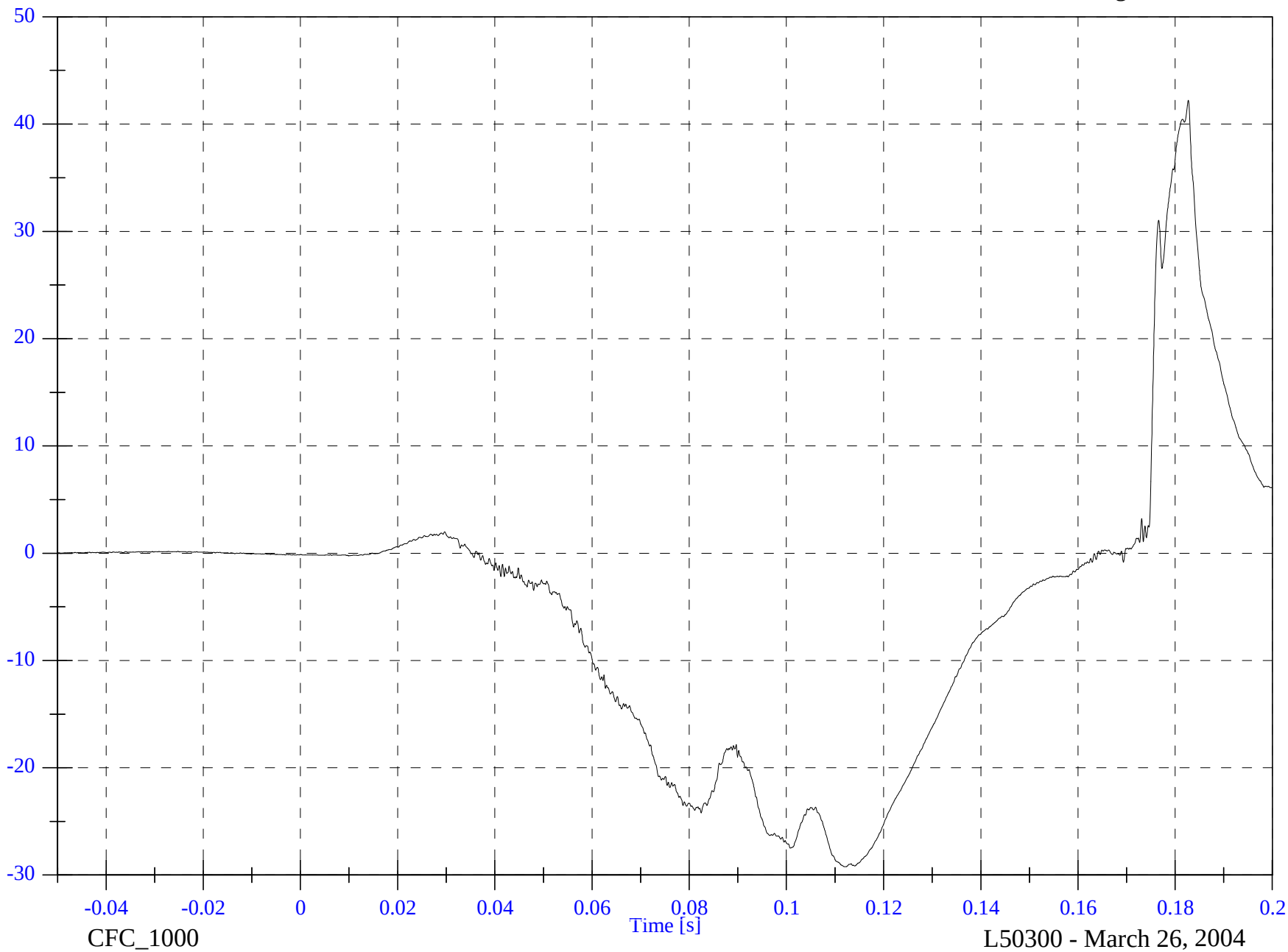
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Head x

Max: 42.2 [g] at 0.183 [s]

Min: -29.2 [g] at 0.112 [s]



4-45

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

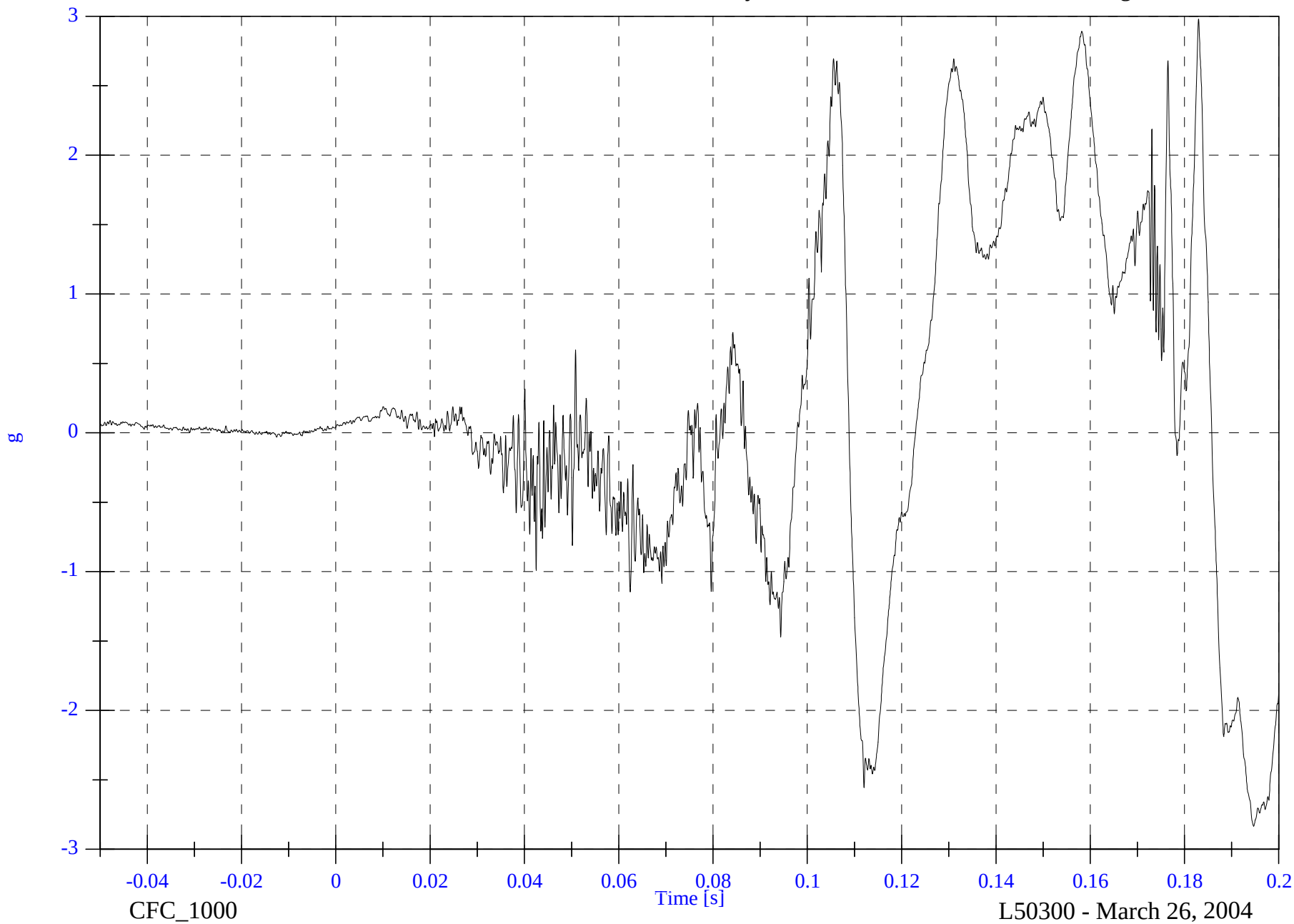
V1P4 Head y

Max: 3.0 [g] at 0.183 [s]

Min: -2.8 [g] at 0.195 [s]

4-46

8741-01

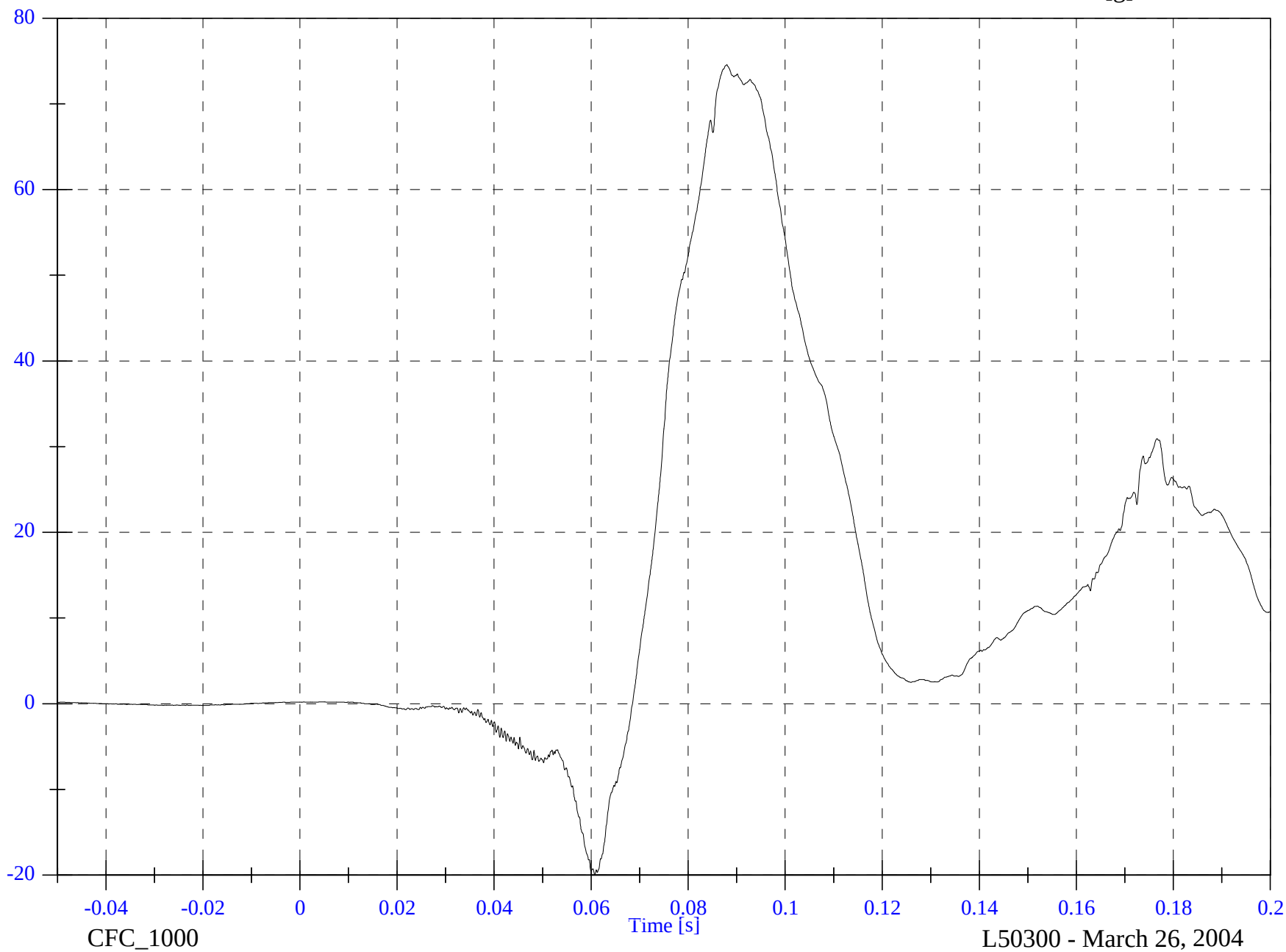


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Head z

Max: 74.6 [g] at 0.088 [s]

Min: -20.0 [g] at 0.061 [s]



4-47

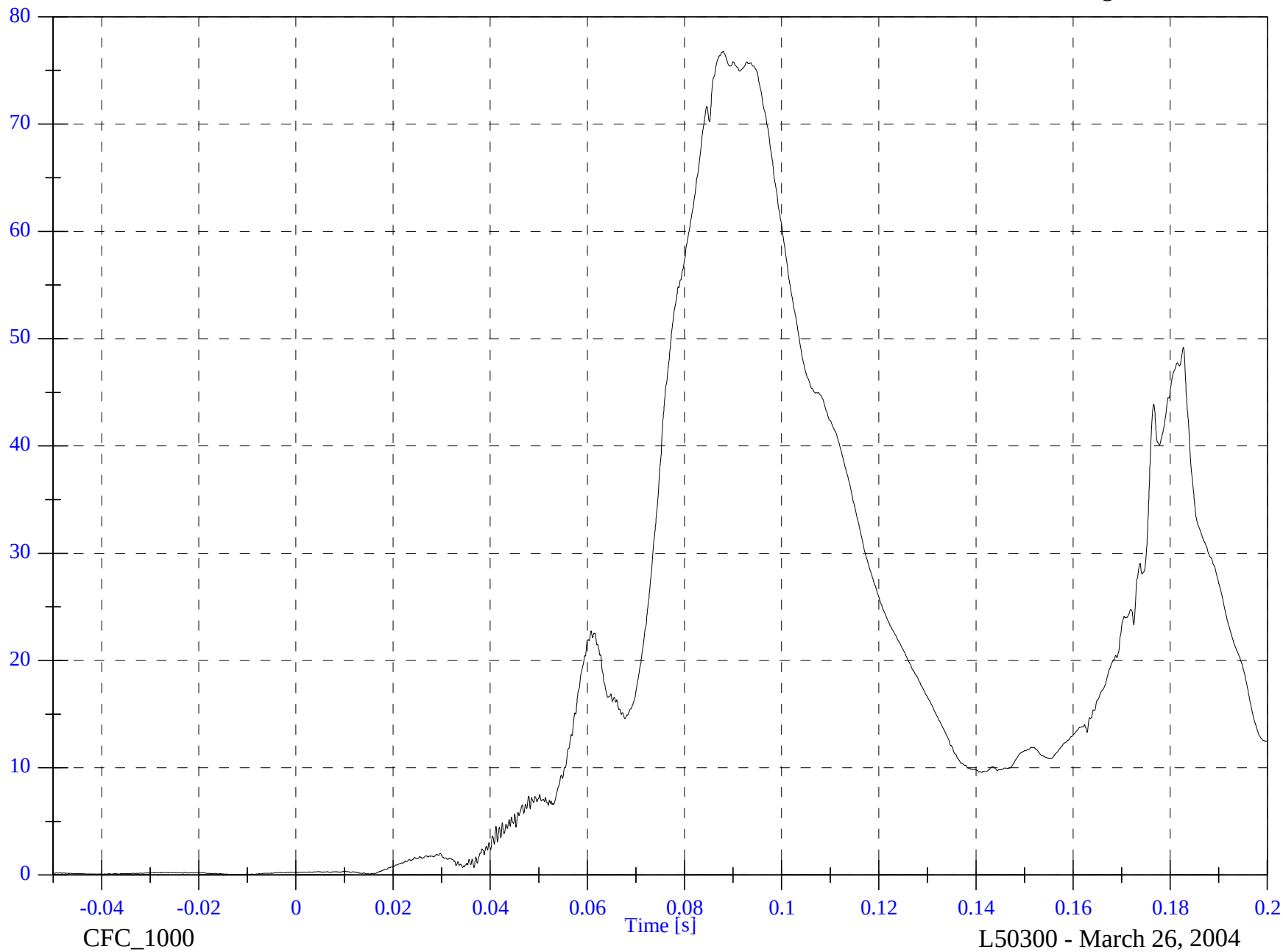
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Head Resultant

Max: 76.8 [g] at 0.088 [s]

Min: 0.0 [g] at -0.012 [s]



4-48

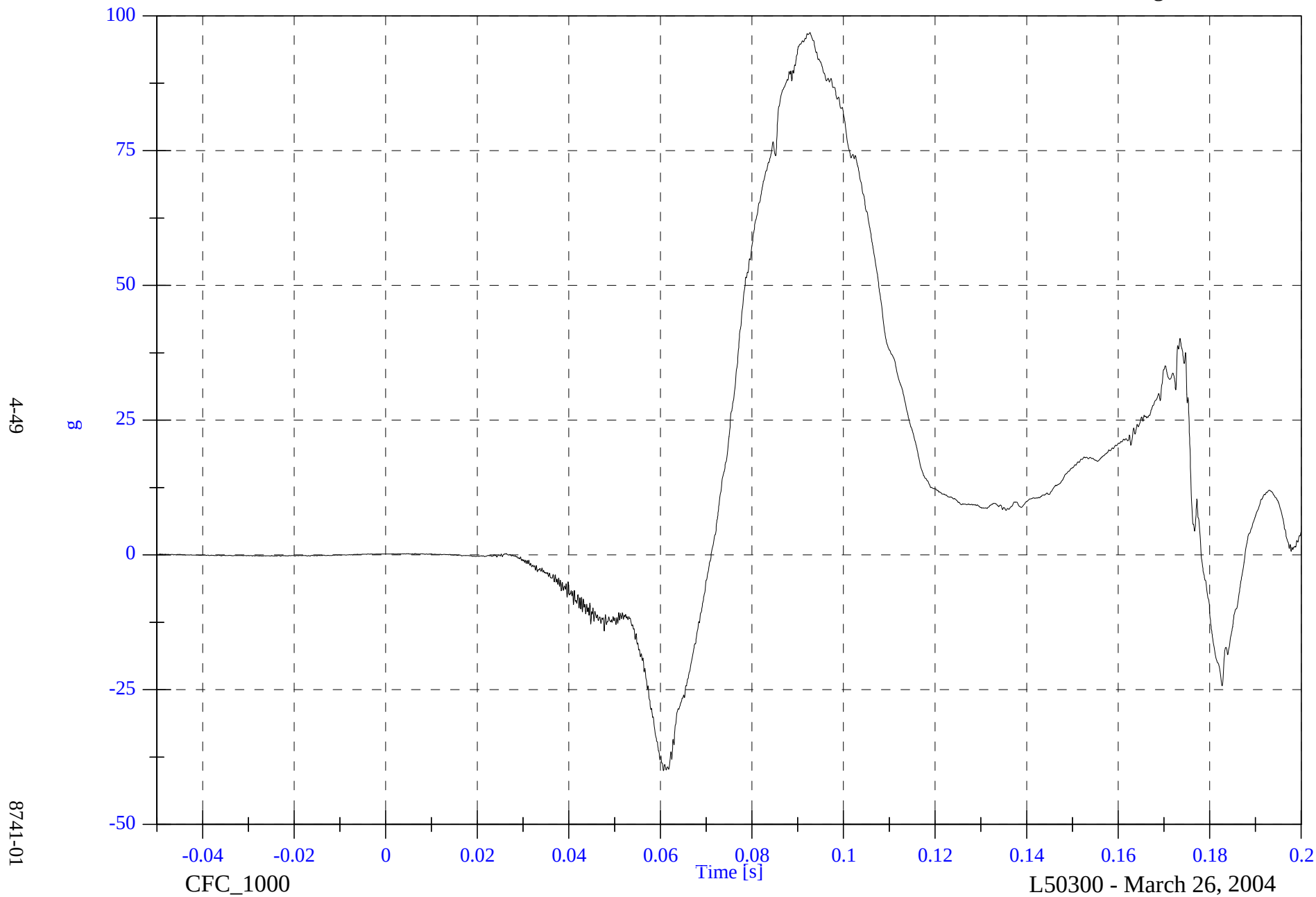
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Head Rear z

Max: 96.9 [g] at 0.093 [s]

Min: -40.0 [g] at 0.061 [s]

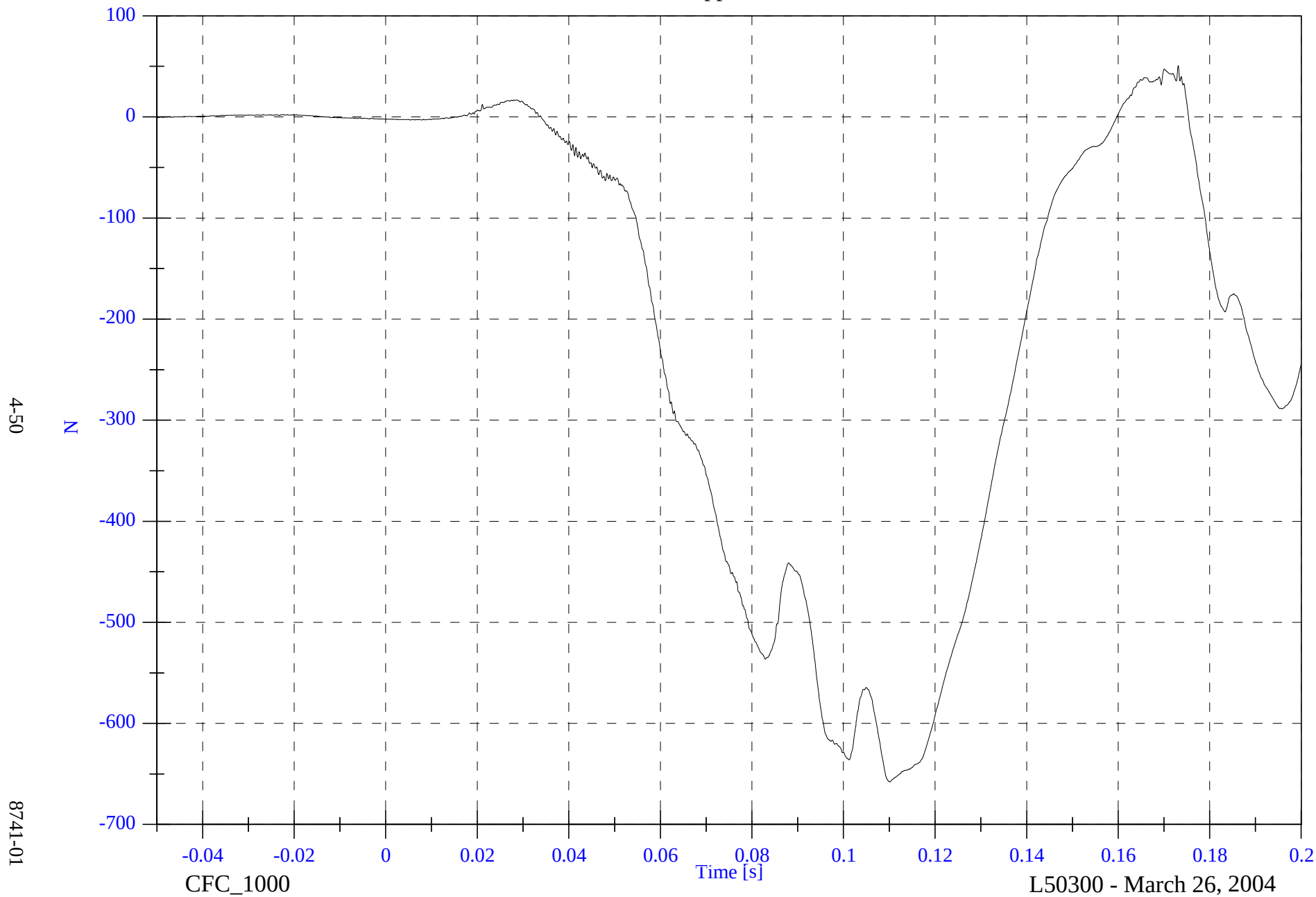


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Upper Neck Fx

Max: 50.7 [N] at 0.173 [s]

Min: -657.9 [N] at 0.110 [s]

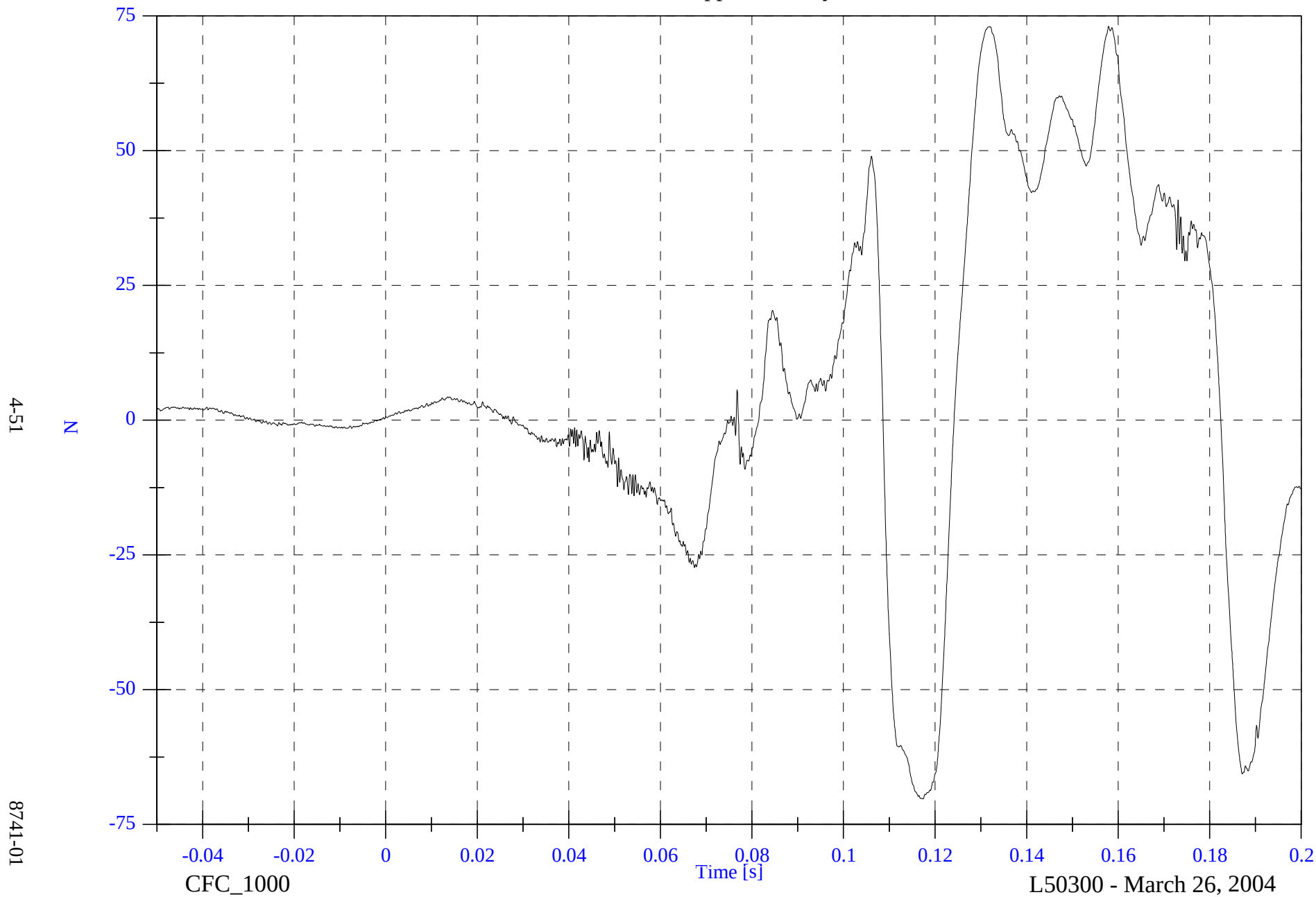


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Upper Neck Fy

Max: 73.1 [N] at 0.158 [s]

Min: -70.2 [N] at 0.117 [s]



Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Upper Neck Fz

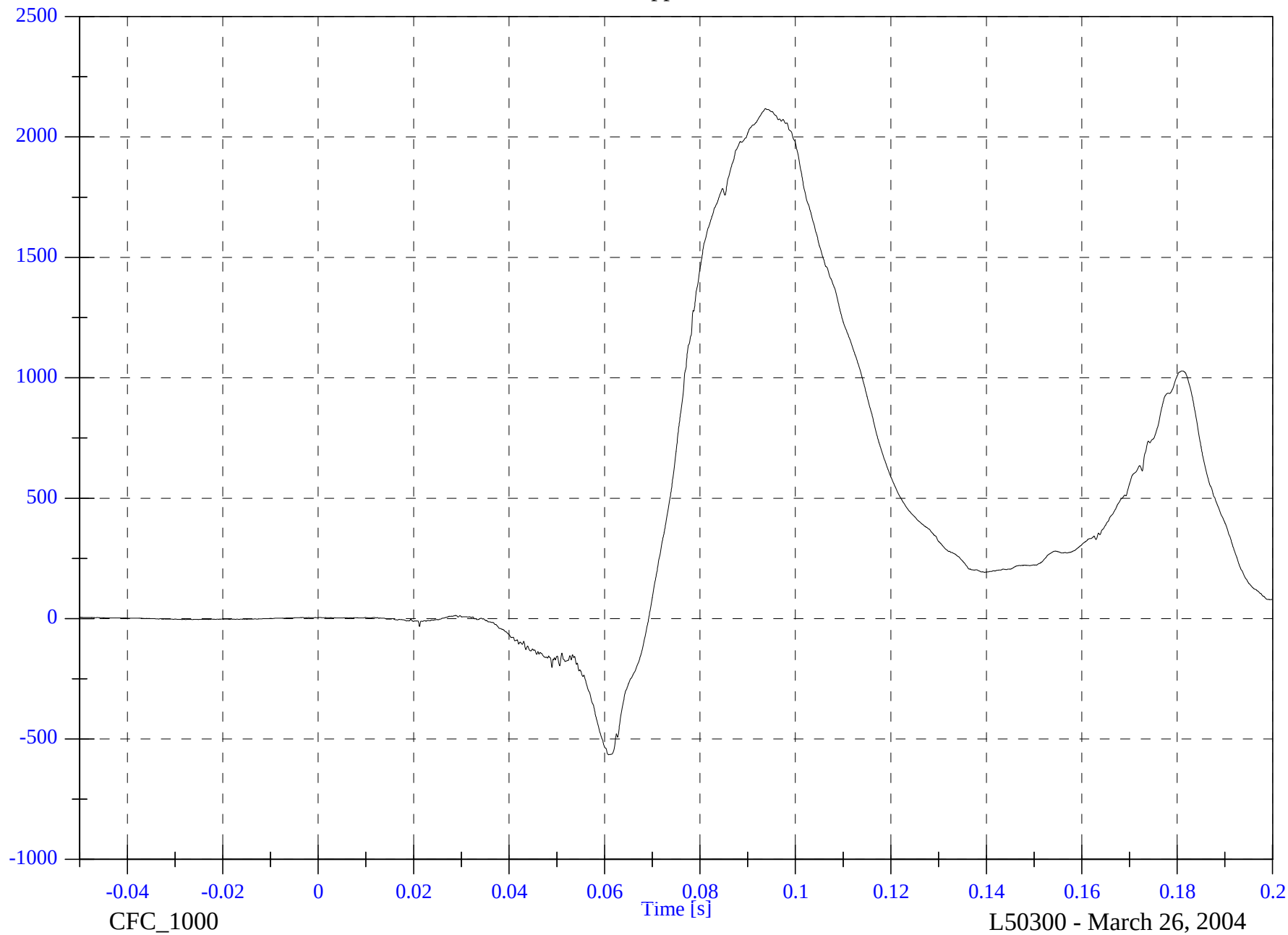
Max: 2117.7 [N] at 0.094 [s]

Min: -565.4 [N] at 0.061 [s]

4-52

N

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

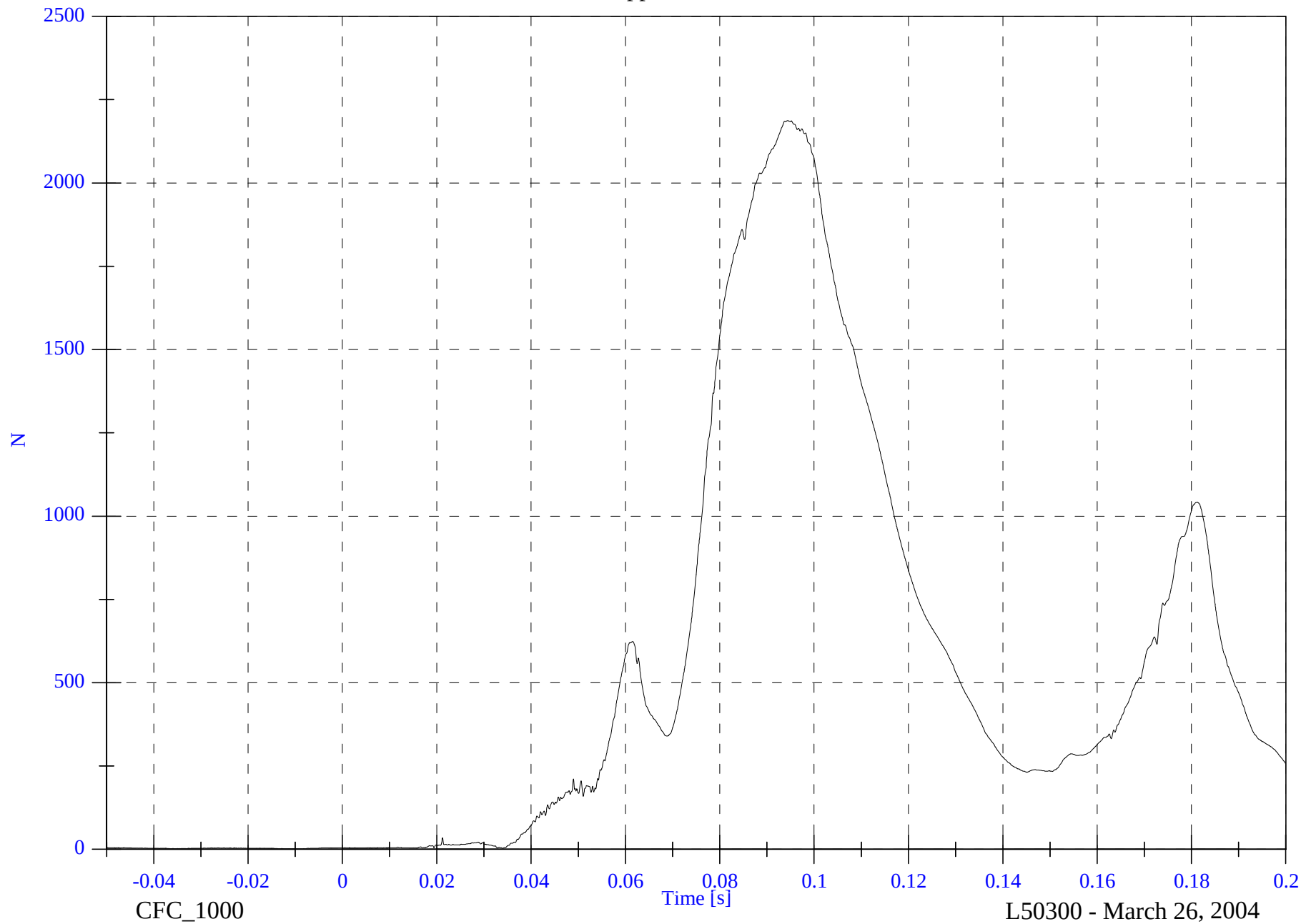
V1P4 Upper Neck F Resultant

Max: 2187.1 [N] at 0.094 [s]

Min: 1.3 [N] at -0.011 [s]

4-53

8741-01

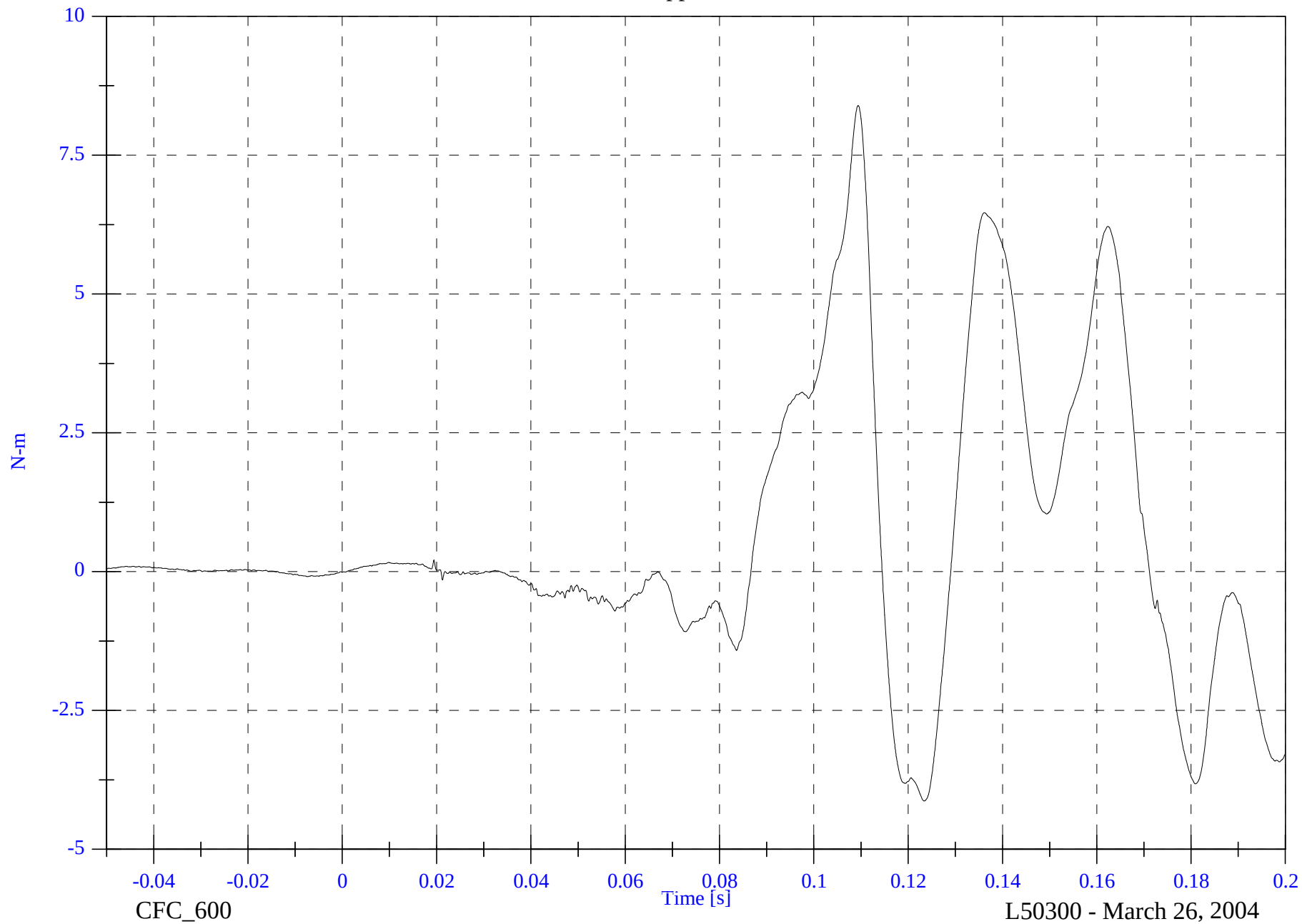


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Upper Neck Mx

Max: 8.4 [N-m] at 0.109 [s]

Min: -4.1 [N-m] at 0.123 [s]



4-54

8741-01

CFC_600

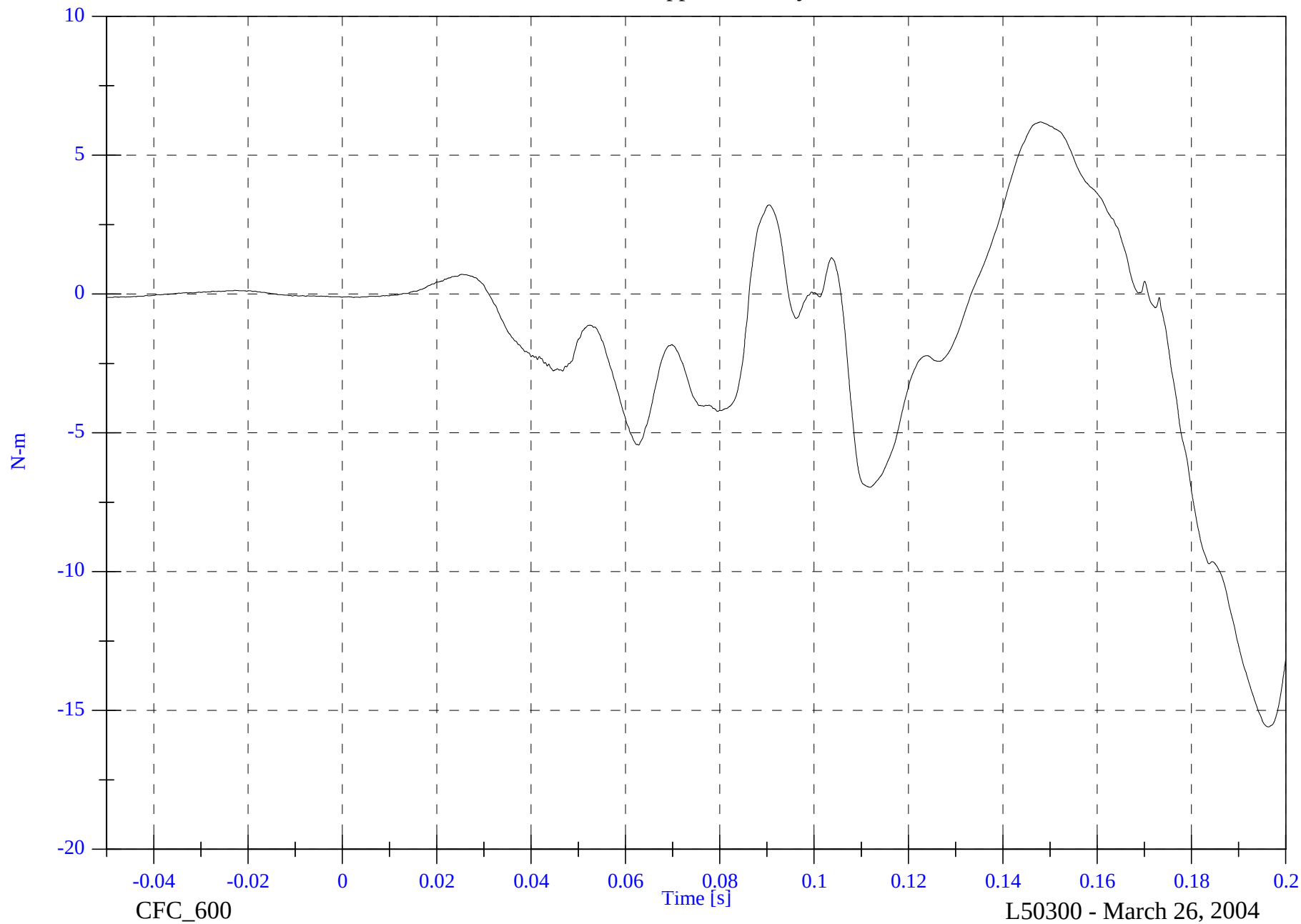
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Upper Neck My

Max: 6.2 [N-m] at 0.148 [s]

Min: -15.6 [N-m] at 0.196 [s]



4-55

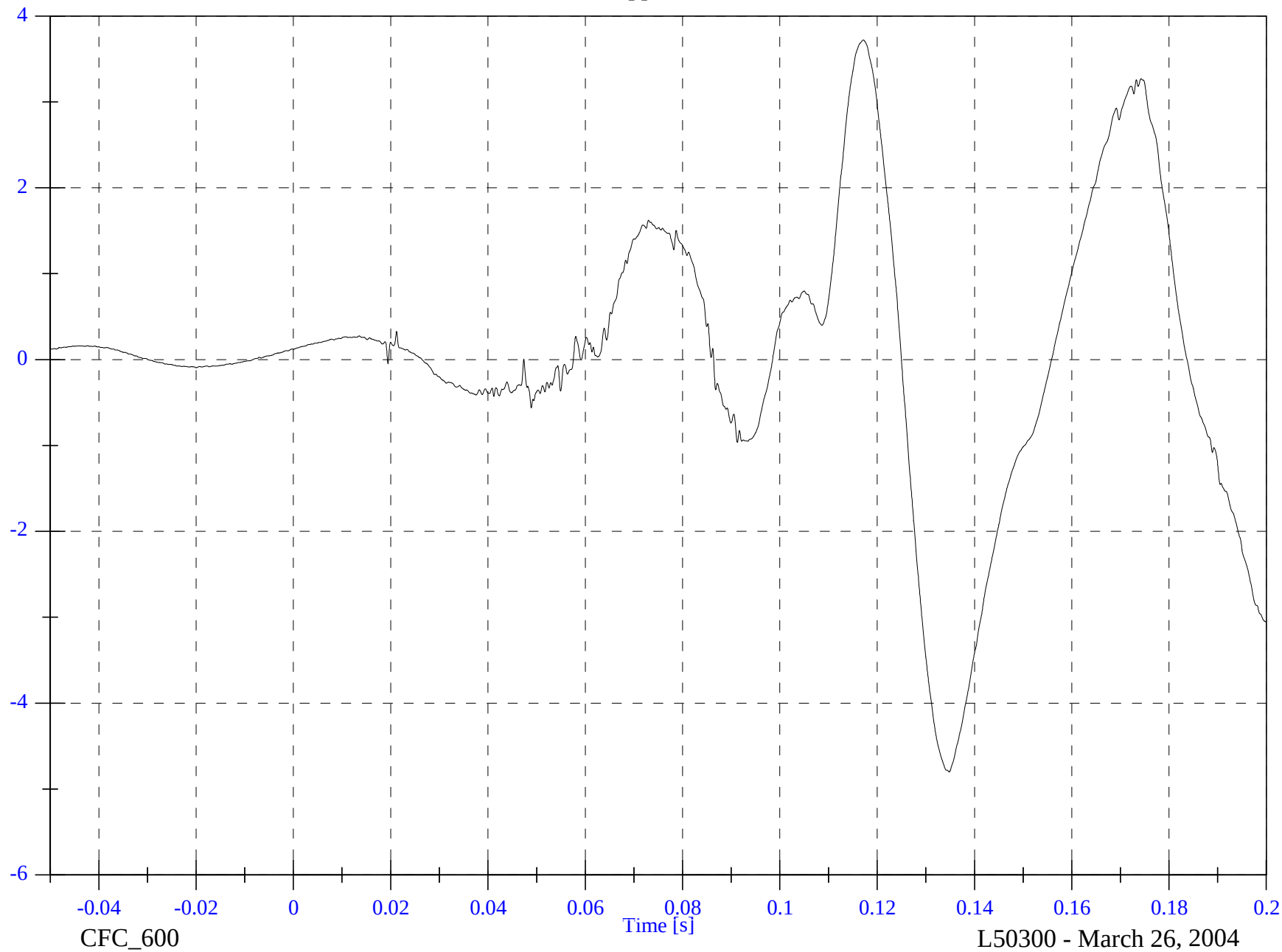
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Upper Neck Mz

Max: 3.7 [N-m] at 0.117 [s]

Min: -4.8 [N-m] at 0.135 [s]



4-56

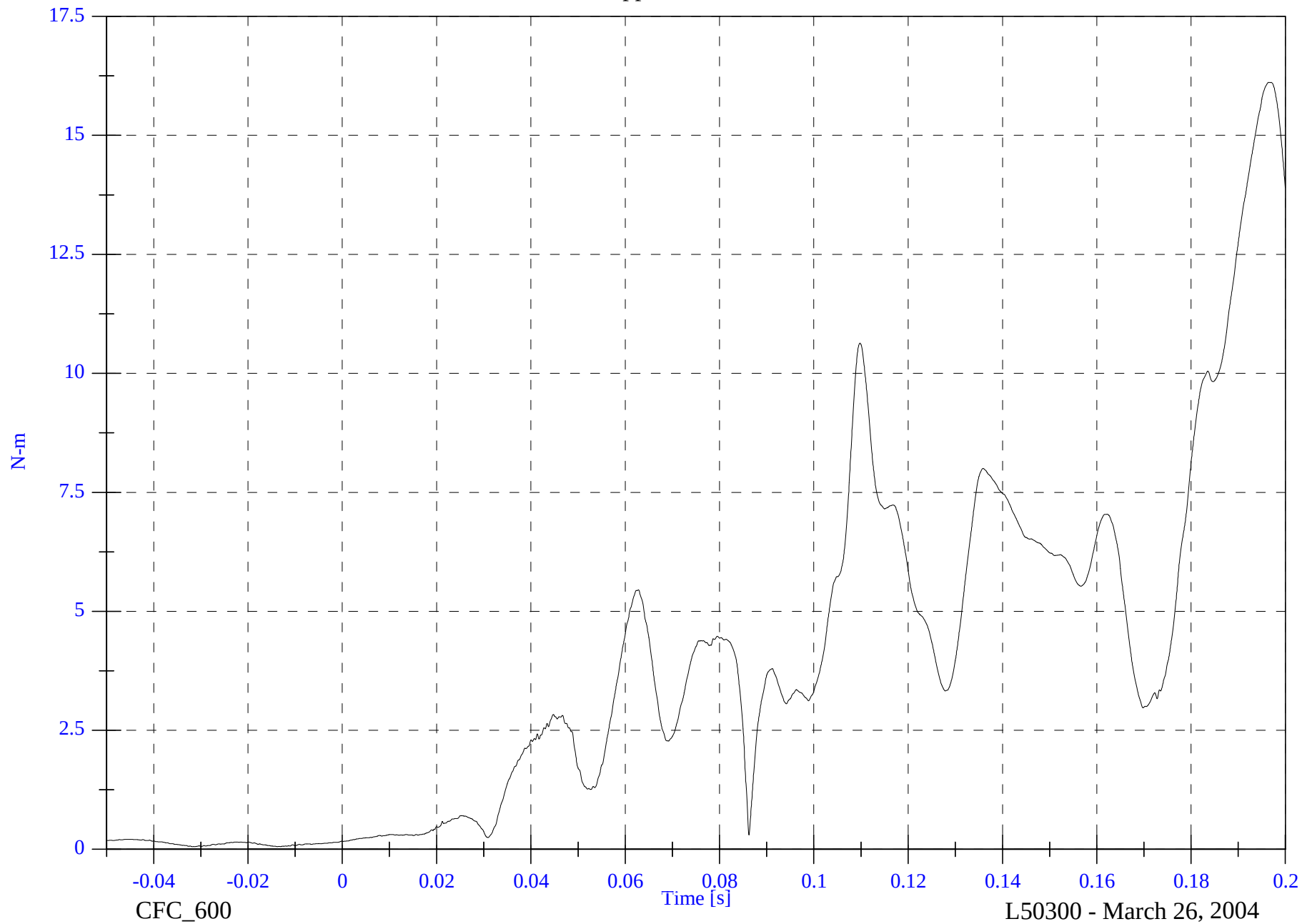
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Upper Neck M Resultant

Max: 16.1 [N-m] at 0.196 [s]

Min: 0.1 [N-m] at -0.032 [s]



4-57

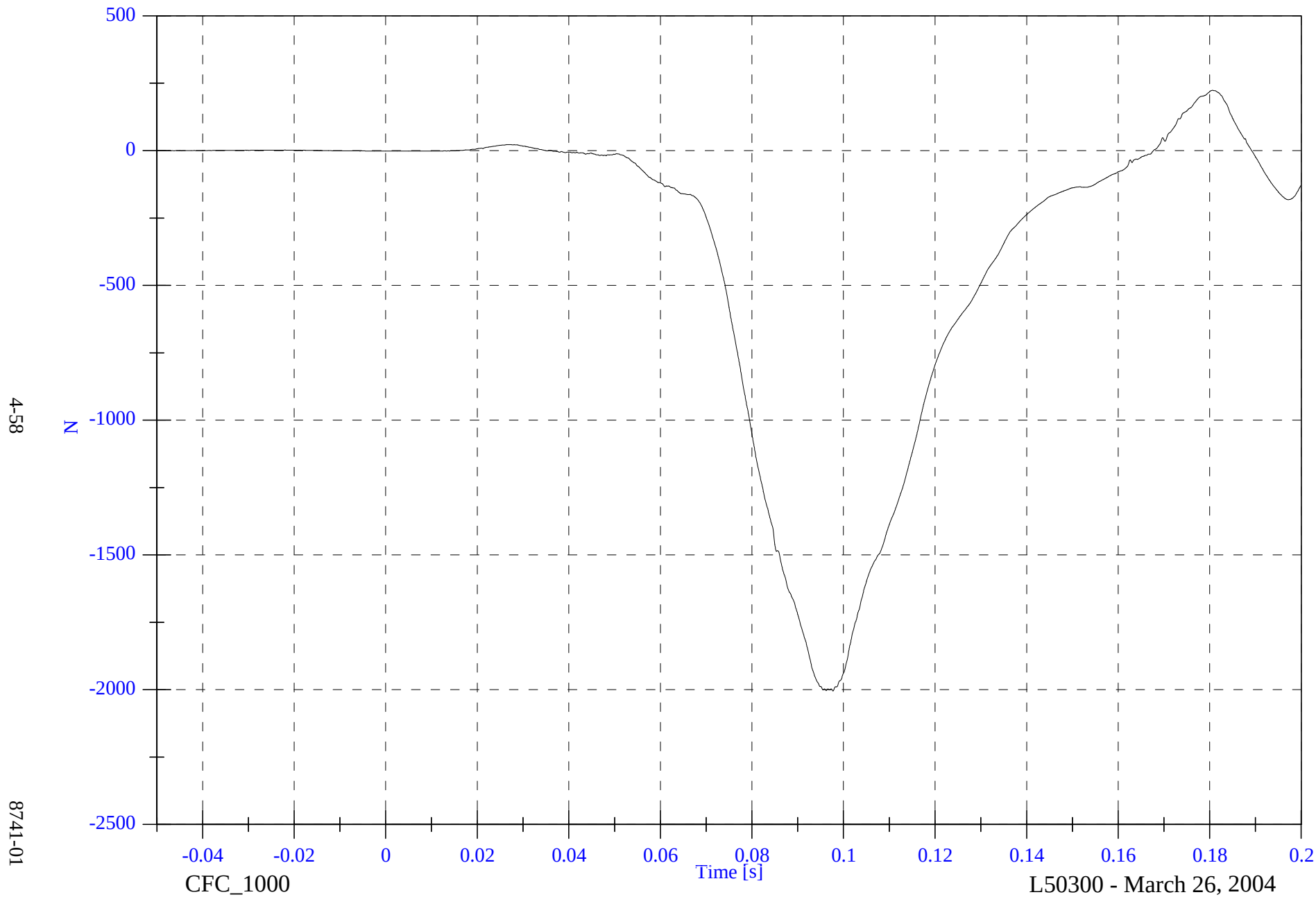
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Lower Neck Fx

Max: 223.5 [N] at 0.181 [s]

Min: -2004.7 [N] at 0.098 [s]

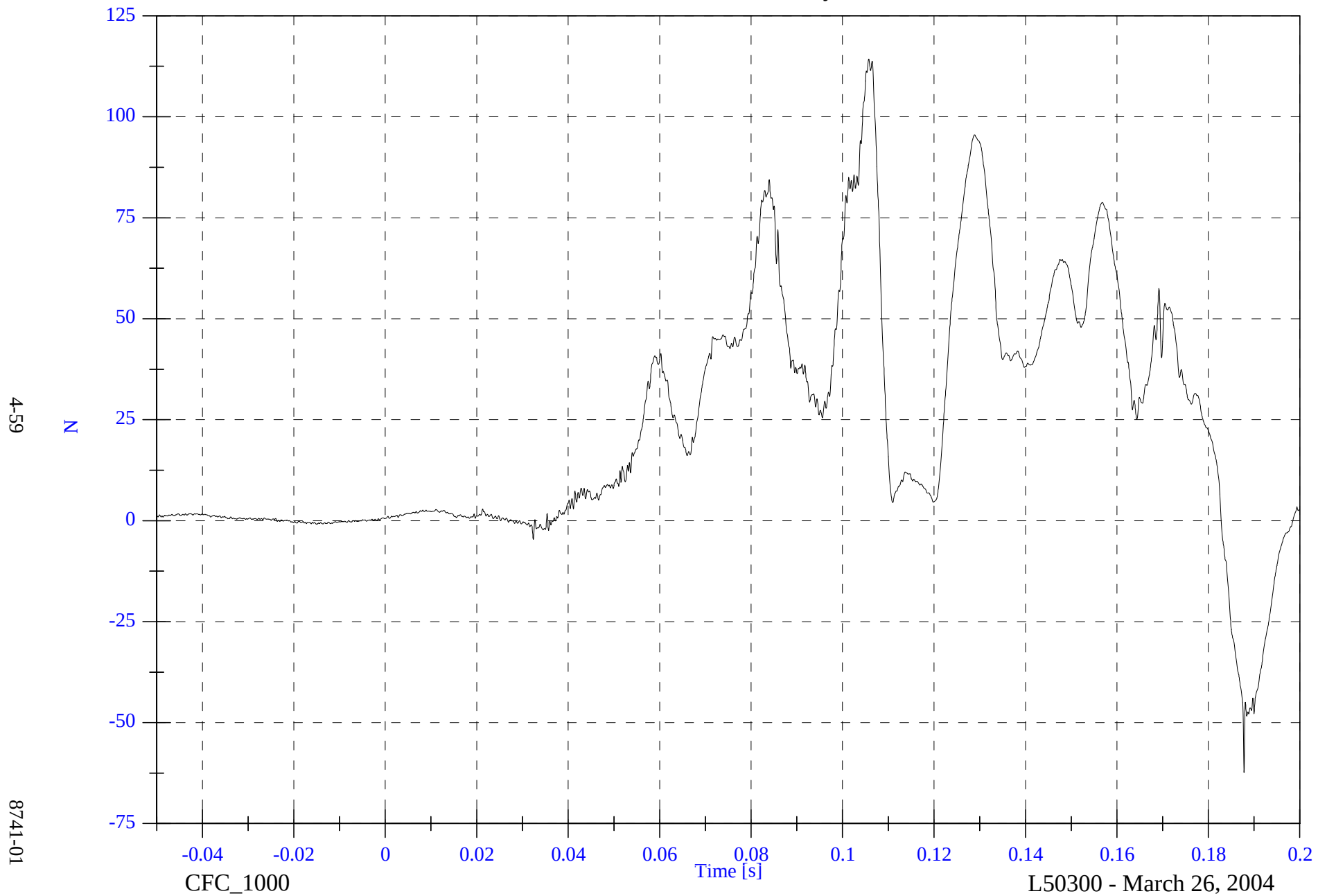


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Lower Neck Fy

Max: 114.3 [N] at 0.106 [s]

Min: -62.3 [N] at 0.188 [s]

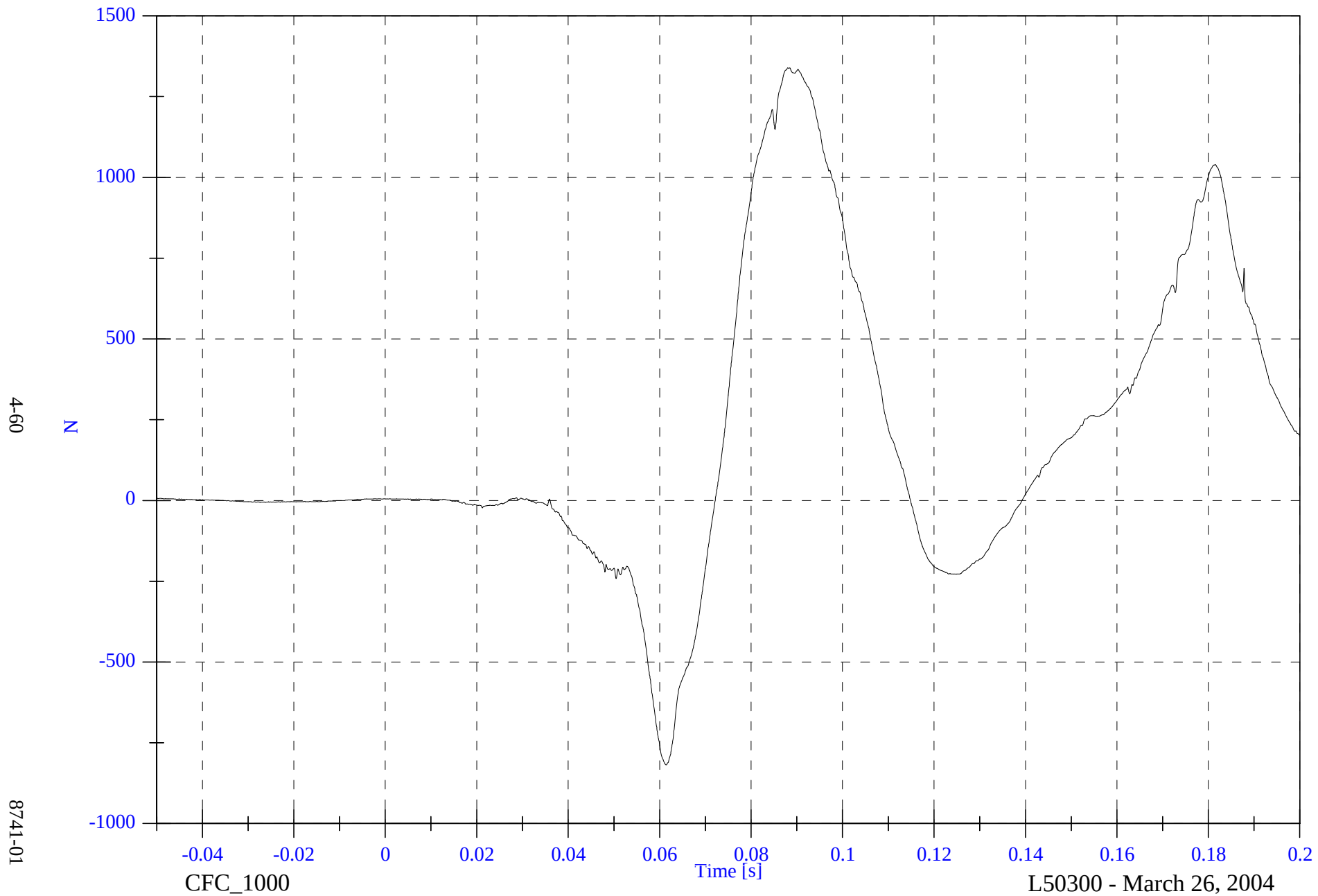


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Lower Neck Fz

Max: 1339.2 [N] at 0.088 [s]

Min: -818.5 [N] at 0.061 [s]

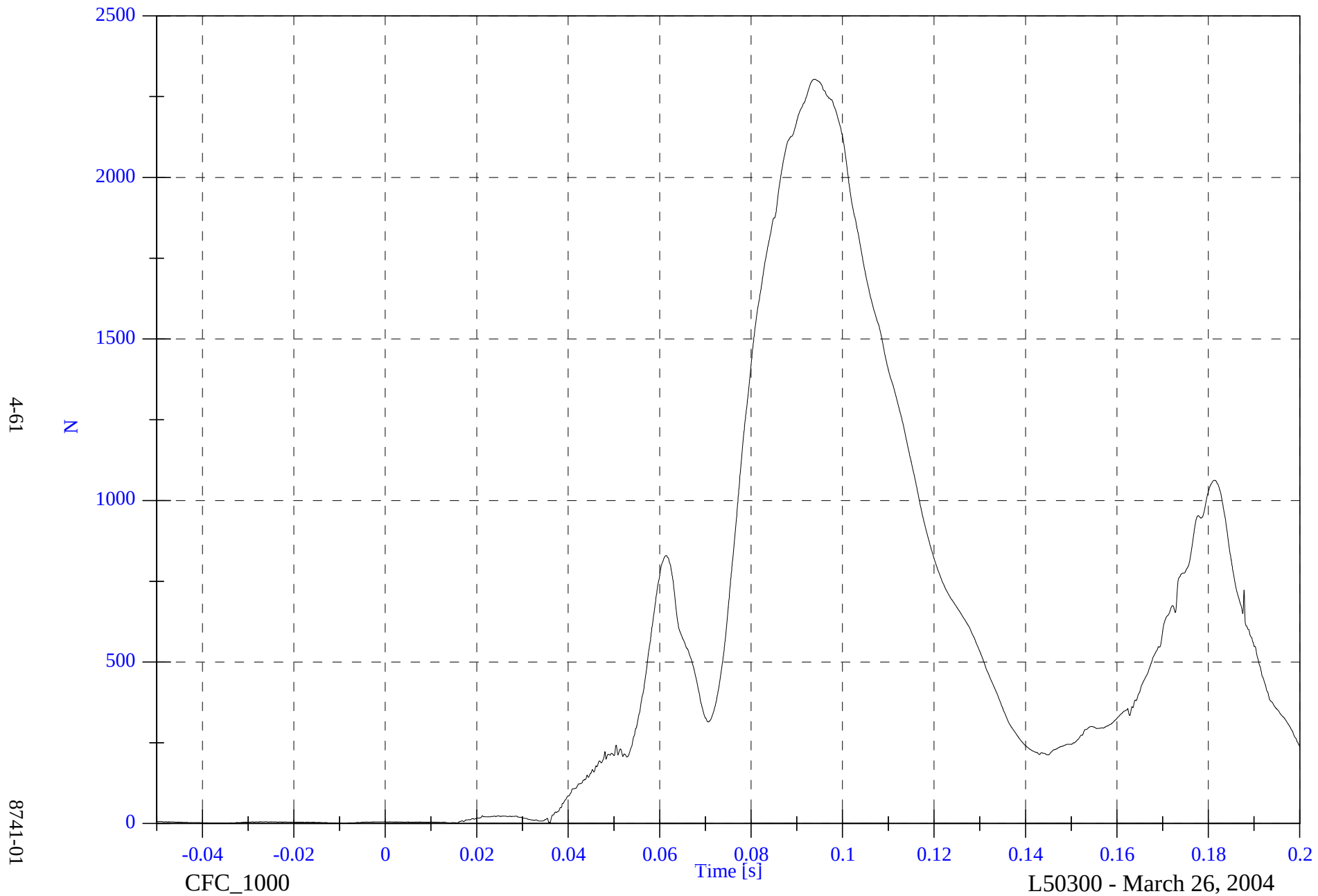


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Lower Neck F Resultant

Max: 2303.9 [N] at 0.094 [s]

Min: 0.6 [N] at -0.009 [s]

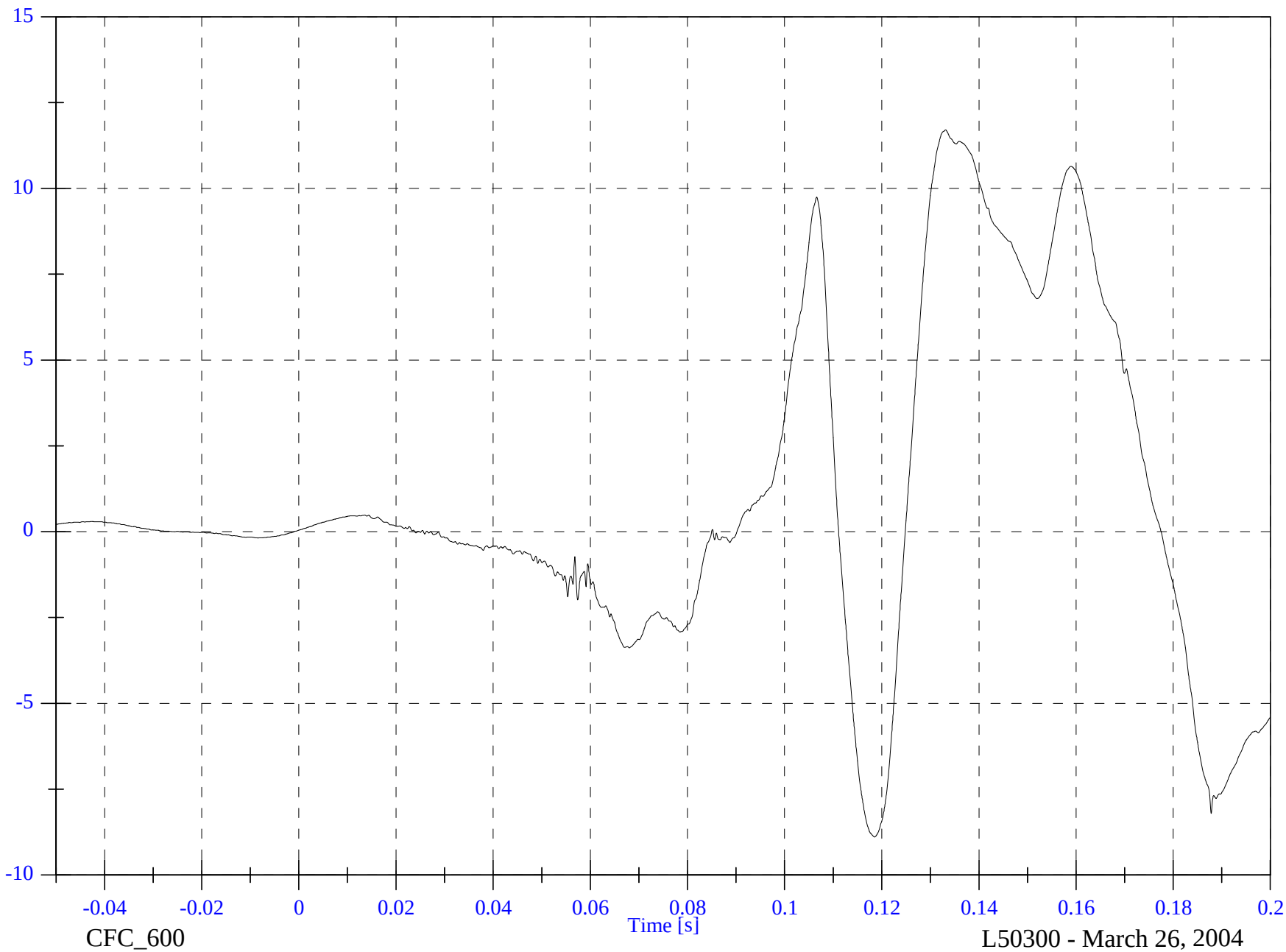


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Lower Neck Mx

Max: 11.7 [N-m] at 0.133 [s]

Min: -8.9 [N-m] at 0.119 [s]



4-62

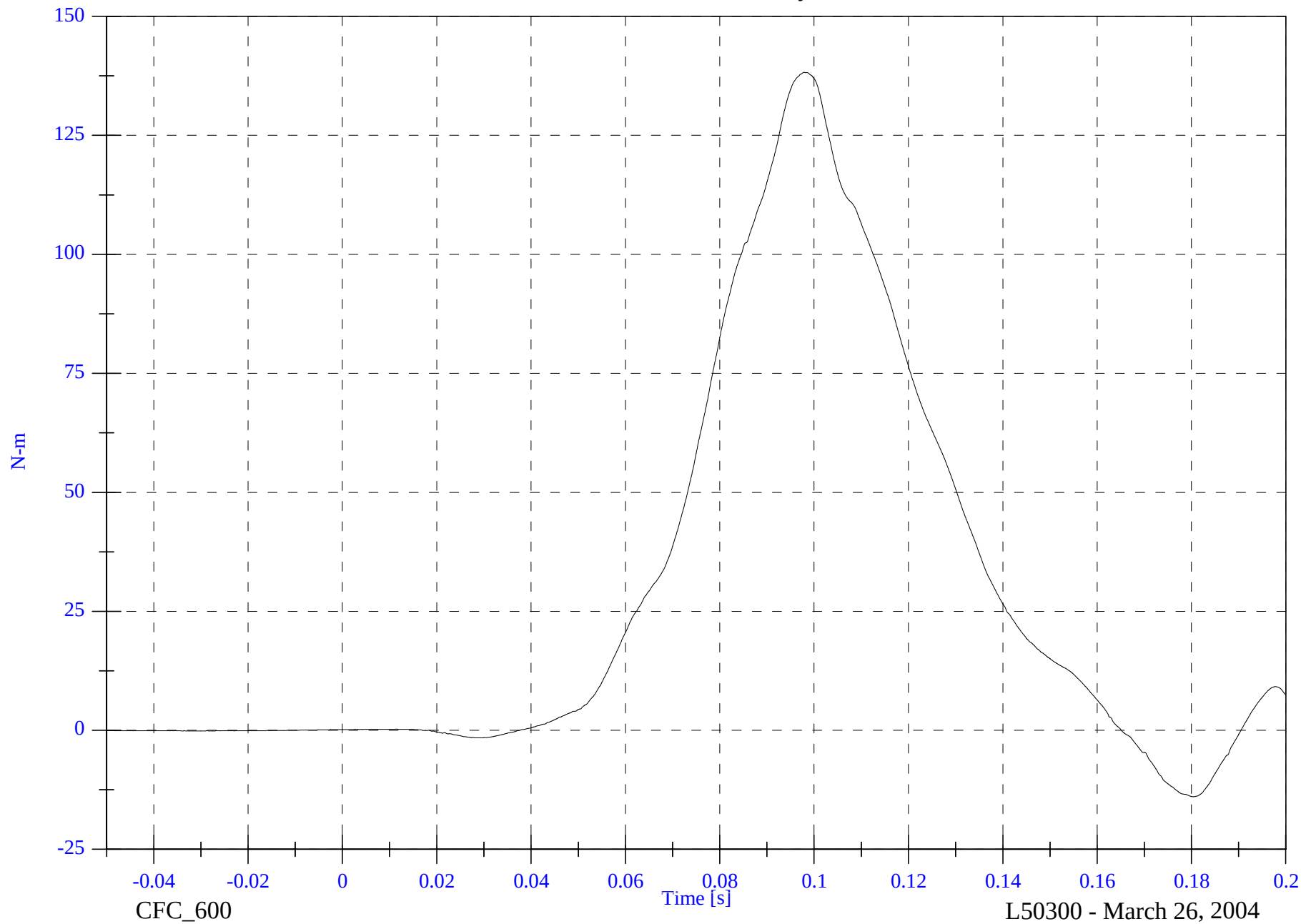
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Lower Neck My

Max: 138.3 [N-m] at 0.098 [s]

Min: -14.0 [N-m] at 0.180 [s]



4-63

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

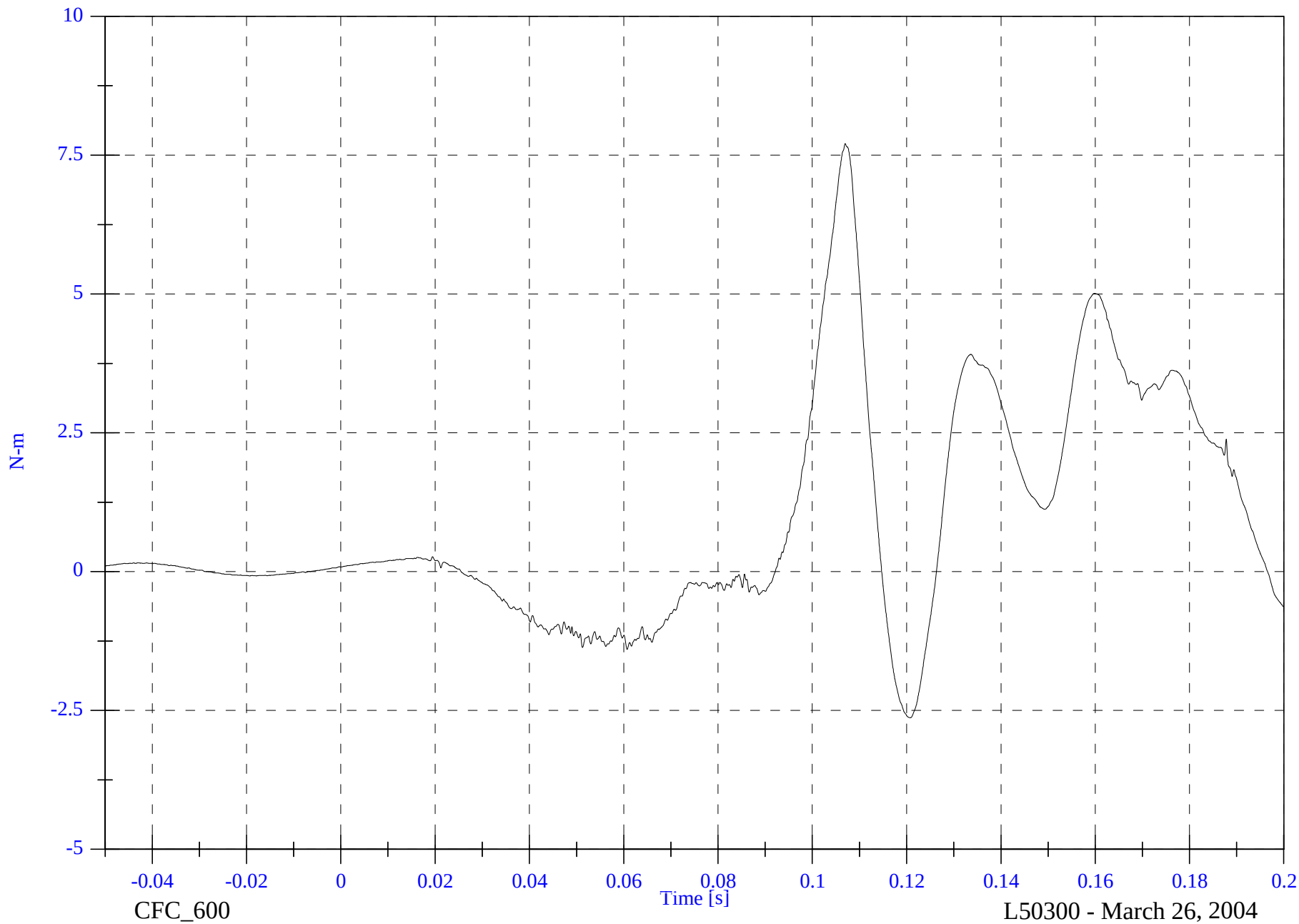
V1P4 Lower Neck Mz

Max: 7.7 [N-m] at 0.107 [s]

Min: -2.6 [N-m] at 0.121 [s]

4-64

8741-01

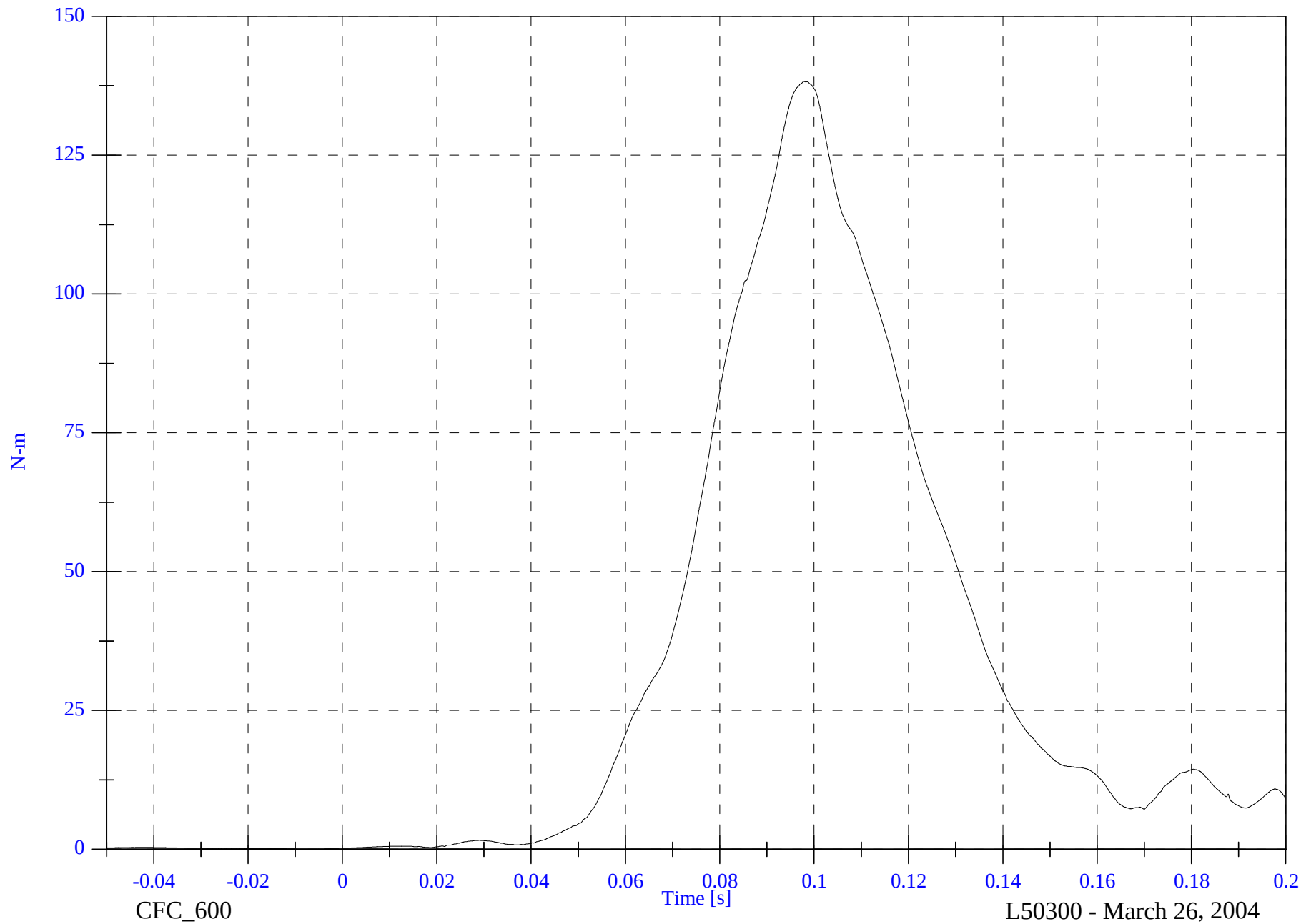


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Lower Neck M Resultant

Max: 138.3 [N-m] at 0.098 [s]

Min: 0.1 [N-m] at -0.016 [s]



4-65

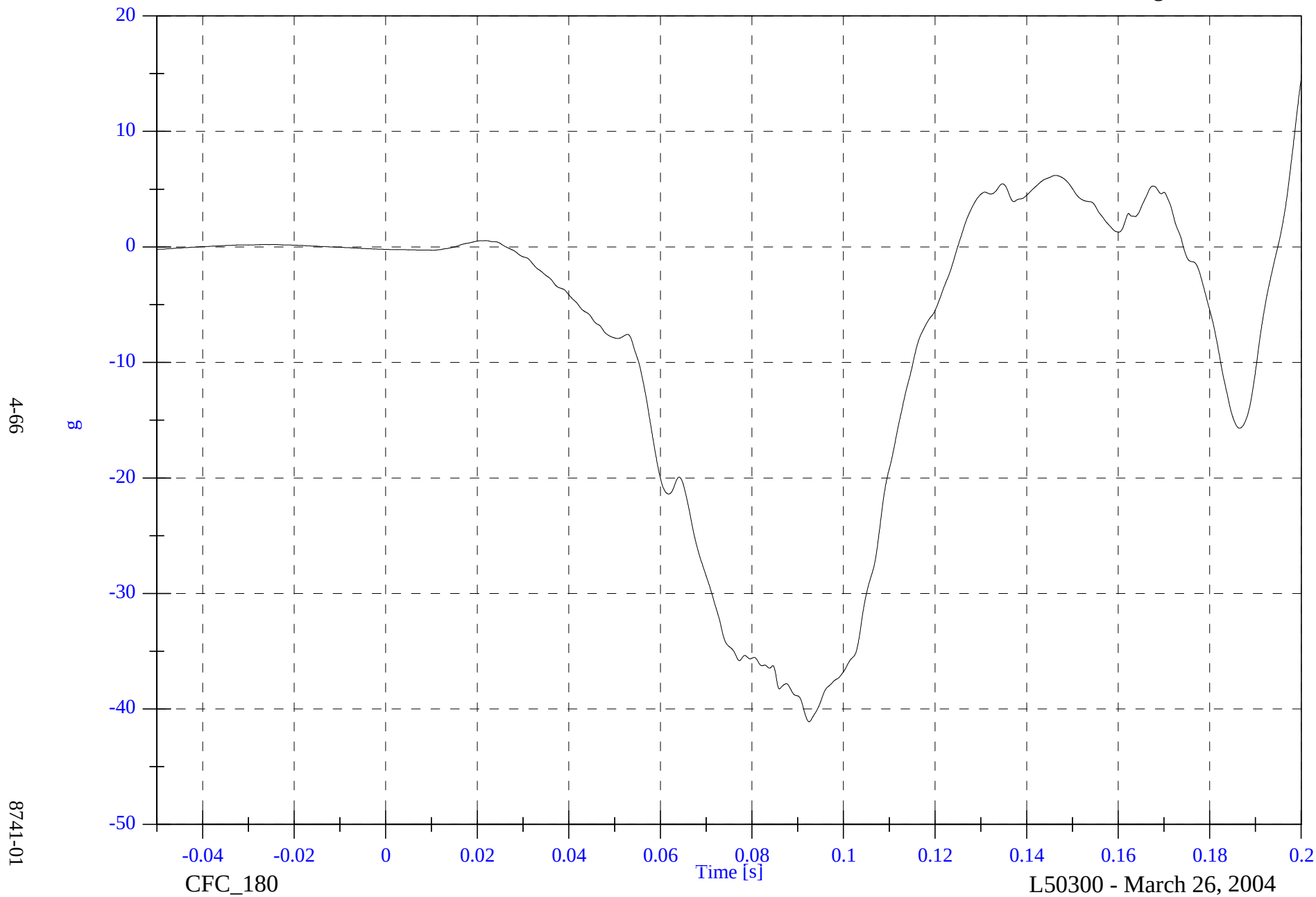
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Chest x

Max: 14.5 [g] at 0.200 [s]

Min: -41.1 [g] at 0.093 [s]

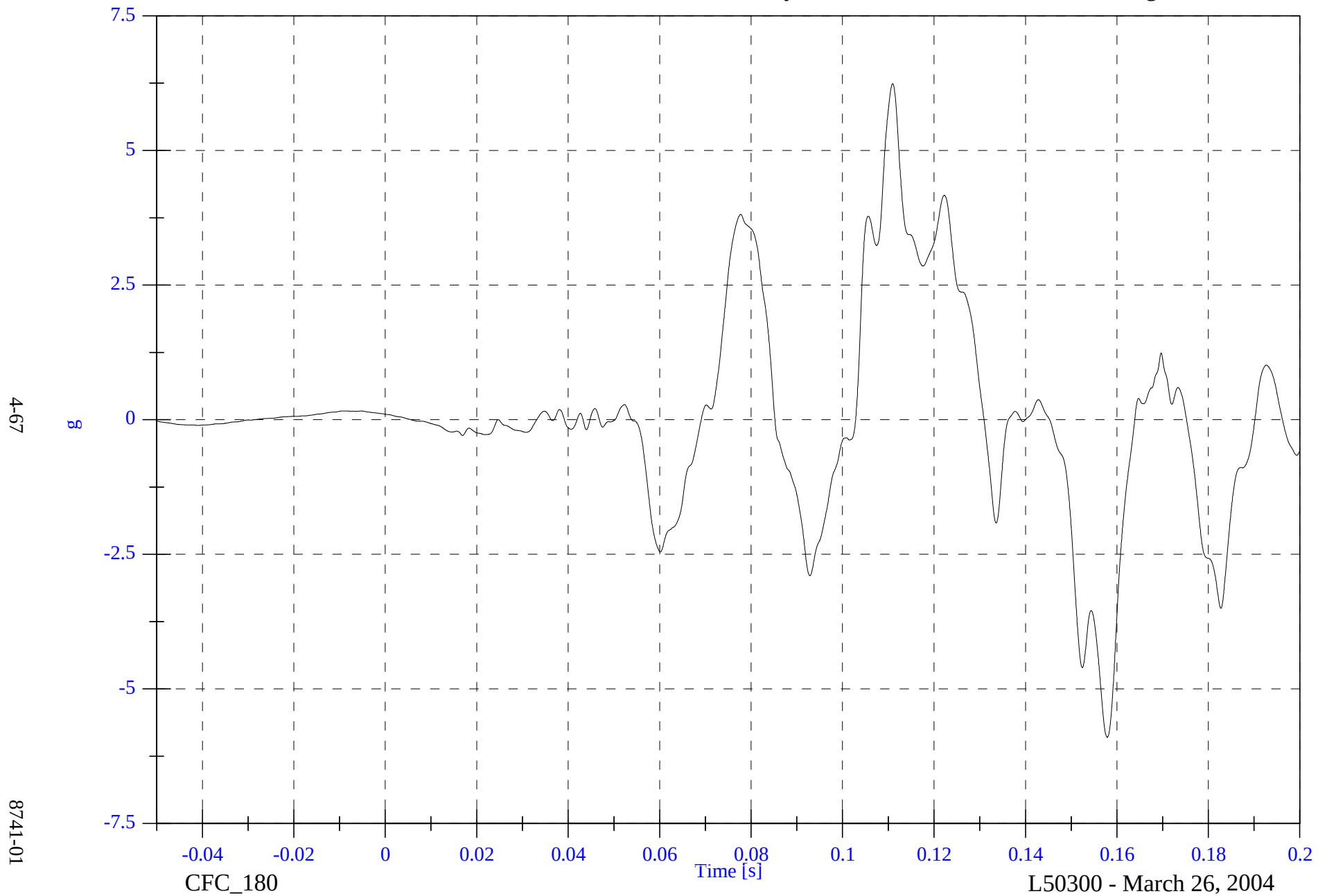


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Chest y

Max: 6.2 [g] at 0.111 [s]

Min: -5.9 [g] at 0.158 [s]



Frontal NCAP- 2005 Chrysler Town & Country

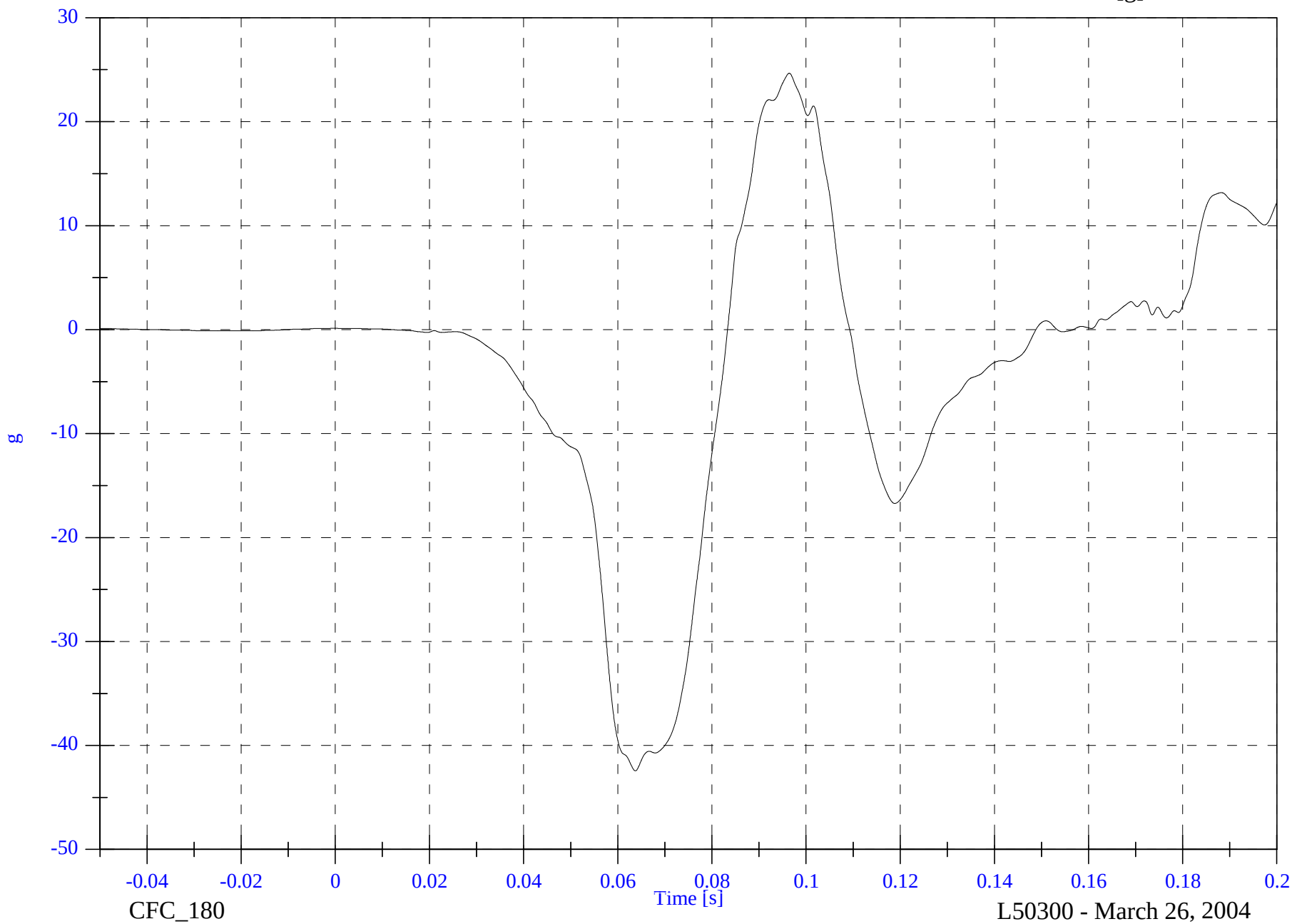
V1P4 Chest z

Max: 24.7 [g] at 0.096 [s]

Min: -42.4 [g] at 0.064 [s]

4-68

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Chest Resultant

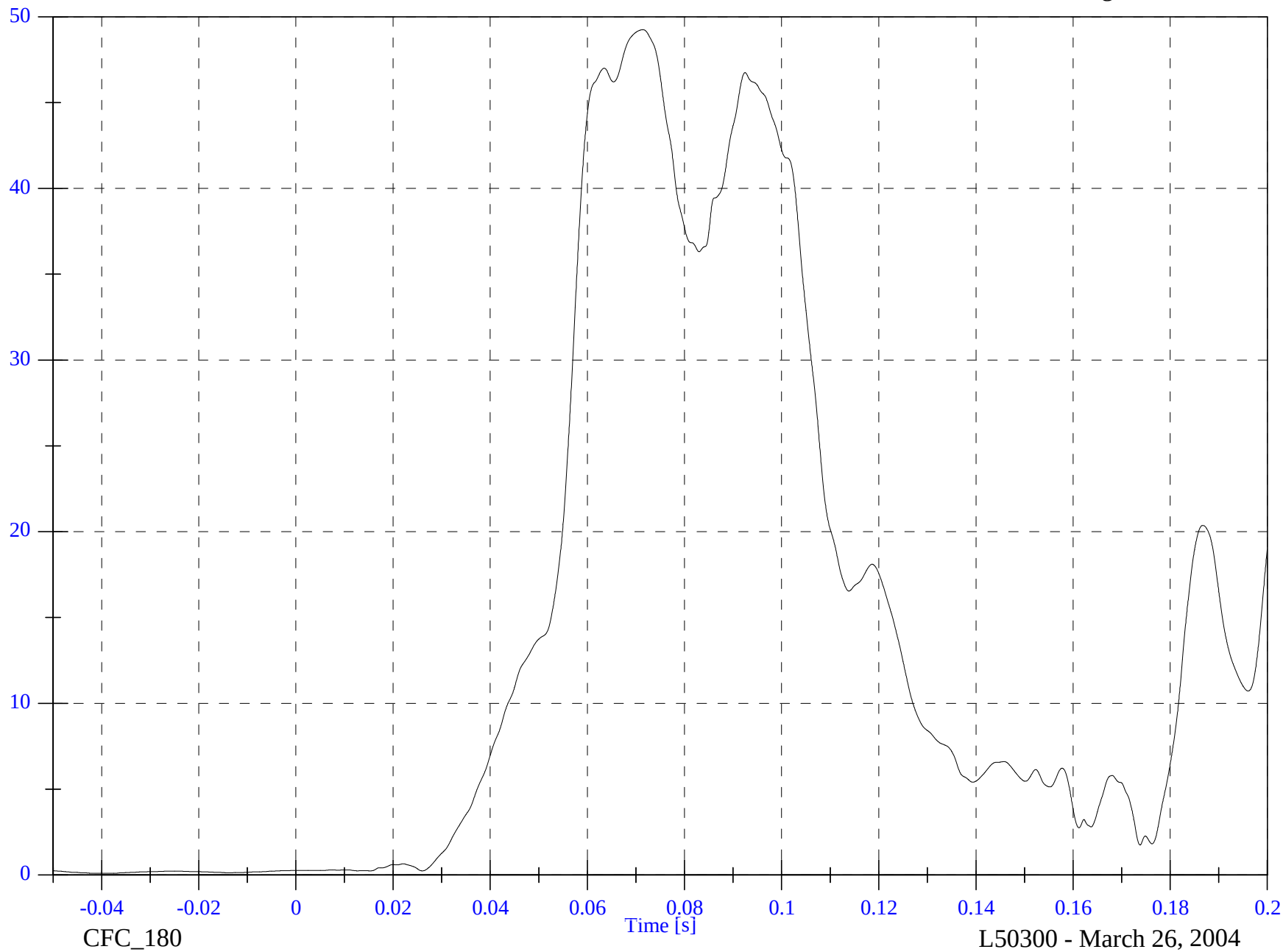
Max: 49.3 [g] at 0.071 [s]

Min: 0.1 [g] at -0.040 [s]

4-69

8741-01

g

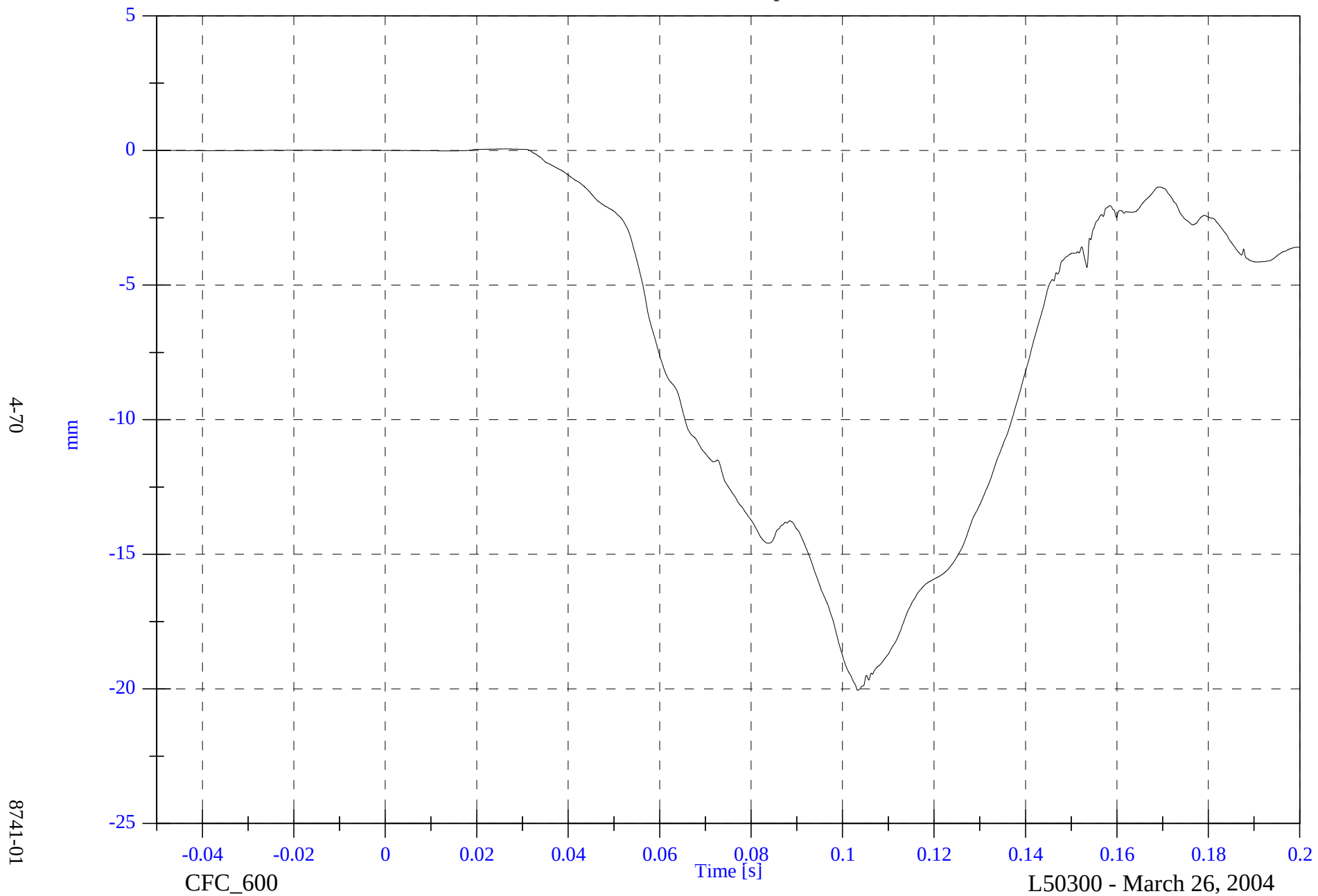


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Chest Compression

Max: 0.1 [mm] at 0.026 [s]

Min: -20.1 [mm] at 0.103 [s]



Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Pelvic x

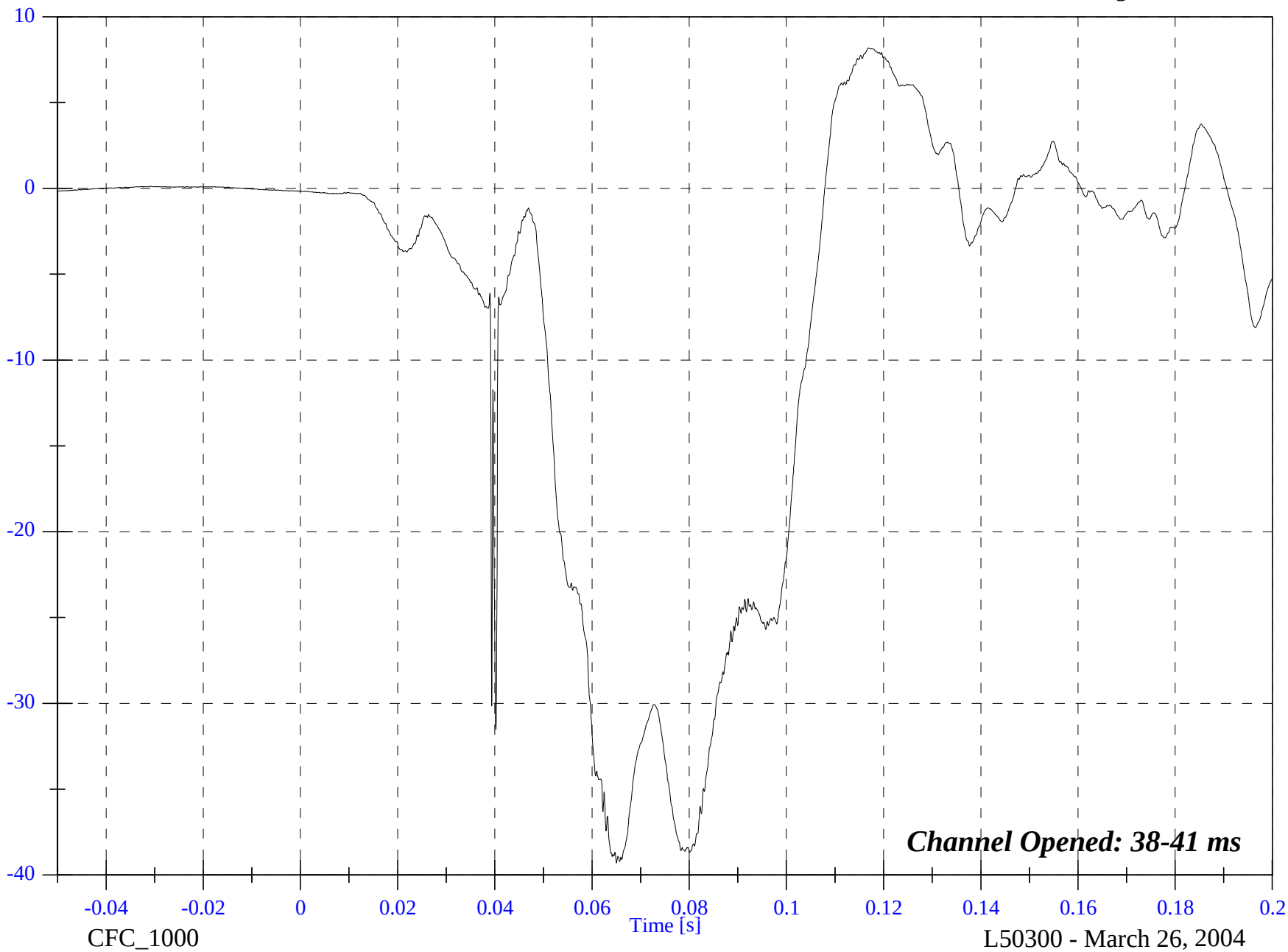
Max: 8.2 [g] at 0.117 [s]

Min: -39.3 [g] at 0.065 [s]

4-71

8741-01

g



Channel Opened: 38-41 ms

CFC_1000

Time [s]

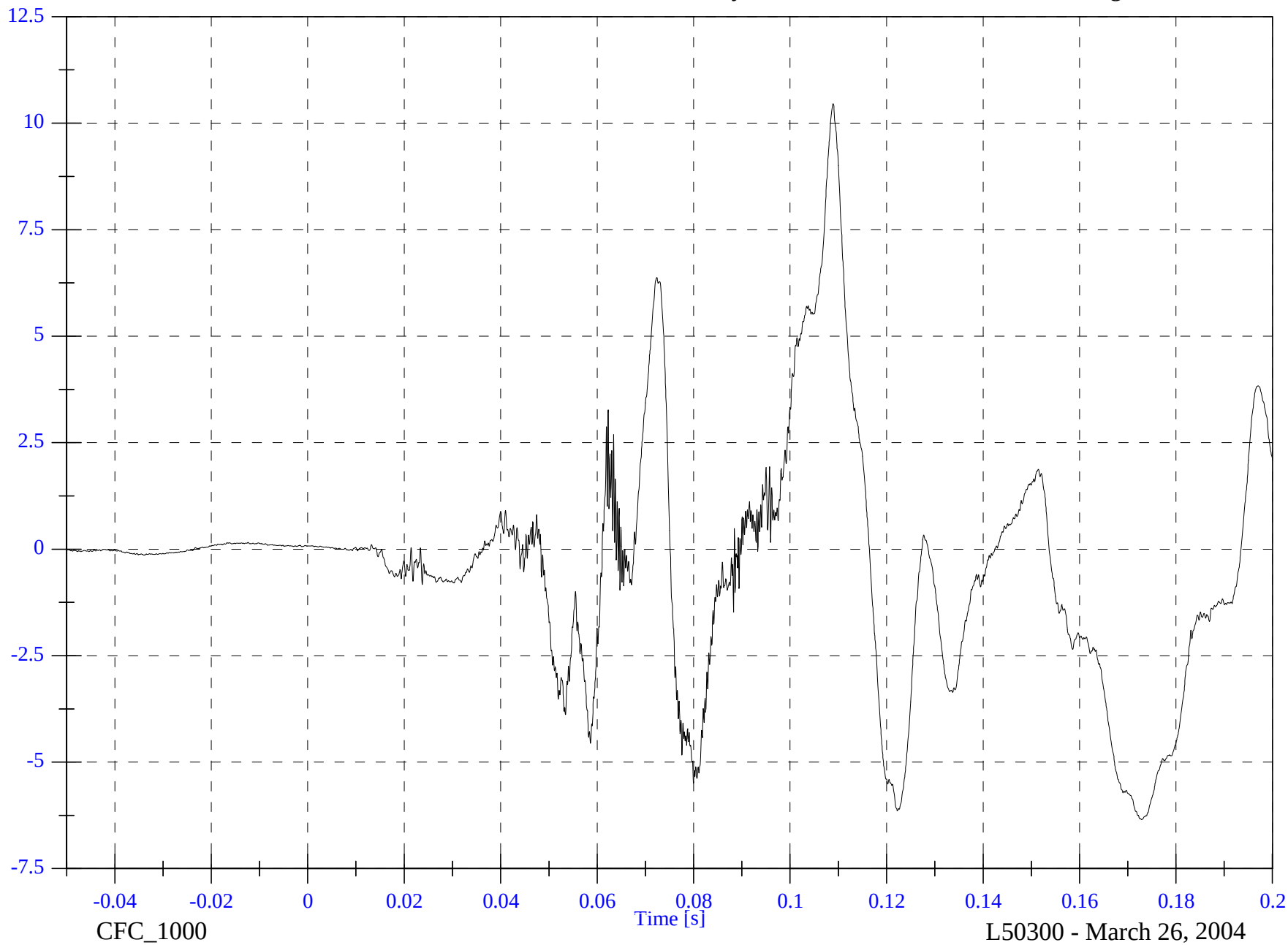
L50300 - March 26, 2004

Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Pelvic y

Max: 10.5 [g] at 0.109 [s]

Min: -6.3 [g] at 0.173 [s]



4-72

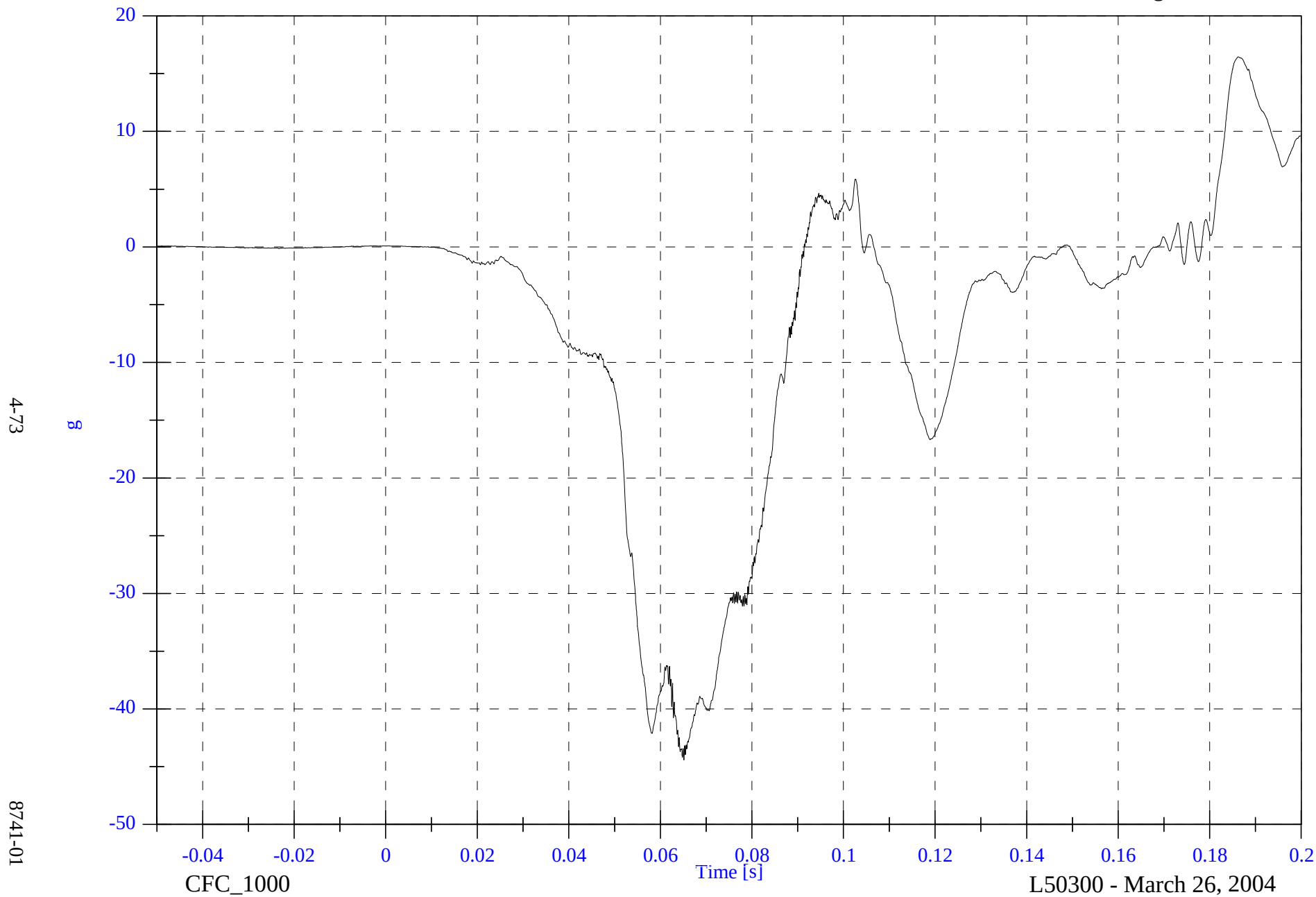
8741-01

Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Pelvic z

Max: 16.4 [g] at 0.186 [s]

Min: -44.4 [g] at 0.065 [s]



Frontal NCAP- 2005 Chrysler Town & Country

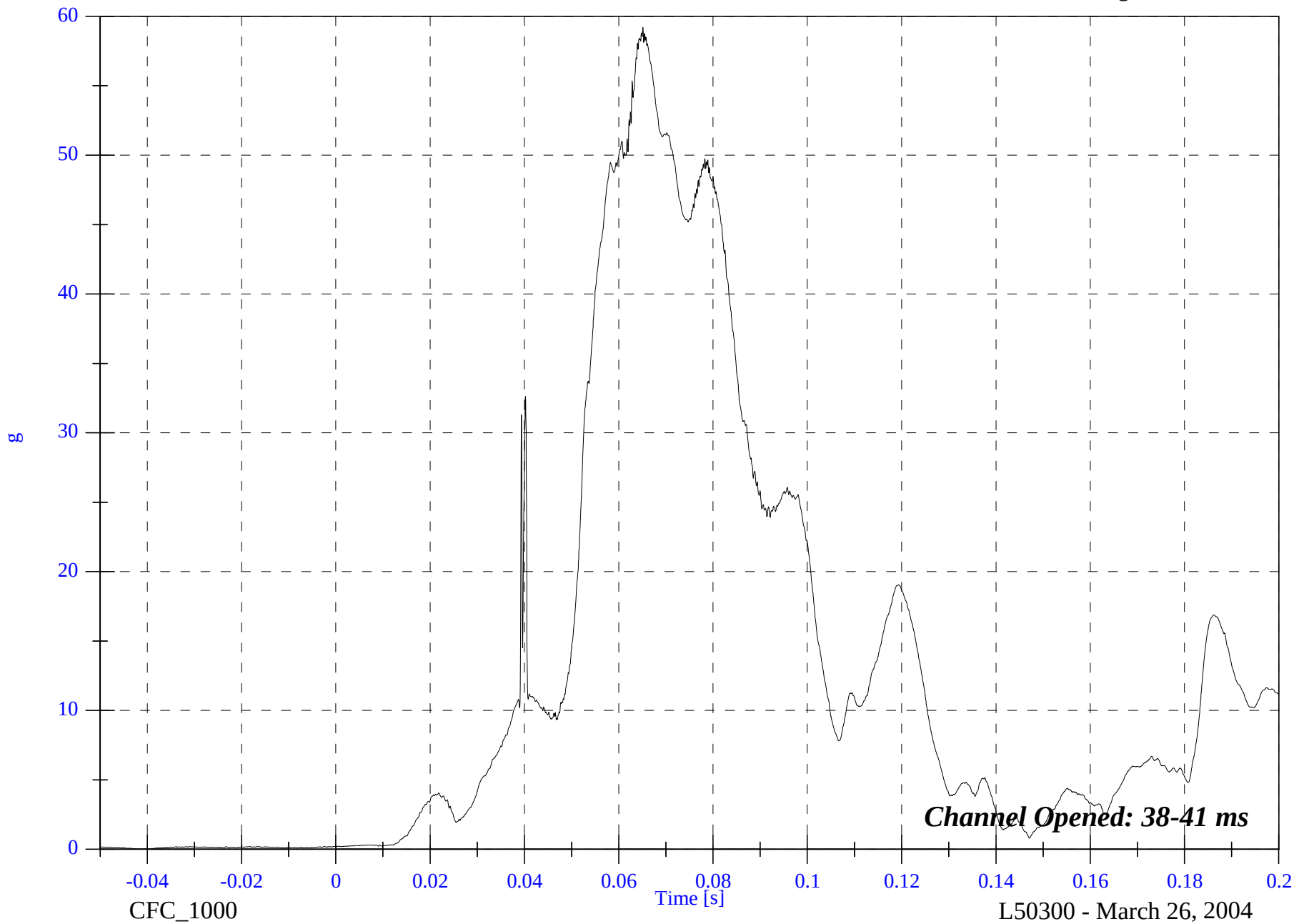
V1P4 Pelvic Resultant

Max: 59.2 [g] at 0.065 [s]

Min: 0.0 [g] at -0.041 [s]

4-74

8741-01

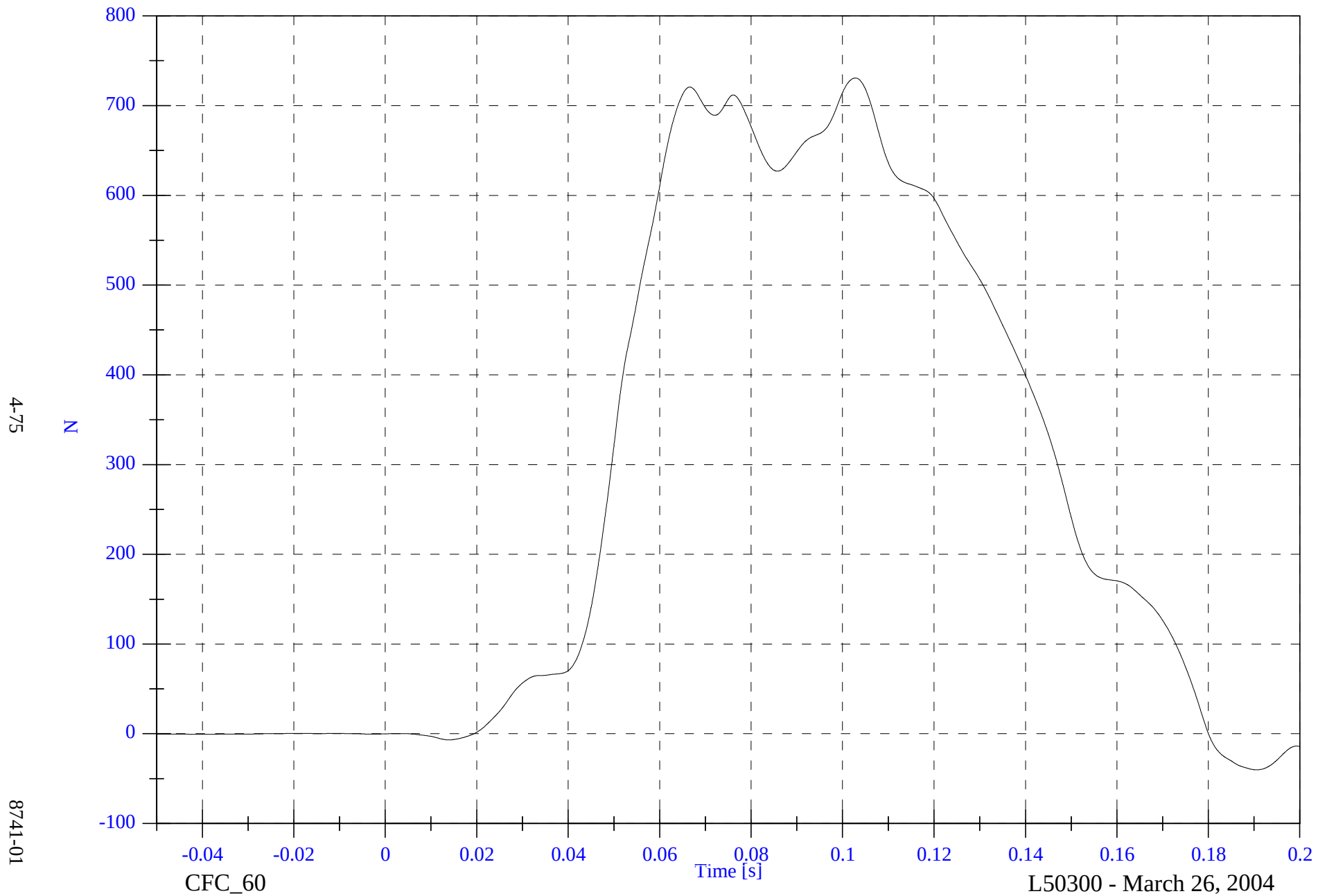


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 Tether Belt

Max: 730.7 [N] at 0.103 [s]

Min: -40.1 [N] at 0.191 [s]



Frontal NCAP- 2005 Chrysler Town & Country

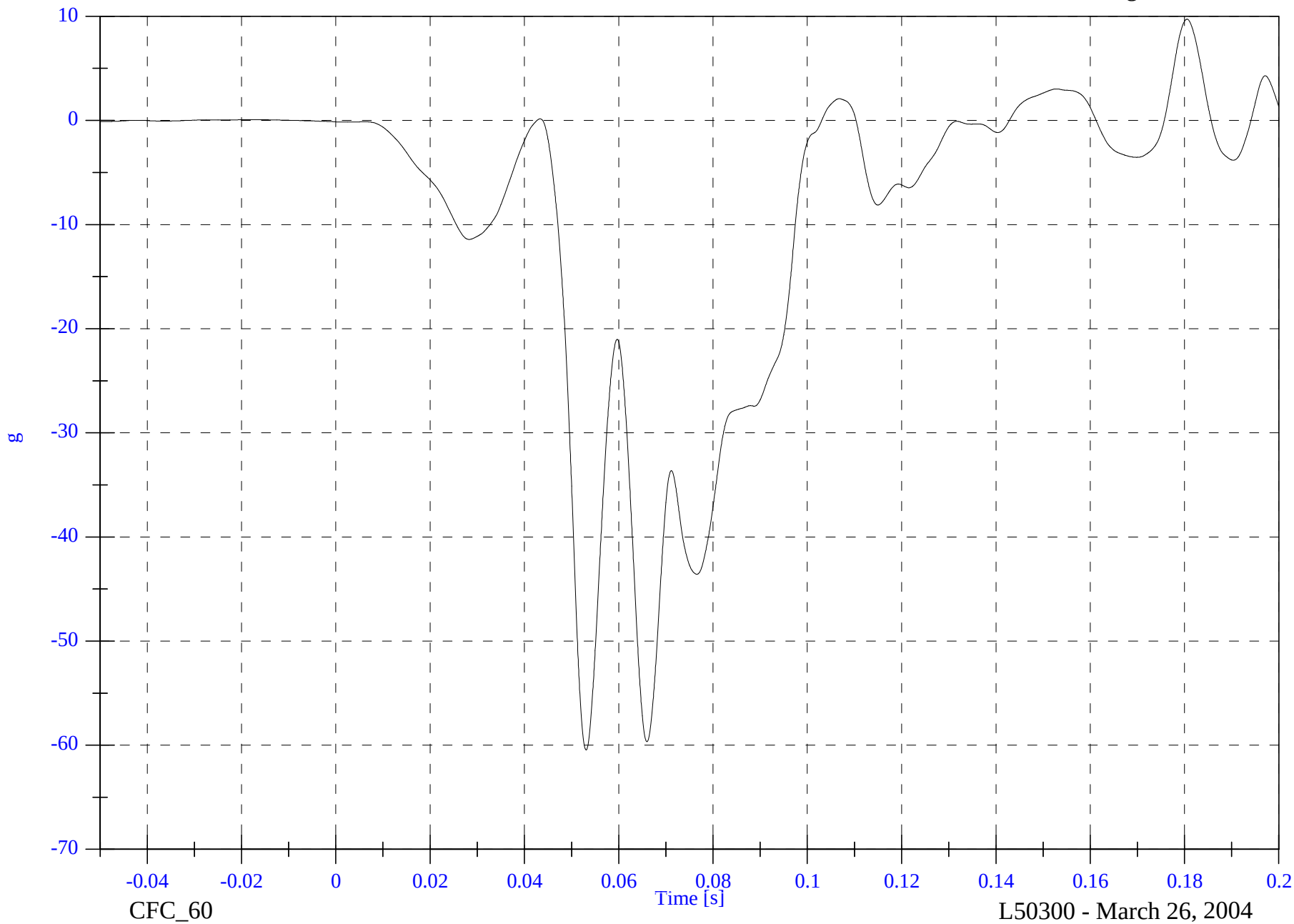
V1P4 CRS x

Max: 9.7 [g] at 0.180 [s]

Min: -60.5 [g] at 0.053 [s]

4-76

8741-01

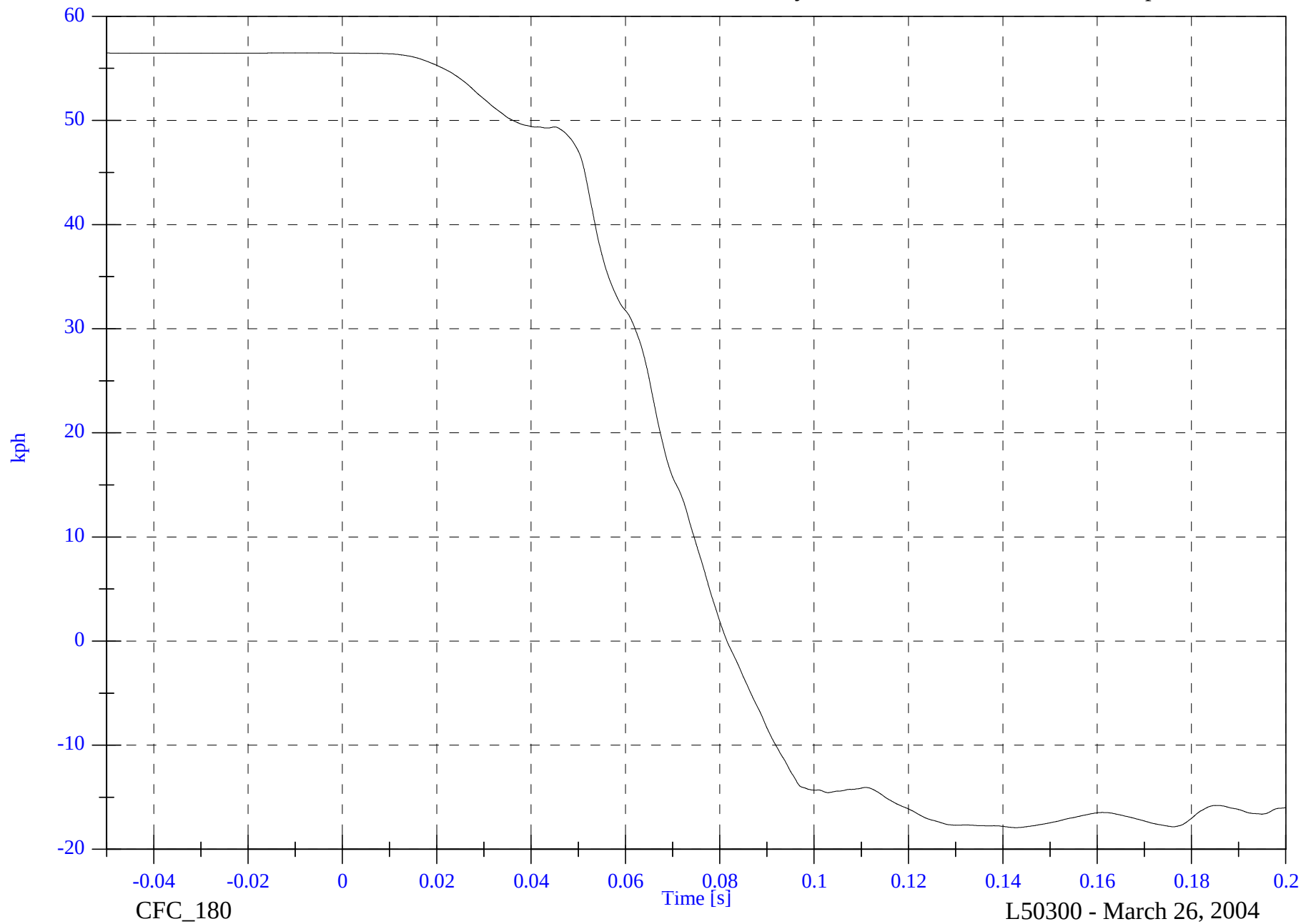


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 CRS x Velocity

Max: 56.5 [kph] at -0.009 [s]

Min: -17.9 [kph] at 0.143 [s]



4-77

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

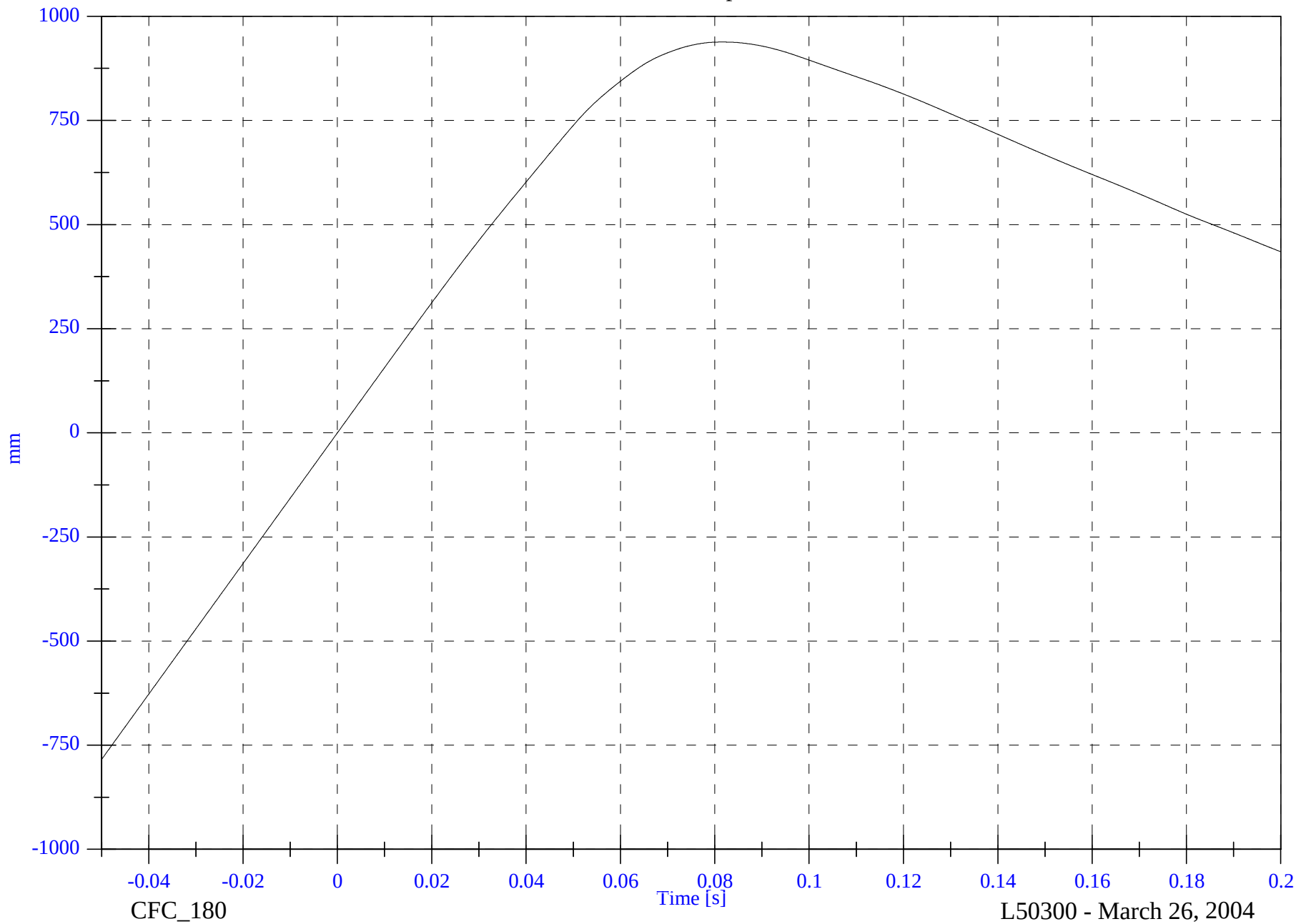
V1P4 CRS x Displacement

Max: 938.4 [mm] at 0.081 [s]

Min: -784.3 [mm] at -0.050 [s]

4-78

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

V1P4 CRS y

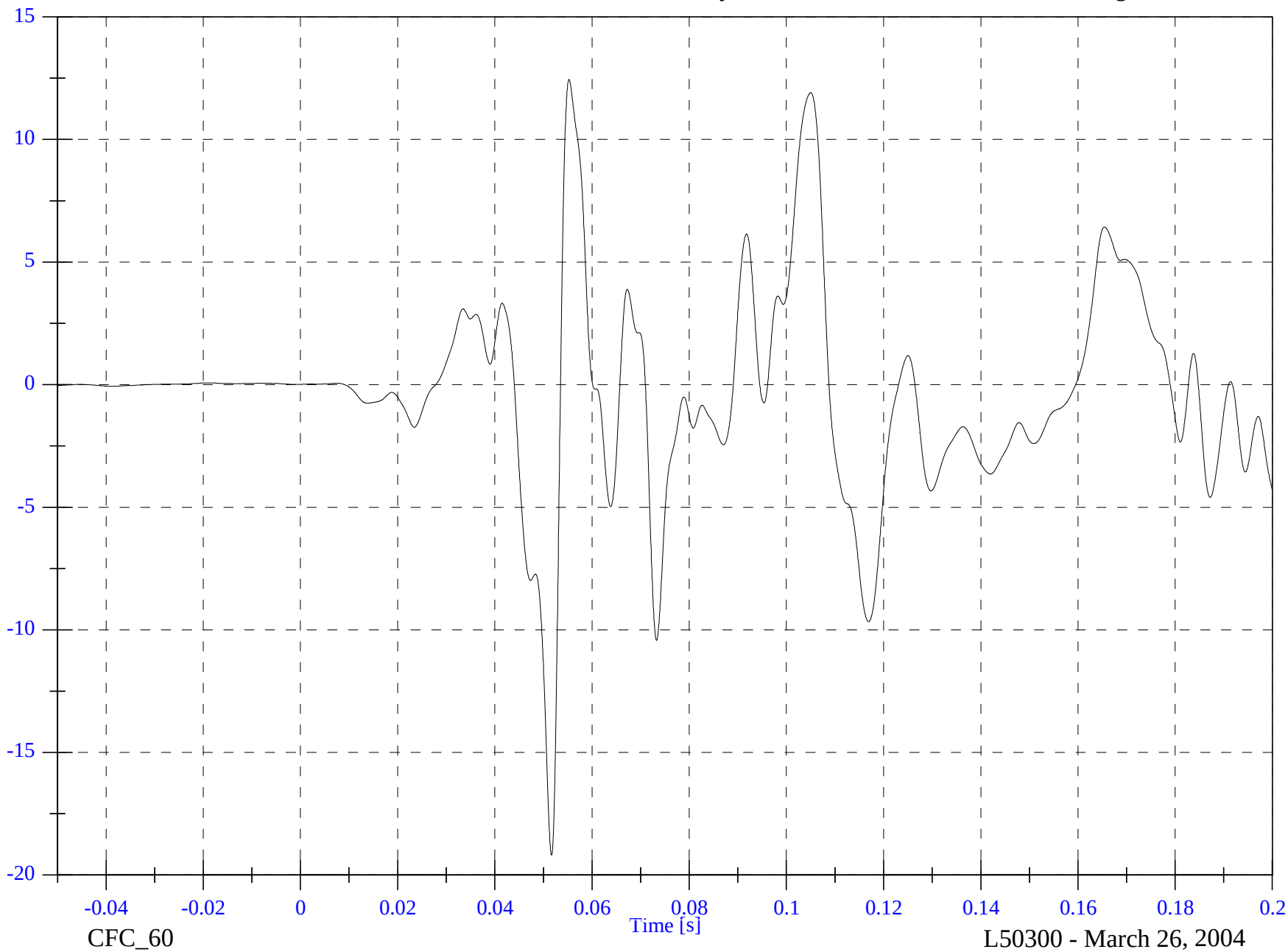
Max: 12.4 [g] at 0.055 [s]

Min: -19.2 [g] at 0.052 [s]

4-79

8741-01

g

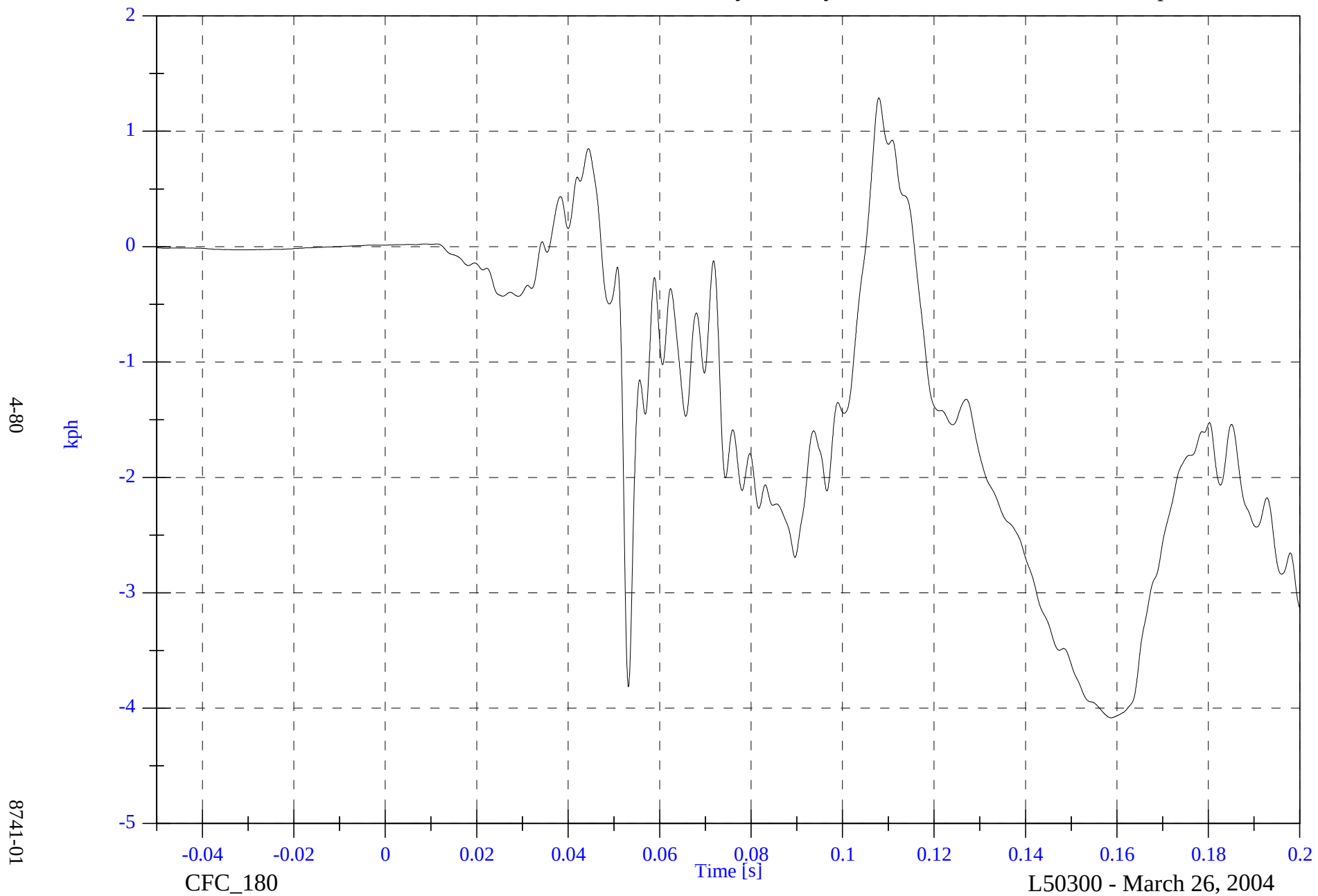


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 CRS y Velocity

Max: 1.3 [kph] at 0.108 [s]

Min: -4.1 [kph] at 0.159 [s]

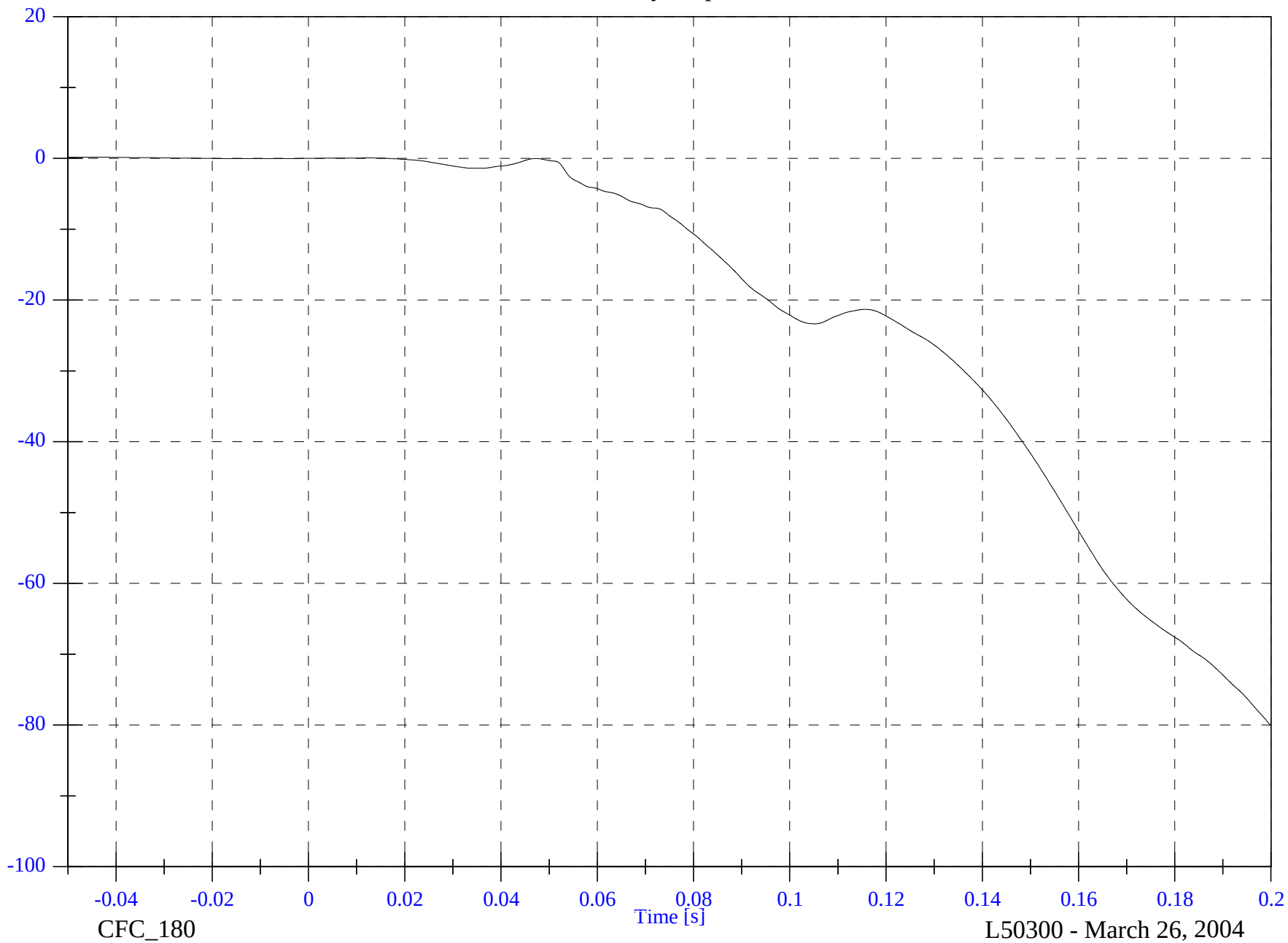


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 CRS y Displacement

Max: 0.2 [mm] at -0.050 [s]

Min: -80.1 [mm] at 0.200 [s]



4-81

8741-01

Frontal NCAP- 2005 Chrysler Town & Country

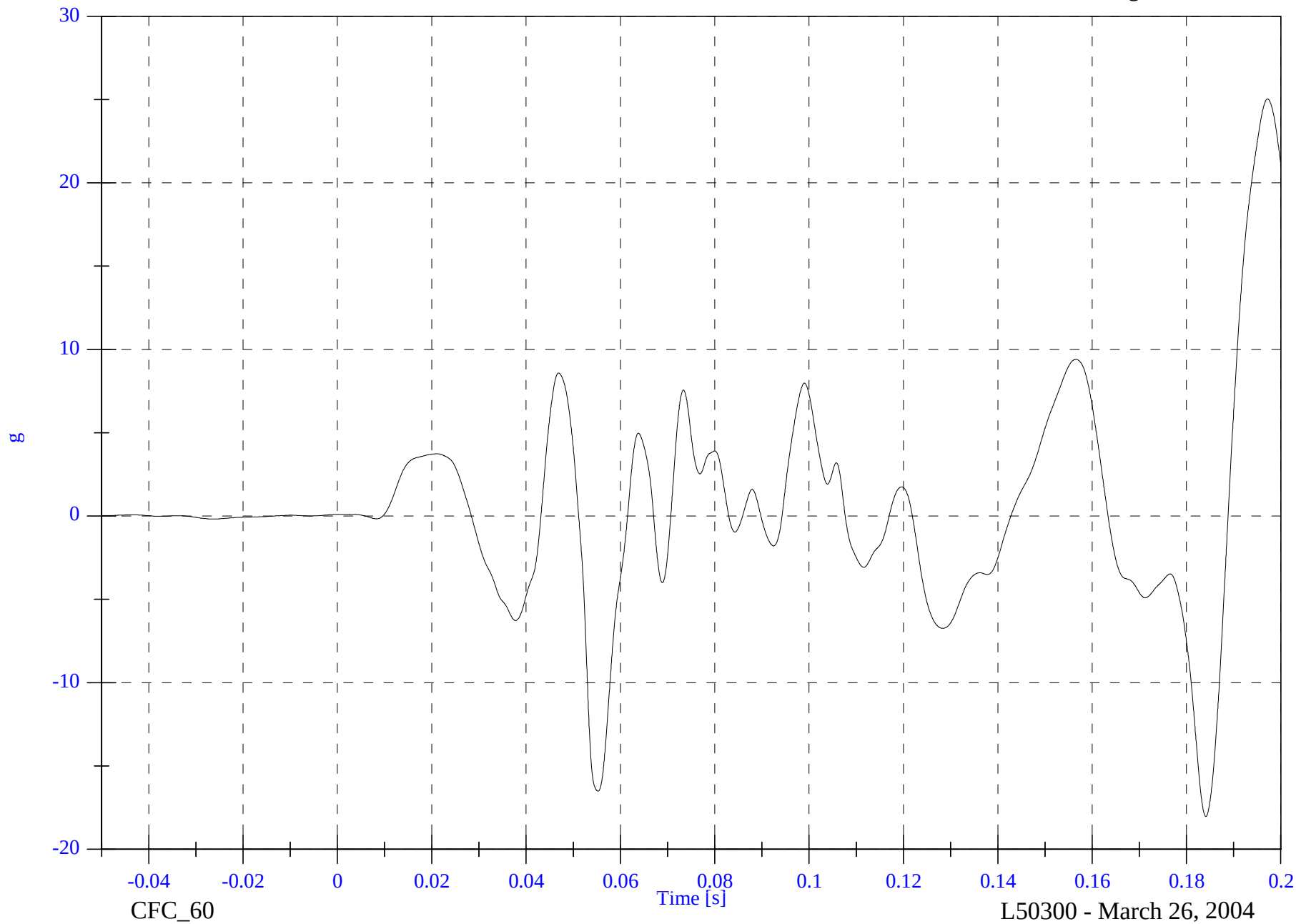
V1P4 CRS z

Max: 25.0 [g] at 0.197 [s]

Min: -18.0 [g] at 0.184 [s]

4-82

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

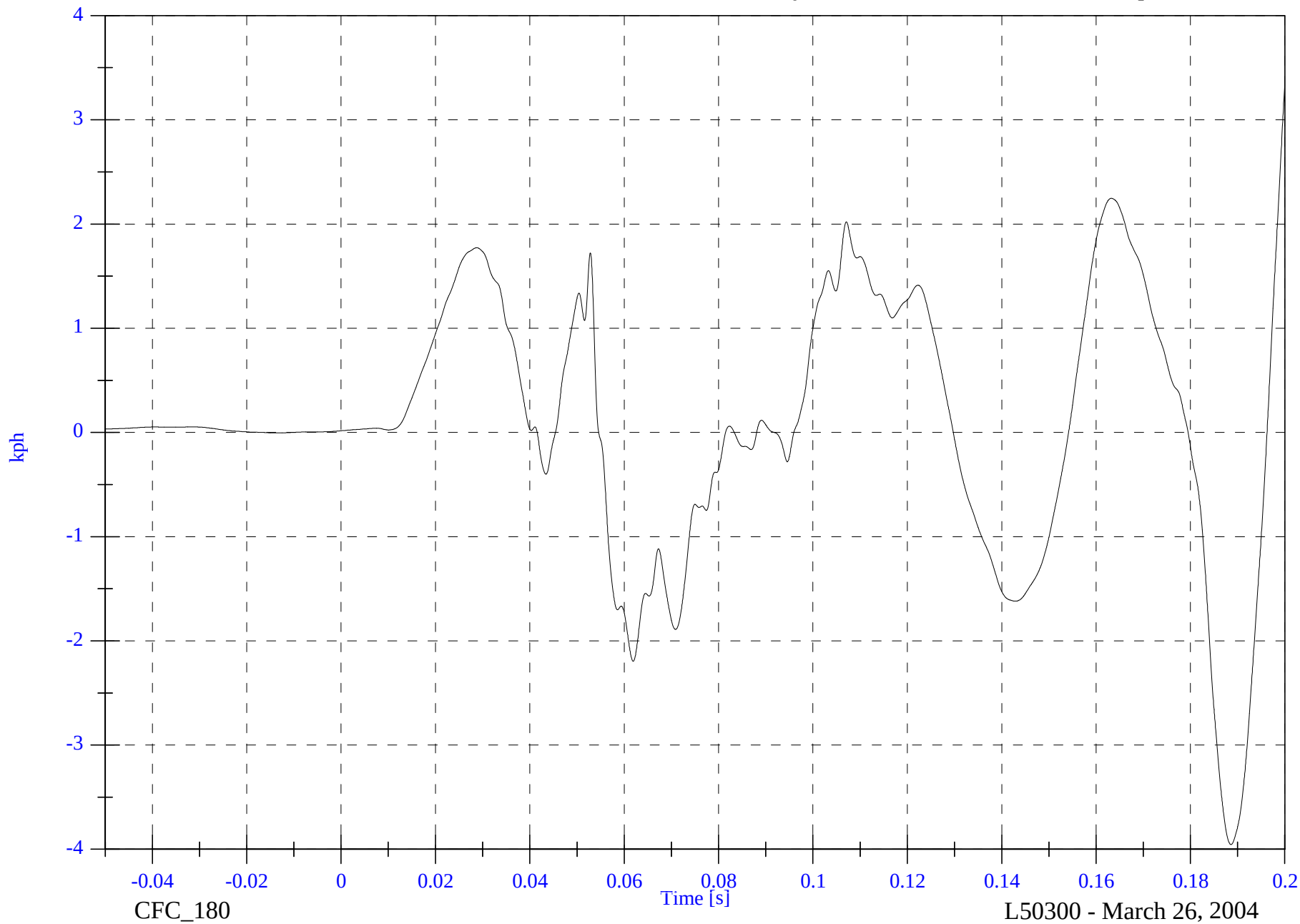
V1P4 CRS z Velocity

Max: 3.3 [kph] at 0.200 [s]

Min: -4.0 [kph] at 0.189 [s]

4-83

8741-01



Frontal NCAP- 2005 Chrysler Town & Country

V1P4 CRS z Displacement

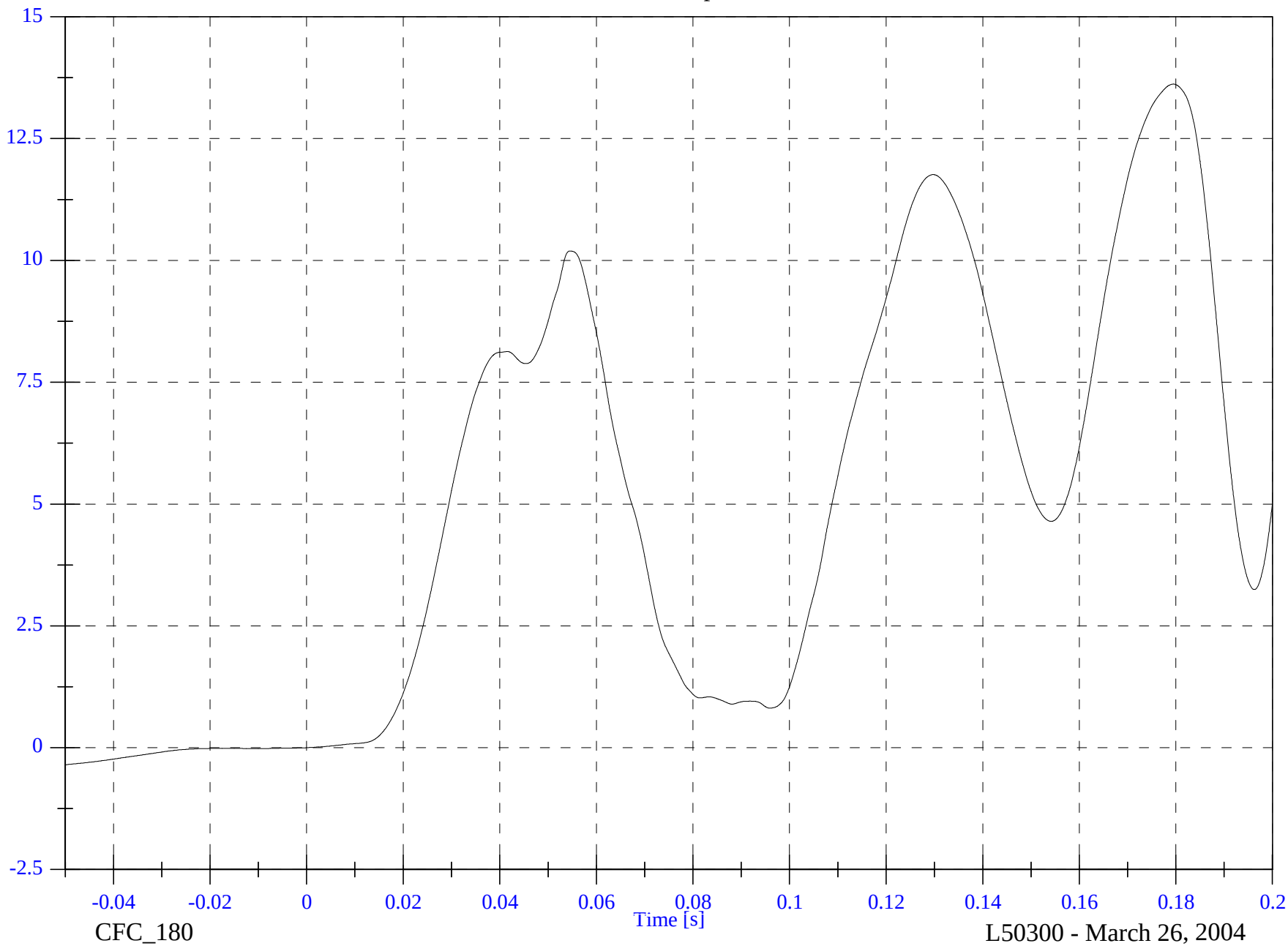
Max: 13.6 [mm] at 0.179 [s]

Min: -0.3 [mm] at -0.050 [s]

4-84

8741-01

mm

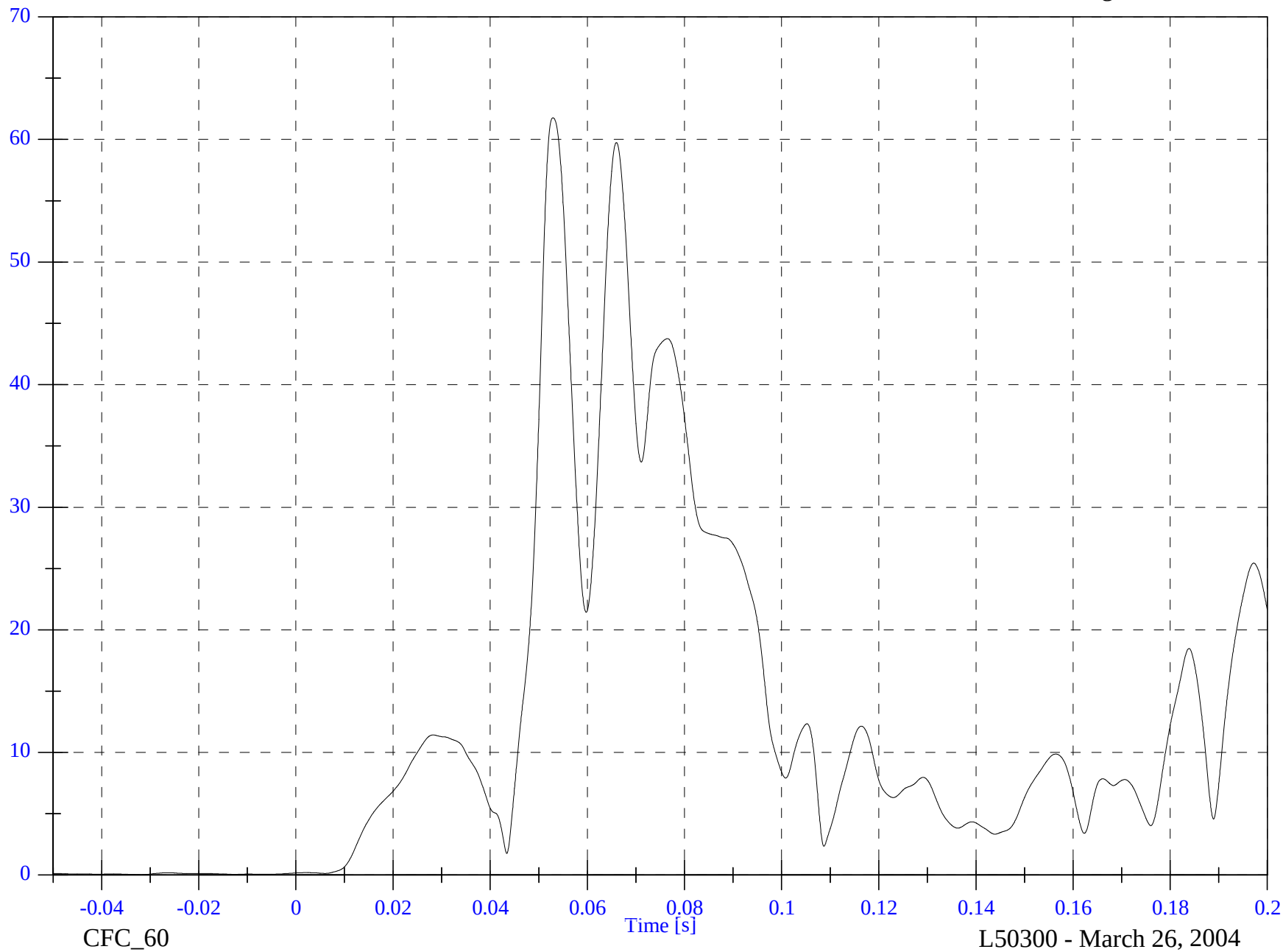


Frontal NCAP- 2005 Chrysler Town & Country

V1P4 CRS Resultant

Max: 61.8 [g] at 0.053 [s]

Min: 0.0 [g] at -0.032 [s]



4-85

8741-01

SECTION 5

CHILD DUMMY CALIBRATION INFORMATION

PART 572P
HEAD DROP TEST

Dummy Serial Number 044
Sequential Test Number 1
Date 01-21-2004
Workfile 044H 01-21-04

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	66-78 Deg F	70.0 F
Relative Humidity	10% - 70%	35.00 %
Peak Resultant Acceleration	250-280 G's	271.45 Gs
Peak Lateral Acceleration	15 G's Max	6.74 Gs
Is Acceleration Curve Unimodal?	<10%	4.71 %

Remarks:

Laboratory Technician: B. Swiecicki

PART 572P
NECK FLEXION TEST

Dummy Serial Number 044
 Sequential Test Number 1
 Date 10-22-03
 Workfile 044NF 10-22-03

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6 – 22.2 Deg C	21.11
Relative Humidity		10% - 70%	38.00
Pendulum Speed		5.40-5.60 m/s	5.46
Pendulum Pulse	10 ms	2.00 – 2.70 m/s	2.14
	15 ms	3.00 – 4.00 m/s	3.13
	20 ms	4.00 – 5.10 m/s	4.30
D Plane Rotation	Max	70.0 – 82.0 Deg	75.72
Maximum Occipital Moment		42.00 - 53.00 N-m	52.40
Occipital Moment Decay		60.0 - 80.0 ms	74.60

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572P
NECK EXTENSION TEST

Dummy Serial Number 044
Sequential Test Number 2
Date 10-22-03
Workfile 044NE2 10-22-03

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6 – 22.2 Deg C	21.11
Relative Humidity		10% - 70%	38.00
Pendulum Speed		3.55 – 3.75 m/s	3.72
Pendulum Pulse	10 ms	1.00 – 1.40 m/s	1.05
	15 ms	1.90 – 2.50 m/s	1.98
	20 ms	2.80 – 3.50 m/s	2.82
D Plane Rotation	Max	83.0 – 93.0 Deg	85.02
Maximum Occipital Moment		-53.30 - -43.70 N-m	-45.28
Occipital Moment Decay		60.0 - 80.0 ms	67.60

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572P
THORAX IMPACT TEST

Dummy Serial Number 044
Sequential Test Number 3
Date 01-22-2004
Workfile 044T3 01-22-04

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	69-72 Deg F	70.0 F
Relative Humidity	10% - 70%	35.00 %
Pendulum Velocity	19.40 – 20.00 Ft/s	19.67 ft/s
Maximum Deflection	1.30 – 1.50 in	1.35 in
Maximum Resistive Force	152.90 – 182.10 Lbs	168.03 lbf
Internal Hysteresis	65 - 85 %	72.89 %
Sternum Force Criteria	193.30 lbf	186.73 lbf

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572P
EXTERNAL DIMENSIONS

Dummy Serial Number 044
Sequential Test Number 2
Date 10/23/03

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	21.2 – 21.8 in	21.38
Shoulder Pivot Height	B	12.1 - 12.7 in	12.40
H-Point Height	C	1.35 – 1.75 in	1.57
H-Point from Backline	D	2.24 – 2.64 in	2.76
Shoulder Pivot from Backline	E	2.40 – 2.80 in	2.76
Thigh Clearance	F	3.19 – 3.59 in	3.27
Back of Elbow to Fingertip	G	9.74 – 10.34 in	10.04
Head back from Backline	H	1.9 – 2.3 in	2.17
Shoulder - Elbow Length	I	7.3 – 7.9 in	7.87
Elbow Rest Height	J	5.26 – 5.86 in	5.31
Buttock to Knee Length	K	11.21 – 11.81 in	11.42
Popliteal Height	L	8.60 – 9.20 in	8.86
Knee Pivot Height	M	9.51 – 10.11 in	9.84
Buttock Popliteal Length	N	8.58 - 9.18 in	8.86
Chest Depth with Jacket	O	5.45 - 6.05 in	5.98
Foot Length	P	5.42 – 5.82 in	5.47
Stature	Q	36.7 – 37.7 in	37.00
Buttock to Knee Pivot Length	R	9.9 - 10.3 in	10.04
Head Breadth	S	5.15 – 5.55 in	5.16
Head Depth	T	6.59 -7.19 in	6.81
Hip Breadth	U	7.9 – 8.5 in	8.14
Shoulder Breadth	V	9.31 – 9.91in	9.49
Foot Breadth	W	2.11 – 2.51 in	2.32
Head Circumference	X	19.7 – 20.3 in	20.00
Chest Circumference (With Jacket)	Y	20.75 – 21.75 in	21.65
Waist Circumference	Z	20.75 – 21.75 in	21.69
Location for Chest Circumference	AA	9.8 – 10.2 in	10.04
Location for Waist Circumference	BB	6.3 – 6.7 in	6.50

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572P
HEAD DROP TEST

Dummy Serial Number 142
Sequential Test Number 1
Date 01-12-2004
Workfile 142H2 01-12-04

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	66-78 Deg F	70.00 F
Relative Humidity	10% - 70%	33.00 %
Peak Resultant Acceleration	250-280 G's	263.52 Gs
Peak Lateral Acceleration	15 G's Max	12.48 Gs
Is Acceleration Curve Unimodal?	<10%	4.38 %

Remarks:

Laboratory Technician: B. Swiecicki

PART 572P
NECK FLEXION TEST

Dummy Serial Number 142
Sequential Test Number 1
Date 12-11-03
Workfile 142nf 12-11-03

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6 – 22.2 Deg C	21.11
Relative Humidity		10% - 70%	27.0
Pendulum Speed		5.40-5.60 m/s	5.55
Pendulum Pulse	10 ms	2.00 – 2.70 m/s	2.05
	15 ms	3.00 – 4.00 m/s	3.03
	20 ms	4.00 – 5.10 m/s	4.13
D Plane Rotation	Max	70.0 – 82.0 Deg	80.64
Maximum Occipital Moment		42.00 - 53.00 N-m	42.46
Occipital Moment Decay		60.0 - 80.0 ms	69.60

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572P
NECK EXTENSION TEST

Dummy Serial Number 142
Sequential Test Number 2
Date 12-11-03
Workfile 142ne2 12-11-03

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6 – 22.2 Deg C	21.11
Relative Humidity		10% - 70%	27.00
Pendulum Speed		3.55 – 3.75 m/s	3.60
Pendulum Pulse	10 ms	1.00 – 1.40 m/s	1.10
	15 ms	1.90 – 2.50 m/s	2.02
	20 ms	2.80 – 3.50 m/s	2.85
D Plane Rotation	Max	83.0 – 93.0 Deg	83.64
Maximum Occipital Moment		-53.30 - -43.70 N-m	-52.76
Occipital Moment Decay		60.0 - 80.0 ms	72.40

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572P
THORAX IMPACT TEST

Dummy Serial Number 142
Sequential Test Number 1
Date 12-12-03
Workfile 142T 12-12-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	69-72 Deg F	70.0
Relative Humidity	10% - 70%	35.0
Pendulum Velocity	19.40 – 20.00 Ft/s	19.70
Maximum Deflection	1.30 – 1.50 in	1.30
Maximum Resistive Force	152.90 – 182.10 Lbs	167.53
Internal Hysteresis	65 - 85 %	76.46
Sternum Force Criteria	193.30 lbf	179.91

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572P
EXTERNAL DIMENSIONS

Dummy Serial Number 142
Sequential Test Number 1
Date 12-11-03

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	21.2 – 21.8 in	21.2
Shoulder Pivot Height	B	12.1 - 12.7 in	12.4
H-Point Height	C	1.35 – 1.75 in	1.55
H-Point from Backline	D	2.24 – 2.64 in	2.5
Shoulder Pivot from Backline	E	2.40 – 2.80 in	2.6
Thigh Clearance	F	3.19 – 3.59 in	3.5
Back of Elbow to Fingertip	G	9.74 – 10.34 in	10.1
Head back from Backline	H	1.9 – 2.3 in	2.1
Shoulder - Elbow Length	I	7.3 – 7.9 in	7.7
Elbow Rest Height	J	5.26 – 5.86 in	5.5
Buttock to Knee Length	K	11.21 – 11.81 in	11.5
Popliteal Height	L	8.60 – 9.20 in	8.9
Knee Pivot Height	M	9.51 – 10.11 in	9.75
Buttock Popliteal Length	N	8.58 - 9.18 in	9.0
Chest Depth with Jacket	O	5.45 - 6.05 in	5.8
Foot Length	P	5.42 – 5.82 in	5.8
Stature	Q	36.7 – 37.7 in	37.0
Buttock to Knee Pivot Length	R	9.9 - 10.3 in	10.25
Head Breadth	S	5.15 – 5.55 in	5.4
Head Depth	T	6.59 -7.19 in	6.9
Hip Breadth	U	7.9 – 8.5 in	8.1
Shoulder Breadth	V	9.31 – 9.91in	9.9
Foot Breadth	W	2.11 – 2.51 in	2.3
Head Circumference	X	19.7 – 20.3 in	20.3
Chest Circumference (With Jacket)	Y	20.75 – 21.75 in	21.4
Waist Circumference	Z	20.75 – 21.75 in	21.4
Location for Chest Circumference	AA	9.8 – 10.2 in	10.00
Location for Waist Circumference	BB	6.3 – 6.7 in	6.50

Remarks:

Laboratory Technician:

B. Swiecicki

SECTION 6

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

HYBRID III INSTRUMENTATION

	POSITION #3 (RIGHT) SERIAL NO.: 044		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	ENDEVCO	AC-P32218	02/17/04
HEAD AY	ENDEVCO	AC-P17743	10/21/03
HEAD AZ	ENDEVCO	AC-P15319	10/21/03
HEAD REAR AZ	ENTRAN	AC-02I02I10-N06	12/08/03
UPPER NECK FX	DENTON	LC-248-FX	10/01/03
UPPER NECK FY	DENTON	LC-248-FY	10/01/03
UPPER NECK FZ	DENTON	LC-248-FZ	10/01/03
UPPER NECK MX	DENTON	LC-248-MX	10/01/03
UPPER NECK MY	DENTON	LC-248-MY	10/01/03
UPPER NECK MZ	DENTON	LC-248-MZ	10/01/03
LOWER NECK FX	DENTON	LC-249FX	10/01/03
LOWER NECK FY	DENTON	LC-249FY	10/01/03
LOWER NECK FZ	DENTON	LC-249FZ	10/01/03
LOWER NECK MX	DENTON	LC-249MX	10/01/03
LOWER NECK MY	DENTON	LC-249MY	10/01/03
LOWER NECK MZ	DENTON	LC-249MZ	10/01/03
CHEST AX	ENDEVCO	AC-P15334	10/21/03
CHEST AY	ENDEVCO	AC-P15321	10/21/03
CHEST AZ	ENDEVCO	AC-P17758	10/21/03
CHEST DISPLACEMENT X	SERVO	DS-044	11/22/03
PELVIS AX	ENDEVCO	AC-P16755	10/21/03
PELVIS AY	ENDEVCO	AC-P15591	10/21/03
PELVIS AZ	ENDEVCO	AC-P16155	10/21/03
TETHER BELT LOAD	LEBOW	LC-706	10/08/03

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

HYBRID III INSTRUMENTATION

	POSITION #4 (LEFT) SERIAL NO.: 142		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	ENDEVCO	AC-P23804	02/24/04
HEAD AY	ENTRAN	AC-99102-F12	02/24/04
HEAD AZ	ENDEVCO	AC-00L13-F03	02/24/04
HEAD REAR AZ	ENDEVCO	AC-P23926	02/23/04
UPPER NECK FX	DENTON	LC-213FX	10/01/03
UPPER NECK FY	DENTON	LC-213FY	10/01/03
UPPER NECK FZ	DENTON	LC-213FZ	10/01/03
UPPER NECK MX	DENTON	LC-213MX	10/01/03
UPPER NECK MY	DENTON	LC-213MY	10/01/03
UPPER NECK MZ	DENTON	LC-213MZ	10/01/03
LOWER NECK FX	DENTON	LC-214FX	10/01/03
LOWER NECK FY	DENTON	LC-214FY	10/01/03
LOWER NECK FZ	DENTON	LC-214FZ	10/01/03
LOWER NECK MX	DENTON	LC-214MX	10/01/03
LOWER NECK MY	DENTON	LC-214MY	10/01/03
LOWER NECK MZ	DENTON	LC-214MZ	10/01/03
CHEST AX	ENTRAN	AC-99108-F30	02/24/04
CHEST AY	ENTRAN	AC-99108-F28	02/24/04
CHEST AZ	ENTRAN	AC-99H30-Z04	02/24/04
CHEST DISPLACEMENT X	SERVO	DS-142	09/18/03
PELVIS AX	ENTRAN	AC-99102-F06	02/23/04
PELVIS AY	ENTRAN	AC-99102-F15	02/23/04
PELVIS AZ	ENTRAN	AC-99G29-Q13	02/23/04
TETHER BELT LOAD	FIRST TECHNOLOGY	LC-174	10/10/03

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

CRS INSTRUMENTATION

	CRS ACCELEROMETERS		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
P3 CRS AX	ENDEVCO	AC-J37854	03/22/04
P3 CRS AY	ENDEVCO	AC-J38127	03/22/04
P3 CRS AZ	ENDEVCO	AC-J37980	03/22/04
P4 CRS AX	ENDEVCO	AC-P23993	03/22/04
P4 CRS AY	ENDEVCO	AC-P23999	03/22/04
P4 CRS AZ	ENDEVCO	AC-P23939	03/22/04