

EA02-025

FORD

10/27/03

BOOK 29 OF 61

PART 5 OF 5

BOX 23 OF 28

REPORT

12/08/98

MASTER OWNER RELATIONS SYSTEM II

13.52.33

1999RE

LEGAL CONTACT

* VEH TYPE: CAR

ORLANDO

24

ZN/TR: AZ

CONTACT NBR: 108625526

OPENED: 07/07/1997

VIN:

2FACP74WXXN

ENGINE: W

CLOSED: 07/07/1997

LAST NAME:

STATUS: CLOSED

TITLE:

FIRST NAME:

MI:

ADDRESS:

CITY:

MIAMI

STATE:

FL

ZIP:

HOME PHONE:

BUS. PHONE:

MODEL YEAR:

92

MODEL:

CROWN VICTORIA

MILEAGE:

66215

WSD:

DEALER NAME: DEEL FORD

SALES CODE: 124004

P & A: 04972

CAUSAL CODE: 0709

SYMPTOMS: 704145

ORIGIN:

GO

TRANS REGION: 24

TRANS DATE:

VEH REPL:

CASE TYPE:

4A-FIRES - ELECTRICAL MEANS CODE: A-LGL INVEST-PROD LIABILITY

ATTY NAME:

ATTY MEMO:

CLAIM AMT:

0

AWARD AMT:

0

MICRO: 5062272

COMMENTS:

1997/07/07

*** DEALER FAX RECEIVED 7/2/97 BY CONSUMER AFFAIRS ***

*** NAVIS: PROGRAM ***

-DEALER CONTACT: JOHN BOYCE (305)661-6111 EXT 332

-6/30/97-VEHICLE CAUGHT FIRE IN THE ENGINE COMPARTMENT WHILE SITTING IN DEALER'S LOT

-FIRE ALSO DAMAGED A 1988 F-150 THAT WAS SITTING IN FRONT OF THE CROWN VICTORIA; F-150 OWNED BY MIKE O'BRIAN; VIN 1FTDF15N8JMB57001

-STATE FARM INS WAS BEEN CONTACTED; ROBERT DANN (AGENT) (305)251-4534

-COPY OF FIRE REPORTS PROVIDED BY DEALER

JOHN BOYCE (SRVC MGR) SAYS:

-DEALER HAD SERVICED THE VEHICLE BECAUSE THE AIRBAG SFS LIGHT WAS ON. DAVID WATSON (TECH) CHECKED THE CODES AND REPLACED THE AIRBAG MODULE, AND A BLOWN FUSE FOR THE BRAKE SWITCH. THE VEHICLE HAD BEEN SITTING IN THE PARKING LOT FOR AN HOUR BEFORE THE FIRE OCCURED.

-STATE FARM WANTED DEALER TO SIGN A RELEASE SO THEY COULD TAKE THE VEHICLE AWAY FROM THE DEALERSHIP, BUT DEALER DECLINED SO THAT DEALER'S INS CO (UNIVERSAL UNDERWRITERS) AND FORD COULD INSPECT IF NECESSARY

-EXPECTS STATE FARM TO SUBROGATE THE DEALER'S INS CO

-MR. O'BRIAN'S INS CO (PROGRESSIVE) HAS AUTHORIZED DEALER'S BODY SHOP TO REPAIR DAMAGE TO THE F-150, AND THEY WILL SUBROGATE DEALER'S INS CO

CUSTOMER SEEKS:

-FORD TO INVESTIGATE THE NATURE OF THE FIRE

ERICKA EDWARDS (LEGAL ANALYST) ADVISED:

OWNER RELATIONS VOP/BENCHMARKING 12/08/98 FAXLGLTG

ENGINE OFF

UNDER HOOD

replaced airbag mod
and blown fuse for brake switch

3713 8983

REPORT 12/08/98 MASTER OWNER RELATIONS SYSTEM 19.52 43
 1998E LEGAL CONTACT
 ORLANDO 24 2N/7R A1 CONTACT NBR: 108625526 VEH TYPE: CAR
 VIN: 2FAC7746000 ENGINE: M OPENED: 07/07/1997
 STATUS: CLOSED
 LAST NAME: FIRST NAME: MI:
 TITLE: ADDRESS: MI:
 CITY: MIAMI STATE: FL ZIP:
 HOME PHONE: BUS. PHONE:
 MODEL YEAR: 92 MODEL: CROWN VICTORIA
 MESSAGE: 66213 WED:
 DEALER NAME: DEEL FORD SALES CODE: 124004 P & A: 04972
 CAUSAL CODE: 0709 SYMPTOMS: 704145
 ORIGIN: 00 TRANS REGION: 24 TRANS DATE:
 VEN REFL:
 CASE TYPE: 4A-FIRES - ELECTRICAL MEANS CODE: A-LGL INVEST-PROD LIABILITY
 ATTY NAME: ATTY MEMO:
 CLAIM AMT: 0 AWARD AMT: 0
 MICRO: 5062272

COMMENTS:

1997/07/07

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ERICKA EDWARDS (LEGAL ANALYST) ADVISED:

OWNER RELATIONS VOP/BENCHMARKING 12/08/98 FAXLGTO

Engine off

*Blown
fuse
BPS*

ORLANDO 24 Zn/Tr: A2 M/A: CONTACT NBR: 108625526
VIN: 2FACP74WXX [REDACTED] Opened: 07/07/1997
Last Name: [REDACTED] Closed: 07/07/1997
Title: [REDACTED] First Name: [REDACTED] Status: CLOSED
Address: [REDACTED] MI: [REDACTED]
City: MIAMI ST/PV: FL Zip/PC: [REDACTED] CC: USA
Home Phone: [REDACTED] Business Phone: [REDACTED] Ext: [REDACTED]
Year: 92 Model: CROWN VICTORIA
Mileage/Km: 66215 WSD: 04/27/1992
Dealer Name: DESL FORD Sales Code: 124004 P&A: 04972
Causal Code: 0709 Symptoms: 704145
Serv Sales: 1 (1 or 2) Origin: GO Trans Date:
Veh Repl:
Case Type: 4A FIRES - ELECTRICAL Means Code: A LGL INVEST-PROD LIABILITY
Atty Name: Atty Memo:
Claimed Amt: Award Amt:
CANADA ONLY:
Court Code: Award Code:

F1=HELP F3=EXIT F4=COMMENT F5=ADD F6=UPD F9=CLOSE F12=CANC
1050 CONTACT SUCCESSFULLY CLOSED

LPOR319

CSOR0010

MORS II Contact Comments

07/07/1997 13:31:03

Last Name: [REDACTED] VIN: 2FACF74WKNX [REDACTED]
Home Phone: [REDACTED] Bus. Phone: [REDACTED] Ext:
Dealer: DEEL FORD Dist/Reg: 24
CONTACT NBR: 108625526 Date: 07/07/1997 Analyst Code: 3993EE
File Type: LEGAL Time: 13:30:12 Analyst Name: EDWARDS
Comm Type: F FAX Micro: Letter Code:

Comments:

More?: Y

*** DEALER FAX RECEIVED 7/2/97 BY CONSUMER AFFAIRS ***

*** NAVIS: PROGRAM ***

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-STATE FARM INS HAS BEEN CONTACTED; ROBERT DANN (AGENT) (305)251-4534

-COPY OF FIRE REPORTS PROVIDED BY DEALER

F1-HELP F3-EXIT F5-ADD F7-PREV F9-NEXT F11-CANC LTR F12-BASIC INFO
B196 FIRST COMMENTS FOR CONTACT

LFOR219

3713 8986

Last Name: [REDACTED] VIN: 2FACP74WKNX [REDACTED]
Home Phone: [REDACTED] Bus. Phone: [REDACTED] Ext:
Dealer: DEEL FORD Dist/Reg: 24
CONTACT NBR: 108625526 Date: 07/07/1997 Analyst Code: 3999EE
File Type: LEGAL Time: 13:10:14 Analyst Name: EDWARDS
Comm Type: U UPDATE Micro: Letter Code:

Comments:

More? Y

*
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F1-HELP F3-EXIT F5-ADD F7-PREV F8-NEXT F11-CANC LTR F12-BASIC INFO
1002 REQUESTED INFORMATION DISPLAYED

LPORH19

CSORC010

MORS II Contact Comments

07/07/1997 13:31:13

Last Name: [REDACTED] VIN: 2FACP74WXX [REDACTED]
Home Phone: [REDACTED] Bus. Phone: [REDACTED] Ext:
Dealer: DEEL FORD Dist/Reg: 24
CONTACT NBR: 108625526 Date: 07/07/1997 Analyst Code: 3999EE
File Type: LEGAL Time: 13:30:16 Analyst Name: EDWARDS
Comm Type: U UPDATE Micro: Letter Code:

Comments: More?: Y
REPAIR DAMAGE TO THE F-150, AND THEY WILL SUBROGATE DEALER'S INS CO
*
CUSTOMER SEEKS:
-FORD TO INVESTIGATE THE NATURE OF THE FIRE
*
ERICKA EDWARDS (LEGAL ANALYST) ADVISED:

F1-HELP F3-EXIT F5-ADD F7-PREV F8-NEXT F11-CANC LTR F12-BASIC INFO
1002 REQUESTED INFORMATION DISPLAYED LFOR219

3713 8988

Last Name: [REDACTED] VIN: 2FACP74WKN [REDACTED]
Home Phone: [REDACTED] Bus. Phone: [REDACTED] Ext:
Dealer: DEEL FORD Dist/Reg: 24
CONTACT NBR: 108625526 Date: 07/07/1997 Analyst Code: 3999EE
File Type: LEGAL Time: 13:30:17 Analyst Name: EDWARDS
Comm Type: U UPDATE Micro: Letter Code:

Comments:

More?: Y

-SPOKE TO JOHN BOYCE
-NO ASSISTANCE WILL BE PROVIDED BECAUSE VEHICLE IS OUT OF 5/50 SAFETY
WARRANTY, AND NO RECALLS EXIST ON THE VEHICLE
-REFERRED TO INS CO FOR ASSISTANCE; THEY CAN SUBROGATE IF THEY WISH TO PURSUE
THE MATTER
-LPA DID NOT CONTACT CUSTOMER

F1=HELP F3=EXIT F5=ADD F7=PREV F8=NEXT F11=CANC LTR F12=BASIC INFO
1002 REQUESTED INFORMATION DISPLAYED

LPORE19

CSORQ010

MORS II Contact Comments

07/07/1997 13:31:3

Last Name: [REDACTED] VIN: 2FACP74WXX [REDACTED]
Home Phone: [REDACTED] Bus. Phone: [REDACTED] Ext: [REDACTED]
Dealer: DEEL FORD Dist/Rag: 24
CONTACT NBR: 108625526 Date: 07/07/1997 Analyst Code: 3999EE
File Type: LEGAL Time: 13:31:22 Analyst Name: EDWARDS
Comm Type: U- UPDATE Micro: Letter Code:

Comments:
###THIS IS THE CLOSING COMMENT
CLOSE PER PREVIOUS COMMENTS.

* More?: N

F1-HELP F3-EXIT F5-ADD F7-PREV F8-NEXT F11-CANC LTR F12-BASIC INFO
I002 REQUESTED INFORMATION DISPLAYED LPORB19

3713 6990


7/7 - John Boyce:

- State Farm wanted dlr ins co to pay for damage but John told State Farm to handle & subrogate.
- Veh still @ dlr
- 7/3 - St Farm ~~wanted dlr to sign a release~~ wanted dlr to sign a release so they could take the veh away
- The 88 F-150 Progressive Auth'd dlr b/s to repair & will subrogate State farm.
- Dlr ins - Universal Underwriters.

108625526



- No recalls
- out of 5/90
- Deny

DEALER REQUEST FOR CONSUMER AFFAIRS REVIEW

FOR DEALER USE ONLY

Requesting Dealer: DEER FORD P&A: 049172 Region: _____
 Contact Person: John C. Bouce Phone No. 305-661-6111-332
 New or Used ☒ Date of Purchase: 02/17/97 Yr / Make: 92 GENX Mileage: 66,215
 VIN: 2FACP74WKNX [REDACTED]
 Customer Name: [REDACTED]
 Address: [REDACTED]
MIAMI, FL
 Home Phone: [REDACTED] Business Phone: [REDACTED]
 Incident Involves: Accident _____ Fire ☒ Warranty _____ Sudden Acc _____
 If customer is alleging product defect, what type: CAR BURNT UP
 Personal injury? NO Was medical attention sought? NO
 Was a police report filed (where)? YES (COPIES FORWARDED)
 Name and phone of owner's insurance company (agent's name): STATE FARM
AGENT - ROBERT DAHN - 305-251-4534
 Has the insurance company been contacted? YES
 If the vehicle is a conversion unit, name of body builder: N/A
 Accident details (date, where, how, etc.): VEHICLE WAS IN SERVICE FOR A
SRS LIGHT ON. OUR TECH. DAVID WATSON CHECK CODES
AND REPLACED AIR BAG MODULE AND REPAIRED BLOWN FUSE
FOR BRAKE SWITCH. AFTER PARKING CAR IN OUR LOT,
APPROXIMATELY 1HA LATER CAR CAUGHT ON FIRE -
 What is the customer requesting?: FORD TO INVESTIGATE WHY
VEHICLE CAUGHT ON FIRE

IF NEEDED, PROVIDE ADDITIONAL COMMENTS ON A SEPARATE SHEET OF PAPER.

Fax to: (313) 446-9471

PLEASE USE THIS SHEET AS ORIGINAL AND DUPLICATE AS NEEDED.

3713 8992

RECORD
02FIRE / PROPERTY RECORD
FIRE RESCUE INCIDENT REPORT BAKA COUNTY, FLORIDADATE REPORTING DATE
202 A

DEPT	INCIDENT NUMBER	INCIDENT ADDRESS
03	7002519063097	4811 LK SHANK RD.
PROPERTY ADDRESS		
TIME REPORTED	1427	
OWNER NAME	LAST NAME	FIRST NAME
STRUCTURE TYPE	STORIES HEIGHT	SQUARE FEET
8	31	1
OCCUPANT NAME	SPECIFIC PROPERTY	MOBILE PROPERTY
		11 AUTO
TYPE ADDRESS	MIAMI, FL	

APPARENT DAMAGE ON 1ST UNIT ARRIVAL	APPARENT DAMAGE WHEN FIRE DEPT. ARRIVED	CONDUCT OF FIRE	FLAME TRAVEL	METHOD EXTINGUISH	OBSTACLE TO CONTROL
1	7	7	4	98	5
DETECTOR TYPE	POWER SUPPLY	PERFORMANCE	SPRINKLER SYSTEM	HEADS OPERATED	COVERAGE
8	8	8	8		

PROPERTY CASE NUMBER	LOWEST ID	FORWARD COMPANY
97-12158		
YEAR MAKE	MODEL	TAG
92 FORD	CARINA VICTIM	OHW64T
EQUIPMENT INVOLVED	ITEM MATERIAL IDENT	TYPE MATERIAL IDENT
90 UNKNOWN	97 MULTIPLE	97 MULTIPLE
FORM HEAT IDENTIFICATION	LOCATION FACTOR	ESTIMATED LOSS
90 UNKNOWN	90 UNKNOWN	11,000
AREA OF ORIGIN	LEVEL ORIGIN FIRE	CONTENTS
92 PARKING LOT	IV GRASS	
INVESTIGATED BY	CAPT. W.A. LOUGA	
DATE	6/30/97	

WATER SUPPLY TYPE	WATER SUPPLY TIME
1	
PERSONNEL OF UNIT REPORTING	
CAPT. LOUGA, HARRY	
ROGERS, BROWN	
DATE	6-30-97

AUTO ON FIRE IN PARKING LOT, EXTINGUISHED THROUGH THE CHAIN LINK FENCE WITH 1 1/2" LINE, WENT INSIDE TO COMPLETE EXTINGUISH. CAUSE OF FIRE UNKNOWN; CAR WAS IN SHOP FOR ELECTRICAL PROBLEMS. PICKUP TRUCK IN FRONT OF AUTO ALSO DAMAGED.

JUL-22-1997 18:224H FROM

TO

10704469471 P.04

SOUTHLAND BUSINESS FORMS ONE AND TWO

RECORD

03

PAGE

SUPPLEMENTAL NARRATIVE / UNIT RECORD

FIRE RESCUE INCIDENT REPORT BAKK COUNTY, FLORIDA

UNIT & SHIFT

202 A

DEPT INCIDENT NUMBER 037002517 063097 INCIDENT PROPERTY ADDRESS 4811 LAJUANNE ROAD
 PATIENT NAME (IF RESCUE/ILARY, FIRST NI) SUPPLEMENTAL REPORT TIME REPORTED
 MULTIPLE UNIT REPORT ()

PERSONNEL OF UNIT REPORTING

CAPT. ROUGH

SIC

HARDY, ROBLES

BRINN

OR PERSONNEL ARE LISTED ON:

IN DISPATCH RECORD
 IN FIRE/PROPERTY RECORD
 IN RESCUE PATIENT RECORD
 IN SUPPLEMENTAL TRANSPORT RECORD
 IN HAZARDOUS MATERIAL RECORD
 IN WATER RESCUE RECORD

FIRE HOSE TYPE

3/4" 1" 1 1/2" 2" 3" MASTER

GALLONS TO CONTROL TOTAL USED

400 450 1 Y

WATER LADDERS (MM)

SUPPLY GROUND AERIAL

NARRATIVE

FIRE DAMAGE TO AUTO WAS ALL OF THE FRONT
 OF THE CAR FROM THE WINDSHIELD/DASH FORWARD.
 FIRE ORIGINATED IN THE ENGINE COMPARTMENT, UNKNOWN
 EXACT ORIGIN OR CAUSE.

3713 8894

RECORD		FIRE / PROPERTY RECORD										UNIT REPORTING	
02		FIRE RESCUE INCIDENT REPORT BAKA COUNTY, FLORIDA										208 A	
INCIDENT NUMBER		INCIDENT ADDRESS											
037002519		063097 4311 LAJUNNE RD											
PROPERTY ADDRESS		TIME REPORTED											
4811 LAJUNNE ROAD		1427											
OWNER NAME		LAST NAME		FIRST NAME		MIDDLE INITIAL		PROPERTY		SEQUENCE			
										02			
STRUCTURE TYPE		STORIES		HEIGHT		SQUARE FEET		OCCUPANT TOTAL		TYPE OF FOUND			
8		31		1		8		14		15 EXTING			
OCCUPANT NAME		SPECIFIC PROPERTY		MOBILE PROPERTY									
				11 TRUCK									
		KEY BISCAYNE, FL											
APPARENT DAMAGE		APPARENT DAMAGE		APPARENT DAMAGE		APPARENT DAMAGE		APPARENT DAMAGE		APPARENT DAMAGE			
ON 1ST UNIT ARRIVAL		WHEN FIRE OUT		WHEN FIRE OUT		WHEN FIRE OUT		WHEN FIRE OUT		WHEN FIRE OUT			
1		7		1		7		4		98			
DETECTION TYPE		POWER SUPPLY		PERFORMANCE		SPRINKLER SYSTEM		HEADS OPERATED		COVERAGE			
8		8		8		8							
PROPERTY CASE NUMBER		TOWED TO		TOWING COMPANY									
77 12158													
MAKE		MODEL		YEAR		STATE/VIN							
FORD		F-150		1994		FL 1FTDE18K7NA							
EQUIPMENT INVOLVED		EQUIPMENT INVOLVED		EQUIPMENT INVOLVED		EQUIPMENT INVOLVED		EQUIPMENT INVOLVED		EQUIPMENT INVOLVED			
11 AUTO		13 EXTERIOR TRIM		49 PLASTIC									
FORM HEAT IGNITION		IGNITION FACTOR		ESTIMATED LOSS		STRUCTURE							
81 DIRECT FLAME		93 EXPLOSIVE FLAME		1500									
AREA OF ORIGIN		LEVEL ORIGIN FIRE		CONTENTS									
92 GARAGE LOT		11 GARAGE											
INVESTIGATOR		DATE											
CAPT. W. LOUGH		6-30-97											
FIRE LOSS		GALLONS TO CONTROL		TOTAL LOSS		WATER SUPPLY TYPE							
4		50		50		1							
ORIGINAL SERIAL		FIRE RELATED CASUALTIES		FIRE DEPT SUPPORT		OTHER PERSONNEL		PERSONNEL		PERSONNEL			
4 (VIN) M (VIN)													
PERSON INVOLVED		INJURY		DEATH									
02													
NARRATIVE		DATE											
PULTRUCK HAD FIRE REMOVED TO DUMP TRUCKS AND													
BAG FROM AUTO FIRE BAKING THE PULTRUCK. EXTINGUISHED WITH													
1 3/4" LINE. (PULTRUCK)													

CQIS Report Number: VDUAJ323 Program Type: Q
Report Source: MSE - FCSD - QSFS

Orig Rpt #: 134597-97
Report Date: 04/21/1997

R E P O R T S U M M A R Y

VEHICLE: 1992 GRAND MARQUIS,LS ,SEDAN VIN : 2MECM75WINX
Engine : 4.6L ROMEO BASE EFI Odometer: 15,526 MILES
Operating Environ: WCC : SF07
Vehicle Use : Rsp. Act:
SYMPTOM: 7 04 2 45 UNKNOWN SOURCE CONCERNS FIRE/SMOKE
SMOKE UNDERHOOD
Additional Symptom:
Other Veh. With Concern: Severity Rating - Customer: Engineering:
Causal Component: 2A574 SWITCH ASY LOW AIR P
Causal Factor: Feature: Loc:
Causal Condition: Photo: Images: 0
Component Test Status: Return Log:
Vehicle Fixed?: YES Customer satisfied?: Repair Effectiveness (%): 100

C O M M E N T S

--TYPE-- COMMENT TEXT
CONCER THERE WAS SMOKE FROM UNDER THE HOOD.
REPAIR THE BRAKE PRESSURE SWITCH CAUGHT ON FIRE AND BURNT THE WIRING WITH THE
KEY OFF. PREVIOUS VEHICLES WITH FIRES STARTING IN THIS AREA WERE BURNT
TO THE DEGREE THAT WE COULD ONLY GUESS WHAT CAUSED FIRE. THIS
VEHICLE'S FIRE STOPPED SOON ENOUGH.
AUDIT - 04/23/1997 10:28AM DATA ENTRIES MSS - FCSD - QSFS
SYMPTOM 3 01 0 00 CHANGED TO 7 04 2 45 BY NBAKER6

C O N C E R N D E T A I L S

DIAGNOSTIC INFORMATION
Symp. Verify: Ease of Diagnosis: Level of Assistance:
Comp. Timing: Base Timing: MIL light on? :
Test Stand : Road Test : SD Number:
Prior Repair Attempts: Repair Prior to Call: NO
DTCs KOED: KOEC:
KOER: CB:
Equipment/Procedure Used Effective? Equipment/Procedure Used Effective?

S E R V I C E A C T I O N S

Repair Type	Component Number	Number Type	Description	Causal Comp.
RPL	2A574	SERVICE	SWITCH ASY LOW AIR P	YES

V E H I C L E D E T A I L S

Vehicle Build Date: 04/01/1992 Warranty Start Date: 04/28/1992
Date of Sale: 04/28/1992 Selling Dlr (Mkt,Dlr,Sub): 11627
Dealer Special Order: Gross Vehicle Weight:
LH/RH Drive:

E N G I N E

Engine: 4.6L ROMEO BASE EFI Tag: 2G 806 AA
Bld Dt: Calb: 218FROO A Serial #: W

T R A N S M I S S I O N

Trans: AOD-E 4SP ELEC O/D Part #: Serial #:
Bld Dt:
Model: Plt: Shift:

A X L E

Axle: 8.8 2.73 CONVENTIONAL Id Tag Code: Bld Dt: Plt:

CQIS Report Number: VDUA323 Program Type: Q
Report Source: MSS - PCSD - QSPS

Orig Rpt #: 134597-97
Report Date: 04/21/1997

----- ADDITIONAL -----
Tire : P215/70R15 WSW Brand :
Radio : ELECTRONIC AM/FM STRO/CASSETTE A/C : MANUAL AIR CONDITIONER
Paint : YELLOW-RED EXT PAINT FAMILY B ----- MOCHA FROST C/C

----- AFTER MARKET MODIFICATIONS -----

NO AFTER MARKET MODIFICATIONS DATA AVAILABLE FOR THIS VEHICLE

----- REPORT ORIGINATOR - REPAIR FACILITY - CUSTOMER INFORMATION -----
Orig/Caller : GEORGE TAYLOR Title: OTHER

Repair Dlr: 11627 - Ft Lauderdale L-M Inc Ph#: (954) 779-2060
City: Ft Lauderdale State : Florida
Country: UNITED STATES Region : Orlando - 24

Claim #/Date : 129888

Customer name : [REDACTED] City :

----- CQIS VIN HISTORY -----

NO CQIS VIN HISTORY AVAILABLE FOR THIS VEHICLE

--- SUPPLEMENTAL SURVEY: NONE ---

----- VEHICLE'S WARRANTY HISTORY (365 days only) -----

NO VEHICLE WARRANTY HISTORY AVAILABLE FOR THIS VEHICLE

CQIS Report Number: VJGAA043 Program Type: Q
Report Source: MSS - PCSD - QSF5

Orig Rpt #: 162704-97
Report Date: 10/07/1997

R E P O R T S U M M A R Y

VEHICLE: 1992 GRAND MARQUIS, GS , SEDAN VIN : ZMECM74W5NX
Engine : 4.6L ROMEO BASE EFI Odometer: 21,825 MILES
Operating Environ: WCC :
Vehicle Use : Rsp. Act:

SYMPTOM: 2 03 2 00 ELECTRICAL START/CHARGE/WIRING
WIRING - BASIC OTHER (CODE NOT AVAILABLE)

Additional Symptom:
Other Veh. With Concern: Severity Rating - Customer: Engineering:

Causal Component:
Causal Factor: Feature: Loc:
Causal Condition: Photo: Images: 0
Component Test Status: Return Loc:
Vehicle Fixed?: Customer satisfied?: Repair Effectiveness (%):

C O M M E N T S

TYPE COMMENT TEXT
CONCER VEHICLE WILL NOT SHIFT OUT OF PARK.
REPAIR VISUALLY IT APPEARS BRAKE LIGHT SHORTED AND CAUSED BRAKE FLUID TO
CATCH ON FIRE , BRAKE FLUID LEAKED FROM BACK OF MASTER CYLINDER OR SO
IT WOULD APPEAR, CAUSING FIRE TO BURN STOP LIGHT LOOM AND ENGINE BAY
LOOM TO BURN, NEED TO BETTER INSULATE STOP LIGHT SWITCH, AND SEAL
MASTER CYLINDER. PLEASE ADVISE.

C O N C E R N D E T A I L S

D I A G N O S T I C I N F O R M A T I O N

Symp. Verif?: Ease of Diagnosis: Level of Assistance:
Comp. Timing: Base Timing : MIL light on? :
Test Stand : Road Test : SD Number:
Prior Repair Attempts: Repair Prior to Call: NO
DTCs KOEO: KOEC:
KOER: CB:
Equipment/Procedure Used Effective? Equipment/Procedure Used Effective?

S E R V I C E A C T I O N S

NO SERVICE ACTIONS AVAILABLE FOR THIS VEHICLE

V E H I C L E D E T A I L S

Vehicle Build Date: 03/31/1992 Warranty Start Date: 06/22/1992
Date of Sale: 06/22/1992 Selling Dlr (Mkt, Dlr, Sub): 11638
Dealer Special Order: Gross Vehicle Weight:
LH/RH Drive:

E N G I N E

Engine: 4.6L ROMEO BASE EFI Tag: 2G 806 AA
Bld Dt: Calb: 218PROO A Serial #: W

T R A N S M I S S I O N

Trans: AOD-E 4SP ELEC O/D Part #:
Bld Dt: Serial #:
Model: Plt: Shift:

A X L E

Axle: B.8 2.73 CONVENTIONAL Id Tag Code: Bld Dt:
Serial #: Plt:

CQIS Report Number: VJGAA043 Program Type: Q
Report Source: MSS - FCSD - QSVS

Orig Rpt #: 162704-97
Report Date: 10/07/1997

- - - A D D I T I O N A L - - -

Tire : P215/70R15 WSW Brand :
Radio : ELECTRONIC AM/FM STEREO RADIO A/C : MANUAL AIR CONDITIONER
Paint : NEUTRAL EXT PAINT FAMILY A TITANIUM FROST C/C

----- A F T E R M A R K E T M O D I F I C A T I O N S -----

NO AFTER MARKET MODIFICATIONS DATA AVAILABLE FOR THIS VEHICLE

----- REPORT ORIGINATOR - REPAIR FACILITY - CUSTOMER INFORMATION -----
Orig/Caller : GERARD MC SHANE Title: OTHER

Repair Dlr: 11638 - MARGATE LINCOLN-MERCURY INC Ph#:(954) 978-7900
City: Margate State : Florida
Country: UNITED STATES Region : Orlando - 24

Claim #/Date : 186946

Customer name : City :

----- C Q I S V I N H I S T O R Y -----

NO CQIS VIN HISTORY AVAILABLE FOR THIS VEHICLE

--- S U P P L E M E N T A L S U R V E Y : NONE ---

----- VEHICLE'S WARRANTY HISTORY (365 days only) -----
Repair Repair Odometer Rpr Causl Service Part Number Labor
Dealer ID Date Order (Miles) Nbr Cond. Pfx Base Sfx Operation
11638 10/03/1997 21825

REPORT : 12/08/98 MASTER OWNER RELATIONS SYSTEM II 19.11.03

=====

6064AE GRP: KK09 INFORMATION CONTACT VEH TYPE: CAR
 UNKNOWN ZN/TR: CONTACT NBR: 108859052 OPENED: 09/02/1997
 VIN: P ENGINE: CLOSED: 09/02/1997
 =====

LAST NAME: [REDACTED] STATUS: CLOSED
 TITLE: [REDACTED] FIRST NAME: [REDACTED] MI:
 ADDRESS: [REDACTED]
 CITY: HOUSTON STATE: MS ZIP: [REDACTED]
 HOME PHONE: [REDACTED] BUS. PHONE: [REDACTED]
 MODEL YEAR: 93 MODEL: GRAND MARQUIS
 MILEAGE: 38000 WSD:
 DEALER NAME: SALES CODE: P & A:
 CAUSAL CODES: 3001 SYMPTOMS: 704000
 ORIGIN: GO TRANS. DST/REN: TRANS. DATE:
 SERVICE/SALES: 2 CONTACT DATE:
 ACK. CODE: ASSIST CODE: AWARD AMT: 0 SURVEY: (Y OR N)
 BUILD DATE: CALIBRATION:
 ESP INFO: EXPIRES:
 OPEN RECALL: OWNER NOTIFIED: MICRO:
 COMMENTS:
 1997/09/02
 NO VIN AVAILABLE
 CUSTOMER SAYS:
 -SHE DROVE THE CAR ON SAT 08/31/97
 -THE CAR'S BEEN SITTING FOR 12 HOURS
 -SHE WENT OUTSIDE AND THE CAR WAS ON FIRE
 -THE FIRE STARTED ON THE DRIVER'S SIDE
 *
 PER CUSTOMER, DEALER SAYS:
 -NO CONTACT
 *
 CUSTOMER SEEKS:
 -TO KNOW WHY THE CAR CAUGHT ON FIRE
 *
 CAC ADVISED:
 -YOUR INSURANCE COMPANY WOULD BE IN THE
 BEST POSITION TO ASSIST YOU
 -AFTER AN INVESTIGATION HAS TAKEN PLACE, THEY WILL
 NOTIFY FORD IF NECESSARY
 CUSTOMER SAYS:
 - CALLING BACK, THE CUSTOMER FORGOT TO TELL THE PRIOR CSR THAT THE VEHICLE
 BLEW UP
 *
 CAC ADVISED:
 - WILL ADD THAT INFORMATION TO THE CONTACT
 OWNER RELATIONS VOP/BENCHMARKING 12/08/98 FAXCARTG

engine off

Left Side

3713 9001

3064SR GRP: XX13 CONCERN CONTACT
MEMPHIS 23 ZN/TR: C2 CONTACT NBR: 107337270 VEH TYPE: CAR
VIN: 2FACP72W0N4 ENGINE: W OPENED: 08/08/1996
CLOSED: 08/21/1996

=====

LAST NAME:		FIRST NAME:		STATUS:	CLOSED
TITLE:		ROAD		MI:	
ADDRESS:		STATE:	LA	ZIP:	
CITY:	LIVINGSTON	BUS. PHONE:			
HOME PHONE:		MODEL:	CROWN VICTORIA		
MODEL YEAR:	92	WSD:			
MILEAGE:	120000	SALES CODE:	123208	P & A:	02753
DEALER NAME:	ALL STAR FORD	SYMPTOMS:	704245 704145		
CAUSAL CODES:	3001 1215 2023	TRANS. DST/RGN:	23	TRANS. DATE:	
ORIGIN:	GO	CONTACT DATE:	08/14/1996		
SERVICE/SALES:	1	U SURVEY:	Y (Y OR N)		
ACK. CODE:		ASSIST CODE:	W	AWARD AMT:	
BUILD DATE:		CALIBRATION:			
ESP INFO:		EXPIRES:			
OPEN RECALL:		OWNER NOTIFIED:		MICRO:	
COMMENTS:					

1996/08/08

*** VEHICLE INVOLVED IN RECALL 93575 ***

*** NAVIS: SUBSEQUENT ***

CUSTOMER SAYS:

-GOT A LETTER FOR IGNITION RECALL AND THIS PERTAINS TO MY TRUCK
-BUT LAST WEEK, THIS HAPPENED TO MY 92 CROWN VICTORIA
-THE HOOD WAS SMOKING
-I CALLED THE DEALER AND THEY SAID THEY WOULD HAVE TO HAVE IT TOWED
-I DROVE IT AFTERWARD AND THE ONLY THING WRONG WITH IT WAS THE CRUISE CONTROL

PER CUSTOMER, DEALER SAYS:

-HAVE IT TOWED IN

CUSTOMER SEEKS:

-WHY IS THIS CAR NOT IN THE IGNITION SWITCH RECALL WHEN THE SAME THING
HAPPENED WITH MY CAR AS STATED IN THE LETTER?

CAC ADVISED:

-INFORMATION HAS BEEN DOCUMENTED AND FORWARDED TO THE DEALER
-REQUEST MR. DENNIS HAFNER, SVC MGR., TO CONTACT THE CUSTOMER WITHIN 2
BUSINESS DAYS CONCERNING THE OPEN RECALL ON VEHICLE
- DEALER IS IN THE BEST POSITION TO PROVIDE TECHNICAL ASSISTANCE.
- CUSTOMER'S VEHICLE IS NOT INVOLVED IN RECALL 95528

1996/08/14

***THIS IS THE CLOSING COMMENT

ALL CONCERNS ADDRESSED WITH CUSTOMER. CUSTOMER UNHAPPY THAT HER CONCERN IS
NOT COVERED BY A RECALL. DEALER OFFERED A FREE INSPECTION. OWNER SAID SHE
DID NOT HAVE TIME TO BRING VEHICLE IN FOR THE INSPECTION OR TO HAVE THE
CURRENT RECALL COMPLETED????? DEALER REASSURED CUSTOMER OF OUR COMMITMENT TO
HER AS A FORD OWNER. SAID SHE WOULD RECONTACT US WHEN SHE HAD THE TIME|||||||
HANDLED BY DENNIS HAFNER, SVC MGR.
OWNER RELATIONS VOP/BENCHMARKING 12/08/98 FAXCARTG

LFU

ENGINE ON
UNDER HOOD

3713 9002

CQIS Report Number: WHKAA018 Program Type: EDSR
Report Source: MSS - FCSD - QSFS

Orig Rpt #: 214749-98
Report Date: 08/11/1998

REPORT SUMMARY

Vehicle: 1992 GRAND MARQUIS,LS ,SEDAN VIN: 2MECM75W1NX
Engine: 4.6L ROMEO BASE EFI Odometer: 90,000 MILES
Operating Environ: WCC: 7Q01
Vehicle Use: Rsp. Act:

Symp: 2 05 2 99 ELECTRICAL
SPEED CONTROL

HORN/SPD CNTRL/LIGHTER
CONCERN NOT LISTED

Addl Symptom:

Other Veh. with Concern: Severity Rating - Customer: Engineering:

Causal Component: 9F924

SWITCH SPD CNTRL

Causal Factor:

Feature:

Loc:

Causal Condition: OTHER

Photo:

Images: 0

Component Test Status:

---- Return Loc:

Vehicle Fixed?: YES Customer Satisfied?: Repair Effectiveness (%): 100

COMMENTS

Type	Comments
CONCER	FIRE UNDER THE HOOD NEAR THE BRAKE BOOSTER.
REPAIR	THE CAUSE OF THE FIRE WAS BELIEVED TO BE THE DEACTIVATOR SWITCH, 9F924. WE HAVE SEEN SMALL FIRES START FROM CONTAMINATED SWITCHES BEFORE, REPLACED THE SWITCH.
AUDIT	08/13/1998 09:51AM DATA ENTRY6 MSS - FCSD - QSFS
	ODOMETER 0 M CHANGED TO 90000 M BY SDAVIS20
AUDIT	08/13/1998 09:53AM DATA ENTRY6 MSS - FCSD - QSFS
	SYMPTOM 2 05 0 00 CHANGED TO 2 05 2 99 BY SDAVIS20

CONCERN DETAILS

DIAGNOSTIC INFORMATION

Symp. Verif?: Base of Diagnosis: Assistance Level:
Comp. Timing: Base Timing: MIL Light on?:
Test Stand: Road Test: SD Number:
Prior Repair Attempts: Repair Prior to Call: NO
DTCs KOEO: KOEC:
KOER: CB:

SERVICE ACTIONS

Repair Type	Component Number	Number Type	Description	Causal Comp.
RPR	9F924	SERVICE	SWITCH SPD CNTRL	YES

VEHICLE DETAILS

Vehicle Build Date: 04/02/1992 Warranty Start Date: 05/08/1992
Date of Sale: 05/08/1992 Selling Dlr (Mkt, Dlr, Sub): 11636
Dealer Special Order: Gross Vehicle Weight:
LH/RH Drive:

ENGINE

Engine: 4.6L ROMEO BASE EFI Tag: 2G 806 AA
Bld Dt: Calb: 218FR00 A Serial #: W Flt:

ENGINE UNKNOWN

3713 9003

9F924

CQIS Report Number: WHKAA018 Program Type: EDSR
Report Source: MSS - FCSD - QSFS

Orig Rpt #: 214749-98
Report Date: 08/11/1998

----- VEHICLE DETAILS -----

----- TRANSMISSION -----

Trans: AOD-E 4SP ELEC O/D

Part #:

Bld Dt:

Serial #:

Model:

Plt:

Shift:

----- AXLE -----

Axle: 8.8 2.73 CONVENTIONA

Id Tag Code:

Bld Dt:

Serial #:

Plt:

----- ADDITIONAL -----

Tire: P215/70R15 WSW

Brand:

Radio: ELECTRONIC AM/FM STRO/CASSETTE

A/C: ATC AIR CONDITIONER

Paint: NEUTRAL EXT PAINT FAMILY A

TITANIUM FROST C/C

----- REPORT ORIGINATOR - REPAIR FACILITY - CUSTOMER INFORMATION -----

Orig/Caller: CHARLERS DOUGLASS

Title: OTHER

Repair Dir: 11607 - VERO BEACH LINCOLN-MERCURY INC Ph#: (561) 567-5272

City: Vero Beach

State: Florida

Country: UNITED STATES

Region: Orlando - 24

Claim #/Date: 66698

Customer Name: [REDACTED]

City:

----- COIS VIN HISTORY -----

NO VIN HISTORY AVAILABLE

--- SUPPLEMENTAL SURVEY: *** NO SURVEY DESCRIPTION *** ---
NO SURVEY AVAILABLE

----- VEHICLE'S WARRANTY HISTORY (165 days only) -----

Repair Dealer Id Date	Repair Odometer Order (Miles)	Rpr Causl Nbr Cond.	Service Part Pfx Base	Number Labor Sfx Operation
10159 03/20/1997	68200			

REPORT : 12/08/98

MASTER OWNER RELATIONS SYSTEM II

22.34.17

=====

9561TP	LEGAL CONTACT		VEH TYPE: CAR
DETROIT	48	ZN/TR: E1	CONTACT NBR: 107275738
VIN: 1LNCMB2W7MY		ENGINE: W	OPENED: 07/26/1996
			CLOSED: 08/02/1996

=====

LAST NAME:		STATUS: CLOSED
TITLE:		MI:
ADDRESS:		
CITY: DETROIT	STATE: MI	ZIP:
HOME PHONE:	SUS. PHONE:	
MODEL YEAR: 91	MODEL: TOWN CAR	
MILEAGE: 40000	WSD:	
DEALER NAME: STU EVANSLINC-MERC	SALES CODE: 345345	P & A: 13928
CAUSAL CODE: 0709	SYMPTOMS: 704147	
ORIGIN: GO	TRANS REGION: 45	TRANS DATE:
VEH REPL:		
CASE TYPE: 4-FIRES - FUEL FED	MEANS CODE: A-LGL INVEST-PROD LIABILITY	
ATTY NAME:	ATTY MEMO:	
CLAIM AMT: 0	AWARD AMT: 0	MICRO:

COMMENTS:

1996/07/26

*** NAVIS: ORIGINAL ***

CUSTOMER SAYS: (CALLING)

- THE VEHICLE CAUGHT A FIRE 7/24/96
- THERE WERE NO INJURIES SUSTAINED
- THE VEHICLE DAMAGED 3 OTHER VEHICLES, A LINCOLN HERTZ, A FORD EXPLORER AND A CADILLAC HERTZ
- THE FIRE DEPARTMENT WAS CALLED TO THE SCENE
- THE POLICE WERE NOT CALLED TO THE SCENE
- THE FIRE STARTED ABOVE THE DRIVERS SIDE LEFT WHEEL
- THE VEHICLE IS TOTALLED

PER CUSTOMER, DEALER SAYS:

- NO CONTACT

CUSTOMER SAYS:

- WAS INFORMED BY THE INSURANCE ADJUSTER TO CONTACT FORD

CAC ADVISED:

- DOCUMENTED INFORMATION AND FORWARDED TO THE DEALERSHIP
- LCSR OPENED THE CONTACT BECAUSE PROPERTY DAMAGE WAS SUSTAINED AS A RESULT OF THE FIRE AND THERE ARE NO MILEAGE OR AGE RESTRICTIONS
- A FORD REPRESENTATIVE WILL BE IN CONTACT
- TIME FRAME WAS NOT PROVIDED

1996/07/29

CUSTOMER SAYS:

HAS NOT HEARD ANYTHING FROM FMC AND IS NOT SURE WHAT TO DO WITH THE CAR

CAC ADVISED:

- FMC WILL BE IN CONTACT WITH CUSTOMER
- CANNOT PROVIDE DEFINITE TIME FRAME (MOST LIKE 5 WORKING DAYS)
- FMC MAY NEED TO INSPECT VEHICLE

OWNER RELATIONS VOP/BENCHMARKING 12/08/98 FAXLGLTG

3713 9005

REPORT : 12/08/98

MASTER OWNER RELATIONS SYSTEM II

22.34.17

=====

9561TP	LEGAL CONTACT		VEH TYPE: CAR
DETROIT	48	ZN/TR: S1	CONTACT NBR: 107275738
VIN: 1LNCM82W7MY		ENGINE: W	OPENED: 07/26/1996
			CLOSED: 08/02/1996

=====

1996/07/31

CUSTOMER SAYS:

- HAS NOT YET HEARD FROM FORD
- HE HAS NOT MOVED THE VEHICLE OR PERFORMED ANY REPAIRS

PER CUSTOMER, DEALER SAYS:

- NO CONTACT

CUSTOMER SEEKS:

- WHEN WILL HE BE CONTACTED

CAC ADVISED:

- NO SPECIFIC TIME FRAME AVAILABLE OTHER THAN THE ESTIMATED 5 BUSINESS

1996/08/01

CUSTOMER SAYS:

- I CALLED FORD LAST WEEK TO REPORT A VEHICLE FIRE
- THE REPRESENTATIVE TOLD ME I WOULD HEAR FROM SOMEBODY IN 5 DAYS. SO FAR I HAVE HEARD FROM NOBODY

CAC ADVISED:

- CUSTOMER FORWARDED TO LINCOLN

CUSTOMER SAYS:

- HAS NOT HEARD ANYTHING FOR THE LEGAL DEPT
- A REPRESENTATIVE ADVISED THE CUSTOMER SOMEONE SHOULD CALL HIM WITHIN 5 DAYS
- INSURANCE COMPANY WILL NOT TOUCH THE VEHICLE UNTIL A FORD REP INSPECT THE VEHICLE
- HAVE BEEN RENTING VEHICLE BECAUSE THE COMPANY NEEDS TO KEEP THE BUSINESS RUNNING

PER CUSTOMER, DEALER SAYS:

- NO COMMENTS

CUSTOMER SEEKS:

- LEGAL DEPT TO INVESTIGATE THE FIRE

CAC ADVISED:

- INFORMATION HAS BEEN DOCUMENTED AND FORWARDED

1996/08/02

CUSTOMER SAYS:

- HAVE NOT HEARD FROM FMC REP YET

CAC ADVISED:

- TODAY IS THE FIFTH BUSINESS DAY. CUSTOMER WILL PROBABLY BE CONTACTED EITHER TODAY OR AT THE BEGINNING OF NEXT WEEK

OWNER RELATIONS VOP/BENCHMARKING 12/08/98 FAXLGITG

3713 9006

REPORT : 12/08/98

MASTER OWNER RELATIONS SYSTEM II

22.34.17

=====

9561TP	LEGAL CONTACT	VEH TYPE: CAR
DETROIT	48 ZN/TR: E1	CONTACT NBR: 107275738
VIN: 1LNCH82W7M	ENGINE: W	OPENED: 07/26/1996
		CLOSED: 08/02/1996

=====

1996/08/02

***THIS IS THE CLOSING COMMENT

LPA CONTACTED

- HE ADVISED THAT HIS INSURANCE COMPANY HAS BEEN OUT TO INSPECT THE DAMAGES AND HAS RECEIVED ESTIMATES.
- THE EXPLORER HAS ABOUT \$3500 DAMAGE.
- THE TWO OTHER VEHICLE HAVE SMOKE AND HEAT DAMAGE BUT THEY CANT BE ESTIMATED UNTIL THEY ARE CLEANED AND FURTHER INSPECTED.
- THE BUILDING HOUSING THESE VEHICLE HAS AN ESTIMATED \$28,000 IN DAMAGES.
- HIS INSURANCE COMPANY IS PREPARED TO SETTLE THE CLAIM AT THIS TIME.

CUSTOMER SEEKS:

- TO KNOW WHAT FORD WOULD LIKE HIM TO DO IN THIS SITUATION.
- HE SAYS HE NEEDS TO KNOW ASAP BECAUSE HE HAS A BUSINESS TO RUN.

LPA ADVISED:

- SETTLE MATTER WITH HIS INSURANCE COMPANY.
- IF THE INSURANCE CARRIER FEELS THERE IS FORD LIABILITY THEY HAVE THE OPTION TO FILE A SUBROGATION CLAIM.
- LETTER STATING THE SAME WAS FAXED TO [REDACTED] ON 8-2-96.
- THE INFORMATION HAS BEEN FORWARDED TO OOC AS AN FYI TO THEM.
- NO FURTHER ACTION IS PROPOSED AT THIS TIME.

OWNER RELATIONS VOP/BENCHMARKING 12/08/98 FAXLGLTG

3713 9007

REPORT : 12/08/1993

MASTER OWNER RELATIONS SYSTEM III

21.11.33

=====

SSALITUR INFORMATION CONTACT CASE NBR: 0369942548
23 MEMPHIS ZONE: A1 OPENED: 09/11/1993
VIN: 2WELM75WLPX CLOSED: 09/11/1993
=====

LAST NAME: [REDACTED] STATUS: CLOSED
TITLE: [REDACTED] MI: [REDACTED]
ADDRESS: [REDACTED] FIRST NAME: [REDACTED]
CITY: MEMPHIS STATE: TN ZIP: [REDACTED]
HOME PHONE: [REDACTED]
MODEL YEAR: 1993 MODEL: GRAND MARQUIS LS 4DR SDN
MILEAGE: 76000

P & A: 12098

REASON CODES: 0778

SYMPTOMS: 704142

ORIGIN: CAC138- US CONCERN CASE BASE

ACTION: 596 - ADVISE CUSTOMER TO CONTACT THEIR INSURANCE COMPANY FOR ASSISTANCE

ACTION DATA:

COMMENTS:

1998/09/11

15.48.06 CUSTOMER SAYS: - LETTER DATED AUG 17/98 - 1993 GRAND MARQ
UIS LS - CUST SAYS THAT THE VEHICLE WAS SITTING IN THE PARK
ING LOT WHEN THE VEHICLE CAUGHT ON FIRE FOR NO REASON. - ME
MPHIS FIRE DEPT. SAID THAT THE FIRE WAS CAUSE BY A MECHANICA
L FAILURE. - THE FIRE STARTED ON THE DRIVERSIDE AND CONTINUED
ED BY THE INITIAL EXPLOSION MARKS, NOT THE BATTERY SIDE. -
THE FIRE WAS SO INTENSE THAT THE ALUMINUM WHEELS WERE MELTED
OFF. - THEN ON ANOTHER OCCASION CUST WAS SITTING INSIDE WE
NDY'S WHEN THEY SAW ANOTHER VEHICLE JUST LIKE THEIR DO THE
SAME THING WHEN THERE WAS NOBODY AROUND OR IN THE VEHICLE.
- CUST FEELS THAT THIS IS A DEFECT WITH THE MERCURY PRODUCT
AND THAT FORD SHOULD EITHER REPLACE THE VEHICLE OR REPAIR IT
AT THEIR COST NOT THE CUST. - CUST HAS NO INSURANCE - P
ER CUSTOMER, DEALER SAYS: NONE CAC ADVISED: - THIS IS NO
T A SITUATION THAT FMC IS ABLE TO ASSIST YOU WITH. PLEASE C
ONTACT YOUR INSURANCE CARRIER FOR DIRECTIONS. INFERENCE CASE
ID: 79

OWNER RELATIONS

12/08/1998 MEMFAXPRO

Engine off

Left Side

3713 9008

REPORT :

12/08/98

MASTER OWNER RELATIONS SYSTEM 11

19.14.16

0378EM

LEGAL CONTRACT

VEH TYPE: CAR

BOSTON

11 ZN/TR: D2

CONTACT NBR: 105909801

OPENED: 08/22/1995

VIN:

2FALP74WBPX

ENGINE: W

CLOSED: 10/10/1995

LAST NAME:

FIRST NAME:

STATUS: CLOSED

TITLE:

MI:

ADDRESS:

CITY:

CRARYVILLE

STATE:

NY

ZIP:

HOME PHONE:

BUS. PHONE:

MODEL YEAR:

93

MODEL:

CROWN VICTORIA

MILEAGE:

16669

WSD:

DEALER NAME: PETE'S FORD, INC.

SALES CODE: 111429

P & A: 02756

CAUSAL CODE: 02

SYMPTOMS: 704100

ORIGIN:

GO

TRANS REGION:

TRANS DATE:

VEH REPL:

CASE TYPE: 4B-FIRES - EXHAUST-CAT.CONVERTOR-OTHER MEANS CODE: A-LGL INVEST-PROD

LIABILITY

ATTY NAME:

ATTY MEMO:

CLAIM AMT:

0

AWARD AMT:

0

MICRO: 5640891

COMMENTS:

1995/08/22

NAVIS: ORIGINAL

CUSTOMER SAYS:

-HAD MASTER CYLINDER REPLACED 8/18/95

-BRAKES FAILED AND FIRE STARTED IN FRONT OF VEHICLE NEAR DRIVERS SIDE 8/19/95

-CUSTOMER BELIEVES IT WAS THE FAULT OF THE MASTER CYLINDER

PER CUSTOMER, DEALER SAYS:

-IS NOT AT DEALER BUT AT TOWING FACILITY AWAITING INSURANCE CO REP

CUSTOMER SEEKS:

-REPLACEMENT OF VEHICLE

CAC ADVISED:

-A CUSTOMER REPRESENTATIVE OF FMC WILL CONTACT YOU TO REVIEW THEIR CONCERN

-CONTACT YOUR INSURANCE CO

*****CUSTOMER ADDS: DASHBOARD AND FIREWALL DESTROYED*****

1995/08/24

*****ADDCO*****

CUSTOMER SAYS:

-STILL HAS NOT BEEN CONTACTED BY FORD REP FOR REVIEW

CUSTOMER SEEKS:

-UNDER WARRANTY HE FEELS HE SHOULD GET ANOTHER CAR BACK B/C ALL THE PARTS WERE

-DESTROYED. WANTS TO BE CONTACTED ASAP.

OWNER RELATIONS VOP/BENCHMARKING 12/08/98 FAXLGLTG

*Engine on**Left Side*

3713 9009

REPORT : 12/08/98

MASTER OWNER RELATIONS SYSTEM 11

12-04-98

=====

0378EM	LEGAL CONTACT	VEN TYPE: CAR
BOSTON	11 ZN/TR: D2	CONTACT NBR: 105909801
VIN: 2FALP74W8PX	ENGINE: W	OPENED: 08/22/1995
		CLOSED: 10/10/1995

=====

1995/10/16

CUSTOMER LETTER DATED 10/2/95, ADDRESSED TO [REDACTED] CUSTOMER IS SEEKING FOR FORD TO REVIEW THE VEHICLE FIRE. LETTER PREDATES SENDING OF LETTER BY LEGAL AREA. CSR WILL FORWARD LETTER TO WRITTEN RESPONSE DUE TO PICTURES BEING ENCLOSED.

1995/10/24

*** CORRESPONDENCE GROUP RECEIVED CUSTOMERS LETTER ***
RESPONSE: OUR RECORDS INDICATE A LETTER WAS MAILED TO YOU ON 10-10-95/ INDICATING FORD POSITION REGARDING YOUR SITUATION/FORD POLICY TO RETURN ALL ORIGINAL MATERIAL TO OUR CUSTOMERS/ENCLOSED PLEASE FIND THE PHOTOGRAPHS YOU SENT WITH YOUR LETTER.

1995/11/09

OBC TO CUSTOMER

HE IS MAD THAT THE DEALER WAS NOT COMPETENT IN THE WORK AND MADE A MISTAKE AND FORD SHOULD STAND BEHIND THE WORK DONE.

CAC ADVISED:

WORKMANSHIP ISSUE IS A DEALER ISSUE AND TO ADDRESS THIS WITH THE INDEPENDENT BUSINESS

1995/11/10

*LETTER DATED 11/1/95*LETTER PREDATES CONTACT TO CUSTOMER. NO ACTION REQ.
OWNER RELATIONS VOP/BENCHMARKING 12/08/98 FAXLGLTG

3713 9010

=====

0378EM	LEGAL CONTACT		VEH TYPE: CAR
BOSTON	11	ZN/TR: DZ	CONTACT NBR: 105909801
VIN: 2FALP74W89X		ENGINE: W	OPENED: 08/22/1995
			CLOSED: 10/10/1995

=====

1995/09/08

ADDCO

CUSTOMER SAYS:

-HE HAS STILL NOT HEARD A FINAL DECISION FROM FORD

CUSTOMER SEEKS:

-A RESOLUTION TO THIS CONCERN

CAC ADVISED:

-INFORMATION WILL BE DOCUMENTED AND FORWARDED TO APPROPRIATE DEPARTMENT

-NO TIME FRAME CAN BE GIVEN FOR THE CONCLUSION OF INVESTIGATION

-CONTINUE WORKING WITH THE INDIVIDUAL FROM FORD WHO CONTACTED YOU

1995/09/11

CUSTOMER LETTER TO [REDACTED] DATED 8/28/95

LETTER PREDATES ABOVE- FOR MICRO ONLY

1995/09/12

LETTER DATED 8-23-95 PREDATES ACTION

CC MICRO ONLY

FORWARDED TO WRITTEN RESPONSE: PHOTOS INCLUDED WITH THE LETTER

1995/09/29

FORWARDED TO LEGAL

1995/10/04

ADDCO:

- CUSTOMER HAS HAD NO CONTACT FROM FMC SINCE INQUIRIES FROM MS RUTHERFORD.

- CUSTOMER HAS BEEN WAITING 8 WEEKS FOR SOME KIND OF INFORMATION ABOUT PROCEEDINGS

- CUSTOMER REQUESTS CONTACT TO LET THEM KNOW STATUS OF CASE IF POSSIBLE

CAC ADVISES:

- INFO WILL BE FORWARDED TO PROPER DEPTS.

- SOMEONE WILL BE IN TOUCH

- CUSTOMER SHOULD ATTEMPT TO RECONTACT MS RUTHERFORD, CSM FOR ADDITIONAL ASSISTANCE.

1995/10/09

10/6/95 RECEIVED CUSTOMER LETTER COMPLAINING THAT IT'S BEEN TWO MONTHS THAT HE VEHICLE WAS BURNED. HE WANTS TO KNOW WHAT FORD MOTOR WILL DO ABOUT HIS LOSS. CAR HAD ONLY 16,669 MILES BEFORE THIS HAPPENED. PLEASE EVALUATE THE VEHICLE, CONTACT CUSTOMER, UPDATE MORSII, AND CLOSE CASE.

1995/10/10

THIS IS THE CLOSING COMMENT

GRI REPORT RECEIVED. INSPECTOR DETERMINED THAT THE ORIGIN OF THE FIRE WAS THE MASTER CYLINDER AREA, HOWEVER, HE COULDN'T DETERMINE WHY THE FIRE OCCURRED. BASED ON THIS INCONCLUSIVE FINDING, CUSTOMER SHOULD PURSUE THIS MATTER THROUGH THEIR INSURANCE CARRIER. NOTE: DLR COMPLETED REPAIRS TO THE MASTER CYLINDER THE DAY BEFORE THE FIRE OCCURRED.

LETTER WILL BE SENT TO CUSTOMER 10/10/1994 STATING FORD'S POSITION.

OWNER RELATIONS VOP/BENCHMARKING 12/08/98 FAXLOLTV

3713 9011

=====

0378EM	LEGAL CONTACT	VEH TYPE: CAR
BOSTON	11 ZN/TR: D2	CONTACT NBR: 105909801
VIN: ZFALP74W8P	ENGINE: W	OPENED: 08/22/1995
		CLOSED: 10/10/1995

=====

1995/08/25

CUSTOMER SEEKS:

- AN IMMEDIATE RESPONSE

CAC ADVISED:

- CUSTOMER INFORMATION HAS BEEN DOCUMENTED AND PROCESSED TO THE APPROPRIATE OFFICE
- CONTACT YOUR INSURANCE COMPANY FOR GUIDANCE

1995/08/28

CUSTOMER SEEKS:

COMPANY'S ADDRESS, PRESIDENT.

CAC ADVISED:

PROVIDED ADDRESS, [REDACTED]

1995/08/30

CSM ADVISED CUSTOMER THAT THIS INFORMATION WILL BE PASSED ON TO THE APPROP. PERSON FOR REVIEW AND POSSIBLE INSPECTION OF THE VEHICLE. CUSTOMER IS SEEKING IMMEDIATE ACTION FROM FMC ON THIS CONCERN. D. RUTHERFORD, CSM.

CSM CONTACTED CUSTOMER ON 8/29/95 IN REGARDS TO FIRE INCIDENT ON HER 1993 C.V. CUSTOMER INDICATED THAT VEHICLE WAS AT CAFFEY FORD ON 8/18 FOR REPLACEMENT OF BRAKE MASTER CYLINDER. ON 8/19 CUSTOMER STATES THAT BRAKES FELT "SOFT" AND AFTER DRIVING VEHICLE FOR APPROX. 30 MINUTES SHE NOTICED SMOKE COMING FROM THE ENGINE COMPARTMENT. LOCAL FIRE DEPT WAS CALLED AND FIRE WAS PUT OUT. CUSTOMER STATES HOWEVER THAT THE VEHICLE BURNT FROM THE ENGINE COMPARTMENT TO THE REAR SEATS. CUSTOMER HAS CONTACTED HER INSURANCE COMPANY (N.Y. CENTRAL MUTUAL FIRE INSURANCE CO.). CONTACT PERSON IS LYNN VALIKONIS @ 800-333-5370. VEHICLE IS CURRENTLY LOCATED AT AN INSPECTION FACILITY, AUTO PLACEMENT PHONE NUMBER 518-861-5171, REF # 01052. INSURANCE CLAIM # IS 95-34332-1. CUSTOMER IS REQUESTING A REPLACEMENT VEHICLE FROM FMC BECAUSE THEY FEEL THAT FIRE WAS DUE TO FACTORY DEFECT. CSM ADVISED CUSTOMER THAT SITUATION WILL BE REVIEWED AND/O INSPECTED BY FMC. CUSTOMER IS VERY UPSET WITH SITUATION AND IS SEEKING IMMEDIATE ACTION FROM FMC. D. RUTHERFORD, CSM

1995/08/31

FILE SENT TO GRI TO INVESTIGATE. NO TIMING PROVIDED AS OF YET.

1995/09/06

CUSTOMER SAYS:

- REITERATES PREVIOUS CONCERN
- THE FORD REP, DARLENE RUTHERFORD CONTACTED THE CUSTOMER 1 WEEK AGO AND STATED THAT THIS WOULD BE REVIEWED AND THE CUSTOMER WOULD BE RECONTACTED

CUSTOMER SEEKS:

- A TIMELY RESOLUTION

CAC ADVISED:

- DOCUMENTED ADDITIONAL INFO THAT CUSTOMER IS ANXIOUS TO ADDRESS CONCERN FURTHER
- NO TIMEFRAME CAN BE GIVEN

OWNER RELATIONS VOP/BENCHMARKING 12/08/98 FAXLG/LTG

3713 9012

CQIS Report Number: PHSBH016 Program Type: H Orig Rpt #:
Report Source: MSS - PCSD - TECH SVC HOTLINE Report Date: 08/19/1993

----- R E P O R T S U M M A R Y -----

VEHICLE: 1993 CROWN VICTORIA, LX , SEDAN VIN : 2FALP74W9PY
Engine : 4.6L ROMEO BASE EFI Odometer: 2,000 MILES
Operating Environ: WCC
Vehicle Use : Rsp. Act:
SYMPTOM: 7 04 1 45 UNKNOWN SOURCE CONCERNS FIRE/SMOKE
VISIBLE FLAME UNDERHOOD
Additional Symptom: ENGINE COMPARTMENT FIRE
Other Veh. With Concern: Severity Rating - Customer: Engineering:
Causal Component:
Causal Factor: Feature: Loc:
Causal Condition: Photo: Images: 0
Component Test Status: Return Log:
Vehicle Fixed?: Customer satisfied?: Repair Effectiveness (%):

----- C O M M E N T S -----

--TYPE-- COMMENT TEXT
REPAIR VEHICLE IDLING IN TRAFFIC. ANOTHER DRIVER BROUGHT TO HIS ATTENTION TH
AT A FLUID WAS LEAKING FROM UNDER THE CAR. WHEN THE CUSTOMER GOT OUT
TO INVESTIGATE, THE CAR SUPPOSIDLY CAUGHT FIRE. UNKNOWN HOW LONG VEHI
CLE WAS IDLING BEFORE THIS HAPPENED. TRAFFIC WAS STOPPED BECAUSE OF R
OAD CONSTRUCTION, A SITUATION WHERE THE TRAFFIC WAS BEING STOPPED & ON
E SIDE OF THE ROAD WAS BEING USED AT A TIME TO GET AROUND A CONSTRUCTI
ON SITE.
RECOMM CONTACT ZONE & GET THEM INVOLVED AT THIS TIME. RECORD AS MANY FACTS A
BOUT THE INCIDENT AS POSSIBLE.

----- C O N C E R N D E T A I L S -----

----- D I A G N O S T I C I N F O R M A T I O N -----

Symp. Verif?: Base of Diagnosis: Level of Assistance: E1
Comp. Timing: Base Timing : MIL light on? :
Test Stand : Road Test : SD Number:
Prior Repair Attempts: Repair Prior to Call: NO
DTCs KOEO: KOEC:
KOER: CB:
Equipment/Procedure Used Effective? Equipment/Procedure Used Effective?

----- S E R V I C E A C T I O N S -----

NO SERVICE ACTIONS AVAILABLE FOR THIS VEHICLE

----- V E H I C L E D E T A I L S -----

Vehicle Build Date: 06/14/1993 Warranty Start Date: 06/29/1993
Date of Sale: 06/29/1993 Selling Dir (Mkt, Dlr, Sub): 07774
Dealer Special Order: Gross Vehicle Weight:
LB/RH Drive:

----- E N G I N E -----

Engine: 4.6L ROMEO BASE EFI Tag: 3G 804 AA
Bld Dt: Calb: 318GR11 A Serial #: W

----- T R A N S M I S S I O N -----

Trans: AOD-E 4SP ELEC O/D Part #:
Bld Dt: Serial #:
Model: Plt: Shift:

CQIS Report Number: PHSBH016 Program Type: H Orig Rpt #:
Report Source: MSS - FCSD - TECH SVC HOTLINE Report Date: 08/19/1993

----- A X L E -----
Axle: 8.8 3.08 CONVENTIONAL Id Tag Code: Bld Dr:
Serial #: Plt:
----- A D D I T I O N A L -----
Tire : P215/70R15 WSW Brand :
Radio : ELECTRONIC AM/FM STRO/CASSETTE A/C : MANUAL AIR CONDITIONER
Paint : NEUTRAL EXT PAINT FAMILY B : SILVER MET C/C

----- A F T E R M A R K E T M O D I F I C A T I O N S -----
NO AFTER MARKET MODIFICATIONS DATA AVAILABLE FOR THIS VEHICLE

----- R E P O R T O R I G I N A T O R - R E P A I R F A C I L I T Y - C U S T O M E R I N F O R M A T I O N -----
Orig/Caller : MERYL TOWNSEND Title: SERVICE MANAGER
Repair Dlr: 07774 - MOCK FORD SALES Ph#: (541) 476-6656
City: Grants Pass State : Oregon
Country: UNITED STATES Region : San Francisco - 72
Specialist's
Name : RON TRELLA

----- C Q I S V I N H I S T O R Y -----
CQIS Prog
Date - Report # Type - Symp Cat Causal Part Description Dealer Id
08/25/1993 PHYAE045 CACSE UKN SRC 07774

--- S U P P L E M E N T A L S U R V E Y : N A T I O N A L N O T L I N E S U R V E Y ---
SURVEY HAS BEEN SENT

----- V E H I C L E ' S W A R R A N T Y H I S T O R Y (3 6 5 d a y s o n l y) -----
NO VEHICLE WARRANTY HISTORY AVAILABLE FOR THIS VEHICLE

Case # 39N

built

1991-98 Town Car/Crown Vic/Grand Marquis/Lincoln Under Hood Fire Questionnaire

We are contacting you, because you reported smoke or fire in your vehicle. Ford is investigating your report and would like to ask you some questions about it. We hope everyone was ok...

2-26-92

Vehicle/Customer Information

Model Year: 1992 Make: GRAND MARQUIS VIN: 2MECM74WJX 5

SA
INTERNAL
SAVING
RED IS
21719

Present Vehicle Location: COPHART SALVAGE Who owns vehicle now: CUST/INS. CO

Customer Name: [REDACTED] Phone: [REDACTED]

Is it ok for engineering to contact customer: YES

Was the vehicle involved in a natural disaster/accident that required significant vehicle clean up? NO

If so, where was cleanup performed? N/A

What is the general repair history of the vehicle? NO MAJOR REPAIRS OTHER THAN MAINTENANCE

Was it equipped with any aftermarket components? (specifically car alarm, trailer tow, or remote start NO)

Insurance Agency Info. (if appropriate):

Agency Name: PREMIER ADJUSTING SVCS Agency phone number: CWA INSURANCE

Claim number: P8034501

Contact: Mr. Bill Buckley Phone number: 800-881-7324
(SEA, Inc.)

Incident Info

Date of fire: 3-18-99 Mileage: 58-60,000 Was the vehicle repaired? NO

If repaired, when and where? N/A

Any idea where the fire started? (engine compartment quadrant... front, back, left, right) DRIVERS SIDE OF ENGINE
FRONT REAR

Was the vehicle parked or running? PAKED If parked, where? (garage, curbside, parking lot) GARAGE

Was the engine ON or OFF? OFF If OFF, how long was it parked before fire? 5-10 minutes

Did customer notice anything unusual prior to fire? NO

Was there any difficulty getting the vehicle out of park? NO Was speed control not working? NO

Was the brake warning lamp illuminated? NO Were the brake lights inoperative? NO

Any other info that you think may be useful to our investigation?

he has seen very similar

Valve cover damage - damage to twin cans - he
(near brake master cylinder) sees a pattern
is a pattern he sees

April 6, 1999

Vehicle/Customer Information/Incident Info

Model Year: 1992 Make: Grand Marquis Vin#: 2MECM74W5NX
Miles: Approx 58,000 to 60,000 miles based on old service records
Inspection Date/Location: 4-5-99 Gibsonton, FL. Vehicle Owner:
Incident 3-18-99 Approximate miles at incident: 58 to 60,000 miles
Inspector Name: David Burnett EAA 561-575-4174

Requested Info

Area of fire origination (engine compartment quadrant, component, etc)

Quadrant hard to identify—engine compartment driver side appears to hot spot area
Identify if any underhood relays show evidence of internal overheat

All parts consumed by fire—see photographs

Identify if any fuses or fuse links were blown or show evidence of other damage

All parts consumed by fire—see photographs

Determine if the correct fuse for the stop lamp switch in the fuse box

All parts consumed by fire—see photographs

Identify if there was any damage to wiring in the area where the fire was started (ie chafing, missing insulation)

All parts consumed by fire—see photographs

Assess whether the air suspension pump shows evidence of internal overheating

All parts consumed by fire—see photographs

Identify if there were any aftermarket modifications to the vehicle? (specifically car alarm, trailer tow, or remote start)

No after market equipment seen on burned vehicle or reported to Ins Co.

If possible, identify if the vehicle was involved in a natural disaster/accident that required significant vehicle up? If so where was cleanup performed?

Do not know

If possible, identify vehicle repair history—no prior service problem reported.

Any other info that may be pertinent to the incident...

Per Bill Buckley car was serviced by Bradenton, FL. dealer on US 41 or for oil changes— at a local quick lube location closer to where he lived.—no prior service problem reported.

Vehicle burned in a garage, which was part of a two story house.

Prior to fire vehicle was driven 10-15 miles, then parked in garage for some 5 to 10 minutes when owner heard noises in garage—per Bill Buckley.

David Burnett EAA
561-575-4174

3713 9016

Page 1 of 2

Vehicle/Customer Information/Incident Info

April 6, 1999

Model Year: 1992 Make: Grand Marquis Vin#: 2MECM74W5N [REDACTED]
Miles: Aprox 58,000 to 60,000 miles based on old service records
Inspection Date/Location: 4-5-99 Gibsonton, Fl. Vehicle Owner: [REDACTED]
Incident 3-18-99 Approximate miles at incident: 58 to 60,000 miles
Inspector Name: David Burnett EAA 561-575-4174

Parts that we would like from vehicle if possible to acquire

Brake pressure switch (preferably with wire pigtail/connector attached and still attached to prop valve)

Brake switch removed from prop valve—badly burned no pigtail, connector or fluid.

Sample of brake fluid at prop valve (in sealed glass container)

No brake fluid sample possible --all burned--see photographs

Relay pack located on LH fender apron (with as much wiring as possible)

All parts consumed by fire--see photographs

EDIS 8 module located on LH fender All parts consumed by fire--see photographs

Speed control module located on LH fender All parts consumed by fire--see photographs

Air suspension compressor located under air filter All parts consumed by fire--see photographs

Air suspension relay All parts consumed by fire--see photographs

Photograph of door jam VIN sticker

Door jam VIN sticker burned

Other suspect parts

Remains of master cylinder--with possibly a cross threaded fitting?

Remains of several badly burned under hood wire harnesses--driver side

rev 2.0 — 3/1

David Burnett EAA
561-575-4174

S.E.A. INC.
An F1 Offshoot, Inc. Company

13930 Lyman Blvd.
Tampa, Florida 33626
813 881-1448 800 881-7324
FAX 813 814-1718

Bill L. Buckley, C.F.I.

www.seaohio.com

3713 9017

Page 2 of 2

Case #31

103P 4-29-9

1992-93 Town Car/Crown V8/Grand Marquis/Under Hood Fire Questionnaire

We are contacting you, because you reported smoke or fire in your vehicle. Ford is investigating your report and would like to ask you some questions about it. We hope everyone was ok...

Vehicle/Customer Information

Model Year: 92 Make: GRAND MARQUIS VIN: 2MECH75WINX 081

Present Vehicle Location: ORLANDO FL Who owns vehicle now: State Farm

Customer Name: [REDACTED] Subsidiary, FL Phone: [REDACTED]

Is it ok for engineering to contact customer: ? 32957

Was the vehicle involved in a natural disaster/accident that required significant vehicle clean up? NO

If so, where was cleanup performed? N/A

What is the general repair history of the vehicle? Oil changes - Trouble with cruise control

Was it equipped with any aftermarket components? (specifically car alarm, trailer tow, or remote start)

Insurance Agency Info (if appropriate):

Agency Name: STATE FARM INSURANCE Agency phone number: 800-627-4028

Claim number: 598690148

Contact: CINDY SIMMONS Phone number: 407-953-7653

Incident Info

Date of fire: JULY '93 Mileage: 84,000 Was the vehicle repaired?

If repaired, when and where?

Any idea where the fire started? (engine compartment quadrant... front, back, left, right) Left front

Was the vehicle parked or running? Parked If parked, where? (garage, carport, parking lot) PARKING LOT

Was the engine ON or OFF? OFF If OFF, how long was it parked before fire? 3 HOURS

Did customer notice anything unusual prior to fire? YES

Was there any difficulty getting the vehicle out of park? YES Was speed control not working? ?

Was the brake warning lamp illuminated? Were the brake lights inoperative? YES

Any other info that you think may be useful to our investigation? Fuses blew

5-1-99

BURNETT EAA

03/22/99 MDN 14:28 FAX 2486424558

EA ASSOCIATES

Vehicle/Customer Information/Incident Info

Model Year: 92 Make: GRAND MARQUIS VIN#: 2MECM7S W1JX Mileage (at inspection):

Inspection Date/Location: ORLANDO, FL

Vehicle Owner:

Incident date: JULY 98 Approximate mileage at incident:

Inspector Name: DAVID BURNETT-EAA
561 575 4174

84000 mi

MEG 4-92

SABASTIAN, FL

Parts that we would like from vehicle if possible to acquire

Brake pressure switch (preferably with wire pigtail/connector attached and still attached to prop valve)

Brake pressure switch was removed by S/P REN ALAN CONGER
Sample of brake fluid at prop valve (in sealed glass container)

770-460-4923

Burned
Relay pack located on LH fender apron (with as much wiring as possible)

Burned - See photo
EDIS 8 module located on LH fender

Burned
Speed control module located on LH fender

Burned - See photo
Air suspension compressor located under air filter

In position, but burned
Air suspension relay

Photograph of door jam VIN sticker etc

Other suspect parts

Brake pressure switch & major sections of wire harness - removed
State Farm Ren. Alan Conger & Special Investigator

For FINE, MIKE BRESNOCK, TECHNOLOGY TRANSPORT HAVE PARTS

See photos (with & without flash seen) of removed parts
Brake switch & wire harness

rev 2.0 -

3-19-99

Page 1 of 2

MIKE BRESNOCK

3713 9019

03/22/99 MON 14:28 FAX 2486424558

EA ASSOCIATES

5-1-9
BOWETT
EAA

Vehicle/Customer Information/Incident Info

Model Year: 92 Make: ~~CADILLAC~~ ~~MARQUIS~~ VIN#: [REDACTED]

Mileage (at inspection):

Inspection Date/Location: ORLANDO, FL

Vehicle Owner:

Incident date: JUNE 98 Approximate mileage at incident:

Inspector Name:

84,000 mi.

DAVID BOWETT

Requested Info

Area of fire origination (engine compartment quadrant, component, etc)

BELOW BRAKE VACUUM CYLINDER - BRAKE SWITCH - CUT TO INNER SKIRT AREA

Identify if any underhood relays show evidence of internal overheat

ALL BURNED - SEE PHOTOS

Identify if any fuses or fuse links were blown or show evidence of other damage

ALL BURNED - FUSE BLOCK UNDER I/P LOCKS GOOD - SEE PHOTOS

Determine if the correct fuse for the stop lamp switch is in the fuse box

SEE DRAWING ATTACHED AND PHOTOS

Identify if there was any damage to wiring in the area where the fire was started (ie chafing, missing insulation)

ALL BURNED - SEE PHOTOS

Assess whether the air suspension pump shows evidence of internal overheating

NOTHING AIR CLEANER

Identify if there were any aftermarket modifications to the vehicle? (specifically car alarm, trailer tow, or remote start)

NO HITCH

NO NOTICABLE ELECTRICAL SEWING IN I/P AREA

If possible, identify if the vehicle was involved in a natural disaster/accident that required significant vehicle up? If so where was cleanup performed?

NO HISTORY

⇒ If possible, identify vehicle repair history PER ATTACHED REPORT - TROUBLE WITH CIRCUIT BOARD & BLOWN FUSES - TROUBLE GETTING OUT OF PARK

Any other info that may be pertinent to the incident... ALSO BRAKE LIGHTS IN-OPERATIVE

PRIOR TO FIRE CAR WAS PARKED IN A LOT FOR THREE HRS, PER ATTACHED INFO SHEET

REV 20

3-19-99

PAGE 2 of 2

BURNETT EAA
5-1-99

Bar

03/22/99 MON 14:28 FAX 2488424558

EA ASSOCIATES

5-1-99

Vehicle/Customer Information/Incident Info

Model Year: 92 Make: GRAND VIN#: [REDACTED]
MARQUIS

Mileage (at inspection):

Inspection Date/Location: ORLANDO, FL

Vehicle Owner:
[REDACTED]

Incident date:

Approximate mileage at incident:

Inspector Name: DAVID BURNETT
EAA

84,000 mi

MFG 4-92

1	20	2	3	4	15
5					
6	10	7	10	15	20
8					
9	10	15	5	10	15
10	10	15	5	10	15
11	10	15	5	10	15
12	10	15	5	10	15
13	10	15	5	10	15
14	10	15	5	10	15
15	10	15	5	10	15
16	10	15	5	10	15
17	10	15	5	10	15
18	10	15	5	10	15
19	10	15	5	10	15
20	10	15	5	10	15

Case # 44N

1992-95 Town Car/Crown Vic/Grand Marquis/Under Hood Fire Questionnaire

We are contacting you, because you reported smoke or fire in your vehicle. Ford is investigating your report and would like to ask you some questions about it. We hope everyone was ok...

Vehicle/Customer InformationModel Year: 93 Make: TOWN CAR VINA VIN: 1LNLM81W8PYPresent Vehicle Location: PALMISTO Who owns vehicle now: [REDACTED]Customer Name: [REDACTED] Phone: [REDACTED]Is it ok for engineering to contact customer? NOWas the vehicle involved in a natural disaster/accident that required significant vehicle clean up? If so, where was cleanup performed? What is the general repair history of the vehicle? Was it equipped with any aftermarket components? (specifically car alarm, trailer tow, or remote start Insurance Agency Info (if appropriate):Agency Name: STATE FARM Agency phone number: Claim number: Comer: ALAN CONGER Phone number: 770-460-4923Incident InfoDate of fire: 3-12-99 Mileage: Was the vehicle repaired? (If repaired, when and where? Any idea where the fire started? (engine compartment quadrant... front, back, left, right) Was the vehicle parked or running? If parked, where? (garage, carport, parking lot) Was the engine ON or OFF? If OFF, how long was it parked before fire? Did customer notice anything unusual prior to fire? Was there any difficulty getting the vehicle out of park? Was speed control not working? Was the brake warning lamp illuminated? Were the brake lights inoperative? Any other info that you think may be useful to our investigation?

5-1-99

03/22/99 MON 14:28 FAX 2486424558

EA ASSOCIATES

DAVID BURNETT

Vehicle/Customer Information/Incident Info

Model Year: 93 Make: Town Car VIN: 1LNLM81W8PY

Mileage (at inspection):

Inspection Date/Location: PALMETO, FL HQS. To
BRADENTON, FL

Vehicle Owner: [REDACTED]

Incident date: 3-12-99 Approximate mileage at incident:

Inspector Name: DAVID BURNETT
561 578 4174

I will get mile detail week
of 5-3-99 from ALAN CONGER
STATE FARM REP.

Parts that we would like from vehicle if possible to acquire

Brake pressure switch (preferably with wire pigtail/connector attached and still attached to prop valve)

SWITCH IS STILL IN POSITION - BUT THE ELECTRICAL CONNECTION MISSING &
Sample of brake fluid at prop valve (in sealed glass container) NO DIA TAIL - ALSO BURNED.

BURNED NO FLUID

Relay pack located on LH fender apron (with as much wiring as possible)

BURNED - SEE PHOTO'S

EDIS 8 module located on LH fender

BURNED - SEE PHOTO

Speed control module located on LH fender

BURNED - SEE PHOTO

Air suspension compressor located under air filter

BURNED SEE PHOTO'S

Air suspension relay

BURNED

Photograph of door jam VIN sticker

YES 643092 MFG 10-92

Other suspect parts

NOTE: NO PARTS TO BE REMOVED PER STATE FARM
REP. ALAN CONGER 770-460-4923

I will get mile info. from STATE FARM - ALAN CONGER
week of 5-3-99.

rev 2.0 -
3-19-99

Page 1 of 2

3713 9023

5-1-99

03/22/99 MON 14:28 FAX 2486424558

EA ASSOCIATES

D. BURNETT

Vehicle/Customer Information/Incident Info

Model Year: 93 Make: TOWN CAR VIN# [REDACTED]

Mileage (at inspection):

Inspection Date/Location:

Vehicle Owner:

Incident date: 3-12-99 Approximate mileage at incident:

Inspector Name: DAVID BURNETT EAA

Requested Info

Area of fire origination (engine compartment quadrant, component, etc)

HOT SPOT APPEARS TO BE BELOW BRAKE VACUUM CYLINDER TO INNER SKIRT AREA

Identify if any underhood relays show evidence of internal overheat

ALL RELAYS BURNED IN FIRE - SEE PHOTO - COULD NOT CHECK

Identify if any fuses or fuse links were blown or show evidence of other damage

NO BLOWN FUSES AT I.P. FUSE BLOCK DET DRAWING & PHOTOGRAPH

Determine if the correct fuse for the stop lamp switch in the fuse box

ALL FUSES OK VISUALLY - DO NOT KNOW STOP LAMP POSITION

Identify if there was any damage to wiring in the area where the fire was started (ie chafing, missing insulating)

ALL INSULATION BURNED

Assess whether the air suspension pump shows evidence of internal overheating

BURNED

Identify if there were any aftermarket modifications to the vehicle? (specifically car alarm, trailer tow, or remote start) NO TRAILER HITCH - DID NOT SEE ANY MODIFICATIONS

If possible, identify if the vehicle was involved in a natural disaster/accident that required significant vehicle up? If so where was cleanup performed? NO HISTORY

If possible, identify vehicle repair history NO HISTORY

Any other info that may be pertinent to the incident...

• CLEAN CAR INSIDE & OUT - GOOD CONDITION FOR 93

• NO TRAILER HITCH

• NO MODIFICATIONS NEEDED

REV 20

3-19-99

DAVID BURNETT

3713 9024

03/22/99 MON 14:28 FAX 2488424558

EA ASSOCIATES

BURNETT, DAVID

Vehicle/Customer Information/Incident Info

Model Year: 93 Make: THUNDER VIN#: 1ZLULW3W2D4

Mileage (at inspection):

Inspection Date/Location: PALMETO, FL. 3-29-99

Vehicle Owner: [REDACTED]

Incident date: 3-12-99 Approximate mileage at incident:

Inspector Name: [REDACTED]
[REDACTED]

1 1/2	2	3	4 10
5 10	6 10	7 10	8 10
9 30	10 30	11 20	12 15
13 15	14 15	15 15	16 15
17 15	18 5		

NOTE: ALL FRONT CHASSIS OK UNLESS
ALL CHASSIS FRONT - SEE PHOTO

3713 9025

Case #47
NOT
NHTSA1992-95 Town Car/Crown Vic/Grand Marquis/Under Hood Fire Questionnaire

We are contacting you, because you reported smoke or fire in your vehicle. Ford is investigating your report and would like to ask you some questions about it. We hope everyone was OK...

Vehicle/Customer InformationModel/Year: 92 Mar. Grand Marquis VIN: 2MECM75W4NX

Present Vehicle Location: _____ Who owns vehicle now: _____

Customer Name: _____ (Last Name) Phone: _____

Is it ok for engineering to contact customer: NO

Was the vehicle involved in a natural disaster/accident that required significant vehicle clean up? _____

If so, where was cleanup performed? _____

What is the general repair history of the vehicle? _____

Was it equipped with any aftermarket components? (specifically car alarm, trailer tow, or remote start) _____

Insurance Agency Info. (if appropriate):Agency Name: STATE FARM Agency phone number: _____

Claim number: _____

Contact: ALAN CONGER Phone number: _____Incident InfoDate of fire: 6-28-98 Mileage: _____ Was the vehicle repaired? _____

If repaired, when and where? _____

Any idea where the fire started? (engine compartment quadrant... front, back, left, right) _____

Was the vehicle parked or running? _____ If parked, where? (garage, carport, parking lot) _____

Was the engine ON or OFF? _____ If OFF, how long was it parked before fire? _____

Did customer notice anything unusual prior to fire? _____

Was there any difficulty getting the vehicle out of park? _____ Was speed control not working? _____

Was the brake warning lamp illuminated? _____ Were the brake lights inoperative? _____

Any other info that you think may be useful in our investigation? _____

03/22/99 MON 14:28 FAX 2486424558

EA ASSOCIATES

5-2-99
BURNETT-ENA
CASE 47

Vehicle/Customer Information/Incident Info

Model Year: 92 Make: GRAND MARQUIS VIN#: ZMECM7S W 4 NX Mileage (at inspection):
[REDACTED] @ SEE NOTE: *

Inspection Date/Location: ORLANDO, FL

Vehicle Owner:

Incident date: 6-28-98 Approximate mileage at incident: Note
* I WILL GET MILE INFO AND FWD

STATE FARM/
[REDACTED]

Inspector Name: DAVID BURNETT ZAA WEEK OF 5-3-99
661 575 4174

Parts that we would like from vehicle if possible to acquire

Brake pressure switch (preferably with wire pigtail/connector attached and still attached to prop valve)

NO BRAKE PRESSURE SWITCH ON THIS 92 GRAND MARQUIS - SEE PHOTO?
Sample of brake fluid at prop valve (in sealed glass container)

BURNED
Relay pack located on LH fender apron (with as much wiring as possible)

Controlled by FINE
EDIS 8 module located on LH fender

Controlled in FIRE
Speed control module located on LH fender

Air suspension compressor located under air filter ?

Air suspension relay ?

Photograph of door jam VIN sticker YES 947

Other suspect parts

NOTE: STATE FARM DID NOT WANT ANY PARTS REMOVED FROM
THEIR CARS AT THIS TIME.

NOTE: NO BRAKE PRESSURE SWITCH ON THIS 92 GRAND MARQUIS?

THE 92 MUST BE DIFFERENT DEPENDING ON OPTIONS. REV 2.0 - 3-19-99

MY NEIGHBORS 92 G/M ALSO DOES NOT HAVE PRESSURE SWITCH - BUT DOES HAVE CRUISE CONTROL. ? Page 1 of 2

I WILL GET EXACT MILES FROM STATE FARM'S ALAN CONGEL WEEK OF 5-3-99 AND FORWARD INFO TO F20.

3713 9027

2/99 MON 14:28 FAX 2486424558

EA ASSOCIATES

BURNETT E.A.
5-2-99
Case 47

Vehicle/Customer Information/Incident Info

Model Year: 92 Make: GRAND VIN# [REDACTED]
MARGULIS

Mileage (at inspection):

Inspection Date/Location:

Vehicle Owner:
[REDACTED]

Incident date: 6-29-98 Approximate mileage at incident:

Inspector Name: DAVID BURNETT EAA
561 576 4174

Requested Info

Area of fire origination (engine compartment quadrant, component, etc)

HOT SPOT IS BELOW BRAKE VACUUM BOOSTER TO FELDOTE SKIRT AT
Identify if any underhood relays show evidence of internal overheat FIRE WALL

BURNED - SEE PHOTO 22445
Identify if any fuses or fuse links were blown or show evidence of other damage

BURNED
Determine if the correct fuse for the stop lamp switch in the fuse box

SEE FUSE DRAWING - BRAKE LOCATION? - ALL SPARE FUSES IN CASE
Identify if there was any damage to wiring in the area where the fire was started (ie chafing, missing insulation)

WIRE INSULATION BURNED - SEE PHOTO
Assess whether the air suspension pump shows evidence of internal overheating?

Identify if there were any aftermarket modifications to the vehicle? (specifically car alarm, trailer tow, or rem
start) NO TRAILER HITCH - DID NOT SEE ANY ADD ON EQUIPMENT ELECTRICAL, ETC

If possible, identify if the vehicle was involved in a natural disaster/accident that required significant vehicle
up? If so where was cleanup performed? DO NOT KNOW - NO INFO

If possible, identify vehicle repair history PER STATE FARM (ALAN CONGER) NO PRIOR PROBLEMS

Any other info that may be pertinent to the incident...

ALAN CONGER - STATE FARM REP, REPORTED CAR WAS DRIVEN HOME
AND PARKED IN A CAR PORT ATTACHED TO THEIR HOUSE NEIGHBORS

Awoke owners several hours later that their car
was on fire,

PER ALAN CONGER - NO KNOWLEDGE OF PRIOR PROBLEMS

REV 20

3-19-99

Page 2 of 2

5-2-99
BURNETT EHA
CASE 47

03/22/99 MON 14:28 FAX 2488424558

EA ASSOCIATES

Vehicle/Customer Information/Incident Info

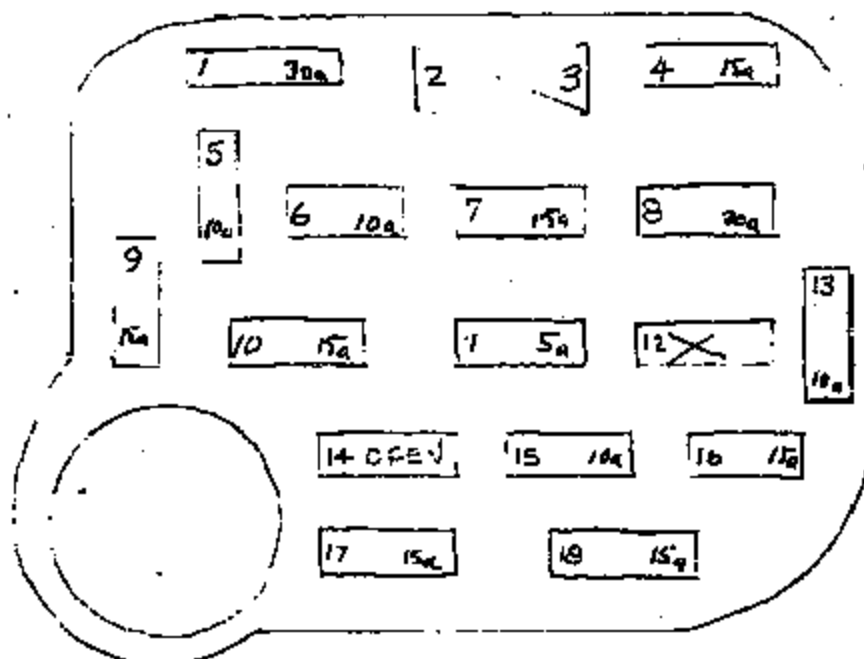
Model Year: 92 Make: GRAND VIN# 2MECM 75441X Mileage (at inspection):
MARGUS

Inspection Date/Location: ORLANDO, FL

Vehicle Owner:
[REDACTED]

Incident date: 6-28-99 Approximate mileage at incident:

Inspector Name: DAVID BURNETT
561 575 4174



CASE 54N

03/22/89 MON 14:28 FAX 2486424558

EA ASSOCIATES

Vehicle/Customer Information/Incident Info

Model Year: 43 Make: CROWN VIN#: ZFALP74W8PX
VICTORIA

Mileage (at inspection):

75,000 APPROX

Vehicle Owner:

Inspection Date/Location:

Incident date: 4-14-99

Approximate mileage at incident:

75,000 mi APPROX

Inspector Name:

DAVID BURGETT SAA
561-523-4174

Parts that we would like from vehicle if possible to acquire

Brake pressure switch (preferably with wire pigtail/connector attached and still attached to prop valve)

BURNED SWITCH TERMINAL & PIG TAIL BURNED & SWITCH REMOVED
Sample of brake fluid at prop valve (in sealed glass container) & SENT TO FORD
CENTRAL TESTING

Consumed by FIRE -
Relay pack located on LH fender apron (with as much wiring as possible)

BURNED
EDIS 8 module located on LH fender

BURNED
Speed control module located on LH fender

BURNED
Air suspension compressor located under air filter

BURNED
Air suspension relay

BURNED
Photograph of door jam VIN sticker - VIN PLATE ONLY - STICKER BURNED

Other suspect parts: OWNER, [REDACTED] SAID CRUISE HAD NOT

WORKED FOR A LONG TIME

HE SAID NO L.P. WARNING LIGHTS - PRIOR TO FIRE

CAR DROVE NORMAL PRIOR TO FIRE -

HE THINKS BRAKE LIGHTS WERE FUNCTIONING

POWER WINDOWS WERE WORKING

CAR WAS ACTING NORMAL - NO USUAL PROBLEMS. 3-19-99 rev 20 -

JOINED BY INVESTIGATOR BILL BUCKLEY "SEA" Page 1 of 2

CNA INSURANCE CASE 313-891-1448

3713 9030

Vehicle/Customer Information/Incident InfoModel Year: 1993 Make: CROWN
VICTORIA

VIN#: 2FALP74W8PX

Mileage (at inspection):

75000 APPROX - BURDET

Inspection Date/Location: VEHICLE, FL HOME OF
MAY 13, 99

Vehicle Owner:

Incident date: 4-14-99

Approximate mileage at incident:

75000 APPROX

Inspector Name: DAVID BURDET

EPA - 561-575-4174

Requested Info

Area of fire origination (engine compartment quadrant, component, etc)

APPEARS TO HAVE OCCURRED BELOW VACUUM MASTER CYLINDER
Identify if any underhood relays show evidence of internal overheatBURNED
Identify if any fuses or fuse links were blown or show evidence of other damageBURNED
Determine if the correct fuse for the stop lamp switch in the fuse boxBURNED
Identify if there was any damage to wiring in the area where the fire was started (ie chafing, missing insulation)BURNED
Assess whether the air suspension pump shows evidence of internal overheatingBURNED
Identify if there were any aftermarket modifications to the vehicle? (specifically car alarm, trailer tow, or remote start)
DO NOT KNOW

If possible, identify if the vehicle was involved in a natural disaster/accident that required significant vehicle (up? if so where was cleanup performed?)

DO NOT KNOW HISTORY
If possible, identify vehicle repair historyIT MAY BE IN FORMS LIABILITY DATA
Any other info that may be pertinent to the incident...

PAGE 2/2

NOTEVEHICLE PURCHASED, USED FROM VEHICLE L/H DEALER 3-12-97
WITH 35,000 MI.MET CUSTOMERS - HAD A NICE CONVERSATION - ONLY PROBLEMS
WITH CAR SINCE PURCHASE WAS A FAILED A/C COMPRESSOR,
ONE LONG CAR TRIP TO CALIFORNIA AFTER PURCHASE
NEW TIRE JUST PURCHASED TWO WEEK PRIOR TO FIREDROVE HOME PUT CAR IN GARAGE WENT INTO HOUSE - SHORT
TIME LATER HEARD NOISES IN GARAGE - OPENED SLIDER + CAR ON FIRE.
SAID CRUISE HAD NOT WORKED FOR SOME TIME
BUT NO OTHER PROBLEMS - NO WARNING LIGHTS - THAW BRAKE LITS WERE OK

CASE 54N

03/22/98 MON 14:28 FAX 2488424558

EA ASSOCIATES

Vehicle/Customer Information/Incident Info

Model Year: 93 Make: CROWN
VICTORIA

VIN#: 2FALP74W8PX

Mileage (at inspection):

75,000 Approx

Inspection Date/Location:

Vehicle Owner:

Incident date: 4-14-99

Approximate mileage at incident:

75,000 mi Approx

Inspector Name:

DAVID BURNETT SAA

581-575-4174

Parts that we would like from vehicle if possible to acquire

Brake pressure switch (preferably with wire pigtail/connector attached and still attached to prop valve)

Brake switch terminal & pig tail BURNED SWITCH REMOVED

Sample of brake fluid at prop valve (in sealed glass container)

& SENT TO FORD

CONTAMINATED BY FIRE -

CERTICAL TESTING

Relay pack located on LH fender apron (with as much wiring as possible)

-5-17-99-

BURNED

EDIS 8 module located on LH fender

ALSO MASTER CYLINDER
FOR REVIEW - FLUID

BURNED

Speed control module located on LH fender

BURNED

Air suspension compressor located under air filter

IF ONLY

Air suspension relay

BURNED

Photograph of door jam VIN sticker - VIN PLATE ONLY - STICKER BURNED

Other suspect parts

OWNER, [REDACTED] SAID CRUISE HAD NOT
WORKED FOR A LONG TIME.

HE SAID NO I.P. WARNING LIGHTS - PRIOR TO FIRE

CAR DROVE NORMAL PRIOR TO FIRE -

HE THINKS BRAKE LIGHTS WERE FUNCTIONING

POWER WINDOWS WERE WORKING

CAR WAS ACTING NORMAL - NO UNUSUAL PROBLEMS. rev 2.0 - 3-19-99

JOINED BY INVESTIGATOR BILL BUCKLEY "SEA"

Page 1 of 2

CNA INSURABLE CASE

313-891-1448

3713 9032

Porter, Fred (F.J.)

From: Reimers, Steve (S.J.)
Sent: Friday, January 07, 2000 3:39 PM
To: Porter, Fred (F.J.)
Subject: FW: Brake Fluid Process

fyi...you asked!

-----Original Message-----

From: Pease, Bruce (B.)
Sent: Friday, January 07, 2000 10:24 AM
To: Reimers, Steve (S.J.)
Subject: FW: Brake Fluid Process

Steve, read below for "description" of brake fluid (ref your question).

-----Original Message-----

From: Kitt, Michael (MB) [mailto:mkitt@dow.com]
Sent: Friday, January 07, 2000 9:53 AM
To: 'Pease, Bruce (B.)'; Urbiha, Scott (SA)
Cc: Stevens, Gregory (G.A.)
Subject: RE: Brake Fluid Process

Inhibitors are added to control corrosion, pH and oxidation. Other additives included in the package are there to improve lubricity. The best chemical description of brake fluids is "a mixture of glycol ethers and polyethylene glycols".
Mike Kitt

-----Original Message-----

From: Pease, Bruce (B.) [mailto:bpease@ford.com]
Sent: Thursday, January 06, 2000 5:09 PM
To: 'Kitt, Michael (MB)'; Pease, Bruce (B.)
Cc: Stevens, Gregory (G.A.)
Subject: RE: Brake Fluid Process

Mike,
good! thanks
Oh by the way how do I say the chemical name of brake fluid? Is it Ethylene Glycol, Glycol ether, Glycol ethers, Glycol, or ?
The inhibitors are they anti corrosion inhibitors? and if so, can you give me just a sentence about them, name function, etc. Sorry, don't mean to hold you up on this brake fluid thing, but trying to anticipate questions I will be asked.
Thanks Again.

-----Original Message-----

From: Kitt, Michael (MB) [mailto:mkitt@dow.com]

Sent: Thursday, January 06, 2000 4:25 PM
To: 'Pease, Bruce (B.)'; Kitt, Michael (MB)
Cc: Stevens, Gregory (G.A.)
Subject: RE: Brake Fluid Process

Bruce,
Your modification look great. One change that should be made is to show inhibitors being added to DOT 3 fluid as well as DOT 4 fluid production block.
Let me know if I can do anything to help,
Mike Kitt

-----Original Message-----

From: Pease, Bruce (B.) [mailto:bpease@ford.com]
Sent: Tuesday, January 04, 2000 1:44 PM
To: 'Kitt, Michael (MB)'; Pease, Bruce (B.)
Cc: Stevens, Gregory (G.A.)
Subject: RE: Brake Fluid Process

Mike,
I have attempted to modify the graphic to your words. Could you please review the attached file and comment. Thank You.

-----Original Message-----

From: Kitt, Michael (MB) [mailto:mkitt@dow.com]
Sent: Monday, January 03, 2000 11:02 AM
To: 'Pease, Bruce (B.)'
Cc: Stevens, Gregory (G.A.)
Subject: RE: Brake Fluid Process

The highers from the Glycol Ethers Production Unit are the major raw material used to make DOT 3 and DOT 4 brake fluids. These highers are shipped to the Brake fluid production unit. Within the Brake Fluid unit, highers and other chemicals are blended together to form DOT 3 brake fluid. Highers are reacted with EO & PO to form materials used to make Heavy Duty DOT 3 brake fluid. Highers are reacted with boric acid to form borate esters. The esters are then blended with others highers to form DOT 4 brake fluid. The reaction of highers and boric acid forms borate ester and water. Water is removed during the reaction to drive it towards the ester formation. If water is added to the ester it can be driven back to boric acid and highers.
Hope this helps,
Mike Kitt

-----Original Message-----

From: Pease, Bruce (B.) [mailto:bpease@ford.com]
Sent: Monday, January 03, 2000 8:53 AM
To: 'Kitt, Michael (MB)'
Cc: Stevens, Gregory (G.A.)

Subject: RE: Brake Fluid Process

Hi Mike and Happy New Year,

Thanks for the brake fluid steps. I do have several questions:

1. Could you clarify the point in the graphic at which DOT 3 exists? Is this the box called "Glycol Ether Production Unit" or is the DOT3 actually the "highers" that flow from the "Glycol Ether Production Unit" box?
2. Does the graphic show any DOT 4? I believe it is the box labeled "Brake Fluid Production Unit"? Where is the point at which the "heavy duty brake fluids" exist?
3. I recall that esters were borated and placed into DOT 3 to result in DOT
4. When water entered the DOT 4, it combined with the borated ester to change into boric acid and ??? Can you clarify this step?

Perhaps it would be better if I called you to discuss briefly? Thanks

-----Original Message-----

From: Kitt, Michael (MB) [mailto:mkitt@dow.com]
Sent: Tuesday, December 21, 1999 10:35 AM
To: 'gsteven1@ford.com'; 'bpease@ford.com'
Cc: Urbina, Scott (SA)
Subject: Brake Fluid Process

<<Doc1.doc>>

Bruce,

Sorry for the delay in getting this to you. Let me know if you have any questions.

Mike Kitt

Porter, Fred (F.J.)

From: Reimers, Steve (S.J.)
Sent: Monday, January 03, 2000 11:32 AM
To: Porter, Fred (F.J.)
Subject: Remaining Life Test Results

Fred,
Steve Berlinghouse phoned in the following info on 1/3/2000 at 10:48 AM.

date code	XX,000 cycles	R.O. number
2015	67	59120
2008	78	97296
2014	254	209054
2013	260	105004
2281	294	51082
2013	346	153943
2008	361	10285
2287	625	82918
2276*	694	33691
2281*	703	68808
2294*	829	80759

* Date code is after build date of vehicle

The cycles are those accumulated when the tester stops due to loss of volume.

All units have now leaked as determined by visual inspection.

He agreed to box and hold the parts and wait for us to tell him what to do with them.

Steve Reimers
RV&T EESE Chassis E/E Systems
313 39 03286, fax 313 39 04145

Porter, Fred (F.J.)

From: Reimers, Steve (S.J.)
Sent: Monday, December 20, 1999 7:58 AM
To: Porter, Fred (F.J.)
Subject: FW: Pre-Crimp Inspection



00000441.JPG

-----Original Message-----

From: Robert Panek [mailto:rpanek@exponent.com]
Sent: Thursday, December 16, 1999 5:46 PM
To: 'Reimers, Steve (S.J.)'
Subject: RE: Pre-Crimp Inspection

Steve,

In response to your request, I found the following:

12/1/91	Light Pre-Crimp
2/1/92	Light Pre-Crimp
5/1/92	Substantial Pre-Crimp
8/1/92	Substantial Pre-Crimp
1993	(no parts to review)
1994	Moderate Pre-Crimp
1995	Light Pre-Crimp (only 1 part available)
1996	Substantial Pre-Crimp
1997	Substantial Pre-Crimp
1998	Substantial Pre-Crimp

When I narrowed down the exact date for the early change in the pre-crimp, I found that things changed on date code 2113 (4/22/92) I have actually found 2 parts with this date code and noticeably different pre-crumps. I took a quick digital picture - what do you think?

1994 and 1995 parts appeared to be more lightly pre-crimped than the parts immediately preceding or following them. In general however, they did not appear to be as light as the first 2 groups.

If you would like to look for yourself I could grab some examples and bring them over.

I also wanted to add that my evaluation of the pre-crumps was subjective and that the level of corrosion on the parts made it somewhat difficult to make an easy assessment. If it was too bad I didn't consider that specific

part.

That's all for now, if you'd like something more formal please let me know.

I can take pictures and possibly measurements of the widths of the pre-crimps if you want. Without removing the A1 ring it may be difficult though.

Thanks and best regards,

Rob

Exponent-
Failure Analysis Associates
39100 Country Club Drive
Farmington Hills, MI 48331
Ph. 248 324-9112
Fax. 248 324-9199
rpanek@exponent.com
www.exponent.com

-----Original Message-----

From: Reimers, Steve (S.J.) [mailto:sreimers@ford.com]
Sent: Tuesday, December 14, 1999 12:01 PM
To: Robert Panek (E-mail)
Subject: Pre-Crimp Inspeition

Rob,

I would like Exponent to do a non-destructive examination of the pre-crimp

witness marks on one Brake Pressure switch
from each of the following dates (as close as possible):

12/1/91
2/1/92
5/1/92
8/1/92
1993
1994
1995
1996
1997
1998.

As you may recall when we were disassembling parts we noticed a difference in the pre-crimp witness marks.
We would like to find out when these marks appear or dissappear.
The pre-crimp marks are visible from the hexport end just inside the aluminum cup edge.
thanks,

Steve Reimers
RV&T EESE Chassis E/E Systems

313 39 03286, fax 313 39 04145

3713 9040

Porter, Fred (F.J.)

From: Reimers, Steve (S.J.)
Sent: Tuesday, December 14, 1999 9:47 AM
To: Porter, Fred (F.J.)
Subject: Remaining life test update

Fred,
Steve Beringhouse phoned in the following info this AM.
date code fails after XX,000 cycles

2015	56.6
2008	78
2014	254
2013	260
2281	294
2013	345
2008	350

currently at 360,000 cycles with remaining 4 units.

Note that 2281 unit date code is after the vehicle prod'n date.
It's mileage is probably no more than 75,000 and may be less.

Steve Reimers
RV&T EESE Chassis E/E Systems
313 39 03286, fax 313 39 04145

Porter, Fred (F.J.)

From: Reimers, Steve (S.J.)
Sent: Monday, December 06, 1999 7:55 AM
To: Porter, Fred (F.J.)
Subject: FW: Preview... RE: test 9903244

-----Original Message-----

From: Lengyel, Jim (J.J.)
Sent: Monday, December 06, 1999 7:54 AM
To: Reimers, Steve (S.J.)
Subject: RE: Preview... RE: test 9903244

Good morning Steve, Here's a DRAFT copy of the Switch report. Attachment & Figure Numbers will be all different (... and maybe a few other things following a run through spell checker) - I've asked Steve LaRouche to proof-read everything once it's done. Jim



9903244R.doc

-----Original Message-----

From: Reimers, Steve (S.J.)
Sent: Monday, December 06, 1999 7:29 AM
To: Lengyel, Jim (J.J.)
Subject: Preview... RE: test 9903244

Jim,

Please email what you have of the 6 page main body of the report (draft is ok) without attachments to Fred (FPORTER) and me. We would like to preview the report.

Thanks,

-----Original Message-----

From: Lengyel, Jim (J.J.)
Sent: Friday, December 03, 1999 3:25 PM
To: Reimers, Steve (S.J.)
Subject: RE: test 9903244

Guess I was a bit of an optimist Steve - not done yet. [...however, remember a pessimist is just "an optimist that thought about it"]

The last of the SEM images was delivered to me yesterday (good thing I wasn't done the promised number of pages changed & would've thrown off numbering). Visited Photomedia @ WHQ to try for some publishing relief. However, They're a buck a page after we get everything into a finished digital format. We need three copies per. So, I'll keep scanning for our report file and be done when I'm done. Trying. I've the main body of a 6 page Report all done - working on attachment pages are heading toward 90 (including the ganging of the 5X7's you made at two to a page).

...Jim

-----Original Message-----

From: Reimers, Steve (S.J.)
Sent: Friday, December 03, 1999 2:42 PM
To: Lengyel, Jim (J.J.)
Subject: RE: test 9903244

Jim,
Is it going to go out this week?

-----Original Message-----

From: Lengyel, Jim (J.J.)
Sent: Monday, November 29, 1999 8:38 AM
To: Reimers, Steve (S.J.)
Subject: RE: test 9903244

Hi Steve,

The balance of outstanding information came in last week. I'm putting everything together right now so the report can go out this week.

...Jim

-----Original Message-----

From: Reimers, Steve (S.J.)
Sent: Monday, November 29, 1999 8:17 AM
To: Lengyel, Jim (J.J.)
Cc: LeRouche, Steve (S.)
Subject: test 9903244

Jim, When will a report be issued for this test?

Steve Reimers
RV&T EESE Chassala E/E Systems
313 39 03288, fax 313 39 04145

**Central Laboratory**

15000 Century Drive
Dearborn, MI 48120-1287
FAX (313) 322-1814

Report 9903244**October 27, 1999**

To: S.J. Reimers - Chassis Electronic Systems, AVT5 (313) 39-03286
From: J.J. Lengyel (313) 59-47484
Subject: Switch, Brake Pressure

Part Number: ▼F2VC-9F924-AB
Specification: (▼ES-F2VC-9F924-AA)
Supplier: Texas Instruments, Inc.

Received: Ten brake switches [an eleventh added on October 20] were received on October 1, 1999.

Sample identifications: Switches were identified with RO Numbers.

RO Number:	375417-A	093339-01	060865-51	108857-01	066101-02	088653-51
RO Number:	097205-01	096512-51	022682-62	ka65363	023267-01	

Objective: Provide switch evaluations for mechanical pressure, electrical conductance, materials analysis and visual reviews noting any presence of any discontinuities, leak paths or other abnormalities.

Conclusion:

MECHANICAL TESTING Brake switch performances are noted in the Data Matrix. See, report attachments.

METALLOGRAPHIC REVIEW The reviewed seals showed evidence of abrasion as well as a build up of deposits. This was noted where seals contacted respective converters and washers. Each switch seal in the collection displayed similar damage patterns.

All of the seals exhibited delamination of the Teflon overlays to the Kapton substrates. Seals exhibited tears in the Teflon and cracks in the Kapton which formed leak paths. The cracks in the Kapton are associated with ridges or buckles that formed within the seals. See, Report Data Section and attachments.

Several of the washers had a heavy build up of copper material in the bevel region. The zinc plating is missing in the bevel as well, exposing the base steel, and initiating rust formation.

CHEMICAL ANALYSIS Where possible, internal fluids were collected in vials and sludge residue material was collected from each switch. Collected "fluids" and propanol solubles of the "sludge materials" are predominantly brake fluid [glycol ether based material] and water. Sludge sampled from switches #04, 06 and 08 contain ester(s) and/or organic acids. The other "sludge" samples are predominantly inorganic materials with copper, aluminum, silicon and zinc being the major components. See, Report Data Section for more detailed analysis.



Test Data: MECHANICAL ANALYSIS *Test Methods, Requestor's Evaluation Plan /Matrix.*

- Pressure, Leak and Observation reviews of Brake Switch -

Brake switch performance & observations are noted in Data Matrix. See, Report attachment

METALLOGRAPHIC ANALYSIS *Surface Analysis (Visual Examination)*

- Visual review of the Kapton elements in the Brake Switch -

Switches were received as-disassembled from the previous Mechanical reviews. The Kapton seals from each switch was separated and starting with the seal next to the converter numbered as 1, 2, and 3. Preceding each examination, the excess brake fluid was blotted from each seal using paper towels. Seals were studied through the aid of a bench microscope capable of variable magnifications ranging from ~7X to ~42X.

Each switch seal in the collection displayed similar damage patterns:

- The seals show evidence of abrasion as well as a build up of deposits where they contacted the converters and washers.
- The Kapton elements exhibit a radial ridge or buckle which extends across the doughnut shaped depression. Ridges line up among the three seal levels in each assembly.
- Teflon overlays exhibit tears which are either associated with the radial ridge, or occur in the delaminated areas.
- Kapton substrates exhibit cracks which occur along the radial ridges or occur around the ends of the ridges. The Kapton is discolored [dark] at the cracks. The source of the discoloration is not known.
- Tears in the Teflon accompanied by cracks in the Kapton formed apparent leak paths through the seals.
- Visual examination of the washers and converters revealed no burrs or other surface imperfections.

Analysis Notes:

Approximate locations for damage to switch seals are shown in sketches Numbered [REDACTED]. See, Report [REDACTED]

For typical examples of damage Figures [REDACTED]. See, Report [REDACTED]

analysis continued:



- SEM review of Brake Switch washer element bevel areas -

Scanning Electron Microscopy (SEM), & Energy Dispersive X-ray Spectroscopy (EDS)

Each washer was ultrasonically rinsed in methylene chloride to degrease it. The washers are zinc plated steel. One side of the washer is flat (back side), and the other side has a bevel in the inner diameter (front side). The zinc plating is intact on the flat portion of the front side of each washer.

- WASHERS -

The relative ranking of amount of copper and rust present in the bevel (highest to lowest) is #04, 07, 09, 06, 02, 03, 11, 10, and 08.

- **WASHER #02** : The back side is missing some plating, and there are spots with rust and copper deposition. The front side has a build up of copper in the bevel region, as well as rust. See, Figures [REDACTED]
- **WASHER #03** : The back side is missing a small amount of plating, and there are intermittent regions with rust present. The front side has a build up of copper in the bevel region, and an asperity of copper build up and rust extending onto the flat portion. See, Figures [REDACTED]
- **WASHER #04** : The back side is missing some plating, with intermittent regions of rust present. The front side has a large build up of copper in the bevel region, some of which is flaking away. See, Figure [REDACTED]
- **WASHER #06** : The back side is missing some plating, and there are spots with rust and copper deposition. The front side has a heavy build up of copper in the bevel region, and an asperity of copper build up extending onto the flat portion. See, Figure [REDACTED]
- **WASHER #07** : The back side is missing some plating, primarily around the inner diameter, and there is rust present. The front side has a heavy build up of copper in the bevel region, extending slightly onto the flat portion in one area. The zinc plating is not uniformly missing in the bevel; there is a crescent that is intact and uncovered. See, Figures [REDACTED]
- **WASHER #08** : The back side is missing some plating, only along the contact point on the outer edge. The front side has some rust present in the bevel, and along the rim of the bevel. See, Figures [REDACTED]
- **WASHER #09** : A large amount of plating is missing on the back side, and there is rust and copper present. The front side has a heavy build up of copper and rust in the bevel, extending at one point onto the flat surface. See, Figures [REDACTED]
- **WASHER #10** : The back side is missing only a slight amount of plating, and there is some rust present in these areas. The front side has some rust present in the bevel, but very little/no copper present. The zinc that was missing appeared to be by pitting. See, Figure [REDACTED]
- **WASHER #11** : The back side is missing some plating, and there is rust present. The front side has a build up of copper and some rust present in the bevel region. See, Figures [REDACTED]



analysis continued:

CHEMICAL ANALYSIS *Test Methods/Site Identifications for Analysis & Observations,*

Fluids were analyzed as-received. Fluids were obtained from four (4) switch locations:

Location - A - Between exterior piece (Sludge side) & polyimide element

Location - B - Between first & second polyimide elements (counting from Sludge side)

Location - C - Between second & third polyimide element (counting from Sludge side)

Location - D - Between the third polyimide element & Hexport

Analysis Notes:

Each Sludge sample was rinsed with propanol. The soluble & insoluble portions were the analyzed separately.

Switches #04, 10 & 11 appeared to contain less fluid than the other samples. The presence of material pieces, what appear to be from a switch contact element, were noted in Samples #01, 02, 07, 10 and 11.

Molecular Characterization *FTIR, Qualitative*

- SWITCHES -

Spectra of the fluid samples from the switches are characteristic of a glycol ether based material (brake fluid) and water.

Spectra of the fluid samples from switches #04 and 08 appeared to be slightly different than the other samples, possibly due to a different brand of fluid being used.

Spectra of fluid from switch #08 also contained an ester.

Spectra of fluid from switch #11 from *Location -D-* contained other, possibly nitrogenous, material in addition to the glycol ether based material and water.

Molecular Characterization *FTIR, Qualitative*

- FLUID -

- **SWITCH #09:** Spectra of the fluid samples for a vial from Switch #09 are characteristic of a glycol ether based material (brake fluid) and water.
- **SWITCH #10:** Spectra of the fluid samples for a vial from Switch #10 are characteristic of a glycol ether based material (brake fluid) and water.



analysis continued:

- SLUDGE -

- **SLUDGE #01:** Spectra of the propanol soluble portion of is characteristic of glycol ether based material with evidence of ester and other materials.

Spectra of the propanol insoluble portion of sludge #01 are not infrared active.

- **SLUDGE #02:** Spectra of the propanol soluble portion of sludge is characteristic of glycol ether based material with ester(s), possibly containing phthalate ester.

Spectra of the propanol insoluble portion of sludge #02 are not infrared active.

- **SLUDGE #03:** Spectra of the propanol soluble portion of sludge is characteristic of glycol ether based material with evidence of ester.

Spectra of the propanol insoluble portion is characteristic of essentially inorganic material, probably containing silicates and/or sulfates, including crystalline silicon dioxide.

- **SLUDGE #04:** Spectra of the propanol soluble portion is characteristic of glycol ether based material with ester(s), possibly containing phthalate ester.

Spectra of the propanol insoluble portion of sludge is are characteristic of ester(s) and/or organic acids, possibly containing phthalate ester and other material.

- **SLUDGE #06:** Spectra of the propanol soluble portion of sludge is characteristic of glycol ether based material with ester(s), possibly containing phthalate ester.

Spectra of the propanol insoluble portion of sludge is characteristic of ester(s) and/or organic acids, possibly containing phthalate ester and other material.

- **SLUDGE #07:** Spectra of the propanol soluble portion is characteristic of glycol ether based material.

Spectra of the propanol insoluble portion of sludge is characteristic of mixed carbonates and other material

- **SLUDGE #08:** Spectra of the propanol soluble portion of is characteristic of glycol ether based material with ester(s), possibly containing phthalate ester.

Spectra of the propanol insoluble portion of sludge is characteristic of ester(s) and/or organic acids, possibly containing phthalate ester and other material.

- **SLUDGE #09:** Spectra of the propanol soluble portion is characteristic of glycol ether based material and ester.

Spectra of the propanol insoluble portion of sludge is characteristic of mixed carbonates and other material.

analysis continued:



- **SLUDGE #10:** Spectra of the propanol soluble portion is characteristic of essentially glycol ether based material.

Spectra of the propanol insoluble portion of sludge is characteristic of mixed carbonates and other material.

- **SLUDGE #11:** Spectra of the propanol soluble portion is characteristic of glycol ether based material with evidence of ester. Spectra of the propanol insoluble portion of sludge is not infrared active.

ELEMENTAL ANALYSIS Sludge Insolubles % by weight¹ (Rigaku X-ray Fluorescence)

Aluminum	1	3	16	8	11	14	11	<1	2	1
Barium	-	-	-	-	1	-	-	-	-	-
Bromine	-	1	<1	<1	<1	3	<1	<1	<1	<1
Calcium	<1	4	8	8	23	-	17	<1	<1	<1
Chlorine	<1	-	<1	<1	-	-	<1	-	-	-
Chromium	<1	-	<1	<1	<1	-	-	<1	-	<1
Cobalt	-	<1	-	<1	<1	-	<1	<1	-	<1
Copper	99	83	18	48	18	50	27	81	85	70
Iron	<1	<1	8	4	2	1	1	4	1	<1
Lead	-	-	<1	<1	<1	-	-	<1	-	<1
Magnesium	-	<1	1	<1	<1	<1	<1	-	-	-
Manganese	<1	-	<1	<1	<1	-	-	<1	-	-
Nickel	<1	<1	<1	1	<1	<1	<1	1	<1	<1
Phosphorus	<1	<1	<1	2	<1	1	<1	<1	<1	<1
Potassium	<1	<1	2	1	<1	-	<1	1	1	<1
Silicon	2	11	37	17	30	1	33	<1	<1	2
Silver	-	11	-	-	-	-	-	2	6	6
Strontium	-	-	<1	-	<1	-	<1	-	-	-
Sulfur	<1	1	1	1	<1	<1	<1	<1	<1	1
Titanium	-	-	2	1	3	-	1	-	-	-
Zinc	3	6	5	13	3	30	10	29	26	8
Zirconium	-	-	-	<1	<1	-	<1	-	-	-

¹ Results are normalized to 100% based upon detected elements. (The instrument cannot detect elements lighter than fluorine). They do not include contributions from elements not listed above.

The precision and accuracy of this technique has been estimated to $\pm 10\%$ for a standard size specimen.

² Indicates none detected²

**Discussion:**

Brake switch performance & physical observations as noted in the Data Matrix were observed by Ford Motor Chassis Electronics System's Steve Reimers, Robert Panek from Exponent Failure Analysis Associates and Rob Sharpe for the Materials & Controls Group of Texas Instruments.

Contributors: M.Haga, P.Nallos, R.Pierzecki & T.Munle

Attachments: Mechanical Analysis Performance/Observations Data Matrix [ONE]
As-received overall brake switch photographs [ELEVEN]
Typical brake switch disassembly photograph [ONE]
Post disassembly review images [THIRTY FOUR]
As-received switch X-ray radiographs [TWELVE]
Magnified Kapton Seal Images [EIGHTEEN]
Brake Pressure Switch Drawing [ONE]
SEM Photomicrographs [EIGHT]
Seal damage area maps [SIX]

Concur:

P. F. Klass, Supervisor
Metallurgy Section

By:

Jim J. Lengyel (JLENGYEL)
Laboratory Specialist

Porter, Fred (F.J.)

From: Reimers, Steve (S.J.)
Sent: Wednesday, November 10, 1999 4:04 PM
To: Porter, Fred (F.J.)
Subject: FW: Kapton Crack Analysis

fyi

-----Original Message-----

From: LaRouche, Steve (S.)
Sent: Wednesday, November 10, 1999 3:45 PM
To: Reimers, Steve (S.J.)
Cc: Lengyel, Jim (J.J.); LaRouche, Steve (S.)
Subject: RE: Kapton Crack Analysis

Steve: I have completed examination of the Kapton seals. We are starting to photograph them this afternoon. All the switches show similar patterns of damage to the seals:

1. The Kapton has been permanently deformed to the contour of the washer and converter. The Teflon has delaminated in these areas and is stretched across the depressions almost like a drum.
2. The Kapton has been buckled in a radial direction where it has been deformed into the doughnut shaped cavity formed by the washer and converter. All of the seals exhibit cracks in the Kapton which occur along this buckle. Some of the seals also exhibit cracks in the Kapton which extend around the tips of the buckles. The Kapton has been discolored (dark) at the cracks. The source of the discoloration is not known.
3. All the seals show tears in the Teflon usually which in some instances coincide with the cracks in the Kapton, and in other instances occur where the Teflon has been stretched across the depressions in the Kapton.
4. The seals show evidence of abrasion as well as a buildup of deposits in the areas where they contacted the converters and washers. The mechanical damage and cracking seems most severe in the seals which contacted the converters and washers. This suggests that the damage may have started in those seals and progressed to the other seals.

I also examined the washers and converters under a bench microscope and found no burrs or other surface or plating imperfections that could have caused damage to the seals. This will be confirmed by examining some of these parts with the scanning electron microscope. I did see a lot of deposits which may have caused abrasion. Some of the deposits are copper colored which may suggest metal transfer like we found in earlier investigations.

Steve LaRouche (SLAROUCH)
Metallurgy Section, Central Laboratory, Room NM10
(313) 845-4876 (313) 322-1614 FAX

-----Original Message-----

From: Reimers, Steve (S.J.)
Sent: Wednesday, November 10, 1999 2:27 PM
To: LaRouche, Steve (S.)
Subject: Kapton Crack Analysis

Steve, Have you completed the examination of the Kapton layers for cracking in the 11 samples of test number 9903244?

Steve Reimers
RV&T EESE Chassis E/E Systems
313 39 03286, fax 313 39 04145

1982-1983 CROWN VICTORIA/BRAND MARQUEES AND
1982, 1983, 1984 LINCOLN TOWN CAR
UNDER \$4000 FREG

NO.	OWNER Name	Address	City	State	ZIP	Telephone Number	VEHICLE VIN	Color	Trunk Control	Power Lock Group	Power Air Spring Group	Engine and Fuel	Model Year	Model	Sold Date	Buy Date	Price
10			San Francisco Falls	WA								Engine off	1984	Town Car	01/14/84	01/28/84	\$8,781
11			Washington	AL								Unknown	1981	Town Car	08/14/81	08/17/81	\$0,217
12			Washington	NY								Engine off	1984	Town Car	08/13/84	08/28/84	\$8,850
13			Washington	ME								Engine off	1981	Town Car	Unknown	Unknown	\$8,008
14			Washington	AL								Engine on	1984	Town Car	08/16/84	08/24/84	\$8,088
15			Washington	CA								Unknown	1984	Town Car	08/28/84	01/28/85	\$4,888
16			Washington	TX								Unknown	1985	Town Car	08/28/85	08/18/85	\$7,888
17			Washington	FL								Engine on	1984	Town Car	11/03/84	11/24/84	\$4,888
18			Washington	DC								Unknown	1981	Town Car	10/21/81	10/21/81	\$2,888
19			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
20			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
21			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
22			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
23			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
24			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
25			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
26			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
27			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
28			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
29			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
30			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
31			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
32			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
33			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
34			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
35			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
36			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
37			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
38			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
39			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
40			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
41			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
42			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
43			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
44			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
45			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
46			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
47			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
48			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
49			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
50			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
51			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
52			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
53			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
54			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
55			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
56			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
57			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
58			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
59			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
60			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
61			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
62			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
63			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
64			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
65			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
66			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
67			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
68			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
69			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
70			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
71			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
72			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
73			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
74			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
75			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
76			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
77			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
78			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
79			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
80			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
81			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
82			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
83			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
84			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
85			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
86			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
87			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
88			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
89			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
90			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
91			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
92			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
93			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
94			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
95			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
96			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
97			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
98			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
99			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888
100			Washington	DC								Unknown	1981	Town Car	Unknown	Unknown	\$0,888

PRODUCED BY FORD

1982-1993 CROWN VICTORIA/LINCOLN MARKLES AND
1982, 1984, 1986 LINCOLN TOWN CAR
UNDERHOOD FIRE

File #	Name	Address	City	State	ZIP	Telephone Number	Vehicle	Roller Test	Vehicle Status	Power Lock Equip	Power Air Equip	Engine Status	Model Year	Model	Build Date	File Date	mileage
82			Jackson	GA			SPACEDISC	N	Y (Code 4)	Y	N	Unknown	1982	Crown	06/22/82	07/14/82	38,001
87			Arlington	VA			SPACEDISC	N	N	Y	N	Engine off	1982	Brick	03/28/81	03/28/81	800
88			Dee Moore	GA			SPACEDISC	N	Y	Y	N	Engine on	1982	Crown	08/28/82	08/28/82	34,000
89			East Lake City	UT			SPACEDISC	VEHICLE NOT FOUND IN DATABASE				unknown	1982	Crown	08/01/82	07/28/82	45,000
88			Shawboro	GA			SPACEDISC	N	Y (Code 4)	Y	N	Engine on	1982	Crown	08/28/82	07/12/82	7,700
91			Possible Support	NY			SPACEDISC	N	N	N	N	Engine	1982	Crown	08/11/81	07/16/81	40,000
92			Louisville	KY			SLALMAY	N	N	N	N	Engine	1982	Town Car	08/28/82	08/28/82	84,000
93			High Point	NC			SLALMAY	N	N	N	N	Engine	1981	Town Car	12/02/80	12/02/80	78,000
94			Polly Hill	SD			SLALMAY	N	N	N	N	Engine on	1984	Town Car	03/24/84	03/24/84	43,000
95			Lansdown Hill	SD			SLALMAY	N	N	N	N	Engine	1984	Town Car	08/01/84	08/01/84	47,700

1992-1993 CROWN VICTORIA/GRAND MARQUIS AND
1992, 1994, 1995 LINCOLN TOWN CAR
UNDERHOOD FIRES

Possible problem description	REPORT	
	Date	Type
Underhood. Cruise control inop.	06/08/93	MORS
Underhood. unknown. Replaced blown fuse for brake switch and parking mod.	07/07/97	MORS
Underhood. brake light wires and other wires touching brake lid. brakes L.R. failed.	10/15/95	MORS
Underhood. electrical short melted brake fluid container.	12/03/94	MORS
Underhood. Elect. sold investigator.	09/24/94	MORS
Underhood. Fire of car.	10/13/97	MORS
Underhood. Fluids coming out from under car.	09/25/93	MORS
Underhood. Transmission locked up heating fluid.	10/26/95	MORS
Underhood. Unknown.	11/02/93	MORS
Underhood. Front of vehicle.	09/24/94	MORS
Underhood. in bowfired by heater boxes.	11/03/94	MORS
Underhood. Unknown.	07/29/97	MORS
Underhood. Unknown.	12/10/95	MORS
Underhood. Unknown, Passenger side of engine compartment.	03/07/94	MORS
Underhood. Unknown.	04/05/94	MORS
Underhood. Unknown.	10/25/94	MORS
Underhood. Unknown.	08/01/94	MORS
Underhood. Unknown.	10/31/95	MORS
Underhood. Unknown.	03/21/97	MORS
Underhood. Left front.	07/18/94	MORS
Underhood. Starter was burnt.	05/06/95	MORS
Underhood. Alternator burnt up on vehicle.	05/24/99	MORS
Underhood. Fuel leak and injector on left side of engine.	10/04/93	MORS
Underhood. Heating system.	05/20/96	MORS
Underhood. Alternator burned up.	10/19/95	MORS
Underhood. Unknown, fire department indicates battery related.	10/21/93	MORS
Underhood. Master Cylinder.	06/22/95	MORS
Underhood. Left side of vehicle.	05/01/99	MORS
Underhood. Above the driver's side left wheel.	07/25/95	MORS

PRODUCED BY FORD

1992-1993 CROWN VICTORIA/GRAND MARQUIS AND
1992, 1994, 1995 LINCOLN TOWN CAR
UNDERHOOD PSES

Possible problem description	REPORT	
	Date	Type
Underhood. Vehicle would not start. Sticking fuel pump relay.	01/21/97	MORS
Underhood. Master cylinder ran hot.	10/30/97	MORS
Underhood. Unknown	09/23/96	MORS
Underhood. Unknown	04/26/98	MORS
Underhood. Unknown, 5 repair attempts, torque converter was replaced.	07/12/96	MORS
Underhood. Unknown	01/21/97	MORS
Underhood. Unknown	11/17/97	MORS
Underhood. Fuel pump replaced, vehicle bucked in reverse or driving.	11/15/97	MORS
Underhood. Unknown	07/28/95	MORS
Underhood. Dealer replaced brake booster and master cylinder.	07/08/93	MORS
Underhood. Unknown, A/C blower hot.	03/17/93	MORS
Underhood. electrical	12/01/95	MORS
Underhood. Front end of vehicle, Unknown	05/12/95	MORS
Underhood. Electrical, front fender area looks like starter.	10/12/95	MORS
Underhood. Unknown	02/16/93	MORS
Underhood. Unknown	03/11/98	MORS
Underhood. Left front of vehicle.	01/02/98	MORS
Underhood. Brake booster, bind.	04/28/94	MORS
Underhood. Faulty fuel line.	04/11/96	MORS
Underhood. Alternator	08/13/97	MORS
Underhood. Trying to jump start another car. Alleges a faulty battery.	09/20/98	MORS
Underhood. Alternator melted fuse box, battery go all the way to floor.	03/11/97	MORS
Underhood. Electrical, in area of battery.	04/18/94	MORS
Underhood. Vehicle would not shift out of park.	10/07/97	CCRS
Underhood. Brake pressure switch.	04/21/97	CCRS
Underhood. Fluid was leaking from under car.	08/19/93	CCRS

PRODUCED BY FORD

1992-1993 CROWN VICTORIA GRAND MARQUIS AND
1992, 1994, 1985 LINCOLN TOWN CAR
UNDERHOOD FIRES

Possible problem description	REPORT	
	Date	Type
Underhood. Unknown	11/02/83	COIS
Underhood. Fuel line ruptured.	04/12/91	COIS
Underhood. Brake lines between master cylinder and HCU went ruptured.	11/09/94	COIS
Underhood. Hoses for 93-B-25 recall ruptured.	08/06/95	COIS
Underhood. police car doing 100 MPH, wiring to 01/22/93 transmission melted.		COIS
Underhood. Alternator connector shorting out.	07/21/93	COIS
Underhood. Electrical problems starting system.	02/12/98	COIS
Underhood. Delta PFE hose burnt up.	08/01/94	COIS
Underhood. Camshaft is inserted into head.	05/18/97	COIS
Underhood. Air compressor blowing 30 amp fuse. Linen.	09/10/95	COIS

PRODUCED BY FORD

ALL REPORTS

NO.	OWNER NAME	ADDRESS	CITY	STATE	ZIP	TELEPHONE	VIN	MODEL	YEAR	MAKE	DATE	SALE	REPORT	REPORT	RELEASE	REPORT	POSSIBLE
1			Boyer	OK			LNLMSTW7N		1982	Town Car	02/19/82	05/02/82	07/17/84	CCB	24,200	Fire	Reported brake lines tested on wheel work and caused a fire.
2			Brigham Park	IL			LNLMSTW7N		1982	Town Car	12/08/81	08/27/82	08/28/82	CCB	22,000	Fire	Brakes.
3			Stable	IL			LNLMSTW7N		1982	Town Car	12/18/81	01/05/82	09/02/82	CCB	21,280	Malfunction	Brake fluid leaked on wheel.
4			Los Angeles	CA			LNLMSTW7N		1982	Town Car	01/18/82	08/08/82	08/20/82	CCB	27,440	Fire	Brake fluid leaked near master cylinder.
5			Dartmouth	MA			LNLMSTW7N		1982	Town Car	08/27/81	08/28/81	04/28/82	CCB	217,000	Fire	Alternator belt drive system.
6			Gainesville	FL			LNLMSTW7N		1982	Town Car	12/18/81	07/01/82	05/08/82	CCB	15,770	Malfunction	Overheated, valve test brake, A/C heater, burned.
7			Memphis	TN			LNLMSTW7N		1982	Town Car	08/10/82	08/08/82	10/08/82	CCB	21,800	Fire	Speed control disconnector switch x
8			FL Lauderdale	FL			LNLMSTW7N		1982	Town Car	04/07/82	10/28/82	04/01/87	CCB	28,200	Brake	Brake pressure valve caught on fire x
9			San Antonio	CA			LNLMSTW7N		1982	Town Car	07/03/82	08/23/82	12/27/84	CCB	26,200	Malfunction	Overheated, melted valve.
10			Pasadena	NY			LNLMSTW7N		1982	Town Car	08/08/82	08/08/82	01/08/85	CCB	48,115	Overheated	Spark plug wires melted.
11			Troy	OH			LNLMSTW7N		1982	Town Car	07/28/82	11/02/82	08/08/84	CCB	14,800	Fire	Brakes.
12			Northbrook	IL			LNLMSTW7N		1982	Town Car	08/08/82	11/08/82	07/08/82	CCB	40,000	Brake	Electrical wiring, while driving.
13			Peapack	IL			LNLMSTW7N		1982	Town Car	08/27/82	08/11/82	08/14/82	CCB	25,200	Fire	Unknown. Poor wheel (MOPAR), engine off.
14			Englewood	MI			LNLMSTW7N		1982	Town Car	08/10/82	12/18/82	07/08/84	CCB	12,000	Fire	Unknown, engine on, killing in the at bank.
15			New Orleans	LA			LNLMSTW7N		1982	Town Car	08/08/82	07/18/82	08/08/82	CCB	5,800	Fire	Unknown.
16			Iron Station	NC			LNLMSTW7N		1982	Town Car	04/01/82	04/18/82	08/04/84	CCB	23,811	Fire	Unknown, engine off, just parked on.
17			Pittsburgh	PA			LNLMSTW7N		1982	Town Car	12/04/82	01/02/83	08/08/82	CCB	12,000	Fire	Wiring harness, vehicle modified.
18			Rochester	NY			LNLMSTW7N		1982	Town Car	03/18/82	08/02/82	08/20/82	CCB	29,000	Fire	Unknown.
19			Mount Laurel	FL			LNLMSTW7N		1982	Town Car	11/20/81	12/24/81	08/27/82	CCB	44,000	Fire	Unknown, engine off - parked in garage.
20			Melbourne	FL			LNLMSTW7N		1982	Town Car	07/30/82	08/15/82	01/02/87	CCB	60,000	Fire	Electrical system, probable engine off, parked.
21			Indianapolis	IN			LNLMSTW7N		1982	Unknown	07/12/82	08/02/82	09/12/82	CCB	24,800	Fire	Underhood, engine off, parked.
22			Indianapolis	IN			LNLMSTW7N		1982	Town Car	05/11/82	07/30/82	08/22/82	CCB	60,000	Fire	Unknown, engine on.
23			Jackson	MS			LNLMSTW7N		1982	Town Car	08/08/82	08/21/82	07/21/82	CCB	64,000	Fire	Unknown, engine off 15 hours.
24			St. Matthews	LA			LNLMSTW7N		1982	Town Car	05/10/82	01/02/83	05/14/87	CCB	26,000	Fire	Unknown, engine off.
25			Port St. Louis	FL			LNLMSTW7N		1982	Town Car	07/21/82	10/08/82	01/02/83	CCB	21,000	Fire	Unknown, engine off, parked in garage.
26			Blount	FL			LNLMSTW7N		1982	Town Car	04/08/82	04/17/82	12/02/87	CCB	1	Fire	Unknown, engine off - parked in garage.
27			Baytown	TX			LNLMSTW7N		1982	Town Car	10/08/81	08/08/82	08/17/84	CCB	27,000	Fire	Unknown.
28			Deerfield Hills	CA			LNLMSTW7N		1982	Town Car	08/18/82	08/28/82	05/14/83	CCB	126	Fire	Unknown.
29			New York	LA			LNLMSTW7N		1982	Town Car	10/11/81	11/14/81	01/12/82	CCB	18,000	Fire	Unknown, probable engine off.
30			San Antonio	TX			LNLMSTW7N		1982	Town Car	02/14/82	07/02/82	04/02/87	CCB	28,000	Fire	Overheated area, probable engine off.

All reports

31		FL	36104	04/14/82	11/10/81	WYTHES	1982	Town Car	082048	04/10/82	12/20/82	MORF	80,000	Fire	Engine compartment, alleged gas leak. total vol burn engine off
32	Lowell	GA					1982	Town Car	082048	04/10/82	05/20/82	MORF	80,000	Fire	Unknown engine on
33	Waco	IL					1982	Town Car	072048	04/17/82	12/12/82	MORF	60,012	Fire	Believe engine on
34	Agate	NY					1982	Town Car	082048	04/10/82	07/20/82	MORF	11,000	Fire	Believe engine on
35	Proby	TX					1982	Town Car	082048	04/10/82	12/20/82	MORF	70,000	Fire	Unknown engine on
36	Roberts	TX					1982	Town Car	082048	04/10/82	08/10/82	MORF	80,000	Fire	Engine off - parked in garage Fire started above the left front tire, probable engine off, parked in garage
37	Summit	NY					1982	Town Car	072048	07/21/82	08/20/82	MORF	1	Fire	Engine compartment engine off
38	Stanswood	MO					1982	Town Car	082048	04/14/82	06/20/82	MORF/VOQ	87,884	Fire	Wiring harness in engine compartment, parked, engine off
39	Wetley	FL					1982	Town Car	072048	10/20/82	07/20/82	MORF	47,800	Fire	Motor, connecting rods broken engine on
40	Summit	TX					1982	Town Car	082048	08/21/82	10/20/82	MORF	120,000	Fire	Under the hood - electrical, problem sensor for the ABS
41	Fernandez	FL					1982	Town Car	082048	04/10/82	08/20/82	MORF	1	Fire	Unknown engine off, parked in garage
42	E. Ashworth	NY					1982	Town Car	102148	08/12/82	08/21/82	MORF	80,000	Fire	Under the hood, probable engine off
43	Wasserman	MO			Unknown		1982	Unknown	Unknown	Unknown	Unknown	MORF	60,000	Fire	Under the hood, probable engine off
44	Miami	FL					1982	Town Car	11/10/82	12/20/82	01/20/83	MORF	45,000	Fire	Under the car, vehicle parked. Probable engine off
45	Dove Nelson	FL					1982	Town Car	072048	08/14/82	10/20/82	MORF	47,000	Fire	Under the engine, in for service, either would not go out of park Vehicle parked, engine off
46	Parrot Hill	NY					1982	Town Car	10/14/81	10/24/81	08/12/82	MORF	1	Fire	Electrical short, vehicle parked, engine off
47	Chesley	MO					1982	Town Car	082048	08/10/81	08/20/81	MORF	60,000	Fire	Front suspension, believe to be rising for air suspension, air side system indicator light on
48	Lebanon	OH					1982	Town Car	04/14/82	08/01/82	11/01/82	MORF/VOQ	100,000	Fire	Ignition or electrical system, engine off, parked
49	Brown	GA					1982	Town Car	082048	08/10/82	04/20/83	MORF	60,007	Fire	Unknown, engine off for 10 minutes, no key in ignition. Parked in garage
50	Yonkers City	MO					1982	Town Car	082048	08/10/82	10/20/82	MORF	70,000	Fire	Electrical system, engine on, brakes failed prior to fire
51	Houston	TX					1982	Town Car	082048	11/05/81	04/20/82	MORF	60,000	Fire	Electrical, car was parked, probable engine off
52	Levy Summit	MO					1982	Town Car	102048	11/14/81	08/20/82	MORF	71,000	Fire	Brake system overheat, (could data indicate this may not have been (pressure sensor)
53	Jensen (Mach	FL					1982	Town Car	12/11/81	01/14/82	03/10/82	MORF	70,000	Fire	Electrical

All reports

64		Westlake	LA	11/11/81	1988	Town Car	082542	071182	01/12/81	MOPE/VOQ	64,700	Fire	Unknown engine off, parked 2 1/2 hour, when 6 miles prior to parking
65		Staple	LA	11/11/81	1982	Town Car	071618	080843	12/08/87	MOPE/VOQ	66,000	Fire	Electrical short, engine off, parked in driveway compressor replaced 19 August.
66		West Palm Beach	FL	11/11/81	1982	Town Car	012388	021148	18/14/87	MOPE	75,000	Fire	Electrical, vehicle sitting down hour, probable engine off
67		Baytown	TX	11/11/81	1982	Town Car	021882	040182	0828/87	MOPE/VOQ/Chgs	67,200	Fire	Electrical system, engine off, parked
68		Austin	TX	11/11/81	1988	Town Car	050518	080182	0828/87	MOPE/Chgs	65,000	Fire	Engine, Parked, engine off, Unknown.
69		Lubbock	TX	11/11/81	1982	Town Car	121751	042882	0818/87	MOPE	108,800	Fire	Parked in driveway, probable engine off.
70		Villa Park	IL	11/11/81	1982	Town Car	121951	010382	0828/87	MOPE	66,000	Fire	Left front tire, Possible brake system, Unknown.
71		Houston	TX	11/11/81	1982	Town Car	042802	110282	0708/87	MOPE	66,000	Fire	Parked for 2 minutes, probable engine off.
72		Clearwater	FL	11/11/81	1984	Town Car	082042	082882	0828/87	MOPE	68,000	Fire	Unknown, Parked in driveway, probable engine off.
73		Cocoa Beach	FL	11/11/81	1982	Town Car	081801	080281	0818/87	MOPE/VOQ	70,000	Fire	Left front wheel area, suspected fuel leaking system, Engine.
74		Dallas	TX	11/11/81	1982	Town Car	042842	040182	0802/87	MOPE	66,000	Fire	Engine.
75		Leesburg	VA	11/11/81	1982	Town Car	042782	081382	0408/87	MOPE	111,800	Fire	Unknown.
76		Houston	TX	11/11/81	1982	Town Car	041882	080182	0817/87	MOPE	120,000	Fire	Under the hood.
77		Lubbock	TX	11/11/81	1982	Town Car	082801	112801	0818/87	MOPE	78,000	Fire	Unknown.
78		Memphis	TN	Unknown	1982	Unknown	Unknown	Unknown	0818/87	MOPE	1	Fire	Under the hood.
79		Lubbock	TX	11/11/81	1982	Town Car	050482	082882	0421/87	MOPE	67,000	Fire	Electrical short, Probable engine off, parked.
80		Meriden	LA	11/11/81	1982	Town Car	071182	080182	10/04/87	MOPE	80,000	Fire	Electrical, Parked, probable engine off.
81		Mount Holly	NJ	11/11/81	1982	Town Car	101882	180882	0808/87	MOPE	80,000	Fire	Electrical, Probable parked, probable engine off.
82		West Columbia	SC	Unknown	1982	Unknown	Unknown	Unknown	0808/87	MOPE	8,000	Shard	Roller, vehicle involved with wheel over 18, State line lowered from master cylinder.
83		Cumming	GA	11/11/81	1982	Town Car	022882	081182	0401/87	MOPE	64,000	Fire	Catalytic converter, engine light on, Engine on.
84		Chatt	OK	11/11/81	1982	Town Car	071082	082882	0708/87	MOPE/VOQ	118,500	Fire	Spark plug/seals.
85		Vero Beach	FL	08/08/81	1982	Or Merc	040882	050882	0812/88	VOQ/CC28/VOQ	80,000	Fire	Speed control disconnector switch, SP&A.
86		Udleson	MA	11/11/81	1982	Town Car	112801	112701	Unknown	VOQ	Unknown	Fire	Unknown.
87		Udleson	MA	11/11/81	1982	Town Car	082882	080882	Unknown	VOQ	Unknown	Fire	Unknown.
88		Island	FL	11/11/81	1982	Town Car	071882	0821/88	Unknown	VOQ/Chgs	80,047	Fire	Unknown.
89		Udleson	MA	11/11/81	1982	Town Car	040882	082882	Unknown	VOQ	Unknown	Fire	Unknown.
90		Udleson	MA	11/11/81	1982	Town Car	082882	081882	Unknown	VOQ/Chgs	Unknown	Fire	Unknown. Prior accident (04/06).

Abstract

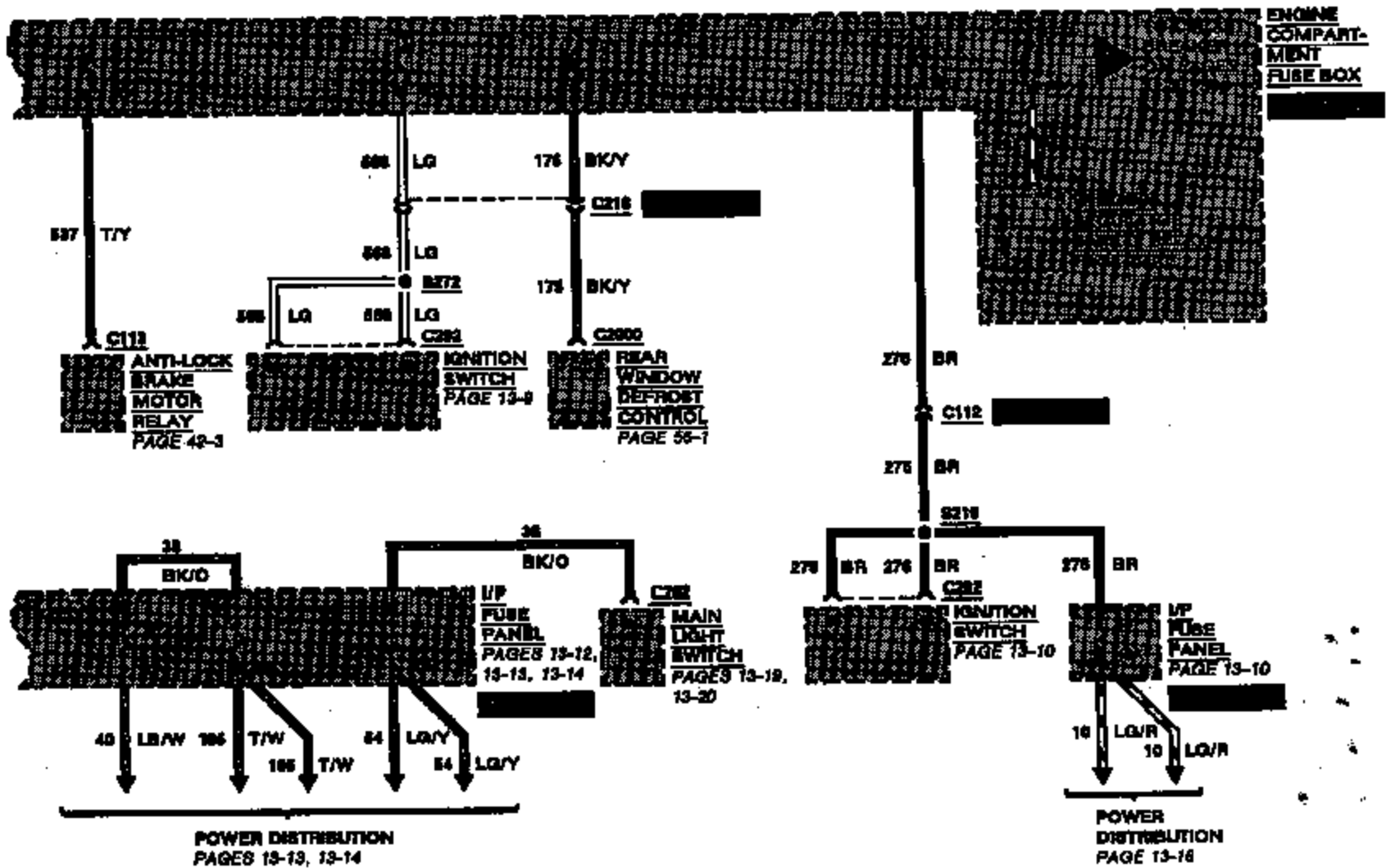
[illegible]

References

101	Unknown	Unknown	MA	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0702005	Chair	Unknown	Fire	Engine.
102	Unknown	Unknown	TX	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Electrical fire.
103	Unknown	Unknown	TX	Unknown	11/11/1987	1987	Toyota	1102002	1102002	1102002	Chair	Unknown	Fire	Engine compartment.
104	Unknown	Unknown	IL	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Engine compartment.
105	Unknown	Unknown	MA	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Front overpass/hood.
106	Unknown	Unknown	TX	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Involved in date from date file to display.
107	Unknown	Unknown	TX	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Electrical malfunction.
108	Unknown	Unknown	MA	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Exhausting wiring.
109	Unknown	Unknown	MA	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Unknown.
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112	Unknown	Unknown	IL	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Under hood.
113	Unknown	Unknown	IL	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Unknown.
114	Unknown	Unknown	OR	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Engine compartment.
115	Unknown	Unknown	FL	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Under hood.
116	Unknown	Unknown	NY	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Unknown.
117	Unknown	Unknown	TX	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Engine compartment.
118	Unknown	Unknown	FL	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Unknown.
119	Unknown	Unknown	TX	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Engine compartment.
120	Unknown	Unknown	MA	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Unknown.
121	Unknown	Unknown	TX	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Engine compartment.
122	Unknown	Unknown	FL	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Unknown.
123	Unknown	Unknown	MA	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Engine compartment.
124	Unknown	Unknown	TX	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Unknown.
125	Unknown	Unknown	FL	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Engine compartment.
126	Unknown	Unknown	MA	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Unknown.
127	Unknown	Unknown	TX	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Engine compartment.
128	Unknown	Unknown	FL	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Unknown.
129	Unknown	Unknown	MA	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Engine compartment.
130	Unknown	Unknown	TX	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Unknown.
131	Unknown	Unknown	FL	Unknown	11/11/1987	1987	Toyota	0601092	0601092	0601092	Chair	Unknown	Fire	Engine compartment.
132	Unknown	Unknown	MA	Unknown	11/11/1987	1987	Toyota	0601092	0601092					

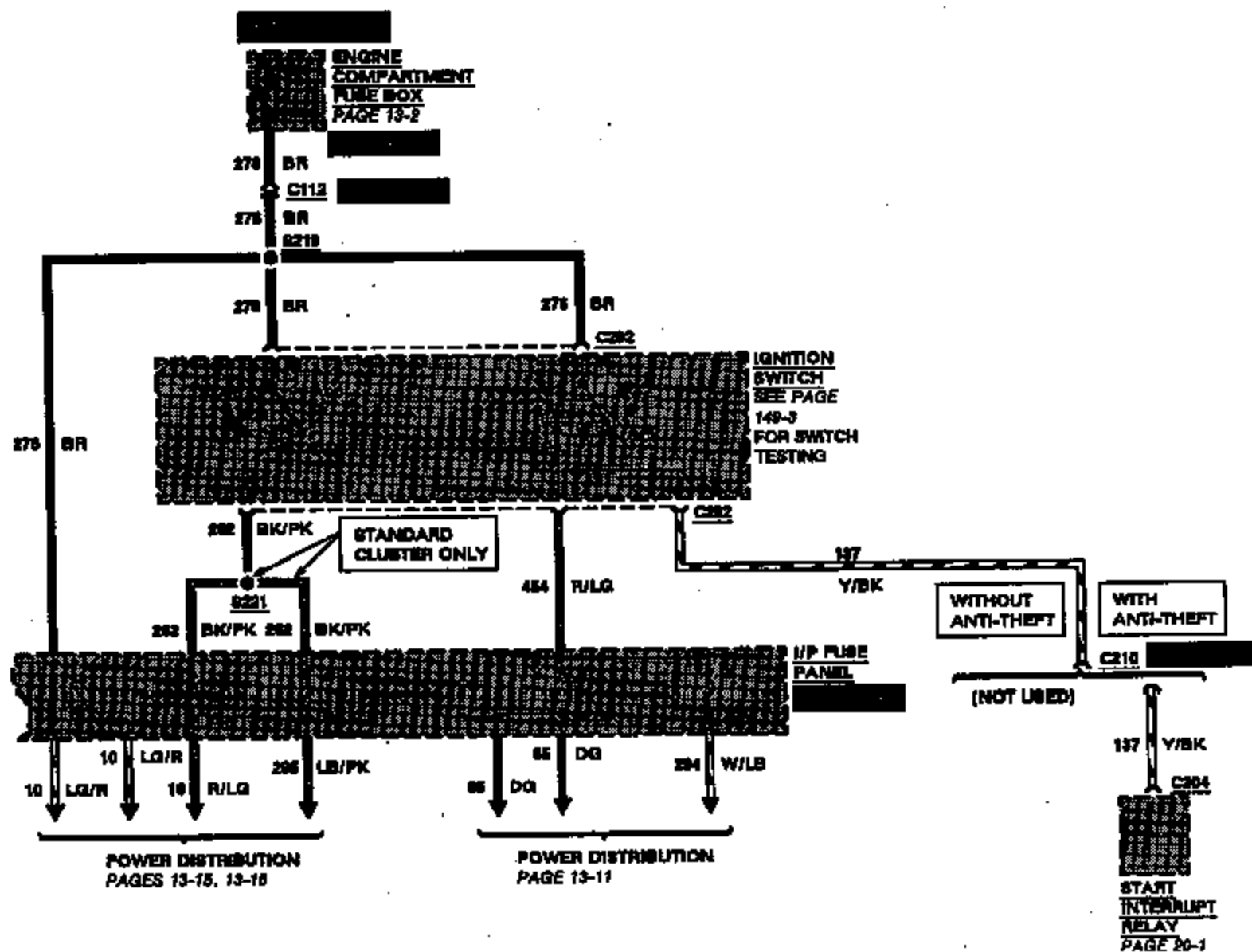
	NO. OF CYCLES	BRAKE FLUID PRESSURE (PSI)	% OF BRAKE EVENTS UNDER THIS PRESSURE	AVERAGE TEMP (deg F)	BRAKE FLUID TEMP (deg F)
SPEC IMPULSE TEST	800000	1800	100%	220	270
ACTUAL VEHICLE TEST					
"Normal" STOP	N/A	400	N/A	N/A	N/A
"Hard" STOP	N/A	800	N/A	N/A	N/A
"Ass" STOP	N/A	1400*	N/A	N/A	N/A
CUSTOMER USAGE PROJECTIONS (Crews Vio 180K mile estimate)					
50th PERCENTILE	500000	unknown/variable	unknown/variable	unknown/variable**	unknown/variable**
80th PERCENTILE	700000	unknown/variable	unknown/variable	unknown/variable	unknown/variable
90th PERCENTILE	800000	unknown/variable	unknown/variable	unknown/variable	unknown/variable
95th PERCENTILE	1000000	unknown/variable	unknown/variable	unknown/variable	unknown/variable
99th PERCENTILE	1800000	unknown/variable	unknown/variable	unknown/variable	unknown/variable
*Fluor value shown, then drops to 800 PSI for rest of brake event.					
**Typical unshielded ambient temperature is 180-210 F, brake fluid will exceed this due to rotor heating if long, hard braking is done. Assume 230-260 F.					
ASSUMPTIONS: The pressure applied to the brake fluid during a braking event, multiplied by the number of cycles using that pressure will indicate the durability of the part (i.e., The spec test calls for 800000 cycles at 1800 psi, so durability indicator would be 800000 X 1800 = 720 million).					
TO EQUATE SPEC TEST CYCLES & PRESSURE TO CUSTOMER USAGE: Make assumptions of what % of a customer's braking events are at which type of braking ("normal", "hard", and "Ass") to determine pressure, use customer profiles to determine number of cycles & equate to durability indicator (i.e., 720 million).					
EXAMPLE:					
90th PERCENTILE	1800000				
1728000	400	80%	561800000		
64000	800	9%	45000000		
18000	1400	1%	25200000		
			700000000		SIMILAR
If 90th percentile driver uses normal stopping 80% of the time, panic stopping 9% and Ass stopping 1%, the wear on the part would be similar to what occurs to the part during the spec test.					
90th PERCENTILE	1800000				
1170000	400	80%	468000000		
450000	800	9%	360000000		
180000	1400	10%	252000000		
			1080000000		OVER SPEC
80th PERCENTILE	1300000				
878000	400	70%	380000000		
280000	800	20%	208000000		
92000	1400	8%	110000000		
			698000000		under SPEC
60th PERCENTILE	600000				
576000	400	95%	324000000		
114000	800	12%	115000000		
28000	1400	3%	36000000		
			475000000		under SPEC
50th PERCENTILE	700000				
630000	400	90%	226000000		
80000	800	8%	44800000		
14000	1400	2%	19600000		
			310400000		under SPEC
30th PERCENTILE	300000				
270000	400	90%	180000000		
30000	800	4%	16000000		
6000	1400	1%	7000000		
			213000000		under SPEC

POWER DISTRIBUTION 13-2



3713 9088

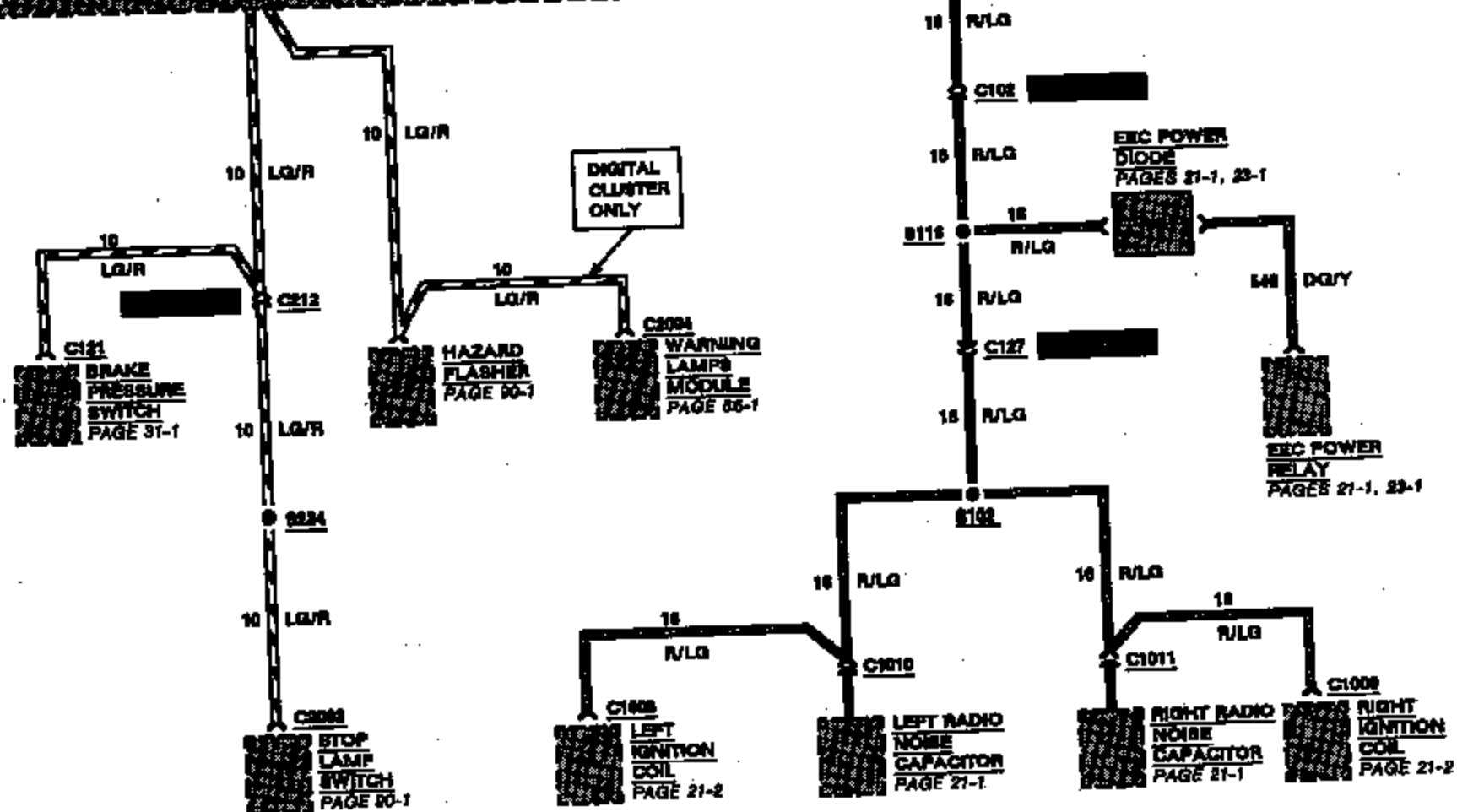
POWER DISTRIBUTION 13-10



3713 9089

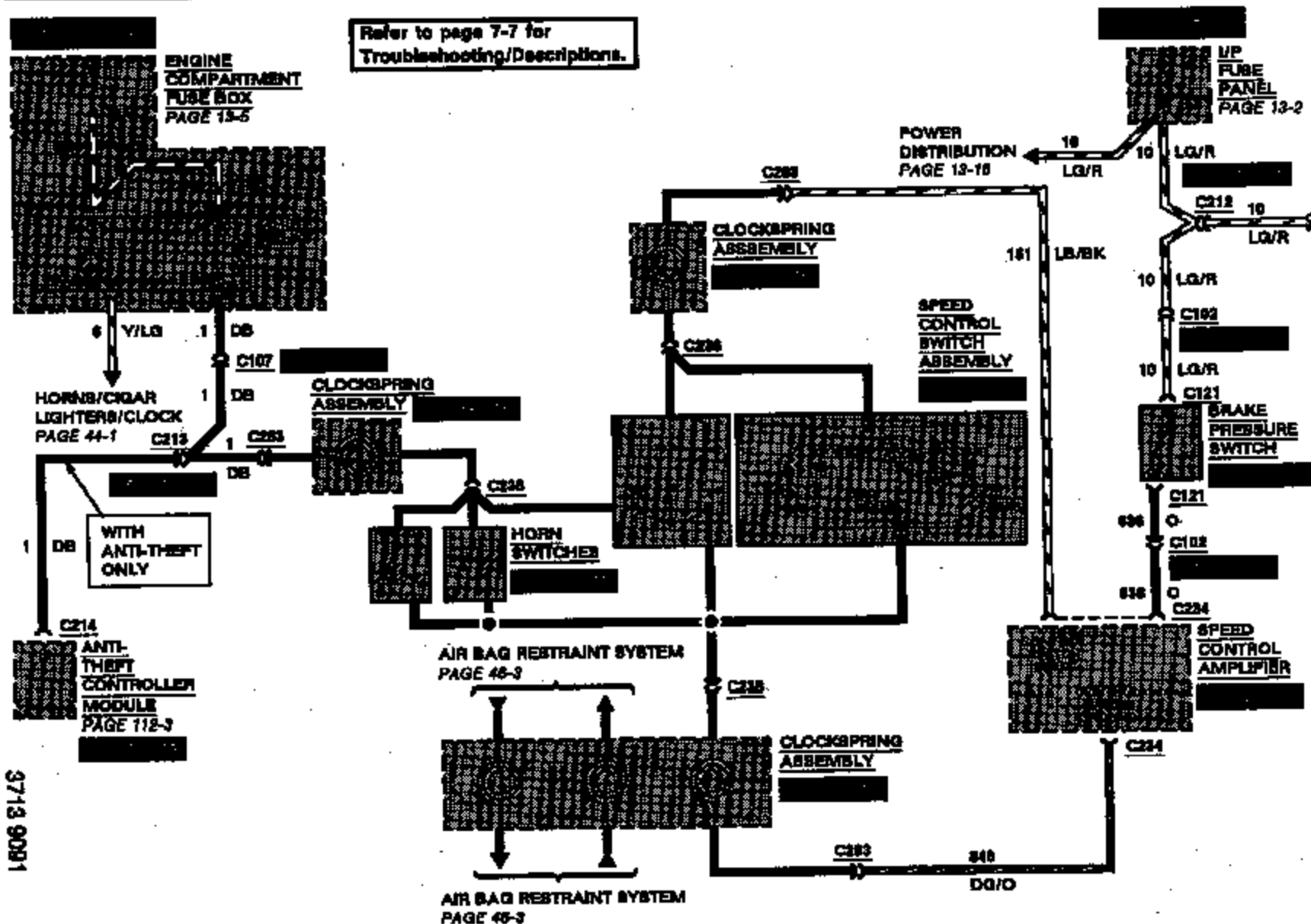
POWER DISTRIBUTION 13-16

UP
FUSE
PANEL
PAGE 13-10



3713 9090

31-1 SPEED CONTROL



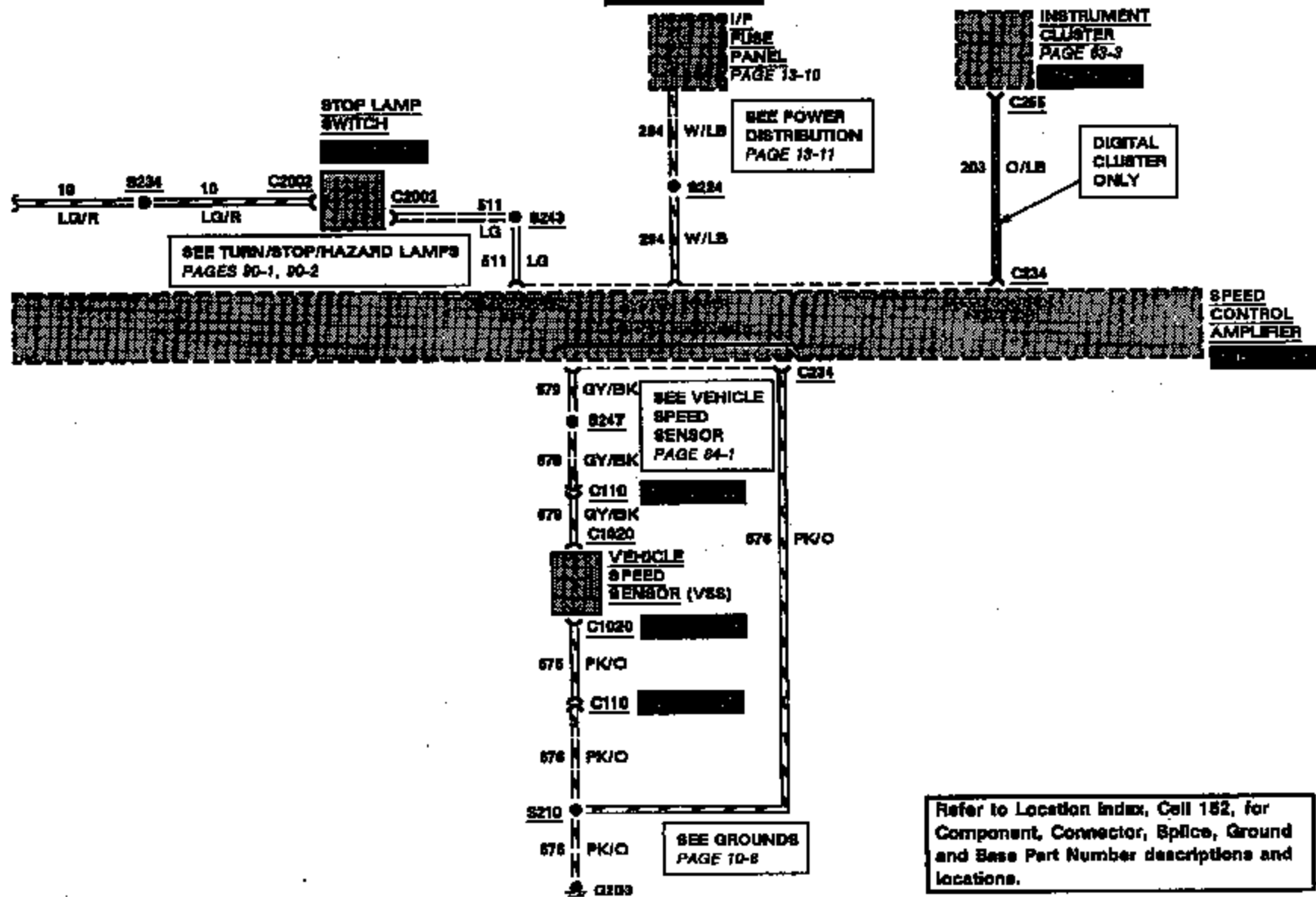
SPEED CONTROL 31-2

E
TEL
E 13-2

Q/R

IRE

3713 9092

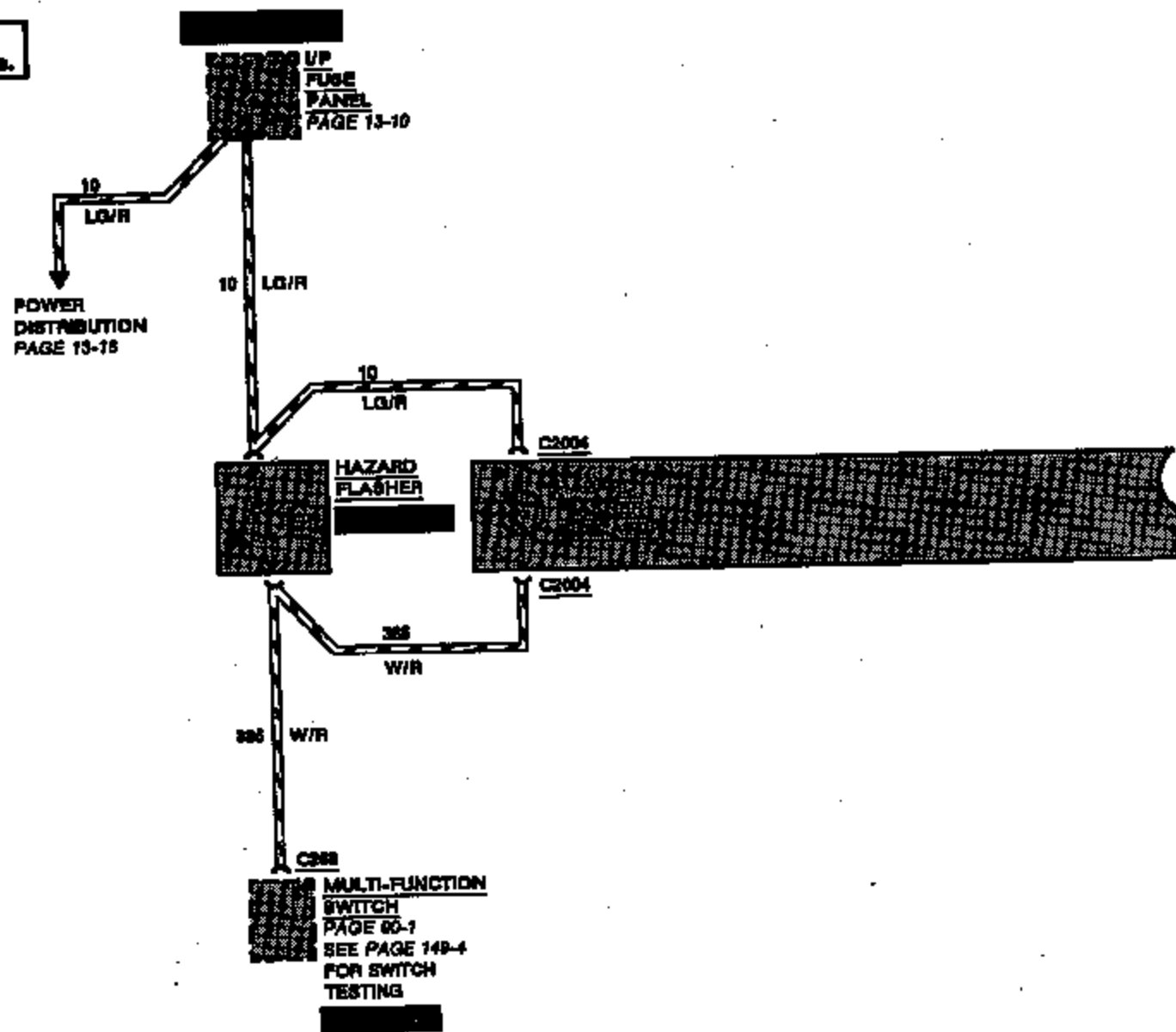


Refer to Location Index, Cell 182, for Component, Connector, Splice, Ground and Base Part Number descriptions and locations.

65-1 WARNING LAMPS

Refer to page 7-83 for
Troubleshooting/Descriptions.

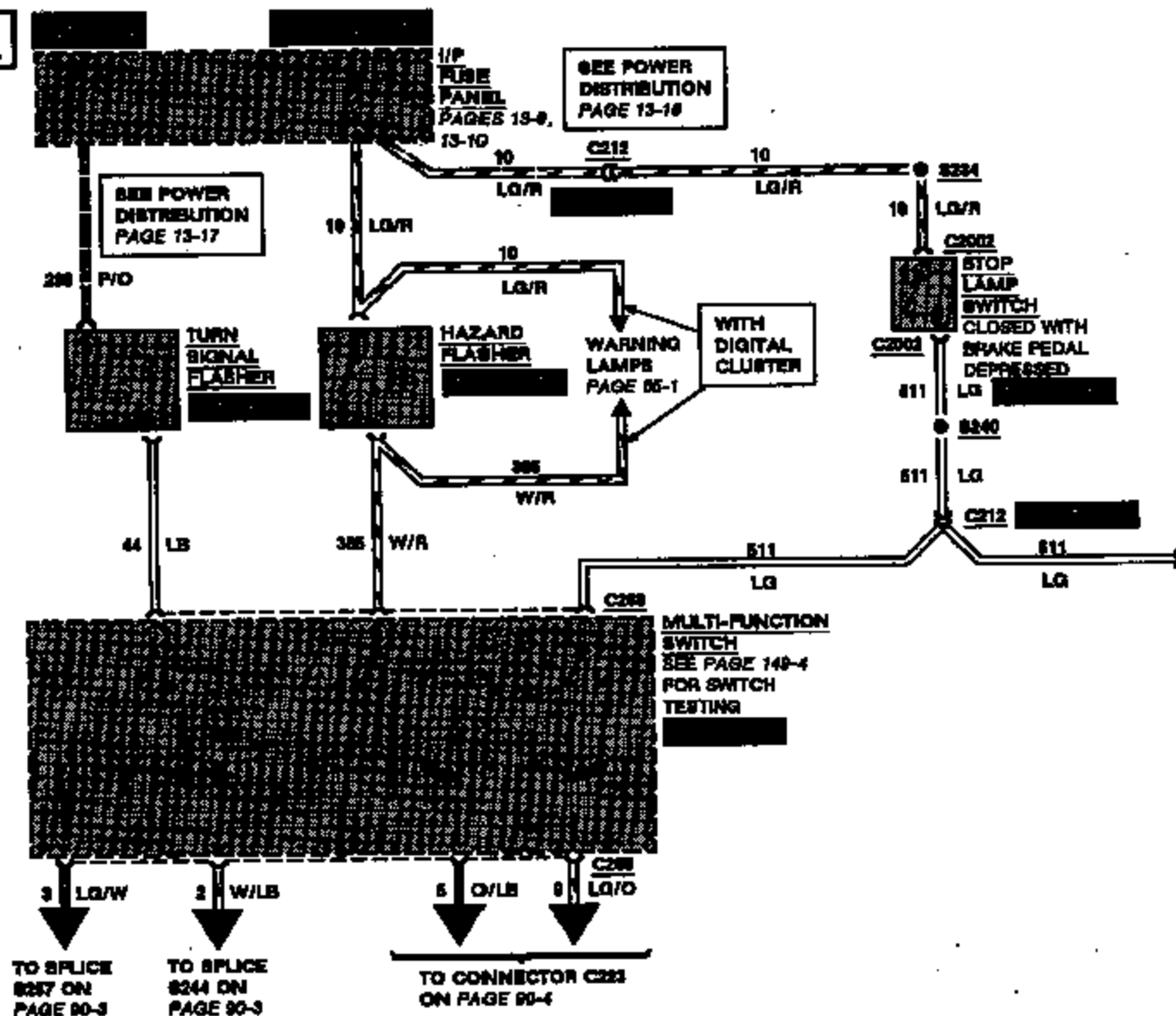
**DIGITAL
CLUSTER ONLY**



3713 9083

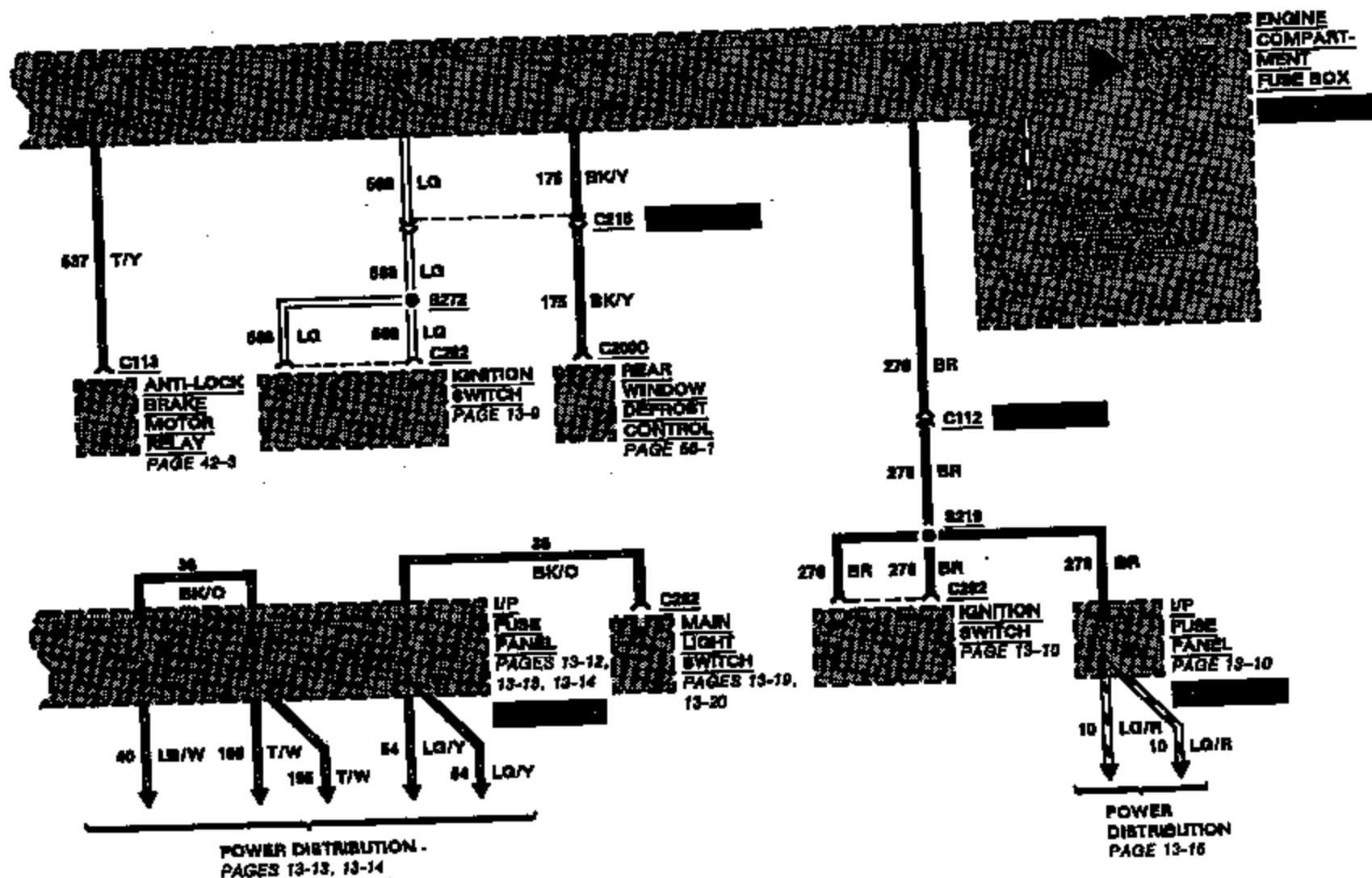
90-1 TURN/STOP/HAZARD LAMPS

Refer to page 7-45 for
Troubleshooting/Descriptions.



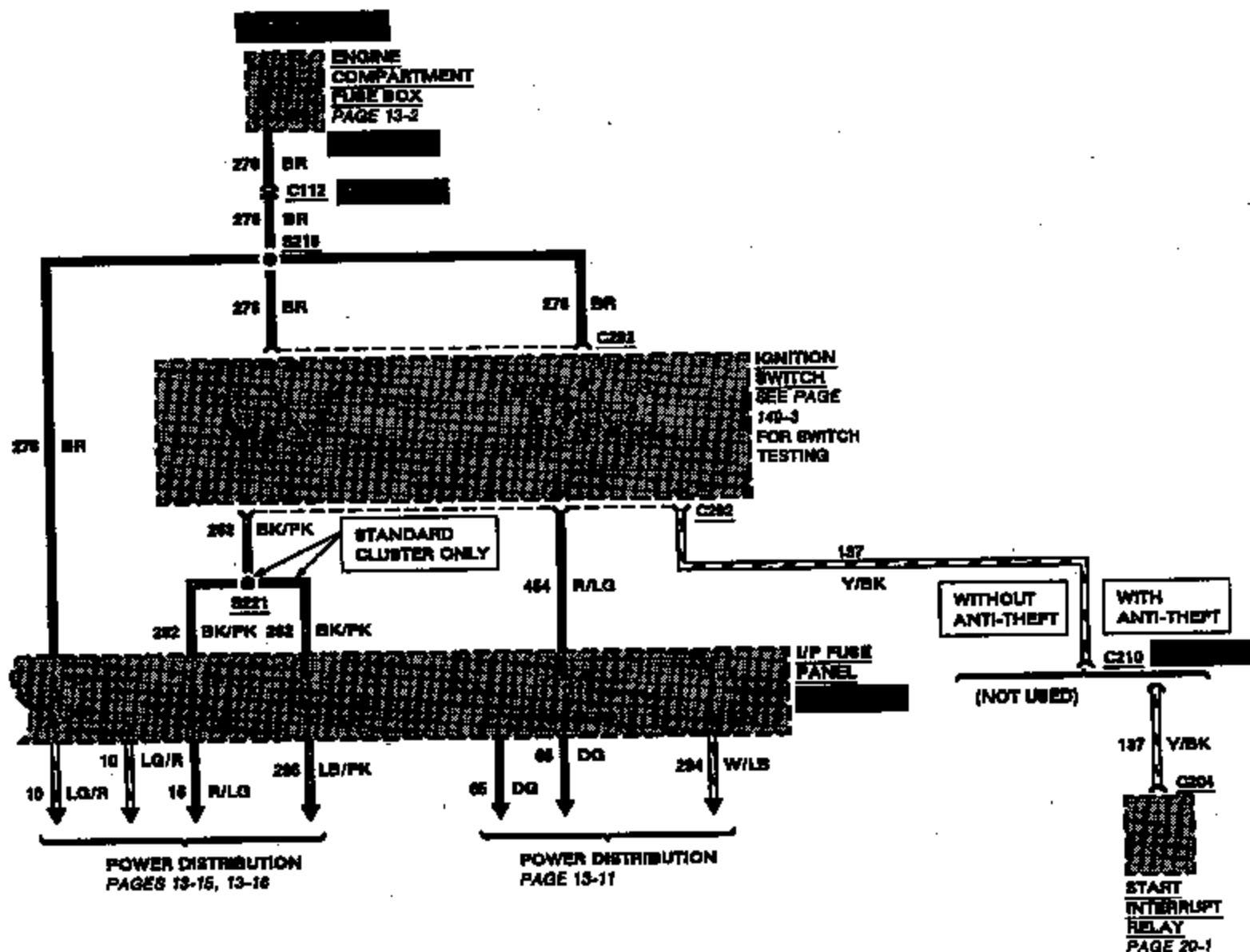
3713 8094

POWER DISTRIBUTION 13-2



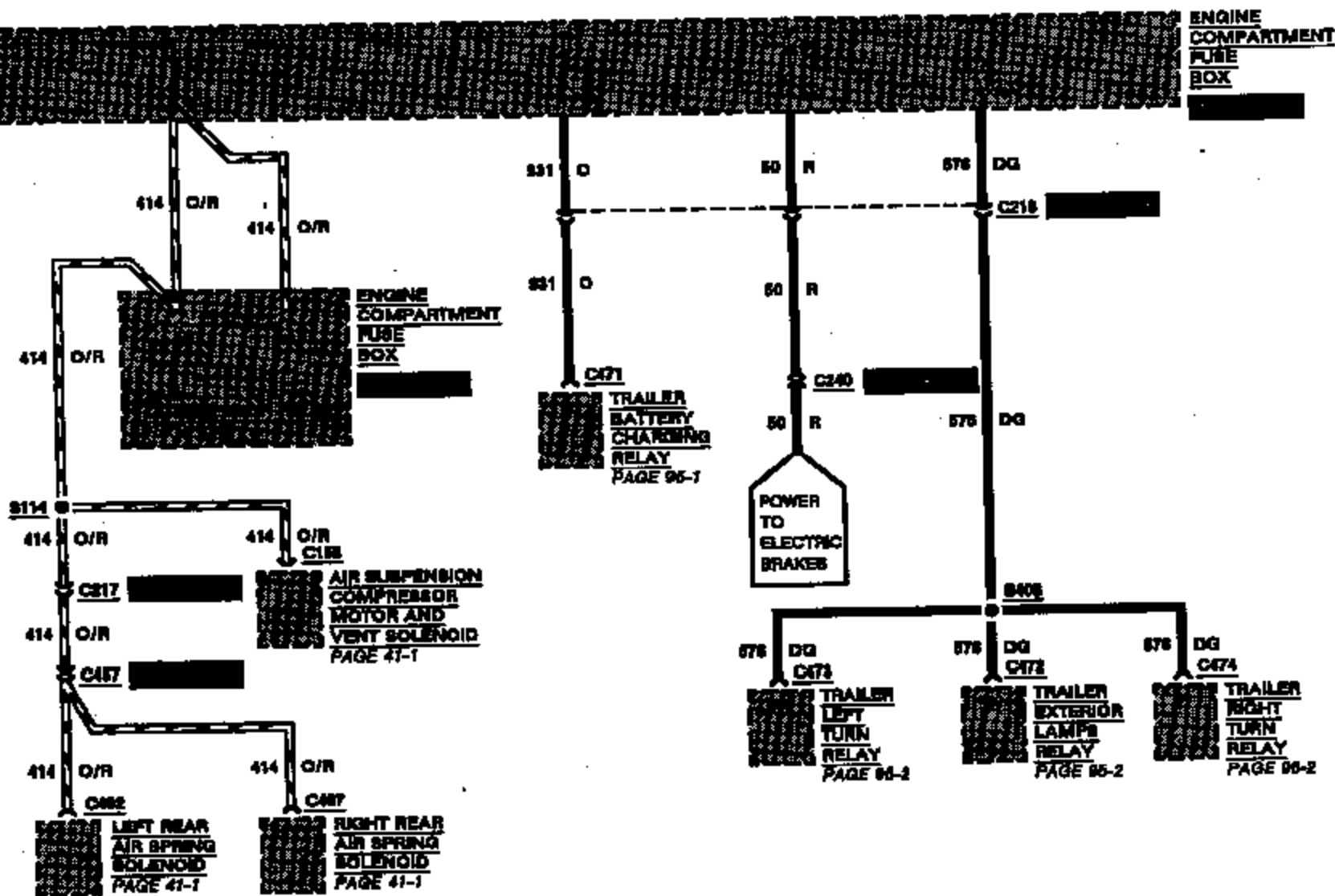
3713 9095

POWER DISTRIBUTION 13-10



3713 9096

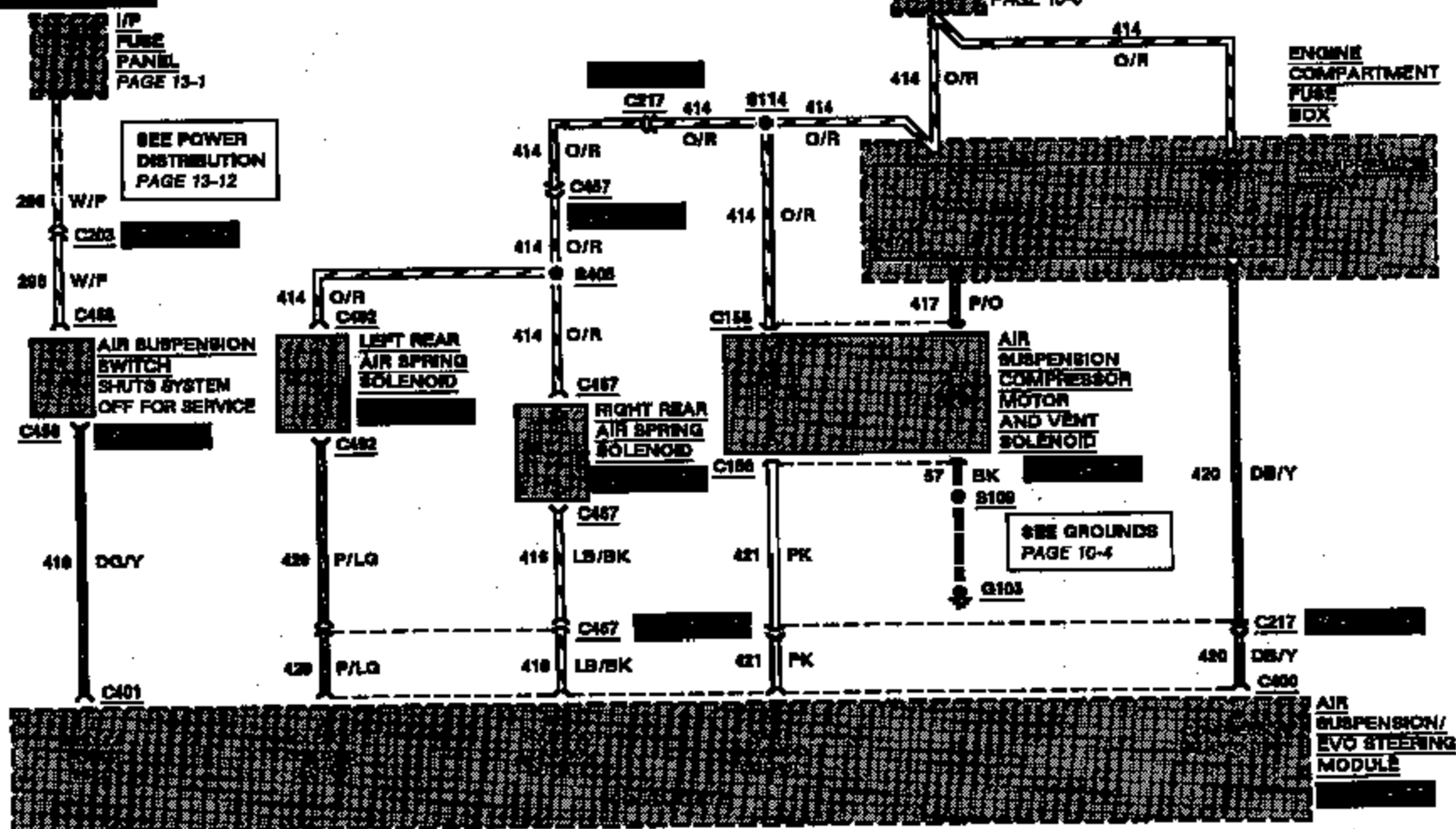
POWER DISTRIBUTION 13-8



3713 9087

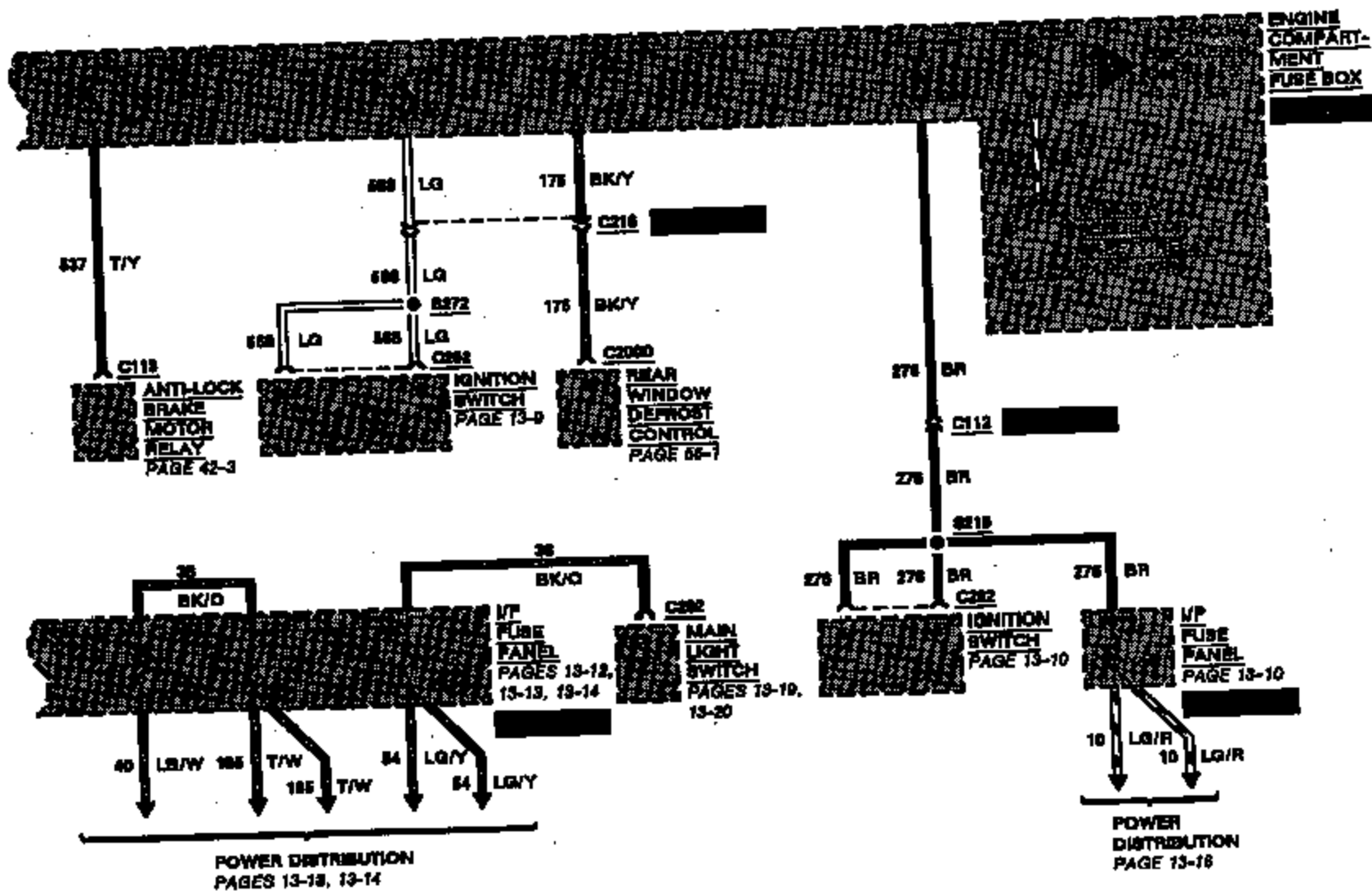
41-1 AIR SUSPENSION

Refer to page 7-10 for
Troubleshooting/Descriptions.



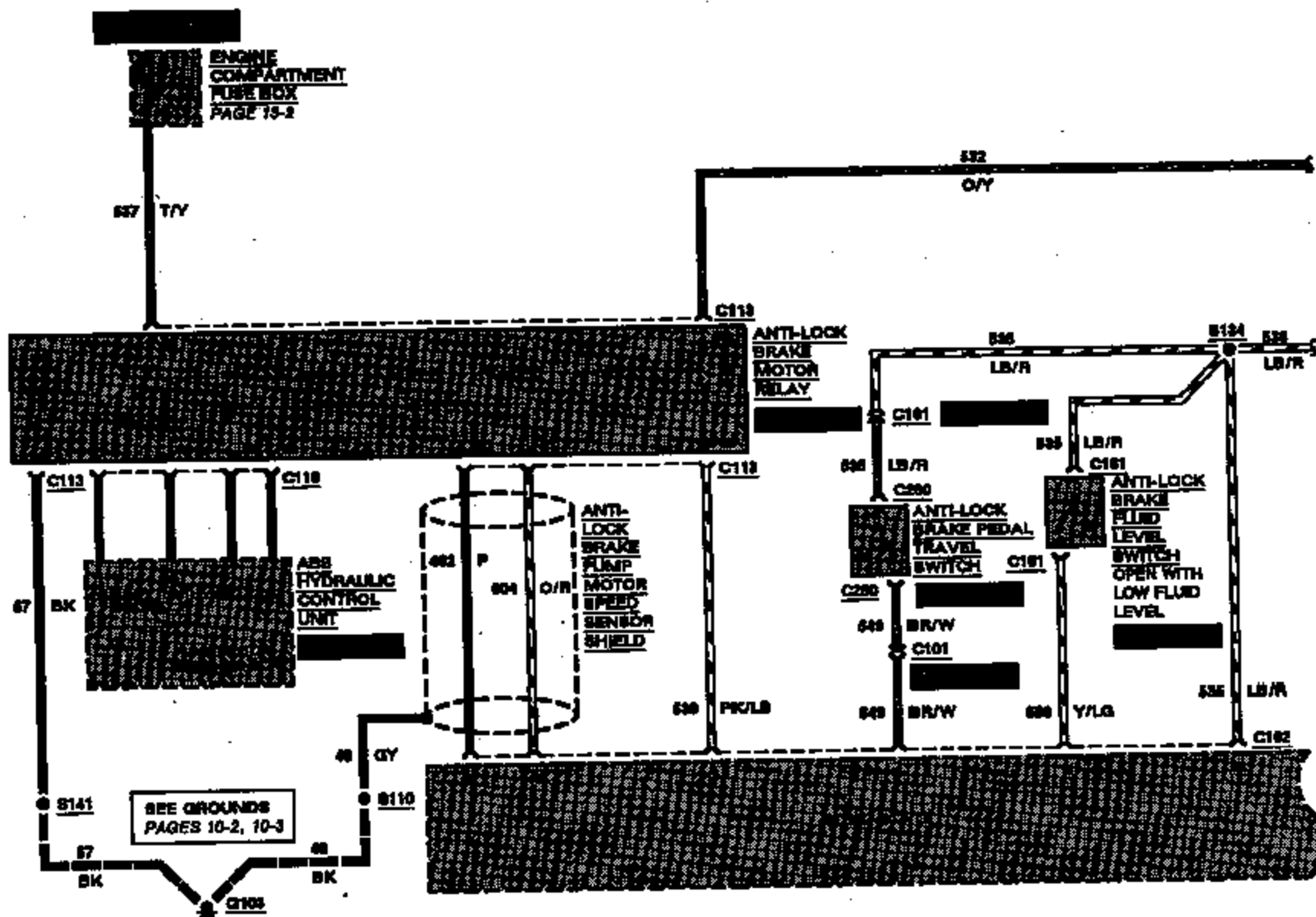
AIR SUSPENSION/EVO STEERING MODULE ALSO
CONTROLS ELECTRONICALLY VARIABLE ORIFICE
(EVO) POWER STEERING. SEE PAGE 43-1.

POWER DISTRIBUTION 13-2

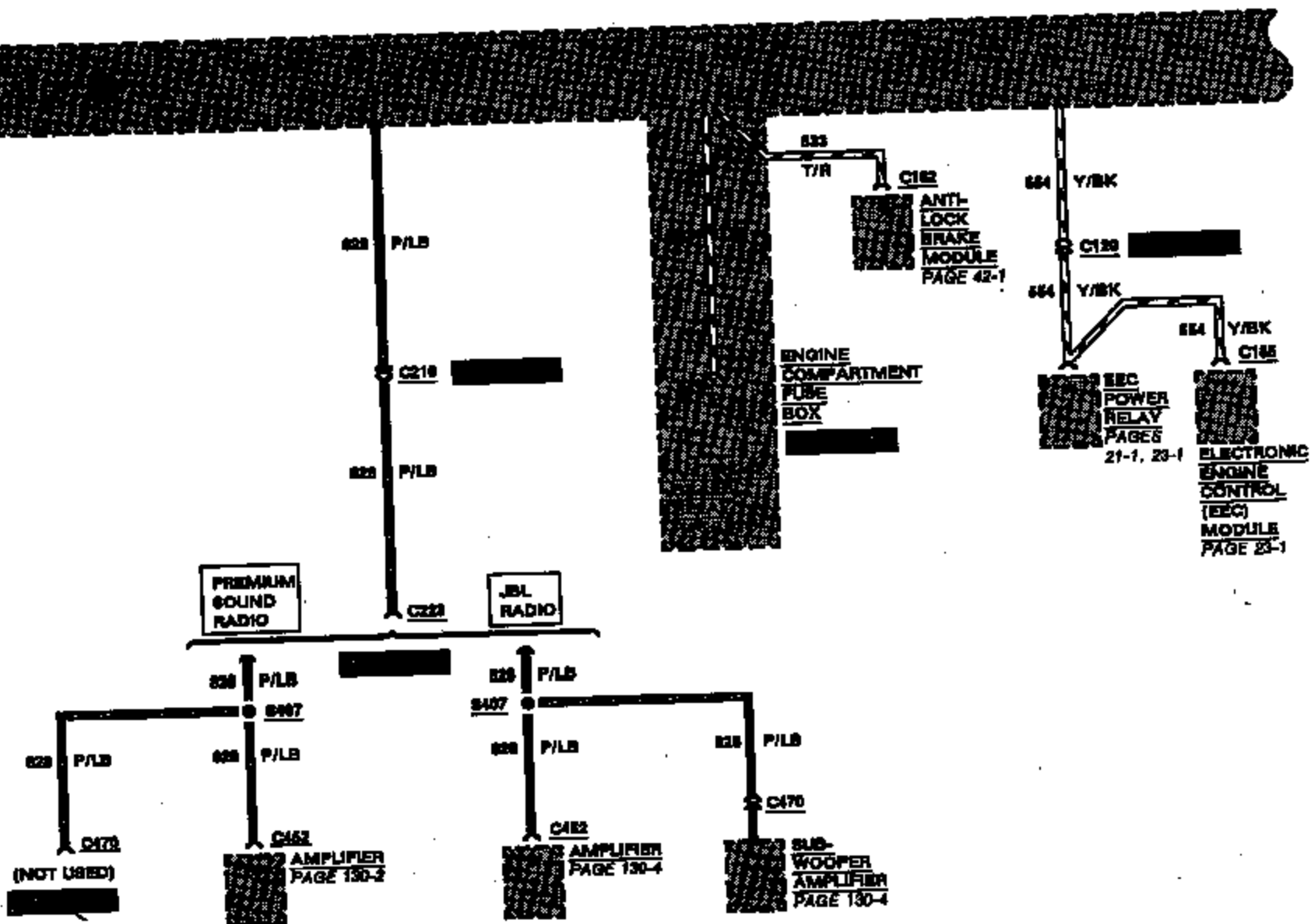


3713 9089

42-3 ANTI-LOCK BRAKE SYSTEM (WITH OR WITHOUT TRACTION ASSIST)



13-7 POWER DISTRIBUTION

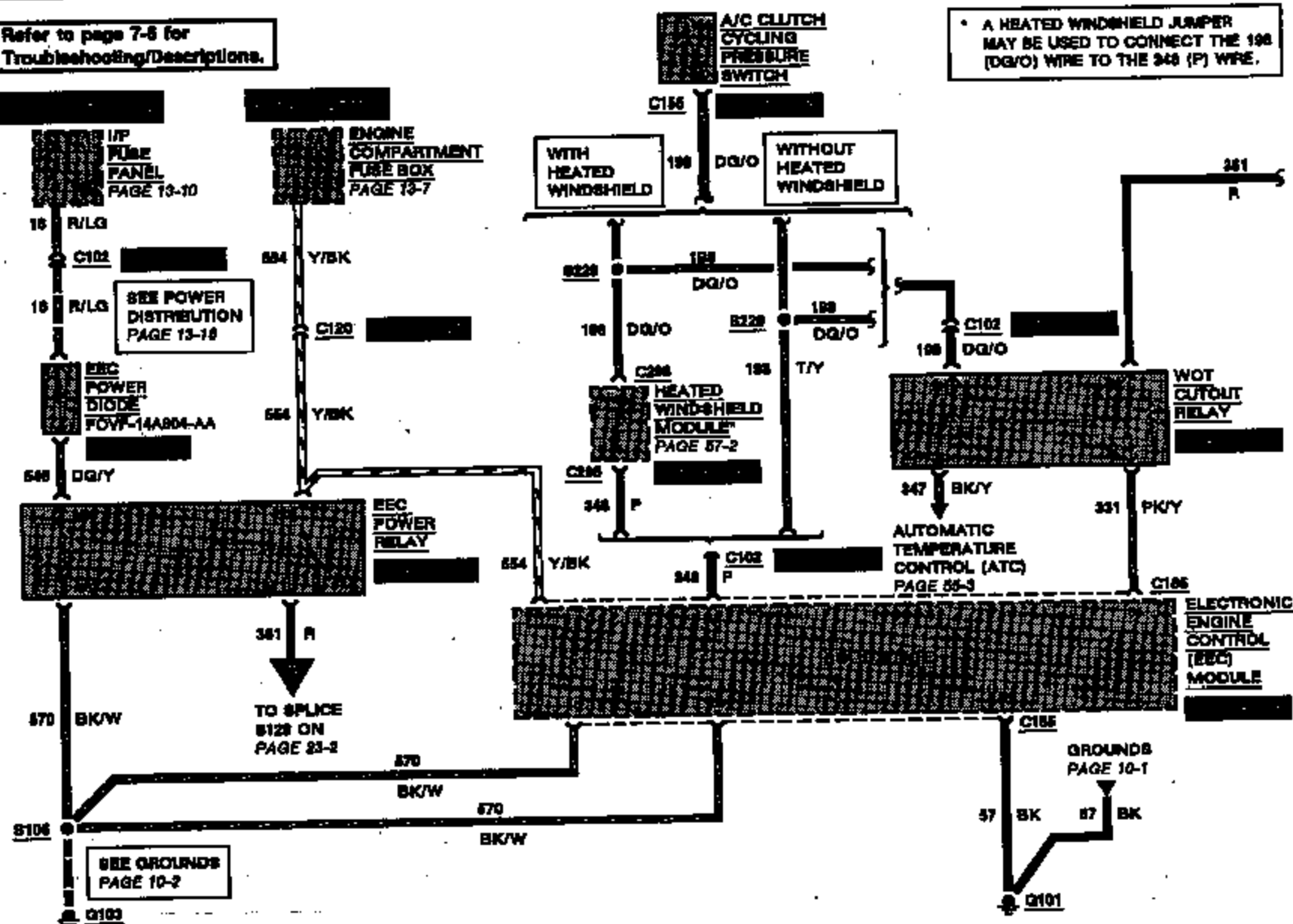


3713 9101

23-1 ELECTRONIC ENGINE CONTROL

**Refer to page 7-8 for
Troubleshooting/Descriptions.**

- A HEATED WINDSHIELD JUMPER MAY BE USED TO CONNECT THE 198 (DGVO) WIRE TO THE 348 (P) WIRE.

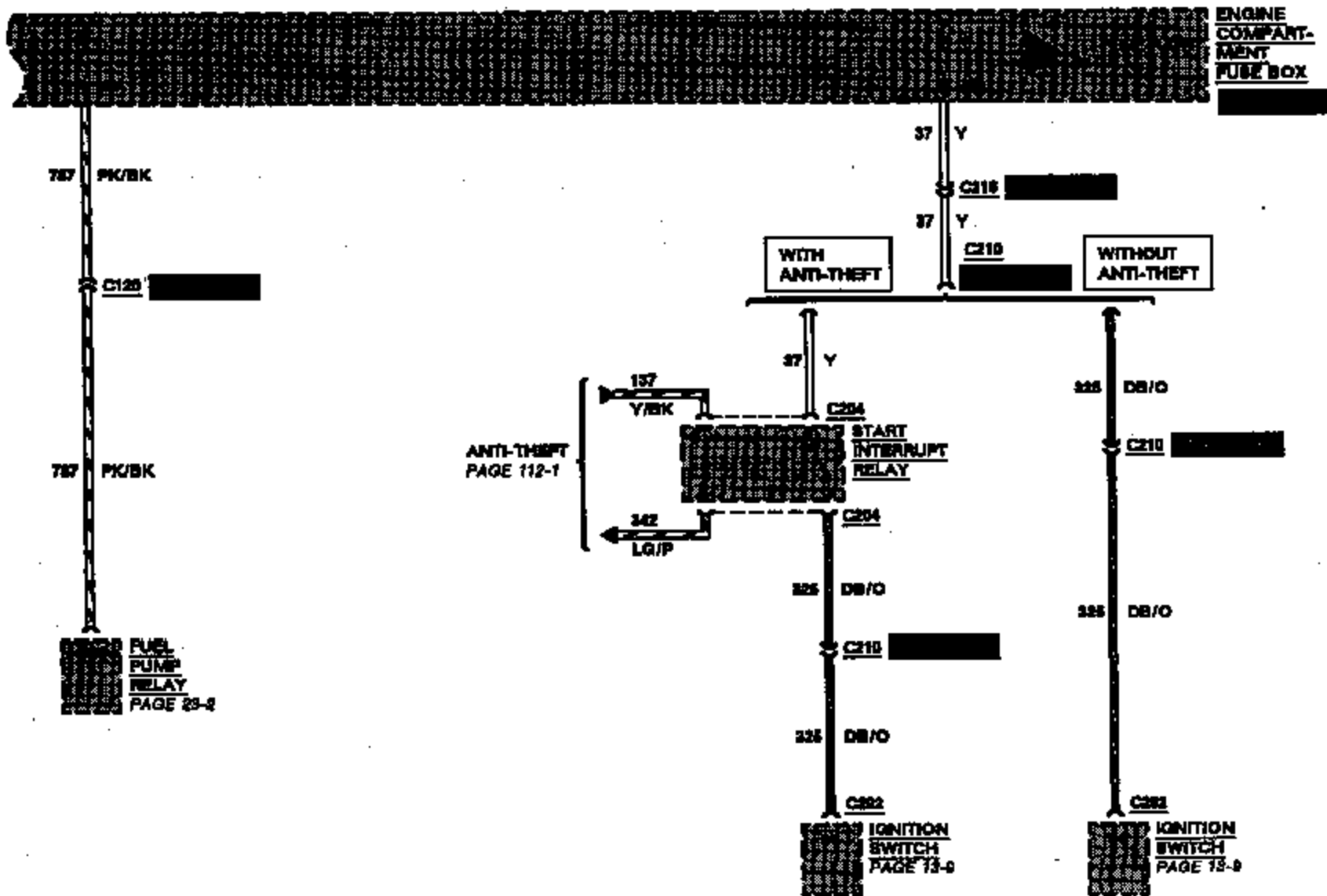


9713 9103

C46f
78

F

POWER DISTRIBUTION 13-6



3713 9104

52



3718 9105

60-1 INSTRUMENT CLUSTER (STANDARD)

Refer to page 7-21 for
Troubleshooting/Descriptions.

SEE POWER
DISTRIBUTION
PAGE 13-15

1/P
FUSE
PAGE 13-10

295 LB/PK
295 LB/PK
C280

ELECTRONIC
ENGINE
CONTROL
PAGE 23-2

29 Y/W
C282
29 Y/W
C484
757 PK/BK

FUEL PUMP/
FUEL
GAUGE
SENDER

C484
87 BK 875 PK/O
8400
87 BK 875 PK/O
C202
8400

SEE
GROUNDS
PAGES
10-14, 10-15

PK/O

675

PK/O

675

PK/O

675

PK/O

675

PK/O

675

PK/O

675

PK/O

675

PK/O

675

PK/O

675

PK/O

C280
GY/BK
S247
GY/BK
C1020

SEE VEHICLE
SPEED
SENSOR
PAGE 64-1

VEHICLE
SPEED
SENSOR (VSS)

C1020
PK/O
C110
PK/O

S210
PK/O
C200

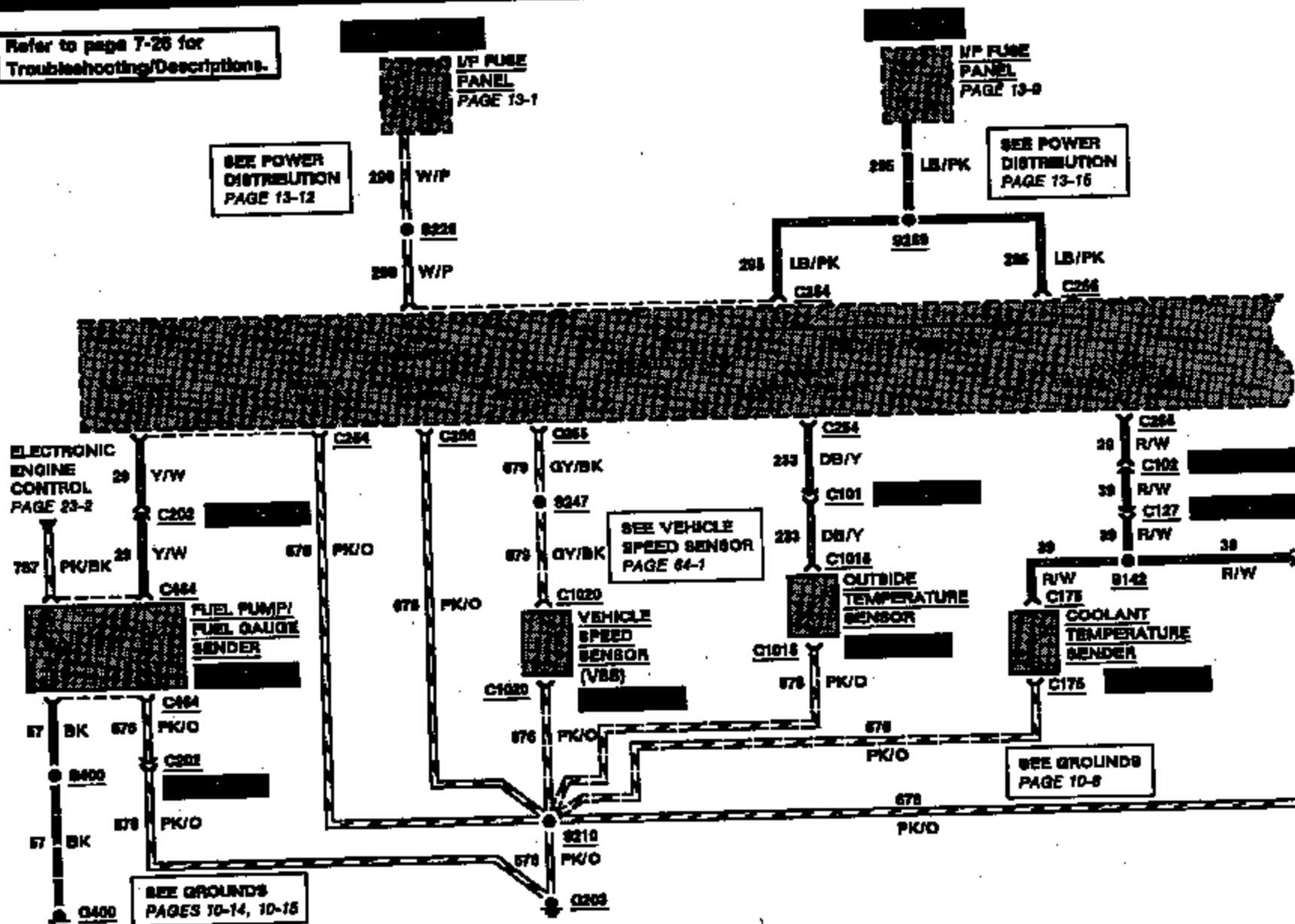
C281
R/W
C102
R/W
C127
R/W

30 R/W
S142
30 R/W
C122
COOLANT
TEMPERATURE
SENSOR
C175
(NOT USED)

3713 9106

63-1 INSTRUMENT CLUSTER (DIGITAL)

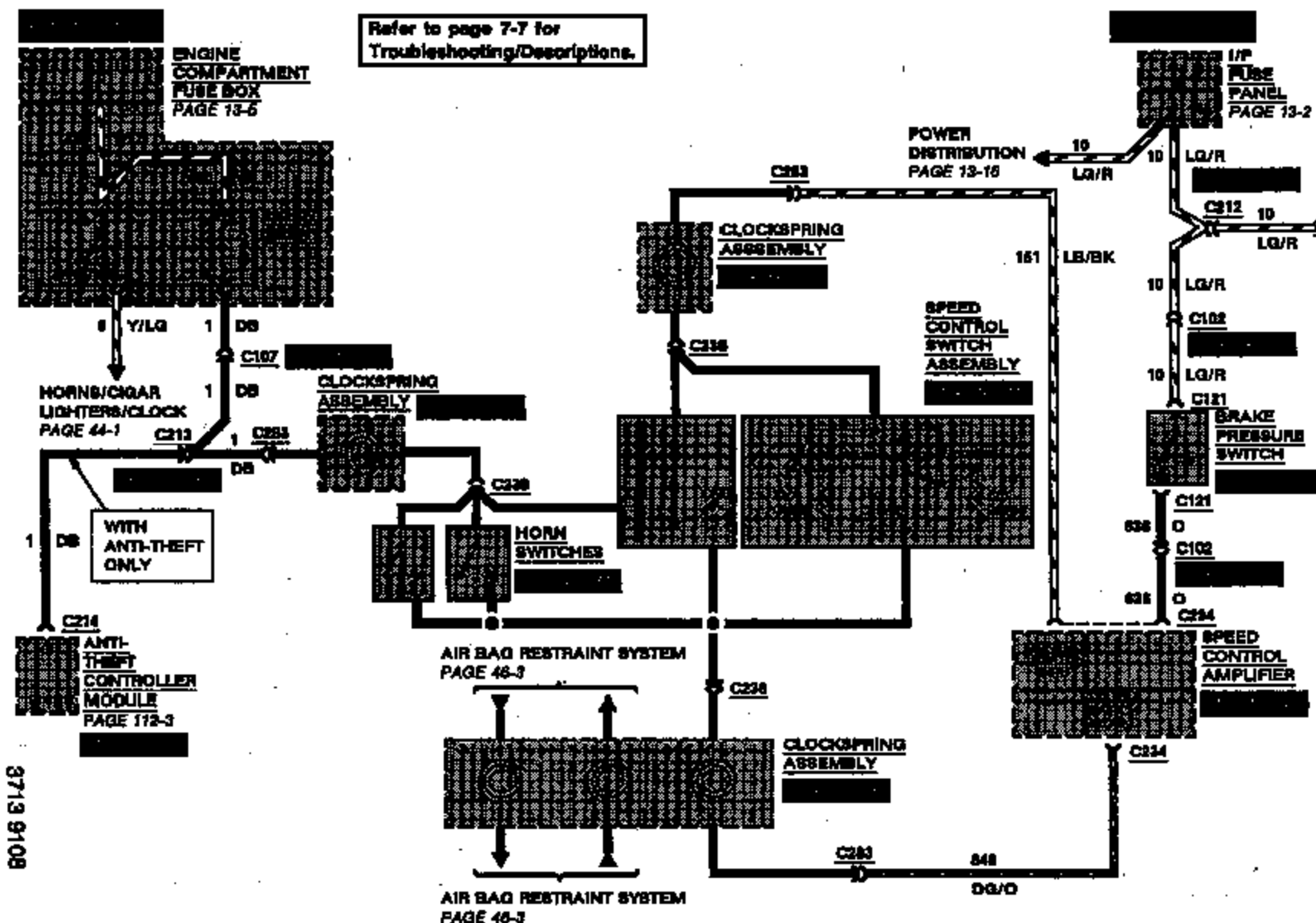
Refer to page 7-26 for
Troubleshooting/Descriptions.



3713 9107

31-1 SPEED CONTROL

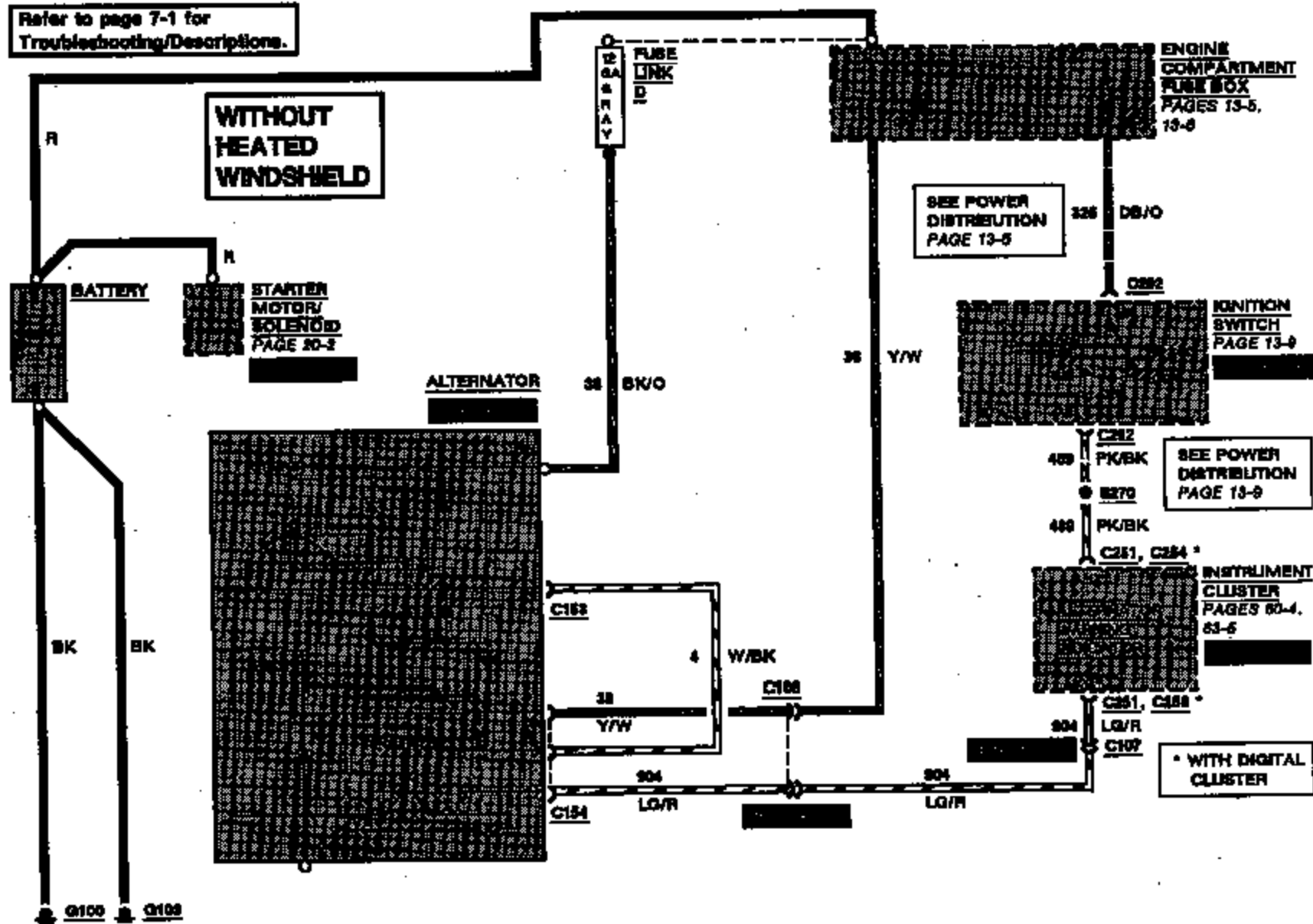
Refer to page 7-7 for
Troubleshooting/Descriptions.



3713 9108

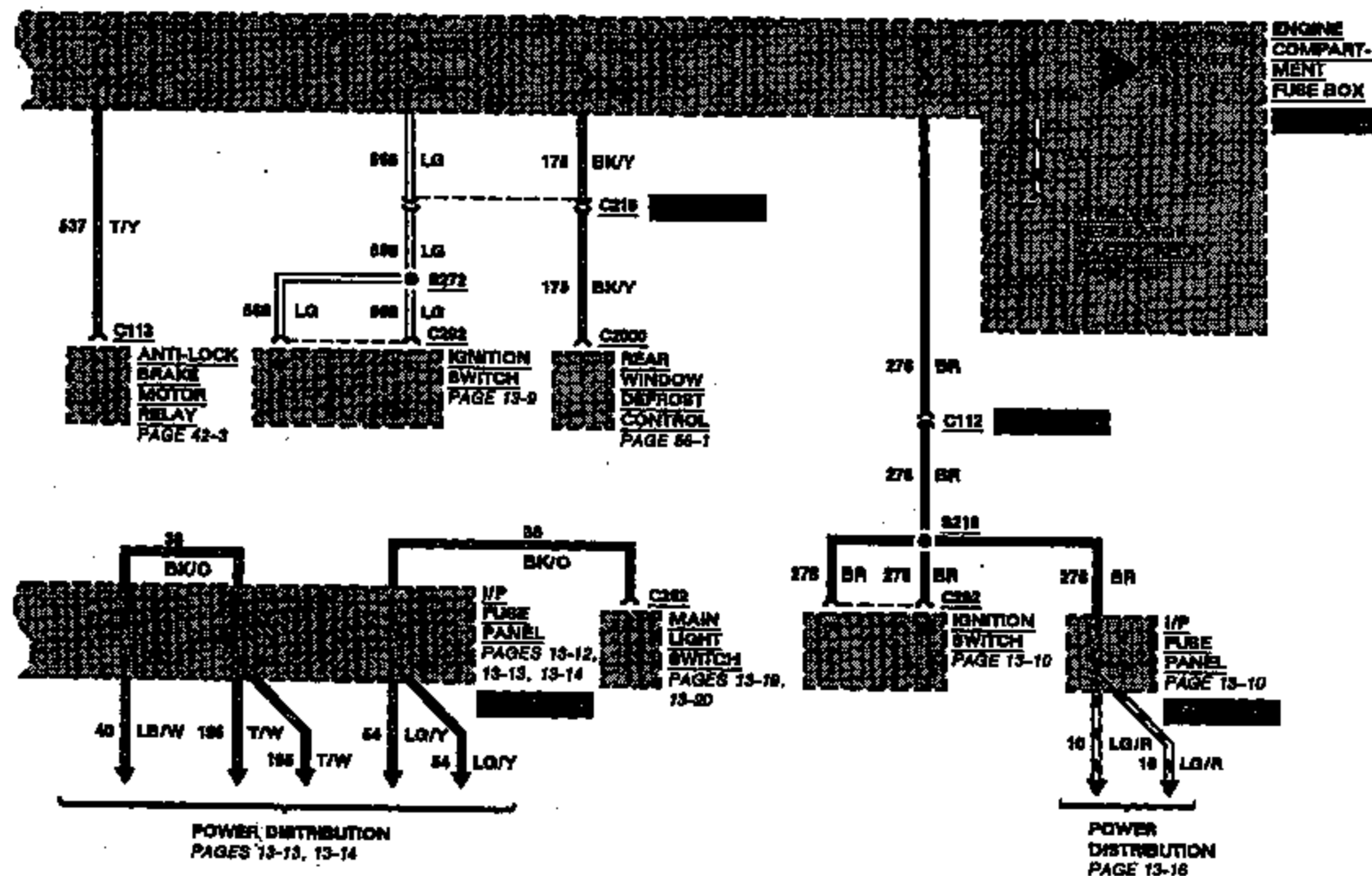
12-1 CHARGING SYSTEM

**Refer to page 7-1 for
Troubleshooting/Descriptions.**



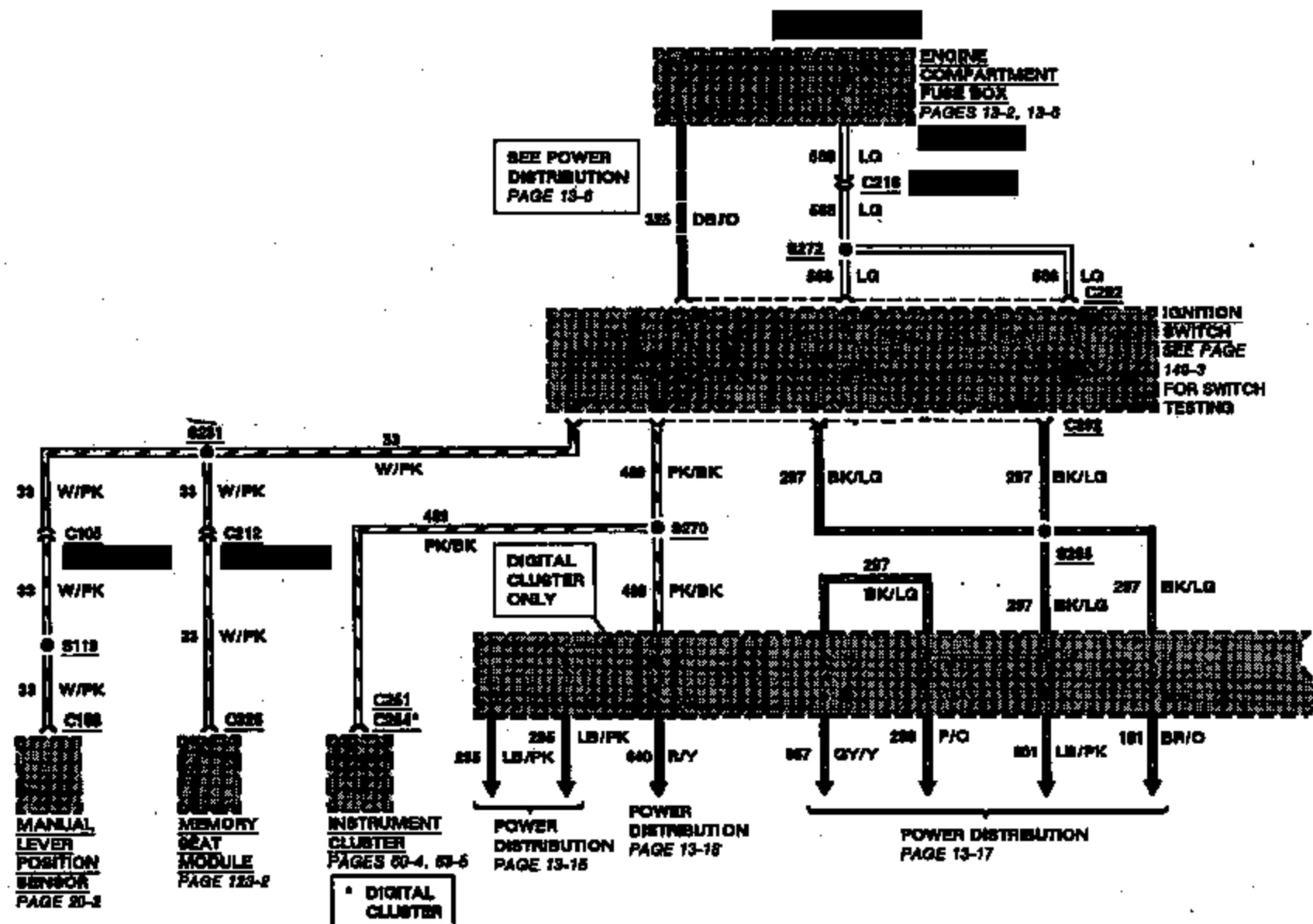
3713 8109

POWER DISTRIBUTION 13-2

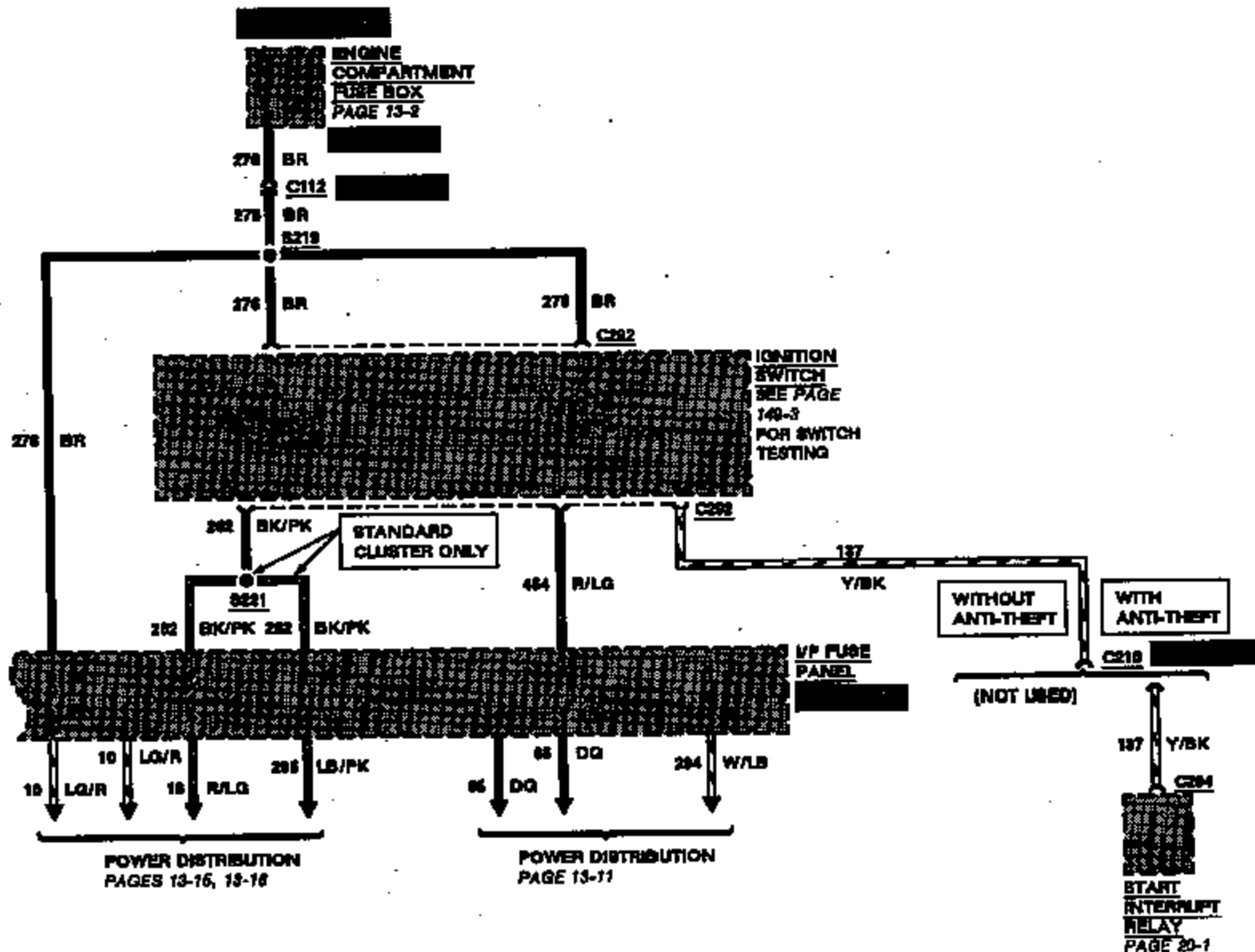


3713 8110

13-9 POWER DISTRIBUTION



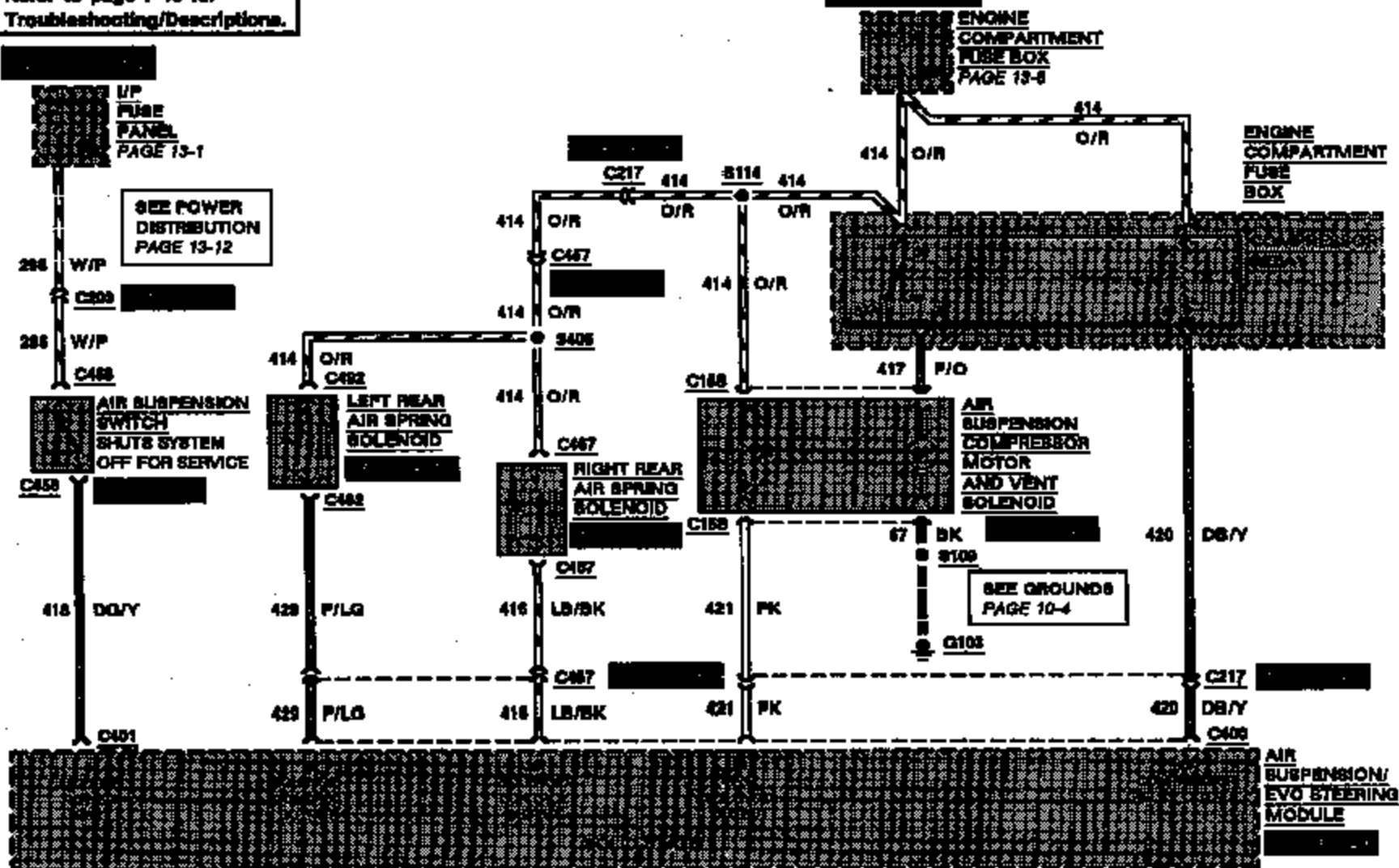
POWER DISTRIBUTION 13-10



3713 9112

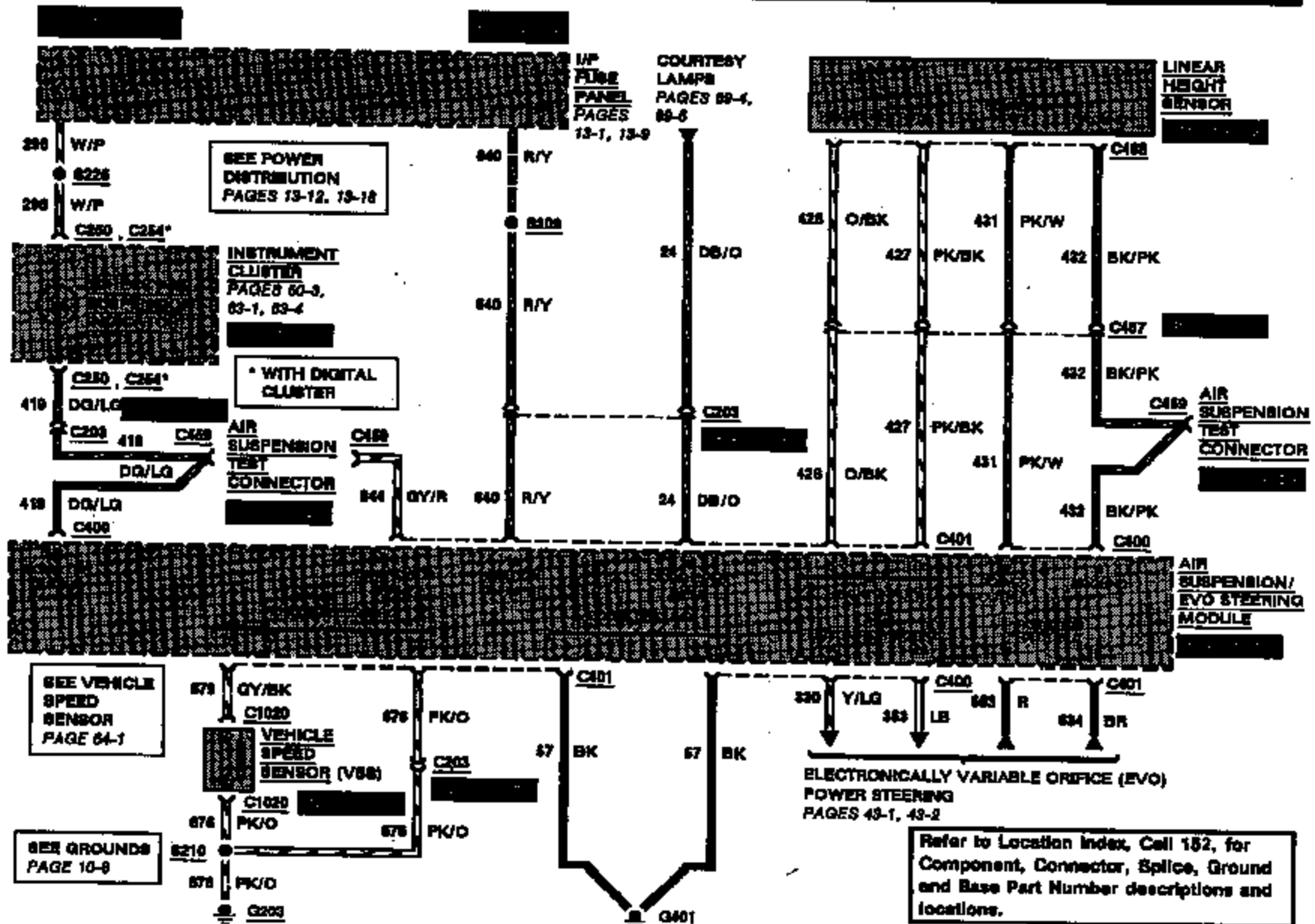
41-1 AIR SUSPENSION

**Refer to page 7-10 for
Troubleshooting/Descriptions.**



AIR SUSPENSION/EVO STEERING MODULE ALSO CONTROLS ELECTRONICALLY VARIABLE ORIFICE (EVO) POWER STEERING. SEE PAGE 43-1.

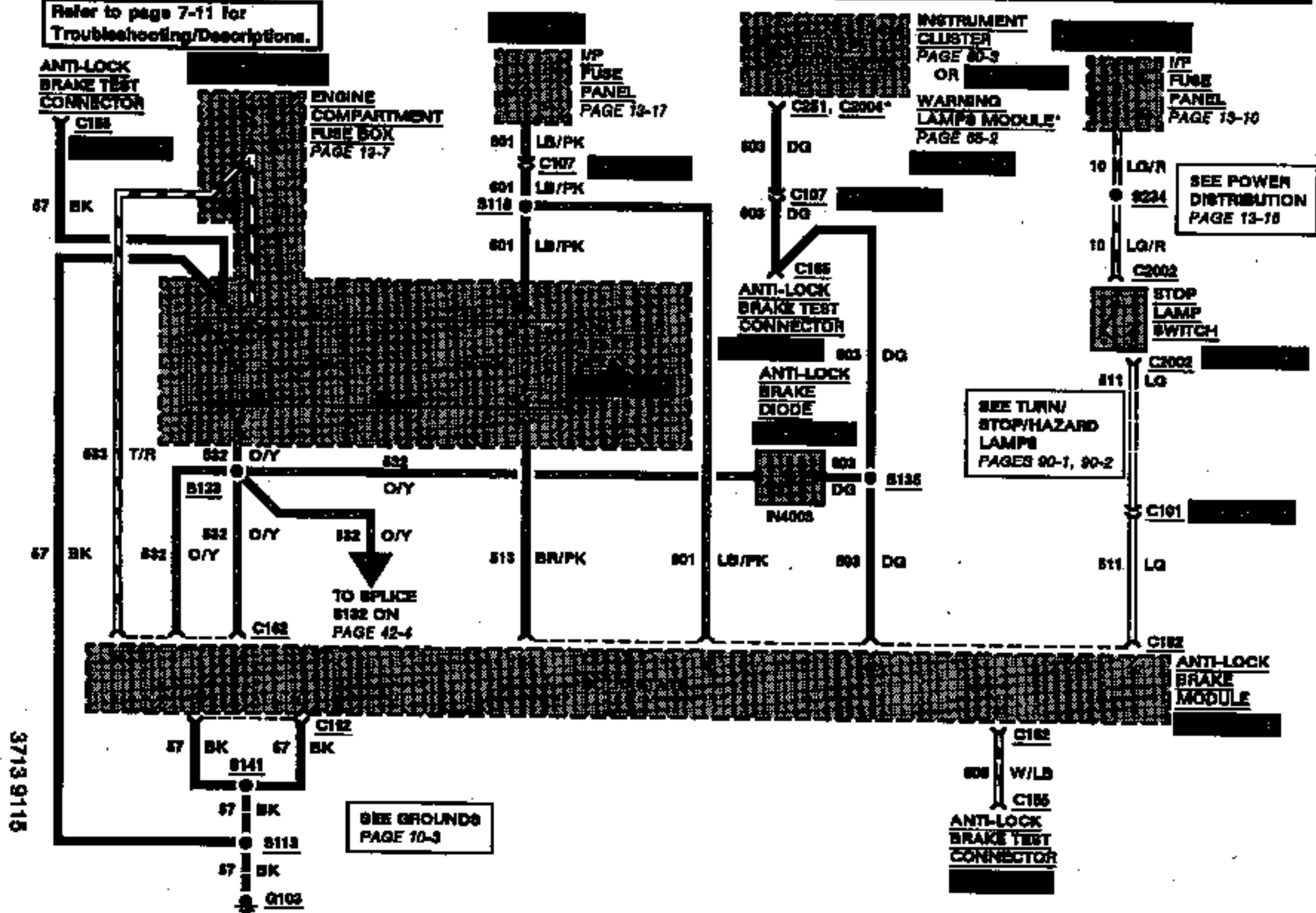
AIR SUSPENSION 41-2



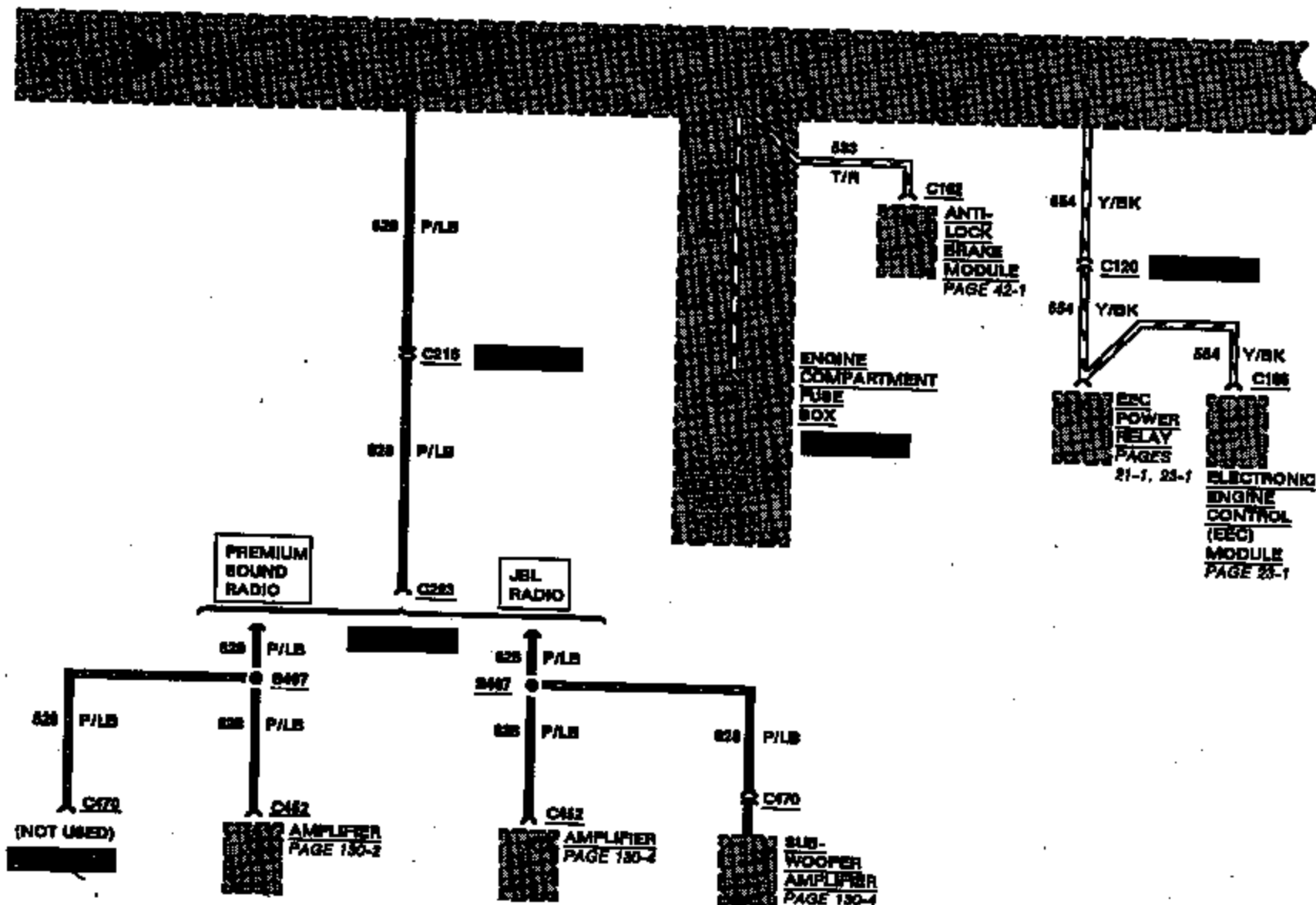
3713 9114

42-1 ANTI-LOCK BRAKE SYSTEM (WITH OR WITHOUT TRACTION ASSIST)

Refer to page 7-11 for
Troubleshooting/Descriptions.

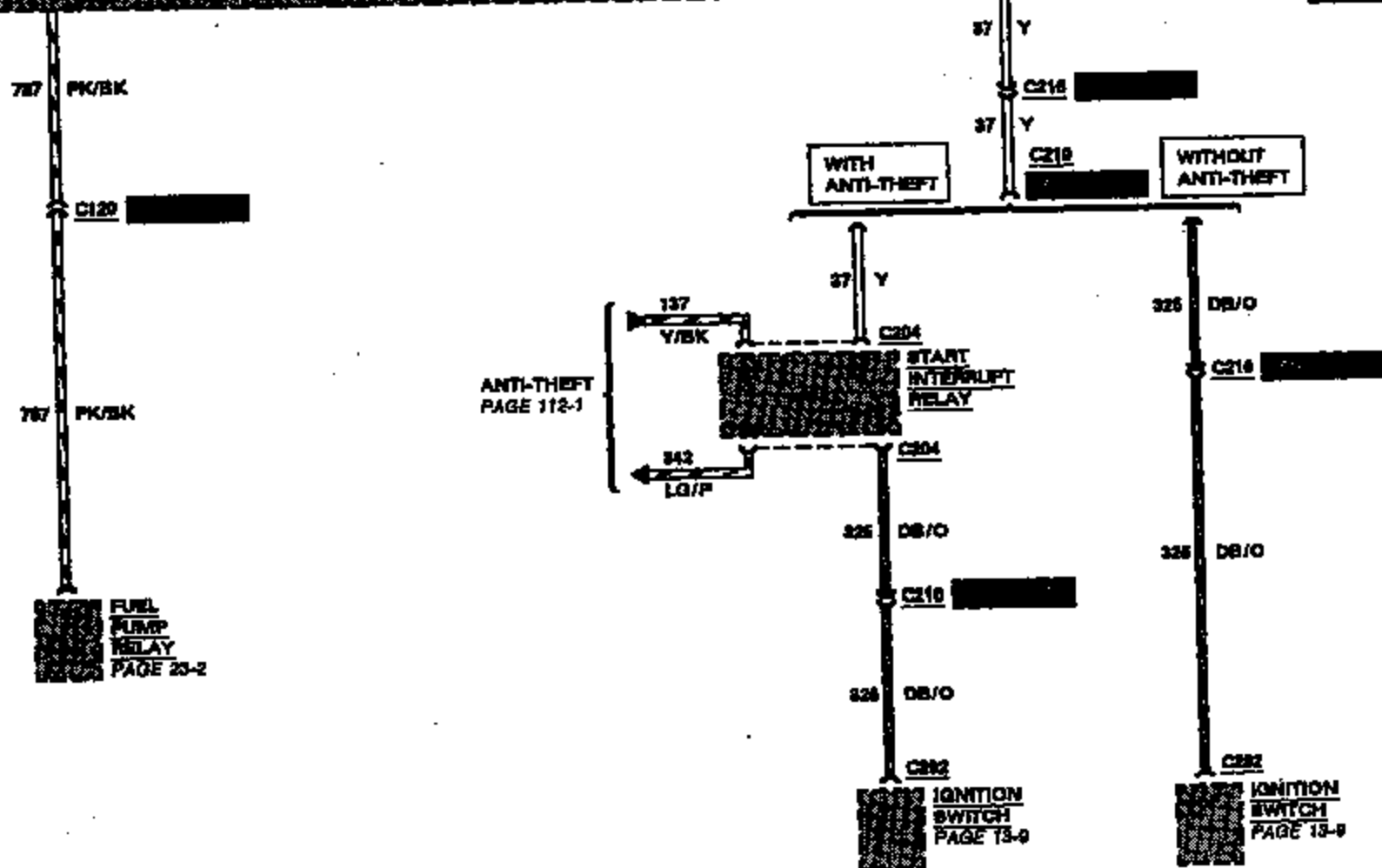


13-7 POWER DISTRIBUTION



POWER DISTRIBUTION 13-6

ENGINE
COMPART-
MENT
FUSE BOX



3713 9117

198



3713 8118

HI-Stat
A Stoneridge Company
Lexington, Ohio
Pressure Products Group

Date: May 12, 2000
Page 1 of 3
Prepared By: Roger Nister
Product Engineer

Product Engineering Test Report: Ford Brake Switch Benchmarking

HI-Stat P/N:	4011-006	Description:	Cruise Control Deactivation Switch
Project No.:	1-200-03-04-073 DV	Customer:	Ford
Date Code:	N/A	Customer P/N:	F2AC-9F924-AA & F2VC-9F924-AB
Life Test No.:	13500		

PURPOSE:

To report the failure modes of the TI parts for test # 13500.

SCOPE:

Ford Brake Switch.

TEST PROCEDURE:

20 Parts(10 -- F2AC-9F924-AA & 10 -- F2VC-9F924-AB) were serialized so that each parts performance could be tracked throughout the entire test.

The parts were tested per the following modified test procedure

Test the switch for a total of 1,500,000 cycles. Cycle pressure between a low of 0 to 40 psi and a high of 1450 ± 50 psi. Run trace current to monitor function. Ambient and fluid temperature to be 85°C min. Cycle rate of approximately 80 - 100 cycles per minute. Switch must open and close each cycle.

Product Engineering Test Report: Ford Brake Switch Benchmarking

DATA:

Failure Analysis of TI parts run at a constant 82°C

Part	Serial	Failure Mode	Cause	
F2AC-9F824-A	13500-1	None	NA	
F2AC-9F824-A	13500-2	Open Switch	Actuator Stuck In Down Position	800,000
F2AC-9F824-A	13500-3	None	NA	
F2AC-9F824-A	13500-4	None	NA	
F2AC-9F824-A	13500-5	Leaked	All 3 Diaphragms Cut	1,310,551
F2AC-9F824-A	13500-6	None	NA	
F2AC-9F824-A	13500-7	None	NA	
F2AC-9F824-A	13500-8	Leaked	All 3 Diaphragms Cut	1,500,000
F2AC-9F824-A	13500-9	Leaked	All 3 Diaphragms Cut	1,310,551
F2AC-9F824-A	13500-10	None	NA	
F2VC-9F824-A	13500-21	None	NA	
F2VC-9F824-A	13500-22	None	NA	
F2VC-9F824-A	13500-23	None	NA	
F2VC-9F824-A	13500-24	None	NA	
F2VC-9F824-A	13500-25	None	NA	
F2VC-9F824-A	13500-26	None	NA	
F2VC-9F824-A	13500-27	None	NA	
F2VC-9F824-A	13500-28	None	NA	
F2VC-9F824-A	13500-29	None	NA	
F2VC-9F824-A	13500-30	Leaked	All 3 Diaphragms Cut	1,500,000

RESULTS:

The first part that failed was part # 2. It would not open at 800,000 cycles. After tear down it was unclear as to what caused the switch to not function properly.

The next two failures were part # 5 and 9. They both leaked at 1,310,551 cycles. After tear down it was determined that both switches leaked because all 3 diaphragms were cut at the actuator radius near the interface with the backing plate.

The last two failures were part # 8 and 30. They both leaked at 1,500,000 cycles. After tear down it was determined that both switches leaked because all 3 diaphragms were cut at the actuator radius near the interface with the backing plate.

CONCLUSION:

Since there was four failures that were leakers due to diaphragm failures, it appears that there is a possible problem area where the actuator and backing meet that can cause the diaphragms to be cut.

Hi-Stat

A Stoneridge Company
Lexington, Ohio
Pressure Products Group

Date: May 12, 2000

Page 3 of 3

Prepared By: Roger Nister
Product Engineer

Product Engineering Test Report: Ford Brake Switch Benchmarking**ACTION TAKEN:**

Submit report to the customer.

EQUIPMENT USED:

Pressure Switch Station 30	HS12059
Milivolt Tester	HS12279
Honeywell Chart Recorder	HS11971

3713 9121

Hi-Stat

A Stoneridge Company
Lexington, Ohio
Pressure Products Group

Date: September 27, 2000

Page 1 of 2

Prepared By: Roger Nister

Product Engineer

Product Engineering Test Report: Ford Brake Switch Test to Failure

Hi-Stat P/N:	N/A	Description:	Cruise Control Deactivation Switch
Project No.:	1-200-03-04-073 DV	Customer:	Ford
Date Code:	N/A	Customer P/N:	F2VC-9F924-AB
Life Test No.:	29600		

PURPOSE:

Test to failure the TI Cruise Control Deactivation Switch P/N F2VC-9F924-AB on the impulse test in ES-F2VC-9F924-AA

SCOPE:

Ford Brake Switch.

TEST PROCEDURE:

15 F2VC-9F924-AB parts were serialized so that each parts performance could be tracked throughout the entire test.

The parts were tested per the following impulse test procedure

Test the switch for a total of 500,000 cycles. Cycle pressure between a low of 0 to 40 psi and a high of 1450 ± 50 psi. Run trace current to monitor function. Brake fluid temperature to be $135 \pm 14^{\circ}\text{C}$ and ambient temperature to be 107°C min. Cycle rate of approximately 90 - 100 cycles per minute. Switch must open and close each cycle.

Received 10/3/2000
from Bob Malenovsky
(Hi-Stat Rep).
S. Reimer

3713 9122

Product Engineering Test Report: Ford Brake Switch Test to Failure

DATA:

Part	Initial Open	Close	mv Drop	Final Count	Failure Type	Failure Mode
29800-1	137	74	7.60	557,876	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-2	139	83	8.80	398,500	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-3	140	79	28.30	180,793	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-4	145	65	9.60	158,843	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-5	152	82	18.60	184,571	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-6	149	68	26.90	67,085	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-7	148	82	10.20	193,520	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-8	141	61	20.00	155,831	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-9	145	68	7.90	180,401	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-10	144	73	23.60	188,896	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-11	140	71	33.10	196,000	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-12	155	89	8.70	158,831	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-13	152	66	8.90	156,482	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-14	151	63	18.40	158,484	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
29800-15	150	67	14.69	178,182	Leaked Out Top Of Insulator	All 3 Diaphragms Cut
X Bar	145.7	69.9	16.22	203,533.0		
R	18	22	25.50	490,691.00		
STDEV	5.6	7.0	8.49	119,094.2		

RESULTS:

Only 1 of the samples lasted the entire 500,000 cycles before failing at 557,876 cycles. All of the failures were leakers with cuts in all 3 diaphragms.

CONCLUSION:

Since all of the failures were leakers due to diaphragm failures, it appears that there is a possible problem area where the actuator and backing meet that can cause the diaphragms to be cut.

ACTION TAKEN:

Submit report to the customer.

EQUIPMENT USED:

Pressure Switch Station 30	HS12059
Millivolt Tester	HS12279
Honeywell Chart Recorder	HS11871

