

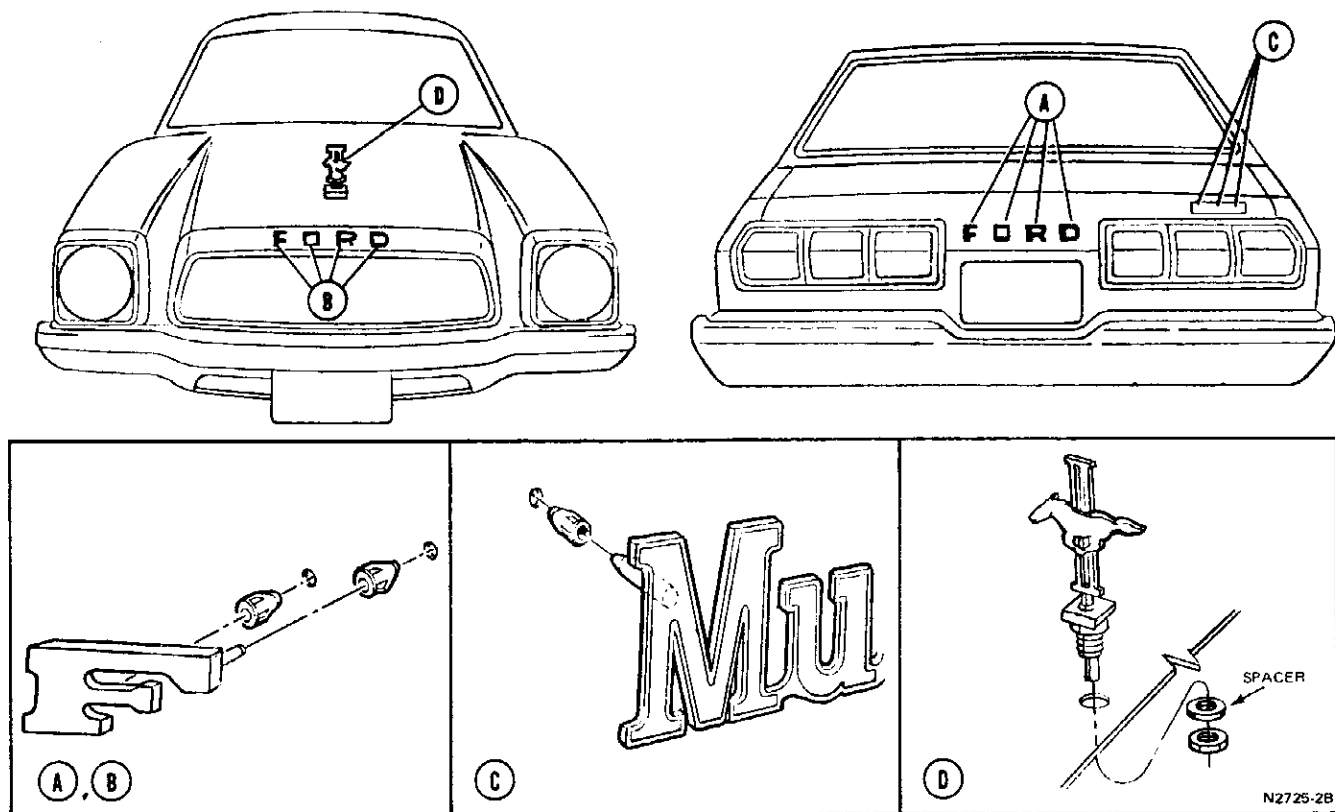


FIG. 6 Front and Rear Moulding Installation—Mustang II

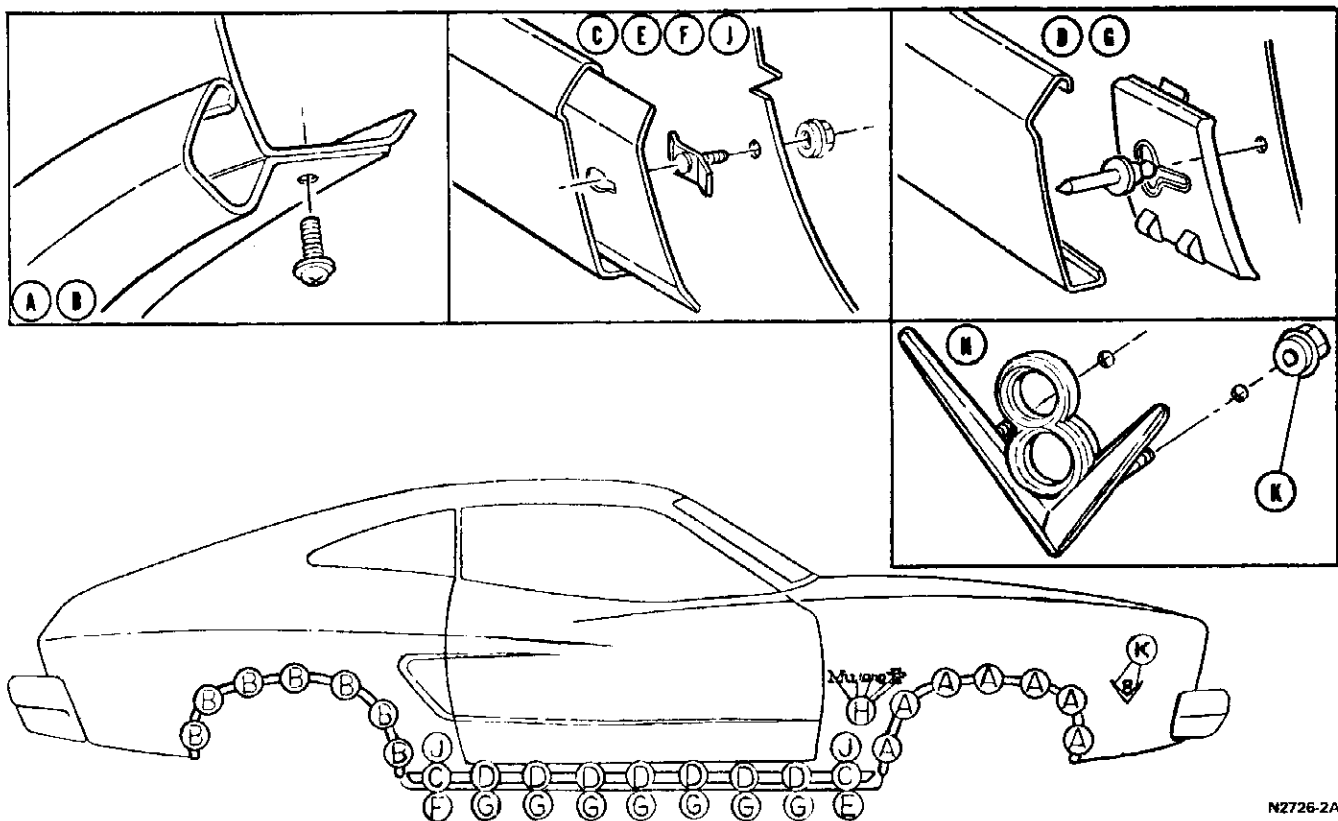
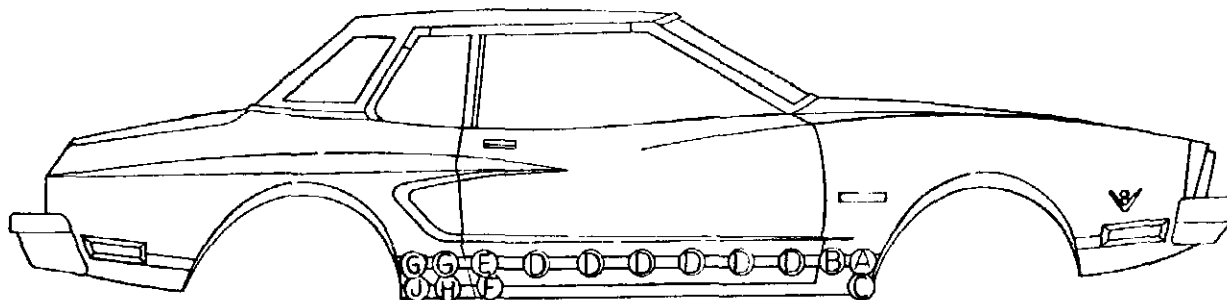
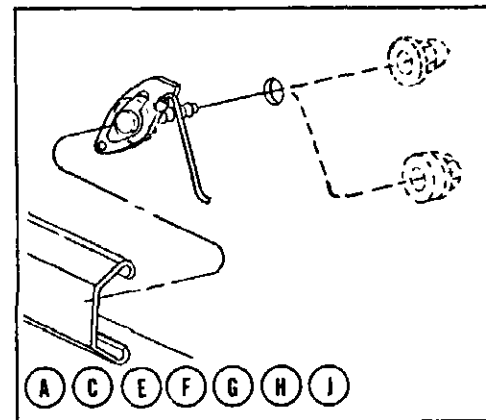
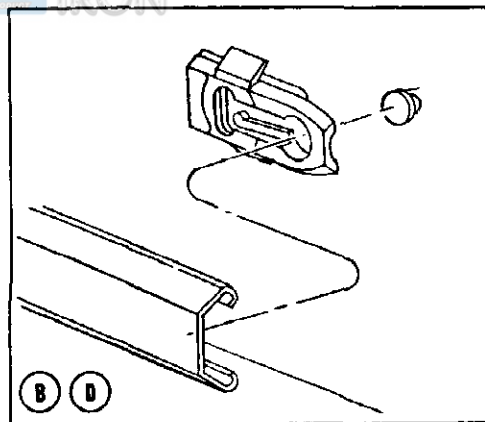


FIG. 7 Exterior Side Moulding Installation—Mustang II



N2727-2A

FIG. 8 Exterior Side Moulding Installation—Mustang II

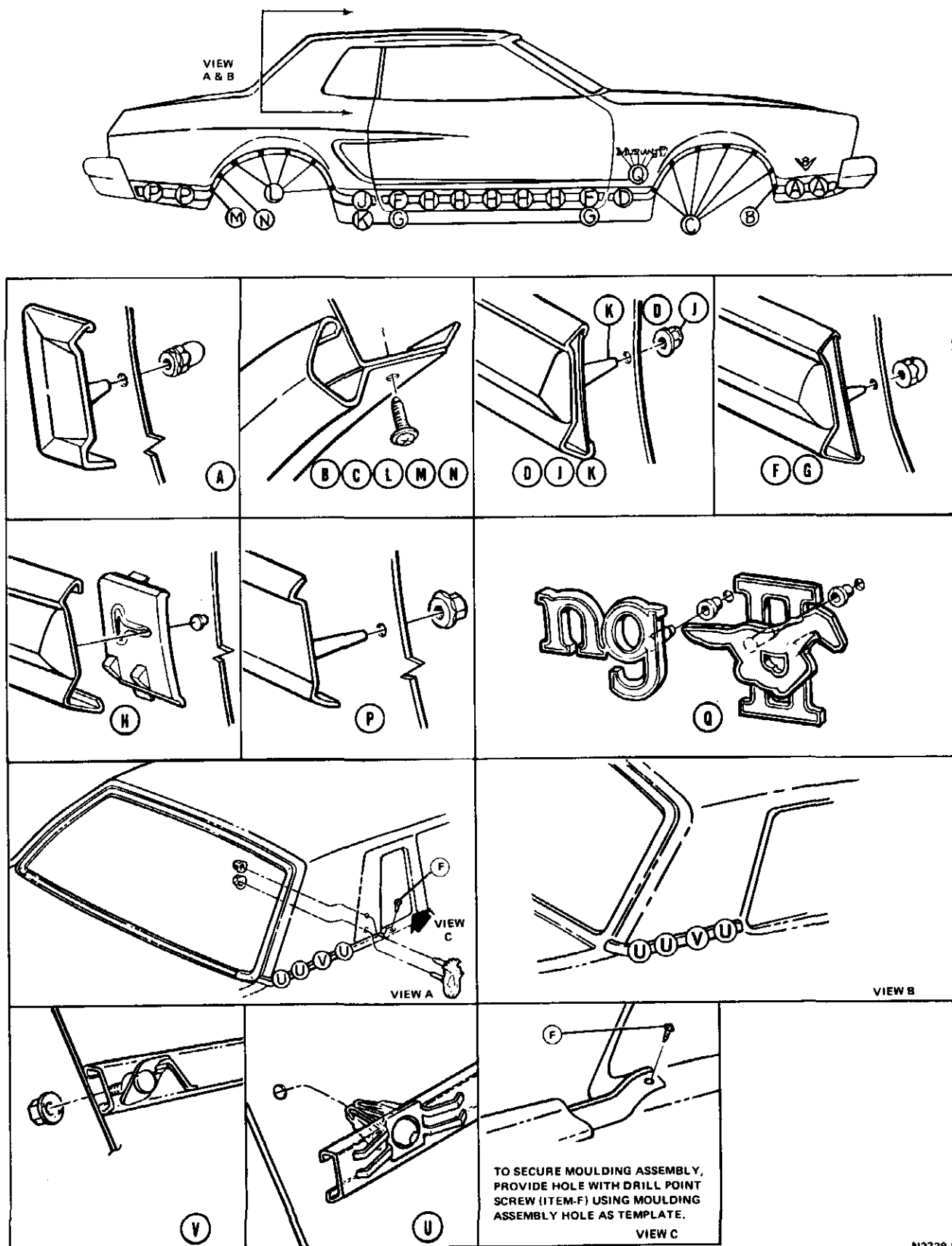
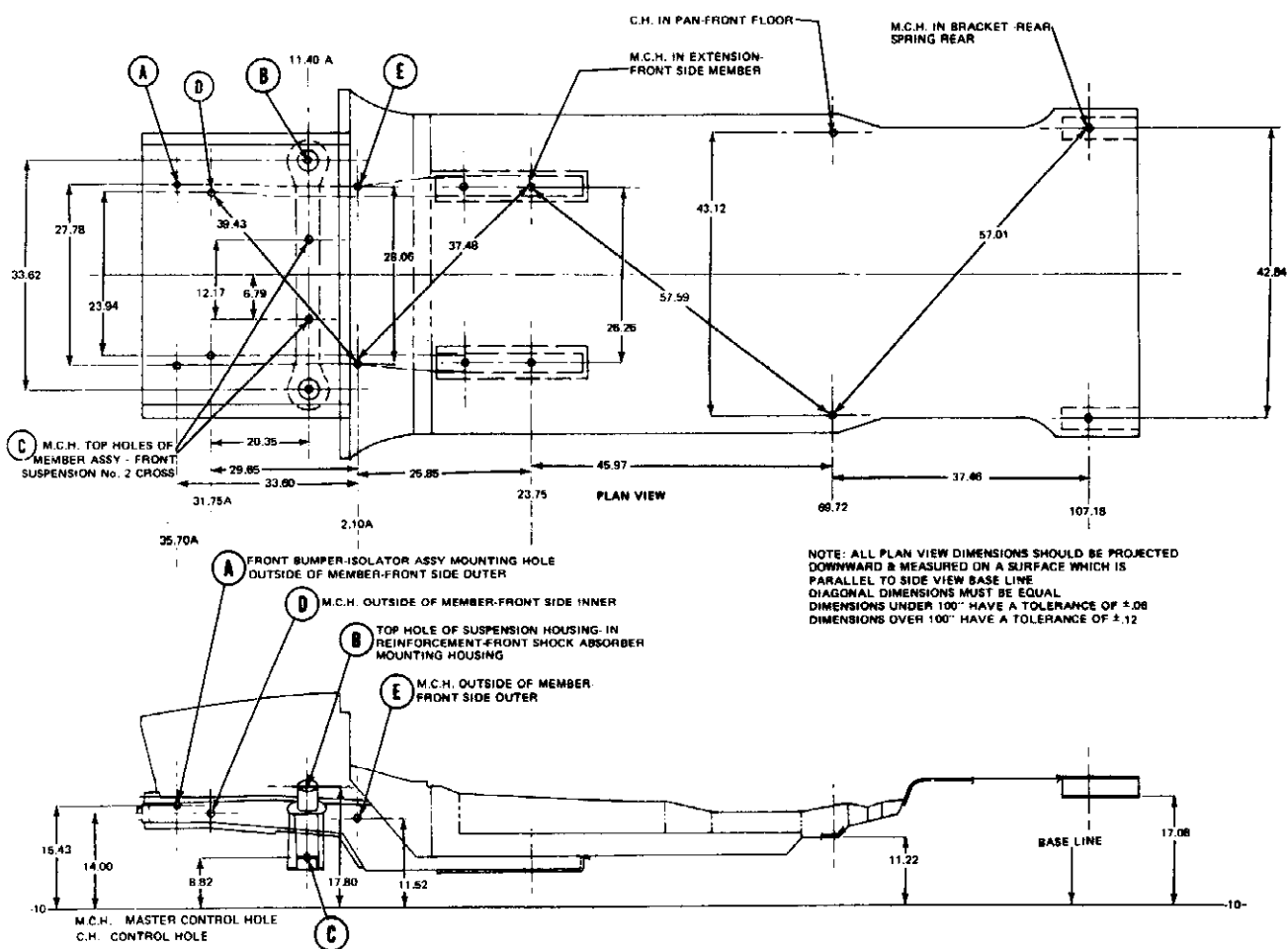


FIG. 9 Exterior Side Moulding Installation—Mustang II



N2508-26

FIG. 10 Underbody Dimensions—Mustang II

Monarch and Granada

PART
47-11

SUBJECT	PAGE	SUBJECT	PAGE
REMOVAL AND INSTALLATION		REMOVAL AND INSTALLATION (Cont'd.)	
Air Deflector	11-2	Rear Bumper	11-3
Exterior Mouldings	11-3	Underbody Dimensions	11-3
Front Bumper	11-2		
Radiator Grille	11-1		

CN2883-2B

REMOVAL AND INSTALLATION

RADIATOR GRILLE

GRANADA AND MONARCH (FIG. 1)

Removal

1. Remove seven screws attaching radiator grille assembly to the grille opening panel.

2. Remove the radiator grille assembly.

Installation

1. Position the radiator grille assembly to the radiator grille opening panel and secure with seven screws.

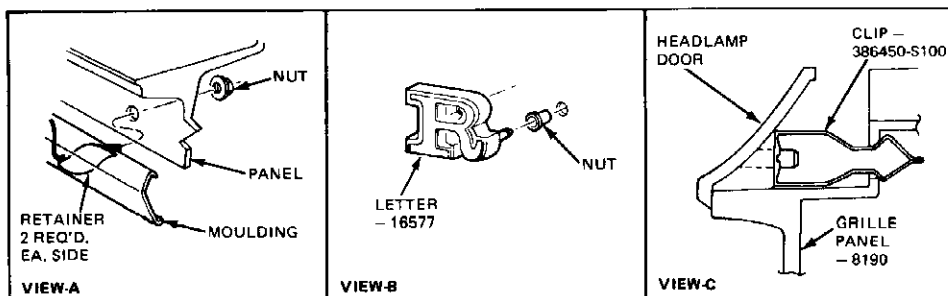
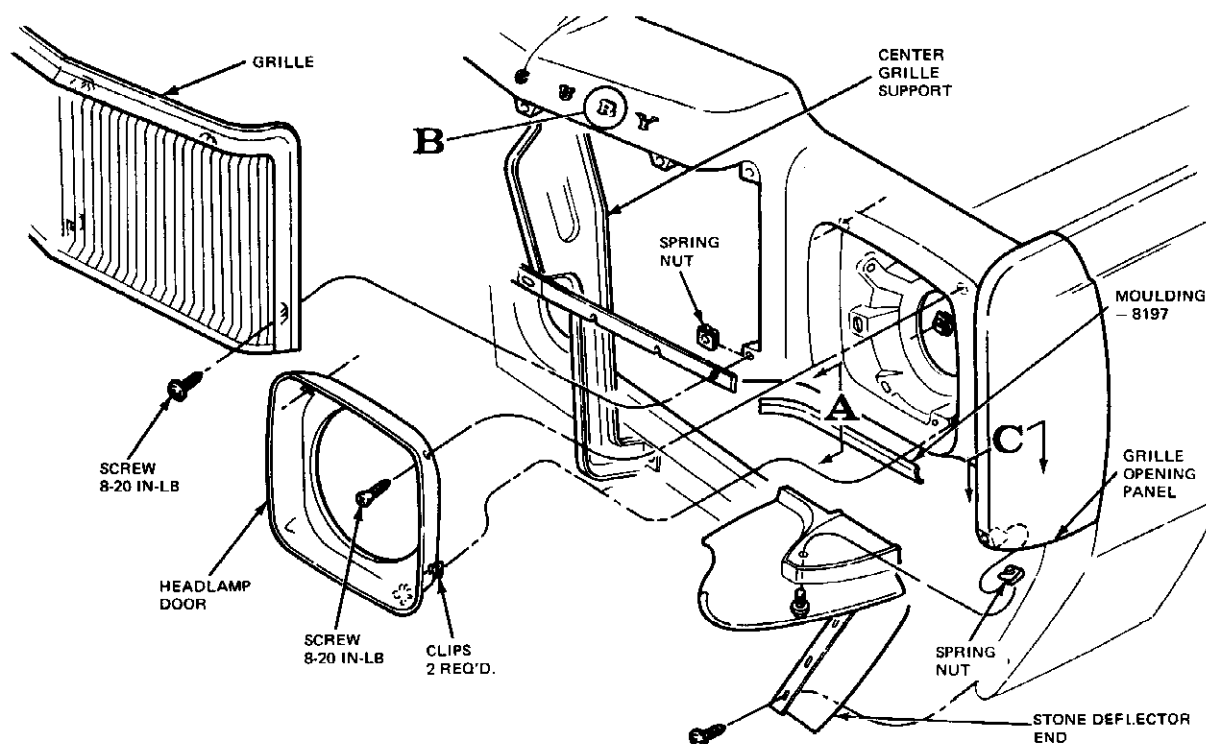


FIG. 1 Grille Installation—Granada and Monarch

N2539-2C

AIR DEFLECTOR (FIG. 1)**GRANADA AND MONARCH****Removal**

1. Remove radiator and deflector upper attachments.

Installation

1. Install screw in round hole of deflector for the first attachment to the grille opening panel.
2. Install remaining screws making sure deflector is sealing to underside of grille opening panel.

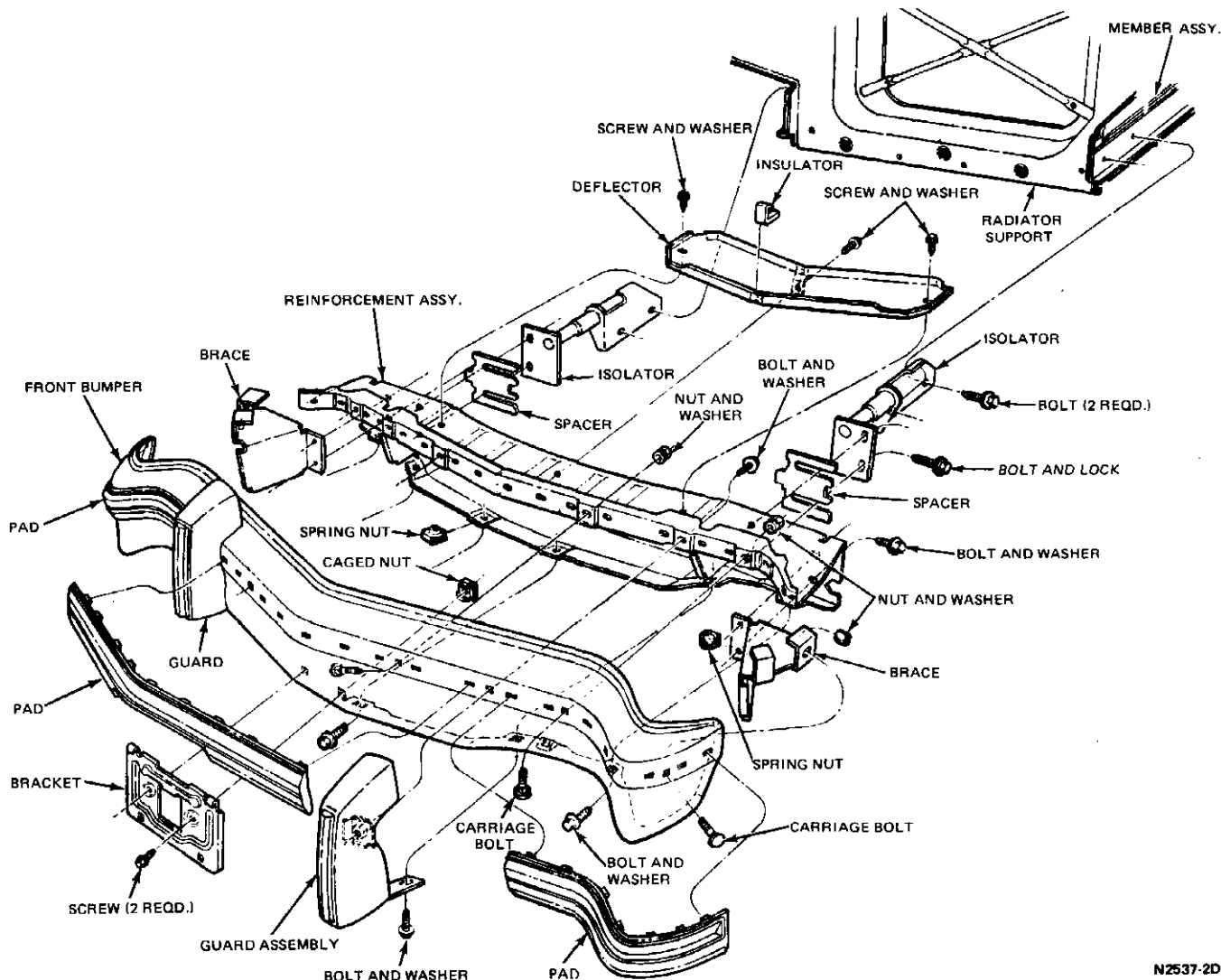
FRONT BUMPER**Removal**

1. Remove three (3) bolts attaching each isolator to the bumper reinforcement and, with an assistant, remove the bumper and reinforcement from the vehicle.
2. Remove the reinforcement-to-bumper and end bracket to bumper attaching bolts and separate the reinforcement from the bumper and end bracket (Fig. 2).

3. Remove the bumper guards and pads from the bumper.
4. Remove the license plate mounting bracket from the bumper.
5. If the reinforcement is to be replaced, remove the sight shield attaching bolts and remove the top sight shield and cooling ducts from the reinforcement.

Installation

1. Install the bumper guards and pads on the bumper. Install the license plate bracket.
2. Position the cooling ducts and sight shields to the reinforcement and install attaching bolts.
3. Position bumper end brace between bumper and reinforcement and install bumper attaching bolts.
4. Install the bumper center stone deflector to reinforcement.
5. Position the bumper and spacers to the isolators and install the attaching bolts.
6. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications



N2537-2D

FIG. 2 Front Bumper Installation—Granada and Monarch

in Fig. 3. Then, adjust the bumper for body clearance at the centerline of the parking lamp so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 3. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.

7. Lift up the end sight shields. Apply 2-way tape to the center shield, remove top protective backing and press down firmly on end shield to obtain a flush fit.

REAR BUMPER

Removal

1. Disconnect the license plate lamp wire from the underbody harness.

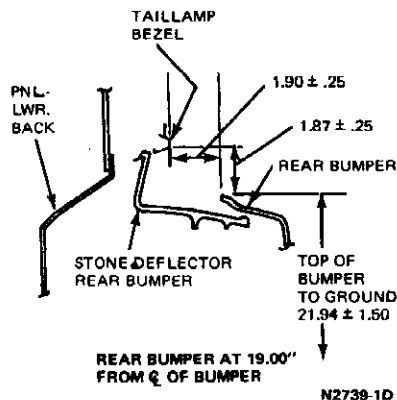
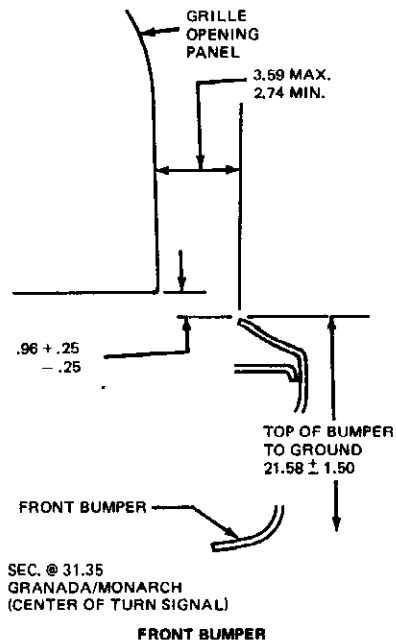


FIG. 3 Bumper Adjustment Specifications—Granada and Monarch

2. Remove two bolts attaching the reinforcement to each isolator, and remove the bumper assembly.
3. Remove the license bracket from the bumper. Remove two screws retaining license plate light to the reinforcement and remove the light.
4. Remove the nuts and bolts attaching the reinforcement to the bumper, and separate the reinforcement and bumper guards (if so equipped) from the bumper (Fig. 4).

Installation

1. Position the reinforcement and bumper guards (if equipped), to the bumper and install the bolts and nuts. Tighten nuts to specification given in Fig. 4.

NOTE: Reinstallation of the end brackets is optional. If the end brackets are not installed and the bumper has holes provided for attaching the brackets, install the bolts and nuts into the holes.

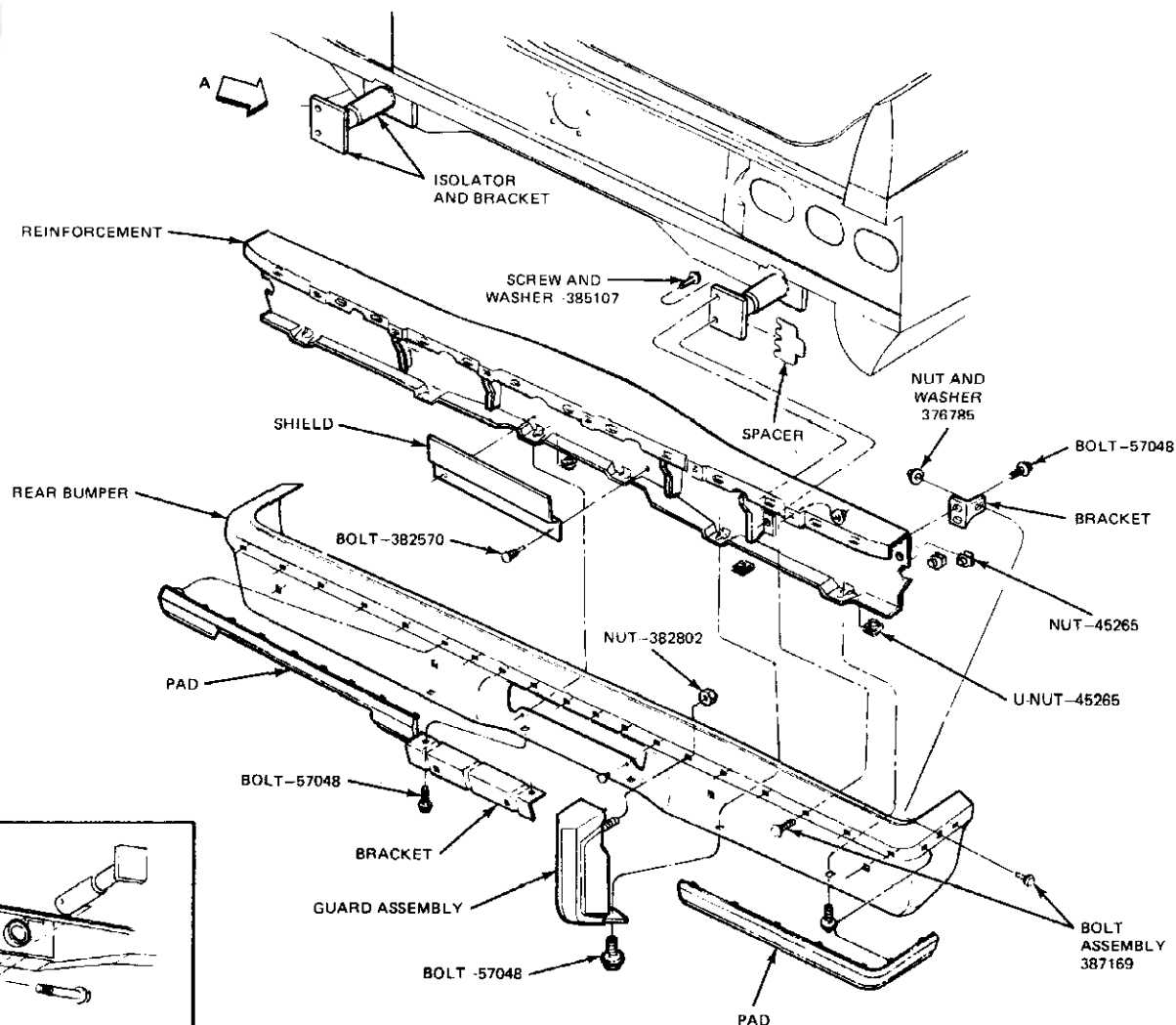
2. Install the license bracket on bumper, and tighten bolts to specification (Fig. 4). Install the license light to the reinforcement (two screws). Route the wire through the hole in the back of the reinforcement.
3. Position bumper assembly to the isolator and install the attaching bolts.
4. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 3. Then, adjust the bumper for body clearance so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 3. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.

EXTERIOR MOULDINGS

Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access (Figs. 5 thru 8). If a weld stud is distorted or broken off, it should be replaced with an oval head blind rivet (Part No. 383229-S). Refer to General Information (Part 47-01) for installation of Pressure Sensitive Tape Type (Body Side Protection Mouldings).

UNDERBODY DIMENSIONS

The Granada and Monarch underbody dimensions are shown in Fig. 9. The underbody checking and repair procedures are given in Part 47-01.



N2738-2D

FIG. 4 Rear Bumper Installation—Granada and Monarch

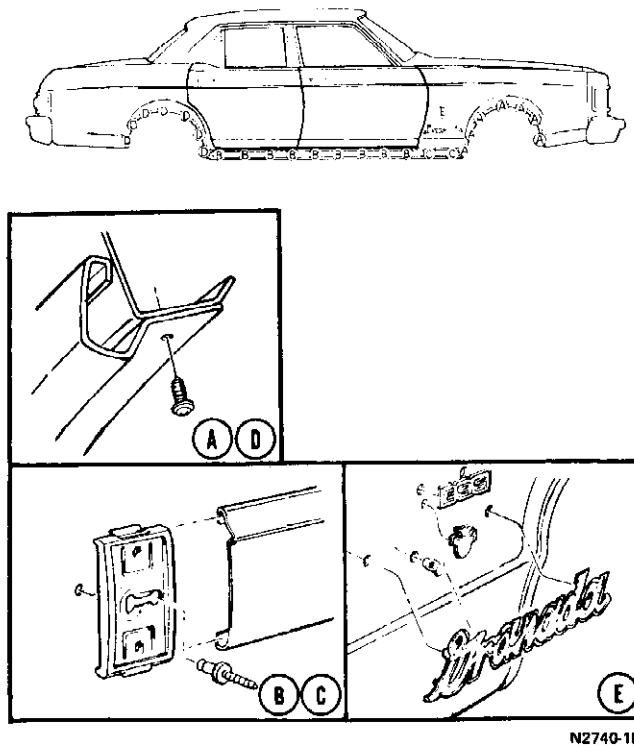


FIG. 5 Exterior Side Moulding Installation—Granada Shown—Monarch Typical

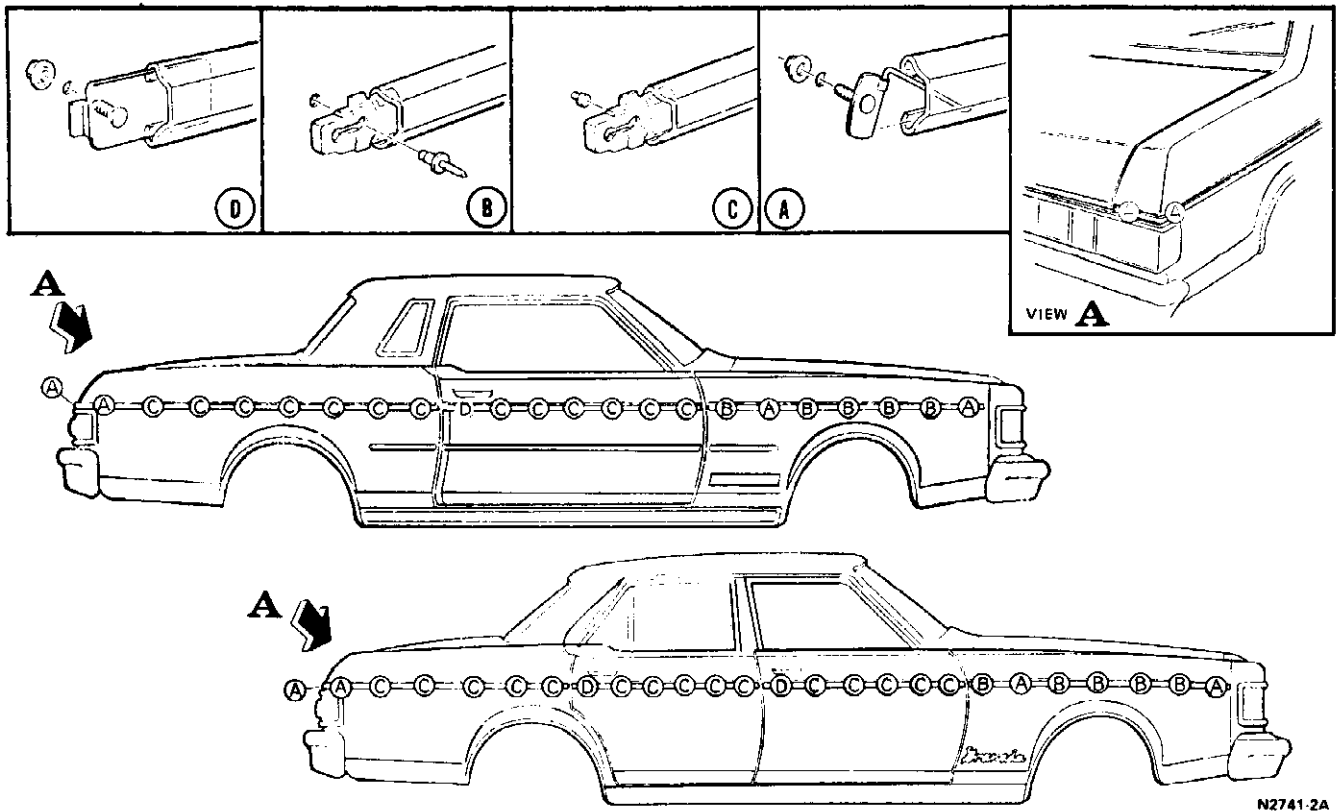


FIG. 6 Exterior Side Moulding Installation—Granada Shown—Monarch Typical

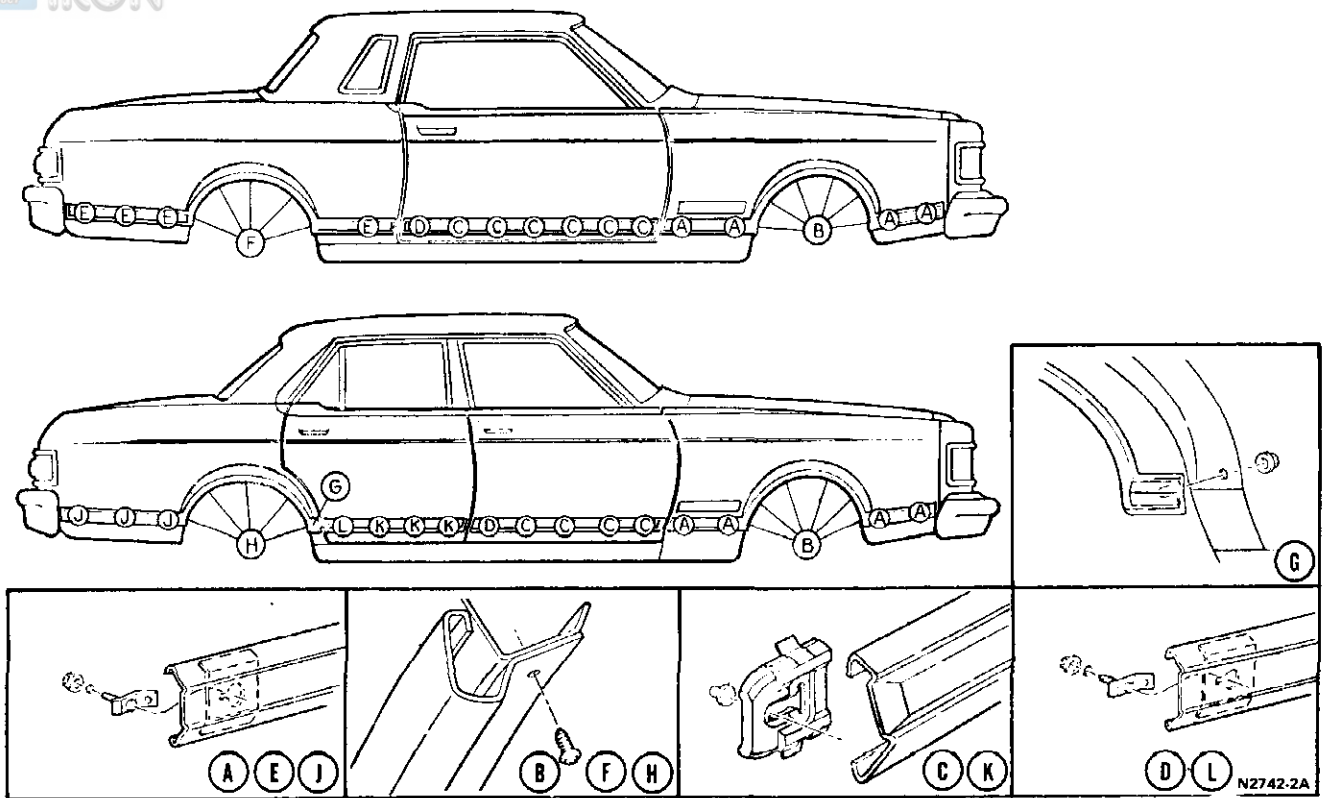


FIG. 7 Exterior Side Moulding Installation—Granada Shown—Monarch Typical

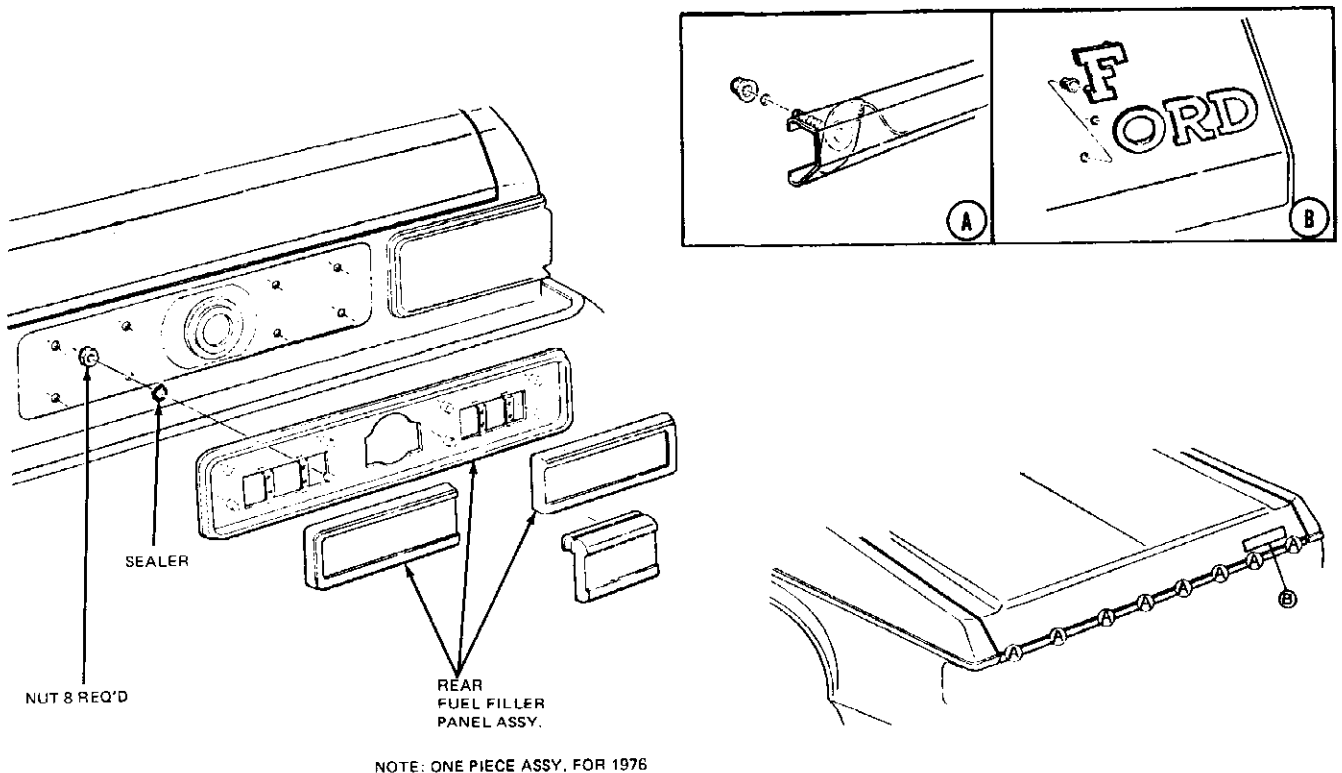


FIG. 8 Rear Exterior Moulding Installation—Granada Shown—Monarch Typical

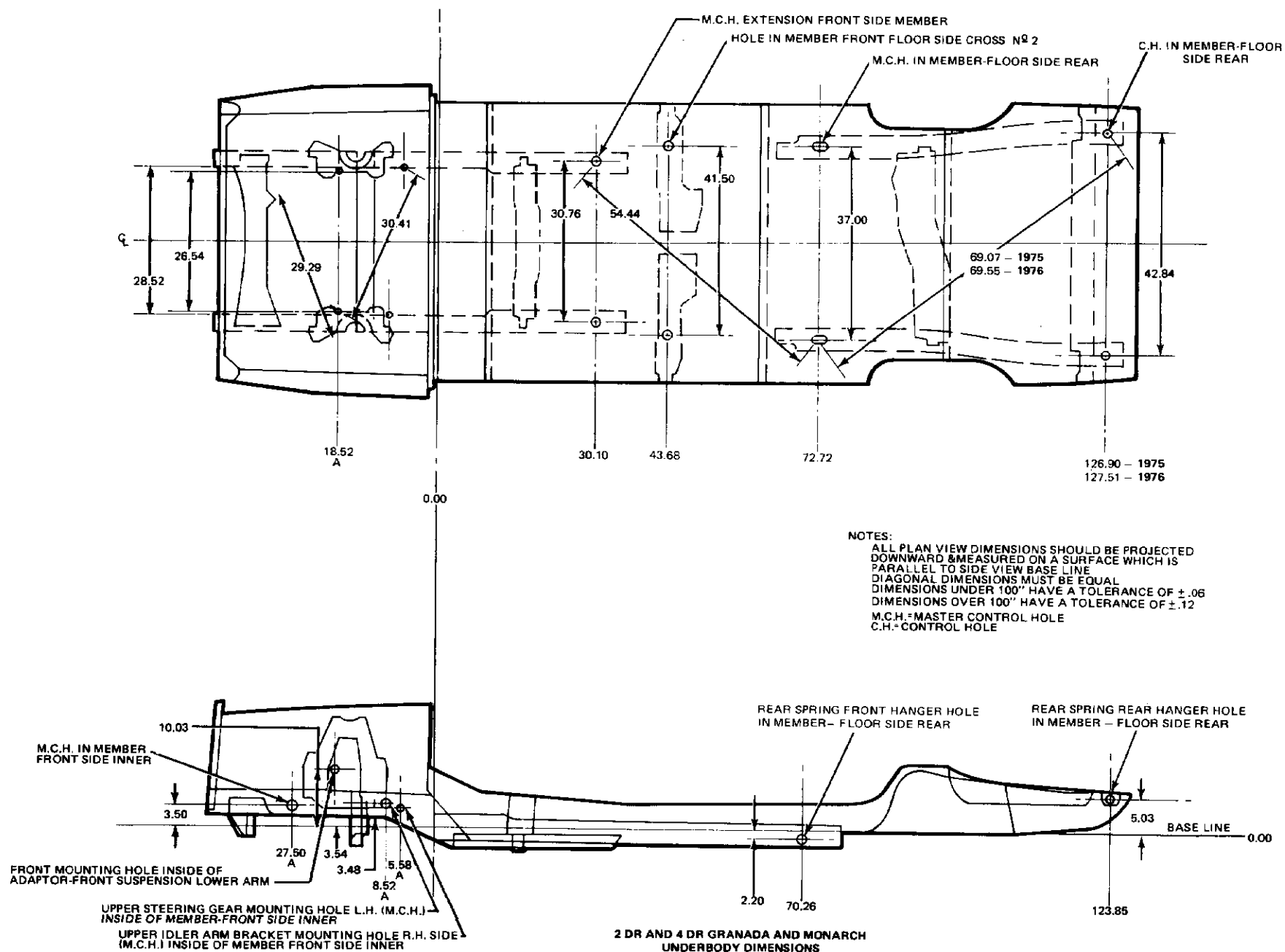


FIG. 9 Underbody Dimensions—Granada and Monarch

Versailles

PART
47-12

SUBJECT	PAGE	SUBJECT	PAGE
REMOVAL AND INSTALLATION		REMOVAL AND INSTALLATION (Cont'd.)	
Exterior Mouldings	12-3	Rear Bumper	12-3
Front Bumper	12-1	Underbody Dimensions	12-3
Headlamp Doors	12-1		
Radiator Grille	12-1		

CN2883-2B

REMOVAL AND INSTALLATION

RADIATOR GRILLE

REMOVAL

1. Remove the six 1/4-20 nuts behind the radiator grille opening panel (see Fig. 1).
2. Remove grille assembly.
3. Remove the four self-tapping screws retaining the spring wire to radiator grille (outer).
4. Remove two clips retaining the spring at the bottom of the grille by prying legs apart from the front of the grille.
5. Remove four screws on pivot clips at the top of the grille and slide upward and off.

INSTALLATION

1. Lay spring on grille with lower legs seated in slots provided.
2. Install retainer clips.
3. Slide pivot clips into position over spring on two ears at top of grille and install screws loosely.
4. Install grille into grille panel, engaging spring into slots. Center grille in opening and install four self-tapping screws.
5. Adjust height of grille so that there is .100" margin between the grille and grille (outer) at the lower legs. Tighten the four screws securing the pivot clips.
6. Install the assembly into radiator grille opening panel and secure with six 1/4-20 nuts from behind.

HEADLAMP DOORS

REMOVAL

1. Remove the six self-tapping screws from the front. (See Fig. 1.)
2. Remove headlamp door.
3. Remove two screws retaining the lower parking lamp.

INSTALLATION

1. Install the two screws that retain the lower parking lamp.
2. Locate the headlamp door into position.
3. Fasten headlamp door with six self-tapping screws.

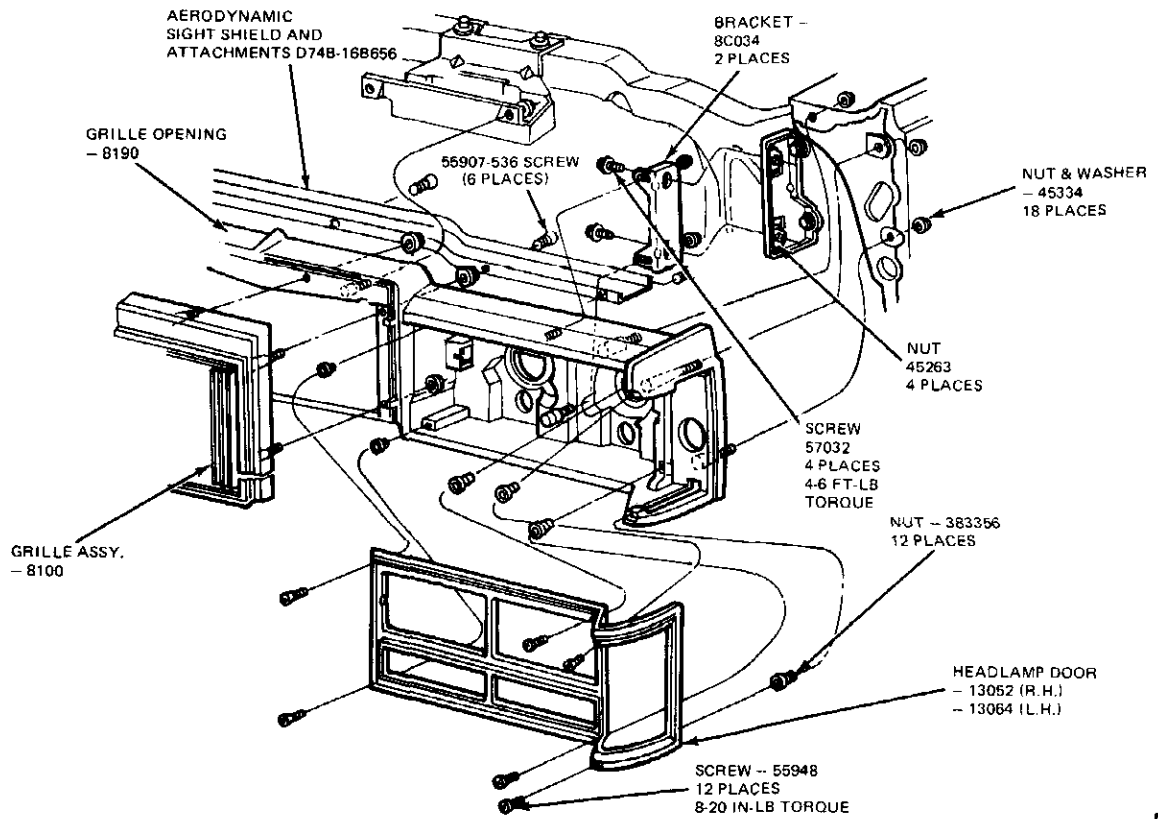
FRONT BUMPER

REMOVAL

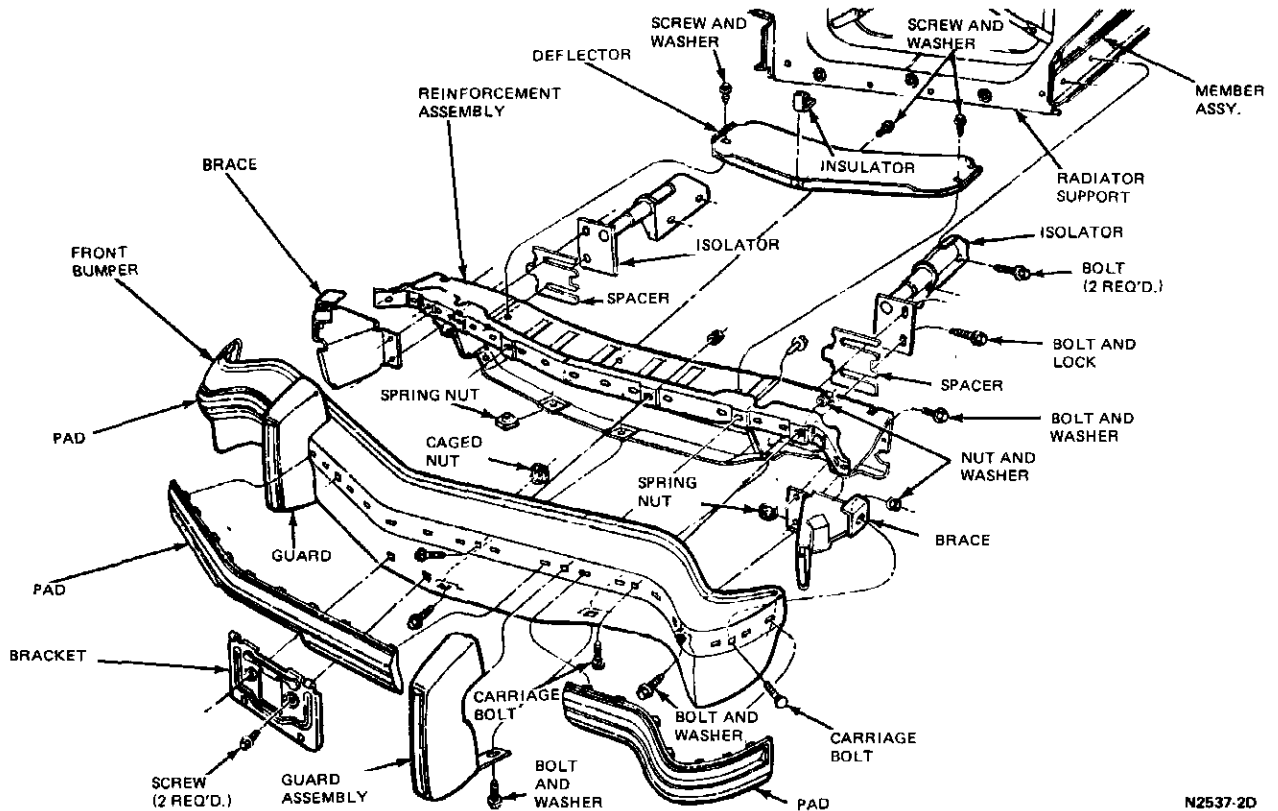
1. Remove three (3) bolts attaching each isolator to the bumper reinforcement and, with an assistant, remove the bumper and reinforcement from the vehicle.
2. Remove the reinforcement-to-bumper and end bracket to bumper attaching bolts and separate the reinforcement from the bumper and end bracket (Fig. 2).
3. Remove the bumper guards and pads from the bumper.
4. Remove the license plate mounting bracket from the bumper.
5. If the reinforcement is to be replaced, remove the sight shield attaching bolts and remove the top sight shield from the reinforcement.

INSTALLATION

1. Install the bumper guards and pads on the bumper. Install the license plate bracket.
2. Position the sight shields to the reinforcement and install attaching bolts.
3. Position bumper end brace between bumper and reinforcement and install bumper attaching bolts.
4. Install the bumper center stone deflector to reinforcement.
5. Position the bumper and spacers to the isolators and install the attaching bolts.
6. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications



N4065-2B

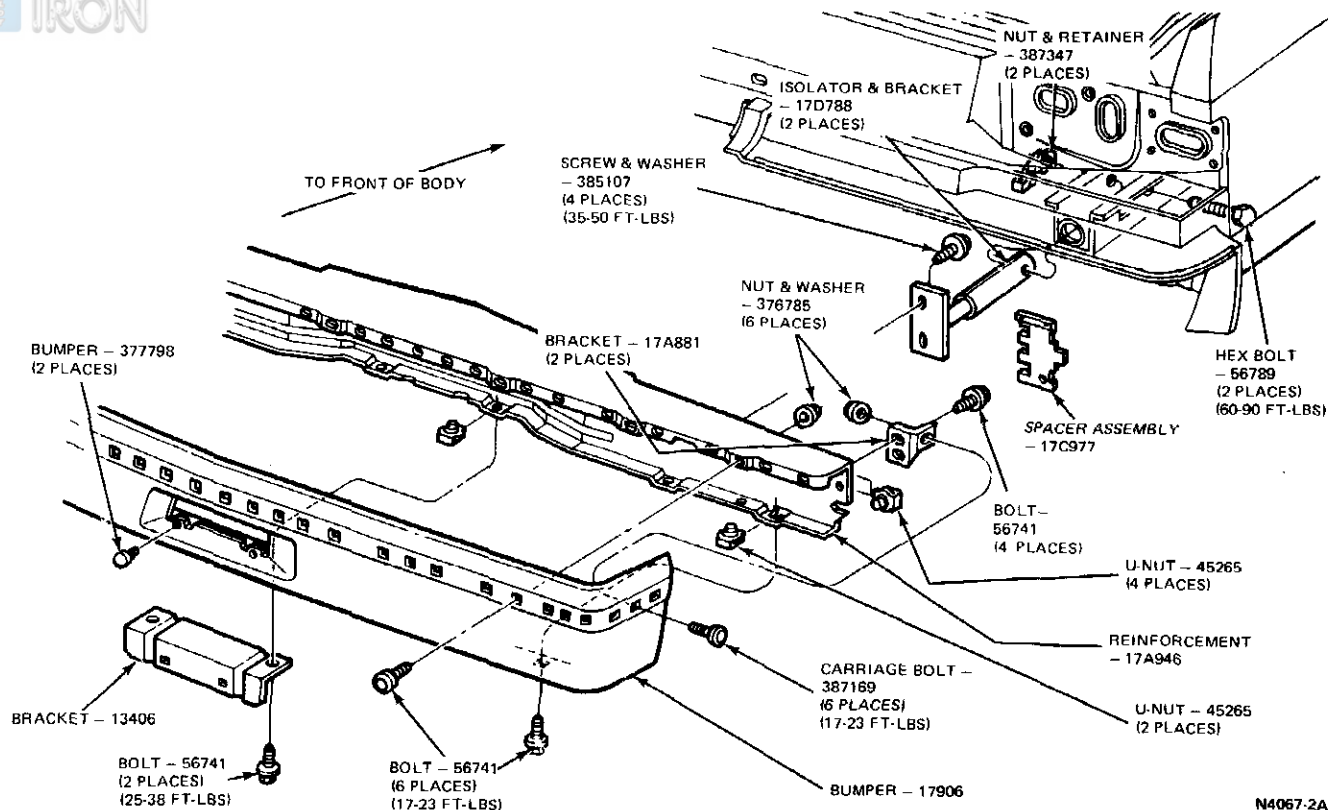
FIG. 1 Grille and Headlamp Door Installation

N2537-2D

FIG. 2 Front Bumper Installation

in Fig. 5. Then, adjust the bumper for body clearance at the centerline of the parking lamp so that the vertical and horizontal body to bumper

dimensions meet the specifications in Fig. 5. Tighten the isolator-to-reinforcement bolts to 35-50 ft-lbs torque.



N4067-2A

FIG. 3 Rear Bumper Installation**REAR BUMPER****REMOVAL**

1. Disconnect the license plate lamp wire from the underbody harness.
2. Remove two bolts attaching the reinforcement to each isolator, and remove the bumper assembly.
3. Remove the license bracket from the bumper. Remove two screws retaining license plate lamp to the reinforcement and remove the lamp.
4. Remove the nuts and bolts attaching the reinforcement to the bumper, and separate the reinforcement and bumper guards (if so equipped) from the bumper (Figs. 3 and 4).

INSTALLATION

1. Position the reinforcement and bumper guards (if equipped), to the bumper and install the bolts and nuts. Tighten nuts to specification given in Fig. 3.

NOTE: Reinstallation of the end brackets is optional. If the end brackets are not installed and the bumper has holes provided for attaching the brackets, install the bolts and nuts into the holes.

2. Install the license bracket on bumper, and tighten bolts to specification (Fig. 3). Install the license lamp to the reinforcement (two screws). Route the wire through the hole in the back of the reinforcement.

3. Position bumper assembly to the isolator and install the attaching bolts.
4. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 5. Then, adjust the bumper for body clearance so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 5. Tighten the isolator-to-reinforcement bolts to 35-50 ft-lbs torque.

EXTERIOR MOULDINGS

Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access (Figs. 6 thru 9). If a weld stud is distorted or broken off, it should be replaced with an oval head blind rivet (Part No. 383229-S). Refer To General Information (Part 47-01) for installation of Pressure Sensitive Tape Type (Body Side Protection Mouldings).

UNDERBODY DIMENSIONS

The underbody dimensions are shown in Fig. 10. The underbody checking and repair procedures are given in Part 47-01.

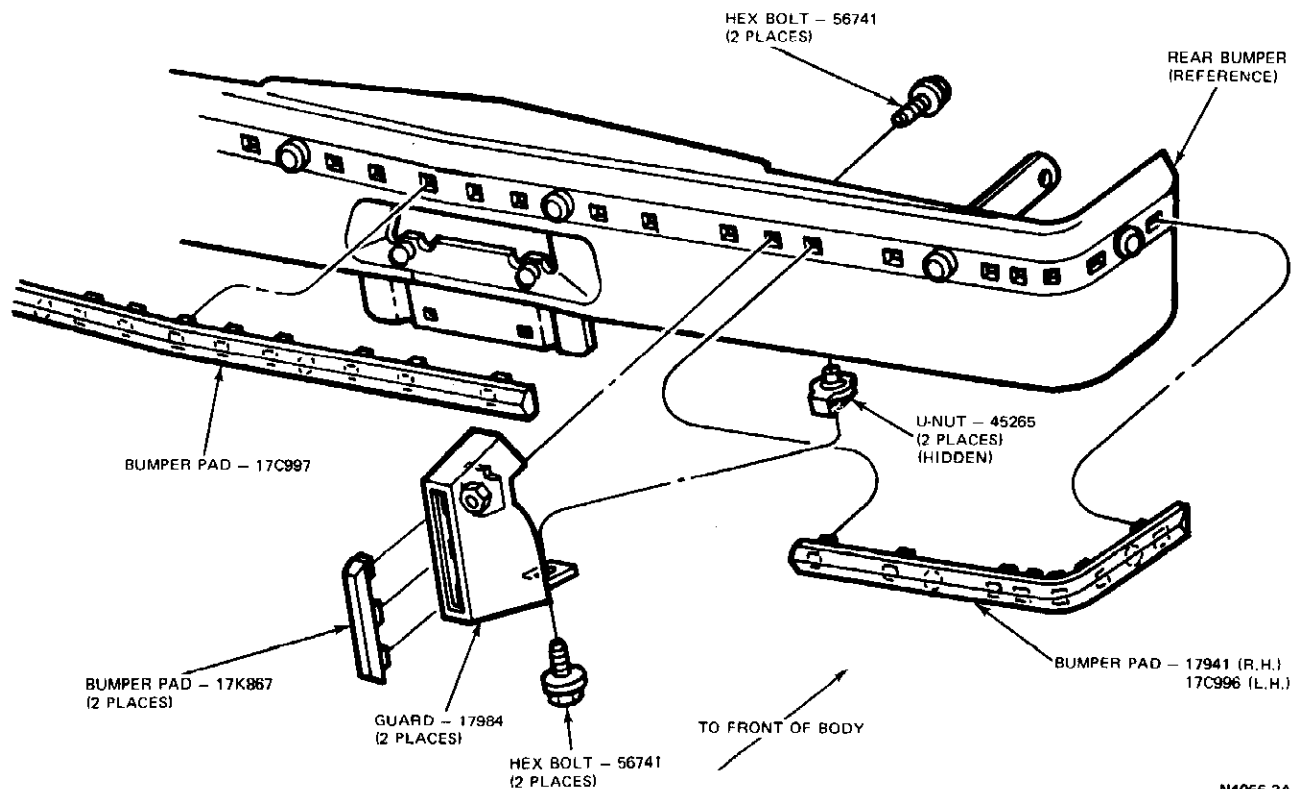


FIG. 4 Bumper Guard Installation

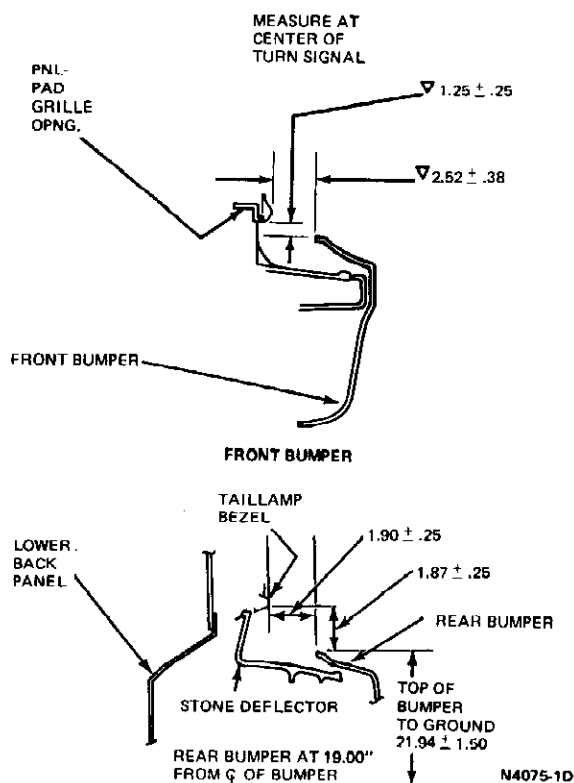


FIG. 5 Bumper Adjustment Specifications

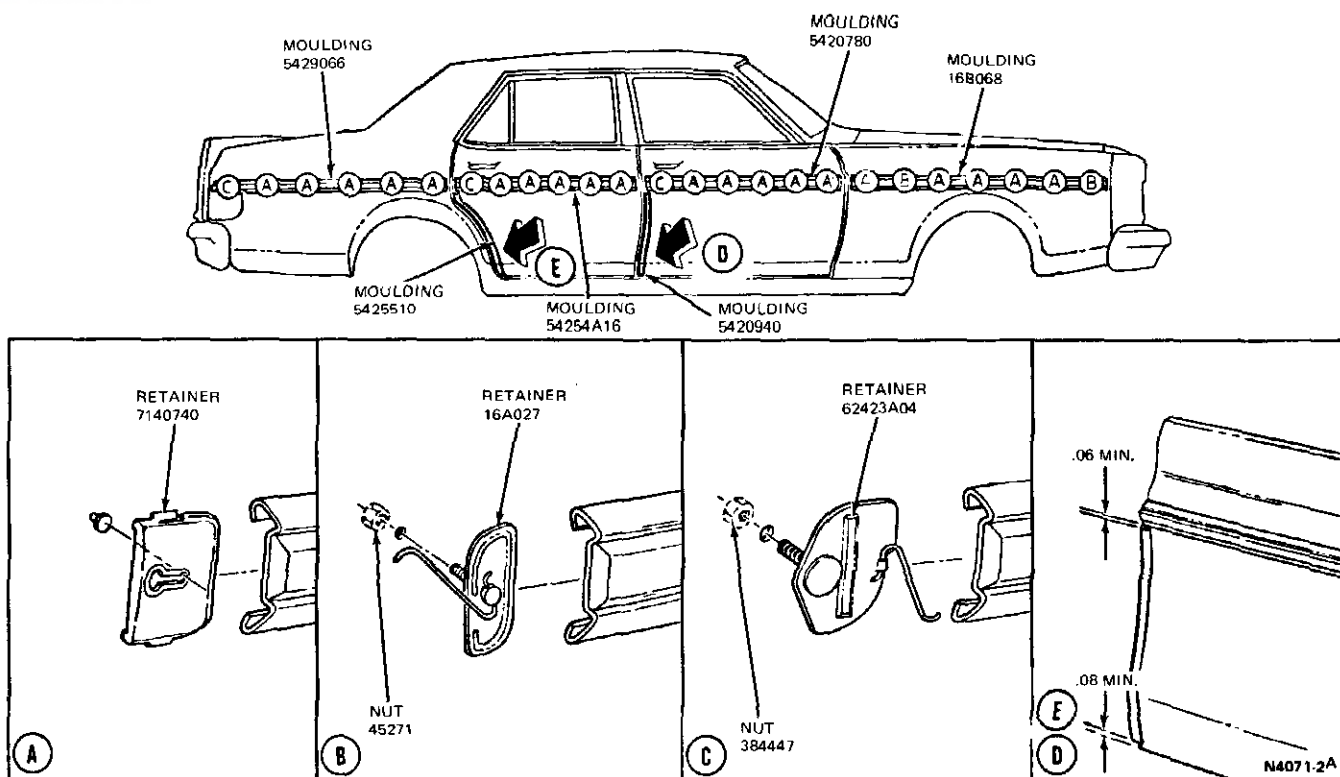


FIG. 6 Exterior Side Moulding Installation

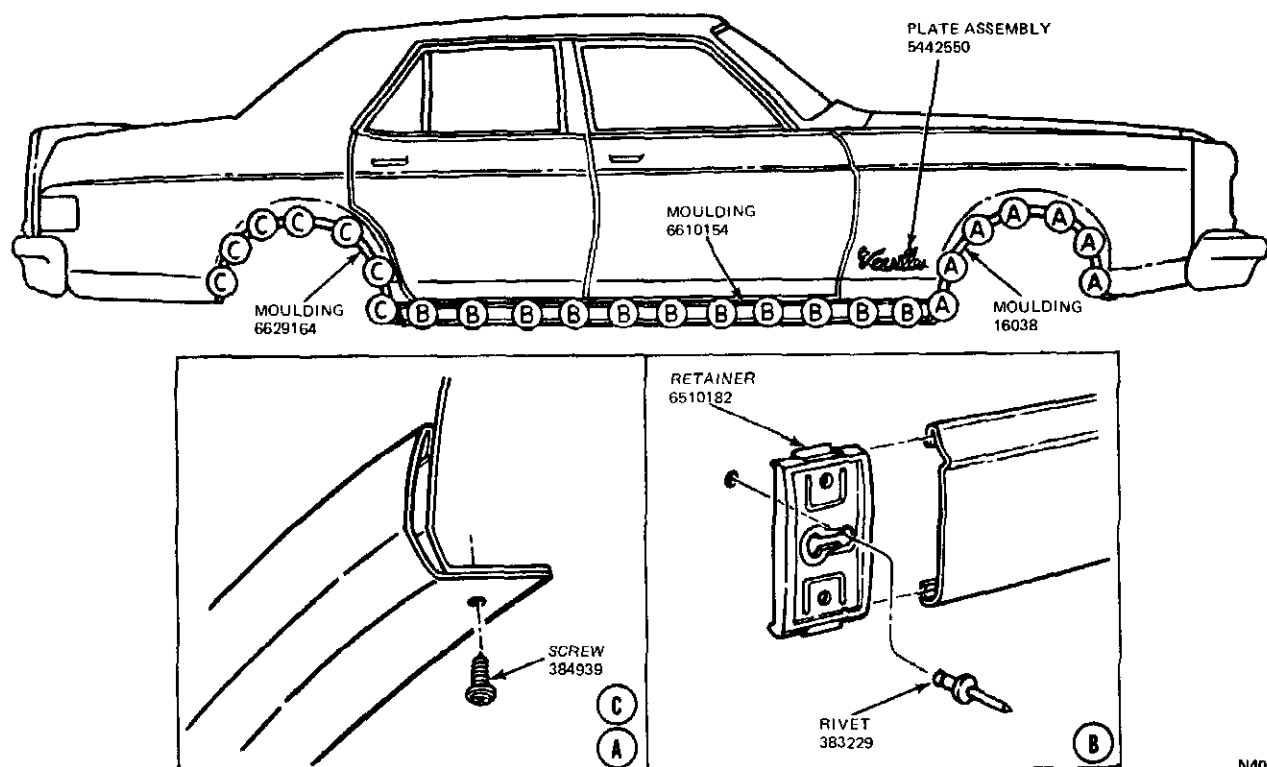
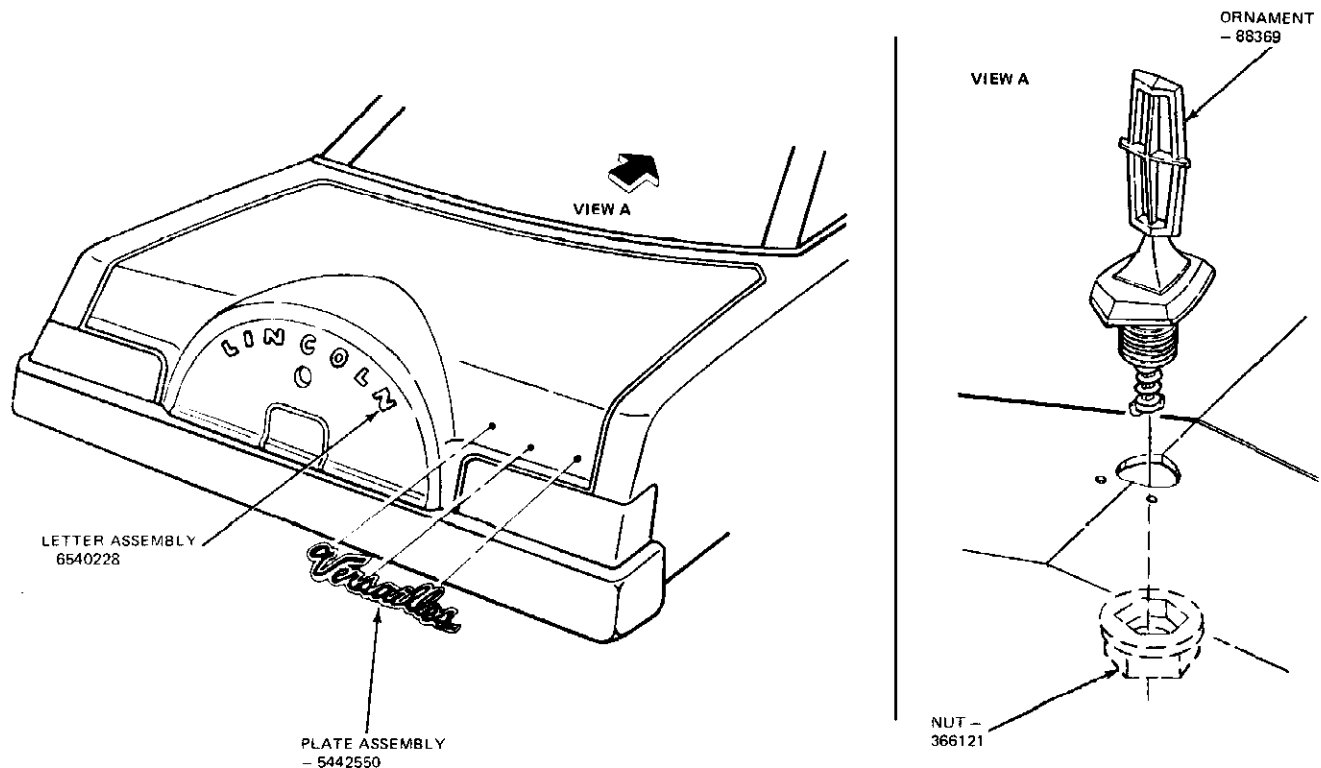


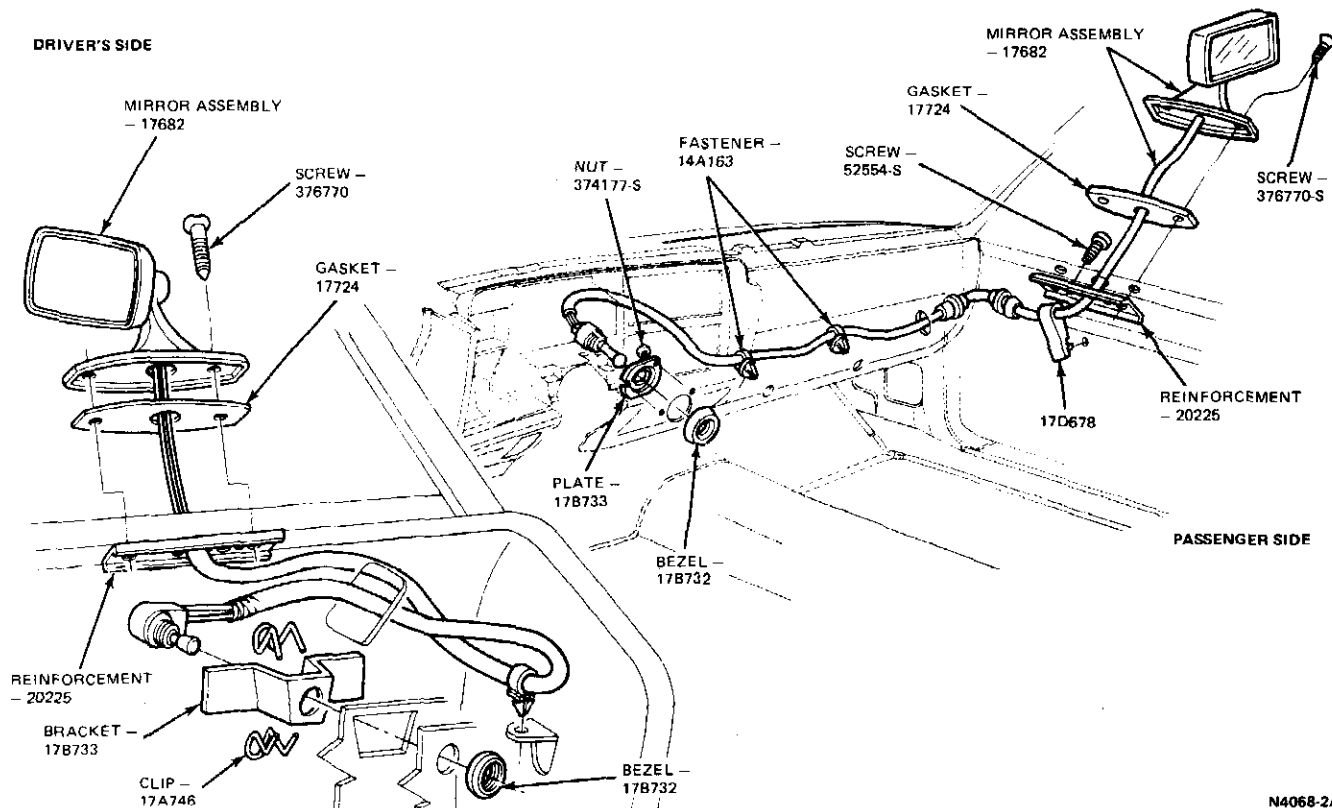
FIG. 7 Exterior Side Moulding Installation



N4069-2A

FIG. 8 Identification and Ornament

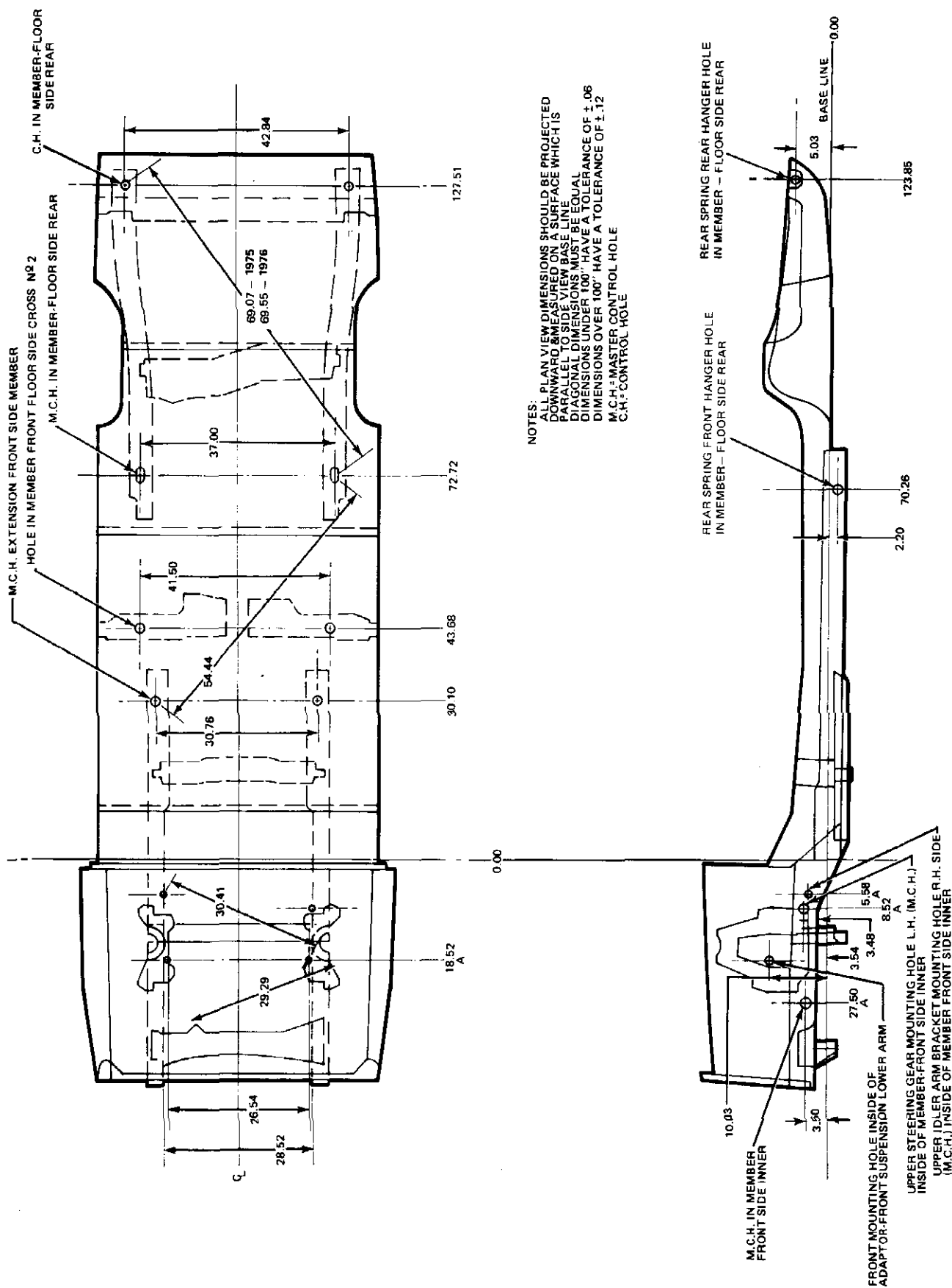
DRIVER'S SIDE



PASSENGER SIDE

N4068-2A

FIG. 9 Mirror Attachment



N2549-2D

FIG. 10 Underbody Dimensions



1978 Car Shop Manual Volume 5 Pre-Delivery, Maintenance and Lubrication



GROUP AND PART INDEX

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ENGINE EMISSION CONTROL SYSTEMS	50-29
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HOISTING, JACKING AND TOWING	50-04
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**PRE-DELIVERY,
MAINTENANCE
AND LUBRICATION
GROUP 50**

foreword...

This 1978 Car Shop Manual has been prepared to provide information covering normal service repairs and maintenance for 1978 Ford Passenger Cars manufactured in the United States and Canada. It is divided into five volumes, each covering a specific major area:

- Volume 1 — Chassis
- Volume 2 — Engine
- Volume 3 — Electrical
- Volume 4 — Body
- Volume 5 — Maintenance and Lubrication.

Information in each volume is divided into Groups covering a general system. The table of contents on the cover of each volume indicates the Group title, number, and volume in which each Group is located.

For 1978, the basic part number for components covered in the Groups is also included in parenthesis after the Group number.

Example:

<u>Cooling System</u>	<u>Group 27</u>	<u>(8000)</u>
General System Covered in Group	Group Number	Basic Part Number for Cooling System Components

Some components covered within a Group do not have the same basic part number. In these cases; more than one part number will appear on the Group index.

Example:

<u>Gasoline Engines</u>	<u>Group 21</u>	<u>(6000</u>	<u>&</u>	<u>9000)</u>
General System Covered in Group		Basic Part Number for Gasoline Engine Components		Intake and Exhaust Manifold Basic Part Number Only

For easy reference, information in each Group has been divided into smaller units or Parts. There is one Part for each component in the system, as well as a General Service Part in some Groups to cover procedures common to several components within the Group. In general, each Part contains the Description, Operation, Diagnosis and Testing, Removal and Installation and Disassembly and Assembly procedures for the component covered in the Part. Diagnosis Charts are also included in some Parts to help you systematically locate and service conditions encountered. In most cases, specifications are included at the end of each Part.

To aid in locating specific items in this manual, the index at the front of each volume provides an alphabetical listing, with page number, for all Parts in the volume. The tab locator on the right side of this index will help you find the first page of each Group.

On the first page of each Group there is an index listing the Part title and Part number for each component covered within the Group. The first page of each Part contains an index to locate service operations covered in that Part. This Group-Part breakdown is also indicated in the page number located at the top of each page.

Example: 11-02-21 = (Group) 11 — (Part) 02 — (Page) 21

Metric conversion tables have been included at the back of each volume to aid in converting specifications in this manual to the metric equivalent.

The descriptions and specifications in this manual were in effect at the time this manual was approved for printing. Ford Motor Company reserves the right to discontinue models at any time, or change specifications or design without notice and without incurring obligation.



**Ford Parts and Service Division
Training and Publications Department**

PRE-DELIVERY, MAINTENANCE AND LUBRICATION

**GROUP
50**

PART TITLE	PART NO.	PART TITLE	PART NO.
Automatic Transmission	50-17	Identification Codes	50-01
Body	50-41	Lights, Instruments, Controls, Heating, Air Conditioning and Accessories	50-32
Brakes	50-12	Lubrication Charts and Lubricant Specifications	50-03
Charging System	50-31	Pre-Delivery and Maintenance Schedules	50-02
Clutch and Manual Transmission	50-16	Rear Axle	50-15
Cooling System	50-27	Steering	50-13
Emission Systems	50-29	Suspension	50-14
Gasoline Engine	50-21	Wheels and Tires	50-11
Hoisting, Jacking and Towing	50-04		

CA4231-2B

Identification Codes

**PART
50-01**

SUBJECT	PAGE	SUBJECT	PAGE
GENERAL DESCRIPTION		GENERAL DESCRIPTION (Cont'd.)	
Official Vehicle Identification Number	01-1	Vehicle Certification Label	01-1
		IDENTIFICATION CODES	01-3

CA4232-2A

GENERAL DESCRIPTION

OFFICIAL VEHICLE IDENTIFICATION NUMBER

The official Vehicle Identification Number (VIN)(Fig. 1) for title and registration purposes is stamped on a metal tab that is fastened to the instrument panel close to the windshield on the driver's side of the car and is visible from outside.

VEHICLE CERTIFICATION LABEL

The Vehicle Certification Label (V.C. Label)(Fig. 1) is affixed on the left front door lock face panel or door pillar. The upper half of the label contains the name of manufacturer, month and year of manufacture, Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating (GAWR), and the certification statement.

The V.C. label also contains the Vehicle Identification Number. This number is also used for warranty identification of the vehicle. The first number indicates the model year. The letter following the model year number indicates the manufacturing assembly plant. The next two numbers designate the Body Serial Code followed by a letter expressing the Engine Code.

The last six digits of the Vehicle Identification Number indicate the Consecutive Unit Number of each unit built at each assembly plant. The Consecutive Unit Numbers begin as follows:

100,001—Ford, LTD II, Ranchero, Mustang II, Thunderbird, Granada, Fairmont and Pinto.

500,001—Mercury, Cougar, Zephyr, Monarch and Mercury Bobcat.

800,001—Lincoln Continental, Versailles and Continental Mark V.

The remaining information on the V.C. Label consists of the following vehicle identification codes:

The BODY code is two numerals and a letter identifying the body style.

The COL (color) code is a number and letter indicating the exterior paint color code.

The TRIM code consists of a two-letter or a letter-number combination designating the interior trim.

8563H100001
(VEHICLE IDENTIFICATION NUMBER)

MFD. BY FORD MOTOR CO. IN U.S.A.
DATE: 08/77 GVWR 6538
GAWR: FRONT 2964, REAR 3375

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

F0033/R0155

8563H100001 PASSENGER

VEH. IDENT. NO.		TYPE			
BODY	COLOR	TRIM	TRANS.	AXLE	DSO
53M	1C-YA	DD	X	6	48

(UNITED STATES)

① CONSECUTIVE UNIT NO.**	⑧ VINYL ROOF TYPE/COLOR
② BODY SERIAL CODE	⑨ TRIM CODE (First Letter = Type of Trim; Second Letter = Color)
③ MODEL YEAR CODE	⑩ TRANSMISSION CODE
④ ASSEMBLY PLANT CODE	⑪ REAR AXLE CODE
⑤ BODY TYPE CODE	⑫ DISTRICT - SPECIAL EQUIPMENT
⑥ ENGINE CODE	⑬ VEHICLE TYPE*
⑦ BODY COLOR CODE	⑭ ACCESSORY RESERVE LOAD

*1978 BUILD MODELS DESIGNATED 1977 MODELS WILL HAVE "PASS 1977" IN THIS SPACE.

**1978 BUILD MODELS DESIGNATED 1977 MODELS WILL HAVE ALTERED CONSECUTIVE NUMBERING AS FOLLOWS:

PINTO/MUSTANG II - 400001 THRU 499999
BOBCAT - 750001 THRU 799999

MFD. BY FORD MOTOR CO. IN U.S.A.

DATE: 08/77 GVWR 5892
GAWR: FRONT 2964 REAR 2928

THIS VEHICLE MANUFACTURED FOR EXPORT ONLY ON DATE SHOWN ABOVE.

8S63H100002 PASSENGER

VEH. IDENT. NO.		TYPE			
BODY	COLOR	TRIM	TRANS.	AXLE	DSO
53H	1C-CA	D	X	6	90

(EXPORT)

MFD. BY FORD MOTOR CO.
OF CANADA LTD.

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

VEH. IDENT. NO.		TYPE			
BODY	COLOR	TRIM	TRANS.	AXLE	DSO
MADE IN CANADA					

(CANADA)



Y1410-2K

FIG. 1 Vehicle Identification and Certification Labels

The AXLE code is a number or letter indicating the rear axle ratio and standard or locking type axles.

The TRNS. code is a number or letter indicating the type of transmission.

The DSO code, consisting of two numbers, designates the district in which the car was ordered and

may appear in conjunction with a Domestic Special Order or Foreign Special Order number when applicable. Ford of Canada DSO codes consist of a letter and number.

The following charts provide the various codes and their respective identification:

IDENTIFICATION CODES

ASSEMBLY PLANT CODES

Code Letter	District
A	Atlanta
B	Oakville (Canada)
E	Mahwah
F	Dearborn
G	Chicago
H	Lorain
J	Los Angeles
K	Kansas City
P	Twin Cities
R	San Jose
S	Allen Park (Pilot)
T	Metuchen
U	Louisville
W	Wayne
X	St. Thomas
Y	Wixom
Z	St. Louis

ENGINE CODES

Codes	No. of Cyls.	Displacement	
		Litres	CID
A	8	7.5	460-4V
C	8	7.5	460-4V (Police Interceptor)
F	8	5.0	302-2V
H	8	5.8	351-2V
L	6	4.1	250-1V
S	8	6.6	400-2V
T	6	3.3	200-1V
Y	4	2.3	139-2V (2.3L)
Z	6	2.8	169-2V (2.8L)

TRANSMISSION CODES

Codes	Type
MANUAL	
1	3 Speed
5	4 Speed Overdrive
6	4 Speed @
7	4 Speed (b)
AUTOMATIC	
V	XP (C-3)
W	XP (C-4)
X	FMX
U	XPL (C-6)
Z	XPL (Special)
@ Borg-Warner (b) Hummer	

EXTERIOR PAINT COLOR CODES

Code	Ref. #	Color
1C	1724	Black
1G	5299	Silver Met.
1N	5476	Dove Gray
1P	5523	Med. Gray Met. (Tie Tone only)
1Q	5527	Med. Silver Met.
2M	3413	Dark Red
2R	5440	Brt. Red
2U	5455	Lipstick Red
3G	5094	Brt. Dk. Blue Met.
3U	5467	Lt. Blue
31	5499	Midnight Blue
34	5041	Med. Blue
46	5328	Dk. Jade Met.
47	5404	Lt. Green
4V	5233	Dk. Yellow Green Met.
5Q	5477	Dk. Brown Met.
6E	5080	Brt. Yellow
6P	5406	Cream
6U	5441	Lt. Tan

DISTRICT CODES LINCOLN-MERCURY

Code	District
00	Special
11	Boston
15	New York
16	Philadelphia
17	Washington
21	Atlanta
22	Dallas
23	Jacksonville
26	Memphis
31	Buffalo
32	Cincinnati
33	Cleveland
34	Detroit
41	Chicago
42	St. Louis
46	Twin Cities
51	Denver
52	Los Angeles
53	Oakland
54	Seattle
84	Home Off. Reserve
90's	Export

FORD OF CANADA

Mercury Code	Region	Ford Code
A1	Central	B1
A2	Eastern	B2
A3	Atlantic	B3
A4	Midwestern	B4
A6	Western	B6
A7	Pacific	B7
12	Export	12

REAR AXLE RATIO CODES

Conventional Lock		Ratio
Y		3.08
8		2.47
1	J	2.50
8		2.73
2		2.75
3		2.79
6	Ø	3.00
4		3.18
7		3.40

DISTRICT CODES FORD

Code	District
00	Special
11	Boston
12	Buffalo
13	New York
14	Pittsburgh
15	Newark
16	Philadelphia
17	Washington
21	Atlanta
22	Charlotte
23	Memphis
24	Jacksonville
25	Richmond
26	New Orleans
28	Louisville
41	Chicago
42	Cleveland
43	Milwaukee
45	Lansing
46	Indianapolis
47	Cincinnati
48	Detroit
52	Dallas
53	Kansas City
54	Omaha
55	St. Louis
56	Davenport
57	Houston
58	Twin Cities
71	Los Angeles
72	San Jose
73	Salt Lake City
74	Seattle
75	Phoenix
76	Denver
83	Government
84	Home Off. Reserve
85	American Red Cross
86	Recreational Veh. Pool
87	Body Company
89	Transportation Services
90's	Export

Code Ref. # Color

7Q	5479	Lt. Aqua Mt.
7S	5489	Dk. Emerald Met.
8G	5466	Vista Orange
8H	5470	Tan
8K	5486	Brt. Saddle Met.
8N	5496	Dk. Cordovan Met.
8P	5471	Lt. Cordovan
8Y	5494	Champagne Met.
83	5524	Chamois
84	5525	Dk. Cordovan
9D	5418	White

(RPO) UNIQUE COLORS (NON POLISH) "D"

2Y	5492	Rose Met.
3V	5480	Brt. Blue Met.
6V	5298	Tan Met.
	5480	Med. Gold Met.
7H	5482	Brt. Aqua Met.
7L	5483	Lt. Jade Met.

Code Ref. # Color

7T	5490	Med. Emerald Met.
8J	5484	Med. Tan Met.
8W	5491	Chamois Met.

(RPO) DIAMOND BRIGHT (POLISH) "W"

2S	5444	Dk. Red Met.
2G	5070	Med. Red Met.
32	5511	Med. Blue Met.
8V	5495	Med. Ember Met.
8Z	5510	Med. Nectarine Met.
1R	5512	Lt. Silver Met.

(RPO) DIAMOND FLARE (POLISH) "G"

1J	5411	Silver Met.
1L	5472	Black Met.
2T	5462	Rose Met.
6Y	5461	Brt. Yellow Gold Met.
7B	5463	Crystal Jade Met.

BODY SERIAL AND STYLE CODES

Vehicle	Body Serial Code	Body Style Code	Body Type	Model
PINTO	10	62B	2-Dr. Sedan	Base
	11	64B	3-Dr. Sedan	Base
	12	73B	Wagon	Base
BOBCAT	20	64H	3-Dr. Sedan	U.S.A. & Canada
	22	73H	Wagon	U.S.A. & Canada
	23	62B	2-Dr. Sedan	Canada Only
	24	64B	3-Dr. Sedan	Canada Only
	25	73B	Wagon	Canada Only
MUSTANG II	02	60F	2-Dr.	Base
	03	69F	3-Dr.	Base
	04	60H	2-Dr.	Ghia
	05	69R	3-Dr.	Mach I
GRANADA	82	54H	4-Dr. Sedan	Base
	81	66H	2-Dr. Sedan	Base
MONARCH	34	54H	4-Dr. Sedan	Base
	33	66H	2-Dr. Sedan	Base
VERSAILLES	84	54M	4-Dr. Sedan	Base
LTD II	25	65B	2-Dr. Hardtop	LTD II S
	27	53B	4-Dr. Pillar Hardtop	LTD II S
	30	65D	2-Dr. Hardtop	LTD II
	31	53D	4-Dr. Pillar Hardtop	LTD II
	43	71K	LTD II Squire	Wagon
	47	97D	500	LTD II
	48	97R	GT	Ranchero
	49	97K	Squire	
FAIRMONT	92	54B	4-Dr. Sedan	Base
	91	66B	2-Dr. Sedan	Base
	93	66R	2-Dr. Sedan	Sport Coupe
	94	74B	Wagon	

Vehicle	Body Serial Code	Body Style Code	Body Type	Model
COUGAR	92	53D	4-Dr. Pillar Hardtop	Cougar
	91	65D	2-Dr. Hardtop	Cougar
	93	65L	2-Dr. Hardtop	Cougar XR-7
THUNDERBIRD	87	60H	2-Dr. Pillar Hardtop	Base
FORD	52	60D*	2-Dr. Pillar Hardtop	Custom 500
	53	53D	4-Dr. Pillar Hardtop	Custom 500
	62	60H	2-Dr. Pillar Hardtop	LTD
	63	53H	4-Dr. Pillar Hardtop	LTD
	64	53L	4-Dr. Pillar Hardtop	LTD Landau
	65	60L	2-Dr. Pillar Hardtop	LTD Landau
	72	71D	Custom 500/LTD II	Wagon
	74	71H	LTD	Wagon
MERCURY	62	53H	4-Dr. Pillar Hardtop	Marquis (FLD)
	61	65H	2-Dr. Hardtop	Canada Only
	66	53L	4-Dr. Pillar Hardtop	Grand Marquis
	65	65L	2-Dr. Hardtop	Grand Marquis
	64	53K	4-Dr. Pillar Hardtop	Marquis Brougham
	63	65K	2-Dr. Hardtop	Marquis Brougham
	74	71K	Marquis**	Wagon
CONTINENTAL MARK V	89	65D	2-Dr. Hardtop	Base
LINCOLN CONTINENTAL	81	60B	2-Dr. Pillar Hardtop	Base
	82	53B	4-Dr. Pillar Hardtop	Base
ZEPHYR	32	54D	4-Dr. Sedan	Base
	31	66D	2-Dr. Sedan	Base
	35	36R	2-Dr. Sedan	Sport Coupe
	36	74D	Wagon	

CY1615-2E

VINYL ROOF TYPE AND COLOR IDENTIFICATION

Code	Vinyl Type	Code	Vinyl Type	Code	Vinyl Color	Code	Vinyl Color
W	Lugano Full	Z	Valino Front Half	A	Black	F	Cordovan
X	Lugano Half	T	Valino Coach	B	Blue, Medium	K	Cordovan, Light
K	Lugano Front Half	B	Crosshatch Full	S	Blue, Midnight	E	Gold, Galveston
M	Lugano Coach	R	Crosshatch Half	5	Blue, Wedgewood		Gray, Dove
D	Milano Full	S	Levant Full	T	Brown, Dark	R	Jade, Dark
E	Milano Half	E	Levant Half Rear (Mustang Dev.)	V	Camel, Lt.	M	Jade, Light
F	Milano Halo	G	Odense Full	Y	Camel, Medium	4	Jade, Medium
Q	Cayman Full	N	Odense Half	U	Chamois	3	Jade, Wedgewood
U	Cayman Half	A	Odense Front Half	6	Champagne, Light	D	Red/Russet
V	Valino Full			J	Champagne, Midnight	P	Silver
Y	Valino Half					W	White

When a Vinyl Roof is installed the type and color codes will be reflected after the two digit Exterior Paint Color Code.

Example: Code - 1CYA = 1C-Black Car, YA-Valino Black Half Roof.

CY1615-2E1

Pre-Delivery And Non-Emission System Maintenance Schedules

PART
50-02

SUBJECT	PAGE	SUBJECT	PAGE
PRE-DELIVERY SERVICES	02-1	NON-EMISSION SYSTEMS MAINTENANCE	02-6

CN4045-2A

PRE-DELIVERY SERVICES

PRE-DELIVERY SERVICES

(Perform the following inspections and adjustments as required.)

UNDERHOOD

- Check and top-up all fluids to specified levels—engine oil, brake master cylinder, windshield and rear window washer reservoirs, engine cooling system (test coolant protection), automatic transmission, power steering (hot).
- Check battery for 1.230 specific gravity (12.45 open circuit voltage on maintenance-free). Recharge if necessary.
- Check throttle operation and idle return.
- Check and adjust curb idle, fast idle, and throttle solenoid positioner off speeds (refer to vehicle emission control information decal for "under 100 mile" specifications).
- Check and adjust idle mixture on vehicles with specifications for "under 100 miles" shown on vehicle emission control information decal.

BODY

- Install loose items such as wheel covers, cigar lighter, antenna, luggage rack and other optional equipment.
- Check operation of doors, trunk lid, hood and glove box. Adjust as necessary.
- Check operation of all locks and keys.
- Check operation of windows and vents. Adjust as necessary.
- Check operation of seats and seatback latches.
- Check operation of sun roof.

CHASSIS

- Check and top-up fluid levels in manual transmission and axle.
- Adjust tire pressures to specification.
- Check exhaust system, steering gear and flex coupling, steering linkage, suspension and fluid lines for damage or loose fasteners, tighten as required.
- Remove transit brackets.

ROAD TEST

- Check steering column ignition lock.
- Check starting of engine in park and neutral. Adjust neutral switch as necessary.
- Check operation of horn, windshield wiper and washer, lights, signals and instruments.
- Check operation of heater/air conditioner/defroster/ventilation system, radio, seat belt warning system and all other optional equipment.
- Check brakes (including parking brake and warning light).
- Check steering control.
- Check engine driveability (including choke function).
- Check automatic transmission or manual transmission/clutch performance. Perform linkage adjustments as necessary.
- Check for squeaks, rattles, and belt noise. Tighten obvious loose fasteners or belts.

APPEARANCE

- Check exterior and interior for proper appearance and fit. Perform adjustments as necessary.
- Wash and perform detailed clean up of interior and exterior.
- Touch up minor paint blemishes (brush, aerosol can and/or spot polish).
- Check for necessary owner information material in glove box.
- Remove seat and carpet protective covers.

CY1616-2C

UNDERHOOD

CHECK ENGINE OIL LEVEL

On all engines, the oil level should be within the SAFE range on the dipstick.

CHECK BRAKE MASTER CYLINDER FLUID LEVEL

Push the master cylinder cap retainer to one side and remove the filler cap and cover gasket cap from the master cylinder. The gasket which seals the master cylinder should come off with the cap. Fill the reservoir full or 1/4 inch from the top. Install the filler cap, making sure the gasket is properly seated in the cap. Use only brake fluid meeting specifications.

CHECK WINDSHIELD WASHER RESERVOIR LEVEL

Add fluid appropriate to season, if necessary.

CHECK AUTOMATIC TRANSMISSION FLUID LEVEL

If the transmission is not at an operating temperature of 150°F to 170°F and it becomes necessary to check the fluid level (such as pre-delivery) the fluid may be checked at Room Temperature 70°F to 95°F (Dipstick Cool to Touch).

1. With the transmission in Park "P" position, engine at curb idle rpm, foot brakes applied and vehicle on level surface, move the transmission selector lever through each range, allowing time in each range to engage transmission. Return to Park "P" position and apply parking brake. **Do not turn off the engine during the fluid level check.**
3. Clean all dirt from the transmission fluid dipstick cap before removing the dipstick from the filler tube.
4. Pull the dipstick out of the tube, wipe it clean and push it all the way back into the tube. Be sure it is fully seated.
5. Pull the dipstick out of the filler tube again and check the fluid level. The level should be between the middle and top holes on the dipstick. If the fluid level is below the middle hole or above the top hole:
On C4 and FMX Transmissions: Add or remove fluid to bring level between the middle hole and the "Add" mark.
On JATCO, C6 and C3 Transmissions: Add or remove fluid to bring level between the middle hole and the top hole.
6. If it becomes necessary to add fluid to a transmission, be sure to use the correct fluid, as specified on the transmission dipstick.
7. Install the dipstick, making sure it is fully seated in the tube.

If the transmission fluid level is correctly established at 70°F to 95°F, it will appear between the "Add" and "Full" mark on the dipstick when the transmission reaches an operating temperature of 150°F to 170°F (66°C to 77°C). **Do not over-fill or under-fill.**

Overfill can cause the fluid to foam and spill out through the transmission vent with resultant transmission malfunction.

Underfill can result in transmission loss of engagement or slipping. This condition is most evident in cold weather or when the vehicle is parked or being driven on a hill.

If the transmission fluid level is checked when the fluid is cold, the dipstick could indicate that fluid should be added. If fluid is added at this time, an overfill condition could result when the fluid reaches operating temperatures of 150°F to 170°F (66°C to 77°C) (Dipstick hot to touch).

Transmission fluid level may also be checked if transmission is at normal operating temperature. See Part 50-17 for procedure.

CHECK MANUAL SHIFT TRANSMISSION LUBRICANT LEVEL

Clean dirt and grease from the area around the filler plug and remove the filler plug from the side of the case.

If lubricant does not flow from the filler hole, fill the case with the specified lubricant until it is level with the bottom of the filler hole with car in a level position. Install the filler plug.

CHECK REAR AXLE LUBRICANT LEVEL

Clean dirt and grease from the area around the filler plug, and check level. When checking, the axle must be in normal curb position. Replace the filler plug.

CHECK POWER STEERING PUMP RESERVOIR FLUID LEVEL

Run the engine until the fluid is at normal operating temperature, turn the steering wheel all the way to the left and right several times, and shut off the engine.

Check the fluid level in the power steering reservoir. The level must show between the cold full mark and the bottom of the dipstick when cold, or between the full cold and full hot marks when hot. Do not overfill. Remove excess fluid with a suction device. Check for adequate power steering hose clearances to moving parts (belts, pulleys) and the exhaust manifold.

If the level is low, add power steering fluid meeting specifications to the proper level on the dipstick.

CHECK RADIATOR COOLANT LEVEL

With the engine cold (at ambient temperature), check crossflow radiators to see that coolant level is 2-1/2 to 4 inches below the pressure cap seat in the radiator filler neck. Downflow radiators should be maintained at 3/4 to 1-1/2 inches below the pressure cap seat in the radiator filler neck.

COOLING RECOVERY SYSTEM

On cooling systems equipped with a coolant recovery system, it is not necessary to have coolant in the overflow reservoir.

CHECK ANTI-FREEZE (COOLANT PROTECTION) LEVEL

Be sure the engine is at operating temperature. Check the anti-freeze in the cooling system by using a permanent anti-freeze test hydrometer. Standard protection is to -20°F (-35°F for Canadian and Alaskan vehicles).

CHECK BATTERY CHARGE

With battery temperature at 80 F, the battery should have a specific gravity reading of not less than 1.230 for non-maintenance free batteries and an open circuit voltage of not less than 12.45 volts for maintenance free batteries. Recharge if necessary.

CHECK THROTTLE OPERATION AND IDLE RETURN

Inspect the throttle linkage for proper installation. Remove the air cleaner, and with the accelerator fully depressed, observe the position of the carburetor throttle plate(s). They should be vertical (wide open position). If equipped with the model 2700 VV carburetor, the venturi valve should be wide open.

Check accelerator for sticking or binding, full return and sufficient height to fully open throttle.

ADJUST CURB AND FAST IDLE

CURB AND IDLE AND FAST IDLE SPEED CHECK PROCEDURE

NOTE: To minimize complaints of excessive high idle speeds after engine 'break-in', idle speed reduction values for 'green' engines have been established. A 'green' engine is an engine which has been operated for less than 100 miles. The 'green' engine idle speed adjustment is the final engine adjustment made during pre-delivery. Idle mixture and timing adjustments are made with the idle speed set to 'normal' specifications—then the 'green' engine idle speed is set. The 'normal' and 'under 100 miles' specifications are shown on the Vehicle Emission Control Information Decal. Note that the 'Idle Speed Reduction' rpm is subtracted from the 'normal' specification to obtain the 'green' engine idle speed. The idle rpm tolerances shown on the VECI decal do not apply to 'green' engines.

All applications:

1. Apply the parking brake and block the wheels.
2. Connect a tachometer.
3. Remove the air cleaner assembly and plug the vacuum line(s) to the air cleaner.
4. Turn off all accessories.
5. Check the fast idle speed for all carburetors as follows:

With the engine running at normal operating temperature, the choke plate fully opened, and the transmission in neutral, set the choke linkage on the specified step of the fast idle cam and measure the fast idle rpm. Adjust to specification, if required.

6. Check curb idle speed on all carburetors as follows:

Run engine at approximately 2500 rpm for 15 seconds. Allow engine to return to curb idle and place automatic transmission in drive (manual transmission in neutral).

Allow engine to stabilize at curb idle speed. Check curb idle speed. If required, adjust to specification.

Reinstall air cleaner assembly.

Stop engine, remove all test equipment and torque air cleaner wing nut(s).

BODY

INSTALL WHEEL COVERS

Inspect wheel covers or hub caps for dents or other shipping damage.

Center the tire valve stem in the wheel cover hole and position the cover on the wheel with the valve stem side of cover tight against wheel. Use rubber mallet to tap cover in place beginning on outer perimeter opposite valve stem. **NOTE:** Never apply mallet to any part of the wheel cover other than the outer rim as the cover may be dented or distorted. Be sure cover is fully seated against wheel all around perimeter of cover.

INSTALL RADIO ANTENNA

Check type and location specified, and install, using installation instructions and template supplied with antenna kit.

INSTALL CIGAR LIGHTER

INSTALL LUGGAGE RACK

Follow manufacturers instructions supplied with kit.

CHECK OPERATION OF DOORS, TRUNK LID, HOOD AND GLOVE BOX

Examine fit of doors, deck lid, sun roof, tailgate, fenders and hood. *Be sure all doors open easily and close securely without being slammed.*

Adjust as necessary. Adjustments requiring shims may be claimed under provisions of the warranty.

CHECK OPERATION OF SEATS AND SEATBACK LATCHES

Manual Seat

Check lever operation. Test freeness of seat movement on track and for solid engagement on both sides with lever release.

Power Seat

Test for smooth operation of seat and proper operation of switches.

Reclining Seat

Check operation of seat in all adjustable positions. *Seat should operate smoothly without binding and it should lock in any selected position.*

Fold-Down Rear Seat

Check ease of operation of levers, latches and hinges. Check panels for flush fit.

Check self locking mechanism on all folding seats. Seatback must lock automatically in its normal upright position. Lock should release easily with manual pressure on lever.

If equipped with automatic latch, check for unlatching with car door open, and check for positive latching with car door closed.

CHECK OPERATION OF SUN ROOF

Check for ease of operation. Check panel for flush fit.

CHASSIS

ADJUST TIRE PRESSURES

Check each tire to be sure the air pressure agrees with that specified for the tire and vehicle model. Adjust pressure as necessary.

CHECK EXHAUST SYSTEM

Inspect for proper assembly and components. Check for adequate clearance to adjacent parts. Tighten obviously loose fasteners.

CHECK STEERING LINKAGE

Inspect for proper assembly and components. Check steering linkage and steering gear-to-rail attachments for looseness or omission. Check for installation of cotter pins, where applicable. Check for interference between steering linkage and adjacent components through full left and right turn.

Check for adequate power steering hose clearance to moving parts (belts, pulleys) and the exhaust manifold. Tighten obviously loose fasteners.

CHECK FRONT AND REAR SUSPENSION

Inspect for proper assembly and components. Check upper and lower ball stud-to-spindle attachments for cotter pins. Check upper and lower suspension arm inner pivot attachments and strut attachments for looseness or omission of parts. Tighten obviously loose fasteners.

REMOVE TRANSIT BRACKETS

Remove transit brackets and discard from applicable vehicles.

ROAD TEST

CHECK STEERING COLUMN IGNITION LOCK

Place transmission selector lever in PARK position on vehicles equipped with column shift automatic transmission; place in any position if equipped with manual transmission. Turn key to LOCK position. Manual transmission and floor shift models are equipped with lock button on the left side of steering column, which must be depressed first.

Turn the steering wheel left or right slightly, until it snaps into the lock detent.

Check to see if the steering wheel is locked in both directions. The selector lever will remain locked in PARK position on the column-shift vehicles only. The key can be removed from the ignition lock in LOCK position only. With key in the ignition lock, open driver's door to check operation of key removal warning buzzer.

CHECK NEUTRAL START SWITCH OPERATION

Start the engine with transmission selector lever in PARK and again in NEUTRAL. Engine should start in these gears only. Adjust the switch if necessary.

CHECK HORNS

Check horns to be sure horn(s) blow at all contact positions.

CHECK HEADLIGHT COVERS

On vehicles equipped with headlight covers: with the engine running (or vacuum in the system), actuate the

headlight switch and observe the headlight housings for full opening and closing. Inspect the mountings for looseness.

CHECK LIGHTS

Check head, tail, signal, courtesy, instrument warning and indicator lights for proper operation of switches and brightness, including operation of oil pressure and alternator warning lights (if so equipped). Check detent action and return of turn signal lever by making full left and right turns during road test. Check the operation of hazard warning flasher system.

CHECK WINDSHIELD WIPERS/WASHERS

Check for proper operation, including wiper sweep and park. Adjust if required. Check washer operation and adjust as required.

CHECK HEATER, AIR VENTS AND AIR CONDITIONER OPERATION

Check for the following items: air leaks at vent openings, around door seals and windows, sufficient heat from floor outlets. Blower operation in each switch position, temperature control and water valve operation, operation of open air ducts and vents, operation of air conditioner function controls for proper air discharge and air conditioning discharge temperatures. See Part 50-32 for special instructions.

CHECK AND SET RADIO

Check for proper operation of radio and tape player, if so equipped. Set radio push-buttons for local stations.

CHECK SEAT AND SHOULDER BELTS

Check seat belt warning system for proper operation. Check automatic retractors for full extension, retraction and retention of belt. Check buckle and clasp for proper retention, release, and length adjustment.

CHECK BRAKES

Depress foot brake pedal for good pedal height before road testing. Check and correct, if required, the following conditions: pull in either direction, harshness or noise, excess pedal effort, spongy feel, and operation of the brake warning light. Avoid sudden hard stops—make slow, gradual stops.

Check the operation of the parking brake and indicator light. If equipped with an indicator light, be sure it glows when parking brake is engaged.

CHECK STEERING CONTROL

Check for harshness, noise, wander or free play. Check steering wheel return for stiffness or inconsistency in either direction.

CHECK ENGINE DRIVEABILITY

During start-up, acceleration, cruise and deceleration, check for objectionable drive characteristics such as stumble, stall, hesitation, surge or prolonged cranking. Necessary repairs may be claimed under provisions of the warranty.

CHECK AUTOMATIC TRANSMISSION PERFORMANCE

Check Transmission Initial Engagement

Initial engagement checks are made to determine if initial band and clutch engagements are smooth.

Run the engine until its normal operating temperature is reached. With the engine at the correct idle speed, shift the selector lever from N to 2, D1, and R. Observe the initial band and clutch engagements. Band and clutch engagements should be smooth in all positions.

Check Shift Points

Check the minimum throttle upshifts in D (Drive). The transmission should start in first gear, shift to second and then shift to third within the shift points specified in the Ford Car Performance Specifications Book.

With transmission in third gear, depress the accelerator pedal through the detent (to the floor). The transmission should shift from third to second, or third to first, depending on the transmission type and vehicle speed.

CHECK MANUAL TRANSMISSION AND CLUTCH PERFORMANCE

Check the transmission shifting for smooth cross-over action and engagement in all gear positions.

Check clutch free travel, full return of the clutch pedal and disengagement of the clutch. Check for chatter, slipping, excess pedal effort or noise. See Part 16-02.

CHECK FOR SQUEAKS, RATTLES AND LOOSE BELTS

Throughout the road test and especially on rough roads, listen for squeaks or rattles.

Listen for anything loose and for objectionable wind noise or vibration.

Tighten obvious loose fasteners or belts. Major diagnosis and repair may be claimed under provision of the warranty.

APPEARANCE

CHECK EXTERIOR AND INTERIOR APPEARANCE

Examine fit of exterior body panels and interior trim panels. Perform minor adjustments as necessary.

Bumpers and Trim Mouldings—Check condition, fit and alignment.

Weatherstrips—Check fit and retention.

Vinyl Roof—Visually inspect vinyl roofs for good fit. Check for cuts, wrinkles, bubbles, excess adhesive around the edges and be sure there are no exposed, raw, or cut edges.

Major repairs may be claimed under provisions of the warranty.

WASH AND CLEAN UP INTERIOR AND EXTERIOR

1. Wash the car completely using warm water. Wipe dry.
2. Remove glass markings, tape and stickers.
3. Ford multi-purpose cleaner or equivalent can be used effectively on exteriors, carpets, headliners and white sidewall tires.

4. Remove the protective wax from bumpers.
5. Wipe the steering wheel. Make sure no grease or smudges have been left on any controls.
6. Check closely for any excess adhesive not removed by washing.
 - Check around the edges of vinyl roofs
 - Check around seals at windows or doors
 - Check around windshield and rear window seals.

TOUCH UP MINOR PAINT BLEMISHES

Check for any imperfections in paint and metal finish.

Correct minor chips and scratches with brush or spray can touch-up paint and polish out any surface blemishes.

Check glove compartment for:

- Warranty Facts Booklet
- Ownercard
- Owner Manual
- Consumer Information Folder
- Other Owner Publications

See that the starting instructions sleeve is on the left hand visor.

REMOVE SEAT AND CARPET PROTECTIVE COVERS

Remove the plastic covers from the upholstery. See that there are no stains or dirt on the upholstery.

Remove protective covers from the carpeting and make sure there is no dirt beneath them.

UNIQUE CALIFORNIA PRE-DELIVERY ITEMS

CHECK CHOKE OPERATION

Freedom of Linkage and System Integrity Check

Apply parking brake and block wheels. Bring engine to normal operating temperature. Turn off the engine. Remove the air cleaner assembly and plug vacuum line(s) to air cleaner assembly. Verify that vacuum hoses, solenoid and electric choke wires are properly connected and intact. Check all carburetor linkages for freedom of operation.

Choke Functional Check

Set choke on high cam. Without touching the throttle, start the engine and verify the following:

1. That the choke pulldown diaphragm retracts.
2. That the choke plate rotates to the specified position.

Return engine to curb idle speed and then turn off the engine.

CHECK ENGINE COMPARTMENT AND SECURE ALL VACUUM AND ELECTRICAL CONNECTIONS RELATED TO EMISSION SYSTEM COMPONENTS

Physically check vacuum and electrical connections to insure system integrity. Reconnect as necessary.

CHECK BASIC TIMING

CAUTION: Apply the parking brake and block the wheels before starting the engine.

NOTE: If the engine has the "Dura Spark I" ignition system (grey coil tower), use the following equipment to perform this maintenance operation:

1. Timing Light—Designed for High Energy Ignition (Inductance Pickup)
2. Tachometer—Special service 02-0362 or equivalent.
3. Optional—Special service diagnostic console 36-0036 or equivalent.

Clean the timing marks on the damper surface and place a white mark on the proper degree line on the damper and pointer according to specification noted on engine decal. Disconnect the vacuum line(s) at the distributor and plug.

Connect a clamp-on type timing light to No. 1 cylinder spark plug wire.

Connect a tachometer.

Start engine. With engine at normal operating temperature, set timing idle speed according to vehicle/service specification instructions.

Check engine initial timing:

1. If in error, loosen distributor hold down bolt and adjust initial timing to specification (see Note below).
2. Torque hold down bolt to vehicle/service specification.
3. Recheck timing after hold down bolt has been torqued.
4. Visually verify that advance vacuum line is routed to "spark port" of carburetor. Retard vacuum should be routed to manifold vacuum.

With all distributor vacuum lines properly connected, check the curb idle speed and reset if necessary.

Stop the engine and remove timing light and tachometer.

NOTE: When the white mark on the damper (refer to Step 1) is directly in line with pointer mark, the initial ignition timing is correct.

Record timing and curb idle data on Pre-Delivery Service Record (FPS365-13177-A1).

PERFORM IDLE EMISSIONS TEST AND THERMATOR SYSTEM CHECK

Perform idle emissions test with air dump valve deactivated (disconnect the uppermost vacuum line on the air bypass valve). While vacuum line is disconnected, insert "sniffer" pick-up into exhaust pipe and note readings (Idle, normal operating temperature).

Record idle emissions test data on Pre-Delivery Service Record (FPS365-13177-A1).

Listen and feel around the thermactor air bypass valve for air being dumped.

Any necessary repairs may be claimed under provisions of the warranty.

PERFORM EGR VALVE OPERATION CHECK

Check the operation of the EGR valve by performing the appropriate part of one of the following diagnostic procedures, depending on the type of EGR valve used on the engine being checked:

For Vacuum Operated EGR Valve — SSD-1 (EGR System Diagnosis), found in Part 29-02 (Engine Diagnosis and Service) of this Shop Manual.

For Pressure Operated EGR Valve — SSD-27 (V.O.A. Pneumatic EGR System), found in Part 29-02 (Engine Diagnosis and Service) of this Shop Manual.

NON EMISSION SYSTEMS MAINTENANCE

The maintenance recommendations are included in this Part for your reference. The emission systems required maintenance is not listed here, but appears in Part 50-29; Emission Systems Maintenance. Be sure to perform all services by referring to each of the services schedules in both Parts.

Any modification of the emission control systems is subject to the penalties of federal law, if made prior

to the first sale and registration, and is subject to penalties under the laws of some states, if made thereafter. Further, federal law prohibits vehicle manufacturers or dealers from knowingly removing or rendering an emission control system inoperative after sale and delivery to an ultimate purchaser.

SCHEDULED MAINTENANCE SERVICES

MAINTENANCE SCHEDULES A AND B (Schedules A and B have been combined into one chart. Follow the schedule which corresponds to the car's code letter.)		SERVICE INTERVAL — Time in months or miles (or kilometres) in thousands, whichever occurs first, unless otherwise specified.					
MAINTENANCE OPERATION		7.5	15	22.5	30	37.5	45
MONTH/MILES		12	24	36	48	60	72
KILOMETERS							
NON-EMISSION CONTROL DEVICES AND SYSTEMS							
Inspect Exhaust System heat shields (1)				AB		AB	
Inspect Brake Lining, lines, Hoses and Front Wheel Bearing Lube (2)					AB		
Lubricate Front Suspension and Steering Linkage					AB		
Check Brake Master Cylinder Fluid Level					AB		
Check Clutch Pedal Free-Play (2)			AB	AB	AB	AB	AB
Drain and refill automatic transmission fluid — Continuous service only (3) (4)				AB			AB

NOTES

- If so equipped.
 - Remove accumulated debris and inspect shield and attachment. Perform each 10,000 miles (16,000 kilometres) for severe service usage over unpaved roadways or off-road applications.
- Adjust, repair or replace as required.
- Adjust bands at 7,500; 15,000; and 45,000 miles (12,000; 24,000; 48,000 and 72,000 kilometres) for severe service.
- When vehicle is operated under any of the following conditions, perform severe service maintenance operations:
 - Extended periods of idling or low speed operation such as police, taxi or door-to-door delivery.
 - Towing trailers over 1,000 lbs. (450 kg) gross loaded weight for long distances.
 - Operation when outside temperature remains below +10°F (−12°C) for 60 days or more and most trips are less than 10 miles (16 kilometres).
 - Operation in severe dust conditions.

SCHEDULED MAINTENANCE SERVICES

Applies to Canadian and Non-Catalyst Export Vehicles Only

MAINTENANCE SCHEDULE C (Canadian and Non-Catalyst Export Vehicles)		SERVICE INTERVAL — Time in months or miles (or kilometres) in thousands, whichever occurs first, unless otherwise specified.							
MAINTENANCE OPERATION		6	12	18	24	30	36	42	48
MILES		9.6	19.2	28.8	38.4	48	57.6	67.2	76.8
KILOMETERS									
NON-EMISSION CONTROL DEVICES AND SYSTEMS									
Check Brake Master Cylinder						C			
Adjust Clutch Pedal Free Play (1)			C		C		C		C
Inspect Exhaust System Shields (2)				C			C		
Inspect Brake Lines, Hoses, Linings and Front Wheel Bearing Lube (1)						C			
Lubricate Front Suspension and Steering Linkage							C		
Drain and Refill Automatic Transmission Fluid (severe or continuous service only) (3) (4)				C			C		

NOTES

- Adjust, repair or replace as required.
- If So Equipped — remove accumulated debris and inspect shields and attachments. (Repair or replace as required.) Perform each 6,000 miles (9,600; 19,200; 48,000; and 76,800 kilometres).
- For severe service or taxi and police use adjust bands at 6,000; 12,000; 30,000; and 48,000 miles (9,600; 19,200; 48,000; and 76,800 kilometres).
- When vehicle is operated under any of the following conditions, perform severe service maintenance operations:
 - Extended periods of idling or low speed operation such as police, taxi or door-to-door delivery.
 - Towing trailers over 1,000 lbs. (454 kg) gross loaded weight for long distances.
 - Operation when outside temperature remains below +10°F (−12°C) for 60 days or more and most trips are less than 10 miles (16 kilometres).
 - Operation in severe dust conditions.

Inspect means a visual observation of a system.

Check means a functional measurement of a system's operation (performance) — correct as required.

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NON-SCHEDULED MAINTENANCE

Items should be checked periodically and service performed when required. These services are not covered by the Warranty, you will be charged for the labor, parts and lubricants used.

MAINTENANCE OPERATION	WHEN PERFORMED
Inspect wheels and tires for damage and tighten nuts.	Periodically or if wheels are noisy.
Balance and rotate wheels and tires.	Tires show uneven wear pattern or vibrate.
Replace tires.	When tread wear indicator appears.
Front suspension check.	Abnormal tire wear.
Check front wheel alignment and steering linkage.	Abnormal tire wear if normal realignment is not required.
Check tire air pressure.	At least twice monthly.
Check power steering reservoir.	Periodically.
Inspect steering mechanism.	Hard steering, excessive free play, or unusual noise.
Check parking brake operation.	Periodically.
Check air conditioning system.	At beginning of warm weather season.
Check headlight alignment.	Light beam appears improperly aimed.
Inspect exterior lights and replace bulbs as required.	When performing regular car services (fueling, cleaning, etc.)
Check operation of turn signals, high beam indicator, and hazard flashers.	When performing regular car services (fueling, cleaning, etc.)
Check operation of engine warning lights.	Each time engine is started.
Check accelerator pedal operation.	If uneven pressure is observed or pedal does not function smoothly.
Inspect brake system components.	When brake light glows with engine running; if brakes are noisy or brake pedal travel is excessive.
Check and lubricate hood latches and auxiliary catch, hood, door, and trunk lid hinges and checks, and all lock cylinders.	When performing regular car service or when noisy or hard to operate.
Replace windshield wiper blade elements.	Blades do not properly clean windshield after wiper blades and glass have been properly cleaned.
Check windshield washer reservoir level.	When fueling or after extended use.
Clean body drain holes.	Improper water drainage from body is suspected.
Check locking of seatback latches.	Periodically (with doors closed).
Check seat belt buckles, release mechanisms, and retractor locking.	Regularly.
Inspect seat belt webbing for cuts or broken fibers.	Regularly (replace if cut or broken).
Check horn operation.	Regularly and periodically or when malfunction is suspected.
Check for fluid leaks on pavement (water dripping from A/C after use is normal).	After car has been parked a while or when possible to observe underbody when vehicle is raised.
Lubricant automatic transmission controls and kickdown linkage.	When moving parts and connections are sluggish in action.
Check engine coolant level and add as required.	When engine overheats, or once a month.
Check heater and radiator hoses.	Regularly (replace if cut or broken).
Check engine oil level and add as required.	When fueling vehicle.
Check battery water and add as required.	Periodically, more often in hot weather.
Lubricate door weatherstrips.	When squeaky or noisy during window operation or visual inspection shows need.
Test anti-theft alarm system operation.	Periodically or when malfunction is suspected.
Lubricate clutch linkage.	When moving parts and connections are sluggish in action.
Inspect exhaust system pipes and hangers.	When performing regular car service on hoist.

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Lubrication Charts and Lubricant Specifications

**PART
50-03****All Models**

SUBJECT	PAGE	SUBJECT	PAGE
LUBRICATION		SPECIFICATIONS	03-11
Lubrication Charts	03-1		

CA4240-A

LUBRICATION

LUBRICATION CHARTS

Figs. 1 thru 9 show typical chassis and engine lubrication points for current production vehicles. Vehicles with optional or special equipment may have slightly different, or additional lubrication points.

A table of recommended lubricants is included at the end of this Part.

See Part 50-29 for recommended service intervals and procedures for individual emission-related components.

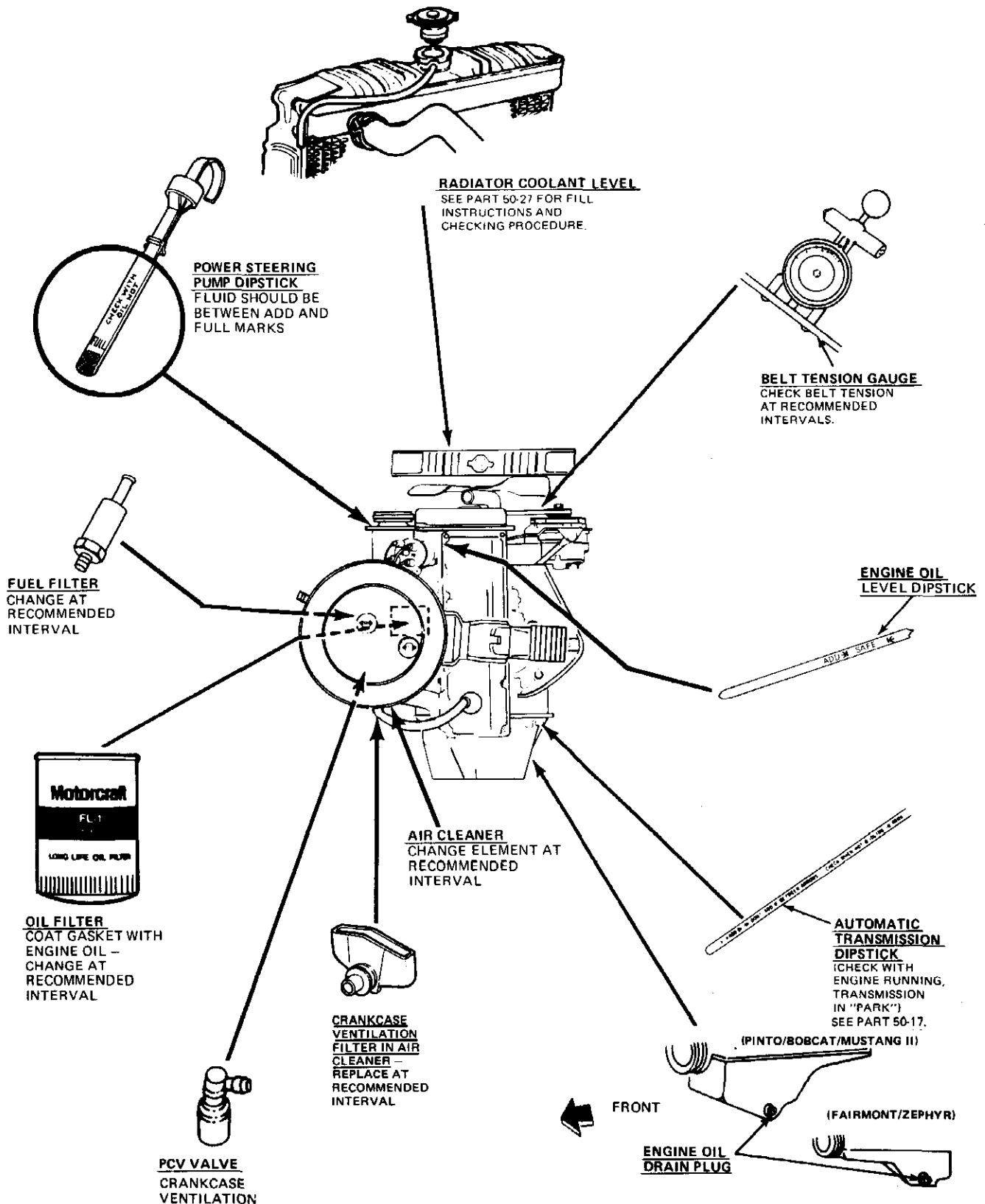


FIG. 1 Four Cylinder Engine Lubrication Points

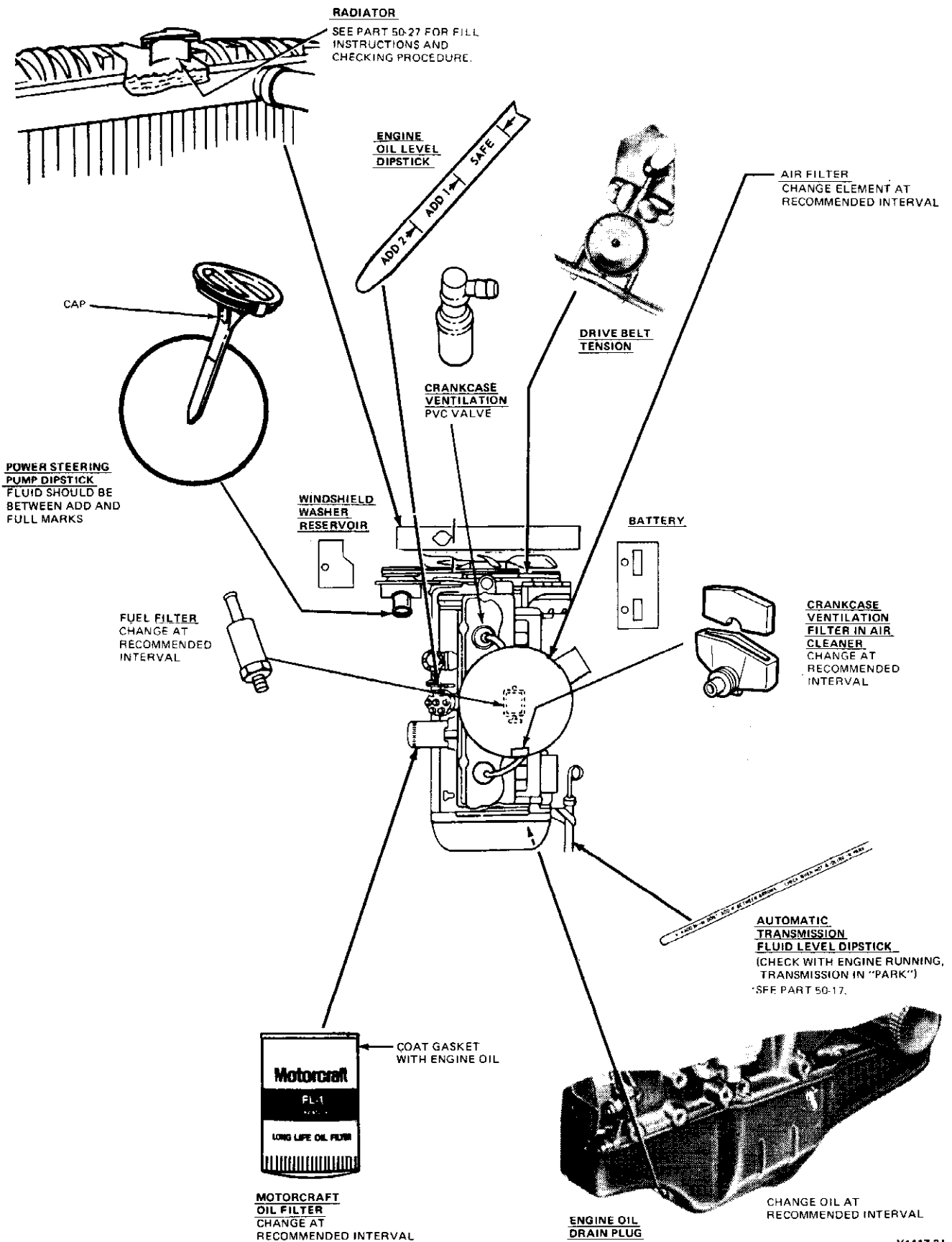


FIG. 2 In-Line Six-Cylinder Engine Lubrication Rack Service Points

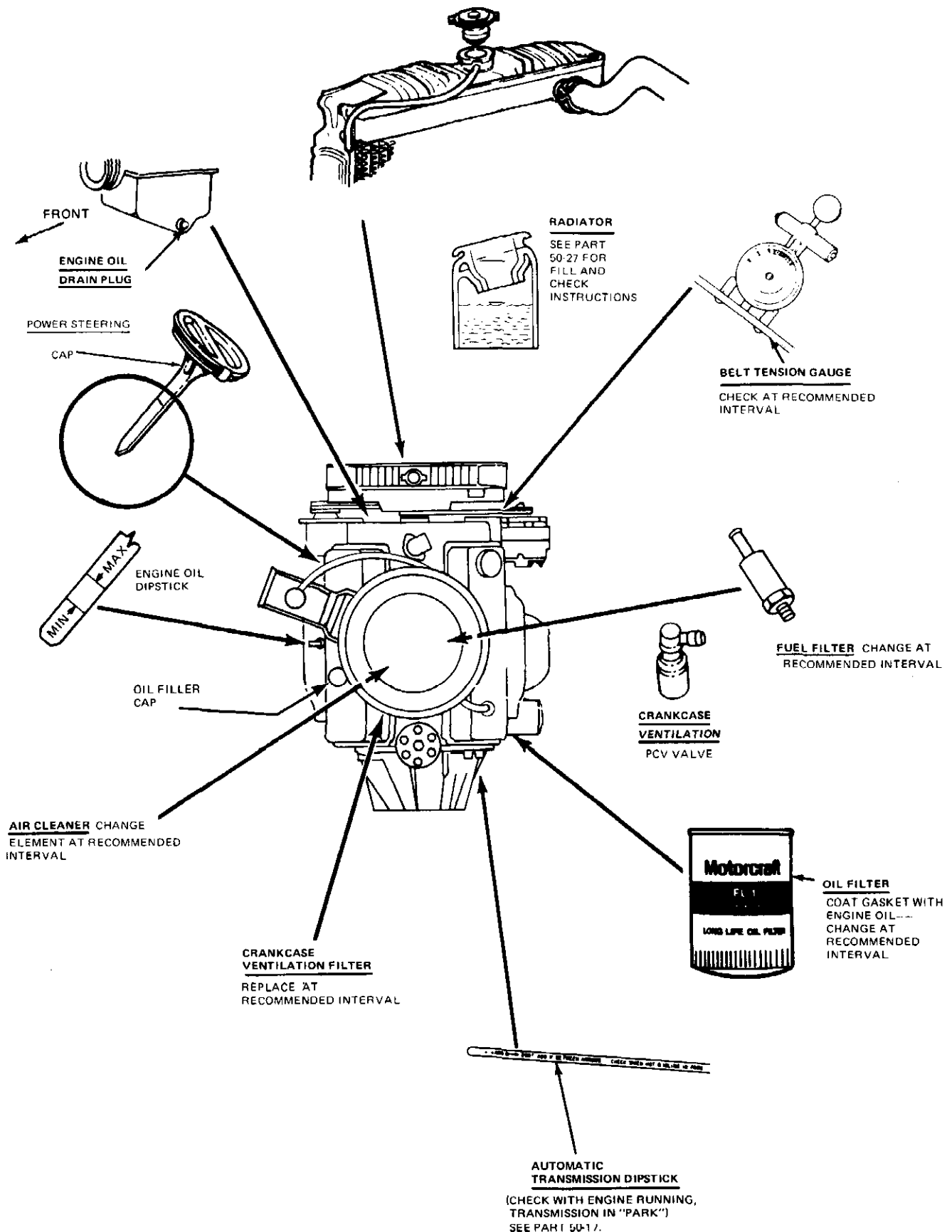


FIG. 3 V-6 Engine Lubrication Rack Service Points

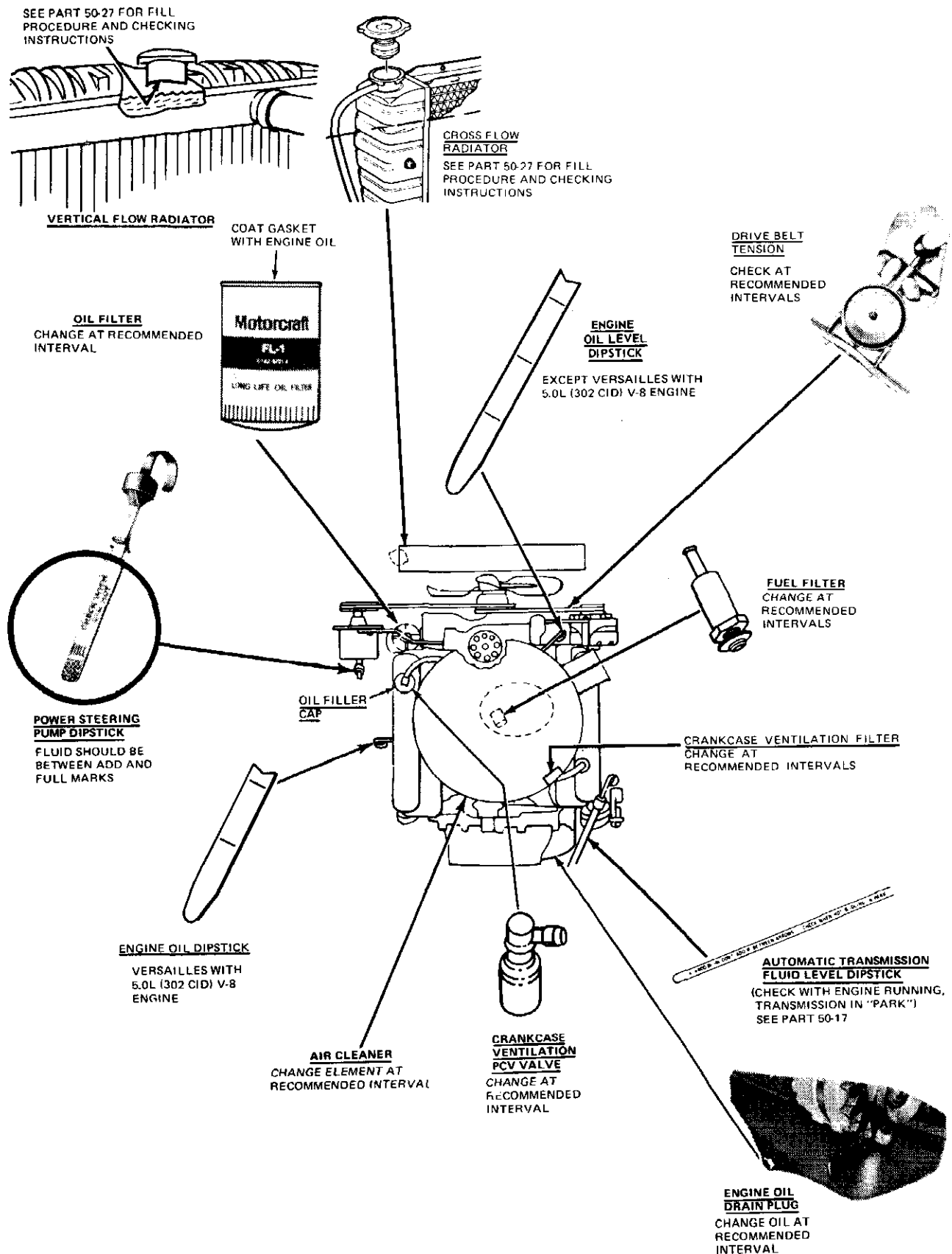


FIG. 4 V-8 Engine Lubrication Rack Service Points