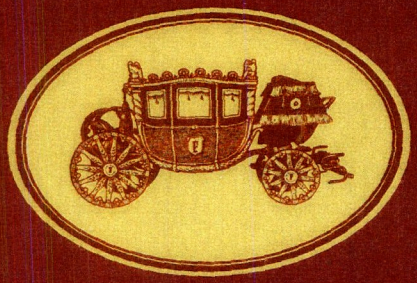
Body by Fisher



1968
SERVICE MANUAL

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1968 FISHER BODY SERVICE MANUAL

FOR ALL
BODY STYLES

This publication contains the essential removal, installation, adjustment and maintenance procedures for servicing all U. S. and Canadian built 1968 Fisher Body Styles. All information, illustrations, and specifications contained in this publication are based on the latest product information available at the time of publication approval. The right is reserved to make changes at any time without notice.

Arrangement of the material is shown by the table of contents on the right-hand side of this page. Black tabs on the first page of each section can be seen on the edge of the book below the section title. A more detailed table of contents precedes each section, and an alphabetical index is included in the back of the manual.

FISHER BODY DIVISION
PART NO. 7792212

LITHO IN U.S.A.
AUGUST 1967

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SECTION 1

GENERAL INFORMATION

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MANUAL DESCRIPTION

INTRODUCTION

This publication contains the essential removal, installation, adjustment and maintenance procedures for servicing all 1968 Fisher Body Styles. This information is current as of time of publication approval.

INDEX

The preceding page contains a "Table of Contents" which lists the section number and subject title of each main body area section. The first page in each main body area section has an index to the subjects included in that section. An alphabetic index covering the entire manual is located in section 18.

PAGE AND FIGURE NUMBERS

All page numbers and figure numbers consist of two sets of digits separated by a dash. The digits preceding the dash identify the main body area section. The digits following the dash represent the consecutive page number or figure number within the particular body area section.

REFERENCE TABS

The first page of each section is marked with a ready-reference black tab corresponding with the table of contents page.

TEXT

Unless otherwise specified, each service procedure covers all body styles. Procedures covering specific styles are identified by the style number, body series number, body type letter or similar designation. A description of these designations is covered in this section under "Model Identification".

ILLUSTRATIONS

Where possible, illustrations are placed in close proximity to the accompanying text and should be used as part of the text.

BODY NUMBER PLATE

The body number plate identifies the body style, body assembly plant, body number, trim combination number, paint code and time built code (Figs. 1-1, & 1-2). On Corvair styles, the body number plate is attached to the left side of the motor compartment cross rail. On Cadillac "C" & "D" styles, the plate is located on the left upper portion of the horizontal surface of the cowl. On all other cars, the plate is located on the left upper portion of the vertical surface of the dash firewall.

MODEL IDENTIFICATION

INTRODUCTION

Due to the wide variety of body styles available, certain body styles have been grouped in this publication as an aid to identification. These group designations may be used individually or in various combinations. An explanation of the principal categories follows:

BODY STYLE NUMBER

The body style number consists of five digits as they appear on the body number plate. (Refer to previous section for body number plate location.) The body style number is used to include or exclude a specific style (ex. on 16637, use . . . . . .; on all styles, except the 68069 style, use . . . . . .).

BODY STYLE NUMBER SERIES

The body style number series may be used to indicate three possibilities:

Division - first digit and four zeros (ex. 10000 Chevrolet; 20000 Pontiac).

Division and Car Line - first two digits and three zeros (ex. 33000 Oldsmobile F 85; 45000 Buick LeSabre).

Division, Car Line and Style Group - First three digits and two zeros (ex. 25200 Catalina; 25600 Star Chief).

BODY STYLE NUMBER SUFFIX

The last two digits of the body style number indicate body type as follows:

11 - 2 door sedan with pillar post
23 - 4 door sedan with auxiliary center seat
27 - 2 door coupe with pillar (notch back)
33 - 4 door sedan with auxiliary center seat and center partition window
35 - 4 door station wagon two seat
37 - 2 door coupe hardtop
39 - 4 door sedan hardtop
45 - 4 door station wagon three seat
47 - 2 door sport coupe hardtop
49 - 4 door sedan hardtop
55 - 4 door station wagon two seat with skylight
57 - 2 door sport coupe hardtop
65 - 4 door station wagon three seat with skylight
67 - 2 door convertible coupe
69 - 4 door sedan with pillar post (some models equiped with door window frames)
77 - 2 door coupe with pillar (plain back)
80 - 2 door pick-up delivery
87 - 2 door sport coupe hardtop (plain back)

BODY TYPE NAME

Body type names are used for group classification as follows(style numbers suffix shown in brackets):

Closed Style
- Two door sedan (11)
- Two door coupe (27, 77)
- Four door sedan (69)
- Limousine (23, 33)

Hard Top
- Sport coupe hardtop (27, 47, 57, 87)
- Coupe hardtop (37)
- Sedan hardtop (39, 49)

Station Wagon
- Station wagon two seat (35 less skylight; 55 with skylight)
- Station wagon three seat (45 less skylight; 65 with skylight)

Convertible Coupe (67)

Sedan Delivery (80)

BODY TYPE LETTER

Basic body types can be identified by generic group classifications as follows:

"A" - Chevrolet 13000 Series
Pontiac 23-24000 Series
Oldsmobile 33-34000 Series
Buick 43-44000 Series
Beaumont 73000 Series (Canadian)

"B" - Chevrolet 15-16000 Series
Pontiac 25-26000 Series
Oldsmobile 35-36000 Series
Buick 45-46000 Series
Pontiac 75-76000 Series (Canadian)

"C" - Oldsmobile 384-38600 Series
Buick 482-48400 Series
Cadillac 68000 Series

"D" - Cadillac 69700 Series

"E" - Oldsmobile 394-39600 Series
Buick 49000 Series
Cadillac 69300 Series

"F" - Chevrolet 12000 Series
Pontiac 22000 Series

"X" - Chevrolet 11000 Series
Acadian 71000 Series (Canadian)

"Z" - Chevrolet 10000 Series

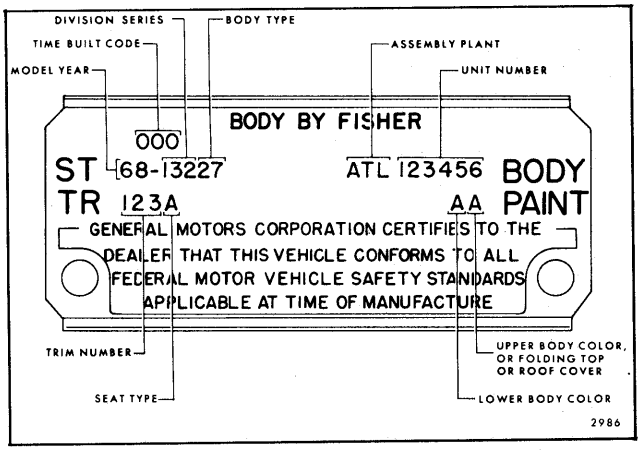

Fig. 1-1—Body Number Plate - U.S. Models

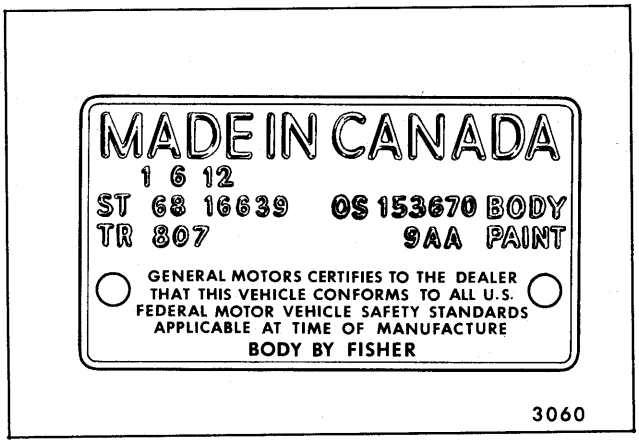

Fig. 1-2—Body Number Plate - Canadian Models (Item Clarification Similar as shown in Fig. 1-1)

VEHICLE IDENTIFICATION NUMBERS

The Vehicle Identification Numbers (Serial Numbers) are located on the instrument panel cluster or or rabbet, as shown in Figures 1-3 and 1-4. These figures show typical installations for all GM car lines.

Fig. 1-3—Vehicle Identification Number (At Windshield Rabbet)

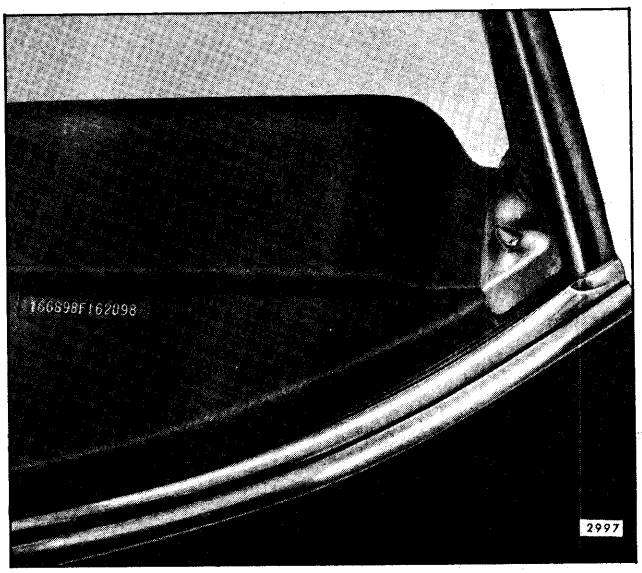

Fig. 1-4—Vehicle Identification Number (At Instrument Cluster)

LOCK CYLINDER CODING

FIVE BITTING LEVEL LOCK CYLINDER AND KEY

All 1968 style cars are equipped with new lock cylinders and keys. The keyway has been revised so that prior model keys will not enter current model lock cylinders.

Two non-interchangeable keyways are used on 1968 model cars. One keyway, known as type "C", is used in all ignition, front door and station wagon tail gate lock cylinders. Type "C" keys will have a hexogonal head and be marked similar to keys used for 1967 styles, except that a capital letter "C" will be located on the shank just below the coining on the head, in place of capital letter "A".

In addition, a code number within the series 0N00 to 9N99, or 0P00 to 9P99 will be stamped on the knock-out portion on the keyhead. This number identifies the lock combination and is used when ordering or making new keys.

The second keyway, known as type "D", is used in the instrument panel compartment, console compartment, rear compartment, front compartment and station wagon rear floor compartment lock cylinders. Type "D" keys will have rounded heads and will be similar to keys used for 1967 styles, except that a capital letter "D" will be stamped on the shank just below the coining on the head, in place of capital letter "B". In addition, a code

number within the series 0R00 to 9R99, or 0T00 to 9T99 will be stamped on the knock-out portion of the key head. This number identifies the lock combination and is used when ordering or making new keys.

Key code numbers are stamped on the "knockout" plug in the key head and on the lock cylinder housing (to facilitate replacement or duplication of key). After the code number has been recorded by the owner, the plugs should be knocked out of the key head. From these numbers, the lock combination can be determined by use of a code list (available to owners of key cutting equipment from equip-suppliers). If key code numbers are not available from records or from the "knock-out" plug, lock combination (tumbler numbers and position arangement) can be determined by laying the key on the diagram in Figure 1-5.

CUTTING KEYS

After the special code has been determined, either from the code list or the Key Code Diagram (Fig. 1-5) cut a blank key to the proper level for each of the six tumbler positions, and check the key in the lock cylinder. The new key should agree with the combination opposite the code number in the code list.

REPLACEMENT LOCK CYLINDERS

New lock cylinders are available from the servicing Parts Warehouse with the lock cylinder locking bar staked in place. Tumblers are also available and must be assembled into the cylinder according to the procedure outlined below.

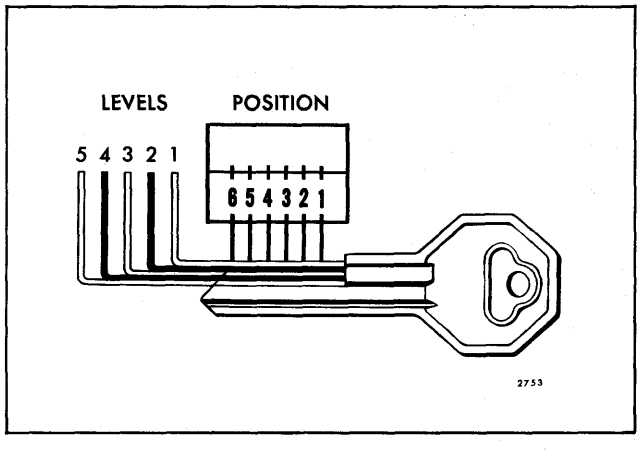

Fig. 1-5—Key Code Diagram

ASSEMBLY AND CODING LOCK CYLINDERS—

ALL LOCK CYLINDERS EXCEPT GLOVE AND CONSOLE COMPARTMENTS

Tumblers for all locks except the glove and console compartments are shaped exactly alike, with the exception of the position of a notch on one side. As the key is inserted in the lock cylinder, the tumblers are raised to the correct height so that the notches on each tumbler are on the same level. When the notches on all six tumblers line up, the locking bar is pushed into the notches by two small springs, allowing the cylinder to turn in its bore. Five types of tumblers are used to make all the various lock tumbler combinations and each is coded according to a number, 1 through 5, stamped on its side.

1. Determine lock cylinder tumbler numbers and tumbler arrangement by use of a numerical key code lock cylinder code list. Code lists are made available to owners of key cutting equipment by equipment suppliers.

   NOTE: To determine which tumblers should be installed in what position for a given key, when a code list is not available, proceed as follows:

   a. Lay the key on the Key Code Diagram (Fig. 1-5) with the key outlined by the diagram as accurately as possible.

   b. Starting at the head of the key blade, determine and record the lowest level (tumbler number) that is visible in position #1 and subsequent position numbers 2 through 6. After tumbler numbers and arrangement have been determined, assemble as follows:

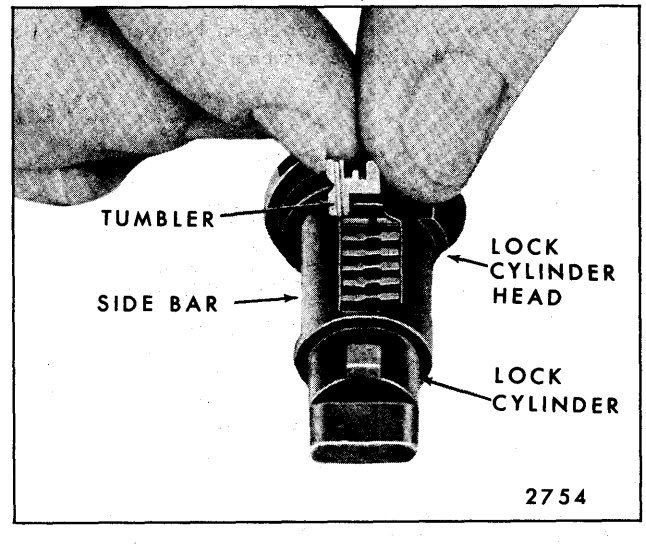

Fig. 1-6—Installing Tumblers

2. Starting at the open end (head) of the cylinder, insert the tumblers in their proper slots in the order called for by the code, as shown in Figure 1-6.

3. Pull out side bar with fingers so that tumblers will drop completely into place (Fig. 1-6). Insert one tumbler spring in the space provided above each tumbler.

   NOTE: If the springs become tangled, do not pull them apart - unscrew them.

4. Insert the spring retainer so that the two end prongs slide into the slots at either end of the cylinder. Press the retainer down. (See Fig. 1-7)

5. To determine if tumblers have been properly installed, insert key into lock cylinder. If tumblers are installed properly the side bar will drop down. If bar does not drop down, remove the key, spring retainer, springs and tumblers and reassemble correctly.

   NOTE: If the tumblers have not been assembled correctly, they can be removed from the cylinder by holding cylinder with the tumbler slots down, pulling the side bar out with the fingers and jarring the cylinder to shake the tumblers out. This procedure is necessary because once the tumblers have been pressed down into the cylinder they are held in their slots by the side bar.

6. If, after checking, it is found that the lock cylinder is assembled properly, remove key and secure cylinder in a vise with spring retainer exposed.

   NOTE: Use leather or wood at each vise jaw to prevent damage to the cylinder.

7. Using a suitable staking tool, stake the spring retainer securely in place by staking the cylinder metal over the retainer at each end. Refer to Figure 1-7.

ASSEMBLING AND CODING GLOVE AND CONSOLE COMPARTMENT LOCK CYLINDERS

Only one type of tumbler is used to make the various lock tumbler combinations for glove and console compartment locks. Tumblers for these two lock cylinders are pre-assembled in the service replacement lock cylinder and require that a correctly coded key be inserted in the cylinder before and during cylinder coding.

As the key is inserted in the coded lock cylinder, each tumbler is depressed so that no part of any tumbler is exposed above the level of the lock cylinder thereby allowing the cylinder to turn in its bore.

NOTE: These two lock assemblies are equipped with four or five tumblers rather than six as used in other locks. Tumblers are used in positions 3-4-5-6 or 2-3-4-5-6 only. Tumblers which correspond to positions 1 and/or 2 on the key are not used. The non-brass, black "tumbler" that is closest to the head of the four tumbler lock cylinder is a locking devise and must NOT be removed or filed. See Fig. 1-8.

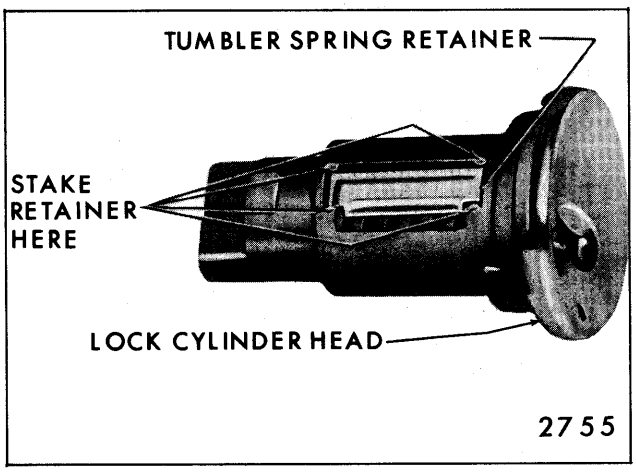

Fig. 1-7—Installing Spring Retainer

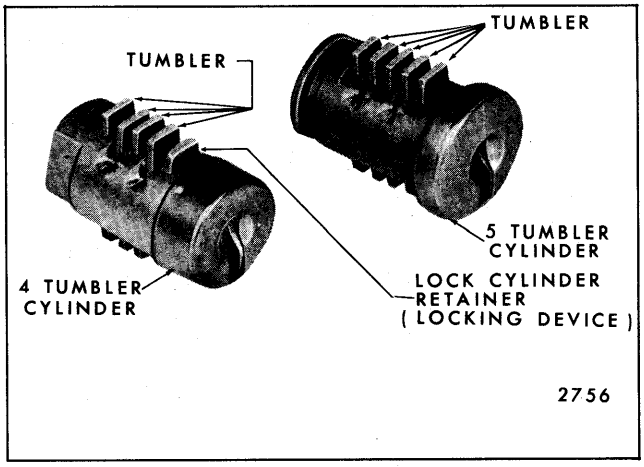

Fig. 1-8—Glove Compartment Lock Cylinder

1. Insert properly coded key in cylinder.

2. Place cylinder in a vise, bottom side up, using leather or wood at each vise jaw to prevent damage to the cylinder.

3. File tumblers down so that no part of any tumbler extends above the lock cylinder.

   NOTE: Do not file any part of the non-brass, black "tumbler" (retainer) on four tumbler lock cylinders. This is a locking bar and should not be altered.

4. Reverse lock cylinder position in vise and repeat step #3 for top of tumblers. See Fig. 1-9.

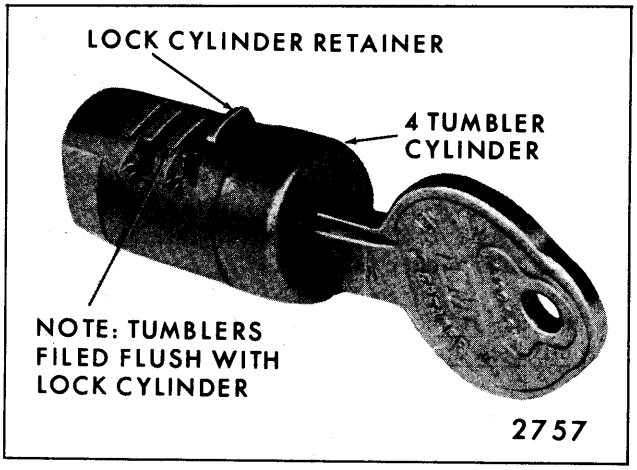

Fig. 1-9—Coded Glove Compartment Cylinder

GLASS POLISHING

REMOVAL OF MINOR SCRATCHES AND ABRASIONS—

Description

Minor glass scratches and abrasions can be effectively removed or substantially reduced by utilizing the procedure and precautions presented in this section. The phases of glass polishing discussed in this section include the equipment required, the recommended procedure and the precautions necessary.

There are two basic types of automotive glass: (1) laminated safety plate (all windshield and skylight glass) and (2) solid tempered safety plate (all side windows and back glass, except skylight).

A major concern in glass polishing is preventing double vision from developing in areas that will distort driver's vision. For this reason, less polishing can be done on the windshield in the driver's line of vision than in other areas. Distortion is most likely to result when attempting to remove deep scratches.

Glass polishing is an operation that must be performed with reasonable care.

The equipment and procedures recommended here were developed using cerium oxide compound (Glass-Nu or equivalent). Follow the manufacturer's directions if other materials are used.

The following equipment is recommended for glass polishing:

1. A low speed (600-1300 RPM) rotary polisher (Skill Model #570 or equivalent).
2. A wool felt rotary-type polishing pad, approximately three inches in diameter and two inches thick.
3. Powdered cerium oxide (Glass-Nu or equivalent) mixed with water as the abrasive compound.
4. A wide mouth container (coffee can, earthen crock, or equivalent) to hold the polish.

Glass Polishing Procedure

1. Mix at least three heaping tablespoons of cerium oxide (Glass-Nu or equivalent) with sufficient water to obtain a creamy consistency.

   NOTE: If a larger proportion of cerium oxide (Glass-Nu or equivalent) is used, the compound cakes on the felt pad faster. If a small proportion is used the polishing time required will increase.

2. Agitate the mixture occasionally to maintain a creamy consistency. The powdered cerium oxide is insoluable in water and tends to separate.

3. Draw a circle around the scratches on the inside of the windshield with a marking crayon or equivalent. Draw other lines directly behind scratches to serve as guides in locating the during polishing (Fig. 1-10).

4. Use masking paper where needed to catch drippings or spattered polish.

5. Dip the felt pad attached to the polisher into

the mixture several times to insure that the pad is well saturated.

NOTE: Never submerge or allow the pad to stay in the mixture as it may loosen the bond between the pad and the metal plate.

6. Using moderate, but steady, pressure, hold the pad flat against the scratched area of the glass, and with a feathering-out motion, polish the affected area as shown in Figure 1-10.

   NOTE: Avoid excessive pressure which does not speed-up the operation and may cause overheating of the glass.

7. Cover a sufficient area around the scratch with a feathering-out motion as shown in Figure 1-10, to eliminate any possibility of a "bulls-eye".

   NOTE: Never hold the tool in one spot or operate the tool on the glass any longer than 30 to 45 seconds at a time. If the glass becomes hot to touch, let it air cool before proceeding further. Cooling with cold water may crack the heated glass.

8. Dip the pad into the mixture about every fifteen seconds to insure that the wheel and the glass are always wet during the polishing operation. A dry pad causes excessive heat to develop.

9. After removing the scratch or abrasion, wipe the body clean of any polish.

10. Clean the polishing pad.

    NOTE: Care should be taken during polishing and storage to keep the pad free of foreign material such as dirt, metal filings, etc.

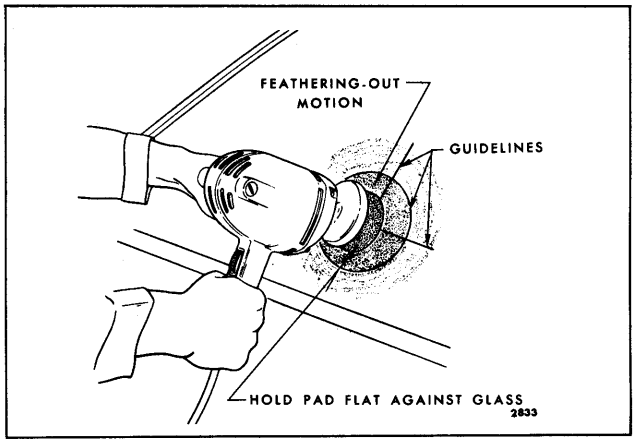

Fig. 1-10—Minor Glass Scratch Removal

WOOD GRAIN TREATMENT

STATION WAGONS AND SEDAN DELIVERY

Description

The wood grain transfer film is a vinyl material with a pressure sensitive adhesive backing. The transfers are serviced in pre-cut panels.

Removal

Remove the moldings from the affected panel (see Molding Section 17). Starting at one edge peel film from panel while heating that area with heat lamp or heat gun (heat activates the adhesive, aiding removal).

Installation

Preparation of the surface to which the transfer will be applied is very important. In cases where body metal repair has been made, it is necessary to prime and color coat these areas to blend with the undamaged surface. New paint must be thoroughly dry before applying new transfer film. Apply the transfer film to color coated panels only, never to bare metal or primer. The surface must be free of any imperfections that may high-light through the film. Remove dirt nibs and other foreign material in the paint by sanding lightly with 600 grit sandpaper.

Then clean the surface with a non-petroleum base volatile cleaner and allow to dry.

For best results, the temperature of the body should be maintained at a moderate level between approximately 65 and 90 degrees. Too warm a body will cause the wood grain film to stick prematurely while too cool a body will reduce the adhesion of the wood grain film.

Just prior to application of transfer film, wet the affected area of the panel with a wetting solution. The wetting solution is a mixture of liquid detergent (1/2 oz.) and water (1 gallon). This will reduce surface tension which aids in releasing the film from the panel to work out air bubbles and wrinkles or in repositioning of the film.

The following steps are recommended for application of the film:

1. Peel entire backing paper from transfer film.

2. Holding the film at the upper edges, position the film to the panel.

3. With a plastic or hard rubber squeegee, press transfer film to panel removing all air bubbles and wetting solution. The sequence of working with the squeegee may vary on different panels; however, in most cases, starting in the center and working up and out to the edges, then from the center down and out to the edges will profive the best results.

   NOTE: The transfer can be pulled back from the panel and reinstalled if large air pockets develop. Exercise care not to stretch the material. Small air bubbles may be removed by piercing the film at the bubble with a pin and pressing the bubble down.

4. In contoured areas the use of a single heat lamp will aid in forming the film into the different areas.

5. Apply, by brush, a small amount of clear vinyl trim adhesive to the hemming flanges at contact areas.

6. Make small relief cuts in film at curved areas where film is to be secured to hemming flange.

7. Slightly heat the edges of the film and secure to hemming flanges using a squeegee.

8. Install moldings.

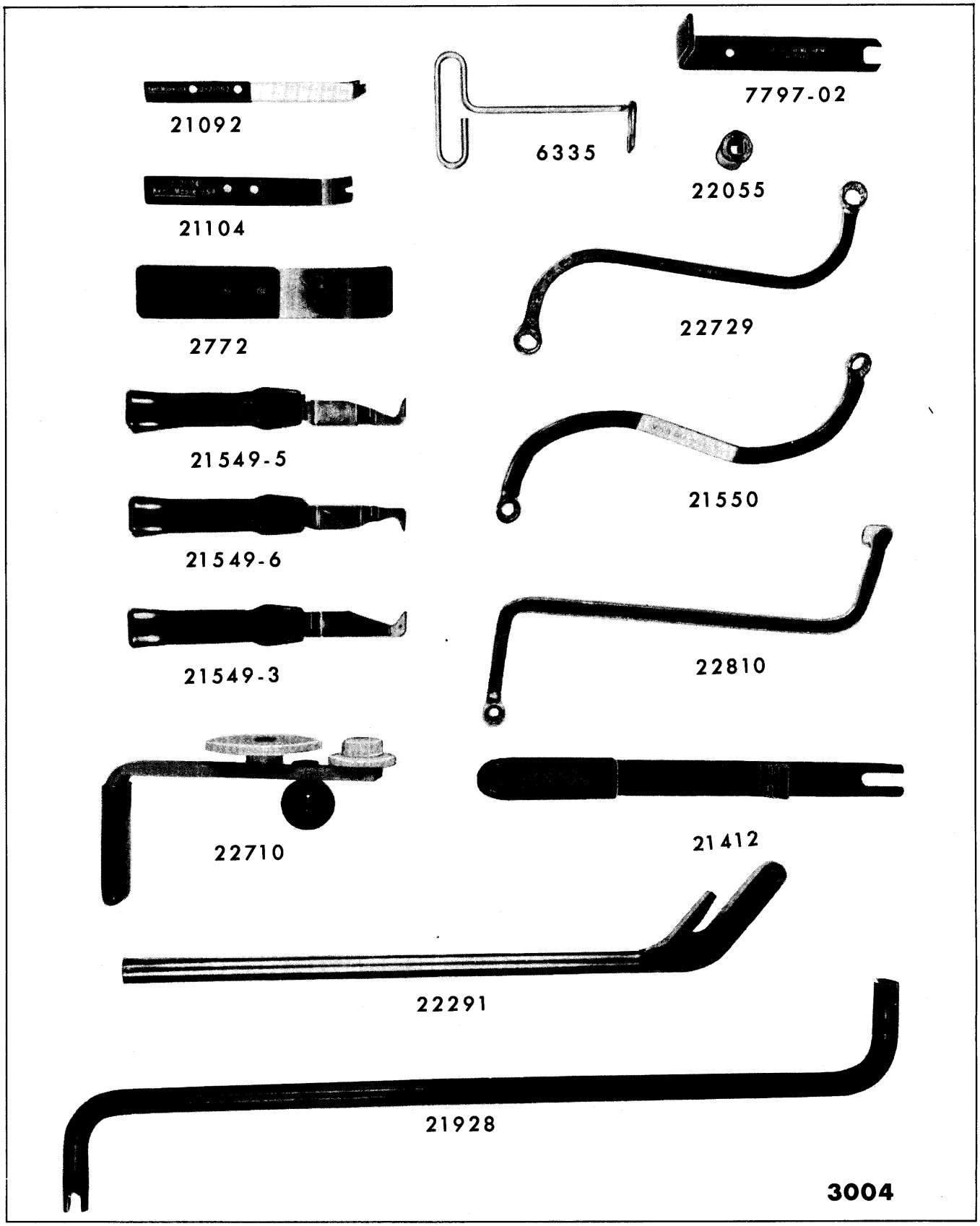

Fig. 1-11—Special Body Service Tools