

# SERVICE BULLETIN

SERVICE DEPARTMENT . . CHRYSLER & IMPERIAL DIVISION  
CHRYSLER CORPORATION

Information for     Service Mgr.  Shop Foreman  Parts Mgr.  Technicians



## TO ALL CHRYSLER AND IMPERIAL DEALERS:

A change was incorporated in 1961 Chrysler and Imperial models equipped with the electric radio antenna, starting with Chrysler Serial Number 13114849 with prefixes 81, 82, 83, 84, 85, and 87, and Imperial Serial Number 14102617 with prefixes 91, 92, and 93. This change consists of a "new" electric antenna assembly with the drive mechanism "concentric" with the motor. The antennas used prior to the serial numbers listed had an "angle drive mechanism".

The procedure for servicing the new antenna is outlined in this bulletin. The procedure for servicing the antenna used on cars prior to the serial numbers listed above, is covered in the Chrysler and Imperial Service Bulletin No. 59-69 dated May 6, 1959. The detail parts for both antennas are not interchangeable. Therefore refer to the MoPar Parts List and MoPar Publications for the correct service part numbers of the detail parts for the specific antenna.

The main components of the new electric antenna are the motor and drive assembly, the mast assembly, and the support tube assembly. The antenna is serviced as a mast assembly, motor and drive assembly, connector, and pad and pin assembly, "lade-in" assembly and the necessary switches.

### Maintenance:

Many antenna problems may be avoided by frequent cleaning of the antenna mast telescoping sections. This may be performed when the car is lubricated or when the car is being washed, by cleaning the antenna mast sections with a clean soft cloth. In the winter wipe the clean antenna sections with a clean cloth moistened with light oil.

Dec. 20, 1960

NO. 61-42

ACCESSORIES

SERVICING  
THE  
ELECTRIC  
ANTENNA

ALL 1961  
CHRYSLER  
AND  
IMPERIAL  
ELECTRIC  
ANTENNA  
EQUIPPED  
MODELS

P-5793-C

**IMPORTANT:** This bulletin contains valuable information and was prepared at considerable expense to be of service to you. Failure to use this information may cost you good will and money. We suggest that you insure it is read by all those concerned, and then filed for future reference in your Service Bulletin Binder.

### General Diagnosis:

If the antenna fails to operate satisfactorily, the problems can be divided into two general categories: (a) reception, (b) operational.

- (a) Weak, intermittent, noisy, or no reception: Generally caused by a broken "lead in" wire, poor connection, intermittent contact between the mast sections, faulty insulation of the mast or "lead-in" wire, or moisture in the antenna body tube.
- (b) Failure of the antenna to raise or lower: Generally can be traced to a blown fuse, faulty electrical connections at the switch or switch lead terminals, bent antenna mast rods, or a faulty motor and drive assembly.

Before an antenna is removed, the antenna performance should be tested to determine whether it is a reception problem or an operational problem.

### Preliminary Tests:

Clean the antenna and drive assembly before test or disassembly.

1. With a source of 12 volt (D.C.) power, test the operation of the drive mechanism by grounding the negative (-) lead to the drive housing and with the positive (+) lead, contact the "yellow" (up) lead terminal to extend the antenna, and contact the "brown" (down) lead terminal to retract the antenna.

If the motor will not operate, replace the motor and drive assembly. If the motor runs freely and the antenna does not extend or retract, the drive mechanism, or the mast assembly is at fault. Upon disassembly, inspect the mast and nylon cord. If the mast and nylon cord are satisfactory, the drive mechanism is at fault and should be replaced with a new motor and drive assembly. If the motor labors and the antenna extends and retracts very slowly, it may be caused by excessive dirt on the telescoping sections or bent telescoping mast rods. Clean and straighten the telescoping mast rods.

### Antenna Trimmer Adjustment:

Sometimes poor reception can be corrected by proper adjustment of the antenna trimmer. With the antenna fully extended tune the radio to a weak station or off station, in the general frequency area of 1600 KC. Turn up the volume until a hissing sound is heard. Adjust the antenna trimmer (compensator) located on the rear of the radio chassis, by rotating the trimmer adjustment clockwise or counterclockwise until the radio gives fullest response and maximum volume. Generally, up to a quarter-turn in either direction will correctly adjust the trimmer to match the radio to the antenna.

NOTE: On the 1961 Imperial models the antenna trimmer is more accessible, if the front compartment ash receiver is removed.

- If this fails to produce the desired results, a substitute antenna known to be satisfactory may be plugged into the radio with the extended mast held out of the car window. (Do not ground the mast.)

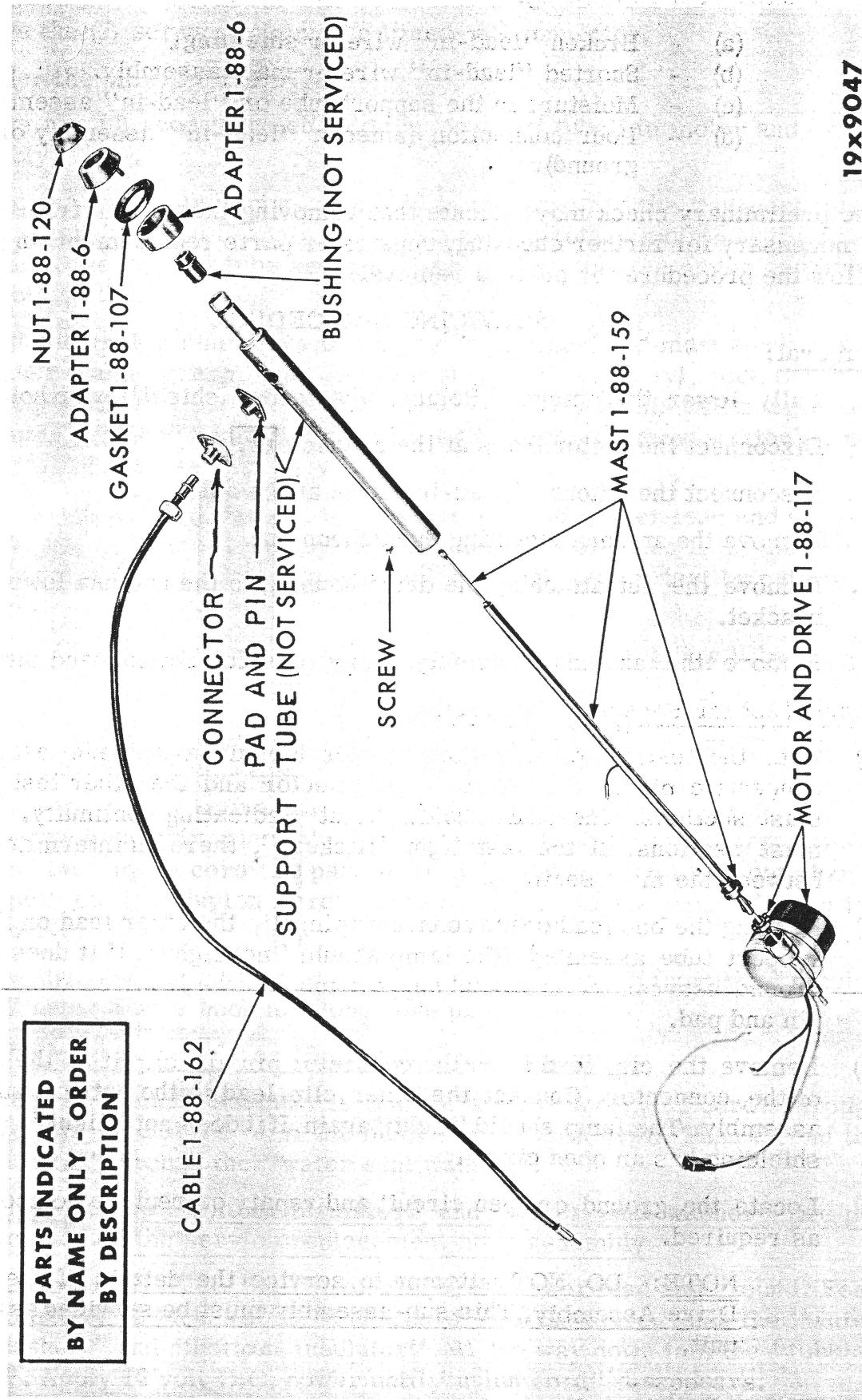


FIGURE 1 - DISASSEMBLED ANTENNA

19x9047

Upon establishing that the fault is in the antenna assembly, it may be traced to one or more of the following:

- (a) - Broken "lead-in" wire or shielding.
- (b) - Shorted "lead-in" wire or mast assembly.
- (c) - Moisture in the support tube or "lead-in" assembly.
- (d) - Poor connection (antenna "lead-in" assembly or shielding ground).

The preliminary check may indicate that removing the antenna from the vehicle is necessary for further checking, repairs or parts replacement. In this event, follow the procedure for antenna removal.

#### SERVICING PROCEDURE

##### Removal:

1. Fully lower the antenna. Remove the fender shield lower hole cover.
2. Disconnect the motor leads at the connectors.
3. Disconnect the antenna "lead-in" wire at the antenna.
4. Remove the antenna mounting escutcheon nut.
5. Remove the nut attaching the drive housing to the antenna lower mounting bracket.
6. Remove the antenna assembly, being careful not to bend the mast rod.

##### Bench Test for Reception Malfunction:

- (a) With the test lamp and battery in the circuit, attach one test lead to the concentric pin on the "lead-in" connector and the other test lead to the mast sections. The lamp should "light" indicating continuity. Vibrate the mast sections. If the test light 'flickers', there is intermittent contact between the mast sections.
- (b) Keeping the one lead on the connector pin, clip the other lead on the antenna support tube assembly. The lamp should "not light". If it does, look for a ground between the mast and support tube or the inner conductor from the pin and pad.
- (c) Remove the clip lead from the connector pin and clip it on the outer shell of the connector. Connect the other clip lead to the antenna support tube assembly. The lamp should "light" again. If it does not "light", the antenna shielding has an open circuit.
- (d) Locate the ground or open circuit and repair or replace component parts as required.

NOTE: DO NOT attempt to service the details of the Motor and Drive Assembly. This sub-assembly must be serviced as a complete unit.

To Remove the Motor and Drive Assembly or Mast Assembly:

1. Remove the (2) screws holding the "lead-in" connector.
2. Unsolder the pin from the wire.
3. Remove the (3) screws which hold the "support tube" to motor and drive assembly.
4. Holding the motor and drive assembly in one hand and the "support tube" in the other hand, pull (applying back and forth rotary motion at the same time) until the support tube assembly is removed from the motor and drive assembly.
5. Holding the motor and drive assembly in one hand and mast assembly in the other hand (grasp near bottom of mast assembly), rock the mast assembly back and forth and pull at the same time. This will remove the "insulator bushing" from "tubular fitting" and "outer mast section" from remainder of antenna assembly.
6. Apply 12 volts (D.C.) current to the "yellow" (up) power lead and ground, until the entire length of the "nylon cord" has been expelled from the drive. To prevent a kink or bend in the "nylon cord", keep it taut by pulling on the mast.

NOTE: If motor and drive assembly is inoperative it will be necessary to manually remove the "nylon cord" from drive.

CAUTION: DO NOT DISASSEMBLE THE MOTOR AND DRIVE ASSEMBLY FOR ANY PURPOSE.

In order to remove the "nylon cord" from the disabled motor and drive assembly, place the assembly in a vise so that the normal plane of the "nylon cord" is parallel with the floor, then using both hands pull on the "nylon cord" until it is completely expelled from the drive.

7. Remove the "bottom insulator" and "water seal washer" from the "tubular fitting" using a wire hook and long nose pliers.

To Install the Mast Assembly or Motor and Drive Assembly:

8. If the original mast assembly is reused, thread the "nylon cord" through the "bottom insulator" with the tubular projection down. Then thread the "nylon cord" through the "water seal washer".

NOTE: The "bottom insulator" and "water seal washer" are included on the service replacement mast assembly.

9. Apply 12 volts D.C. to the "brown" (down) power lead and ground. Feed approximately 12 inches of the "nylon cord" into the drive. Push the "water seal washer" and "bottom insulator" all the way down into the "tubular fitting". Apply 12 volt D.C. power until "nylon cord" disappears.

10. Push the "outer mast section" down into the "tubular fitting". Make sure that the upper edge of the flange on the "insulator bushing" is below center of the 3 holes in the "tubular fitting".
11. Install the support tube assembly in proper position making sure the "hook-up wire" is extended through the large hole in the support tube.
12. Install the (3) screws to attach the support tube assembly to the motor and drive assembly.
13. Solder the "hook-up wire" to the "pin".
14. Assemble the "lead-in" connector with the (2) screws.
15. Apply 12 volt power to the "yellow" and "brown" antenna leads and test for up and down operation.
16. Install the antenna and connect the leads. Test the performance of the radio and antenna. Trim the antenna according to instructions in the 1960 Chrysler and Imperial Service Manual.

**POLICY:** Effective immediately WSC Claims will not be approved for the replacement of complete antenna assemblies or antenna packages since the required parts are available through regular MoPar Parts supply channels. Refer to the MoPar Parts List and Publications for correct part numbers of the parts required.

**TIME ALLOWANCE:**

Operation No. 1-117 Antenna (Electric)--Recondition Complete .7 hour.  
(Includes Remove and Replace)

*C. T. McClure*  
C. T. McClure  
Director of Service  
CHRYSLER AND IMPERIAL DIVISION