

IMPORTANT

INSTRUCTIONS

for Installation of

Motorola

ALL-ELECTRIC

MODEL "44"

AUTO RADIO

Motorola is designed to make installation comparatively simple and easy. The following instructions will aid you in making proper installation. Read every word before you attempt the installation. Become familiar with the instructions. Be sure everything is thoroughly understood. Keep the instructions handy. Refer to them while making the installation.

There is nothing difficult about Motorola installation. It is merely a matter of following instructions carefully and paying close attention to every detail.

Here, in these instructions, you will find information as to—The Proper Mounting of the Set Itself—Of the Speaker—The Control—and MOTOR NOISE Suppression.

Remember—the performance of Motorola "44" can be no better than its installation. Properly installed this Model will give performance unequalled by any auto radio in its price field.

GALVIN MANUFACTURING CORPORATION
Chicago, Illinois

A FEW HINTS ON THE ELIMINATION OF MOTOR NOISE

There is a certain kind of motor noise interference experienced in the operation of a very sensitive radio such as Motorola. One particular type of interference is due to electrical interference radiating from the spark plugs and ignition system. After the installation of the receiver has been completed motor noise may be eliminated by use of the suppressors and filter condenser supplied with each Motorola. You will note there is one Distributor Suppressor and several Spark Plug Suppressors supplied. Apply the spark plug suppressors onto the spark plugs in series with the spark plug wire, and the distributor type suppressor 2 inches from the distributor.

You will also find in this package a condenser with a pig-tail lead. Apply this condenser at the generator, fasten the condenser in position by removing a screw from the frame of the generator, putting it through the hole on the clamp of this condenser. Fasten the pig-tail lead to the battery side of the cut-out switch.

If, after making the installation of the suppressors and generator condenser outlined above, there is still motor noise, check and see if it is not due to chassis pick-up. This is done by disconnecting the antenna from the radio set, cutting the wire off short near the shield, pushing the remainder of wire back into the shield so there will be no exposed antenna wire at all. If the noise does not discontinue when the test is made, it is due to chassis pick-up. If "A" lead is hooked to starter button, this is very likely to be the cause of the interference. The remedy is to either run "A" lead direct to storage battery or to leave it on the starter button and by-pass it at this point with a $\frac{1}{2}$ to 1 mfd. condenser. A condenser of the same type as the generator condenser will be most suitable. Mount this condenser on frame of starter motor and run pigtail to point where "A" lead connects.

Roof antenna trouble can be checked by disconnecting the dome light wire where it connects to the ammeter, or the tail light and stop light wires by disconnecting them at their source. After disconnecting either one of the two wires, to doubly assure yourself that they are not carrying any motor noise toward the antenna, ground each one after disconnecting. If you find either one of these two wires to be causing the trouble, a dome light filter, which can be had from your dealer, at a very small cost, will remedy this. Complete instructions come with the filter, which will allow you to use the dome light or the tail light without causing motor noise. They are adaptable to either tail light, stop light, dome light or any battery circuit.

Other causes of interference are first, improperly grounded hood. Second, the ignition coil being located up on the instrument board. You may find it necessary to shield the wire leading from the ignition coil to the distributor by placing a shield over this cable and grounding it where it passes through the bulkhead.

This shielding is the type manufactured by Runzel-Lenz and Belden Manufacturing Company, Chicago, Illinois. Your dealer can supply you.

The above procedure should usually eliminate objectionable motor noise to the point of practicability.

BALANCING THE SET TO THE ANTENNA

After the set is installed ready for operation, it may be necessary to balance the set to the antenna. This is done by adjustment of the antenna trimmer. This trimmer is located under a $\frac{3}{8}$ " hole in the front of the set to the left of the flexible shaft. This hole is covered by a button which is removed by simply prying upward with a screw driver.

In making this adjustment be absolutely sure you have properly tuned in a very weak station around 130 to 140 on the dial. Adjust the trimmer in and out with a screw driver until the point of maximum volume is reached.

SERVICING

In case it is necessary to service the set, it is so constructed that the entire chassis and speaker can be removed from the housing, by removing the roundhead screws from the outer edge. **DO NOT REMOVE HEXHEADED SCREWS OR ROUNDHEAD SCREWS FROM SPEAKER GRILL.**

PREPARATORY TO INSTALLATION

CAUTION—THERE IS A LIKELIHOOD OF DAMAGING THE "B" POWER SUPPLY of this set unless the polarity of the set and car correspond. See that the polarity indicator at the side of the set corresponds with grounded side of the car battery. If not, see instructions on card attached to "A" lead and label affixed to "B" Power Supply.

LOCATION OF THE RADIO SET

The Model 44 is to be mounted under the bulkhead in driver compartment side. **SPECIAL NOTE**—The cardboard template accompanying this set illustrates different positions in which this set can be mounted. Note the side mounting, such as in Figure No. 2 on the template, that the mounting bolts fit into the brackets on the case from the side. When these are pulled up tight they will hold the set securely in place.

Be absolutely certain you thoroughly inspect the lay-out as to where you can best mount the set before you actually drill the holes to insure proper clearance, as well as insuring easy and graceful curves of the flexible shaft.

After deciding where the set is to be located, whether top mounting or a side mounting, place the cardboard template correctly in the desired position on the bulkhead and mark the position of the three mounting holes. Drill the holes with $\frac{3}{8}$ " drill. Place the mounting bolts into the holes in the bulkhead as indicated in the instructions on the template.

INSTALLATION OF THE RADIO SET

1. Mount the set into position on the mounting bolts. Draw the mounting bolts up tightly.
2. Mount the control head on to the steering post, being very careful in running the flexible shaft to avoid sharp bends of the shaft.

Take particular care that this shaft extending from the set to the control head is free so it easily bends. Anchor the control shaft into a permanent position.

The control head is so designed that it will fit a $1\frac{3}{4}$ " steering column.

A crescent shaped filler is provided for cars having a $1\frac{1}{2}$ " steering column.

- (a) Remove the strap from the control head by removing the upper and lower screws. Place it in position around the steering column inserting the upper screw first, then follow with the lower screw and adjustment cam. This cam has a hexagon head which may be gripped with a pair of pliers, or wrench, and rotated in a clockwise direction to draw the control head snug against the steering column. Lock cam by tightening screw.

3. Connect the "A" lead to the ammeter. It is not necessary to return it directly to the battery.
4. After the control head is in place, the radio set in place and the shaft from one to another anchored in place, make sure to adjust the control shaft into the control head exactly as specified on card that is attached to the control head and marked "Special instructions to installer."

OPERATION OF MODEL 44

1. Insert key in lock.
2. Press down on control knob and turn to the right. This throws the switch to the "ON" position. The balance of the revolution to the right increases the volume.
3. To engage the station selector pull up on the knob. Stations may be tuned in by right or left rotation of the knob.
4. To turn set off, press down on control knob, turn left until switch snaps to "Off" position.
5. **TO LOCK SET, PULL UP ON CONTROL KNOB AND REMOVE KEY.**

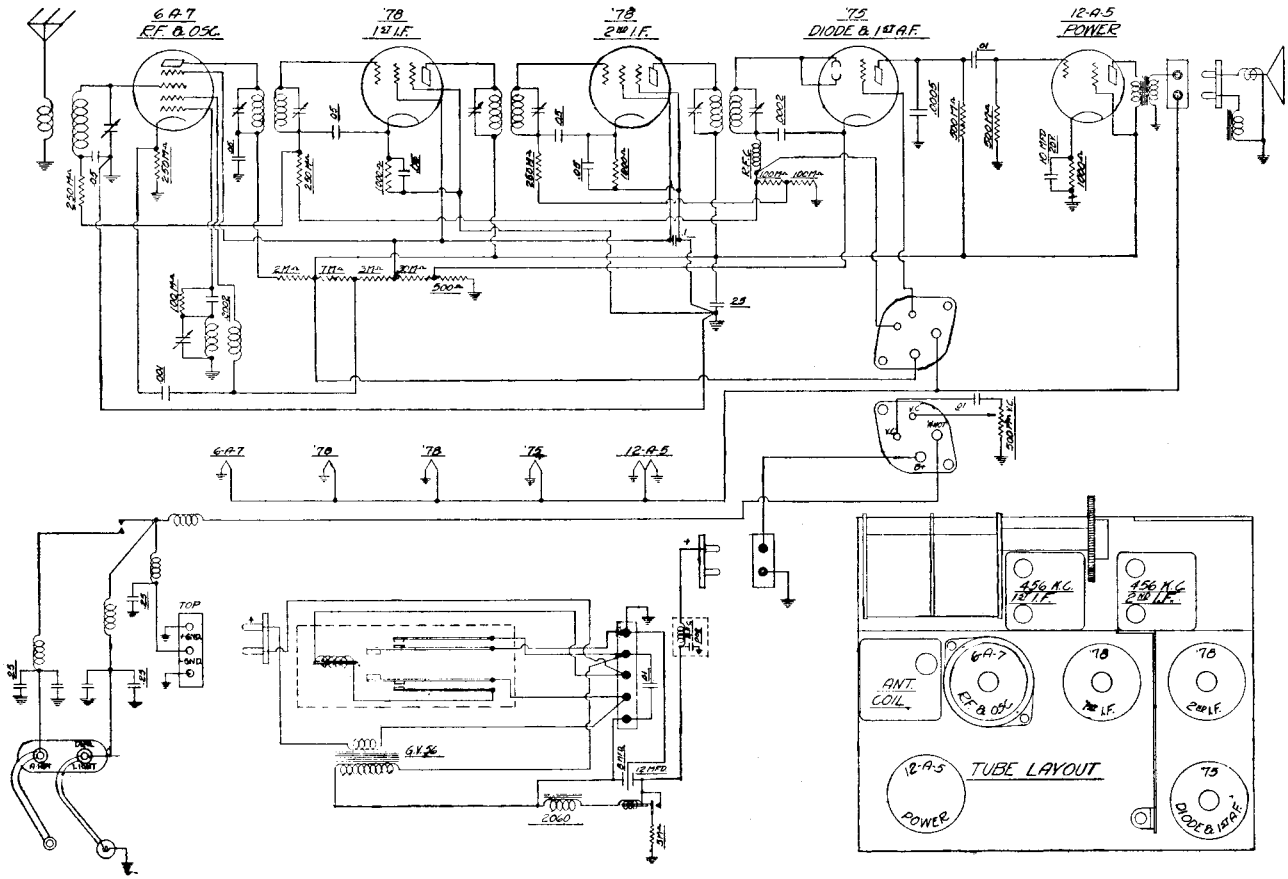


DIAGRAM FOR MODEL 44