



ST-2 Vertical, Omni-Directional, $\frac{1}{2}$ Wave Antenna

INSTALLATION INSTRUCTIONS

Installation Instructions

Congratulations! You have just purchased one of the finest FM broadcast band receiving antennas on the market today.

The ST-2 is a sturdy, high quality FM antenna. It has been built to maintain its excellent receiving characteristics while withstanding the rigors of nature in just about any geographical location where FM signals can be received.

Assembling the ST-2

While your unit might arrive fully assembled, you should go through the following procedure to ensure that your ST-2 is ready for permanent installation.

First of all, make certain that the whip is held fast within the loading coil. You can check this by holding onto the loading coil with one hand and tugging firmly on the whip with the other. If the ST-2 arrived disassembled, or if the whip was found to be loose during the above test, carry out the following procedure. Using a 3/8" open end wrench, loosen the gold locking nut at the top of the coil assembly. Insert the thickest end of the whip (opposite the static ball end) in the top of the nut. Push it down until it bottoms (about 1"). Hold on firmly to the coil with one hand and slowly tighten the nut until you feel some resistance. Then, tighten 1/2 turn, no more.

If the nut continues to turn, with no indication that the whip is being tightened, stop this procedure and, referring to Fig. 1, loosen the nut right off. You will note in the exploded view that the whip passes through a small ferrule. Tightening the nut down on the ferrule which is confined within the coil barrel causes the ferrule to compress on the whip base thereby holding it firmly. In fact, about 1/8" must protrude through the bottom end of the ferrule for the compression joint to be effective.

NOTE: Sometimes a slight burr on the hole in the ferrule will stop the whip's passage all the way through. If this is the case, sand off the burr. When you are satisfied the whip will pass freely through the ferrule, reassemble the antenna as shown in Fig. 1. Follow the previous instructions on 'tightening'.

Referring to Fig. 1, reinstall the 'L' bracket supplied as shown by turning the large locking nut off the connector shell. At the same time the connector shell may also come loose. To remedy that, hold the shell portion in place as you remove the nut. Retighten the shell finger tight. Reinstall the bracket so the longest portion now extends downward, over the shell. Using an adjustable wrench, tighten the collar nut about 1/4 turn beyond finger tight.

Pre-Installation Checkout

Connect the lead-in to the FM ANTENNA terminal on the back panel of your tuner or receiver. Place the antenna by a window, but away from any metal window frames. One way might be to attach a piece of string (not wire) to the top of the whip and the string to the window's drapery track. BE SURE to keep the whip at least 6 inches away from contact with any metal surfaces.

Turn on the tuner and tune across the dial. Your reception should be acceptable, with distant stations that might have previously been noisy being received more clearly. With these results obtained, reception should be improved even more markedly when installed outdoors, as high up as possible.

If reception is noisy, with one or more stations being received at more than one point on the dial, your tuner's front end is probably being 'saturated' with the increased signal from the antenna.

Do not assume this to be a defect in the antenna. It is possible the tuner does not have the selectivity necessary to deal with the higher gain provided by the ST-2. Please consult your dealer for further information on dealing with the problem.

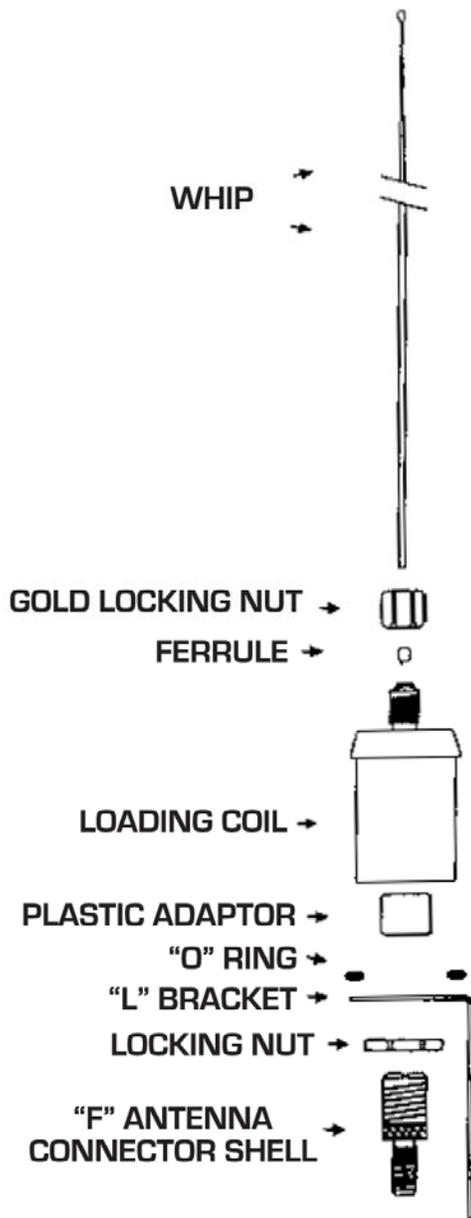


FIG. 1 ST - 2 - Exploded View

Installing the ST-2

When planning your installation, keep in mind that height is the key to increasing your receive distance, not just the gain of the antenna. Also, in order to avoid multipath interference or signal blockage problems, but sure to keep the antenna away from reflective surfaces such as chimneys, guy wires, walls, TV masts etc. The ST-2 may be installed atop your TV mast without bothering the receptive capability of your TV antenna. Simply fasten the 'L' bracket to the mast using two outdoor-type (stainless steel) hose clamps.

It may also be fastened to any vertical surface using #6 stainless steel or brass screws. Do not use ordinary steel screws. They will rust very quickly as a result of being in contact with the stainless steel bracket (a dissimilar metal).

Avoid installing the antenna on the side of a mast or tower. Doing so could completely detune the antenna or, at the very least, cause it to become directional.

Balcony installation may take a little ingenuity because of the wide variety of balcony railing designs. You will find the best location by trial and error. One way

would be to temporarily locate the antenna at the intended site and note the quality of reception. Be sure you stand well away from the antenna during each test so as to avoid having your body's inductance affect the outcome. Continue the procedure until the best reception location has been found.

When finalizing the installation, make sure that the gold portion of the coil assembly extends above any metal obstructions, such as railings. When running the coaxial lead-in cable from antenna to tuner, be careful to avoid situations where the cable might be pinched, such as in a door jamb. Severe deforming of the cable will alter its characteristics and reduce its efficiency.

Extending the Lead-in Cable

The lead-in may be lengthened by purchasing the required extra length in pre-cut form with 'F' connectors already installed at either end. You may also use the existing cable and run it into a 'static discharge unit' (discussed later) using a pre-cut length with 'F' connectors at either end to complete the required cable run.

NOTE: For best results, you must use cable with the exact same specification as the cable already in use. For example, 'RG59/U' cable is normally supplied with the ST-2. If you wish to extend this cable, you must use only 'RG59/U'. Do not use cable that is labeled 'RG59/U type'. While these two cables might be similar, they are not an exact match. However, you may use this type of cable, or any other good quality 75 ohm coaxial cable, provided the entire run is of the same type of cable.

If the antenna is installed outdoors, it is recommended that the cable be run through a 'static discharge unit' or 'grounding block' that can be connected via a ground wire to a nearby earth ground, such as a grounding rod or water pipe.

IMPORTANT: *The foregoing grounding procedure will not provide 100% protection against lightning strike. To protect your FM tuner or receiver against lightning strike through the antenna, the lead-in cable should be disconnected whenever there is threat of an electrical storm.*

DANGER – ELECTRIC SHOCK – – Extreme care must be taken when working around electrical wiring. Do not allow the antenna to touch electrical wiring of any kind. **DO NOT INSTALL THIS ANTENNA NEAR ELECTRICAL WIRING OF ANY KIND.**

WARRANTY

This antenna has a limited warranty. If found to be defective in workmanship or in its components, this unit will be replaced or repaired at Magnum Dynalab's option to a period of one year from the date of sale to the end user. This warranty does not cover the whip portion of the antenna, nor does it cover damage to the coil assembly which, in the judgment of Magnum Dynalab, is the result of misuse, abuse, lightning strike or damage incurred through shipping. Defective units must be returned with shipping charges prepaid and accompanied by a copy of a valid sales invoice issued by an authorized Magnum Dynalab dealer for this product.