

INSTALLATION INSTRUCTIONS

MODEL G7-144

WARNING: INSTALLATION OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS. FOR YOUR SAFETY, FOLLOW THE INSTALLATION DIRECTIONS. SEE FACT SHEET.

ASSEMBLY INSTRUCTIONS

1. Check package contents against illustration to insure all items are included.
2. Refer to Figure 1 and install the four radials. This is accomplished by inserting the four 4405-1 screws through the #5357 plate and through the #3553-12 radials then two to three turns into the cast aluminum base. When the radials are properly aligned, tighten down the screws. Add the yellow caps to the ends of the radials.
3. Assemble the vertical radiator section per illustration.
4. Mount the antenna on a 1" to 1 3/4" diameter mast with the u-bolts supplied.
5. Before you attach your cable be sure you have an N type connector on the cable and not PL-259 connector because the connector on the antenna is an N type.

TUNING INSTRUCTIONS

After the assembly is complete, install a dependable watt meter at or near the feedpoint of the antenna.

The G7-144 utilizes a 5/8 wave lower, 5/8 middle and a 5/8 wave upper collinear radiator, which has been spaced for optimum low angle radiation.

The dimensions shown in the illustration (47 1/4, 45 and 46 1/2) are for tuning the G7-144 to 146.5 MHz. To tune the antenna to some other frequency in the band, loosen the clamp of the bottom radiator and adjust the length until the reflected power of V.S.W.R. is obtained.

Secure this clamp. Loosen the clamp of the middle radiator and adjust this length until the lowest possible reading is obtained.

Repeat the same procedure for the upper radiator.

Secure all hardware and clamps.

Before final installation, if desired, coat the entire antenna with the exclusion of the rf connector with a good grade of clear acrylic lacquer such as "Krylon".

The total useable bandwidth is more than 2 MHz. under 1.5:1 without degradation of gain which makes this antenna ideal for duplex operation.

NEW-TRONICS ANTENNA CORPORATION LIMITED WARRANTY

New-Tronics Antenna Corp. warrants its products to be free of defects in material and workmanship and extends this warranty under intended use and normal service conditions to the original owner for a period of one year from the date of purchase. This warranty does not apply to any product that has been repaired or altered in any manner and is void for any damage due to accident, neglect, unreasonable use, improper installation, or any other cause not arising out of defects in material or workmanship.

The obligations of New-Tronics Antenna Corporation are limited to repairing or replacing, at its option, any product or part that is returned to the factory; all transportation charges prepaid, accompanied by proof of purchase, and upon examination reveals to have been defective within the warranty period stated above.

New-Tronics Antenna Corp. does not assume nor is any person authorized to assume for it, any obligations other than that herein stated.

Any implied warranties, including but not limited to fitness for a particular purpose, is limited in duration for the above one year period. New-Tronics Antenna Corp. shall not be liable under this warranty, or any implied warranty, for loss of use of the product or for other consequential loss or damage incurred by the purchaser. Some states do not allow the exclusion or limitation of implied warranties of consequential damages and so the above exclusions or limitations may not apply in those states. This warranty gives you special legal rights and you may have other rights that vary from state to state.

Kit No. 5907

G7-144 5906

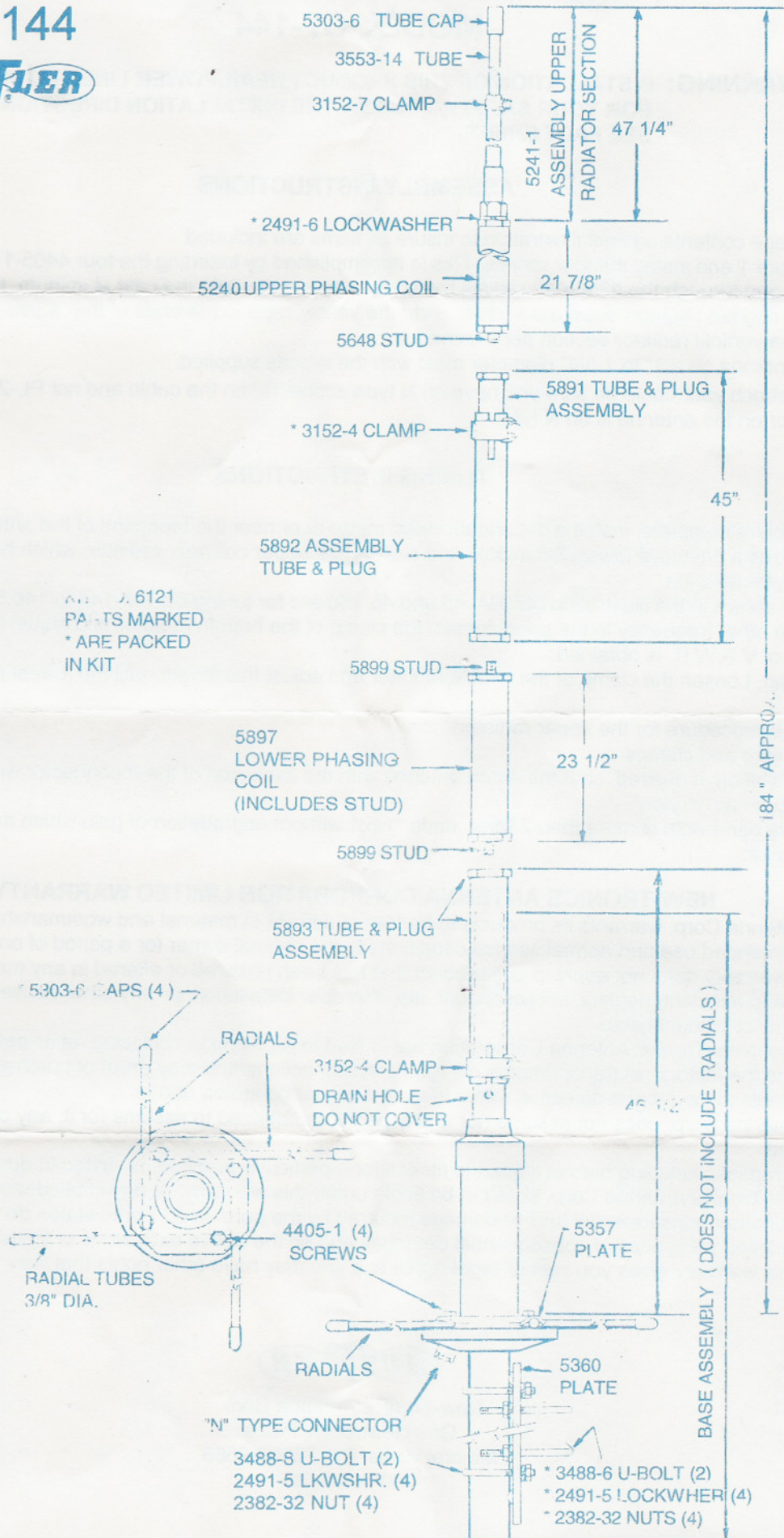
Rev.6 10/97



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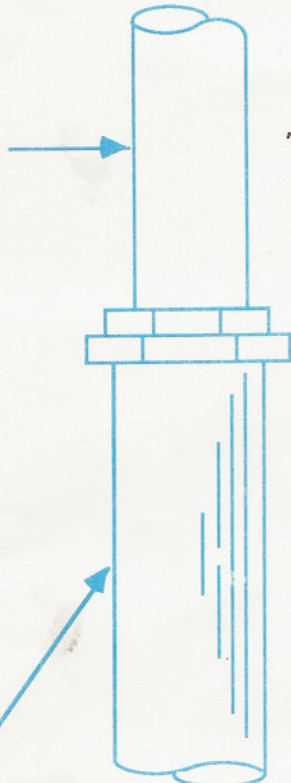
Printed in U.S.A.

G7-144



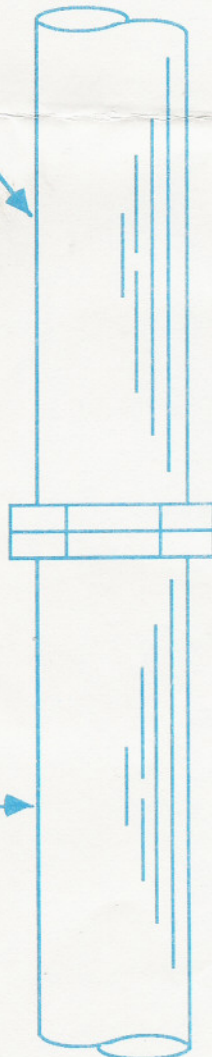
ALL PARTS MARKED * ARE PACKED IN KIT

UPPER
MAST
SECTION



Tighten upper mast section onto coil by using wrenches on adjacent hex plugs. Do not tighten by gripping on coil cover. Do not tighten by using wrenches on the lower coil hex to tighten the upper mast section.

COIL



CAUTION

Tighten coil onto lower mast section by using wrenches on adjacent hex plugs. Do not tighten by gripping on coil cover. Do not tighten by using wrenches on the upper coil hex to secure the lower mast section.

LOWER
MAST
SECTION



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G7-SERIES TUNING CHART

Use diagram on back of instruction sheet

Frequency (MHz.)

G7-136 136-144 MHz.

	"X"	"Y"	"Z"
136 MHz.	51 3/4"	50 1/2"	52 1/2"
136.5	51 1/2"	50 1/4"	52 1/4"
137	51 1/4"	50	52
137.5	51	49 3/4"	51 3/4"
138	50 3/4"	49 1/2"	51 1/2"
138.5	50 1/2"	49 1/4"	51 1/4"
139	50 1/4"	49	51
139.5	50	48 3/4"	50 3/4"
140	49 3/4"	48 1/2"	50 1/2"
140.5	49 1/2"	48 1/4"	50 1/4"
141	49 1/4"	48	50
141.5	49	47 3/4"	49 3/4"
142	48 3/4"	47 1/2"	49 1/2"
142.5	48 1/2"	47 1/4"	49 1/4"
143	48 1/4"	47	49
143.5	48	46 3/4"	48 3/4"
144	47 3/4"	46 1/2"	48 1/2"

G7-144 143-149 MHz.

143 MHz.	48 1/4"	46 3/4"	49"
143.5	48	46 1/2"	48 3/4"
144	47 3/4"	46 1/4"	48 1/2"
144.5	47 1/2"	46	48 1/4"
145	47 1/4"	45 3/4"	48
145.5	47	45 1/2"	47 3/4"
146	46 3/4"	45 1/4"	47 1/2"
146.5	46 1/2"	45	47 1/4"
147	46 1/4"	44 3/4"	47
147.5	46	44 1/2"	46 3/4"
148	45 3/4"	44 1/4"	46 1/2"
148.5	45 1/2"	44	46 1/4"
149	45 1/4"	43 3/4"	46

G7-150-1 148-154 MHz.

148 MHz.	47"	45 5/8"	50"
148.5	46 3/4"	45 3/8"	49 3/4"
149	46 1/2"	45 1/8"	49 1/2"
149.5	46 1/4"	44 7/8"	49 1/4"
150	46	44 5/8"	49
150.5	45 3/4"	44 3/8"	48 3/4"
151	45 1/2"	44 1/8"	48 1/2"
151.5	45 1/4"	43 7/8"	48 1/4"
152	45	43 5/8"	48
152.5	44 3/4"	43 3/8"	47 3/4"
153	44 1/2"	43 1/8"	47 1/2"
153.5	44 1/4"	42 7/8"	47 1/4"
154	44	42 5/8"	47

Note: All lengths are in inches.



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Frequency (MHz.)

G7-150-2 154-161 MHz.

	"X"	"Y"	"Z"
154 MHz.	44 7/8"	43 1/2"	48 1/4"
154.5	44 5/8	43 1/4	48
155	44 3/8	43	47 3/4
155.5	44 1/8	42 3/4	47 1/2
156	43 7/8	42 1/2	47 1/4
156.5	43 5/8	42 1/4	47
157	43 3/8	42	46 3/4
157.5	43 1/8	41 3/4	46 1/2
158	42 7/8	41 1/2	46 1/4
158.5	42 5/8	41 1/4	46
159	42 3/8	41	45 3/4
159.5	42 1/8	40 3/4	45 1/2
160	41 7/8	40 1/2	45 1/4
160.5	41 5/8	40 1/4	45
161	41 3/8	40	44 3/4

G7-150-3 161-167 MHz.

161MHz.	42 7/8"	41 1/4"	46 3/4"
161.5	42 5/8	41	46 1/2
162	42 3/8	40 3/4	46 1/4
162.5	42 1/8	40 1/2	46
163	41 7/8	40 1/4	45 3/4
163.5	41 5/8	40	45 1/2
164	41 3/8	39 3/4	45 1/4
164.5	41 1/8	39 1/2	45
165	40 7/8	39 1/4	44 3/4
165.5	40 5/8	39	44 1/2
166	40 3/8	38 3/4	44 1/4
166.5	40 1/8	38 1/2	44
167	39 7/8	38 1/4	43 3/4

G7-150-4 167-174 MHz.

167 MHz.	41"	39 1/2"	44 3/4"
167.5	40 3/4	39 1/4	44 1/2
168	40 1/2	39	44 1/4
168.5	40 1/4	38 3/4	44
169	40	38 1/2	43 3/4
169.5	39 3/4	38 1/4	43 1/2
170	39 1/2	38	43 1/4
170.5	39 1/4	37 3/4	43
171	39	37 1/2	42 3/4
171.5	38 3/4	37 1/4	42 1/2
172	38 1/2	37	42 1/4
172.5	38 1/4	36 3/4	42
173	38	36 1/2	41 3/4
173.5	37 3/4	36 1/4	41 1/2
174	37 1/2	36	41 1/4

Note: All lengths are in inches.



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WARNING

INSTALLATION OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS FOR YOUR SAFETY, FOLLOW THE INSTALLATION DIRECTIONS.

I. INFORMATION CONCERNING THE RISK OF ELECTROCUTION

Power lines that connect electric service to your house carry more than enough voltage required to KILL a person by electrocution. Most often these electric lines run overhead along property lines with one or more lines coming off at the supporting pole and running across your property to a point on or near the roof of your house. In some cases power lines may also be buried in the ground.

Every year many careless people are killed, or seriously injured, even though they are aware of the hazard of touching or allowing something they are holding to touch electric wires. Many of these accidents involve people who are installing (or removing) some type of antenna which is often mounted on long metal supporting pipe that has several guy wires and cables attached to it. These assemblies are cumbersome and therefore, difficult and unsafe for inexperienced people to handle even under the best conditions. The slightest wind, rain, too bright sunlight too little light, a sloping roof, or other unsure footing, and other characteristics of the installation site, along with many other factors can serve to greatly increase the hazard of possible contact with power lines.

FOR YOUR SAFETY GET PROFESSIONAL HELP WITH YOUR ANTENNA INSTALLATION AND OBSERVE THE SAFETY PRECAUTIONS OUTLINED BELOW.

II. TYPES OF SUPPORT

Hustler base station antennas are designed to attach to a mast or pipe not supplied with the antenna. The types and sizes are given in the assembly instructions for each model.

III. SITE SELECTION

A. It is recommended that the following guidelines be used for SAFETY in selecting a site for the installation.

1. Figure the height of the total antenna assembly including supporting structures.
2. Select a site for the base of the structure that is a distance at least twice the total height away from the nearest power line.

A site which meets these safety criteria may not be practical either because of available space or because performance of the antenna may be impaired.

IF THIS SITUATION OCCURS, DO NOT ATTEMPT TO INSTALL THE ANTENNA YOURSELF. GET A PROFESSIONAL INSTALLER TO DO IT FOR YOU.

B. Height limitations are placed on antenna installations by the FCC, normally at 20 meters above ground or 10 meters above a building for CB and 200 feet above ground for Amateur.

There may be additional restrictions or rules that are different which apply to your specific site, especially if you are near an airport. Check the FCC rules and regulations. Also, there may be local ordinances with which you must comply.

C. There are several different mounting methods used in antenna installations. Recommendations for best performance appear in some of the instruction covering specific models of Hustler Antennas.

Common locations include:

1. Roof
2. Chimney
3. Side of building
4. Free standing

The characteristics of your particular site and the type of antenna involved must be considered to determine which is most suitable. Since a determination based on performance may not be compatible with the SAFETY CRITERIA of A above, it is recommended that a professional select the site and make the antenna installation.

IV SAFETY PRECAUTIONS

- A. If you are not experienced in installing antennas you are advised to **SEEK PROFESSIONAL ASSISTANCE.**
- B. Select the location to install your antenna with safety in mind. Again, you are urged to obtain professional help for a safe installation, as well as for best performance. More information concerning site selection is contained in a previous section.
- C. Call your electric power company, advise them of your installation plans. **FOR YOUR SAFETY**, ask them to provide assistance and shut-off power temporarily during the installation or removal process.
- D. Plan your procedure carefully so that anyone helping knows what he is supposed to do and when. You cannot afford confusion with a cumbersome assembly half way up or down.

A few tips that may be helpful are:

1. Install your antenna only in good weather and in daylight. Remember, a small amount of wind, rain or poor visibility greatly increases the possibility of an accident.
 2. Assemble your antenna following individual assembly instructions and attach it to the mast, if used, on the ground near the location planned for the mounting base. Attach the necessary length of coaxial feed cable.
 3. If the antenna is to be mounted on a mast of one or more sections of metal tubing or pipe, the assembly should be guyed using three guy wires per level at about 10-foot intervals starting just below the attachment point of the antenna. Estimate lengths needed and attach one end of each guy wire to the mast and lay along the mast on the ground. When all are attached, temporarily tie them in a bundle along with the coax cable near the base of the mast to keep them from flopping about during erection.
 4. A non-conductive rope can be attached near the top of the mast to be held by a person standing away from those erecting the assembly and used to guide it away from power lines in the event the assembly starts to fall.
 5. Before you raise the antenna, install the mounting bracket and, if the antenna is to be guyed, any anchor bolts at calculated guying points.
- 6. THERE IS AN EXTRA WARNING LABEL INCLUDED WITH EACH ANTENNA. ATTACH IT IN A CLEARLY VISABLE SPOT ON THE BASE OF ANY SUPPORTING STRUCTURE USED.**
- E. If the antenna starts to fall and you can't control it, let go fast. Don't hang on trying to recover, let it fall. Remember, should the antenna, mast, cable (even though insulated for low voltage) or guy wires contact a power line the whole assembly will become charged with voltage and anyone touching it can provide an electrical path to ground and be instantly electrocuted.
 - F. Should the assembly accidentally come in contact with power lines.
DON'T TOUCH IT. CALL THE POWER COMPANY.
 - G. If someone comes in contact with the electric power, **DON'T TOUCH HIM OR YOU WILL ALSO BE ELECTROCUTED.** FIRST, remove the victim from contact with the electricity. Use a dry board, stick or rope. Call for medical help and apply artificial respiration if the victim is not breathing.



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IMPORTANT- RETAIN FOR WARRANTY

Should a problem occur with this product during the one year warranty period, please submit this card and proof of purchase along with any correspondence.

Packed by: <u>DL</u>	◇ 4-BTV Amateur 4 Band Vertical	◇ G6-450-1 6 dB 430-440 MHz.
Inspector: <u>RT</u>	◇ 5-BTV Amateur 5 Band Vertical	◇ G6-450-2 6 dB 456-464 MHz.
Pro. Code: <u>7-31-03</u>	◇ 6-BTV Amateur 6 Band Vertical	◇ G6-450-3 6 dB 462-470 MHz.
	◇ 30-MTK 30 Meter Trap Kit	◇ G6-450-4 6 dB 470-478 MHz.
	◇ G3-144 3 dB 144-174 MHz.	◇ G7-136 7 dB 136-144 MHz.
	◇ G3-150 3 dB 135-174 MHz.	◇ <input checked="" type="checkbox"/> G7-144 7 dB 144-148 MHz.
	◇ G5-136 5 dB 136-144 MHz.	◇ G7-150-1 7 dB 148-155 MHz.
	◇ G5-150-1 5 dB 148-155 MHz.	◇ G7-150-2 7 dB 154-161 MHz.
	◇ G5-150-2 5 dB 154-161 MHz.	◇ G7-150-3 7 dB 161-168 MHz.
	◇ G5-150-3 5 dB 161-168 MHz.	◇ G7-150-4 7 dB 168-174 MHz.
	◇ G5-150-4 5 dB 168-174 MHz.	◇ G-2537 4.2 dB 25-37 MHz.
	◇ G6-144B 6 dB Gain 2 Meter	◇ G-3754 4.2 dB 37-54 MHz.
	◇ G6-270R 6 dB 144/440 MHz	◇ Other _____
	◇ G6-440 6 dB 430/450 MHz.	



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INSPECTION CHECK LIST G7 SERIES

- Base Assy.
- 5893 Tube and Plug Assy.
- 5897 Lower Phasing Coil
- 5892 Tube and Plug Assy.
- 5891 Tube and Plug Assy.
- 5240 Upper Phasing Coil
- Radiator Section
- Radials
- Hardware Kit
- Paper Work

Inspector [Signature]

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