

Tarheel Antennas, Inc.

Instruction Manual for the Model 75A "Stubby" Continuous Coverage HF Antenna

PROUDLY MADE IN THE



UNITED STATES OF AMERICA

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Thank you for purchasing the Model 75A Tarheel Antenna

Package List for Model 75A

Model 75A Antenna
6 ft. Stainless Steel Whip
Up/Down Switch
20 ft. Control Cable
Ferrite Core
Fuse Holder & Fuse
1 tube of Dielectric Compound
Manual

Deluxe Package List for Model 75A

All of the above -- plus the following
Small MT-1 Antenna Bracket
Quick Disconnect for the Whip
21 ft. of RG-8X Coax with connectors installed
1 pack of Coax Seal

Model 75A Antenna Specifications

Lower Mast Length -- 16"
Frequency Coverage with 6' whip -- 3.7 to 34 MHz
Power Rating -- 250 watts P.E.P.
Typical SWR -- 1.5 to 1 or less
Total Height with 6' whip at 34 MHz -- 7'6"
Total Height with 6' whip at 3.7 MHz -- 8'0"
Weight 5.5 lbs.

Thank you for purchasing the Model 75A "Stubby"

When properly installed this antenna will provide continuous coverage as follows:

3.7 MHz to 34 MHz with a 5' whip

3.5 MHz to 30 MHz with a 6' whip (supplied with the antenna)

CH-1 -- Capacitance Hat

Hat only -- 3.5 MHz to 30.0 MHz

Hat with 3 ft. whip -- 3.1 MHz to 28.0 MHz

Hat with 6 ft. whip -- 2.8 MHz to 21.0 MHz

Before proceeding with the installation, make sure you have received everything.

You should have the following:

1 - Model 75A "Stubby" Antenna

1 - 6' Whip

1 - 3/8" x 24 TPI Stud

1 - 20 ft. Control Cable

1 - Ferrite Core

1 - Manual Switch Box

1 - Fuse Holder and Fuse



Installation

Before installation of this antenna there are a few things you might have to consider. To get peak performance you need to mount the antenna as high as possible on the vehicle, also try to separate it as much as possible from other antennas that might be on the vehicle.

We designed this antenna around using a mount that directly mounts to ground, like a ball mount (Photo 1). This type of mount works well.



Photo 1

Included with the antenna is a ferrite core that needs to be mounted on the control wire as close as possible to the antenna. Loop the wire through the choke at least 3 times. This choke (Photo 2) does two things, first it helps reduce antenna motor noise during tuning, second it decouples the control wire from the antenna; without this core, the antenna will be untunable.



Photo 2

Next is the control box and control cable. We preassemble everything here so you'll have a plug and play system. If for some reason you need to cut the wires, the color codes are as follows:

Initial Tune Up

For the initial tune up a SWR analyzer is nice to have if you have access to one. If not, make all your adjustments with low power. Now, lower your antenna until it reaches the end stop and go to 10 meters and check your SWR, you might have to raise the antenna a small amount to come into 10 meters, next go to 15 meters and check your SWR, it should be low. Next, you can go to 20 meters and raise the antenna until you get a SWR dip there. Then 40, then so on.

Keep in mind that 10-20 meters are close together. If the SWR doesn't go below 1.5 on these bands the ground is most likely the problem, remember the ground needs to be right at the base of the antenna.

If properly installed this antenna will have a standing wave below 1.5 from 3.5 to 30 MHz. We know that every antenna installation is unique and it is impossible to describe all the scenarios in this manual. However, if you are having problems with this initial tuning please call.

Operation

Remember that when the coil is all the way in it's resonant on the high bands and all the way out on the low bands. It will take a little time to get use to this style of antenna, some mark the antenna with tape to mark the approximate location of the bands, some just listen to the noise level increase on the radio's receive when its close to resonant. When you fine tune you need to transmit a low carrier (AM, FM, CW) at 5 to 10 watts and watch the SWR meter till the dip.

Running an Amplifier

This antenna is designed to handle up to 250 watts P.E.P. Do not exceed these ratings. Always do the initial tuning with low power then apply more power if needed.

Maintenance

Very little maintenance is required for your Tarheel Antenna. You should have years of trouble free service from this antenna. You've made a large investment for a mobile antenna. Here is a tip to help take care of your investment.

We use an automotive finish on this antenna so whenever you wash and wax your vehicle raise your antenna and wash and wax the shaft and the bug shield (Lexan tube), with wax on your antenna the bugs will have a harder time sticking to it.

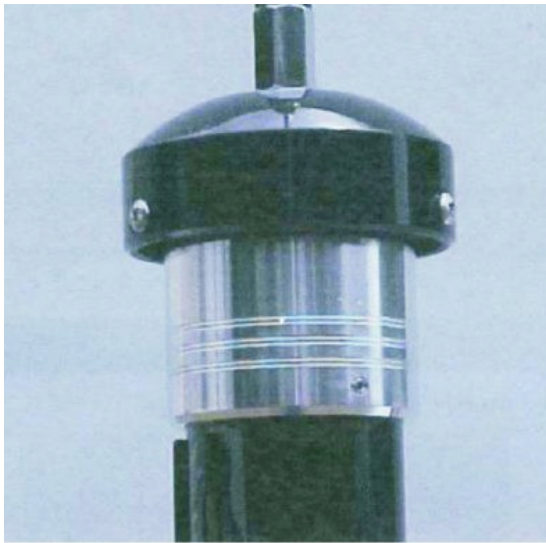
Relative Tuning Positions

The following photos will show you relative tuning positions of the Model 75A "Stubby" Antenna.

LEXAN COVER REMOVED FOR CLARITY



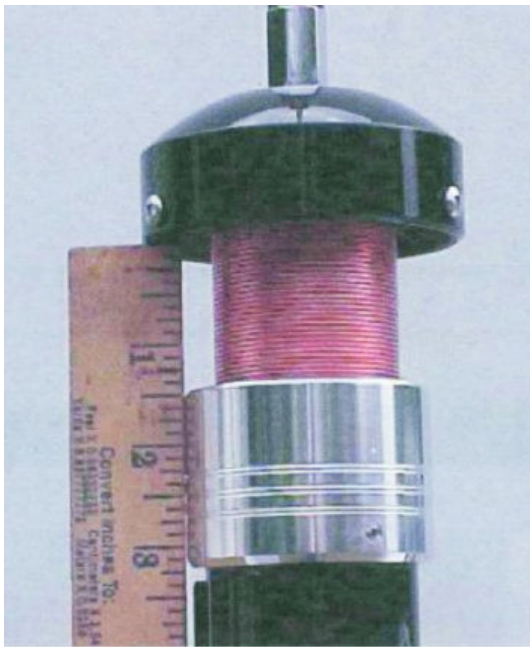
Model 75A "Stubby" -- full down position with 5 ft. whip -- 34.0 MHz



Model 75A "Stubby" -- 21.2 MHz
with 5 ft. whip



Model 75A "Stubby" -- 14.2 MHz
with 5 ft. whip @ 1/2" of coil showing



Model 75A "Stubby" -- 7.1 MHz
with 5 ft. whip @ 1 1/2" of coil showing



Model 75A "Stubby" -- 3.9 MHz
with 5 ft. whip @ 4" of coil showing

Warranty & Guarantee

The antenna comes with a one year guarantee for quality and workmanship. If for any reason (other than damage due to negligence, improper use or unauthorized disassembly) your Tarheel Antenna fails to perform due to quality or workmanship Tarheel Antennas will at our discretion either repair or replace at no charge for parts or labor. A return authorization number is required before warranty work can be performed. Your antenna needs to be sent in to the manufacturer for any warranty repairs. All shipping charges are your (the customer's) responsibility to and from Tarheel Antennas.

If for any reason the antenna does not meet the advertised specifications or any other reason you are dissatisfied with the antenna in the first 30 days of receipt of the antenna you may return it for a full refund minus any shipping charges incurred. You must inform Tarheel Antennas of your intention to return the antenna prior to shipping. Once Tarheel Antennas receives your antenna a refund will be processed within 30 days, only after it has been determined that the antenna has not been altered, mishandled, disassembled or damaged in any way.

We here at Tarheel Antennas hope you enjoy one of the best performing, best built, best looking motorized antennas available. Please pass along any suggestions you may have to make our antenna better. All suggestions are appreciated. Also when you have your antenna installed please send us pictures.

Thanks,
Tarheel Antennas