

# **TENNADYNE**

*Aluminum with a PhD<sup>®</sup>*

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## **ASSEMBLY INSTRUCTIONS**

# **TD-160**

### SPECIFICATIONS:

**Impedance: 50 Ohm nominal**

**Bandwidth :1.8-30 MHz**

**Length : 160 ft.**

**Power : 1.5kw Impulse**

**500w PEP SSB**

**200w AM/FM/RTTY**

**Connector : SO 239**

**Price : Only USD 275.00**

# SAFETY FIRST!

## LOOK UP AND LIVE.

## POWER LINE CONTACTS

## CAN KILL!

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### LIMITED WARRANTY

TENNADYNE, LLC warrants on the terms hereof, to the original purchaser of this product, for a period of one year from the date of purchase, that the product was not defective, but this warranty is void if the product has been subjected to improper or abnormal installation or usage.

If a customer believes that a product is defective, the customer may, within such one-year period, return the entire product to TENNADYNE at TENNADYNE'S factory, all shipping charges pre-paid by the customer. If the product was defective, TENNADYNE will at its option and expense repair or replace the product and will at its expense return the repaired or replaced product to the customer, in a manner selected by TENNADYNE, at the address from which the customer sent the product to TENNADYNE.

The above warranty and remedy are exclusive and are in lieu of all other warranties, express or implied, including but not limited to implied warranties of merchantability and fitness for a particular purpose.

**No seller will be liable for any loss, inconvenience or damage, including direct, special, incidental or consequential damages resulting from the use of or inability to use a product, whether the liability would result from breach of warranty or under any other legal theory.**

This warranty does not cover damage to or caused by an antenna (a) by reason of the antenna acting as a lightning rod, (b) by reason of corrosion or strain from exposure of an antenna to wind or weather, (c) from improper assembly, installation or use of an antenna, (d) from failure periodically to inspect and maintain an antenna and its installation, or (e) the antenna coming into contact with a source of electrical power. The customer is responsible to insure that the installation and use of an antenna complies with applicable laws (such as zoning laws) and regulations (such as condominium regulations).

The laws of some states do not allow the exclusion of implied warranties, and if these laws apply, then all express and implied warranties are limited in duration to such one year period. No warranties of any kind apply after that period.

Such repair or replacement is the customer's sole and exclusive remedy for a defective product. Specifically, TENNADYNE is not liable (to the customer or otherwise) for (a) any loss or damage arising in any way from a product or from actual or anticipated sale, lease, license or use of a product, or involving in any matter such as interruption of service, loss or business or anticipated profits, or delay in receiving, repairing, replacing or returning a product, or (b) any incidental, indirect, special or consequential damages.

No other person (such as an employee, agent or dealer) is authorized to change this warranty in any way, or to give any other warranties of any kind on behalf of TENNADYNE. This warranty gives a customer specific legal rights, and a customer may also have other rights, which vary from state to state.

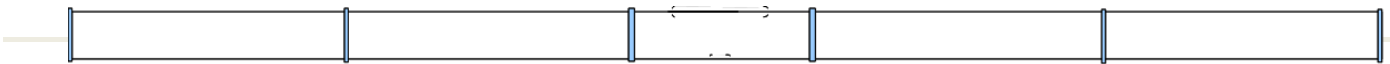
As used herein, **customer** is the initial end-use purchaser of a product from seller, a **product** is an antenna therefore manufactured by TENNADYNE, a product is **defective** if and only if the product was not free of defects of material and workmanship when manufactured, and a **seller** is TENNADYNE and any authorized TENNADYNE dealer.

TENNADYNE, LLC

# TENNADYNE®

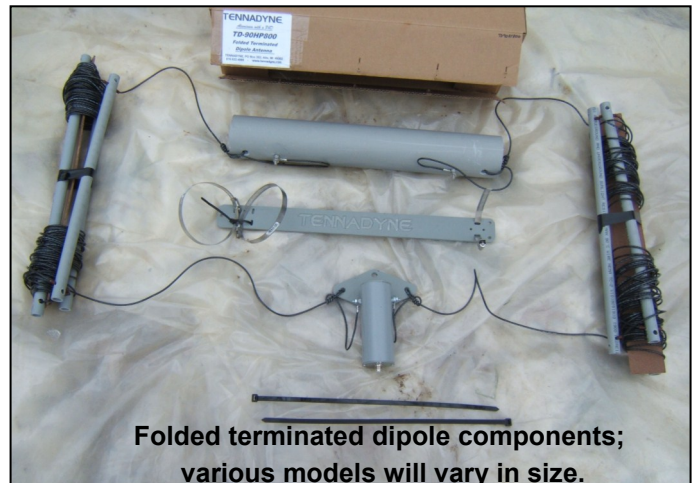
## Folded Terminated Dipole

# TD-160



The TENNADYNE® TD series terminated folded dipole is a broadband antenna designed for fixed station, multi-frequency applications. The antenna can be mounted horizontally between two support systems, or as an inverted 'V' using a single central support mast. This antenna type is widely used by military, commercial and broadcasting services. The TD antenna line is made with extremely durable covered #14 stranded copper wire.

- Pre Tuned no measuring or cutting!!
- Easy to install
- Fantastic NVIS performer
- Great for ALE Applications.
- An excellent broadband antenna.
- Ground Independent.



### **Antenna Safety**

One of the most important components in any radio station is the antenna. It is important to take time and plan out your installation.

***Under no circumstances will TENNADYNE be liable for any damages or consequential damages arising from use or misuse of our products.***

The installation or dismantling of any antenna near power lines is dangerous. Each year hundreds of people are killed or injured while attempting to install or dismantle an antenna. In many cases, the victim was well aware of the dangers, but did not take adequate steps to avoid the hazards. For your safety and proper antenna installation, read and follow all safety precautions.

***Choose an installation site for safety as well as performance.***

***All electric power lines, cable lines and telephone lines look alike.  
To be safe, assume ANY overhead line can kill you.***

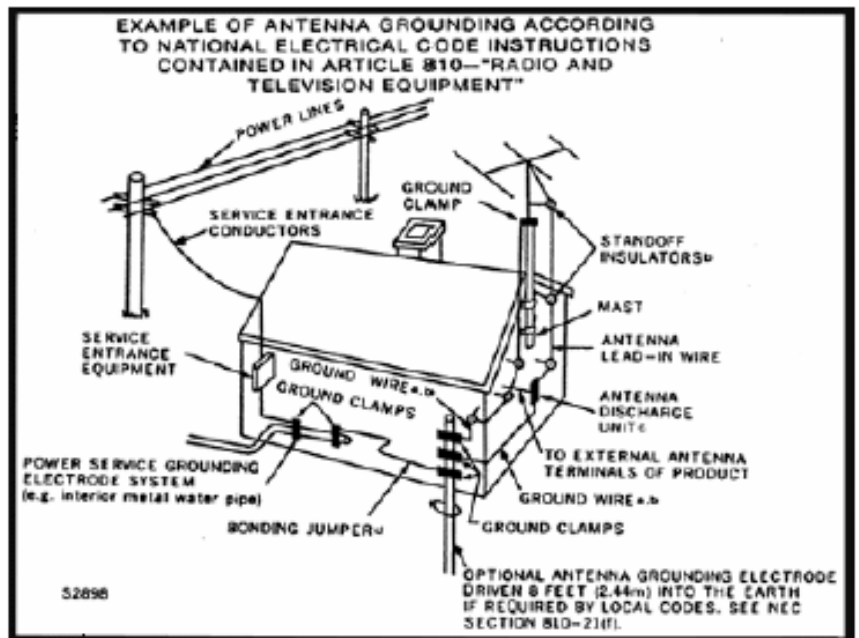
Do not place an antenna where it could potentially fall on to, or blow into a power line. To determine the SAFE DISTANCE follow these steps:

- (a) Determine the proposed height of your antenna.
- (b) Add the antenna length and the length of your tower mast.
- (c) Double the figure.

Your answer will be the minimum safe distance from the nearest power line that you should install your antenna.

Outdoor antennas should be grounded with an approved lightning arresting device. Local codes may apply. The radio should also be grounded to an earth ground to help protect both the radio and its user. Do not use hot water pipes or gas lines as a ground source.

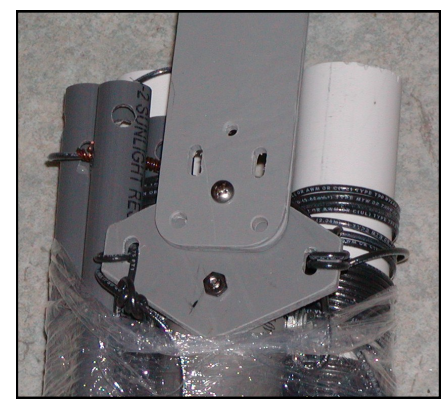
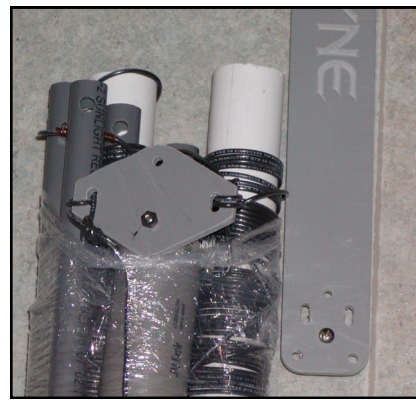
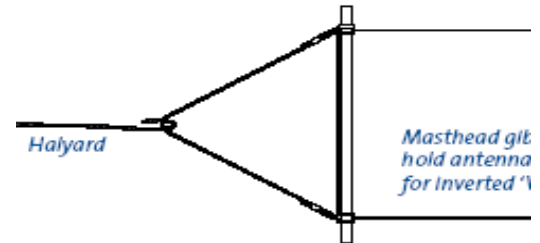
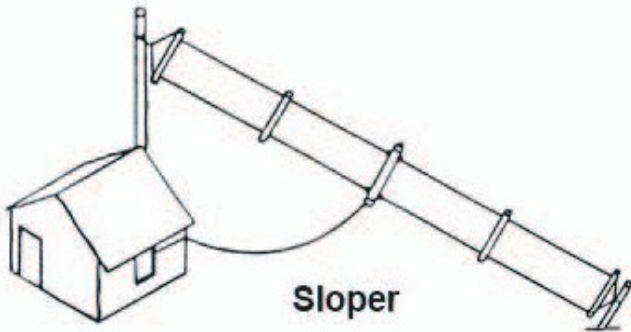
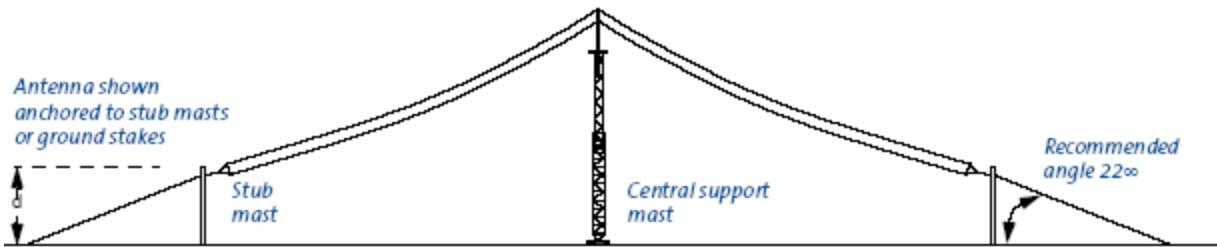
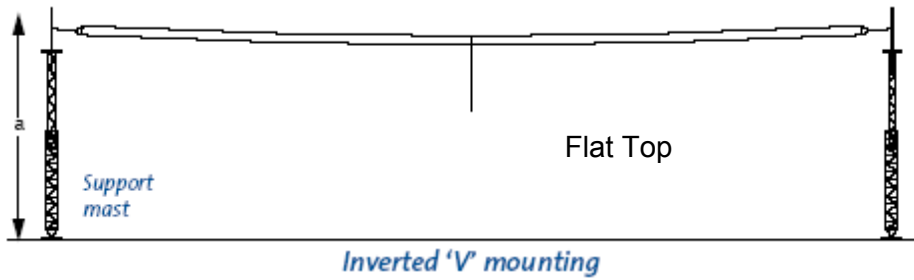
**OUTDOOR ANTENNA GROUNDING**-If an outside antenna system is connected to any radio receiver or transmitter, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No.70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. Also refer to the ARRL's antenna safety instruction.



## Installation

1. Prepare supports, paying attention to best possible height, antenna configuration, and alignment. Do not install parallel to power lines.
2. Unpack the antenna. Lay it on the ground, the two rolls separated and the components laying in the middle.
3. Cut enough rope to support the antenna side tubes.
4. Uncoil one half of the antenna. Avoid twisting, kinking. Keep the antenna taut during uncoiling. Save the coil supports for future storage.
5. Locate the Center Support. It has TENNADYNE machined into it. The top of the Center Support allows you to attach a rope which can then be used to pull the antenna up at the center. The Matching Resistor is to be inserted through two tie wraps to the top of the Center Support. The Balun has a pre-installed mounting bracket. Use the supplied bolt and nut to secure to Center Support. See pictures below
6. Install the rope as shown in the diagram below. If you keep the top arm of the rope a couple inches shorter than the bottom arm, the antenna will hang in a proper vertical position instead of rotating flat.
7. Attach your coax cable. We have provided you with a long black Tie Wrap. Take this long black Tie Wrap and wrap it around the Balun then lay the remainder of the Tie Wrap against the coax. Take a good quality electrical tape and wrap several turns around both the remainder of the Tie Wrap and the coax. This will provide an excellent strain relief for your coax. Now raise the antenna up in the air. Again avoid twisting, kinking or springing.

8. Run transmission line to the station. Run the transmission line down to the ground, and perpendicular to the antenna for as far as possible. This is important. Only use a sufficient length of transmission line to reach the station.
9. Your antenna is ready for operation. It is broadband and pre-tuned for an average SWR of 1.4:1 to 2.0:1 in HF depending upon the frequency used and surrounding objects, ground conditions, etc. The use of a good antenna tuner may be required in bad locations, to manage the SWR to a workable level.



**CONTACT US:**

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Log Periodic Antennas

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