



# DP-19PD 2-30 MHz Portable Dipole

303 Industrial Park Road, Starkville, MS 39759 USA  
Ph: (662) 323-9533 FAX: (662) 323-6551

## INSTRUCTION MANUAL

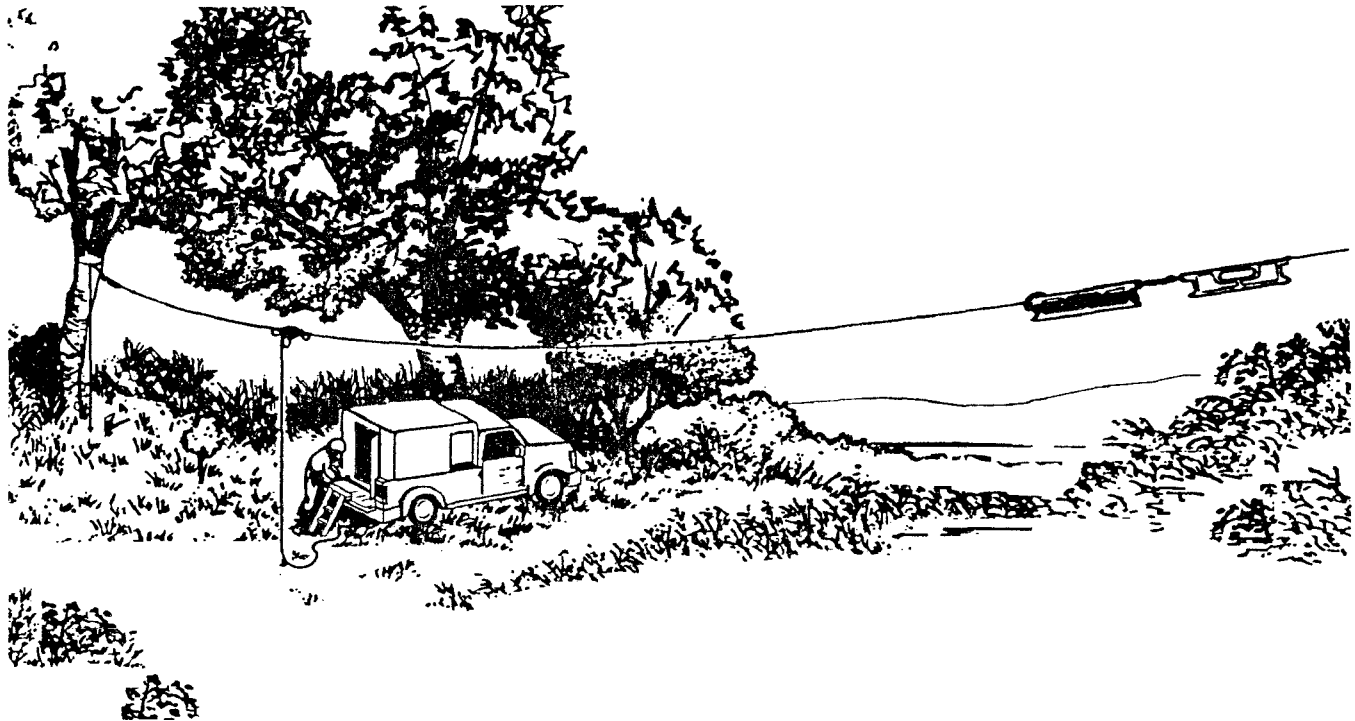


Figure 1

### GENERAL DESCRIPTION

The Model 19-PD is an ultra-light portable dipole antenna that operates anywhere in the 2 to 30 MHz frequency range. The elements are fabricated from braided rope which has conductors woven directly into it. This provides a highly flexible and very lightweight element.

The elements have frequency markers installed on them for simple field adjustments. The following table lists the marked frequencies on each element in calibrated steps:

Frequency (MHz)	Band (m)
2.0	160
3.5	80
3.8	80
4.0	80
7.0	40
7.3	40
10.1	30
14.0	20
14.3	20
18.1	17
21.0	15
25.0	12
28.0	10
30.0	10

Table 1

A flat storage bobbin for each element is an integral part of the antenna. During operation, the unused portion of each element is shorted out and remains on the element bobbin (see Figure 2).

The input connector and connections to the elements are enclosed in a ABS center insulator. The antenna is supported at each end by 100 foot lengths of rope which can be tied to trees, buildings, poles, etc. To elevate the antenna above the ground. A weight is attached to each end of the support ropes for throwing the ropes up into the overhead support.

## SPECIFICATIONS

### Electrical

Frequency Range (in MHz).....	any discrete frequency from 2 to 30 MHz
Average Power Handling Capability (average).....	375 watts @ 30 MHz
(with RG-58 C/U coaxial' cable) .....	8(H) watts @ 2 'MHz
(with 'RG-213, coaxial cable).....	1 kW all frequencies
Polarization .....	horizontal
VSWR at Resonance (antenna at 30' height) .....	less than 1.5:1 relative to 50 ohms
Input Impedance.....	50 ohms unbalanced
Input Connector at center.....	SO-239

### Mechanical

Element Length, per side.....	116 ft. 6 in. (35.51 m)
Element Material.....	braided wire rope
Mounting Rope Length, per side... ..	100 ft. (30.48 m)
Mounting Rope Material.....	braided polyethylene
Antenna Weight.....	3 lbs. 9 oz.
Shipping Weight .....	4 lbs. 5 oz.
Shipping Volume .....	312 ft <sup>3</sup> (6,,x6" x 15 ") (.009 19 m <sup>^3</sup> )

## INSTALLATION

Remove the antenna from the packaging.

Loosen the binding post thumb screw and remove the element.

Unwind both elements to the frequency markers indicating the desired frequency of operation.

Fold the element and insert it into the hole in the binding post (see Figure 2).

Tighten the thumb screw to bold the element in place.

Check to be sure that the coax connector is secure at the center insulator prior to raising the elements (see Figure 3).

Unwind support rope and weights.

Attach the support rope, to convenient limbs, poles, etc.. Avoid dragging the elements or rope over objects which will damage them. Secure the weighted ends (see Figure 1).

Attach the connector on the end of the coaxial cable (not supplied) to your transceiver.

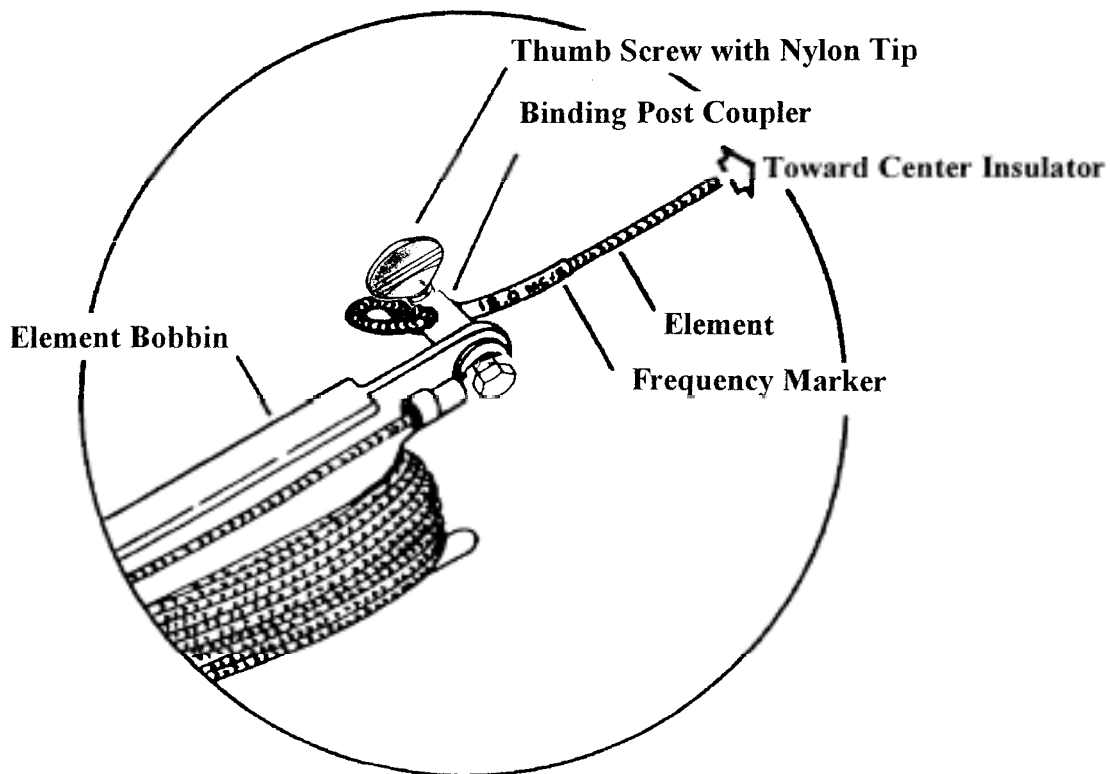


Figure 2  
**Frequency Setting at Element Bobbin**

MAINTENANCE

INSPECT THE FOLLOWING ITEMS:

- Elements for cuts and broken wire strands and broken rope fabric.
- All hardware for tightness.
- Support rope for cuts and abrasions.
- All electrical connections for tightness and cleanliness.

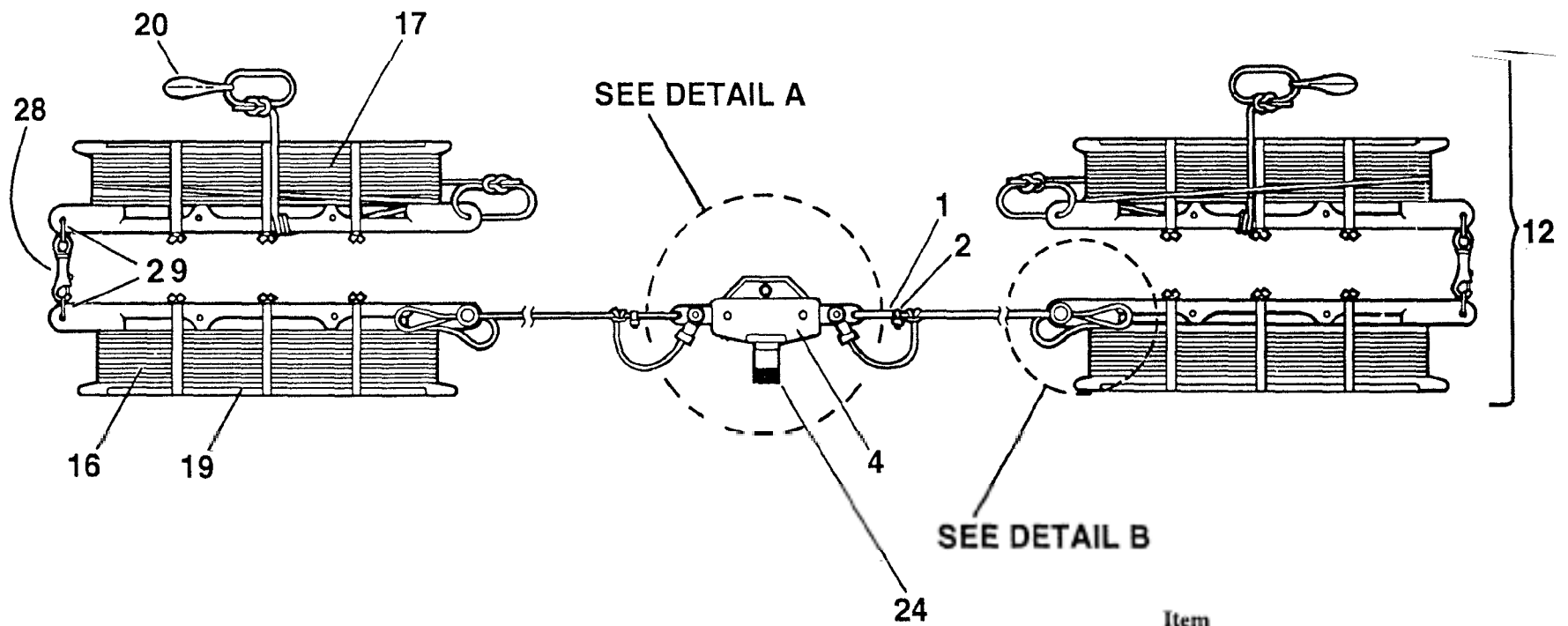
- All mechanical connections (i.e., knots, crimped connectors) for tightness and fatigue.

Repair or replace items or assemblies as needed.

Frequency of inspections is dependant on the conditions the antenna is subjected to, and how much it has been used.

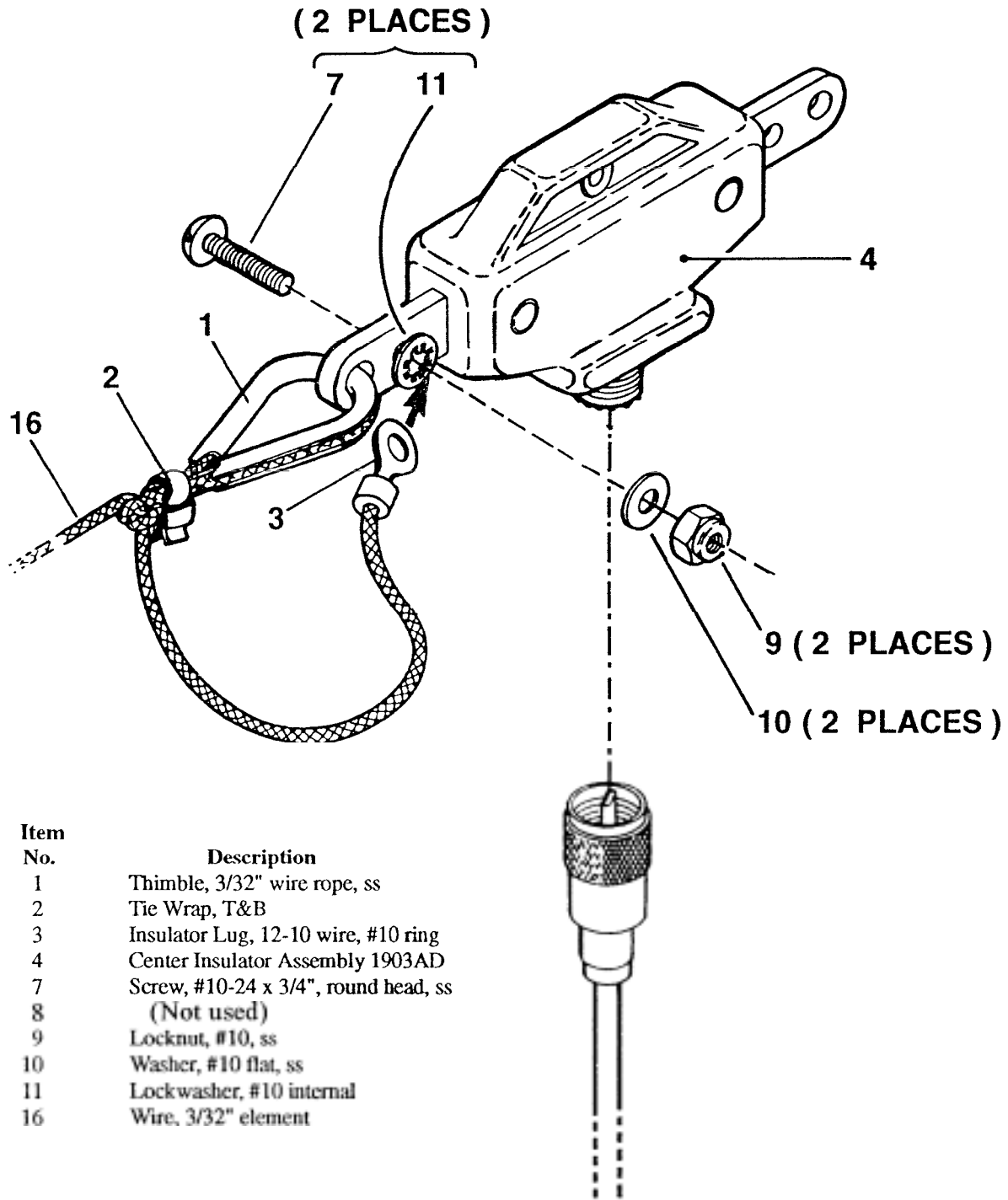
## PARTS LIST

Item #	Part #	Description	Qty
1	358726	Thimble, 3/32" wire rope, ss	2
2	451431	Tie Wrap, T and B	2
3	679501	Insulator Lug, 12-10 wire, #10 ring	2
4	870650	Center Insulator Assembly	1
5		(not used)	
6		(not used)	
8		(not used)	
7	505751	Screw, #10-24 x 3/4", ss	2
9	550275	Locknut, #10-24, hex, ss	2
10	561165	Flatwasher, #10, ss	2
11	565697	Lockwasher, #10 internal	6
12	870649	Element Assembly	2
13		(not used)	
14		(not used)	
10	561165	Flatwasher, #10, ss	1
15	679501	Terminal 12-10 wire, #10 ring	1
16	630008	Element Wire, 3/32" (2 required per antenna)	120 ft. each
17	630014	Rope, 3/32" nylon	110 ft.
18		(not used)	
19	460152	Bobbin, Lexan	2
20	895075	Lead weight	1
28	250039	Snap, 3/8" rope	1
29	358740	Chain Link	2
30	664-1500-WN	Thumb Screw	1
31	725-3108	Binging post coupler	1
32	500160	10-24 x 5/8" screw, ss	1

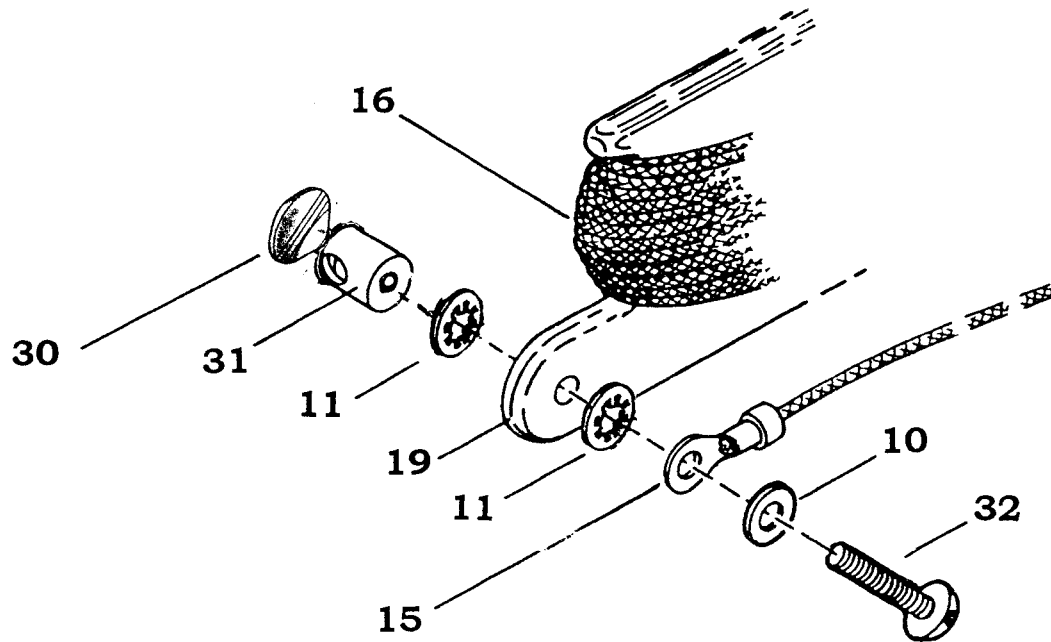


Item No	Description
1	Thimble 3/32" wire rope, ss
2	Tie Wrap, T & B
4	Center Insulator Assembly
12	Element Assembly
16	Wire, 3/32" Element
17	Rope, 3/32" Nylon
19	Bobbin, Lexan®
20	Lead Weight
24	Connector, PL259
28	Snap, 3/8"
29	Chain Link

Figure 3 Overall View of Antenna



Detail A of Figure 3  
Center Insulator Assembly



Item No.	Description
10	Flatwasher, #10, ss
11	Lockwasher, #10 internal
15	Terminal
16	Wire, 3/32" Element
19	Bobbin, Lexan
30	Thumb Screw with Nylon Tip
31	Binding Post Coupler
32	10-24 x 5/8" Screw, ss

Detail B of Figure 3  
 Connection of Element Wire to Bobbin

## **hy-gain**® LIMITED WARRANTY

**Hy-Gain** Warrants to the original owner of this product, if manufactured by **Hy-Gain** and purchased from an authorized dealer or directly from **Hy-Gain** to be free from defects in material and workmanship for a period of 12 months for rotator products and 24 months for antenna products from date of purchase provided the following terms of this warranty are satisfied.

1. The purchaser must retain the dated proof-of-purchase (bill of sale, canceled check, credit card or money order receipt, etc.) describing the product to establish the validity of the warranty claim and submit the original or machine reproduction of such proof of-purchase to **Hy-Gain** at the time of warranty service. **Hy-Gain** shall have the discretion to deny warranty without dated proof-of-purchase. Any evidence of alteration, erasure, or forgery shall be cause to void any and all warranty terms immediately.
2. **Hy-Gain** agrees to repair or replace at **Hy-Gain's** option without charge to the original owner any defective product under warranty, provided the product is returned postage prepaid to **Hy-Gain** with a personal check, cashiers check, or money order for \$8.00 covering postage and handling.
3. Under no circumstances is **Hy-Gain** liable for consequential damages to person or property by the use of any **Hy-Gain** products.
4. Out-of-warranty Service: **Hy-Gain** will repair any out-of-warranty product provided the unit is shipped prepaid. All repaired units will be shipped COD to the owner. Repair charges will be added to the COD fee unless other arrangements are made.
5. This warranty is given in lieu of any other warranty expressed or implied.
6. **Hy-Gain** reserves the right to make changes or improvements in design or manufacture without incurring any obligation to install such changes upon any of the products previously manufactured.
7. All **Hy-Gain** products to be serviced in-warranty or out-of-warranty should be addressed to **hy-gain, 308 Industrial Park Road, Mississippi 39759, USA** and must be accompanied by a letter describing the problem in detail along with a copy of your dated proof-of-purchase.
8. This warranty gives you specific rights, and you may also have other rights which vary from state to state.