

PART NO.		STYLE 222	
35' ANTENNA SIDE FEED TERMINATION			
DWN	CHD	SCALE	DATE
LET	WAS		
		BY	DATE

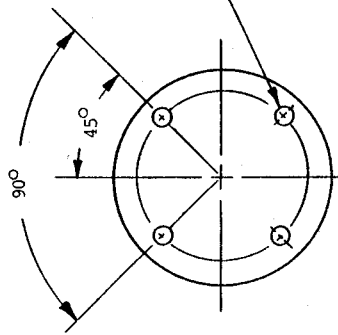
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. DECIMALS 2.005 FRACTIONS 2/164 TOLERANCES ± 1/2 OR AS SPECIFIED BELOW ANGLES ± 1/2 OR AS SPECIFIED BELOW

DECIMALS		FRACTIONS		ANGLES	
x	.xx	.xxx	±	±	±

DO NOT SCALE DRAWING

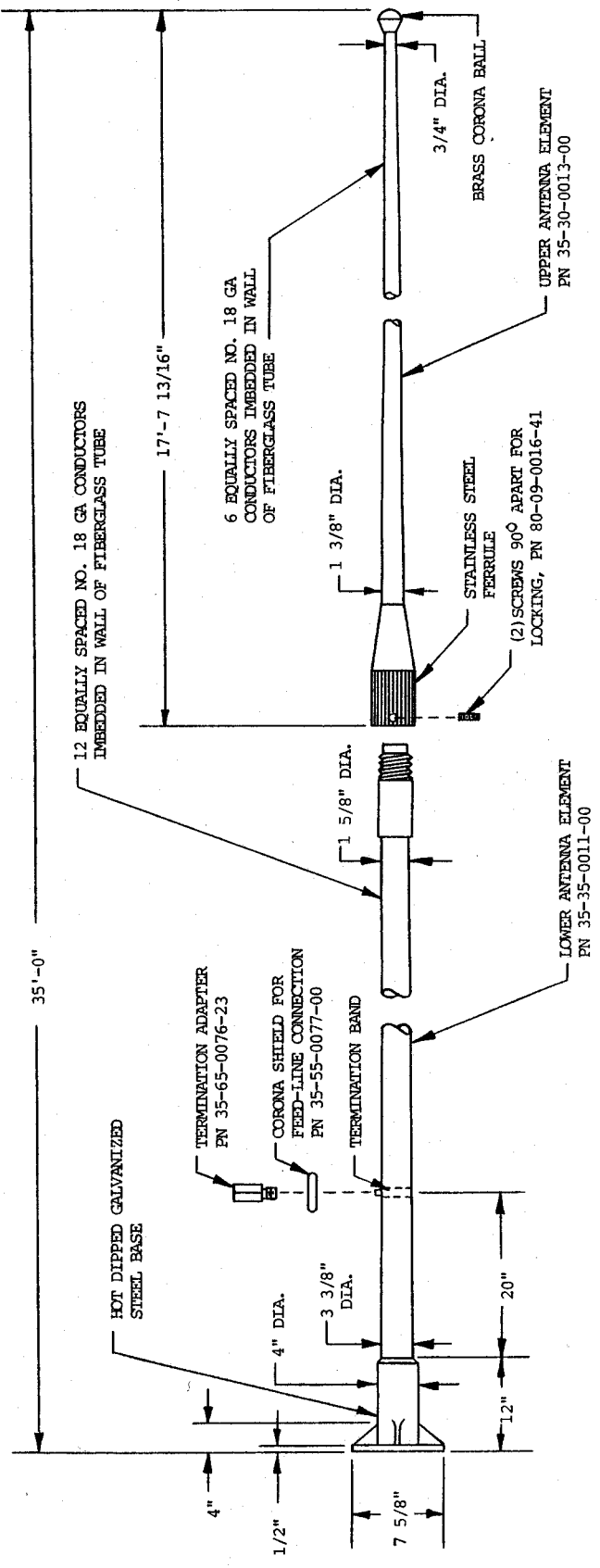
AS-3287/CR  
NSN 5895 01 052 1273  
SPECIFICATIONS

Frequency: 1.6 MHz - 30 MHz. Reduced power down to 200 KHz.  
Base Mounting Flange: Galvanized ductile iron  
Center Fittings: Type 303 stainless steel  
Corona Ball: Acrylic coated brass  
Electrical Feed Point: Side feed point located 32" above the mounting surface. Threaded 5/16"-24, female, 1/2" deep.  
Electrical Conductors: Copper alloy.  
Power Rating: 1 KW at 1.6 MHz to 30 MHz. 100 watts at 200 to 500 KHz. Power rating for clean dry atmosphere. Reduce power in moist/salt water conditions, if tracking or corona occurs in the feed point area.  
Base Flashover Voltage: 25,000 volts  
Wind Rating: 125 MPH  
Operating Temperature: -50°C to 65°C.  
Color: White  
Finish: Acrylic coating, UV and track resistant  
Net Weight: 65 lbs.  
Shipping Weight: 105 lbs.  
Shipping Carton: Heavy duty cardboard tube, 8 1/2" dia. x 218" long



21/32" DIA. HOLE (TYP 4  
EQUALLY SPACED ON A  
6" DIA. BOLT CIRCLE)

MOUNTING & DRILLING  
INSTRUCTIONS



# MANUAL STYLE 222 ANTENNA 35 foot heavy duty

## READ INSTRUCTIONS THROUGH BEFORE INSTALLING ANTENNA

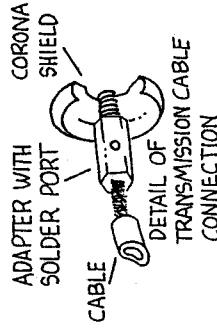
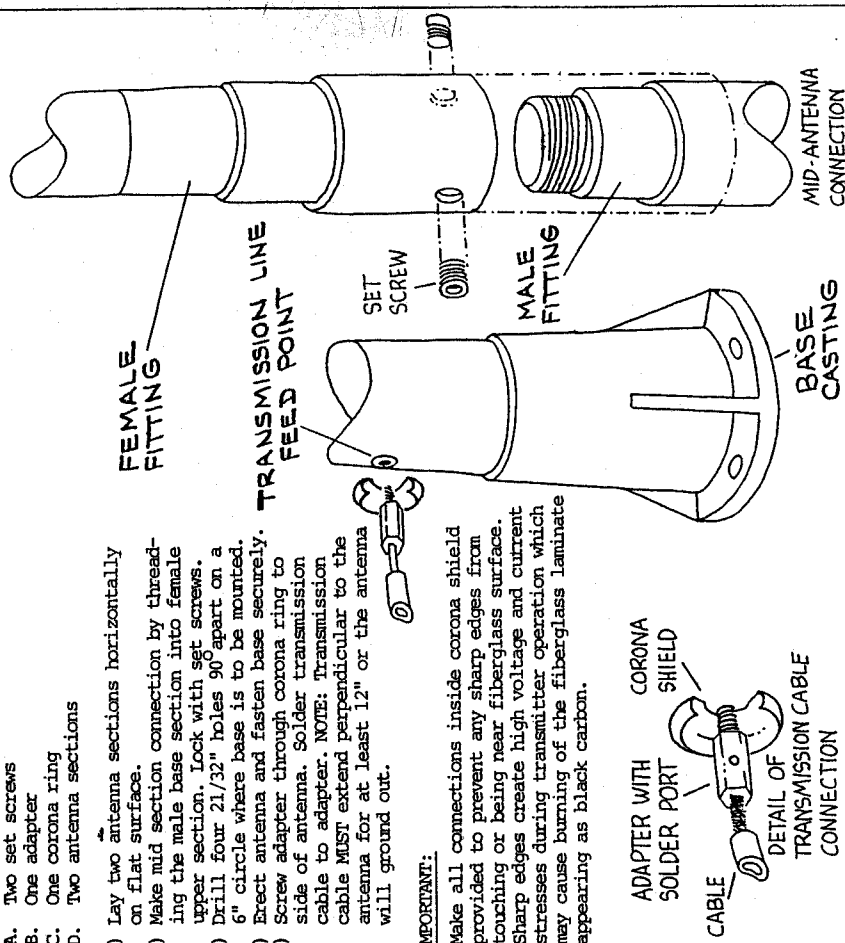
**ASSEMBLING AND MOUNTING/Before installing, read instructions through and study diagrams. Check parts against the parts listed below. Prior to assembly, it is important to tighten the six(6) screws inside center joint fitting. (4 in bottom section and 2 in top section)**

### PARTS:

- A. Two set screws
  - B. One adapter
  - C. One corona ring
  - D. Two antenna sections
- 1) Lay two antenna sections horizontally on flat surface.
  - 2) Make mid section connection by threading the male base section into female upper section. Lock with set screws.
  - 3) Drill four 21/32" holes 90° apart on a 6" circle where base is to be mounted.
  - 4) Erect antenna and fasten base securely.
  - 5) Screw adapter through corona ring to side of antenna. Solder transmission cable to adapter. **NOTE:** Transmission cable **MUST** extend perpendicular to the antenna for at least 12" or the antenna will ground out.

### IMPORTANT:

Make all connections inside corona shield provided to prevent any sharp edges from touching or being near fiberglass surface. Sharp edges create high voltage and current stresses during transmitter operation which may cause burning of the fiberglass laminate appearing as black carbon.



Regular cleaning of the surface between base flange and the connection point, including a minimum of two feet above the connection point, with fresh water and mild soap will prevent contamination build-up which could cause burning or tracking on fiberglass surface.

35-90-0323-00

### PARTS LIST

PART NUMBER	DESCRIPTION	REQUIRED PER ANTENNA
35-35-0011-00	Lower Antenna Element	One
35-30-0013-00	Upper Antenna Element	One
35-40-0064-00	*Hardware Package	One

\* Hardware package consists of one (1) each PN 35-65-0076-23 termination adapter, one (1) each PN 35-55-0077-00 corona shield, and two (2) each PN 80-09-0016-41 set screws.

### TROUBLE SHOOTING

- (1) Using an ohm meter or other suitable equipment, the value between the feed point and the galvanized base flange (ground) should be greater than 50 meg ohms. If the value is less, wash the exterior surface area with soap and water, then dry thoroughly and test again. If the value remains less than 50 meg ohms, discard the antenna.
- (2) Using an ohm meter or other suitable equipment and brass/copper lead wires of #18 gauge or larger, check the continuity between the feed point and the center joint of the antenna. The value should be less than 4 ohms. If the reading is greater than 6 ohms, discard the lower antenna section.
- (3) Using an ohm meter or other suitable equipment as in Step 2, check the continuity between the lower fitting of the upper antenna section and tip corona ball (scratch paint to expose brass). The value should be less than 4 ohms. If the reading is greater than 6 ohms, discard the upper antenna section.

### IMPEDANCE CHART

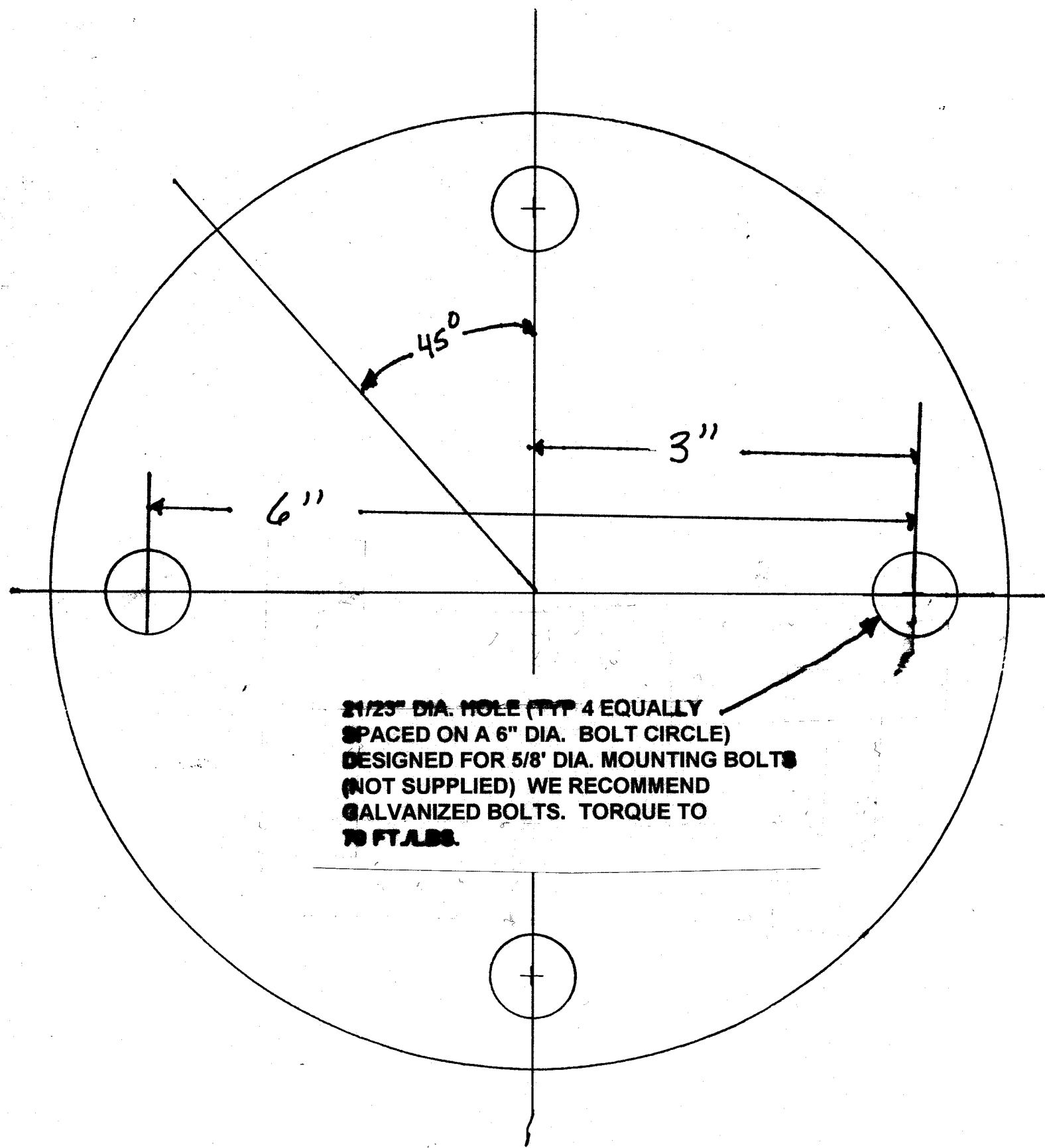
Frequency Megahertz	Resistance Ohms	Reactance Ohms	Frequency Megahertz	Resistance Ohms	Reactance Ohms
2	5	-600	14	465	-470
3	7	-365	15	250	-400
4	10	-245	16	125	-225
5	20	-145	17	85	-175
6	30	-55	18	65	-105
7	50	+25	19	60	-62
8	80	+100	20	65	+25
9	135	+180	22	110	+14
10	225	+270	24	250	+250
11	410	+370	26	545	+140
12	775	+250	28	450	-240
13	900	-260			

Measured over a ground plane consisting of 12 ground radials 35 feet long.

Note: When installing the 222 in a fixed station application, a ground plane should be provided beneath the antenna.

Antenna Capacitance: 110 pico Farads

35-90-0323-00



**2 1/2" DIA. HOLE (FIT 4 EQUALLY  
SPACED ON A 6" DIA. BOLT CIRCLE)  
DESIGNED FOR 5/8" DIA. MOUNTING BOLTS  
(NOT SUPPLIED) WE RECOMMEND  
GALVANIZED BOLTS. TORQUE TO  
70 FT.LBS.**