



## UHF WHIP ANTENNA 5/8, 5dBd, NMO

[99-587303-01, 99-587304-01, 99-587305-01, 99-587305-20, 99-587305-30, 99-587305-40, 99-587305-50]

High performance 5dBd gain antenna for HPT435BT and HPT404BT transceivers

**High Performance:** A full 5dB gain is achieved in this antenna by featuring a 5/8 wave over 5/8 wave whip with a base loaded matching coil. It has a power handling capacity of 200 watts.

**Stylish and Durable:** This antenna is manufactured using the finest corrosion resistant materials and finishes available. The base is triple plated chrome brass with an insert molded low loss coil form and a spring loaded contact. The silver plated phasing coil is fully enclosed to insure years of dependable service.

**Weatherproof:** O ring seals and overlap construction keep moisture out of the antenna.

Antenna requires a good ground plane for optimum performance. Poor ground planes and improper mounting position may cause less than optimum results.

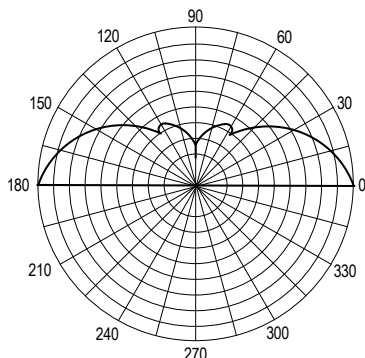
An UHF Antenna Ground Plane Disk (p/n 10-587400-01) should be installed at the bottom of the antenna if 12ft/3.6 m antenna cable p/n 14-578117-06(05, 07) Accessory UHF Ant Cable TNC (BNC, SMA)/NMO with pole mount antenna adapter is used.

If the antenna is mounted on the metallic surface (a car roof or a plate of iron or steel) using magnet mount adapter, it would substitute the Disk.

Optional 12ft/3.6 m antenna cables with magnet mount type of mounting adapter are p/n 14-578115-02 (01) Accessory UHF Ant Cable TNC (BNC)/NMO with standard magnet mount adapter and p/n 14-578116-02 (01) Accessory UHF Ant Cable TNC (BNC)/NMO with Mini-magnet mount adapter.

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**Vertical Pattern**



## WHIP CUTTING INSTRUCTIONS

The whip should be cut to the length that corresponds to the desired frequency you expect to operate on. In most cases it is desired to cut the whip a bit longer than the chart and make final adjustment by moving the whip in the adapter. Please note that the lengths given in the chart are the total length of the antenna whip. Each antenna is supplied with a whip that is trimmed to operate at the lowest frequency. To adjust for a higher frequency you must cut an appropriate amount from the bottom of the whip. Adjustment of the exact frequency can be made by moving the cut whip up or down in the adapter and checking the lowest VSWR.

Coil assemblies are factory tuned and sealed. No adjustment should be attempted on them. All frequency adjustments should be made by trimming the whip. As a rule, you should be able to obtain a VSWR of 1.5 to 1. If you are unable to accomplish this, a check for correct whip length and proper mounting condition is recommended.

Electrical Specifications:	
Frequency	406-430 (p/n 99-587303-01) 430-450 (p/n 99-587304-01) 450-470 (p/n 99-587305-01) 450-455 (p/n 99-587305-20) 455-460 (p/n 99-587305-30) 460-465 (p/n 99-587305-40) 465-470 (p/n 99-587305-50)
Gain	5 dBd (7.15 dBi)
VSWR*	< 1.5:1
Impedance	50 Ohms
Radiation Pattern	Omni directional
Power Rating	200 W
Mechanical Specifications:	
Radiator	Stainless steel
Matching coil	Silver plated enclosed coil
Base	ABS, chrome plated brass
Length	39" maximum
Weight	0.51 lbs (0.23 kg)
Mounting	NMO type

\*At tuned frequency

406-430 MHz			430-450 MHz			450-470 MHz		
Frequency, MHz	CUT WHIP		Frequency, MHz	CUT WHIP		Frequency, MHz	CUT WHIP	
	inches	cm		inches	cm		inches	cm
405.0	13 7/16	34.2	430.0	12 5/16	31.3	450.0	11 5/8	29.5
406.0	13 1/4	33.7	432.5	11 15/16	30.3	452.5	11 3/8	28.9
410.0	12 5/8	32.0	435.0	11 1/2	29.3	455.0	11 3/16	28.4
412.5	12 1/2	31.7	437.5	11 1/8	28.3	457.5	10 15/16	27.8
415.0	12 3/16	31.0	440.0	10 11/16	27.2	460.0	10 3/4	27.3
417.5	11 15/16	30.4	442.5	10 7/16	26.5	462.5	10 9/16	26.8
420.0	11 5/8	29.6	445.0	10 1/8	25.8	465.0	10 5/16	26.2
422.5	11 1/2	29.2	447.5	9 15/16	25.2	467.5	10 1/8	25.7
425.0	11 3/16	28.5	450.0	9 5/8	24.5	470.0	9 7/8	25.1
427.5	10 9/16	26.9						
430.0	10 7/16	26.6						

**ATTENTION** Cut the whip before use Freq:



All cuts made on antennas with phasing coils should be made on the bottom rod only. Measure the length of the rod cut from the lower edge of the phasing coil to the end of the whip.

- Using hexagon wrench unscrew two screws at the base of the antenna and remove the antenna whip.
- Cut the end opposite the antenna's top in accordance with the table.
- Clean 15 mm of the paint for good contact.
- Insert the cleaned end of the antenna whip into the base and tighten two screws.
- After cutting the antenna do not forget to write down the frequency on the label, if it is available.
- After cutting, measure the antenna VSWR.

Specifications are subject to change without notice



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