

SPECIFICATIONS

Model	J8448B
Frequency, MHz	2400–2500
Gain with specified cable (dBi):	13.8 dBi
VSWR max.	1.7:1
Number Elements	15
Front-to-Back Ratio:	18 dB
E-Plane (3 dB beamwidth):	30°
H-Plane (3 dB beamwidth):	34°
Radiating Element:	Brass
Impedance (Ohms)	50
Antenna Connector:	Type N (female)
Weight lb. (kg)	1.25 (0.56)
Mounting Style	Articulating mount
Dimensions, in. (cm):	26-1/2 x 3-3/4 x 1-1/2 (67.3 x 9.5 x 3.8)
Enclosure	UV Stable Polycarbonate
Mast Diameter, Max. in. (cm):	2-1/8 (5.4)
Cable, in (.cm)	20 (50.8) RG-303 type

ANTENNA LOCATION

The antenna may be mounted at interior or exterior locations. For link installations, a line-of-sight path between antennas works best. Although 2.4 GHz signals penetrate cubical dividers and interior partitions with little attenuation, reinforced block walls, banks of metal cabinets, or steel shelving may attenuate signals or cause multipath, a condition where reflected signals interfere with the primary signal. Because antenna beam width is restricted to 15 degrees each side of center, the J8448B must be aimed accurately during installation in order to provide optimum gain and best performance.

HP WARRANTY INFORMATION

See the Customer Support/Warranty booklet included with this product. A copy of the specific warranty terms applicable to your ProCurve products and replacement parts can be obtained from your HP Sales and Service Office or authorized dealer.

SUPPORT

Hewlett-Packard offers support 24 hours a day, seven days a week through the use of a number of automated electronic services. See the Customer Support Warranty booklet that came with your product for information on how to use these services to get technical support. You can also get up-to-date support information from the ProCurve Web site: www.procurve.com

Additionally, your HP-authorized network reseller can provide you with assistance, both with services that they offer and with services offered by ProCurve.



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Part Number: Part Number: 5991-4691



ProCurve 14 dBi Yagi Antenna

J8448B



DESCRIPTION

The ProCurve J8448B is a complete Kit consisting of a highly directional 15-element Yagi enclosed in a UV stable weatherproof radome. This antenna provides extended point-to-point link coverage—or sharply focused zonal coverage—for 2.4-GHz ISM applications.

SAFETY

The ProCurve J8448B and all associated equipment should be installed in accordance with applicable local and national electrical code guidelines to ensure safe operation.

IMPORTANT WARNING: Two pairs of weep holes are provided in the radome: one for vertical mounting and one for horizontal mounting. You must fill the unused pair of weep holes with adhesive dots prior to mounting or unwanted leakage into the radome may result. (see installation instructions)

Before connecting your external antenna to a ProCurve Wireless Access Point, please read the instructions for using an external antenna with the access point. These instructions explain how to set the access point's power levels to meet regulatory requirements in your area. For the latest instructions, see the Product Manuals page for your access point, available under Technical Support on the ProCurve Web site: www.procurve.com

Important Notice: Please read all instructions carefully before attempting to install and use this product.

MOUNTING INFORMATION

The J8448B is equipped with an articulating mount, and may be oriented for vertical or horizontal polarization. It accommodates mast sizes up to 2-1/8 inches (4.76 cm).

WEEP HOLES

Two pairs of weep holes are provided in the radome: one for vertical mounting and one for horizontal mounting. Prior to installation, the unused pair of weep holes must be plugged with adhesive dots to prevent leakage. Two small adhesive dots are supplied with each antenna for this purpose. Weep-hole locations are shown in Figure-A.

- Vertical Mounting:** When mounting vertically, find two weep holes on the broad, flat side of the radome and cover with adhesive dots.
- Horizontal Mounting:** When mounting horizontally, find two weep holes on the narrow edge of the radome and cover with adhesive dots. When adhesive dots are applied, check to ensure holes are fully closed.

FIGURE A



Coax Routing: During installation, avoid any sharp bend or kink in the feed line. Also, avoid bending coax close to the radome where it may apply pressure to the wall of the cable grommet and compromise the water seal. Rout coax downward—or provide a drip loop—to ensure rainwater accumulating on the jacket flows away from the cable grommet in the radome.

ASSEMBLY

- Prior to mounting, find the arrow sticker on the radome. When mounting vertically, the arrow should always point upward (Figure B). When mounting horizontally, the arrow sticker should always be on top of the radome.

FIGURE B



This positioning is required (a) to ensure weep holes fall on the bottom of the antenna, and (b) to ensure proper phasing when multiple antennas are used with a harness.

ASSEMBLY (continued)

- Orient for the desired polarization and install the antenna base against the mast using the two U-bolts (04), four hex nuts (18), four lock washers (19), and two V-blocks (63) provided in the hardware kit.
- If using the articulating mount, install the antenna ball into position and tilt for the desired elevation angle (Figure D). Tighten the socket screw with the supplied wrench.
- Rotate the antenna to the desired directional position and tighten all hardware.

FIGURE C

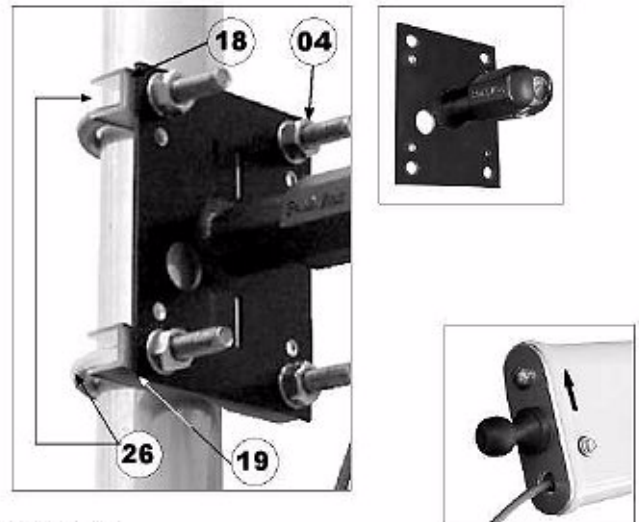


FIGURE D



GROUNDING

If mounting the antenna outdoors, system grounding and lightning protection are essential (refer to the National Electrical Code). Never install an antenna where it may fall and contact electrical lines.

KEY	DISPLAY	DESC	SIZE	QTY
04		U-BOLT	5/16"-18 x 3-1/4" x 2-7/16"	2
18		SS HEX NUT	5/16" - 18	4
19		SPLIT LOCK WASHER	5/16"	4
26		V-BRACKET	—	2
21		ADHESIVE DOTS	—	2

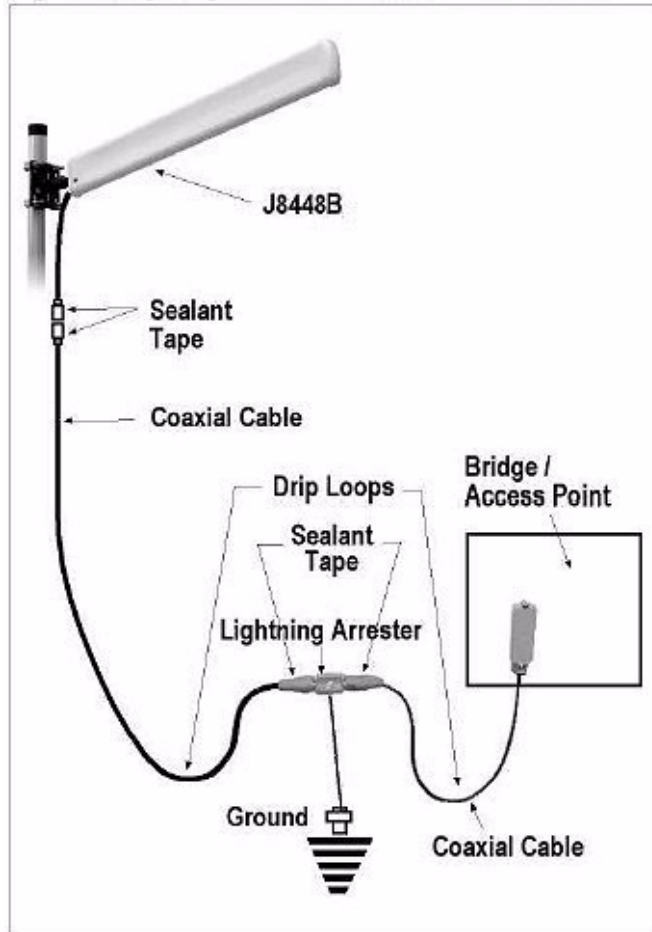
LIGHTNING ARRESTER (optional)

In external applications, it is recommended that you also install a lightning arrester (HP Product # J8996A or equivalent) with the antenna. The lightning arrester is not included with the antenna, it must be purchased separately.

For best results, install the lightning arrester in close proximity to a low-resistance ground at a point where the coaxial cable enters the building (see Photo 1). In most cases, one 8-foot rod driven into moist soil, or multiple rods bonded together, will provide adequate grounding (see National Electrical Code guidelines).

To connect the Lightning Arrester to ground, use a very short and direct run of #10 solid copper wire (or equivalent). For exterior installations, use weatherproof coax connectors with a suitable mastic or rubberized tape to prevent water incursion (see Photo 1).

Figure E Lightning Arrester Installation



LIGHTNING ARRESTER (continued)

Be sure to install the lightning arrester in an accessible location that permits periodic inspection and (as needed) replacement. Provide drip loops in cables to prevent water from entering the building (see Photo 2).

Photo 1

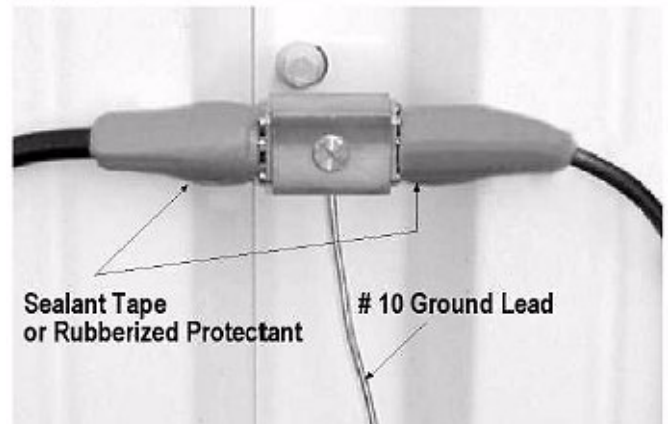
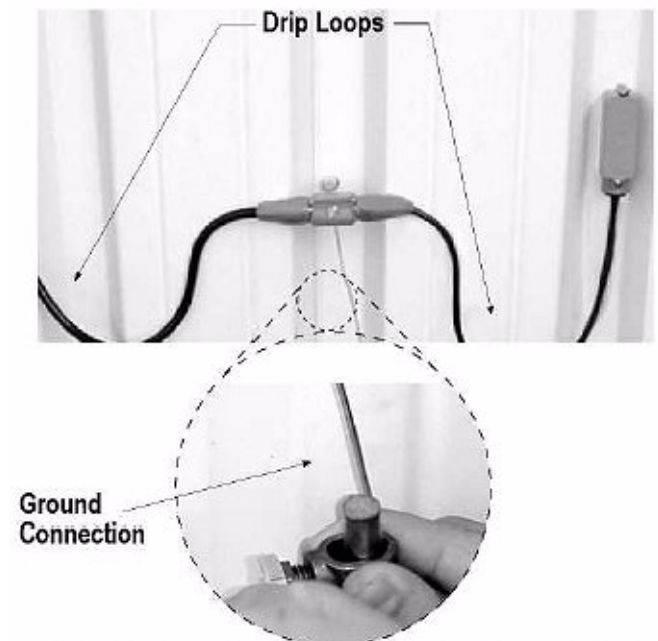
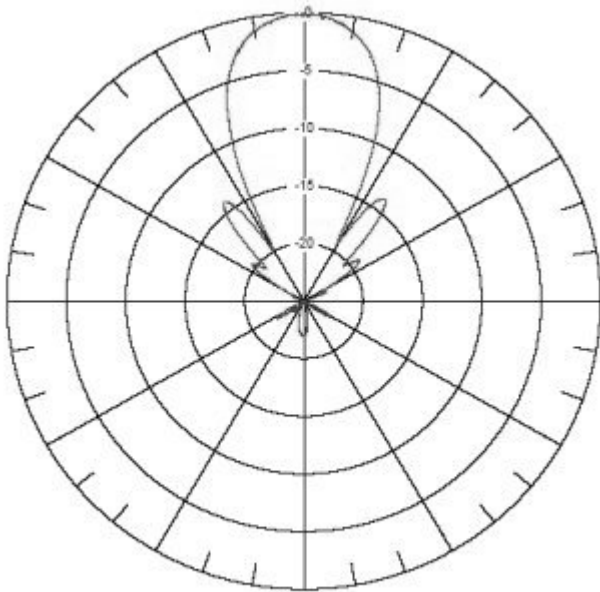


Photo 2

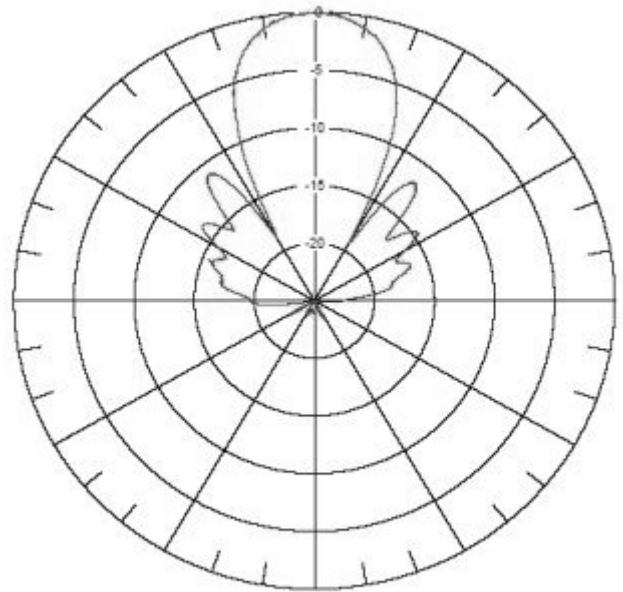


Important Note: A good ground system is essential for proper operation.

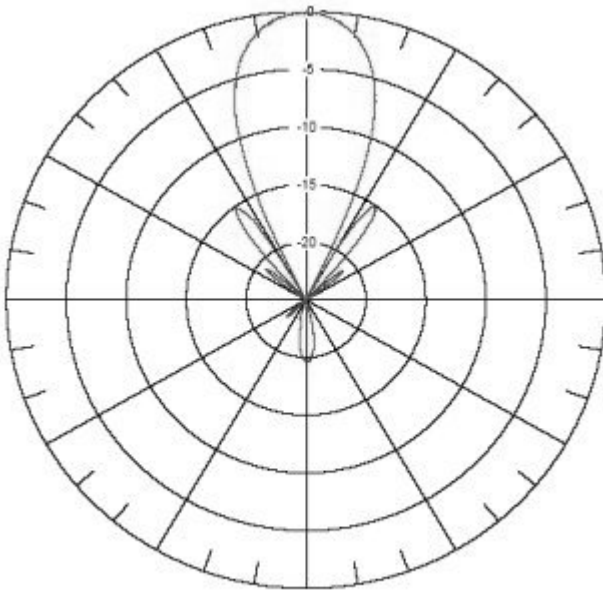
J8448B Yagi-B Antenna: Radiation Plots



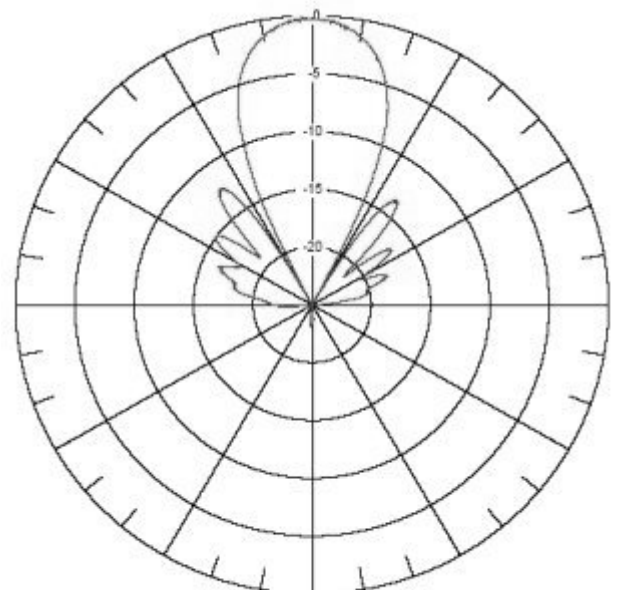
2.4 GHz
E-PLANE



2.4 GHz
H-PLANE



2.5 GHz
E-PLANE



2.5 GHz
H-PLANE