



B46B Series

Industry standard medium powered sidemount dipoles
FM Radio 87.5-108 MHz

In-stock Ready to Ship
*Build to order item

Sidemount dipoles are an ideal choice for use as an FM radio broadcast antenna. They are of reliable construction, cover a broad bandwidth and permit single antenna sharing with multiple FM transmit frequencies.

Popular with community and commercial radio stations in a low powered array configuration or as a singular backup transmit antenna for shutdown of main systems for maintenance or upgrades.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

	B46B	B46B-9	B46BSS	B46BHPSS*
Construction	Aluminium		304 grade stainless steel	
Frequency range		87.5-108 MHz - FM Radio		
Bandwidth	Full frequency range stated - 20.5 MHz		Specify 10 MHz	
Tuning		Factory		
VSWR	<1.3:1		<1.2:1 at specified 10MHz	
Gain	0 dBd for a single bay, stacking increases gain			
Polarisation		Vertical		
Impedance	50 Ohms			
Cable	1.5 metres RG213		1.5 metres 1/2" super flexible	
Connector - fitted	N-type female		7/16" DIN female	
Maximum power	500 Watts per bay		2 Kilowatts per bay	
DC grounding		Yes		
Dipole height		1.4 metres		
Weight	3.5kg	3.3kg	5.0kg	
Projected area		0.090m ²		
Mount section	Length: 1.5m Dia: 40mmØ	Length: 0.9m Dia: 40mmØ		Length: 1.5m Dia: 38mmØ
Wind load at 160kph		10.875kg, 0.107kN		
Mounting hardware order separate	1 x Y2300		1 x Y2300-SS	
Installation tools required	8mm spanner for dipole to mount section			



B46B - aluminium dipole



B46BSS - stainless steel dipole



N-type female fitted as standard or specify requirements - B46B & B46BSS



B46BHPSS - stainless steel medium power dipole

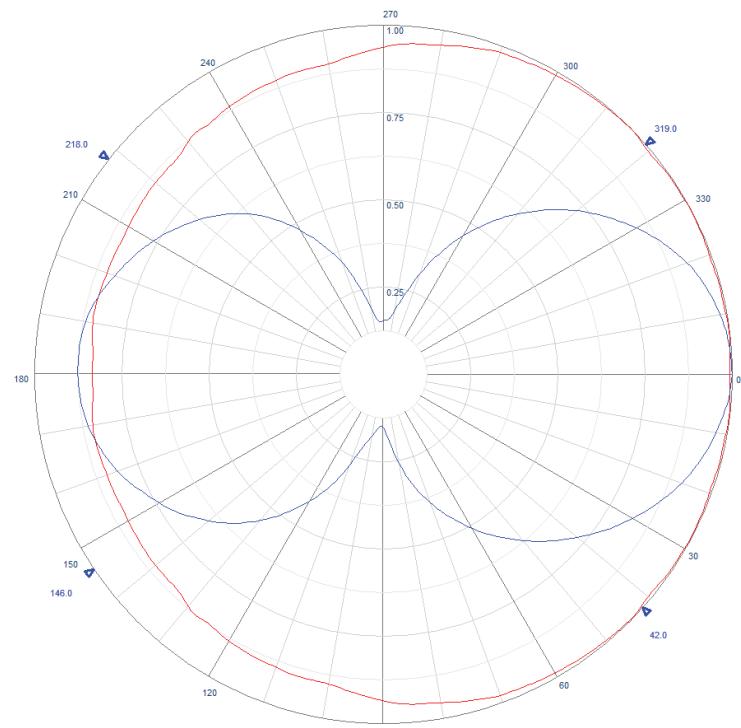


7/16" DIN female fitted as standard or specify requirements - B46BHP-SS

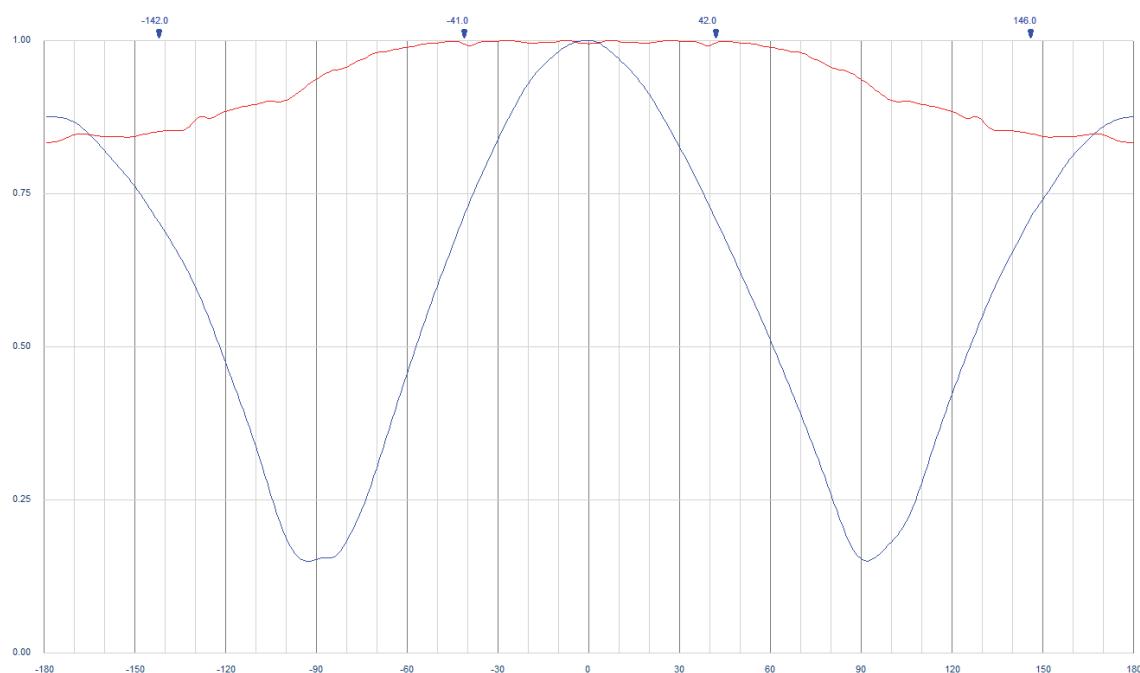

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Example polar radiation pattern - Single B46B

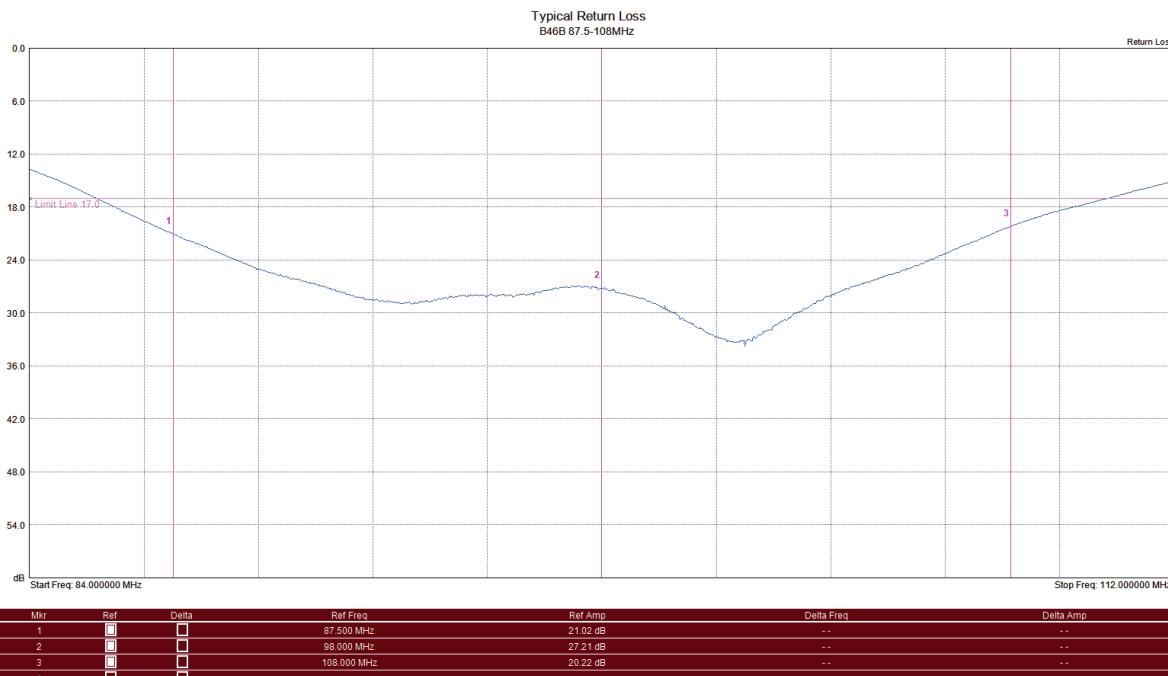


Example cartesian radiation pattern - Single B46B

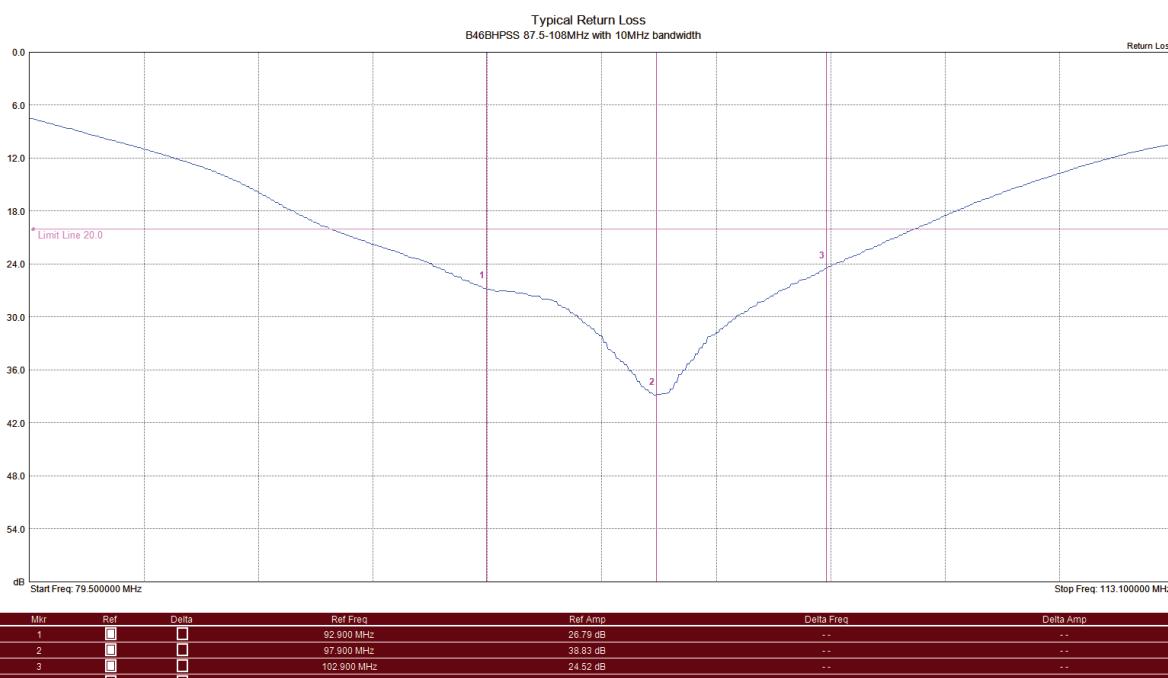


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Typical return loss - B46B / B46BSS



Typical return loss - B46BHP-SS



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Mechanical Data

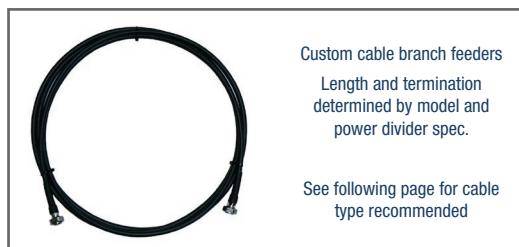
Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - order separate

Technical Data

Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 dipole	0.9λ	0	3.5 / 5.0	1.4	0.107
2 dipoles		3.0	7.1 / 10.1	4.15	0.214
4 dipoles		7.5	14.3 / 20.5	9.65	0.428
6 dipoles		9.8	21.5 / 30.7	15.15	0.642
8 dipoles		11.0	28.9 / 41.2	20.65	0.856

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Gain: gain figures calculated utilising a rear mounting pole behind dipole/s.
- Weight: does not include mounting hardware, power dividers or mount poles
- Height calculated at spacing for 87.5 MHz, please check handbook for calculated frequency specific spacing.
- Wind load: V = 160km/h

Array requirements



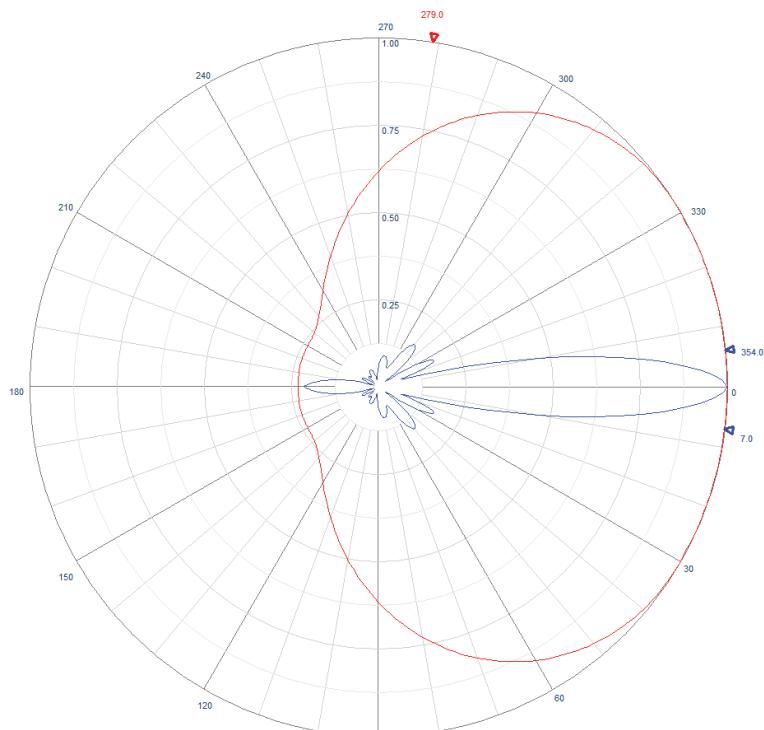


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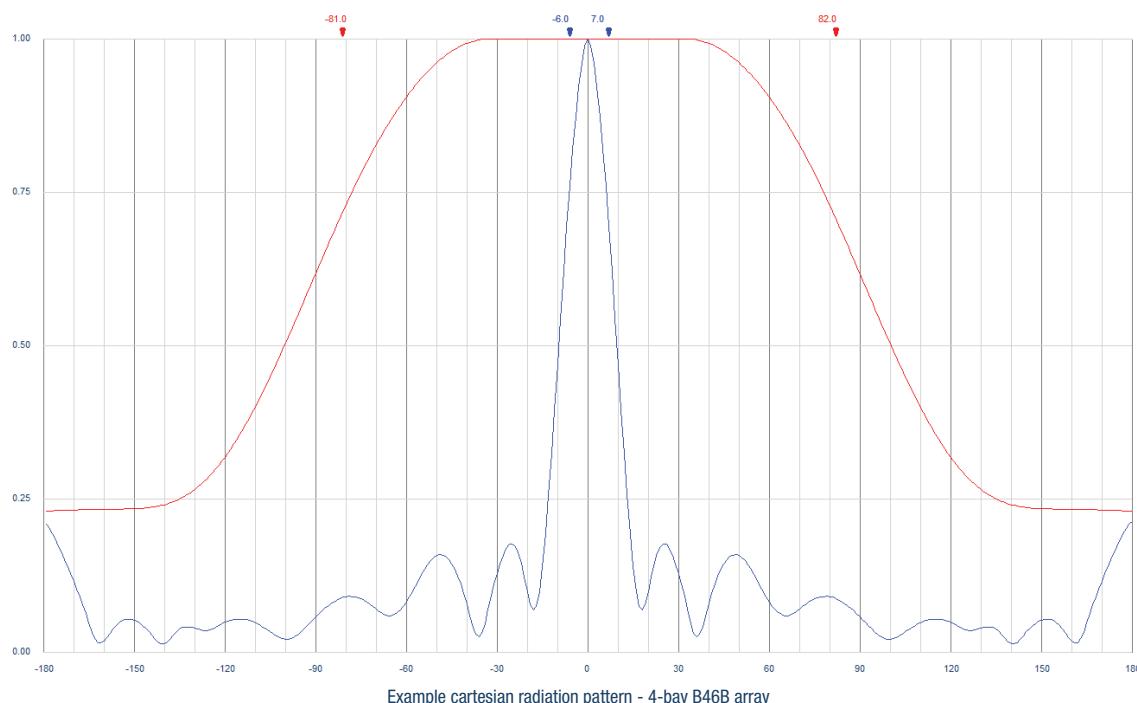
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Example polar radiation pattern - 4 bay B46B array



Example cartesian radiation pattern - 4-bay B46B array



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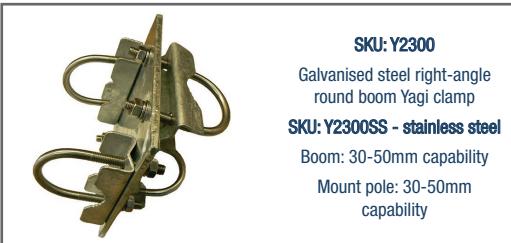
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Industry standard medium powered sidemount dipoles

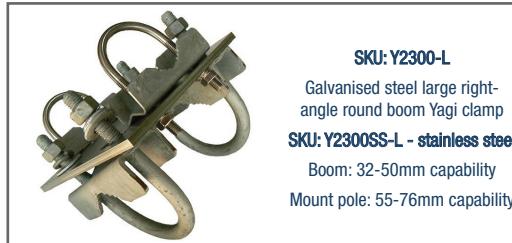
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Suitable mounting hardware



SKU: Y2300
Galvanised steel right-angle round boom Yagi clamp
SKU: Y2300SS - stainless steel
Boom: 30-50mm capability
Mount pole: 30-50mm capability



SKU: Y2300-L
Galvanised steel large right-angle round boom Yagi clamp
SKU: Y2300SS-L - stainless steel
Boom: 32-50mm capability
Mount pole: 55-76mm capability



SKU: Y2300-XL
Galvanised steel extra large right-angle round boom Yagi clamp
SKU: Y2300SS-XL - stainless steel
Boom: 32-50mm capability
Mount pole: 80-90mm capability



SKU: C-125
Galvanised steel extra large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 140mm capability

Suitable feeder coaxial cable and connectors



SKU: ZCG1250
1/2" corrugated shielding, foam dielectric coaxial cable
SKU: ZCG1250SF - helical super flex
SKU: ZCG1250-A - Air Dielectric
Available in per metre, 500m roll or alternatively request a custom cable assembly



SKU: NM1250
N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable
Tri-metal plated
SKU: NM1250SF - super flex



SKU: 716DINM1250
7/16" DIN male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable
Tri-metal plated
SKU: 716DINM1250SF - super flex



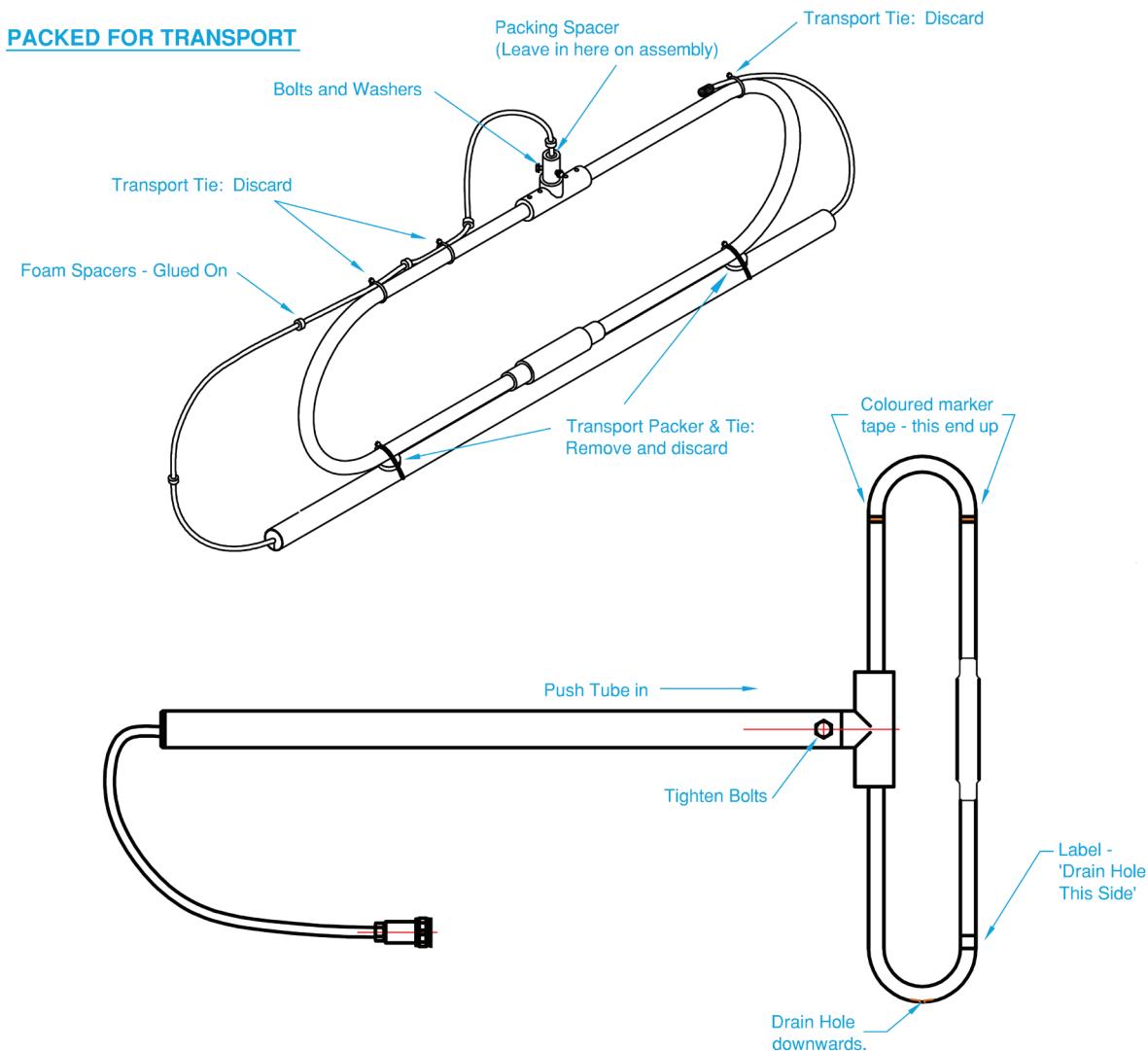
SKU: NM7850
N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable
Tri-metal plated



SKU: 716DINM7850
7/16" DIN male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable
Tri-metal plated

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TO ASSEMBLE ANTENNA:

Remove and discard packing as shown above.
 Hold Connector and carefully pull Cable through Mounting Tube, fitting each Spacer on Cable into Tube.
 Push Mounting Tube fully home into in Dipole Frame Tee-piece and bolt home tight
 For vertical mountimg, make sure Drain Hole is downwards..