

# Diemond Antenna

# DIAMOND

Merit W6N0



Wayne KK4BIJ



Denise KKARIIK



bary (6CAQ



Breanna



Brian V6RNS

At Diamond Antenna we take tremendous pride in our product and our customer service. We know our product is the best money can buy, and with purchasing a Diamond Antenna you are also purchasing the care and customer service that comes along with it.

Our product department is constantly going through every batch of antennas and thoroughly checking every inch to make sure that the Diamond Antenna you purchase will out perform and outlast the competition.

All Diamond Antennas are factory pretuned to give the best VSWR, No additional tuning required unless otherwise noted.

For all questions, comments, or concerns please contact us:

ph - 770-614-7443 fx - 770-614-7480 email - info@diamondantenna.net

www.diamondantenna.net facebook.com/diamondantenna

Diamond Antennas are availiable through authorized dealers.

And are distributed by the Diamond Antenna division of RF Parts Company - 435 S. Pacific St. - San Marcos, CA 92078

#### **One Year Limited Warranty**

One year against manufacturing defects in material & workmanship.

The Diamond Antenna Division of RF Parts Co. will repair or replace, at its option, products it deems covered by Limited Warranty. Products damaged due to misuse, improper tuning or installation, or freight handling are not covered by our Limited Warranty. Contact the customer service department for Return Authorization number at 770-614-7443.

#### **Merchandise Return**

Items returned for warranty repair must have copy of original purchase receipt and be shipped insured & prepaid to the address listed on back of catalog. Return Authorization number must be obtained and written on outside of returned package.

Fiberglass antennas must be carefully packaged to protect their surfaces from scratches and abrasions. Wrap metal ends of each antenna section to insure against shipping damage to fiberglass.

DO NOT SEND MOUNTING HARDWARE. Loose hardware causes damage to fiberglass sections.

Contact the customer service department for Return Authorization and questions pertaining to returns. 770-614-7443.

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# DIAMOND

# Copied By Many • Equalled By None!

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Any tampering, cutting or attempted adjustment of the antenna beyond our recommendations may void all warranty.

If you have any questions, please call Diamond Customer Service Department at 770-614-7443

For More Technical information, radiation patterns, or installation instructions please visit www.diamondantenna.net

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# **Base Station Antennas**

Diamond Antennas' base station antennas are in a class of their own. For decades they have been tested, tortured, and put through the worst conditions possible. And in the end, you have a product that stands head and shoulders above the rest.

Our antennas are constructed using heavy-duty fiberglass radomes, or heavy-duty aluminum sections, making Diamond Antennas the toughest antennas on the market.

Wherever you live, whatever the conditions, a Diamond Antenna is the best choice.

# The X700HNA Base Station Repeater Antenna

Strong waterproof

# **X700HNA Special Features:**

- Heavy duty fiberglass radomes
- Four section assembly
- Overlapping outer shells for added strength
- Stainless steel mounting hardware and radials
- Strong waterproof joint couplings
- Type-N cable connection
- Wideband performance
- Highest gain Dual-band Base Antenna!

# Base Station Antennas

Monoband Antennas

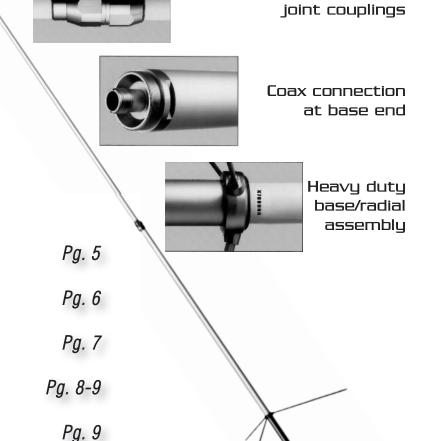
Dualband Antennas

Triband, Discone Antennas

Multiband, HF, and 6m Antennas

Wire Dipole Antennas

Yagi Beam Antennas

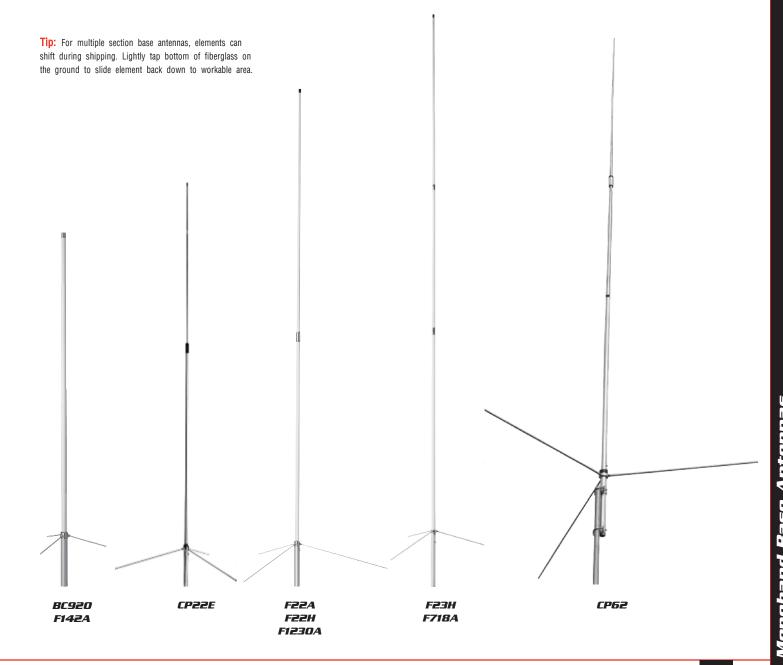


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# **Monoband Base Antennas**

Model	Bands	Gain/dBi	Max Pwr. Rating	Wind Rating	Height	Conn.	Element Phasing	Notes
CP62	6m(50MHz)	5.5	500 SSB/200 FM	80	22	UHF	2-5/8λ, BW: 1.5MHz	A, D
CP22E	2m	6.5	200	70	8.9'	UHF	2-5/8λ	А
F22A	2m	6.7	200	112	10.5'	UHF	2-7/8λ	
F22H	144-174	6.7	350	112	10.5'	UHF	2-7/8λ	С
F23H	144-174	7.8	350	90	15'	UHF	3-5/8λ	B, C
F718A	70cm	11.5	250	90	15'	N	18-1/2λ Coaxial Element Antenna.	
F1230A II	1.2GHz	13.8	100	112	11.5'	N	14-5/8λ	
BC920	902-928 MHz	9.3	100	135	5.9'	N	5-5/8λ	
F142A	222-225 MHz	5.5	150	135	6.0'	UHF	2-5/8λ	

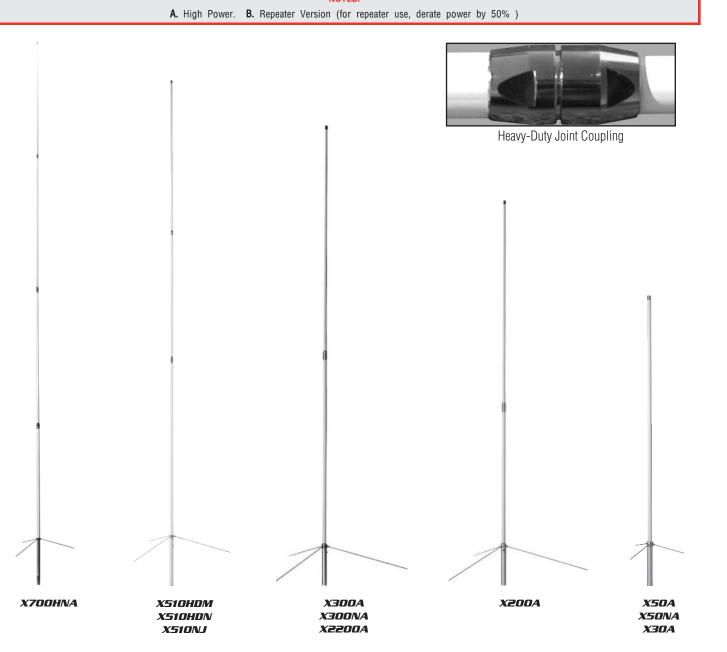
A. Heavy-duty Aluminum. B. High Power C. Tunable 144-174 with cutting chart. D. Adjustable 50-54MHz

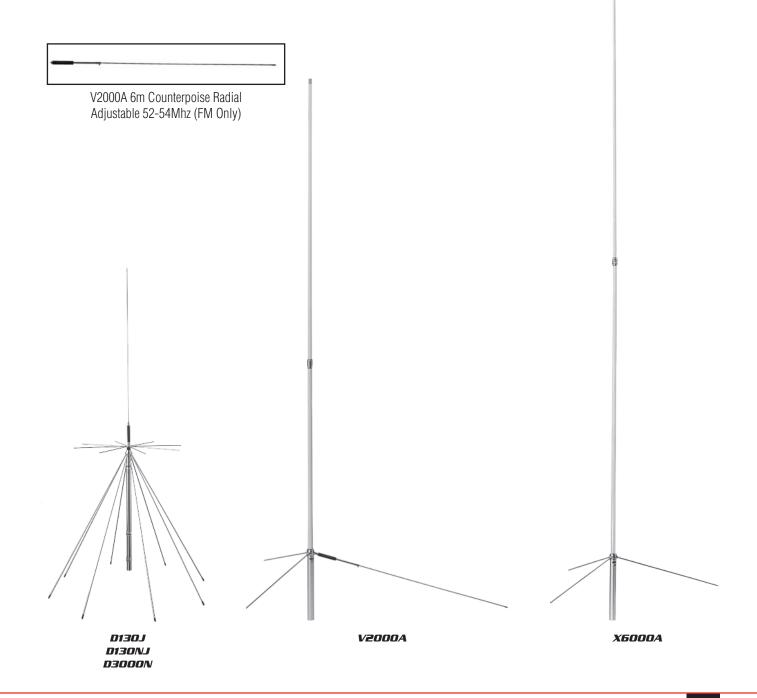


# Triband, Discone Base Antennas

Model	Bands	Gain/dBi	Max Pwr. Rating	Wind Rating	Height (feet)	Conn.	Element Phasing	Notes
X30A	2m/70cm	3.0/5.5	150	135	4.5	UHF	2m: 1-1/2λ; 70cm: 2-5/8λ	
X50A	2m/70cm	4.5/7.2	200	135	5.6	UHF	2m: 3-1/4λ; 70cm: 3-5/8λ	
X50NA	2m/70cm	4.5/7.2	200	135	5.6	N	2m: 3-1/4λ; 70cm: 3-5/8λrepeater version	В
X200A	2m/70cm	6.0/8.0	200	112	8.3	UHF	2m: 2-5/8λ; 70cm: 4-5/8λ	
X300A	2m/70cm	6.5/9.0	200	112	10	UHF	2m: 2-5/8λ; 70cm: 5-5/8λ	
X300NA	2m/70cm	6.5/9.0	200	112	10	N	2m: 2-5/8λ; 70cm: 5-5/8λ	
X2200A	2m/ 1-1/4m	6.0/7.8	150	112	10	UHF	2m: 3/4λ C-Load; 1-1/4m: 3-5/8λ	
X510HDM	2m/70cm	8.3/11.7	330/250	90	17.2	UHF	2m: 3-5/8λ; 70cm: 8-5/8λ	Α
X510HDN	2m/70cm	8.3/11.7	330/250	90	17.2	N	2m: 3-5/8λ; 70cm: 8-5/8λ	A, B
X510NJ	144-147/430-440	8.3/11.7	200	90	17.2	N	Optimized 143.5-146.5/428-442 MHz	
X700HNA	2m/70cm	9.3/13.0	200	90	24	N	2m: 4-5/8λ; 70cm: 11-5/8λ	В

			Max Pwr.	Wind	Height	Conn.	Element	Notes
			Rating	Rating	(feet)		Phasing	
X6000A	2m/70cm/23cm	6.5/9/10	100/60	112	10.5	N	2m: 2-5/8λ; 70cm: 5-5/8λ, 23cm: 6-5/8λ	
V2000A	6m/2m/70cm	2.1/6.2/8.4	150	110	8.3	UHF	6m: 1/2λ; 2m: 2-5/8λ; 70cm: 4-5/8λ	B, D
D130J	25-1300 MHz	2 dBi nom.	200	90	5.6	UHF	Wideband Discone	A, E
D130NJ	25-1300 MHz	2 dBi nom.	200	90	5.6	N	Wideband Discone	A, E
D3000N	25-3000 MHz	2 dBi nom.	200	90	5.6	N	Wideband Discone	A, E
	•			NO.	TES:	,		·
<b>A.</b> Adjus	stable 50-54MHz.	<b>B.</b> $1/4\lambda$ rated in	dBi <b>C.</b> 2m: 146	-148MHz <b>D.</b>	6m: 52-54MH	<b>E.</b> 144M	Hz up: 200 watts, 6m: 20watts FM, 50 watts	s PEP





Model	Bands	Gain/dBi	Max Pwr. Rating	Wind Rating	Height (feet)	Conn.	Element Phasing
BB7V	2-30 MHz	-	250	80	5/22	UHF	2-30MHz (tuner required) no radial vertical
HFV-5	40m/20m/15m/ 10m/6m	-	150w (SSB 7/14MHz) 200w (SSB 21/28/50MHz)	-	13.1 ft. (length)	UHF	Trapped Dipole
CP-5H	40m/20m/15m/ 10m/6m	-	200/400/400 500/500 SSB	80	11.8	UHF	5 band trapped vertical antenna with trapped "counterpoise" radial elements
CP6AR-S	75m/40m/20m/ 15m/10m/6m	-	200w P.E.P.	80	15.1	UHF	6 band trapped vertical antenna with trapped "counterpoise" radial elements
CP8040	80m, 40m	-	200w SSB, 70w FM	80	21	UHF	2 band trapped vertical antenna with trapped "counterpoise" radial elements

# **BB7V** Multiband Vertical Antenna

Diamond's BB7V multiband vertical antenna provides coverage from 2 MHz to 30 MHz without radials.

The BB7V has 6 telescoping sections that nest in each other with a collapsed length of 5 feet and extends to a length of 22 feet when fully deployed. These sections are self locking (no hardware to lose) and can be raised or lowered in less than a minute. For permanent use, each section can be locked in place with a single screw. The extreme ease of raising and lowering this 4.5 pound antenna will make it a favorite for those who have antenna restrictions or travelers wanting a quick and easy wide band antenna solution. The BB7V is a very slim, low profile antenna.

#### Note

The BB7V requires an antenna tuner for best performance.

# HFV-5

# **HF Dipole**The HFV-5 is a compact and

portable multiband HF antenna.
Do you have neighbors that fuss over antennas, or a HOA with strict restrictions?

Then the HFV-5 is your answer.

The adjustable arms allow you to operate in tight and antenna restricted areas. Easily attatch to a push up pole for the HF station on the go!

#### **Specifications:**

- Bands: 40m/20m/15m/10m/6m
- Mast diameter accepted: .98" to 2.44"
- Power rating: 150W (SSB, 7/14MHz), 200W (SSB, 21/28/50MHz)
- Length: 13.1 ft.
- Weight: 4.3 lbs
- Connector: SO-239 (UHF Female)
- VSWR: Less than 1.5:1 (within resonant frequency band)

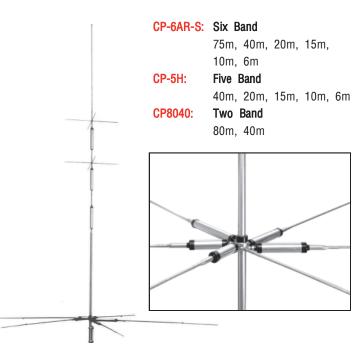
# **CP6AR-5** Multiband Trap Vertical Antennas

Diamond's CP Series vertical antennas with trap radials are light weight antennas, which makes them very manageable during the installation process and will allow for a simple mast solution. The radials can be mounted 360 degrees around the antenna or concentrated on one side if you need to mount it close to a structure

Because of its light weight and the option of concentrating radials to one side, the CP Series antennas could be used in an antenna restricted situation where the mast was lowered on its side during daylight, and raised while operating during the evening.

#### **Special Features:**

- Compact size
- · No additional ground radials
- Heavy-duty aluminum sections required
- Easy Assembly
- Mounting hardware included



# Multiband, HF, and 6m Antennas, and Wire Dipole Antennas

Model	Bands	Gain/dBi	Max Pwr.	Wind	Height	Conn.	Element	Notes
			Rating	Rating	(feet)		Phasing	
CP62	6m(50MHz)	5.5	500 SSB/200 FM	80	22	UHF	2-5/8λ, BW: 1.5MHz	A, B
CP610	6m(50MHz)/10m(28MHz)	5.5/3.4	500 SSB/200 FM	80	22	UHF	6m: 2-5/8λ; 10m: 5/8λ, 6m 50-53MHz	B, C
W-735	80m/40m	-	1.2kW P.E.P.	-	85.3	UHF		
W-8010	80m/40m/20m/ 15m/10m	-	1.2kW P.E.P.	-	63	UHF		
	'		'	NOTES	:	'		
		A. Adj	ustable 50-54MHz.	B. Heavy-d	uty aluminum	<b>C.</b> 10m	tunable	

# CP610 Dualband 6m/10m Vertical Antenna

- Heavy-duty aluminum
- Overlapping outer shells for added strength
- Stainless steel hardware
- Wide band performance
- Highest gain
- High wind rating
- DC grounded

Frequency: 6m, 10m

Power: 500 watts SSB,

200 watts FM

Gain: 5.5 dB (6m)/3.4 dB (10m)

Impedance: 50 ohms VSWR: 1.8:1 (Nominal)

Element Phasing: 6m: 2-5/8 wave

10m: 5/8 wave
Overall Length: 22' (6.7m)
Connector: S0239 female UHF
Max Wind Rating: 80 mph (no ice)
Mast Diameter Acceptance: 1.2" - 2.4"

# Note: CP62 is identical, just without 10m trap coil.

# W-8010, W-735 HF Wire Dipole Antennas

- The W-Series antennas are very easy to assemble. With stranded plastic coated hardened wire with low stretch ratio.
- Adjustment elements are provided to adjust each band without affecting the rest of the bands.
- A completely molded wideband balun enables perfect weather proof performance.
- W-8010 can be tuned to 75m

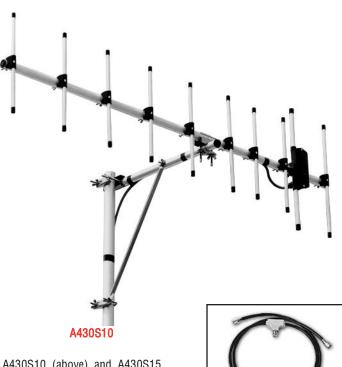




### Note: Cutting adjustment element will raise resonant frequency.

# Yaqi, and Beam Antennas

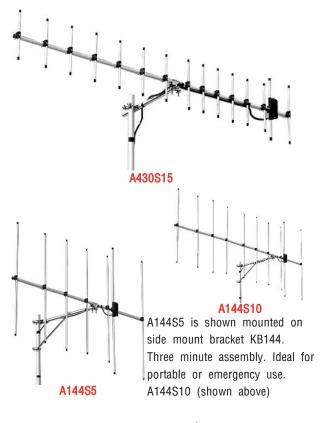
Model	Bands	Gain/dBi	Max Pwr.	Wind	Length	Conn.	Element	Notes
			Rating	Rating	(inches)		Phasing	
A502HB	6m 50-54MHz	6.3	400 (PEP)	80 MPH	37.5	UHF	2 Elements	
A144S5	2m 144-148MHz	9	100 (PEP)	80 MPH	37.5	UHF	5 Elements	
A144S10	2m 144-148MHz	11.6	100 (PEP)	80 MPH	83.9	UHF	10 Elements	
A430S10	430-440MHz	13	100 (PEP)	80 MPH	43	UHF	10 Elements	
A430S15	430-440MHz	14.8	100 (PEP)	80 MPH	89	UHF	15 Elements	
SS770R	2m/70cm	-	-	-		UHF	Phasing harness for stacking	A, B, C
	'	'	MOUNTIN	G BRACKETS	AND STACKIN	G BOOMS	'	
KB144	2m	-	-	-	-	-	Side mount boom	
KB430	430	-	-	-	-	-	Side mount boom	
SB144	2m	-	-	-	-	-	Dual antenna stacking boom	
SB430	430	-	-	-	-	-	Dual antenna stacking boom	
	1	1	1	NO.	TES:		•	'
	<b>A.</b> 2m (144) / 70cr	n (430) <b>B.</b> Inj	out: SO-239/UHF (	F) Output x2:	PL-259/UHF (	M) <b>C.</b> The	e SS770R will not work with the A430S15	



A430S10 (above) and A430S15 (right) are shown mounted with side mount bracket KB430



A430S10 x2 Two A430S10s. Mounted with SB430 Stacking Boom, and SS770R Stacking Transformer.





#### **A502HB Special Features:**

- High Gain
- Easy Assembly
- Great for base or
- Quality Construction
- Factory adjusted no tuning required.

# **Mobile Antennas**

Whether you're sitting in traffic talking with your buddies on 2m repeaters, or you scour the HF frequencies, Diamond Antenna has an antenna that will fit your needs.

From high gain monobands to low profile mag mount/antenna combos, to quad bands and screwdrivers, there is no comparison when it comes to putting a Diamond Antenna on your vehicle.

With a wide range of different mounts - magnet mounts, trunk lid, motorized, luggage racks, and more! -The possibilities are endless.

**5**D330 **Screwdriver HF** Antenna

### **SD330 Specifications:**

- 3.5-30MHz or 7-50MHz
- 200 Watts (SSB)
- 2.5 Pounds
- UHF or 3/8x24 connector
- 1/4λ center loading
- Less than 2.0 VSWR
- 73" @ 3 MHz, 66" @ 28 MHz
- See Page 17 for more information

SD330 can be used from 3.5-30 MHz

Included is an optional element (OPE750) which allows the SD330 to be used from 7-50 MHz

The SD330 features a heavy-duty PL-259 base connector.

It is also availiable with a 3/8x24 base connector.

# Mobile Antennas

Monoband Antennas Pg. 12 Dualband Antennas Pg. 13-14 Pg. 15 Mag/antenna combos & Triband Antennas

Quad/Multiband, HF-VHF Antennas

Handheld HT Antennas

Pg. 16-17

Pg. 18

Model	Bands	Gain/dBi	Max Pwr.	Impedance	Length	Conn.	Element	Notes
			Rating (watts)		(inches)		Phasing	
HF6CL	6m	3	250 SSB-80 FM	50Ω	86.6	UHF	1/2λ Radialess. 50-54 MHz	A, B, E
HF10CL	10m	-	200 SSB-70 FM	50Ω	86.6	UHF	1/4λ 28-29.7 MHz	A,B,D,E
HF15CL	21MHz	-	200 SSB-70 FM	50Ω	86.6	UHF	1/4λ (21 - 21.45MHz)	A,B,D,E
HF17CL	18MHz	-	200 SSB-70 FM	50Ω	86.6	UHF	1/4λ (18.068 - 18.168MHz)	A,B,D,E
HF20CL	20m	-	200 SSB-70 FM	50Ω	86.6	UHF	1/4λ 14-14.35 MHz	A,B,D,E
HF30CL	10MHz	-	200 SSB-70 FM	50Ω	86.6	UHF	1/4λ	A,B,D,E
HF40CL	40m	-	200 SSB-70 FM	50Ω	86.6	UHF	1/4λ 7.0-7.2 MHz	A,B,D,E
HF80CL	80m	-	120 SSB-40 FM	50Ω	87.5	UHF	1/4λ 3.5-3.8 MHz	A,B,D,E
NR22L	2m	6	100	50Ω	96.8	UHF	2-5/8λ	В
HF6FX	6m	2.15	250	50Ω	44	UHF	1/4λ Base loading	B, D
M285S	144-172	3.4	200	50Ω	52.4	UHF	5/8λ	С
M285SNMO	144-172	3.4	200	50Ω	52.4	NMO	5/8λ	С
M685S	6m	2.15	200	50Ω	52.4	UHF	1/4λ	B, D
M685SNMO	6m	2.15	200	50Ω	52.4	NMO	1/4λ	B, D
NR124N	23cm	8.4	100	50Ω	25	N	4-5/8λ	
NR124NMO	23cm	8.4	100	50Ω	25	NMO	4-5/8λ	
NR140BNMO	222-225 Mhz	3.8	100	50Ω	36.2	NMO	$1/2\lambda + 1/4\lambda$	Black
NR920	902-928 Mhz	7	50	50Ω	28.9	N	3-5/8λ	
				NO	TES:			

A. HF Center Loading Series B. Not Recommended for Magnet Mounts C. Tunable w/ cutting chart D. Grounding Required E. Heavy Duty Foldover

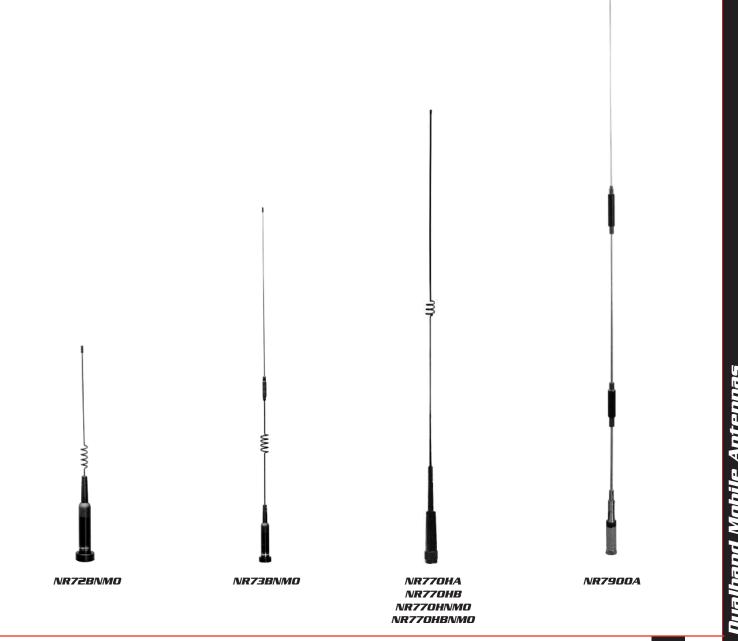
# Heavy duty hex screw type foldover for larger mobile antennas Heavy duty hex screw type foldover for larger mobile antennas NR321 HEGEX M2855 NR124N NR320 NR140BNMO NR140BNMO NR140BNMO NR124NMO

M6855 M6855NMO

# **Dualband Mobile Antennas**

Model	Bands	Gain/dBi	Max Pwr. Rating	Height (inches)	Conn.	Element Phasing	Notes
NR72BNMO	2m/70cm	2.15/2.15	100	13.8	NMO	2m: 1/4λ; 70cm: 1/2λ	A, B Black
NR73BNMO	2m/70cm	2.15/5.3	100	33.5	NMO	2m: 1/2λ; 70cm: 2-5/8λ	Black
NR770HA	2m/70cm	3.0/5.5	200	38.2	UHF	2m: 1/2λ; 70cm: 2-5/8λ	
NR770HB	2m/70cm	3.0/5.5	200	38.2	UHF	2m: 1/2λ; 70cm: 2-5/8λ	Black
NR770HNMO	2m/70cm	3.0/5.5	200	40.2	NMO	2m: 1/2λ; 70cm: 2-5/8λ	
NR770HBNMO	2m/70cm	3.0/5.5	200	40.2	NMO	2m: 1/2λ; 70cm: 2-5/8λ	Black
NR7900A	2m/70cm	3.7/6.4	300/250	57	UHF	2m: $1/2\lambda + 1/4\lambda$ ; 70cm: $3-5/8\lambda$	А
				NOTES:			
		A. No	ot recommended for	r Magnet Mount	. <b>B.</b> Groun	nding required	

\*More dualband antennas on pages 14-15



# **Dualband Mobile Antennas**

Model	Bands	Gain/dBi	Max Pwr.	Height	Conn.	Element	Notes			
			Rating	(inches)		Phasing				
AZ504SP	2m/70cm	2.15	50	15.5	UHF	2m: 1/4λ; 70cm: 1/2λ	A, B, C			
AZ507RSP	2m/70cm	2.15/4.9	50	27.5	UHF	2m: 1/2λ; 70cm: 2-5/8λ	С			
SG7000A	2m/70cm	2.15/3.8	100	18.5	UHF	2m: 1/4λ; 70cm: 3/8λ	A, B			
SG7500A	2m/70cm	3.5/6.0	150	40.6	UHF	2m: 1/2λ; 70cm: 2-5/8λ				
SG7500NMO	2m/70cm	3.5/6.0	150	41	NMO	2m: 1/2λ; 70cm: 2-5/8λ				
SG7900A	2m/70cm	5.0/7.6	150	62.2	UHF	2m: 2-1/4λ + 1-3/8λ; 70cm: 3-5/8λ	A			
SG7900ANMO	2m/70cm	5.0/7.6	150	62.2	NMO	2m: $2-1/4\lambda + 1-3/8\lambda$ ; 70cm: $3-5/8\lambda$	A			
	NOTES:									
	A. Not recommended for Magnet Mount. B. Grounding required C. Spring above base									

NR Series



AZ507R**5**P

Super Gainer Series

AZ5045P

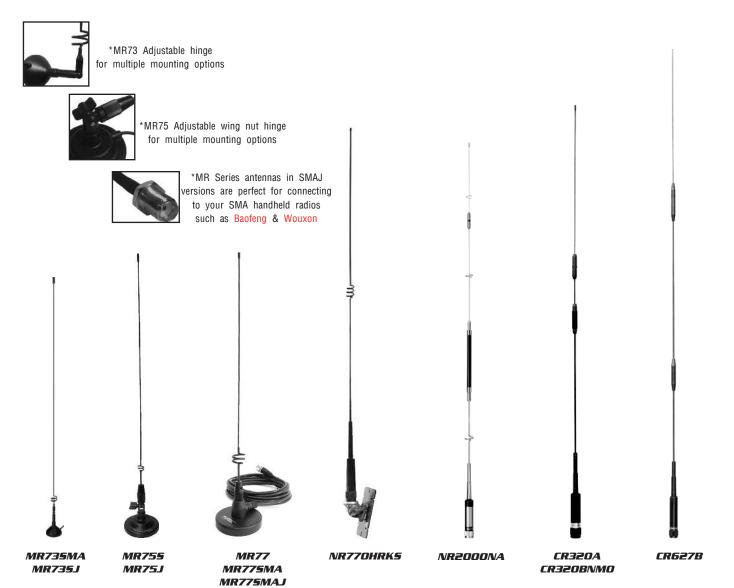
# Fold Over Fold Over

5G7000A

# Mag/Antenna Combos and Triband Mobile Antennas

Model	Bands	Gain/dBi	Max Pwr. Rating	Height (inches)	Conn.	Element Phasing	Notes
MR73SMA	2m/70cm	2.15/3.4	10	19.5	SMA (M)	2m: 1/4λ; 70cm: 5/8λ, Magnet	Black
MR73SJ		Same specs a	as MR73SA		SMA (F)	2m: 1/4λ; 70cm: 5/8λ, Magnet	Black
MR75SA	2m/70cm	2.15/3.4	35	20	SMA (M)	2m: 1/4λ; 70cm: 5/8λ, Magnet	Black
MR75SJ		Same specs a	as MR75SA	'	SMA (F)	2m: 1/4λ; 70cm: 5/8λ, Magnet	Black
MR77	2m/70cm	2.15/3.4	70	20	UHF	2m: 1/2λ; 70cm: 5/8λ, Magnet	Black
MR77SMA		Cama Caasa	oo MD77		SMA (M)	2m: 1/2λ; 70cm: 5/8λ, Magnet	Black
MR77SMAJ		Same Specs	as IVIH//		SMA (F)	2m: 1/2λ; 70cm: 5/8λ, Magnet	Black
NR770HRKS	HRKS adhesiv	ve backed UHF (	SO-239) mount with	cable (Page 2	<b>24)</b> and NR7	70HB antenna (Page 13). Package combo.	
NR2000NA	2m/70cm/23cm	3.15/6.3/9.7	100	39	N	2m: 1/2λ; 70cm: 2-5/8λ; 23cm: 5-5/8λ	
CR320A	2m/1-1/4m/70cm	2.15/3.8/5.5	200/200/100	37.4	UHF	2m: 1/4λ; 1-1/4m: 1/2λ; 70cm: 2-5/8λ	A,B, Black
CR320BNMO	2m/1-1/4m/70cm	2.15/3.8/5.5	200/200/100	37.4	NMO	2m: 1/4λ; 1-1/4m: 1/2λ; 70cm: 2-5/8λ	A,B, Black
CR627B	2m/70cm/6m	4.5/7.2/2.15	120	60	UHF	2m: 3-1/4λ; 70cm: 3-5/8λ; 6m: 1/4λ	A,B, Black

A. Not recommended for Magnet Mount. B. Grounding required



5G7900A

5G7900ANMO

**5**G7500A

5G7500NM0

#### Gain/dBi Max Pwr. Height Model Bands Conn. Element Notes (inches) Phasing Rating 2.15(10m/6m/2m) A, B, C, CR8900A 10m/6m/2m/70cm UHF 10m/6m: 1/4λ; 2m: 1/2λ; 70cm: 2-5/8λ 5.5(70cm) 2.15(144/904/1200MHz) Wideband Discone D220R 100-1600 MHz 50 27.5 UHF 144: 1/4λ, 440: 5/8λ 3.4(440MHz) SD330 3-30 MHz 200 (SSB) 66-73 UHF or 3/8x24 1/4λ Center Loading 2.15(10m/6m/2m) HF - 120 HV7A 10m/6m/2m/70cm 54 10m/6m: 1/4λ; 2m: 1/2λ; 70cm: 2-5/8λ A, B, D VHF - 200 Optional loading coils for HV7A & MV3A HVC7 40m Loading Coil HVC14 20m Loading Coil HVC18 17m Loading Coil HVC21 15m Loading Coil A. Not recommended for Magnet Mount. B. Grounding required C. 6m adjustable D. Heavy Duty Foldover E. 6m and 10m FM only.

### CR8900A

Antenna designed specifically for the Yaesu FT8900.

The CR8900A is pretuned to give best bandwidth and VSWR over the FM portions of 10m, 6m, 2m, and 70cm ham bands when mounted on the side of vehicle (i.e. trunk lid. Not recommended for through the roof mounts.) Use K400 or K600 series mounts.

10m/6m/2m/70cm Band: Gain (dBi): 2.15(10m/6m/2m):

5.5(70cm) Watts: UHF (PL-259) Connector:

Height:

50"  $1/4\lambda$ -10/6;  $1/2\lambda$ -2m; Element:

2-5/8λ-70cm

Tip: For best performance, make sure CR8900A is securely grounded to your vehicle before tuning the 6m and 10m portions of the antenna.

(Side vehicle mounting recommended in most cases)

# D220R Mobile Scanner Antenna

The D220R mobile discone antenna offers outstanding broadband reception performance from 100MHz to 1600MHz.

The discone is vertically polarized and

omnidirectional. The upper element is tuned for the 144, 440, 902 and 1.2Ghz ham bands, and allows you to transmit at a

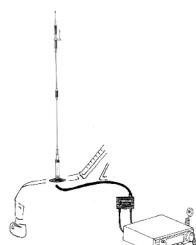
maximum power level of 50 watts.

The antenna is recommended to be mounted on the Diamond K400/K600 series of mounts and will withstand wind speeds in excess of 100MPH.

Assembles in just minutes!

#### Diamond HV7A Mobile Antenna System for HF/VHF Transceivers

The HV7A is a mobile antenna system with 5 band capability: 70cm, 2m, 6m, and 2 HF bands. Ideal for users of Icom IC706, IC7000 series and Yaesu FT100, FT857, FT8900 and similar transceivers. Addition of MX62M duplexer couples HF/VHF outputs to single coaxial connection. Unlike other multi-band antennas, the HV7A has no moving of connections, switches, jumpers, etc. Fold-over hinge allows for easy access into low over-head buildings.



Bands Supplied: 10m/6m/2m/70cm Optional Loading Coils: 40m/20m/17m/15m

Power, P.E.P.: HF 120w/VHF 200w Mount Connection: UHF (SO-239)

54" Length:

SWR: 1.5:1 nominal

Suggested Mount: K400 Series

\*For best performance antenna needs to be securely grounded.

\*Each Band may be independently tuned.



Optional HF Loading Coils



HV7A top section with optional loading coil attatched

#### 5D330 / 5D330-3/8 Screwdriver Antenna

The SD330 can be used from 3.5-30 MHz. If using element OPE750 (included) instead of original element, it can be used from 7-50 MHz.

OPE750 element is 17" shorter than original. To change element, you only need to loosen one set screw.

The SD330 uses the car body for its ground. The bracket and the car body need to be well grounded. Recommend using the Diamond K400 series mounts.

3-30 MHz Height: 66" @ 28 MHz Height w/ OPE750:

7-50 MHz with OPE750 73" @ 3 MHz 49" @ 50 MHz 200 56" @ 7 MHz

SD330: UHF (PL-259) Connector: Flement: 1/4λ Center Loading

SD330-3/8: 3/8-24 VSWR:

Less than 2.0 \*Tuner is not included



Band:

Watts:

Power supply voltage & current: DC 12V 100mA

The SD330 includes cigarette lighter adapter for the up and down movement

Up - down time: Approximately 50 seconds (3-30MHz) Approximately 20 seconds (7-30MHz)





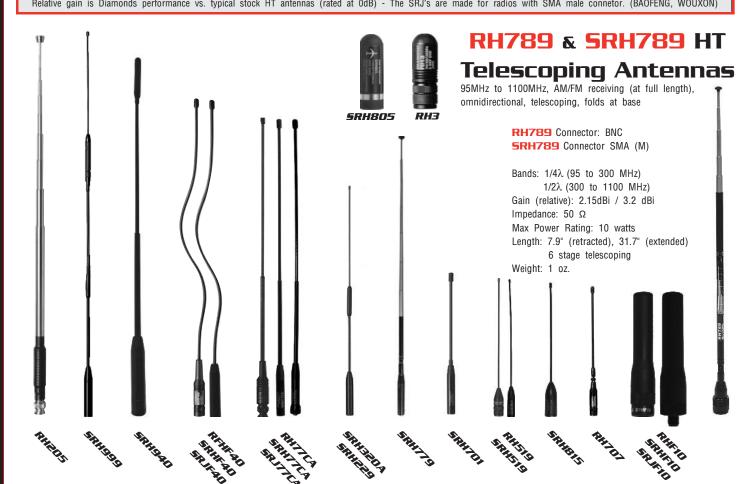


**Multiband HF-VHF Mobile** 

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# **Handheld HT Antennas**

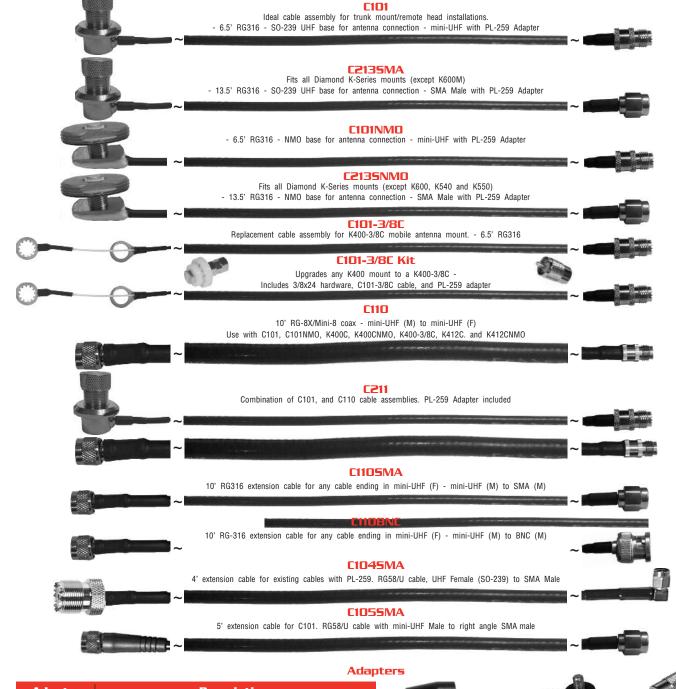
Model	Bands	Gain (relative)	Power Rating	Length (inches)	Conn.	Description
RH205	2m	+9 dB	10	9.1 / 52.8	BNC	1/4\(\lambda\) Retracted / 5/8\(\lambda\) extended. 10 stage telescoping.
RH3	2m/70cm	-2 dB	10	1.75	BNC	"Black Bullet", + 120-900 receive, compact design.
RH519	2m/70cm	+3 dB	10	8	BNC	Flexible slim design
RH707	2m/70cm	+3 dB	10	8.25	BNC	Tiltable whip
RH789	VHF/UHF	+6/+9 dB	10	7.9 / 31.7	BNC	See information at bottom of page.
RH77CA	2m/70cm	+6 dB	10	15	BNC	High Gain + Receive to 900 MHz
RHF40	2m/70cm	+6 dB	10	16	BNC	High Gain + Receive to 900 MHz Extremely Flexible.
RHF10	2m/70cm	-	6	2.75	BNC	Air band 150/300/450/800/900 MHz (rec.)
SRH229	222-900 MHz	+4 dB	10	13.75	SMA (M)	High Gain, Flexible Whip. For ALINCO DJ-G29T
SRH519	2m/70cm	+3 dB	10	7.75	SMA (M)	Flexible slim design
SRH789	VHF/UHF	+6/+9 dB	10	7.9 / 31.7	SMA (M)	See information at bottom of page.
SRH77CA	2m/70cm	+6 dB	10	15	SMA (M)	High Gain + Receive to 900 MHz
SRHF10	2m/70cm	-	6	2.75	SMA (M)	Air band 150/300/450/800/900 MHz (rec.)
SRH320A	2m/1-1/4m/70cm	+3 dB	10	13.75	SMA (M)	Tri-band, flexible slim design with SMA
SRH701	2m/70cm	-	10	7.5	SMA (M)	2m: 1/4λ; 70cm 1/2λ
SRH779	2m/70cm	-	10	6.3 / 17.3	SMA (M)	2m: 1/4λ; 70cm 1/2λ, telescoping
SRH805	2m/70cm/23cm	-2 dB	10	1.75	SMA (M)	Tri-band compact design
SRH815	2m/70cm/23cm	+3 dB	10	6	SMA (M)	Tri-band, flexible slim design with SMA
SRH940	6m/2m/70cm	+3 dB	10	17.75	SMA (M)	Tri-band, High Gain
SRHF40	2m/70cm	+6 dB	10	16	SMA (M)	High Gain + Receive to 900 MHz Extremely Flexible.
SRH999	6m/2m/70cm/23cm	+4 dB	10	19.5	SMA (M)	Quadband High Gain
SRJF10	2m/70cm	-	6	2.75	SMA (F)	Air band 150/300/450/800/900 MHz (rec.)
SRJ77CA	2m/70cm	+6 dB	10	15	SMA (F)	High Gain + Receive to 900 MHz
SRJF40	2m/70cm	+6 dB	10	16	SMA (F)	High Gain + Receive to 900 MHz Extremely Flexible.
					NOTES:	



# Cable Assemblies & Adapters

All Diamond C-Series Cables are made in the U.S.A. The C101, C211 and C213 fit all diamond mounts (except K600). Use of very flexible RG-316 Mil-spec PTFE Coax. With SMA and mini-UHF connectors, wiring your antenna through tight body panels has never been easier.

C101 & NMO,C213 & NMO, C101 3/8C Kit, and C211 all have a special low-loss PL-259 adapter included. C110BNC & C110SMA are great cable extensions for attatching your mobile antenna to your handheld radio!





Adapter	Description
BNCJ-SMAP	For SMA radios to use BNC antennas. (SMA(M) - BNC(F))
BNCP-SMAJ	For BNC radios to use SMA antennas. (BNC(M) - SMA(F))
SMAJ-SMAJ	(SMA(F) - SMA(F)) For Baofeng, Wouxon, Quansheng radios to use SMA(M) HT antennas. Sleek, low profile.
DIA3824	PL-259 to 3/8x24 adapter Adapts a SO-239 connector to a male or female 3/8x24 antenna. Comes with washer, nut, and threadlock.
RSA-3474	SMA(F) to PL-259. Comes in Diamond S Series Mounts
RFU-645	Mini-UHF(M) to PL-259. Comes in Diamond C Series Mounts.







R5A-3474

# **Commercial Antennas Mount Brackets**

Model	Bands	Gain/dBi	Max Pwr. Rating	Wind Rating	Height	Conn.	Element Phasing	Notes
F23H	144-174 MHz	7.8	350	90	15'	UHF	3-5/8λ	A, B
F22H	144-174 MHz	6.7	350	112	10.5'	UHF	2-7/8λ	A, B
X50C2	146-155 / 450-465 MHz	4.5/7.2	200	135	5.6'	UHF / N	146MHz: 3-1/4λ; 450MHz: 3-5/8λ	С
BC103	143-176 MHz	2.5/3.2	300	135	4.1'	UHF	1/2λ-5/8λ; Radialess, Less than 2.0 VSWR	D
M285S	144-172 MHz	3.4	200	-	52.4"	UHF	5/8λ	В
M285SNMO	144-172 MHz	3.4	200	-	52.4"	NMO	5/8λ	В
		ı	I	NOTE	S:	ı	1	1

A. High Power. B. Tunable with cutting chart C. X50C2 tuned for commercial freq. Available in UHF or Type N D. No Tuning Required

Commercial Antennas: High power antennas, such as the F23H, F22H and mobile antennas like the M285S and M285SNMO, include cutting charts which allows you to tune the antenna into the commercial and marine band frequencies.

The X50C2 is our standard X50, but it is factory tuned for commercial use. The BC103 is wideband and requires no tuning to work within the given frequencies!

# S1 Mast Bracket: Zinc Diecast • Fits mast sizes of 1.2" to 2.4" • Max antenna load must be less than 6.5' in total length Antenna must be 2.2 lbs and under in total F23H *X50C2* M285**5** F22H

M2855NMO

# Mobile Installation Ideas

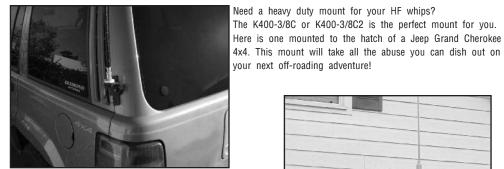
# Here are a few different examples of ways you can use Diamond Antenna Mounts and Antennas!



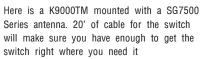
Don't have any room or a spot to mount on your truck? Here is a K400SNMO and an SG7900ANMO mounted to the tailgate of a Ford Ranger. (some mount modification may be required for this installation)

Whatever vehicle you have, Diamond Antenna can get a mount, and mobile antenna to fit your needs!

Multiple Uses! You can use the SMA from the S series mounts to plug your mobile antenna's coax directly into your handheld radio!



The possibilities are endless!





Need a heavy duty mount for your HF whips?

your next off-roading adventure!

The K400-3/8C or K400-3/8C2 is the perfect mount for you.



This SD330 is mounted on the trunk lip of a Dodge Challenger with a K400C mount. The rubber pad attatched under the mount ensures there will be no paint scratched. With the radio mounted in the front of the vehicle a C110 was used to extend the cable to the front.

Need a slick low profile mount for your sweet ride? The K600 Series mount is the perfect low profile mount. Slim line design, and the angled washers give you up to 9° of adjustment for your antenna.



Travel the country a lot? Well check out this K400 holding one of Diamonds new HF Center Loading Series antennas on the bumper of this camper."



Photo Courtesy: Robert Pullman, KE5JJC

\*Although not a recommended mounting location for an antenna, this installation met the users expectations.

# **Mobile Antenna Mounts**

# **K400 Series**

# Heavy Duty Trunk Lid & Hatchback Mount

Diamond Antennas K400 mount is the strongest, most durable trunk lid & hatchback mount on the market. It is also the most universal mount, featuring a 2-axis adjustment, giving you the freedom to install it anywhere and allow antenna to still be vertical. The K400 features a rubber mounting pad, so you don't have to worry about it scratching or damaging your paint! 4 heavy duty set screws insure that once mounted, the K400 is going

The K400 is availiable in whatever connection type you need: UHF, NMO. or even 3/8x24 guaranteeing that the K400 will be the last mount you ever

Model	Base	Cable	Cable	End
	Connector		Length (ft)	Connector
K400		Mou	nt Only	
K400C	SO-239 UHF	RG-316	6.5	Mini-UHF (F)
K400S	SO-239 UHF	RG-316	13.5	SMA (M)
K400CNMO	NMO	RG-316	6.5	Mini-UHF (F)
K400SNMO	NMO	RG-316	13.5	SMA (M)
K400-3/8C	3/8x24	RG-316	6.5	Mini-UHF (F)
K400-3/8C2	3/8x24	RG-316	13.5	Mini-UHF (F)
		NOTES:		

All RG-316 is Mil-spec PTFE Coax.

K400 series (excluding K400 mount only)come with a PL-259 adapter for your radio.



Here is a K400-3/8C mounted on the back of a Jeep Wrangler 4x4. The K400-3/8C is the ideal mount for the Diamond SD330-3/8, Outbacker Perth, Tarheel II, OB Jr., and other medium weight antennas using 3/8x24 base

Power: 700w: 1-30MHz

\*Use K400-3/8C2 for front radio installation For K400-3/8C use C110 for front radio installation



Don't have a mobile radio? Use the SMA from the S series mounts to plug your mobile antenna's coax directly into your SMA handheld!







# **K600 Series**

# Heavy Duty Variable Angle Trunk Mount



Diamond Antennas K600 is a deluxe, heavy duty trunk lip mount. It has a sleek aerodynamic design. Two angle washers at the base of the connector give you the freedom of a 0-9° angle of adjustment in any direction you need

The K600 comes in two different versions:

#### Features:

- Stainless steel mount assembly
- SO-239 base connection
- Four set screws for secure mounting
- 13.5' RG-316 Mil-spec PTFE Coax
- SMA (M) end connection
- PL-259 adapter.

#### Features:

- Stainless steel mount assembly
- SO-239 base connection
- 16.5" two-step cable assembly RG-188 & low loss 7mm 5D cable

Four set screws for secure mounting

PL259 end connection

# **Mobile Antenna Mounts**

# **K412 Series**

# Medium Duty Trunk Lid & Hatchback Mount

The Diamond K412 Series mounts are medium duty trunk lid and & hatchback mounts. They feature a three-axis adjustment for placement anywhere you need. If your antenna doesn't feature a fold over, then this is the mount for you. The wing nut allows you to use the mount as a fold over for ease in negotiating low overhead buildings and structures.

The K412 is compact and ideal for tight mounting options. 1.5 inch mounting width. Recommended for antennas under 45"

Model	Base	Cable	Cable	End						
	Connector		Length (ft)	Connector						
K412C	SO-239 UHF	RG-316	6.5	Mini-UHF (F)						
K412S	SO-239 UHF	RG-316	13.5	SMA (M)						
K412CNMO	NMO	RG-316	6.5	Mini-UHF (F)						
K412SNMO	NMO	RG-316	13.5	SMA (M)						
	NOTES:									

All RG-316 is Mil-spec PTFE Coax...

K412 series comes with a PL-259 adapter for your radio

Allen wrenches

Mounting hardware

Adhesive cable holders



# K515 Series **Deluxe Luggage Carrier Mount** Ideal for newer SUV designs

Features:

- Black finish
- 1.5 inch mounting width
- Two-axis adjustable
- Wing nut for fold-over
- SO-239 base connection
- 13.5 RG-316 Mil-spec PTFE Coax
- SMA (M) end connection
- PL-259 adapter.

### Features:

Black finish

- 1.5 inch mounting width
- Two-axis adjustable
- Wing nut for fold-over
- NMO base connection
- 13.5 RG-316 Mil-spec PTFE Coax
- SMA (M) end connection
- PL-259 adapter.

# Mirror and Luggage Rack Mounts



Deluxe, adjustable Mirror/Luggage Rack mount with the wing nut antenna fold over feature. Fits 1/2" to 7/8" tubing mirrors or utility racks. Black finish. Recommended for lightweight to medium size antennas (up to 45")

> Deluxe, adjustable Luggage Rack mount with wing nut antenna fold over feature. Ideal for minivan racks.

Black finish. K550L for luggage racks over 2" in diameter Recommended for lightweight and medium size antennas (up to 45")



Mount and cable combo. SO-239 UHF base with 16.5' RG58A/U cable ending in PL-259

Stainless Steel right angle mount with U-bolt. Recommended for:

Motorhome ladders

- Luggage racks
- Balcony railings
- Lumber racks
- Pine racks
- Where mounting source does not provide adequate ground, use non-radial type antenna.



# **Specialty Antenna Mounts**

# **K9000 Series Motorized Mount**

Raise and lower your antenna with a touch of a button using Diamond's K9000 motorized mount.

#### **Availiable Options:**

K9000TM: Trunk Lip mount
K9000LRM: Luggage Rack Mount
K9000LRMO: Luggage Rack Mount. Oversize

#### Specifications:

- Accepts "Ground Independent" antennas up to 45" in length
- 0-90° Range. Operates from 12VDC with fused cigarette plug. Includes 20' cable to switch.
- Compatible with Diamond C-series SO-239 cable assemblies
- Recommended antennas:
   AZ507RSP, NR770 Series, SG7500A,
- NMO compatible with custom NMO cable from Diamond Antenna





#### Special Features

- The mount bracket has a spring-type back torque limiter which can prevent the antenna from rattling and protect the car and mount bracket.
- A protective rubber sheet is attached to K9000TM bracket which reduces possible discolorations or scratching of painted surfaces.
- The mount bracket is fully adjustable from angles 45-90°. You can choose from 7 levels of adjustment with the control knob (on side of motor drive).
- For simple wiring of motor drive, a cigar plug is included. Mounting bracket and base fitment assemblies are separate for easy angle adjustment.

# HRK5

# **Adhesive Backed Mount**

3M Adhesive backed for flat surface installations including glass, fiberglass, and metal.

#### Specifications:

- SO-239 base connection
- Two-axis of adjustment
- Wing nut for fold-over
- 13.5 RG-316 Mil-spec PTFE Coax
- SMA (M) end connection
- PL-259 adapter.

#### Recommended antennas:

NR770HA, NR770HB, AZ507RSP



Availiable Options:

HRKS: Mount with cable assembly
NR770HRKS: Mount, cable assembly, and NR770HB

2m/70cm mobile antenna

# **Magnet Mounts**

# **SPM Series**

# **Heavy-duty Magnet Mounts**



Diamond's SPM series magnet mounts are the toughest and most durable around. With a very strong magnet in a durable plastic case, THIS IS ONE TOUGH MAGNET MOUNT.

The SPM/DPK weighs in at 2.2 lbs, 4" diameter, and are rated 25-500 MHz. Availiable in SO-239, Type-N, and NMO connectors. Recommended for antennas up to 45".



**Availiable Options:** 

**SPM35:** SO-239 base, 13' 3.5D-2V coax & PL-259 **SPMNMO:** NMO base, 13' 3.5D-2V coax & PL-259

DPK4-NM-N: Type-N female base, 13' 3.5D-2V coax & Type-N Male







# **K702M**

# **Deluxe Magnet Mount**

Deluxe low profile magnet mount. Combines the holding power of a magnet and a vacuum suction from specially designed base. For ease of removal, vacuum may be released by lifting tab(shown below).

Aerodynamic styling, large 6 3/8" diameter, 3/4" tall. Recommended for VHF/UHF antennas up to 50" in height. Includes a thin mylar protective sheet to enhance grip and protect paint.

Cable: 13' RG58A/U and PL-259

Suction release tab

DPK4-NM-N



# **Duplexers & Triplexers**

		Frequency	Powe	r Rating	Insertion	Isolation	Mix	Port
Model	Port	MHz	(1)	CA5)	Loss dB	dB	Connection	Connections
MX37	LPF	1.6-470	100	100	.25	45	N-Jack (F)	PL 259 / 12" 5D cable
	HPF	900-1300	50	50	.45	45		N-Male / 12" 5D cable
MX214	LPF	140-250	150	300	.3	40	SO-239	PL-259 / No cable
	HPF	200-225	100	200	.4	40		
MX62M	LPF	1.6-56	200	600	.2	50	SO-239	PL 259 / 12" 5D cable
	HPF	76-470*	200	600	.3	50	SO-239	PL 259 / 12" 5D cable
MX72D	LPF	1.6-30	400	1 KW	.1	60	SO-239	PL 259 / No cable
		140-150	150	400	.1	60		
	HPF	400-460	100	250	.2	60		PL 259 / No cable
MX72A		Sar	ne specific	ations as MX7	<sup>7</sup> 2N		N-Jack (F)	PL 259 / 12" 5D cable
MX72H		Sar	ne specific	ations as MX7	'2N		SO-239	PL 259 / 12" 5D cable
MX72N	LPF	1.6-30	400	1 KW	.1	60	SO-239	PL 259 / 12" 5D cable
		140-150	150	400	.1	60		
	HPF	400-460	100	250	.1	60		N Male / 12" 5D cable
MX324	LPF	1.5-150	400	800	.3	40-50	SO-239	PL 259 / 12" 5D cable
	BPF	220-225	300	600	.4	40-50	SO-239	PL 259 / 12" 5D cable
	HPF	400-550	250	500	.4	40-50	SO-239	PL 259 / 12" 5D cable
MX610	LPF	1.3-30	200	300	.2	45	SO-239	PL 259 / 12" 5D cable
	HPF	49-470	200	600	.25	45	SO-239	PL 259 / 12" 5D cable
MX2000	LPF	1.6-60	400	800	.15	60	SO-239	PL 259 / 12" 5D cable
	BPF	110-170	400	800	.2	60		PL 259 / 12" 5D cable
	HPF	300-950	250	500	.25	60		PL 259 / 12" 5D cable
MX2000N	LPF	1.6-60	400	800	.15	60	SO-239	PL 259 / 12" 5D cable
	BPF	110-170	400	800	.2	60		PL 259 / 12" 5D cable
	HPF	300-950	250	500	.25	60		N-Male / 12" 5D cable
MX3000	LPF	1.6-160	400	800	.15	55	N Jack (F)	PL 259 / 12" 5D cable
	BPF	350-500	200	400	.25	55		PL 259 / 12" 5D cable
	HPF	850-1300	100	200	.3	55		N Male / 12" 5D cable
MX3000N	LPF	1.6-160	400	800	.2	55	N Jack (F)	PL 259 / 12" 5D cable
	BPF	350-500	200	400	.3	55		N Male / 12" 5D cable
	HPF	850-1300	100	200	.4	55		N Male / 12" 5D cable
NOTES: VSWR	: 1.2:1 (nomin	al) Impedance: 50	ohm '	*76-120 MHz	Receive only			

# MX72 Style MX610 MX610 MX624 MX324 Type-N Male Connector for Duplexers and Triplexers

# **Power and SWR Meters**

Model	Frequency. MHz	Power Range	Min. Power for SWR Test	Conn.	Notes				
SX100	1.6-60	30/300/3KW	20W	S0-239					
SX200	1.8-200	5/20/200	15W	S0-239					
SX400	140-525	5/20/200	15W	S0-239					
SX600	1.8-160/140-525	5/20/200	15W	S0-239					
SX1100	1.8-160/430-450/1240-1300	5/20/200	15W	HF-VHF: S0-239	UHF: Type-N(female) Connectors				
SX20C	3.5-30/50-54/130-150	30/300	5W	S0-239					
SX40C	144-470	30/300	5W	S0-239	220 MHz uses a correction factor.				
SX240C	1.8-54/140-470	30/300/3KW	10W	S0-239	220 MHz uses a correction factor. 3KW+HF only.				
	SX20C and SX40C- 5W minimum, 10W for best accuracy								

Diamond Antenna models SX-100 through SX1100 meters measure forward and reflected power and VSWR. Compact size makes meter useful for testing both base and mobile installations. Illuminated meter, switchable r.m.s. or peak power. SX600 and SX1100 have two directional couplers selectable by switch with LED indicators for coupler I.D. of two transceivers.

12VDC @ 50mA is required if illuminated display is desired.

SX Meter Dimensions: 6"W x 2"H x 4"D, 2 lbs.







SX240C





# **5X20C, 5X40C, 5X240C 5WR / Power Meters**



The SX20C, SX40C, and SX240C are compact SWR-power meters, featuring cross needle design for measuring SWR and output power simultaneously.

Compact size makes them very useful for testing mobile as well as base station installation. The SX240C also features a 3KW power range for HF use.

UHF Connector for

Duplexers and Triplexers

# **Switching Mode DC Power Supply**

# **GZV4000 and GZV6000**



**GZV4000** (40 Amp)

#### **GZV4000 Features:**

- Weight: 8 lbs.
- Size 8.25" x 4.5" x 13"
- 40 Amp continuous rating, 100% duty cycle.
- Variable Voltage Control 5-15 VDC
- Accepts 95-145 VAC input
- Overload & short-circuit protection with Voltage Foldback at approximately 42 Amp (see below for additional features)



# (GZV4000-220)

# **GZV6000** (60 Amp)

#### **GZV6000 Features:** • Weight: 12.8 lbs.

- Size 8.25" x 4.5" x 16"
- 60 Amp continuous rating, 100% duty cycle.
- Variable Voltage Control 1-15 VDC
- Overload & short-circuit protection with Voltage Foldback at approximately 62 Amp
- 100-240 VAC 50-60 Hzinput



#### Both Models Feature:

- Voltage Control Knob has center detent at 13.5 VDC
- Overheating protection, with automatic variable speed fan.
- Meter Selector allows monitoring of voltage & current
- Built in 8Ω, .5W speaker
- · Access to front panel DC terminals and cigarette lighter jack; high current terminals on rear panel
- Circuitry yields high RFI protection from external sources
- AC line filter for EMI protection
- Standard 3-wire heavy duty line cord
- Power indicator & overload indicator
- Ripple & Noise less than 8 mV r.m.s.
- 1 year limited warranty

# Accessories

# UL 3U

# **Compact Dummy Load**



- 15 Watts continuous, 100 watts peak (intermittent)
- Connector: PL-259 (UHF Male)
- Impedance: 50Ω
- VSWR: 1.15
- 1.18" diameter x 2.95" length

- DC 500 MHz
- 15 Watts continuous, 100 watts peak (intermittent)
- Connector: Type-N Male
- Impedance: 50Ω
- VSWR: 1.15
- 1.18" diameter x 2.95" length

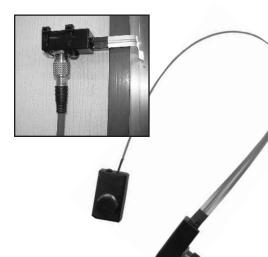
# MGC50

# Through Window/Door Assembly

#### MGC50 Specifications:

- DC 1500 MHz
- Power: HF to 50MHz: 150W (SSB), 50W(FM/CW) 144MHz: 40W (FM), 440MHz:30W (FM) 1200MHZ: 10W (FM)
- Length: 19.7" between the connectors
- Weight: 3.6 oz.
- Connector: UHF Female to UHF Female
- Impedance: 50Ω

- VSWR: HF up to 500MHz: less than 1.2 500 to 1000MHz: Less than 1.3 Up to 1000MHz: Less than 2.0 1200MHz: Less than 1.7
- Ins. Loss: 144MHz: Less than 0.3dB 440MHz: Less than 0.6dB 1200MHz: Less than 1.6dB





# **Heavy Duty Wideband Coax Switches**







DC-1000MHz 1.5KW

SO-239 (UHF Female)

CX310A:



CX210A/CX310A Connectors

DC-1500MHz

• 1.5KW

CX210N:

- Type-N Female



- 1.5KW: DC-30MHz 1KW: 30-150MHz 500W: 150-800MHz
- SO-239 (UHF Female)

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# **Lightning Surge Protectors**

Model	Frequency	5WR	Insertion Loss	Max Pwr. Rating	Connector	I.W.D.V.	I.W.D.C.	I.W.R.D.C.	Insulating Resistance DC100v	Imped
SP1000	DC-1000 MHz	< 1.1	< 0.2dB	400w PEP	UHF (F) to UHF (F)	1000v	6000A	DC350v ± 20%	Over 10,000M Ω	50Ω
SP1000PW	DC-1000 MHz	< 1.2	< 0.3dB	400w PEP	UHF (F) to UHF (M)	800v	6000A	DC350v ± 20%	Over 10,000M Ω	50Ω
SP3000	DC-3000 MHz	< 1.1	< 0.2dB	200w PEP	N (F) to N (F)	1000v	6000A	DC230v ± 20%	Over 10,000M Ω	50Ω
SP3000P	DC-3000 MHz	< 1.2	< 0.3dB	400w PEP	N (F) to N (M)	1000v	6000A	DC350v ± 20%	Over 10,000M Ω	50Ω
SP3000W	DC-3000 MHz	< 1.1	< 0.2dB	200w PEP	N (F) to N (F)	1000v	6000A	DC230v ± 20%	Over 10,000M Ω	50Ω

#### NOTES:

I.W.D.V. = Impluse Wave Discharge Voltage I.W.D.C. = Impulse Wave Discharge Capacity I.W.R.D.C. = Impulse Wave Retention Discharge Capacity

p:Use plate to easily

wall mount the SP1000PW & SP3000W

#### SP1000:

# Dimensions: 2.5"W x 1.6"H x 0.8"D Weight: 0.18lbs.

- Dimensions: 3.1"W x 1.6"H x 0.8"D
- Weight: 0.25lbs.

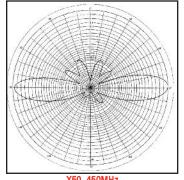
# SP1000PW: Dimensions: 3.1"W x 2.2"H x 1.0"D Weight: 0.3lbs.

- Dimensions: 3.0"W x 1.6"H x 0.8"D
- Weight: 0.25lbs.

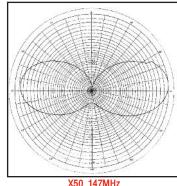
#### SP3000W:

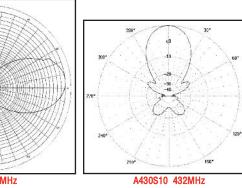
- Waterproof
- Dimensions: 3.1"W x 2.2"H x 1.0"D
- Weight: 0.35lbs.

# Radiation patterns and other important info

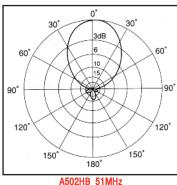


Radiation Pattern





Radiation Pattern



**Radiation Pattern** 

#### Radiation pattern explanation:

The X50 shows the vertical radiation pattern as if you were standing looking directly straight forward at the antenna.

The A430S10 and A502HB radiation patterns shows the pattern looking straight down at the antenna from a birds-eye view.

**Radiation Pattern** 

For more radiation patterns, and further explanation, please visit www.diamondantenna.net

#### More important info

#### Connectors:









Trying to mate the wrong connectors can result in broken center pins, and will void all warranty immediately.

For base applications you may order pre-made coaxial cable assemblies, or build your own custom cable assemblies. Available from RF Parts Company. Here is a power handling/Attenuation chart for a few popular cables used for base applications:

	LMR600	LDF4-50A	F5J4-50B	LMR400	Belden 9913F7	RG-213	LMR400 Ultraflex	Bury Flex	LMR240
Frequency	Pwr./Atten.	Pwr./Atten.	Pwr./Atten.	Pwr./Atten.	Pwr./Atten.	Pwr./Atten.	Pwr./Atten.	Pwr./Atten.	Pwr./Atten.
10 MHz	-	11.35 / 0.205	10.14 / 0.318	-	2.68 / 0.6	2.67 / 0.55	-	-	-
30 MHz	5.51 / 0.4	6.51 / 0.357	5.79 / 0.557	3.33 / 0.7	2.0 / 0.8	1.8 / 1.2	2.77 / 0.8	2.0 / 0.8	1.49 / 1.3
50 MHz	4.24 / 0.5	5.02 / 0.463	4.45 / 0.724	2.57 / 0.9	1.46 / 1.1	1.12 / 1.3	2.14 / 1.1	1.6 / 1.1	1.15 / 1.7
150 MHz	2.41 / 1.0	2.85 / 0.815	2.51 / 1.285	1.47 / 1.5	0.85 / 1.7	0.60 / 2.8	1.22 / 1.8	0.85 / 1.7	0.66 / 3.0
220 MHz	1.97 / 1.2	2.34 / 0.994	2.05 / 1.574	1.20 / 1.9	0.77 / 1.9	0.45 / 3.5	1.00 / 2.2	0.77 / 2.1	0.54 / 3.7
450 MHz	1.35 / 1.7	1.61 / 1.447	1.39 / 2.314	0.83 / 2.7	0.5 / 3.0	0.30 / 5.2	0.69 / 3.3	0.5 / 3.0	0.38 / 5.3
900 MHz	0.93 / 2.5	1.11 / 2.097	0.95 / 3.396	0.58 / 3.9	0.36 / 4.7	0.20 / 7.6	0.48 / 4.7	0.36 / 4.4	0.26 / 7.6
1,500 MHz	0.70 / 3.3	0.84 / 2.771	0.71 / 4.543	0.44 / 5.1	-	-	0.36 / 6.2	-	0.20 / 9.9
2,500 MHz	0.52 / 4.4	0.63 / 3.685	0.53 / 6.129	0.33 / 6.8	-	-	0.28 / 8.1	-	0.18 / 12.9
Velocity (%)	87	88	81	85	85	66	85	82	84
Power Handling	(kW, +40C, Sea L	evel, Continuous D	uty Cycle.) L	ow Duty Cycle Tra	insmissions - for less	than 50% duty	cycle. Power rating may I	oe doubled. At	tenuation is dB/100ft

**More Photos** 



K400S mount with an NR790 (discontinued) Photo Courtesy: Joe Mitterando, KC2UUZ



SG7900 Series antenna Photo Courtesy: Mike Ayala, K4EQE



X510HDN Base Antenna Photo Courtesy: Wade Blake, N7LGK



CP6AR Multiband Vertical Antenna Photo Courtesy: Ian Wilson, ZL10GX



X200A(left), D130J(right). Base Antennas Photo Courtesy: Mike Muranetz, VE6MM



K412 mount with an AZ507rsp Photo Courtesy: Joel Alderman, GOURK

# DIAMOND ANTENNA

Distributed by RF Parts Company 435 S. Pacific St. - San Marcos, CA 92078 Ph: 770-614-7443 - Fx: 770-614-7480 Email: diamond@rfparts.com



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