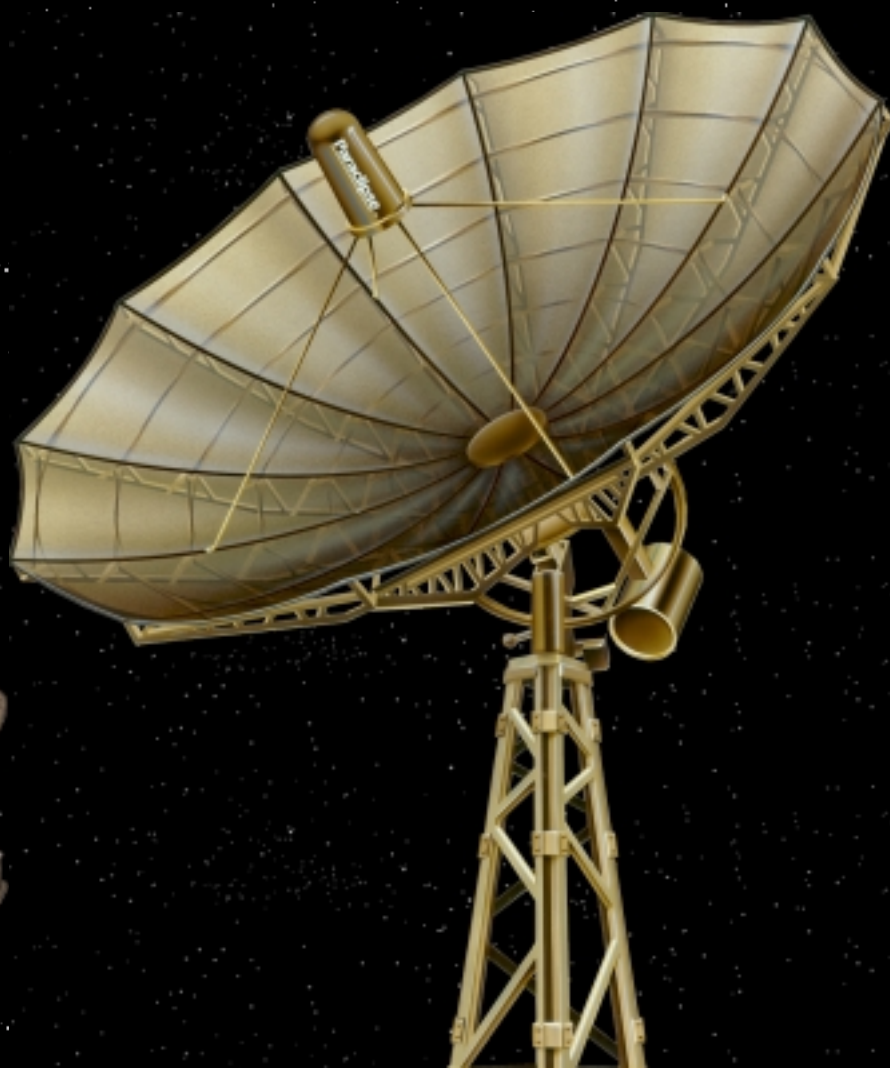


# Paracclipse

## SATELLITE ANTENNAS

From 60 cm to 4.8 m  
Accessories Included

**The Tradition  
Continues...**



# How To Order...

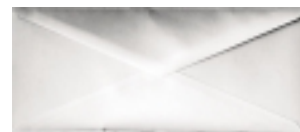
## BY FAX...

FAX us your order at  
**402-564-2109**



## BY MAIL...

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Columbus, NE 68602-0686  
USA



## BY TELEPHONE...

Monday through Friday  
8:00 am to 5:00 pm CST  
**402-563-3625**



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Visit our  
On-Line Order Form  
on our web site at  
**[www.paraclipse.com/ordering.htm](http://www.paraclipse.com/ordering.htm)**  
or e-mail your order to  
**[paracpls@megavision.com](mailto:paracpls@megavision.com)**



## PAYMENT TERMS...

Prepayment by check or wire transfer.  
We accept Visa, Discover and  
MasterCard. Net terms are available  
with credit approval. Call our office to  
request a credit application.



## SHIPPING...

Stock orders shipped within 48 hours.  
Please contact our office to receive a  
shipping quote. Please specify whether  
you wish to ship by land, sea or air.



## CONDITIONS...

Pricing, availability, and product  
specifications are subject to change  
without notice.  
Please verify pricing and availability at  
time of order.

## RETURN POLICY...

All claims for shortages, defects, and non-  
conforming goods must be made within 5  
days of receipt of merchandise. All returns  
for repair must show a return  
authorization number. Any merchandise  
without an authorization number will be  
refused. Customer will be responsible for  
freight charges. Any equipment returned  
to stock must be returned in original  
packing in new condition. The customer is  
responsible for a 25% restocking charge.  
All credits are merchandise credits.

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# The Tradition of Paraclipse

## Satellite Antenna Timeline

1975

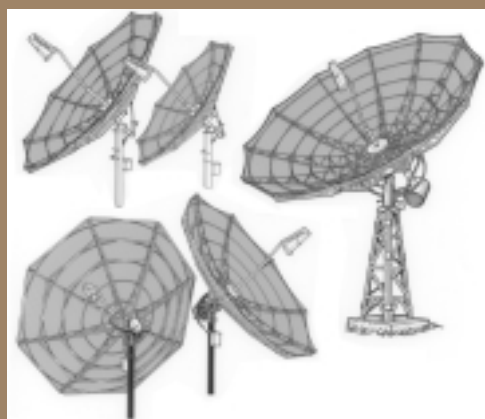
First Home-Use Satellite Antenna System Built

Paraclipse Builds Its First Satellite Antenna



Paraclipse's Reputation Grows:  
NASA's Kennedy Space Center

1980



Paraclipse's Classic Line of Antennas Developed

1985



Paraclipse's Hydro Line of One Piece Reflectors Introduced

1990



Paraclipse Reflectors Become a Hallmark of Strength & Durability

1995

Paraclipse Unveils Its Commercial Patriot Line



Paraclipse's Reputation of Withstanding the Elements Continues to Grow

2000



Paraclipse's Eclipse Line of Antennas Introduced

2005

Paraclipse Introduces Its Millennium Line of Offset Antennas

The New Millennium Means Much More to Come!  
See a Sampling on the Next Page

# Recent Paraclipse Innovations

## WE'RE STILL INNOVATING!

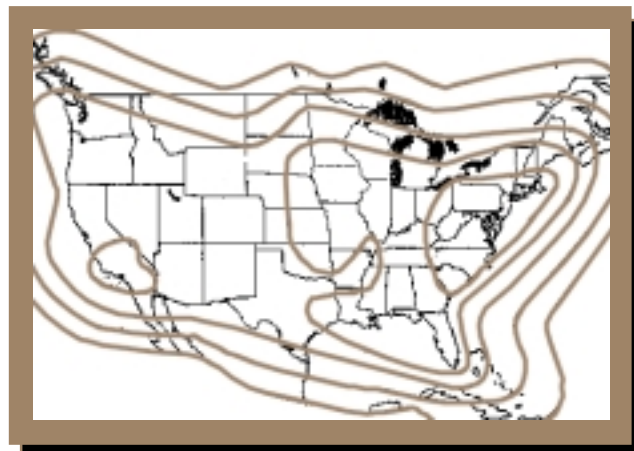
According to the majority within our industry, there is no doubt that the reception standard for DBS signals is with the small 45cm offset antenna, but what about those customers that are in the fringe areas or the heavy rain areas? What are their alternatives? Well, for most this has meant using a larger offset antenna and, in some cases, it has meant sacrificing and not watching certain channels due to inadequate signal.

Paraclipse has asked why customers don't use a larger prime focus antenna for those marginal DBS reception needs? The answer has always focused on the LNBF available. None of the current LNBF manufacturers are willing to produce a prime focus circular LNBF to meet what they determine is a small need. Well, this isn't the way Paraclipse has looked at this need. If there are customers struggling to get a good signal from their antenna, why not get them what they need? This is what we have done since 1981 when Paraclipse became a household name in this industry.

To facilitate this, we have spent the past two years looking at what has been made available on the market for prime focus antennas, evaluated the optional equipment, and after two years worth of testing, developed our own PFLNBF system ( Prime Focus LNBF ).

The PFLNBF system combined with our Hydroformed solid antenna will finally give the customers what they have been looking for. This would be a smaller sized antenna that is easy to ship and will look aesthetically pleasing in their yard. For those with the severe look angles, this system is the answer. We are now offering the Hydroformed antenna with PFLNBF system in sizes ranging from 1.2 meter (4') to 2.3 meters (7') in size.

Give us a call and let one of our sales representatives explain the PFLNBF Hydro system to you in detail.



## Fringe of DBS Footprint?



## Heavy Rain Fade?

## Web Site Address

[www.paraclipse.com/newsflash.htm](http://www.paraclipse.com/newsflash.htm)



**PFLNBF**



**PFLNBF with  
Feed Pole Adaptor**

# HYDRO 4' (1.2m) & 5' (1.5m)

## Improved and Expanded Satellite Reception

 Extra Strength from multi-ribbed rim design



 One piece, stretch-formed reflector

 Galvaneal steel reflector for rust resistance

 Choice of strong, lightweight mounts

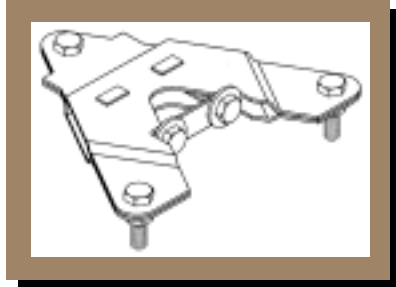
 6 step, baked-on Gray powder coat process

 Self-aligning, 3-pole feed support with preset focal distance

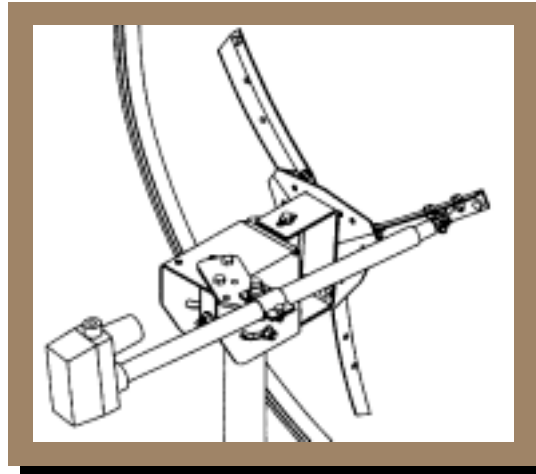
### Options

 Feed Cover

 Ku Adapter Feed Plate

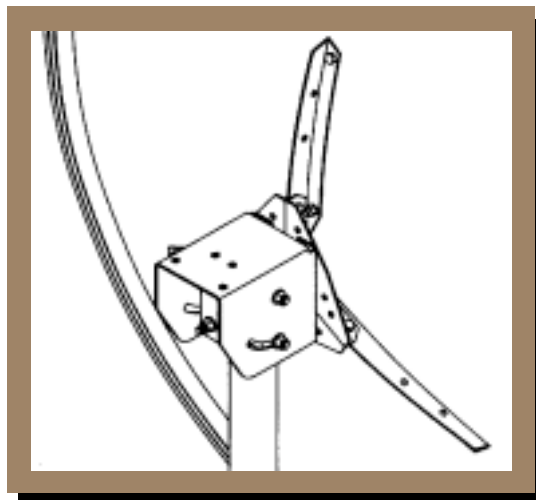


## Quality Mounts for a Quality Reflector



### Polar (SP)

A maximum strength, lightweight steel polar mount. Design allows for use with less expensive base pipe. Mount offers 120° azimuth travel with a 12" actuator.



### AZ-EL (SP)

Lock onto a single satellite for unsurpassed picture quality. AZ-EL mount is constructed of lightweight steel, protected with baked-on powder-coat finish.

## Specifications

	4' (1.2m)	5' (1.5m)
C-Band Gain	32.8dB	34.8dB
Ku-Band Gain	42.0dB	44.0dB
C-Band Efficiency	68%	68%
Ku-Band Efficiency	68%	68%
F/D	0.40	0.39
Focal Point	18.9" (48.0cm)	23.1" (58.7cm)
Base Pipe	2" Sch. 40 2.38" (6.03cm) o.d.	2" Sch. 40 2.38" (6.03cm) o.d.

\*Specifications determined by engineering computation methods.

## Web Site Address

[www.paraclipse.com/hydro.htm](http://www.paraclipse.com/hydro.htm)





# HYDRO 6' (1.8m) & 7' (2.3m)

## Mounts for Every Application



### Polar (VP)

A heavy duty, preassembled, fully-adjustable polar mount using a linear actuator. Oil impregnated bronze bushings on pivot points. Mount allows 120° azimuth travel with an 18" actuator.

### AZ-EL





Lock onto any single satellite with our AZ-EL Mount. Features 360° of Azimuth movement and 0° to 70° of elevation adjustment.  
(SPECIAL ORDER ONLY - CALL FOR DETAILS)

### Web Site Address






[www.paraclipse.com/hydro.htm](http://www.paraclipse.com/hydro.htm)



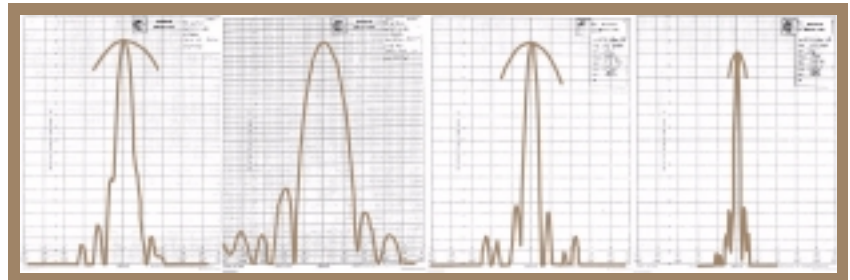
## Precision Performance

-  Precision molded through intense pressure
-  Free of deformities, ripples, flat spots
-  Matches or exceeds larger mesh antenna's reception
-  One-piece construction maintains parabolic shape

## Exclusive Design Features

-  Uniform surface results in extremely low side lobes
-  Steel parts sealed and protected with powder coat
-  Gray powder coat standard
-  Self-aligning 3-pole feedhorn support
-  Preset focal distance

## Hydro Range Tests



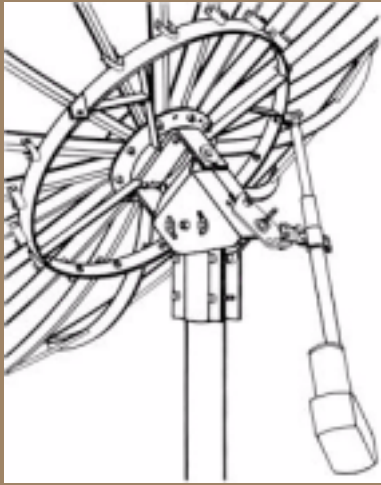
(Available upon request)

## Specifications

	6' (1.8m)	7' (2.3m)
C-Band Gain	35.9dB	37.8dB
Ku-Band Gain	44.9dB	47.2dB
C-Band Efficiency	68%	60%
Ku-Band Efficiency	64%	62%
2° Spacing Approved	Yes (with opposite polarization of satellite)	Yes
C-Band 3dB Beamwidth	2.9°	2.2°
C-Band First Side Lobe	-26.4dB	-25.3dB
C-Band Antenna Noise Temperature	48°K @ 45° elevation	41°K @ 45° elevation
Ku-Band Antenna Noise Temperature	36°K @ 30° elevation	28°K @ 30° elevation
F/D	0.335	0.375
Focal Point	23.1" (58.7cm)	31.8" (81.5cm)

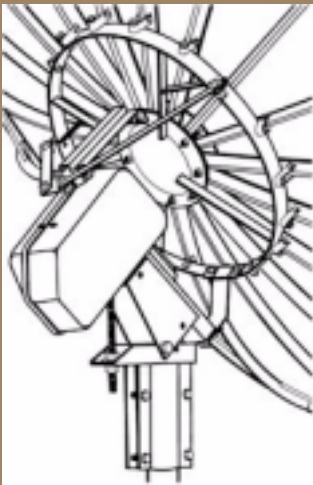
# ECLIPSE 8.5' (2.6m), 10' (3.0m) & 12' (3.8m)

## Preassembled Mount Offers Pinpoint Accuracy



A heavy duty, preassembled, fully-adjustable polar mount using a linear actuator. Oil impregnated bronze bushings on pivot points. Mount allows 120° azimuth travel with an 18" actuator.

## H-H Mount Option



A superior horizon-to-horizon mount with full 180° tracking capability is offered on the Eclipse 12' (3.8m). An optional Elliptical Tracking Kit for satellites with inclined orbits is also available.

## Exceptional Strength and Wind Resistance

- Extra heavy-duty VP polar mount
- All steel & aluminum parts are sealed and protected with gray powder-coat finish

Preformed mesh

## Individual Model Features

10' (3.0m) & 12' (3.8m)

- Parabolic ribs are 50% larger than competitive models
- 12' (3.8m) reinforced with an intermediate supporting ring
- 8.5' (2.6m)

Extra heavy duty VP mount is stronger & more durable than similar sized competitors

- Reinforced with intermediate mesh supporting ring

## Accurate Reception

- Formed mesh design ensures that the antenna retains original parabolic shape
- Three-pole feedhorn support stabilizes the feedhorn and strengthens the reflector
- Unique fine-tune feedhorn mounting plate on 10' (3.0m) & 12' (3.8m) allows easy and precise feedhorn adjustment

## Web Site Address

[www.paraclipse.com/eclipse.htm](http://www.paraclipse.com/eclipse.htm)

## Specifications

	8.5' (2.6m)	10' (3.0m)	12' (3.8m)
C-Band Gain	39.0dB	40.8dB	41.9dB
Ku-Band Gain	46.7dB	48.2dB	49.6dB
C-Band Efficiency	65%	65%	63%
2° Spacing Approved	Yes	Yes	Yes
F/D	0.40	0.30	0.333
Focal Point	39.5" (100.3cm)	35.875" (91.1cm)	47.875" (121.6cm)




\*Specifications determined by engineering computation methods.








# CLASSIC 12' (3.8m) PT & 14.5' (4.5m) ISLANDER





## When Strength and Endurance are Essential

-  Truss-ribbed structure
-  Heavy-gauge steel mount
-  All steel components sealed with baked-on powder-coat finish

## Years of Trouble-Free Performance

-  Formed mesh design ensures that antenna retains original parabolic shape
-  4-pole feedhorn support stabilizes feedhorn and strengthens reflector
-  Unique fine-tune feedhorn mounting plate allows easy & precise feedhorn adjustment

## Options

-  Stainless steel hardware
-  Galvanizing
-  Extreme weather kit for 12' (3.8m)
-  Wind-resistant support struts for 12' (3.8m)

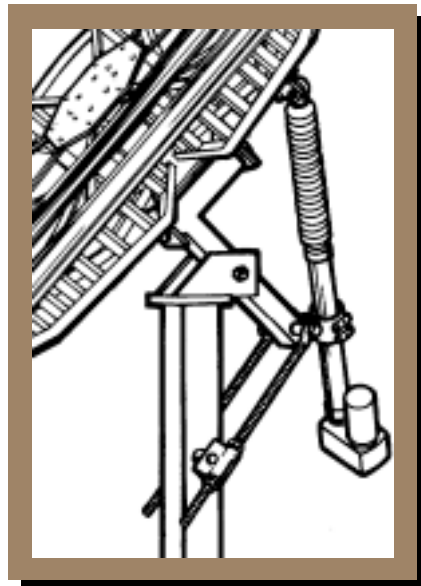
## Web Site Address

[www.paraclipse.com/classic.htm](http://www.paraclipse.com/classic.htm)

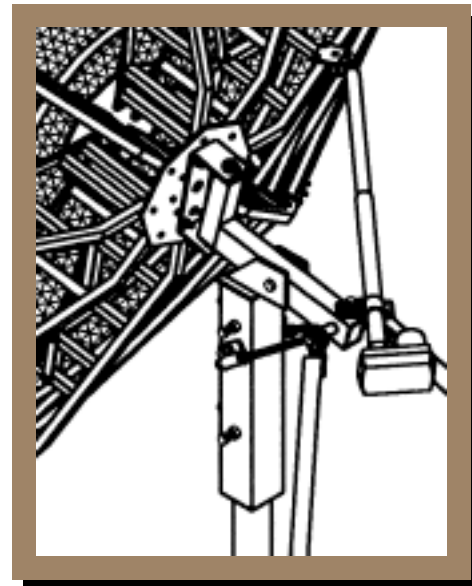


## Polar T Mount Provides Accuracy & Economy

This heavy-duty steel polar mount provides a 110° traverse. With a linear actuator, the Polar T tracks with pinpoint accuracy and excellent stability.



12' (3.8m) PT



14.5' (4.5m)  
ISLANDER

Precision engineered, like all Paraclipse antennas, this antenna sets the standards by which all others are measured.

The Islander is reinforced with additional wind resistant struts and an extreme weather kit to reinforce the hub, making it the ideal antenna for any exposed location, whether it be a Caribbean island or a wind-blown mountain top.

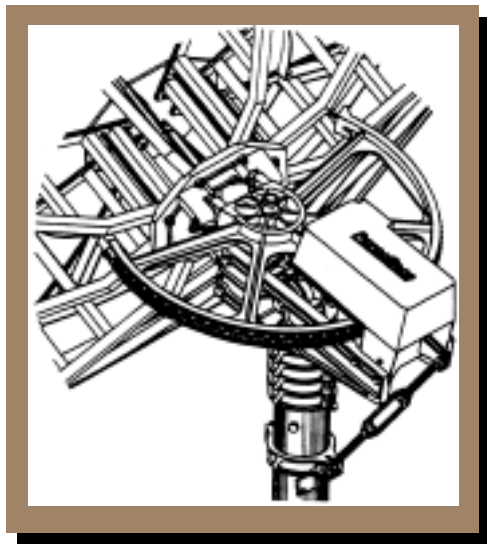
## Specifications

	12' (3.8m)	14.5' (4.5m)
C-Band Gain	42.3dB	43.6dB
Ku-Band Gain	50.0dB	51.5dB
C-Band Efficiency	70%	65%
2° Spacing Approved	Yes	Yes
C-Band 3dB Beamwidth	1.3°	1.2°
C-Band First Side Lobe	-20.4dB	-20.0dB
C-Band Antenna Noise Temperature	24°K @ 45° elevation	23°K @ 45° elevation
F/D	0.375	0.310
Focal Point	53.375" (135.6 cm)	53.375" (135.6 cm)

\*Specifications determined by engineering computation methods.

# CLASSIC 12' (3.8m) & 14.5' (4.5m) CD

## CD Mount Delivers Precise, Horizon-to-Horizon Tracking



Our exclusive 12' (3.8m) & 14.5' (4.5m) CD chain-driven mount tracks 180° with precision accuracy. Completely linear from extreme to extreme with accurate tuning at any position, this mount can handle both TVRO and professional applications. With heavy-duty, all-aluminum die-cast construction, this mount is especially good in marine environments where corrosion is a problem.

### Web Site Address





[www.paraclipse.com/classic.htm](http://www.paraclipse.com/classic.htm)

## Specifications






	12' (3.8m)	14.5' (4.5m)
C-Band Gain	42.3dB	43.6dB
Ku-Band Gain	50.0dB	51.5dB
C-Band Efficiency	70%	65%
2° Spacing Approved	Yes	Yes
C-Band 3dB Beamwidth	1.3°	1.2°
C-Band First Side Lobe	-20.4dB	-20.0dB
C-Band Antenna Noise Temperature	24°K @ 45° elevation	23°K @ 45° elevation
F/D	0.375	0.310
Focal Point	53.375" (135.6 cm)	53.375" (135.6 cm)

\*Specifications determined by engineering computation methods.





## Unequaled Accuracy and Durability from Horizon-to-Horizon

-  Formed mesh design ensures that antenna retains its original parabolic shape
-  Unique fine-tune feedhorn mounting plate allows easy & precise feedhorn adjustment
-  4-pole feedhorn support stabilizes the feedhorn and strengthens the reflector
-  Counterbalance standard on 14.5' (4.5m)

## Exclusive Paraclipse Design Features

-  Truss ribbed structure
-  Aluminum reflector
-  All aluminum mount
-  Reflectors sealed & hardened with corrosion-resistant treatment
-  Wind resisting support struts on 14.5' (4.5m)

## Options

-  Stainless steel hardware
-  Counterbalance on 12' (3.8m)
-  Extreme weather kit for 12' (3.8m)
-  Wind-resistant support struts for 12' (3.8m)



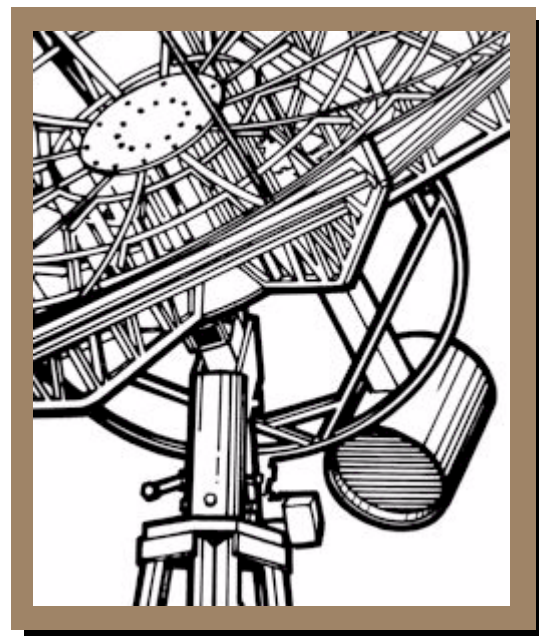
# CLASSIC 16' (4.8m) CD

## Professional Strength and Pin-Point Accuracy

- Engineered for commercial applications
- Built to stand the test of time
- Tracks 180° with precision accuracy
- Heavy duty steel mount with stainless steel hardware
- Reliable under even the most demanding conditions
- Protected by baked-on, powder coat finish
- Aluminum reflector
- Easy and precise feedhorn adjustment
- Tower mounted for rock solid stability
- Counterweighted for exceptional balance

## Options

- Galvanized steel mount and tower
- Adjustable declination (inclined orbit tracking)



## CD Mount Delivers Precise Horizon-to-Horizon Tracking

## Web Site Address

[www.paraclipse.com/classic.htm](http://www.paraclipse.com/classic.htm)

## Specifications

C-band Gain	44.8dB
Ku-band Gain	52.3dB
C-band Efficiency	65%
C-band 3dB Beamwidth	0.9°
C-band First Side Lobe	-20.0dB
C-band Antenna Noise Temperature (@ 45° elevation)	21°K
F/D	0.30
Focal Point	56.25" (142.9cm)

\*Specifications determined by engineering computation methods.



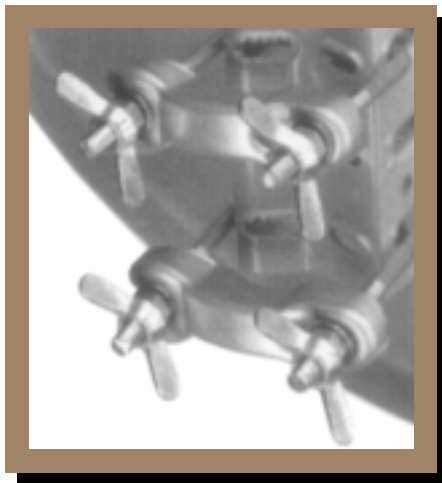


# PATRIOT 60cm & 76cm







## Paracclipse's Smallest Antennas Yet!

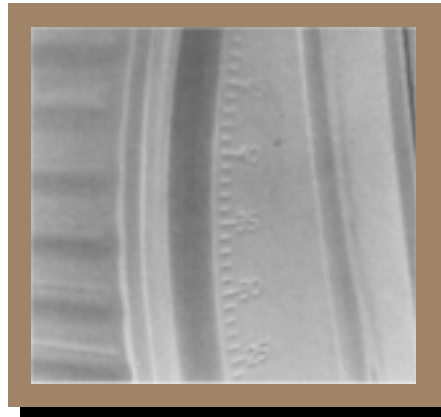


### Versatile Mount



### Easy Adjustability

-  Premounted feed arm
-  LNB holder with click-on bracket
-  Optional DBS feed arm
-  Premounted elevation bracket
-  Simple and easy antenna adjustments
-  Stable, non-slip mast bracket



### Precise Elevation Settings

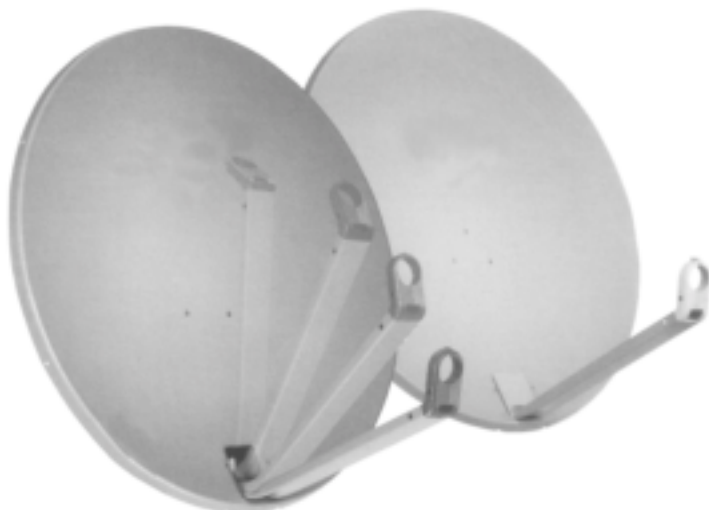
## Specifications

	60cm	76cm
Frequency Range	10.7-12.75 GHz	
Ku-Band Gain @ 11.3 GHz	35.8dB	37.1dB
X-Polarization	>27dB	>27dB
Offset Angle	26°	26°
F/D	0.6	0.6
Beamwidth	3.1°	2.6°
Material	Galvanized Steel	
Finish	Chromate, Polyester Powder Coat	
LNB Holder	Plastic Feed Holder 25mm/40mm	
Mast Dimension	32mm (1¼") to 60mm (2¼")	

## Web Site Address











[www.paracclipse.com/patriot.htm](http://www.paracclipse.com/patriot.htm)

### 76cm 60cm



# MILLENNIUM 90 CM (3')

## Ultimate Ku-Band Satellite Tracking

-  Stretch formed precision antenna
-  Free of surface deformities, ripples & flat spots
-  Heavy gauge 0.034" Galvanealed steel reflector
-  Polyester textured powder-coated gray color
-  Dubois "Secure" Iron Phosphatizer rust inhibitors
-  500 hour salt spray tested
-  Self-aligning feed system/preset focal distance
-  Adjustable LNBF feed clamp assembly (25mm/40mm)
-  Pole mount stop tab
-  Feed tube cable slot & rain cap

## Web Site Address

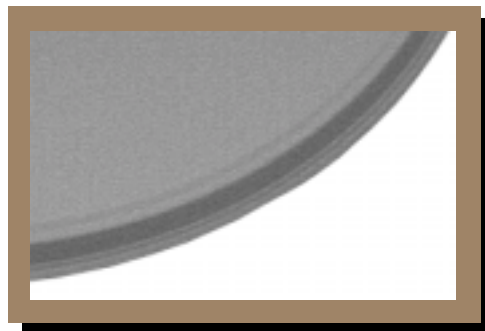
[www.paraclipse.com/millennium.htm](http://www.paraclipse.com/millennium.htm)



Optional Wall Mount



Precision Formed Antenna Assembly With Innovative Design



Outer Rim Design

## Specifications

Ku-band Gain	39.4dB
Frequency Range	10.95-12.75
Ku-Band Beamwidth	1.8°
Ku-Band First Side Lobe	-23.4 dB
Efficiency	71%
F/D Ratio	0.65
Reflector Offset Angle	21°
Mount Type	Azimuth/Elevation
Operational Wind Speed	60 mph (97 kph)
Survival Wind Speed	125 mph (201 kph)
Pipe Size	1-7/8" (48mm) to 2-3/8" (60mm)

\*Specifications determined by engineering computation methods.

# MILLENNIUM 1.2M (4')

## Mounting Options



Optional Base Stand

## Web Site Address

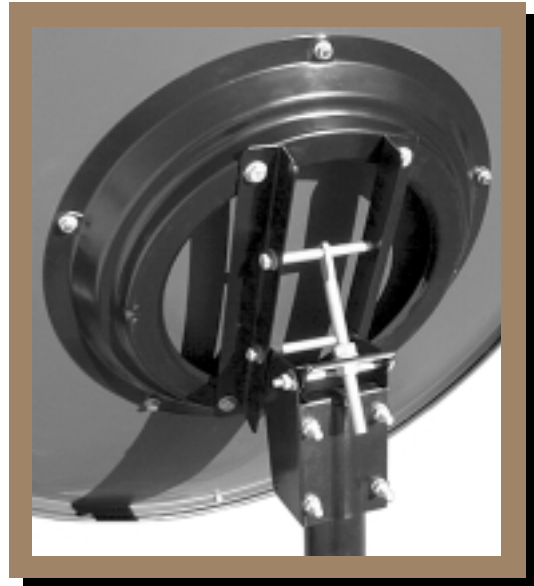
[www.paraclipse.com/millennium.htm](http://www.paraclipse.com/millennium.htm)

## Specifications

Ku-band Gain	42.2 - 42.9dB
Frequency Range	10.70-12.75 GHz
Offset Angle	27.76°
Aperture Diameter	120cm
Long Axis Diameter	135.53cm
F/D Ratio	0.50
Mount Type	Azimuth/Elevation
Azimuth Alignment	0° to 360°
Elevation Alignment	26° to 70° (Goes to 0° if flip reflector)
Operational Wind Speed	Over 30 m/sec (67 mph)
Operational Temperature	-30°C (-22°F) to 60°C (140°F)
Relative Humidity	0% to 90%
Pipe Size	50mm (2") to 76mm (3")

## Precision Performance

- Die stamped precision antenna
- Free of surface deformities, ripples & flat spots
- Heavy gauge galvaneal steel reflector
- Polyester Powder Coating
- Dubois "Secure" Iron Phosphatizer rust inhibitors
- 500 hour salt spray tested
- Galvaneal steel mount with Polyester Powder Coating
- Self-aligning feed system/pre-set focal distance
- Supplied with DBS feed support & adjustable LNBF feed clamp assembly (25mm/40mm)
- Pole mount stop tab
- Feed tube cable slot & rain cap















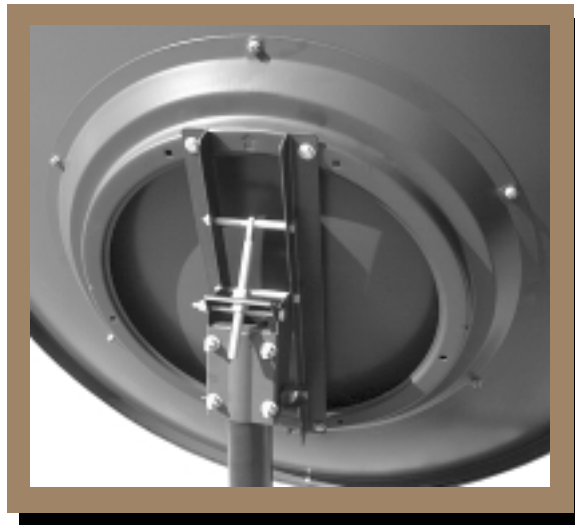


# MILLENNIUM 1.5M (5')

## Mounting Options

### Ultimate Ku-Band Satellite Tracking

-  Stretch formed precision antenna
-  Reinforced outer rim design
-  500 hour salt spray tested
-  Pole mount stop tab
-  Feed tube cable slot & rain cap
-  Free of surface deformities, ripples & flat spots
-  Heavy gauge Galvanized steel reflector
-  Polyester Powder Coating
-  Dubois "Secure" Iron Phosphatizer rust inhibitors
-  Galvanized steel mount with Polyester Powder Coating
-  Self-aligning feed system/pre-set focal distance
-  Supplied with DBS feed support and adjustable LNB feed clamp assembly (25mm/40mm)



DBS Feed Support



Optional Base Stand

## Web Site Address

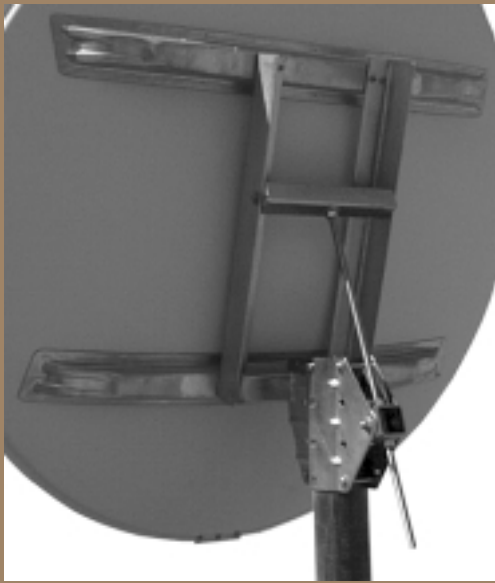
[www.paraclipse.com/millennium.htm](http://www.paraclipse.com/millennium.htm)

## Specifications








Ku-band Gain	44.06 - 44.74dB
Frequency Range	10.70-12.75 GHz
Offset Angle	28.81°
Aperture Diameter	150cm
Long Axis Diameter	171.2cm
F/D Ratio	0.50
Mount Type	Azimuth/Elevation
Azimuth Alignment	0° to 360°
Elevation Alignment	26° to 90° (Goes to 0° if flip reflector)
Operational Wind Speed	50 m/sec (112 mph)
Operational Temperature	-30°C (-22°F) to 60°C (140°F)
Relative Humidity	0% to 90%
Pipe Size	76mm (3")

# PATRIOT 1.8M (6')

## Mounting Options



## Receive Ku-Band Signals With Accuracy & Precision

-  3003-0 aluminum reflector
-  Use with single or dual feedhorns
-  Use with AZ-EL or Non-Penetrating Roof Mount
-  Receive at 10.95 to 12.75 GHz
-  Self-aligning feed system/pre-set focal distance
-  Adjustable LNBF feed clamp assembly (25mm/40mm)
-  Optional DBS feed arm assembly



## Specifications

Gain @ 11.95 GHz	45.6dBi
Efficiency	70%
Offset Angle	22.5°
Noise Temperature @ 30° elevation	21°K
3dB Beamwidth	0.97°
Average 1st Sidelobe	-23dB
Cross Polarization (Main Beam Minimum)	-30dB
VSWR (Maximum)	1.3:1
Feed Interface	WR-75
Operational Wind (including roof, wall & ground mount)	50 mph (81 kph)
Survival Wind (including roof, wall & ground mount)	125 mph (201 kph)
Operational Temperature	-40°F (-40°C) to 140°F (60°C)
Survival Temperature	-60°F (-51°C) to 180°F (82°C)
Operational Rain	0.5" (1.27cm) per hour
Survival Rain	3.0" (7.62cm) per hour
Ice	1" (2.54cm) Radial
Ice with 60 mph (97 kph) wind	0.5" (1.27cm)
F/D Ratio	0.62
Surface Accuracy	0.015" (0.38mm)

## Web Site Address

[www.paraclipse.com/patriot.htm](http://www.paraclipse.com/patriot.htm)

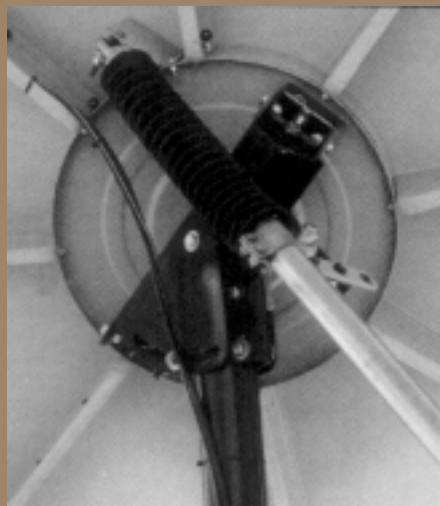


# PATRIOT 3.1M (10')

## Mounting Options



**AZ-EL**



**Polar**

## Commercial Quality Reception



8 Galvanized Steel reflector panels



Mounting Options: Non-penetrating roof mount, AZ-EL, Polar and Dual Axis Navigator



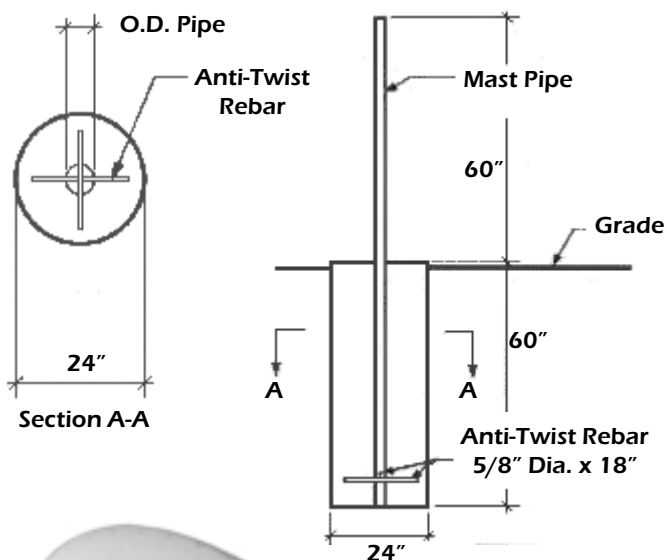
Mast Sizes: AZ-EL 5.5" O.D. (14.0cm), Polar 4.0" O.D. (10.2cm), and Dual Axis Navigator 6-5/8" O.D. (16.8cm)

## Web Site Address

[www.paraclipse.com/patriot.htm](http://www.paraclipse.com/patriot.htm)

## Specifications

## Recommended Foundation

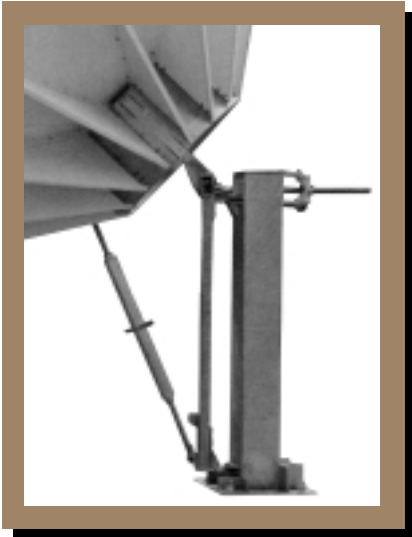


	C-Band 3.7-4.2 GHz	Ku-Band 11.7-12.2 GHz
Gain (mid-band)	40.4dBi	49.6dBi
VSWR	1.25:1	
-3dB Beamwidth	1.72°	0.55°
-15dB Beamwidth	3.61°	1.16°
Antenna Noise Temperature (midband)		
@ 5° elevation	45°K	58°K
@ 10° elevation	34°K	43°K
@ 20° elevation	29°K	35°K
@ 40° elevation	27°K	32°K
Typical G/T @ 20° elevation, Clear Horizon		
with 40°K LNA, dB/deg.	21.3 @4GHz	
with 100°K LNA, dB/deg.	18.7 @4GHz	
with 250°K LNA, dB/deg.		24.8 @12GHz
with 190°K LNA, dB/deg.		25.5 @12GHz
Feed Interface	CPR-229G	WR-75 Choke
Feed Insertion Loss@OMT	0.05dB	
Cross Polarization Isolation	35dB On Axis	
Within 1dB beamwidth	30dB	
Azimuth Travel	360° Continuous	
Elevation Travel	0° to 90°	
Polarization Travel	±90°	
Shipping Weight	320 lb. (145 kg) Approx.	
F/D Ratio	0.336	
Focal Distance	41.4" (105.2cm)	
Operational Winds	60 mph (97 kph)	
Survival Winds	125 mph (200 kph)	

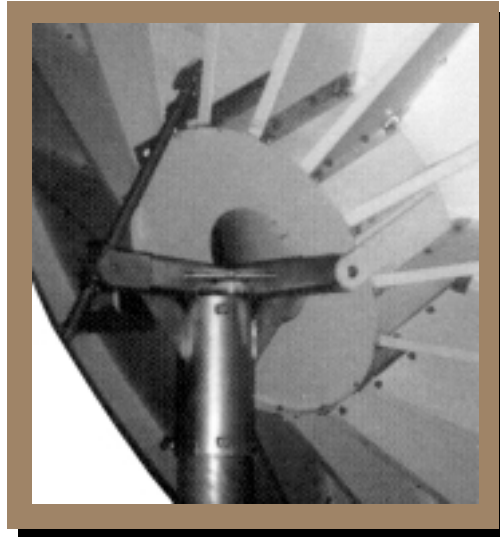


# PATRIOT 3.8M (12')

## Mounting Options






**Fixed King Post**



**AZ-EL**

## Commercial Quality Reception

-  16 Aluminum reflector panels
-  Mounting Options: AZ-EL, Dual Axis King Post & AZ-EL Fixed King Post
-  Mast Size: 6-5/8" O.D. (16.8cm)

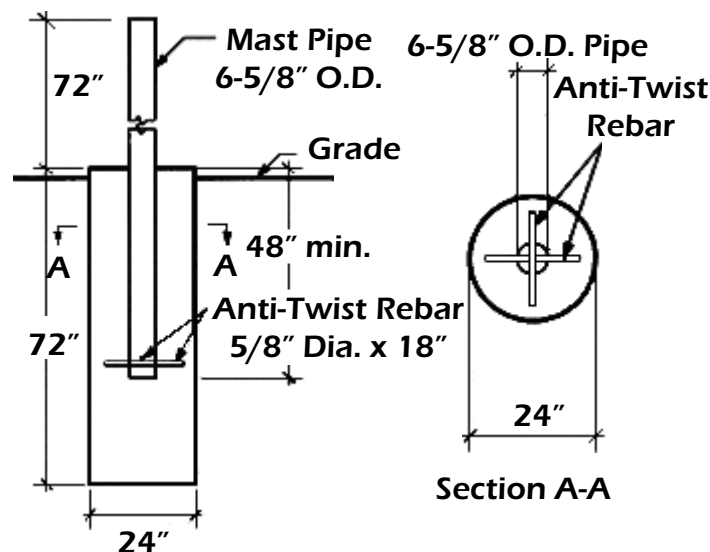
## Web Site Address

[www.paraclipse.com/patriot.htm](http://www.paraclipse.com/patriot.htm)

## Specifications

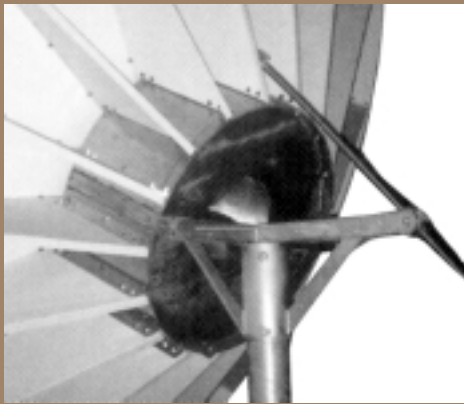
	C-Band 3.7-4.2 GHz	Ku-Band 11.7-12.2 GHz
Gain (mid-band $\pm 0.2$ dB)	41.7dBi	51.8dBi
3dB Beamwidth	1.3°	0.45°
2° Discrimination (max)	22.5dB	
Antenna Noise Temperature		
@ 20° elevation	30°K	25°K
@ 30° elevation	25°K	21°K
VWSR	1.3 Max	
Efficiency	62.2%	69.4%
Cross Polarization	>35	
Operational Windload	60 mph (97 kph)	
Survival Windload	125 mph (201 kph)	
Ambient Temperature Survival	-40°F (-40°C) to 140°F (60°C)	
Solar Radiation	360 BTU/h/ft	
Azimuth Travel	360° Continuous	
Elevation Travel	0° to 90°	
F/D Ratio	0.413	
Focal Distance	62.6" (159.0cm)	
Shipping Weight-AZ-EL	675 lbs. (306 kg)	
Shipping Weight-King Post	1,400 lbs. (635 kg)	

## Recommended Foundation

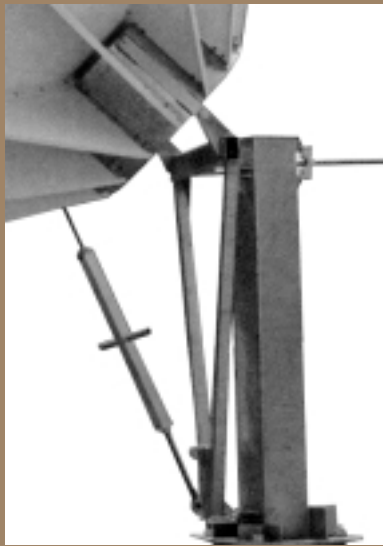


# PATRIOT 4.5M (14.5')

## Mounting Options



**AZ-EL**



**Fixed King Post**

## Commercial Quality Reception



16 Aluminum reflector panels



Mounting Options: AZ-EL, Dual Axis King Post & AZ-EL Fixed King Post



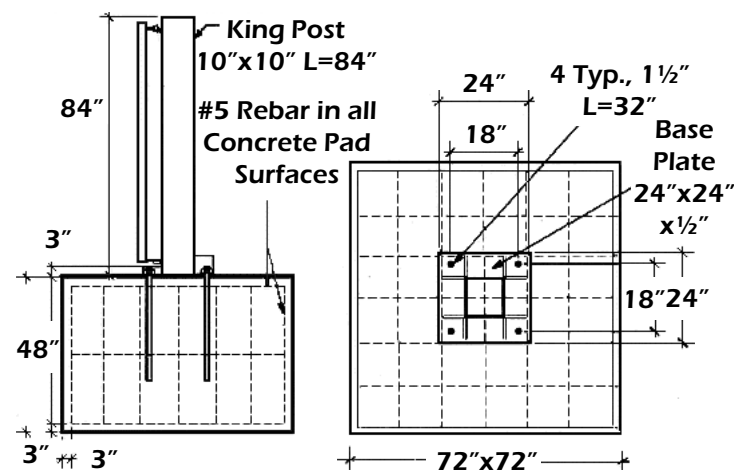
AZ-EL Mast Size: 6-5/8" O.D. (16.8cm)

## Web Site Address

[www.paraclipse.com/patriot.htm](http://www.paraclipse.com/patriot.htm)

## Recommended Foundation










## Specifications

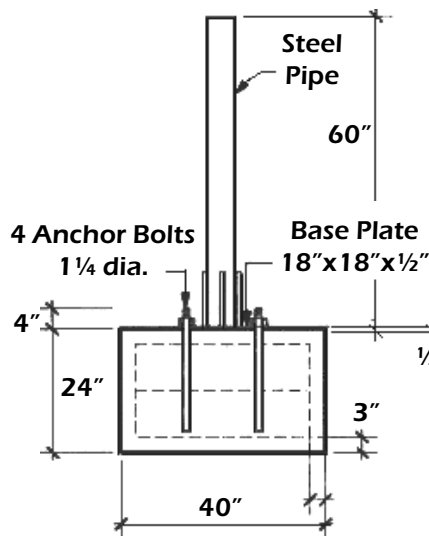


	C-Band 3.7-4.2 GHz	Ku-Band 10.95-12.2 GHz
Gain (mid-band)	44.7dBi	53.2dBi
Side Lobes (max)	30.0dB	23.0dB
Cross Polarization	>35	
3dB Beamwidths		
Azimuth	1.35°	0.56°
Elevation	1.35°	0.47°
VWSR	1.3 Max	
Efficiency	58.9%	64.3%
Operational Windload	60 mph (97 kph)	
Survival Windload	125 mph (201 kph)	
Ambient Temperature Survival	-25°F (-32°C) to 140°F (60°C)	
Radial Ice	1" (2.5cm) in all areas	
Azimuth Travel	132°	
Continuous Azimuth Travel Rate	Variable	
Elevation Travel	0° to 90°	
Polarization Travel	±90°	
F/D Ratio	0.35	
Focal Distance	61.95" (157.4cm)	
Shipping Weight	1,600 lbs. (726 kg)	

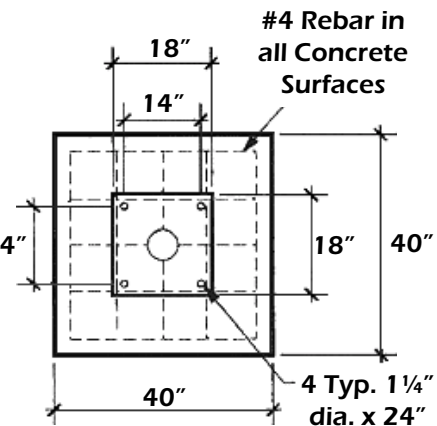
# Patriot Bolt & Template Kits

## Patriot Pipe Stand with Bolt & Template Kit For 3.1m (10') Antenna










-  Schedule 40 5" (5.625" O.D.)
-  5' Mast steel pipe
-  18"x18"x1/2" Base Plate with 14" centered holes
-  Reinforced steel angles for support
-  (2) 18"x18" Templates
-  (4) 1 1/4"x24" Threaded Rods (Bolts)
-  (8) 1 1/4" Washers & Nuts
-  Bolt & Template Kit with pipe (one skid)=215 lbs.
-  Recommended pad size: 40"x40"x24" Reinforced 3000 psi

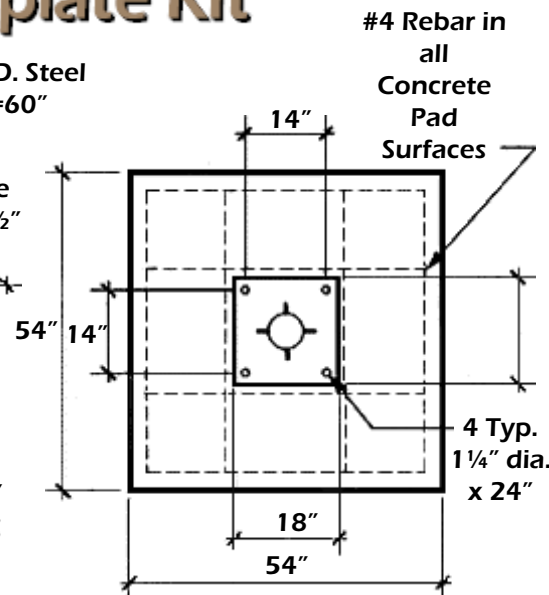
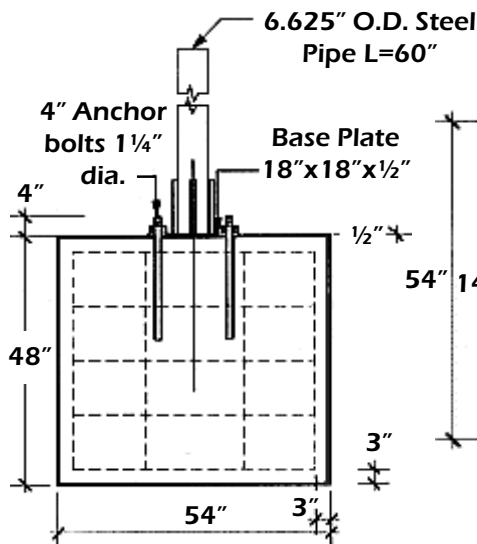


NOTE: Please specify AZ-EL 5.5" O.D. or Polar Mount 4" O.D.








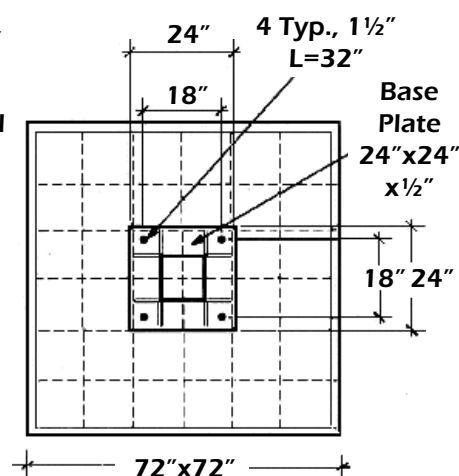
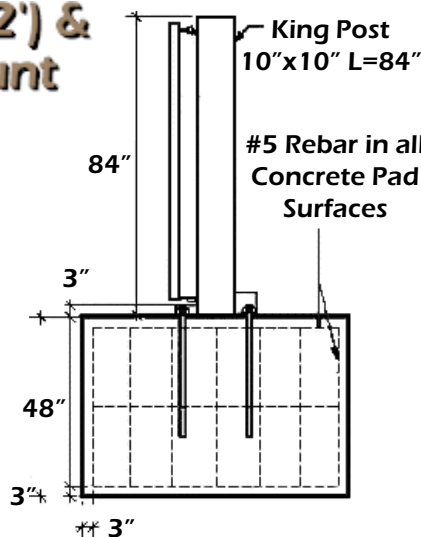
## Patriot Pipe Stand with Bolt & Template Kit For 3.8m (12') Antenna

-  Schedule 80 6.625" O.D.
-  5' Mast steel pipe
-  18"x18"x1/2" Base Plate with 14" centered holes
-  Reinforced steel angles for support
-  (2) 18"x18" Templates
-  (4) 1 1/4"x24" Threaded Rods (Bolts)
-  (8) 1 1/4" Washers & Nuts
-  Bolt & Template Kit with pipe (one skid)=270 lbs.
-  Recommended pad size: 54"x54"x48" Reinforced 3000 psi



## Patriot Kingpost Mount Foundation Kit Bolt & Template Kit for 3.8m (12') & 4.5m (14.5') with Kingpost Mount

-  (2) 24"x24" Templates
-  (4) 1 1/2"x32" Threaded Rods
-  (8) 1 1/2" Washers & Nuts
-  Bolt & Template Kit=85 lbs.
-  Recommended pad size: 72"x72"x48" Reinforced 3000 psi





# California Amplifier (CalAmp) LNBs



Cal-Amp offers a full family of commercial DigiReady® Phase Locked Loop (PLL) LNBs. These Digi-Ready® PLL LNBs are an excellent solution for systems that require high stability, low phase noise, phase locked loop downconverters to receive digital data and digitally compressed video signals. California Amplifier's high stability PLL LNB limits the drift in frequency of the received signal allowing narrow band data carriers to be accurately received. Additionally, the low phase noise of the PLL LNB results in crystal clear reception of digitally compressed video and audio signals. These PLL LNBs with extended frequency ranges and various local oscillator stability options to meet your system's diverse requirements. All California Amplifier products are engineered and manufactured to withstand and operate in extreme worldwide weather conditions. Stringent ISO 9001 Quality Assurance Procedures guarantee long lasting reliable products.

**#140246/C-Band Mini-Mag, 950-1450 MHz Output, Noise: 17°K**



**#150338/Ku-band 11.7-12.2 GHz input, 950-1450 MHz Output, Noise: 0.8dB,  $\pm 25$  kHz**

**#150338-1/Ku-band 11.7-12.2 GHz input, 950-1450 MHz Output, Noise: 0.8dB,  $\pm 210$  kHz**

**#150345/PLL LNB  $\pm 25$  kHz, Ku-band, 12.25-12.75 GHz input, 950-1450 MHz Output, Noise: 0.8dB**

**#150345-1/PLL LNB  $\pm 210$  kHz, Ku-band, 12.25-12.75 GHz input, 950-1450 MHz Output, Noise: 0.8dB**



**#150297/High Stability Ku-band, 11.7-12.2 GHz Input, 960-1450 MHz Output, Noise: 0.8dB**



**#140105-1/  
Extended C-Band  
Pro II, 3.4-4.2 GHz,  
Noise: 20°K**

**#140105-1/  
Extended C-Band  
Pro II, 3.4-4.2 GHz,  
Noise: 17°K**



**#140194/Extended C-Band  
PLL, 3.4-4.2 GHz Input, 950-  
1750 MHz Output, Noise:  
20°K or 25°K,  $\pm 12$ kHz**

**#140194-1/Extended C-  
Band PLL, 3.4-4.2 GHz  
Input, 950-1750 MHz  
Output, Noise: 20°K or  
25°K,  $\pm 125$ kHz**

# Chaparral & ADL Feedhorns



## DUAL FEED™

All-purpose Ortho-mode Feed. Peak Performance in any commercial or multi-receiver C-Band system. Optional dielectric plate for circular polarity.



## POLAROTOR® I

World's best selling feedhorn. Features quick polarity selection and fine tuning using Chaparral's reliable servo motor. Optional dielectric plate for circular polarity.



## SUPER FEED®

Ideal for single-polarity systems. Optional Golden Ring™ for deep dishes and dielectric plate for circular polarity.



## COROTOR® II PLUS

Perfect for North America & Asia. Receives all linear C (3.7-4.2GHz) and Ku-band (11.7-12.7GHz) signals. Superior performance in both C & Ku-bands in a compact design. Made in the U.S.A. with Chaparral's servo-controlled patented probe.



## BULLSEYE™ II

All the Channels, ALL the time. Chaparral's dual-band orthomode feed designed for simultaneous viewing of both polarities from C and Ku-band satellites. Used in both commercial and multi-receiver systems.

## M100™ PLUS-Stereo Satellite Receiver

Chaparral analog satellite receivers have long been the choice among education and business leaders worldwide. Based on the industry-standard M100C receiver, and incorporating the features of the M200C receiver, the M100C plus provides users with the ultimate in analog signal satellite reception systems. Easy to use and reliable, the M100C Plus provides educational facilities and business networks with a full range of features that include full addressability, programmable event timer, computer interface and flash RAM memory in addition to Chaparral's unique Memory Card back-up system. Features high video quality and low threshold wideband tuner for improved reception of weak signals. Additionally, the M100C Plus can be equipped with an optional VideoCipher descrambler for reception of scrambled signals.



## DUAL FEED™ PM-C/KU OR 2+2

Skewable. Dual C-band. Dual Ku-band. Adjustable F/D ratio. 130° skew ability.



## RP1-C BAND

Dual hybrid moding. Precision die castings. Precision waveguide flange with water tight gasket. Thermal insulator between feed and servo motor helps eliminate motor freeze-up in cold weather and over-heating in hot weather.



## KU-850/855

Will receive vertical or horizontal polarities one at a time. The LNB is installed directly to the WR-75 waveguide. There are 4 feed mounting holes provided on the WR-75 transition. The (OP-120) enables the KU-850/855 feed to adapt to a standard C-band feed mounting system with the added advantage of being able to manually rotate the Ku to any polarity desired.



## KU-860

Will receive vertical or horizontal polarities one at a time and fills the need for a dedicated OFF-SET feed. Installed directly to the WR-75 waveguide, and there are 4 feed mounting holes provided for the WR-75 transition.



## KU-901/905 (PM or KU)

Receive vertical and horizontal polarities.



## RP3 C-KU FEED

Dual feed with single C-band and single Ku-band. Adjustable F/D Ratio.



## CP-OR100

For the system that uses two dedicated circular polarities. Will simultaneously receive right hand circular and left hand circular polarities.



## CP-300 C-BAND

Single polarity feed. Polarization format circular RHC/LHC. Adjustable polarization.



## OR-100

For the system that uses two dedicated circular polarities. Simultaneously receives vertical and horizontal polarities.



## ACCESSORIES

OP-110 90° bend elbow.

OP-120 Mounting ring option. (Shown left.)

OP-122 Scalar plate option for new installations.

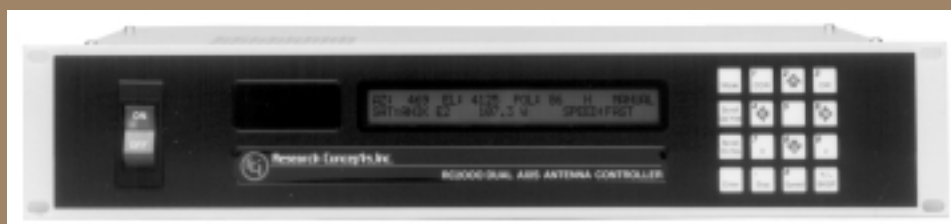
# Research Concepts, Inc. (RCI) Controllers



## RC1000A®

### *Single Axis Controller*

Features a 36 volt DC drive, 2x16 LCD, and non-volatile memory holding up to 50 preset position and polarization combinations.



## RC2000A®

### *Commercial Antenna Controller for Dual Axis Antennas*

Features automatic positioning, non-volatile memory (up to 50 presets), and has built in current limiting, protecting from excessive loads.

## RC2000C®

### *Tracking/Remote Controller for Dual Axis Antennas*

Operates with many mount types, supports Ku, C, and L-Band satellites, and features automatic positioning. Features a non-volatile memory (38 presets).

## RC1KADP®

Optional protocol converter that allows the RS-232 serial port of a PC to interface to RS-422 SA Bus such as the RCI antenna controllers.

## RC2KPOL®

### *Optional Feed Drive*

Optional daughter board can be installed into any controller to support rotating feeds powered by 24 volt DC motors with potentiometer feedback.

## RCAutoPilot2®

### *Low-Cost PC Based Downlink Control Manager*

System features an on-screen display of standard agile omni receiver and antenna controller status. Provides manual control of satellite antenna position, allows on-screen editing for updating scheduled events, and can control up to 4 steerable antenna systems with 8 receivers each. Must have an IBM compatible with at least two serial ports (COM1, COM2). Can either support 2 antenna controllers and up to 16 receivers or support 4 antenna controllers and up to 16 receivers.



# Venture & Thomson Saginaw Actuators



## Maxi 18" Actuator

Designed to provide positioning capability as part of a consumer system. Supports antenna sizes 1.8 through 2.8m. Includes clamp.

## 24" Actuator

Designed to provide positioning capability as part of a consumer or commercial system. Supports antenna sizes 3.1 through 3.8m. Includes clamp.

## 36" Actuator

Designed to provide positioning capability as part of a consumer or commercial system. Supports antenna sizes 3.8m and larger.



## 24" Ball Screw Actuator

This heavy-duty design provides positioning capability for polar-mounted antennas from 2.8 to 3.1m.



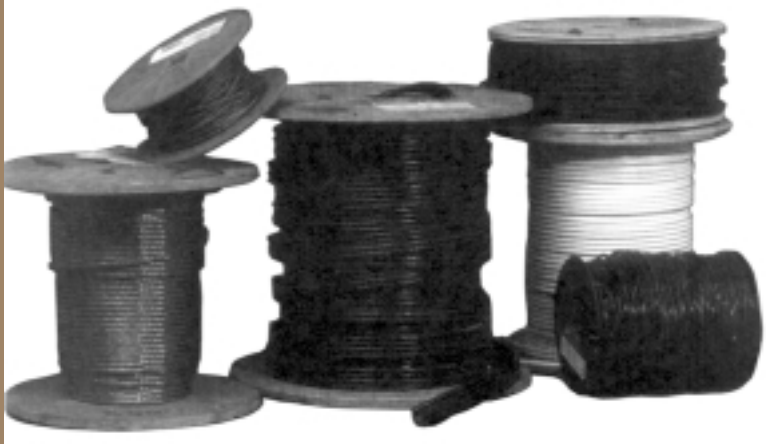
## 36" Ball Screw Actuator

Designed to provide positioning capability for polar-mounted antennas 3.8m and larger.



# Co-Axial & Cable

## Co-Axial & All-In-One Cable



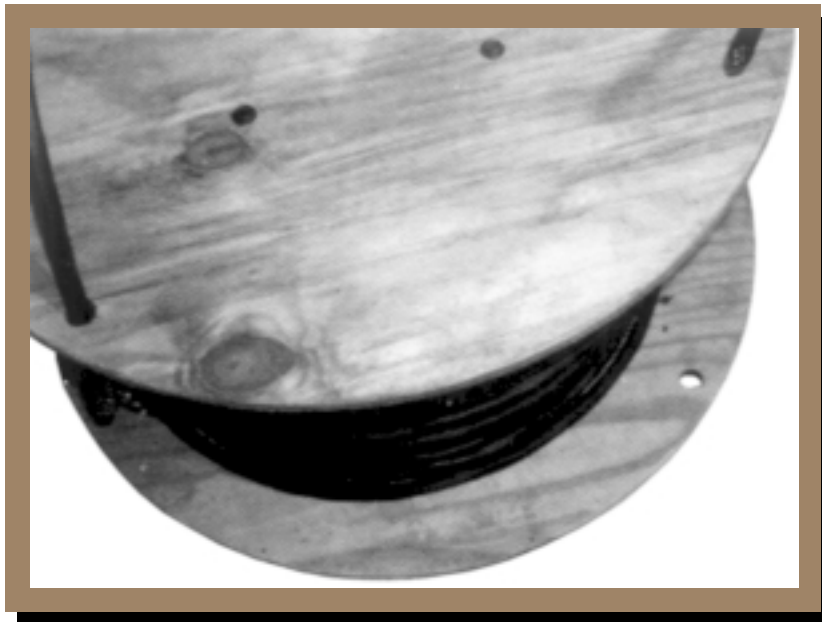
**RG-6 Cable**

**RG-11 Cable**

**Ribbon Cable**



## 15 Lead Control Cable



**Construction:** This composite control cable consists of four individually jacketed groups cabled together and jacketed overall with polyethylene.

**1st Jacketed Cable: 3/c-20 AWG-Shielded**

**2nd Jacketed Cable: 3/c-22 AWG-Shielded + 2/c14 AWG**

**3rd Jacketed Cable: 3/c-22 AWG-Shielded + 2/c-14 AWG**

**4th Jacketed Cable: 2/c-18 AWG-Unshielded**

**1000 ft. on a 30x15x15 inch reel.**

**Shipping weight: 174 lbs. per 1000 ft.**

# Contact Our Distributors

## United States

<b>CVS SYSTEMS</b> 1139 S. Baldwin Ave., Box 1990, Marion, IN 46952 1-217-892-2614 FAX: 1-217-892-4216	<b>DISTANT MIRROR</b> 2766 Camino Diablo, Walnut Creek, CA 94596 1-510-934-4433 FAX: 1-510-934-6747	<b>DMS INTERNATIONAL</b> 320 B. Northpoint Parkway, Acworth, GA 30102 1-770-529-6800 FAX: 1-770-529-6840
<b>DSI/CSS</b> 1364 NW 78th Ave., Miami, FL 33126 1-305-406-2220 FAX: 1-305-406-2221	<b>GLOBAL COMMUNICATIONS</b> S-9141 State Hwy. 23, Plain, WI 53577 1-608-546-2523 FAX: 1-608-546-2157	<b>NEW WORLD DISTRIBUTING</b> 100 McKay Dr., Haines City, FL 33844 1-941-422-6084 FAX: 1-942-421-4919
<b>NORSAT AMERICA</b> 1927 Boblett St., Blaine, WA 98231 1-604-292-9153 FAX: 1-604-292-9100	<b>NORTHWEST ANTENNAS OF HAWAII</b> Box 2097, Mile 53, Hwy. 19, Kamuela, HI 96743 1-808-885-8088 FAX: 1-808-885-1093	<b>O'ROURKE BROTHERS DISTRIBUTING</b> 1205 4th Ave., Moline, IL 61265 1-309-762-7936 FAX: 1-39-762-7334
<b>PASSIVE DEVICES</b> 6353 W. Rogers Cir., Bay 6, Boca Raton, FL 33487 1-561-998-0600 FAX: 1-561-998-0608	<b>PERFECT 10 DISTRIBUTING</b> 3901 Progress St., North Little Rock, AK 72114 1-501-955-0033 FAX: 1-501-955-0044	<b>RECREATIONAL SPORTS &amp; IMPORTS</b> 2436 N. Woodruff, Idaho Falls, ID 83401 1-208-523-5721 FAX: 1-208-523-0207
<b>SATELLITE DEPOT INTERNATIONAL</b> 7105 NW 53rd Terrace, Miami, FL 33166 1-305-888-0808 FAX: 1-305-883-9800	<b>SIGNAL SOURCES, INC</b> 5779 A-1 Winfield Blvd., San Jose, CA 95123 1-408-226-9500 FAX: 1-408-226-4400	<b>SKY POWER</b> Hwy. 24 West, P. O. Box 218, Downs, KS 67437 1-785-454-3393 FAX: 1-785-454-3857
<b>SKYVISION, INC.</b> 1010 Frontier Dr., Fergus Falls, MN 56537 1-218-793-5231 FAX: 1-218-739-4879	<b>TV LATIN AMERICA</b> 9750 NW 17th St., Miami, FL 33172 1-305-262-1661 FAX: 1-305-261-3312	

## Africa

<b>AERIAL EMPIRE C.C.</b> P. O. Box 16388, Doornfontein 2028, Johannesburg South Africa 27-11-402-1166 FAX: 27-11-402-7400	<b>DAE COMMUNICATIONS</b> 9 Fife Ave., Box CY899, Causeway, Harare, Zimbabwe 263-4-706-948 FAX: 263-4-705-490	<b>ELECTRONIC CONSULTING CENTER</b> 31 Obour Building, Nasr City, Cairo, Egypt 202-401-1399 FAX: 202-266-9136
<b>WEST AFRICAN SUPPLY COMPANY</b> 37, Rue de France, B.P. 3601, Lome, Togo 228-210-607 FAX: 228-220-042		

## Asia

<b>MOUBIC, INC.</b> 314 Kioke Hamamatsu, Shizuoka 7435, Japan 81-53-433-1238 FAX: 81-53-433-4030	<b>NACENCOMM</b> 5 Phuong Mai St., Hanoi, Vietnam 84-4-852-0998 FAX: 84-4-852-0999	
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## Europe

<b>SKU</b> 16, Stefan Halachev Street, 4000 Plovdiv, Bulgaria 359-32-226-343 FAX: 359-32-262-626	<b>TV BABO</b> Ruo Coeho Neto 36, 4000 Porto, Portugal 351-225-378138 FAX: 351-225-371504	<b>WORLD SAT TEXAS DE FRANCE</b> 67 rue Albert Einstein, Zi Les Milles 13852 Aix-en-Provence, Cedex 03, France 33-4-42-394-696 FAX: 33-4-42-243-879
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## Middle East

<b>EUROSTAR COMMUNICATIONS</b> Post Box 51098, Creek Deira Dubai, United Arab Emirates 971-4-257-333 FAX: 971-4-259-949	<b>IHSAN EST.</b> P. O. Box 2221, 13023 Safat, Kuwait 965-241-3944 FAX: 965-241-3955	<b>TELTRAN COMMUNICATIONS LTD.</b> 6 Shoken Street Tel Aviv 66063, Israel 972-3-683-2163 FAX: 972-3-682-0032
<b>TRANS WORLD AFFAIR EXCHANGE</b> Gema Center, 11th Floor, P. O. Box 5525 Dbayeh, Lebanon 961-4-544-261 FAX: 961-4-543-876	<b>VIASAT ELECTRONICS LLC</b> City Tower One, Suite 302, Abu Dhabi Rd. Dubai, United Arab Emirates 971-4-315-300 FAX: 971-4-312-049	

## North America

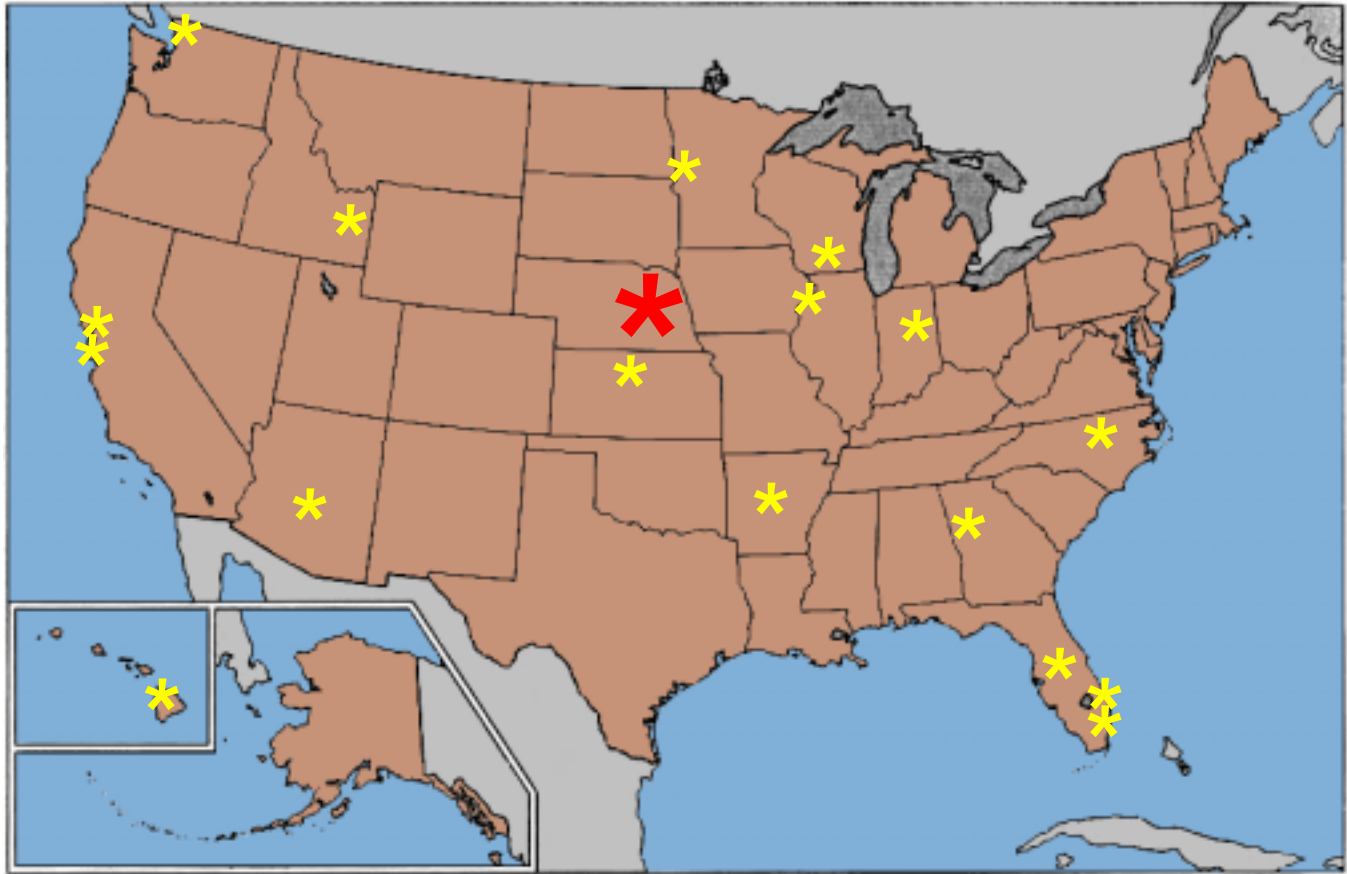
<b>ORBIT SATELLITE SYSTEMS</b> 6985 Davand Dr., Unit 7, Mississauga Ontario L5T-1Y7, Canada 1-905-670-3660 FAX: 1-905-670-2851		
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## Pacific Rim

<b>AMITY</b> 2300 Leon Guinto St. Malate, Manila, Philippines 63-2-59-5036 FAX: 63-2-521-7097	<b>STRONG AUST. PTY. LTD.</b> 6/477 Warrigal Road Moorabbin, East Victoria 3189, Australia 61-3-9553-3399 FAX: 61-3-9553-3393	
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## Distributor Locations In the United States



## Around the World



**Web Site Address**  
**[www.paraclipse.com/antdist.htm](http://www.paraclipse.com/antdist.htm)**

# **Sales & Corporate Office:**

**Paraclipse, Inc.**

**2271 29th Ave. East, P. O. Box 686**

**Columbus, NE 68602-0686**

**United States of America**

**Telephone: 1-402-563-3625**

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