SPECIFICATION – MAST ARM MOUNT SIGNAL BRACKET **1-WAY STAINLESS STEEL BAND MOUNT**

About

Mast Arm



Adjustment

Bracket Axis



Vertical Adjustment

C - Side View 11



Rotational Adjustment Rotational Adjustment Right & Left From Vertical Plane

BRACKET SPECIFICATIONS:

About

- 1. ADJUSTABILITY: The bracket shall be completely adjustable such that it combines all four (4) of the adjustments indicated above as A through D.
- 2. ATTACHMENT: The bracket shall be provided with type 201 Stainless Steel Band to fasten the bracket to the supporting arm or structure. The bracket shall be easily adjustable to fit all sizes of round, octagonal, elliptical or other shaped structure without special tools or equipment.
- SIGNAL ACCOMMODATIONS: The bracket shall attach to the signal in a clamping manner holding 3. the signal both top and bottom in order to assure maximum rigidity. A standard bracket (Figure 1) shall accommodate all major signal manufacturer's signals from a three (3) Section 1-Way (inline) 8" and 12" Signal through a five (5) Section 1-Way 12" Signal and any combination thereof including 3M and ICC configurations.
- WIRING: All electrical wiring shall be completely concealed within the bracket. The vertical support 4. shall be a gusseted "C" shaped extruded aluminum tube to accommodate the signal cable regardless of vertical positioning of the tube.

5. MATERIAL & DESIGN:

- A. UPPER & LOWER ARMS: Shall be cast from 319 aluminum or equivalent. The lower bracket arm shall be internally threaded to accommodate the threaded vertical support tube. The lower arm shall be furnished with ABS plastic covers which will slide and snap into position without the use of fasteners or tools. All upper and lower arms shall have 72 tooth serrations cast into the arm to assure a positive lock with signal housing and shall be secured about their rotational axis with setscrews. Both upper and lower arms shall have a tri-bolt arrangement for attachment to the signal housing. Opening in the lower arm shall accommodate a minimum of 3, 12 conductor 14 gauge cables.
- B. VERTICAL SUPPORT TUBE: Shall be a double gusseted tube extruded from 6063-T6 aluminum alloy and have a cross section as shown in Section "A-A". Each tube shall be complete with a Vinyl Closure Strip and be threaded on one end to accommodate the lower arm assembly.
- C. MAST ARM CLAMP ASSEMBLY: Both male and female halves shall be cast from 713 aluminum alloy or equivalent. The male clamp half shall be secured within the female half, utilizing a spring steel retainer ring. Such assembly shall provide an unobstructed center of 2 3/8" minimum diameter, allowing for 360 degree rotation of the clamp assembly. There shall be no internal cross bracing assembly obstructing the center opening.
- D. MAST ARM CLAMP ASSEMBLY: Shall be equipped with two (2) stainless steel bands, 5/8" wide, 0.045" thick and 29" long. Stainless steel bands shall have a minimum tensile strength of 100,000 PSI. A setscrew secured buckle shall be utilized in securing the band.
- E. CLAMP SCREW: For attaching the stainless bands to the clamp kit. Shall be a 7/16"-14 x 3" one piece unit drop forged from C-1045 carbon steel or 316 stainless steel with a minimum tensile strength of 80 KSI. Shall be formed with a slot sized to accept a 5/8" band.
- F. HARDWARE: Each bracket shall be complete with all necessary bolts, washers, gaskets, etc. to allow assembly of the signal to the bracket and the bracket to the mast arm.

6. FINISH:

- A. All aluminum parts shall have an Alodine (or equivalent) finish.
- B. All non-stainless steel parts shall have a yellow zinc di-chromate or galvanize finish.



Section "A-A"

SPECIFICATION MAST ARM MOUNT SIGNAL BRACKET, 1-WAY CABLE MOUNT

A - Top View





Rotational Adjustment About Bracket Axis

B - Side View

C - Side View

Rotational

Mast Arm

About

Adjustment

D - Front View



Rotational Adjustment Right & Left From Vertical Plane

BRACKET SPECIFICATIONS:

1. <u>ADJUSTABILITY</u>: The bracket shall be completely adjustable such that it combines all four (4) of the adjustments indicated above as A through D.

Vertical

Adjustment

- <u>ATTACHMENT:</u> The bracket shall be provided with aircraft type stranded cable for fastening the bracket to the supporting arm or structure.. The bracket shall be easily adjustable to fit all sizes of round, octagonal, elliptical or other shaped structure elliptical or other shaped structure without special tools or equipment.
- 3. <u>SIGNAL ACCOMMODATIONS</u>: The bracket shall attach to the signal in a clamping manner holding the signal both top and bottom in order to assure maximum rigidity. A standard bracket (Figure 1) shall accommodate all major signal manufacturer's signals from a three (3) Section 1-Way (inline) 8" and 12" signal through a five (5) Section 1-Way 12" Signal and any combination thereof including 3M and ICC configurations.
- 4. <u>WIRING:</u> All electrical wiring shall be completely concealed within the bracket. The vertical support shall be a gusseted "C" shaped extruded aluminum tube to accommodate the signal cable regardless of vertical positioning of the tube.

5. MATERIAL & DESIGN:

- A. <u>UPPER & LOWER ARMS</u>: Shall be cast from 319 aluminum or equivalent. The lower bracket arm shall be internally threaded to accommodate the threaded vertical support tube. The lower arm shall be furnished with ABS plastic covers which will slide and snap into position without the use of fasteners or tools. All upper and lower arms shall have 72 tooth serrations cast into the arm to assure a positive lock with signal housing and shall be secured about their rotational axis with setscrews. Both upper and lower arms shall have a tri-bolt arrangement for attachment to the signal housing. Opening in the lower arm shall accommodate a minimum of 3, 12 conductor 14 gauge cables.
- B. <u>VERTICAL SUPPORT TUBE:</u> Shall be a double gusseted tube extruded from 6063-T6 aluminum alloy and have a cross section as shown in Section "A-A". Each tube shall be complete with a Vinyl Closure Strip and be threaded on one end to accommodate the lower arm assembly.
- C. <u>MAST ARM CLAMP ASSEMBLY</u>: Both male and female halves shall be cast from 713 aluminum alloy or equivalent. The male clamp half shall be secured within the female half, utilizing a spring steel retainer ring. Such assembly shall provide an unobstructed center of 2 3/8" minimum diameter, allowing for 360 degree rotation of the clamp assembly. There shall be no internal cross bracing assembly obstructing the center opening.
- D. <u>AIRCRAFT TYPE STRANDED CABLE</u>: Shall be fabricated in one piece with a minimum diameter of 3/16" either galvanized or stainless steel. The cable shall be complete with 7/16" stainless steel clamp screw permanently attached to each end. Each clamp screw shall be fitted with a stainless steel hex. nut, SAE flatwasher and an aluminum bearing washer. The clamp screw shall be flattened on two opposite sides for wrench accommodation. The stranded cable shall be of sufficient length to fasten the clamp assembly to a minimum pole diameter of 8.6".
- F. <u>HARDWARE:</u> Each bracket shall be complete with all necessary bolts, washers, gaskets, etc. to allow assembly of the signal to the bracket and the bracket to the mast arm.
- 6. <u>FINISH:</u>
 - A. All aluminum parts shall have an Alodine (or equivalent) finish.
 - B. All non-stainless steel parts shall have a yellow zinc di-chromate or galvanize finish.



Section "A-A"