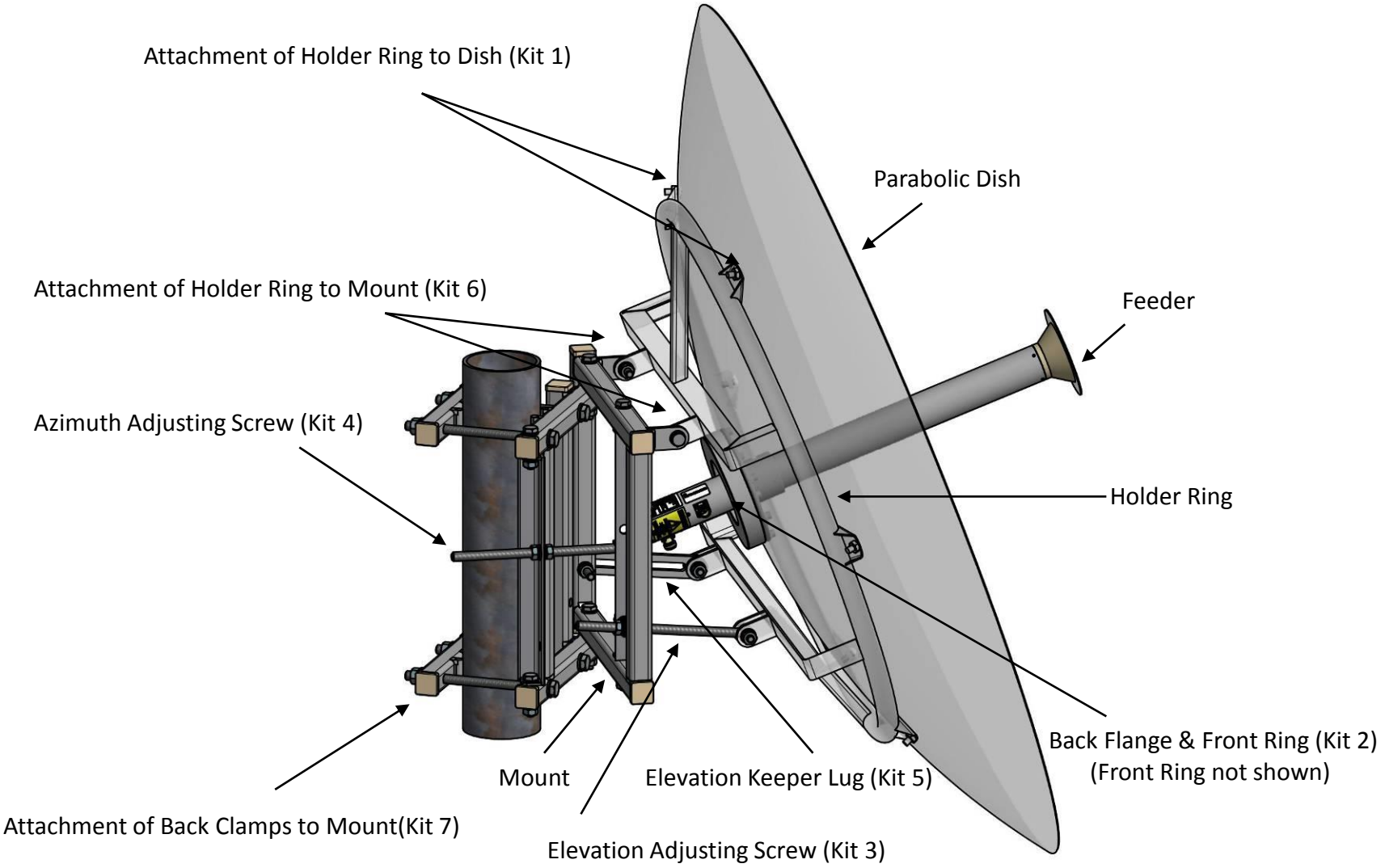
Ø1.2 meter PARABOLIC DISH ANTENNA

MOUNTING INSTRUCTIONS Rev. 03 (Doc # WI-140722)



Delivery Set and Required Tooling List

Parts List		
Item	Description	Location
1	Kit 1. Attachment of Holder Ring to Dish	Mount Package
2	Kit 2. Attachment of Back Flange & Front Ring to Dish	Feeder Assembly
3	Kit 3. Elevation Adjusting Screw Kit	Mount Package
4	Kit 4. Azimuth Adjusting Screw Kit	Mount Package
5	Kit 5. Elevation Keeper Lug Kit	Mount Package
6	Kit 6. Attachment of Dish Holder to Mount	Mount Package
7	Kit 7. Attachment of Back Clamps to Mount	Mount Package
11	Dish	
12	Holder Ring	
13	Mount	
14	Feeder	

Required Tooling List (not supplied)

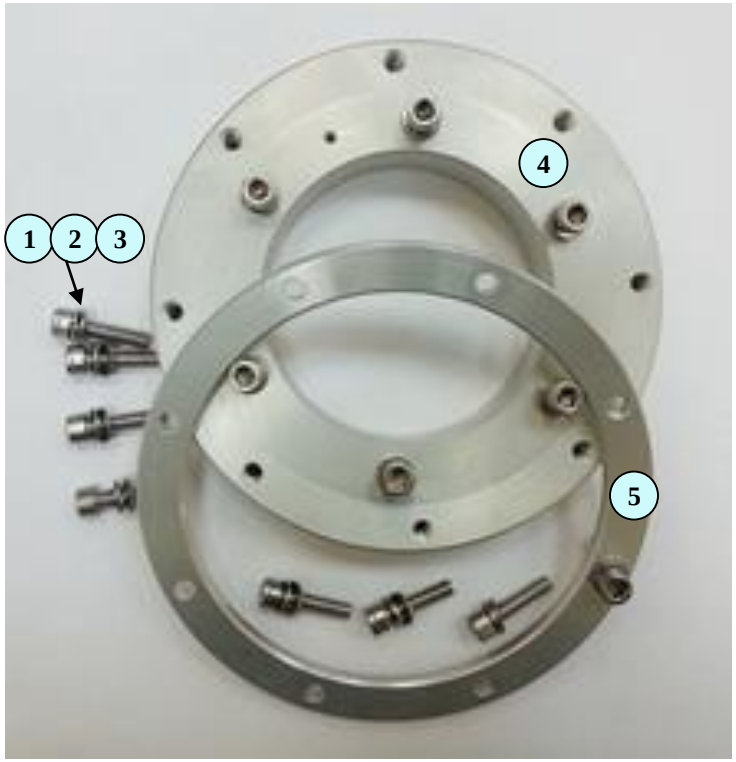
1. **Wrench 13**
2. **Wrench 15**
3. **Wrench 17**
4. **Wrench 19**
5. **Allen Key 5**
6. **Flat Screwdriver**

Warning

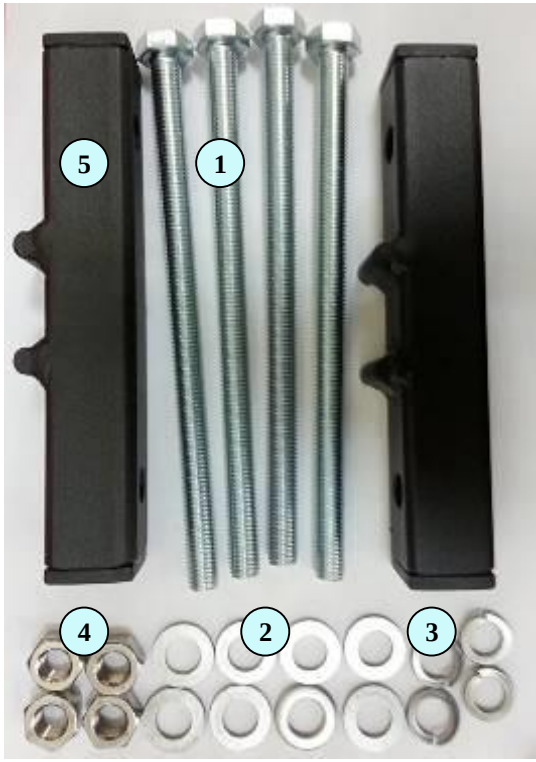
- Carefully review these instructions before beginning installation.
- Antenna installation should be performed by certified personnel only.
- Do not install the antenna at a wind speed of 20 km/h or more.
- When installing the antenna at a height over two meters personnel must be authorized to carry out work at height.
- When installing the antenna don’t touch the electrical live wires.
- Antenna should be mounted on strong stable pole with a diameter of 3 to 4 inches (76.2 to 101.6 mm).
- Antenna installation should performed according to local regulations for such an installation
- MARS Antennas & RF Systems LTD. is not responsible for improper installation and its possible consequences!
- We are permanently working to improve the antenna construction therefore the document image may be differ slightly from the supplied device.

Installation Kits

Pic 1. Kit #1. Holder Ring to Dish		
Item	Qty.	Description
1	6	Screw M8x16
2	6	Flat washer M8
3	6	Spring washer M8
4	6	Nut M8

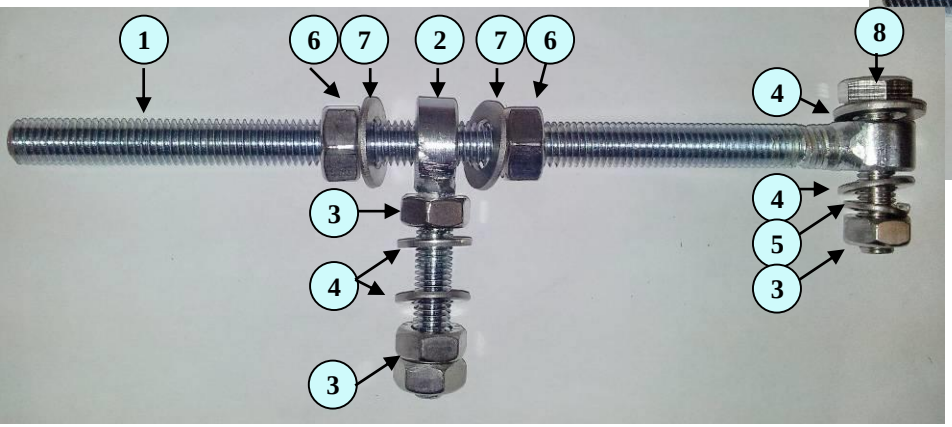


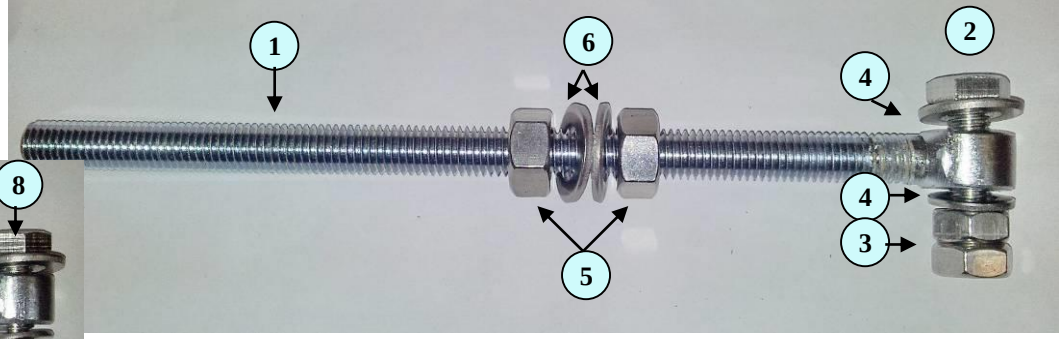
Pic 2. Kit 2. Back Flange & Front Ring to Dish		
Item	Qty.	Description
1	14	Hex Socket Screw M6x25
2	14	Plain washer M6
3	14	Spring washer M6
4	1	Back Flange
5	1	Front Ring
Note: All items are supplied in Feeder Assebly		



Pic 7. Kit 7. Back Clamps to Mount		
Item	Qty.	Description
1	4	Screw M12x200
2	8	Plain washer M12
3	4	Spring washer M12
4	4	Nut M12
5	2	Back Clamp

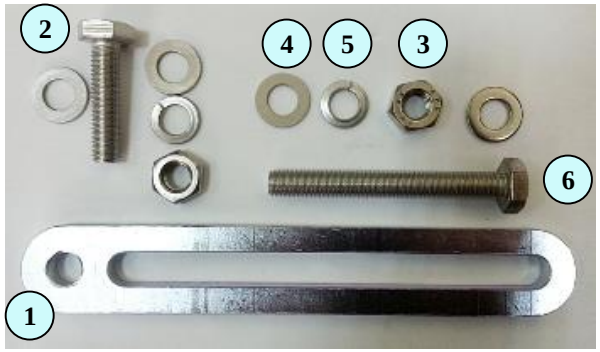
Installation Kits



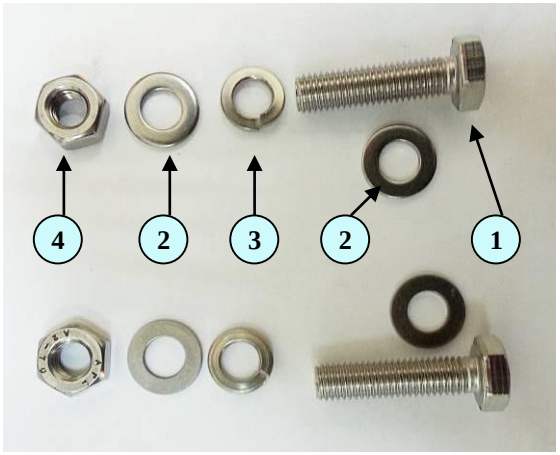


Pic 3. Kit 3. Elevation Adjusting Screw		
Item	Qty.	Description
1	1	Adjusting Screw
2	1	Rotating Screw M10
3	4	Hex Nut M10
4	4	Flat Washer M10
5	1	Spring Washer M10
6	2	Hex Nut M12
7	2	Flat Washer M12
8	1	Hex-head bolt M10x40

Pic 4. Kit 4. Azimuth Adjusting Screw		
Item	Qty.	Description
1	1	Adjusting Screw
2	1	Hex-head bolt M10x40
3	2	Hex Nut M10
4	2	Flat Washer M10
5	2	Hex Nut M12
6	2	Flat Washer M12



Pic 5. Kit 5. Elevation Keeper Lug		
Item	Qty.	Description
1	1	Lug
2	1	Hex-head bolt M10x40
3	2	Hex Nut M10
4	4	Flat Washer M10
5	2	Spring Washer M10
6	1	Hex-head bolt M10x80 (M10x60)



Pic 6. Kit 6. Dish Holder to Mount		
Item	Qty.	Description
1	2	Hex-head bolt M10x40
2	4	Flat washer M10
3	2	Spring washer M10
4	2	Hex Nut M10

1. Attachment of Holder Ring to Dish with Kit #1

1.1 Align Holder Ring with holes in the Dish

Very Important:

a. **Double housing on Ring marks lower side of antenna (Fig 1.1. Note A).**

b. **Points Upper and Lower of the Holder should be between two adjacent holes for Back Flange (Fig 1.1 Note B and Fig 1.2.a/b).**

c. **Points Upper and Lower of the Holder should be between two adjacent holes for Holder Ring (Fig 1.1. Note C).**

1.2 The Pointer (arrow) indicates Upper side of antenna. Use point "Up" of the Dish in Fig. 1.1 and Fig. 1.4 as upper side of the Dish (antenna).

1.3 Insert screws from front side of the Dish , washers and nuts (Kit #1) from back side as shown in Fig 1.3 and 1.4 and connect the Holder Ring to the Dish. Tighten the nuts.

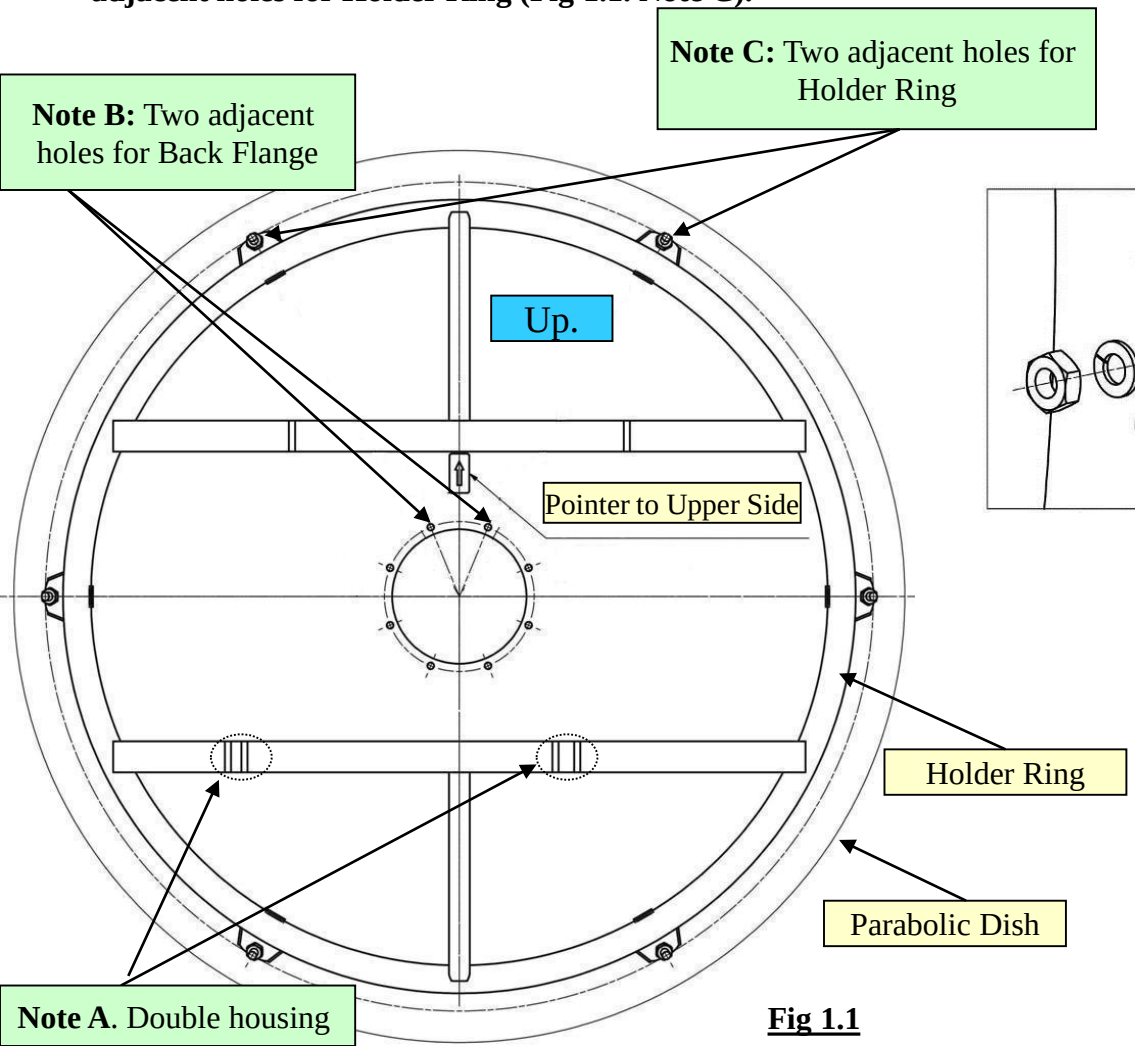


Fig 1.1

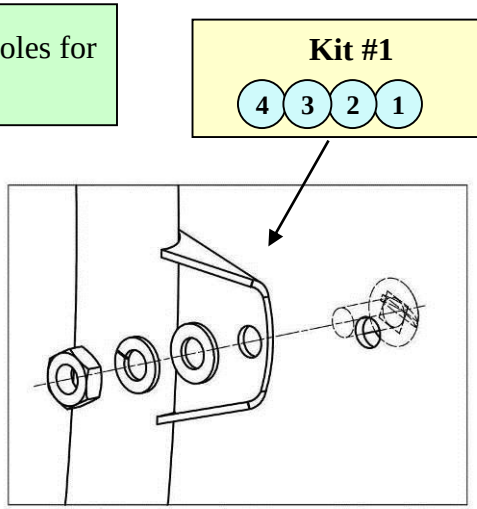


Fig 1.3

Fig 1.4

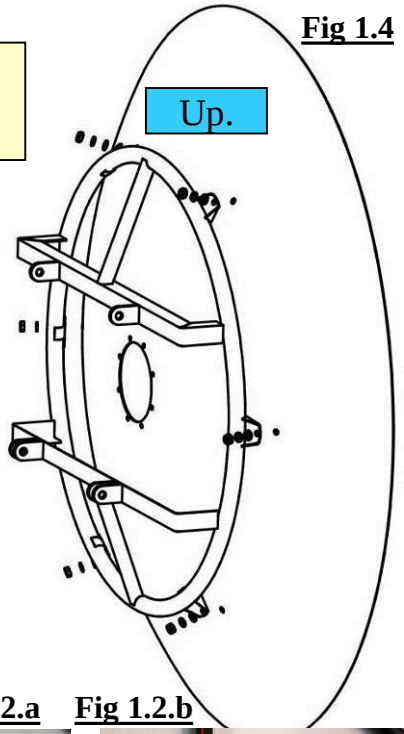
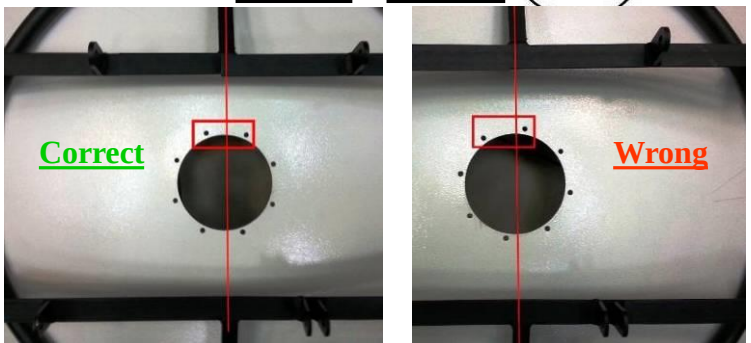


Fig 1.2.a **Fig 1.2.b**



2. Attachment of Back Flange and Front Ring to Dish with Kit #2

2.1. Unscrew all screws (Item 1) and detach Front Ring and Back Flange from the Feeder.
2.2. Align Back Flange with screws holes in the Dish:
The Ø2.5 hole of Back Flange should be positioned upwards (to upper side of antenna) see Fig 2.1 (Front View) and Fig 2.2. (Rear View).

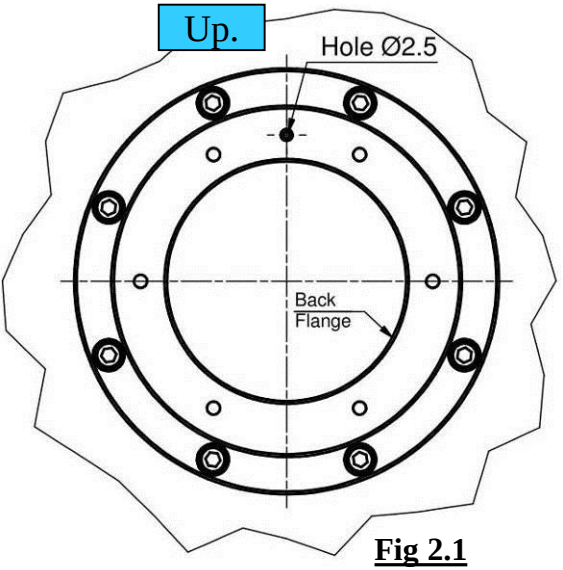
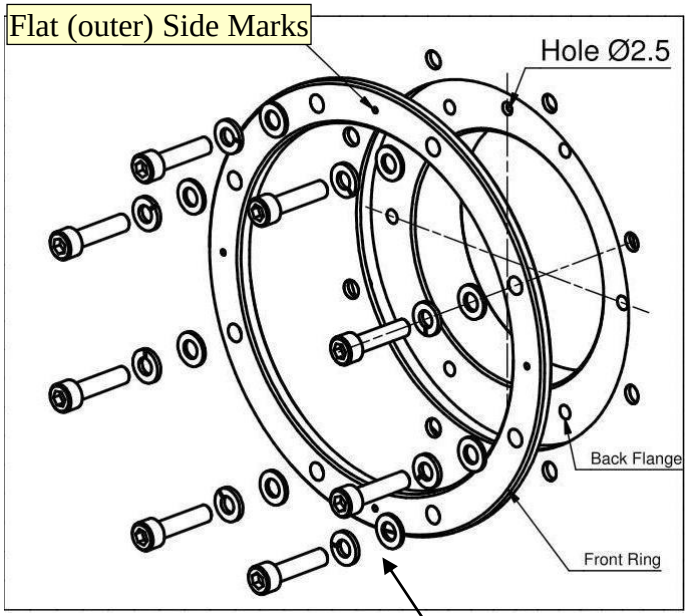


Fig 2.1



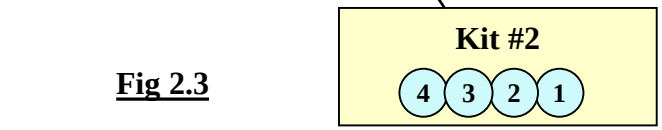


Fig 2.3

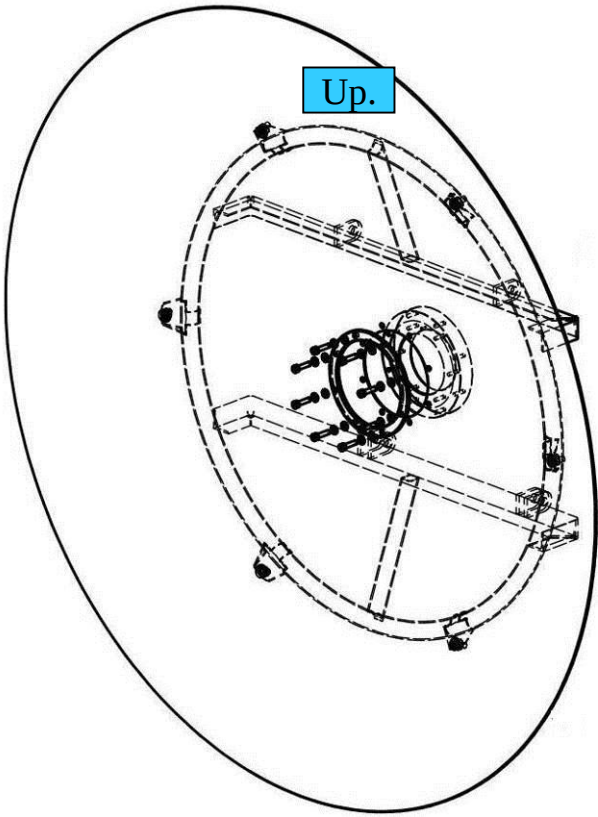


Fig 2.4

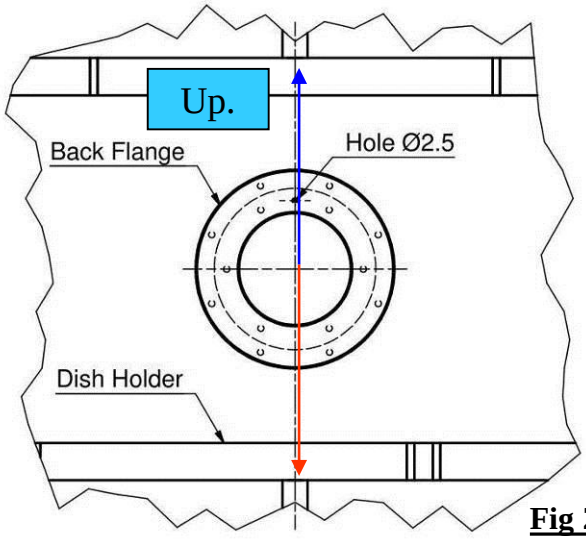


Fig 2.2

2.3. Front Ring has two sides – flat and conical. Flat side is indicated by four marks as shown in Fig 2.3. Put Front Ring with flat side facing outside (conical side to dish).
2.4. Connect Back Flange, Front Ring and Dish with 8 sets of screws and washers from kit #2 as shown in Fig 2.3 and Fig 2.4. Tighten the screws.
(The remaining 6 screws and washers of kit #2 will be used later for feeder connection).

3. Mount Assembly. Elevation Adjusting Screw. Kit #3

3.1. Fig 3.1 shows mount body before assembly.
Use points "A" and "B" as left and right sides of the mount.

3.2. Assemble Elevation Adjusting Screw Kit #3 and connect to the Mount as shown in Fig 3.2.
See Pic. 3 (page 5) for the correct Kit #3 parts installation.
Leave screws slightly loose.

3.3. Fig 3.3 shows mount with Elevation Adjusting Screw.
Point "C" is connection point of Elevation Adjusting Screw Kit #3 to Holder Ring. Assembly will be described later.

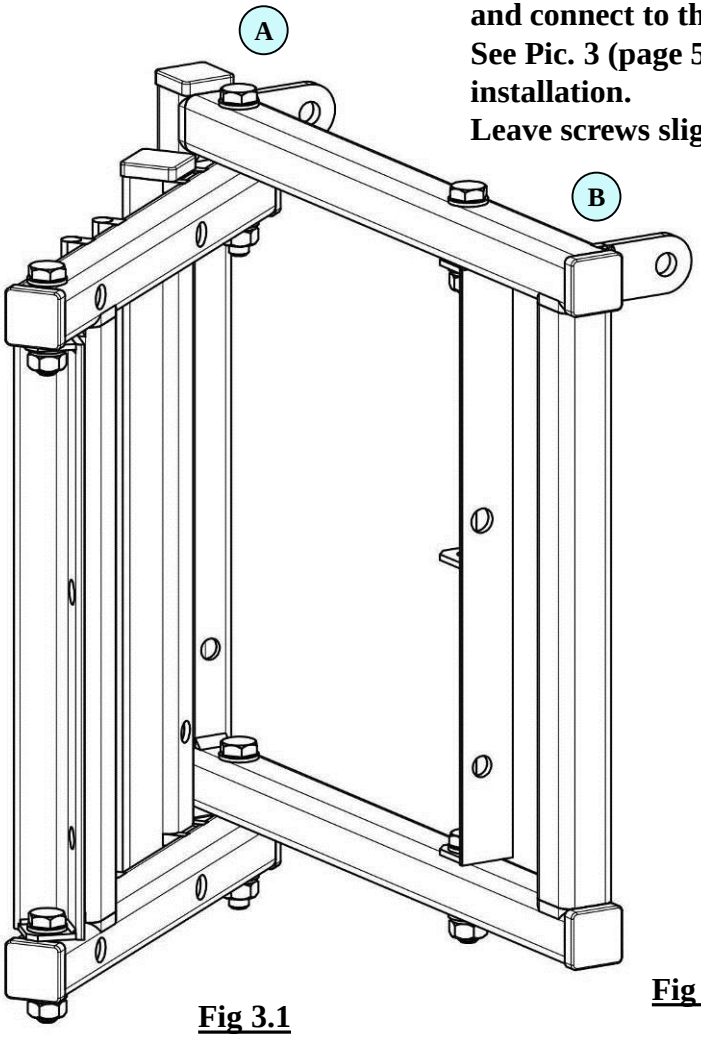


Fig 3.1

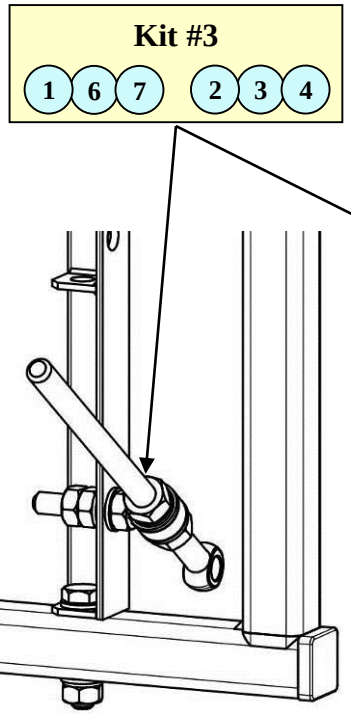


Fig 3.2

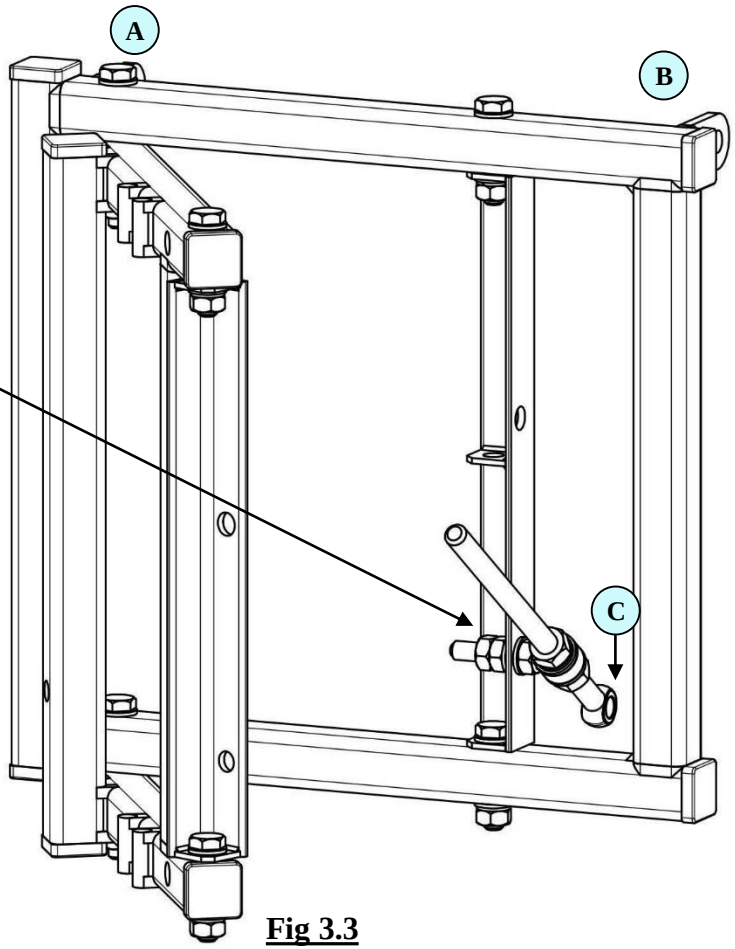


Fig 3.3

4. Mount Assembly. Azimuth Adjusting Screw. Kit #4

4.1. Connect Azimuth Adjusting Screw Kit #4 Fig 4.1 to the Mount Body Fig 3.3. See Pic. 4 (page 5) for the correct Kit #4 parts installation.
Leave screws slightly loose.

4.2. Fig 4.2 shows mount with Elevation and Azimuth Adjusting Screws.

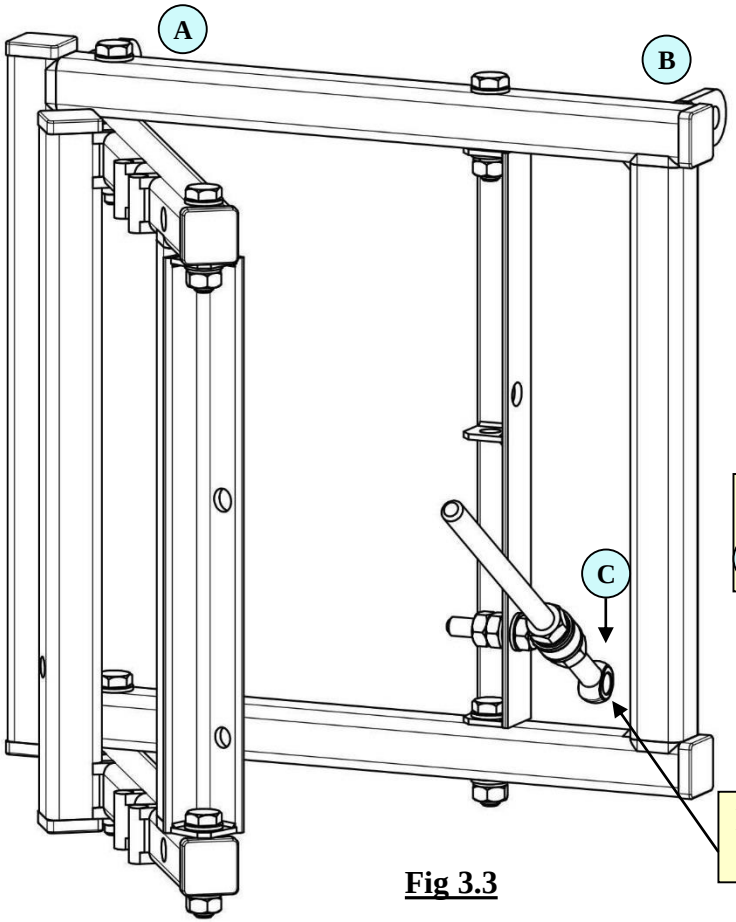
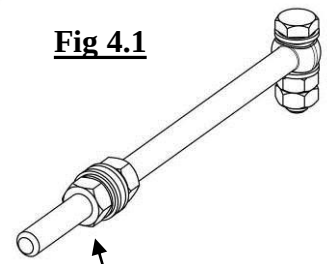


Fig 3.3

Fig 4.1



Kit #4

1 5 6 2 4 3

Elevation Adjusting Screw
Kit #3

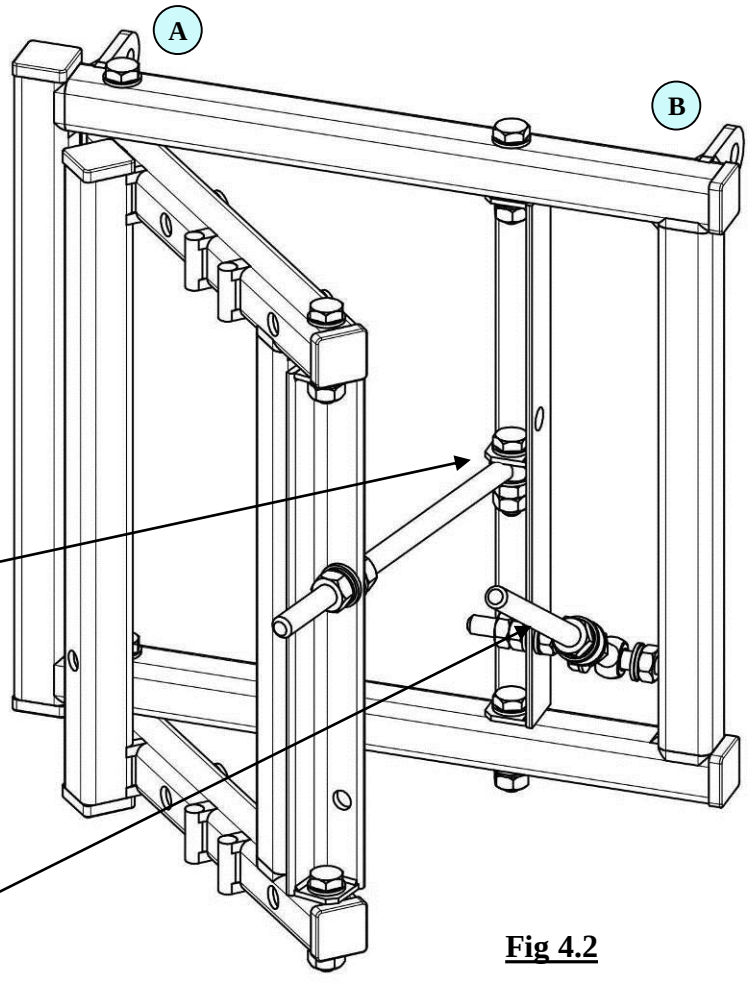


Fig 4.2

5. Mount Assembly. Elevation Keeper Lug. Kit #5.

5.1. Rotate Mount Body as shown in Fig 5.3. Connect Elevation Keeper Lug Kit #5 Fig 5.1 and Pic. 5 (page 5) to Mount Body as shown in Fig 5.2 Leave screws slightly loose.

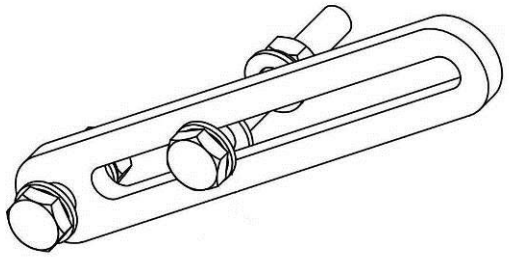


Fig 5.1

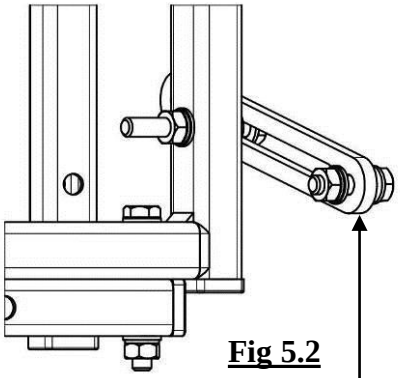


Fig 5.2

Fig 5.3

5.2. Fig 5.3 shows mount with Elevation Keeper Lug, Elevation and Azimuth Adjusting Screws. Points "C" and "D" are connection points of Elevation Adjusting Screw and Keeper Lug Kits #3 and #5 to Holder Ring. See next page.

6. Attachment of Mount to Holder Ring with Kit #6

6.1. Align Mount points A, B, C and D Fig 5.3 with connection points of Holder Ring in Fig. 6.1 and Fig 6.2.

6.2. Connect Mount with Holder Ring in points A, B, C, D:
- A and B with screw, washer and nut from Kit #6. Fig 6.1 & 6.1B;
- C with screw, washer and nut from Elevation Adjusting kit # 3 Fig 6.1 & 6.1C;
- D with screw, washer and nut from Elevation keeping Lug kit #5 Fig 6.2 & 6.2D.

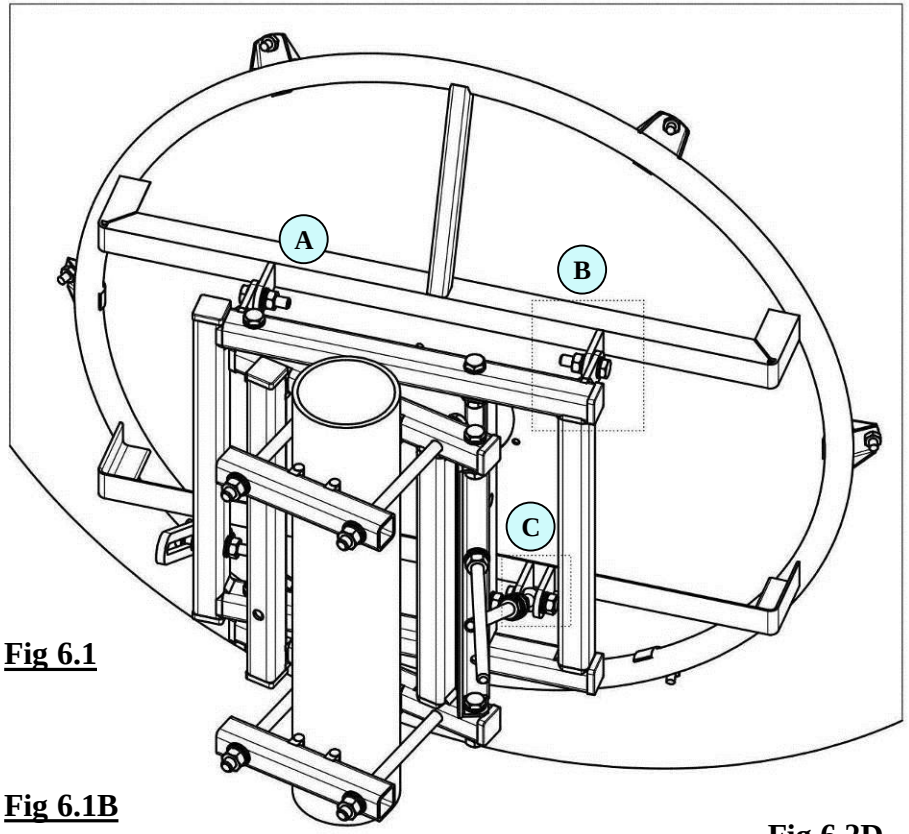


Fig 6.1

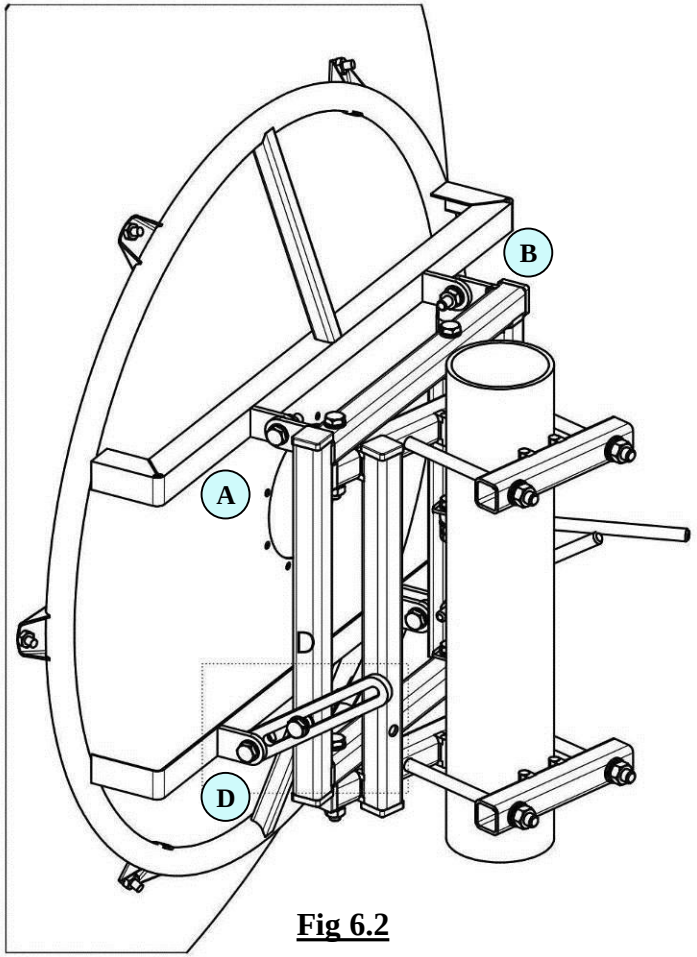


Fig 6.2

Fig 6.1B

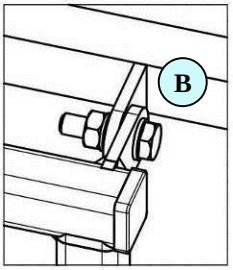


Fig 6.1C

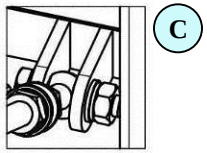
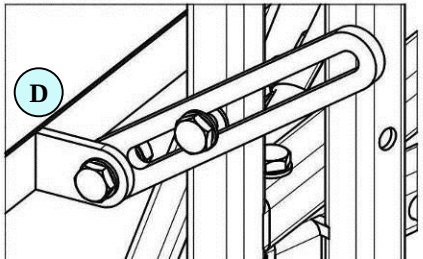


Fig 6.2D



6.3. Tighten not firmly the loose screws (sections 3.2, 4.1, 5.1 and 6.2) and all Mount Body screws to allow Elevation and Azimuth adjustment.

7. Feeder to Dish Connection.

1. Align Pin of Screw on Feeder Flange with Ø2.5 hole of Back Flange (see Fig 2.1, 2.2 from section 2 and Fig 7.1 and 7.2).

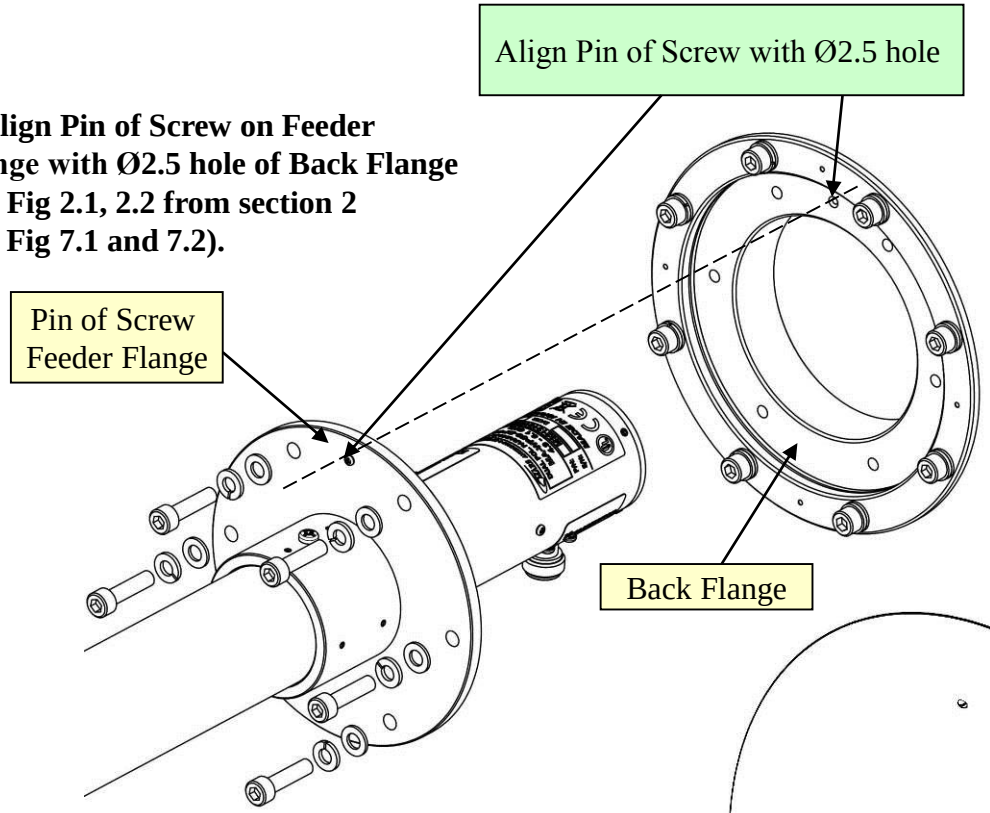


Fig 7.1

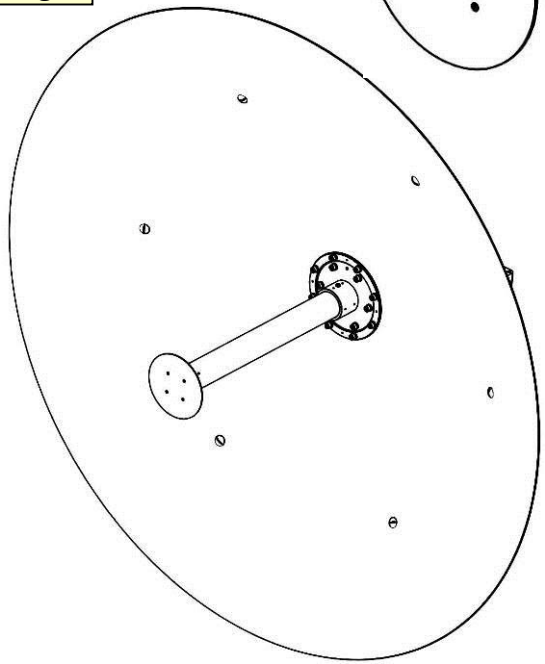


Fig 7.2

2. Insert the Feeder into the hole at the center of the dish and fasten to back Flange. Use the screws and washers from Kit #2 as shows Fig 7.1 - 7.3.
Tighten the screws.

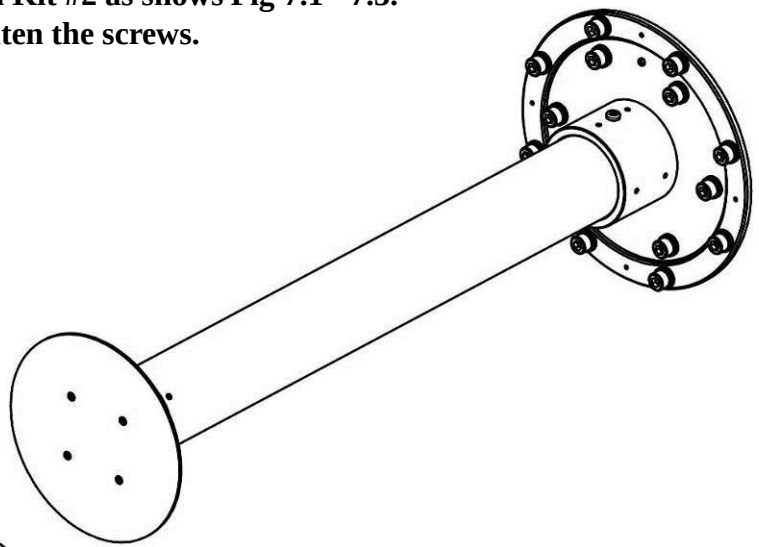


Fig 7.3

8. Attachment of Mount to Pole with Kit #7

8.1. Install the Mount on the pole with diameter 76-101 mm using two Back Clamps from Kit #7 as shown in the Fig 8.1 and 8.2.
Note: Back Clamps and Front Mount frame should be parallel!

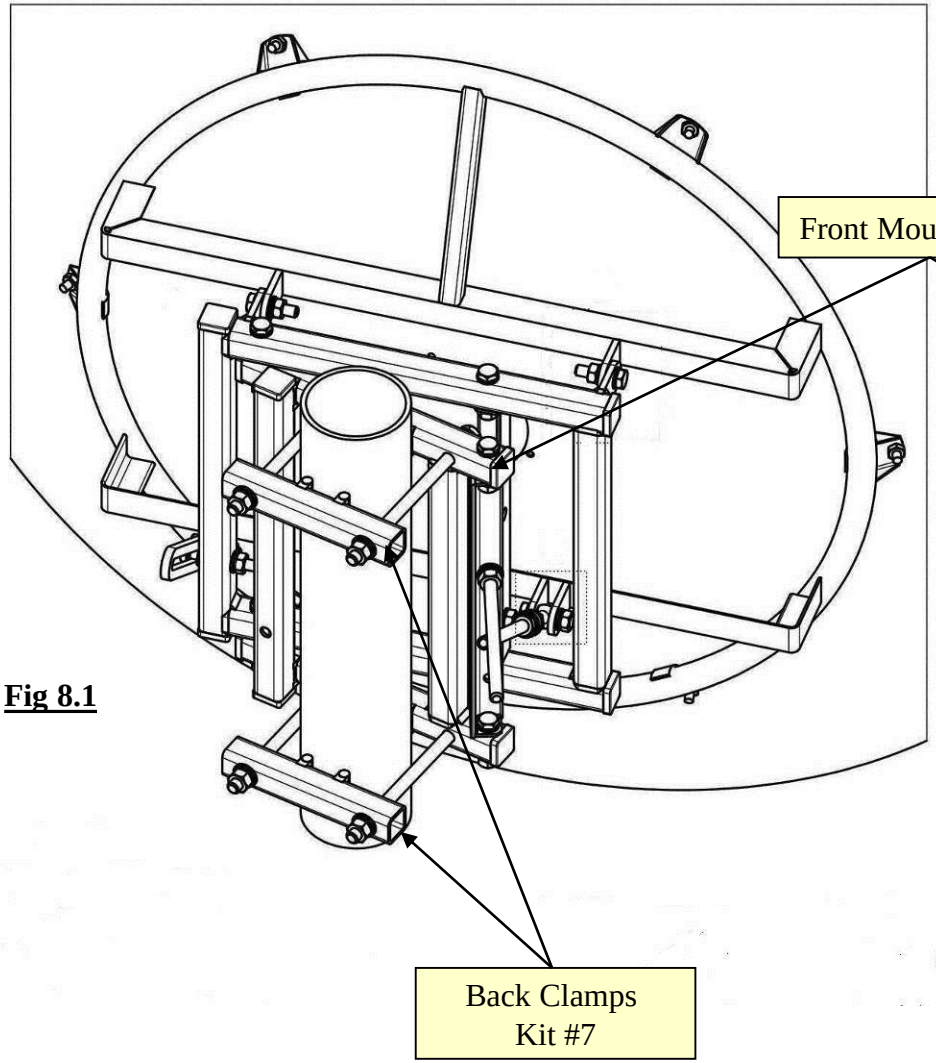


Fig 8.1

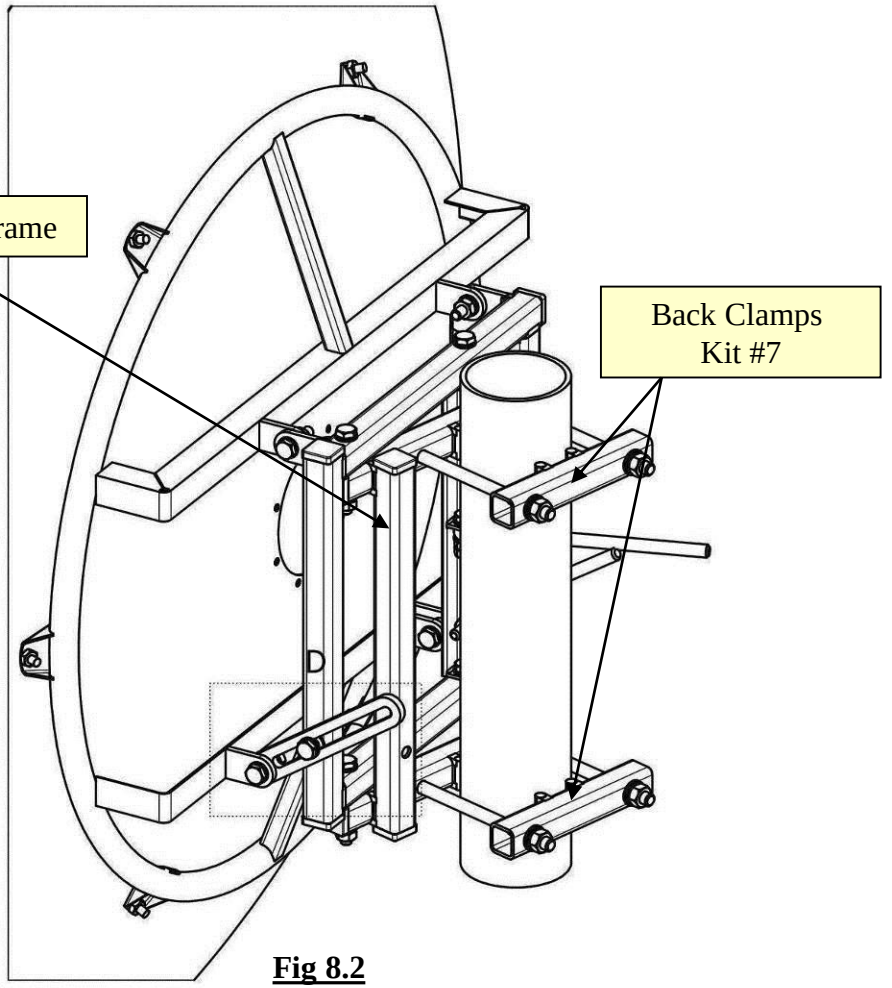


Fig 8.2

9. Elevation and Azimuth Adjusting

9.1 Adjust the antenna in Azimuth and Elevation planes using the adjustment screws.
9.2 Fully tighten the loose screws (sections 3.2, 4.1, 5.1 and 6.2) and all Mount Body screws.
9.3 Verify that all screws of all nodes are tightened.

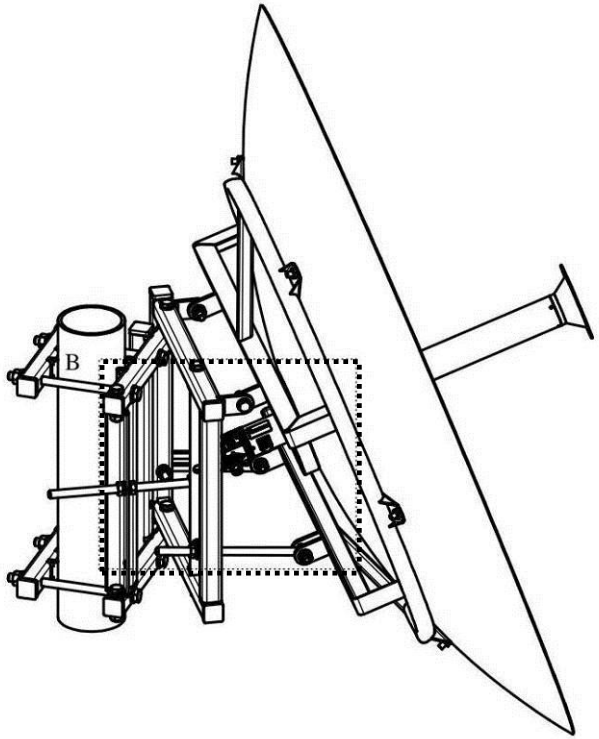


Fig 9.1

Fig 9.1A

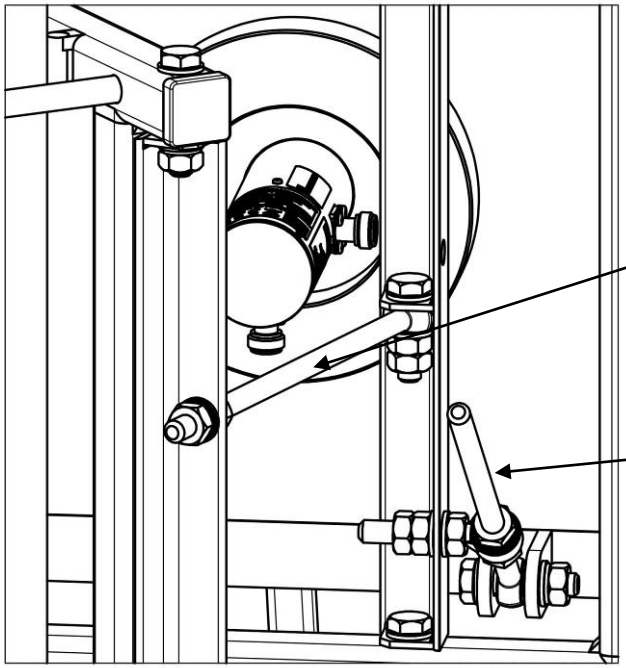


Fig 9.1B