1.2m Portable Antenna
Installation Instructions

SA-1.2TFly

I. Antenna composition

1.2m flyaway antenna is composed of antenna surface (composed by six lobes), drawbar, folding tripod, feed bracket, azimuth adjustment mechanism, elevation adjustment mechanism, horn bracket, feed system, etc. (see Fig. 1)

Fig.1 sketch of 1.2m assembled antenna

II. Antenna installation

1. Take out antenna mount from packing case and spread, adjust three adjusting stubs of mount to place mount stably on the ground. (see Fig.2)

Fig.2

2. First put both bronze spindles of one lobe of antenna surface, which has elevation lead screw, into both flutes of tripod flat slab, fasten by front pressure plate, rear pressure plate and dedicated screw; referring to shown mark, assemble the two antenna surfaces printed with 1 and 2, and already-assembled first antenna surface together, by three shortcut lock catch respectively.

Fig.3

3. As shown by marks, assemble the other three antenna surfaces with shortcut lock on the ground (see Fig.4); joint assembled antenna surface with the antenna surface on tripod by six shortcut lock (see Fig.1).

4. Joint feed bracket with upper junction plate of antenna surface by one M8X75 bolt (see Fig.1)

5. Joint drawbar with antenna surface & feed bracket by two M8 bolts (see Fig.1).

6. Joint horn bracket, equipped with feed system, with feed bracket by two M8 bolts (see Fig.1), and take care of horn direction when jointing.

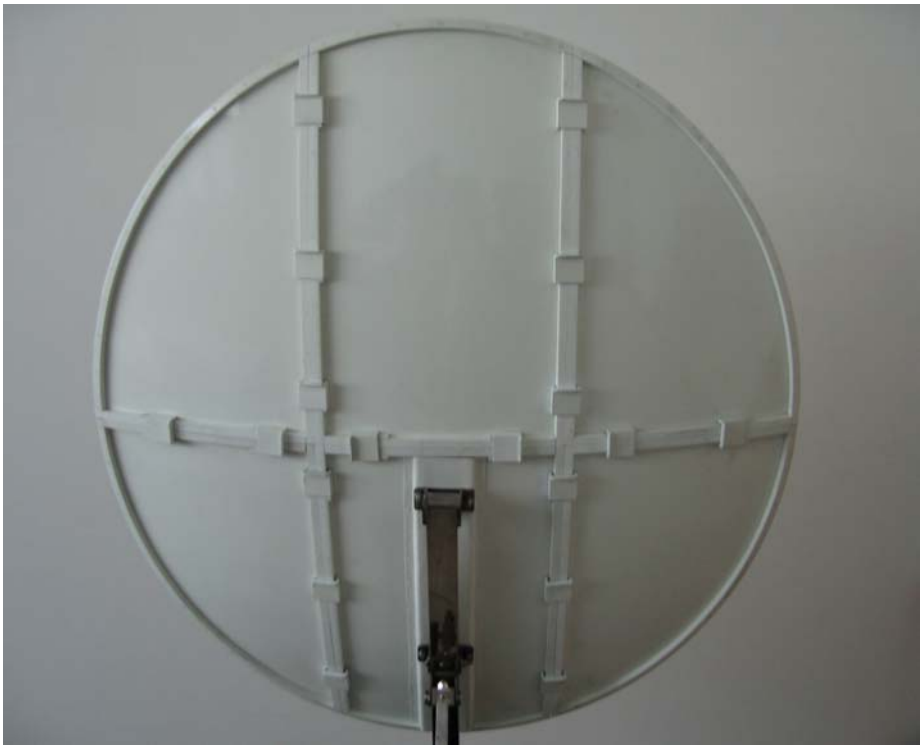

Fig.4 Sketch of antenna surface assembly

III. Antenna adjustment

1. Adjustment of antenna elevation angle:

According to calculated antenna elevation angle， preset antenna surface to calculated position by rotating large knob of elevation lead screw (refer to elevation scale), then trim elevation lead screw through knob to align antenna toward satellite (see Fig.5).

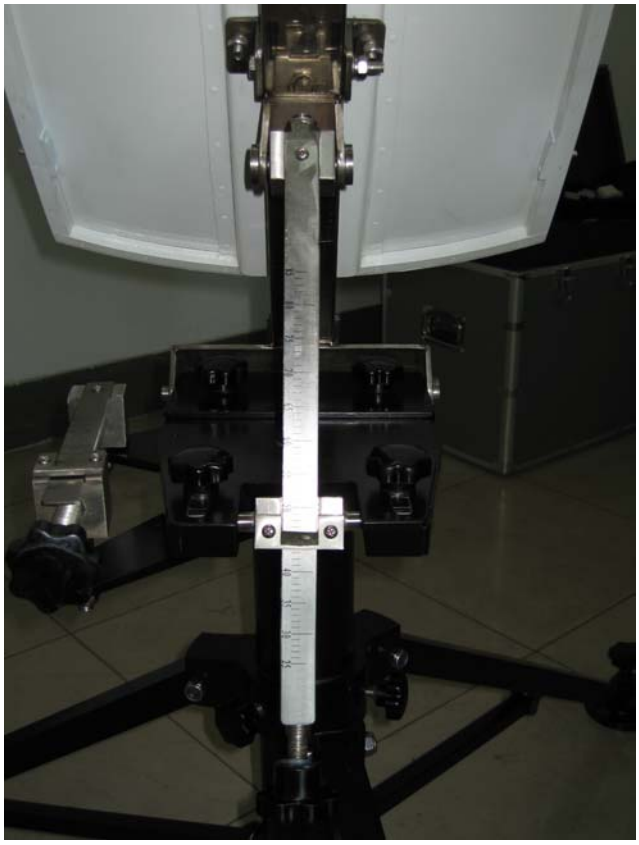

Fig.5

2. Adjustment of antenna azimuth angle:

According to calculated antenna azimuth angle, approximately preset antenna to calculated azimuth angle, unscrew one large knob under tripod upright, then, referring to the scale, rotate large knob of azimuth lead screw to align antenna toward satellite (Fig.6).

Fig.6

Adjust antenna to get optimum reception effect by azimuth & elevation adjustment, then screw down large knob on tripod upright to prevent antenna from shake during its operation.

Technical Index of 1.2m Flyaway Antenna

Electric property		
Technical index	Reception	Transmission
Operation frequency	12.2-12.75GHz	14.0-14.5GHz
Gain	42.1+20lg(f/12.5)	43.2+20lg(f/14)
Standing wave	1.25:1	1.25:1
Noise temperature: 5°Elevation 10°Elevation 20°Elevation 40°Elevation	 58°K 43°K 38°K 36°K	
Interface type	WR-75G	WR-75F
Feed insertion loss	0.20dB	0.25dB
Reception & transmission isolation	(80dB	
Cross polarization isolation: Axial point -1dB point	 35dB 33dB	 35dB 33dB
Minor lobe envelope: first side lobe	-18dB	-18dB
1°≤ θ≤ 8°	29-25lgθ dBi	29-25lθ dBi
8°≤ θ≤48°	29-25lgθ dBi	29-25lgθ dBi
48°≤θ≤180°	-13dB	-13dB

Mechanical features	
Azimuth range	360°（trim±20°）
Elevation range	25°~80°
Polarization range	±60°
Gross weight	60kg
Net weight	35kg
Primary plane overlay	Zinc yellow primer, white alkyd resin enamel
Tripod \ feed bracket	Aluminum alloy, stainless steel, plastic coating (black)

Environmental characteristics	
Temperature	-35°C~55°C
Rainfall	Max 10cm/h
Humidity	0%~100%
Solar radiation	360BTU/h/ft^2

Equipment list

Antenna surface plate (with elevation mechanism)	one set (six lobes)
Tripod (with azimuth mechanism)	one set
Feed strut & rod assembly	one set
Horn bracket & feed system assembly	one set
Shortcut lock catch	eighteen
Antenna operation manual	one