



Maintenance and Protection for Satellite Earth Station Antenna Control System

For satellite communication, the normal operation of antenna control system is a necessary prerequisite, so how to properly maintain and protect seems very important. The overall system can be divided into four parts, which are antenna system, feeder system, antenna mount system and antenna control system. Please find below our ante-sky engineers' experience for your reference.

a. Antenna system

1. The normal fault is the corrugated horn cover damage, which is caused by its aging. In order to assure the antenna normal operation, we suggest the user should replace it once each in spring and autumn respectively and monthly inspect if the surface of the horn cover is clear and clean it timely.
2. User should repair it by the high-frequency low-loss white paint, but not the normal white paint, when the surface painting peeling off.
3. Measure the antenna ground resistance regularly; better-performance lightening protection equipment should be installed.
4. When the snow covered the antenna, user can try to use the method of high-altitude pour impulse by the high-pressure faucet and clear the snow. In the high-frequency snow area, de-icing equipment should be assembled.

b. Feeder System

1. If waveguide sealing is not good, the inflator will be powered on frequency, which can cause the relay in the inflator broken and overvoltage protective device failure, and too big inflation pressure can blow the horn cover scattering. User should check whether the waveguide sealing often and observe if the inflator can work normally; get rid of the fault once founding it.



2. Rotate the antenna in a large range, user should observe the varicose level of waveguide, do not damage the waveguide.

c. Antenna Mount

1. Please select lubricating grease consistent with the model, low-temperature extreme-pressure lubricating grease and anti-corrosion paint to change the grease or repair it.

2. The most frequency fault is for the antenna azimuth and elevation limit switch. Due to interlocking affects, when the antenna can't be rotated, fault appears; this is an important checkpoint. The wind and rain corrosion may cause the contacting point of the limit switch bad, or the aging transmission cables may cause the short circuit, so user should check and replace it in time.

d. Antenna Control System

1. When do the antenna maintenance, user should cut off all the power within the operating region. The voltage of antenna driver is 380V, so personal safety is very important, and maintenance person licensing should be held at switchboard.

2. The faults often appear in the drive control box and power supply, mostly for blowing the fuse. After check and assure no short circuit, replace it and it will be normal.

3. Check regularly the power connector, check if the relay and AC contactor has the phenomenon of burning black due to the sparking, if yes, replace it in time.

4. Please don't change the parameters in the ACU random, such as EOS, AOS, etc.

5. Long-running ACU and tracking receiver has higher requirements for the temperature; user should check regularly if the cooling system works normally, generally the aging fan can cause to stop working, and then the rising temperature in the chassis will make the equipment performance not stable, this fault can be eliminated after replacing the fan.

Above faults are our engineers' experience, we hope to share with you.



Antesky Science Technology Inc.

Add: Zhongtian International Mansion, No.269 Taibai South Road Xi'an China

Tel: +86-29-88352448 Fax: 86-29-88352334 Email sales@antesky.com

About Antesky

Antesky Science Technology Inc is specially engaged in designing, manufacturing and installing satellite communication earth station antenna and relevant servo equipments. It can offer a complete line of earth station antenna products and systems, such as Satellite communication antennas, TVRO antennas, SNG Antennas, Flyaway antennas, antenna control system and tracking system.