

# Efficient Antenna Systems, Inc.

## EASi. 4.5 meter heavy duty satellite antenna system

EASi. 4.5 meter AZ/EL Motorized/Fixed Antenna Package

 12 stamped 14 gauge galvanized steel painted interchangeable panels Damaged panels can be replaced individually
 12 galvanized steel panel interchangeable braces

12 galvanized steel panel interchangeable radials

Stainless steel reflector hardware

4 interchangeable heavy duty aluminum feed arms

EASi. 4.5 meter galvanized kingpost

14" diameter .375W A53 center tube with galvanized steel yoke frame made of: Horizontal leg ½" wall 4"x 6" square tubing galvanized Vertical leg 3/8" wall 4"x 4" square tubing galvanized **Optional** rear kicker adapters available for special applications

EASi. fixed/manual AZ/EL turnbuckle kit (Optional) 1 ½" grade B7 threaded rods on both axis Elevation adjustment tube is 2 ½" square with ¼" wall thickness All EASi. antenna attachment/rotation points use SAE 660 bronze flanged bushings

EASI. 90 VDC ODU Control System (Requires 30 amp, 120 VAC circuit with disconnect) 90 VDC Motor drive outputs Dual speed motor control Integrated heater for dehydration purposes Environmentally sealed NEMA enclosure

Joyce Dayton 10 ton Azimuth ComDRIVE Package 10 ton machine screw ComDrives Special anti-backlash feature Built in digital tachometer for excellent accuracy 1 ½ HP Baldor 90 VDC outdoor rated motor Integrated electrical limit switches Integrated brush heaters Integrated hard stop collars Accordion weather boot System requires periodic lubrication Joyce Dayton 10 ton Elevation ComDRIVE Package 10 ton machine screw ComDrive Special anti-backlash feature Built in digital tachometer for excellent accuracy 1 <sup>1</sup>/<sub>2</sub> HP Baldor 90 VDC outdoor rated motor Integrated electrical limit switches Integrated brush heaters Integrated brush heaters Accordion weather boot System requires periodic lubrication

EASI. lightning kits Class 1 and Class 2 Thompson Lightning Products parts including: 12" x 24" solid aluminum point blunt tip w/adapter Aluminum vertical connector point base Aluminum standard cable All products are UL96 rated Class 2 requirements sized accordingly

L Comm Lightning Protector DC-3 GHz Bi-directional protection Protector will pass DC Easily replaceable gas tube element Multi-Strike Capability

RCI 2000 Programmable Antenna Controller with feed drive option Automatic positioning after programming High resolution sensor processing Dual speed Non-volatile memory Built in current limiting Adapti-drive Software limits on all axis RS-422 PC control interface option

## **RCI 2000 Embedded** controller option (Controller option for installation of controller at antenna)

Programmable Antenna Controller with feed drive option Automatic positioning after programming High resolution sensor processing Dual speed Non-volatile memory Built in current limiting Adapti-drive Software limits on all axis RS-422 PC control interface option Outdoor NEMA enclosure

## **RCI Web Server** for RCI Controllers

Automatic and manual movement operation Displays system faults and allows fault resets Compatible with most web browsers Configurable IP address for easy network configuration

## Seavey 4 port motorized C/Ku feed assembly

Waveguide bends Factory tuned for C and Ku band performance 24 VDC drive motor 5K positioning pot Waveguide bends to allow installation under protective cover

#### EASi. Feed cover for Seavey feeds White weather resistant cover

Custom Seavey feed attachment brackets Custom anti-intrusion inserts to resist pests

## Norsat 3420 PLL C band LNBs

+/-2 kHz stability 20K temperature 62 dB gain(Typical) +12 to +24V

## Norsat HS1027A PLL Ku Band LNBs

+/-2 kHz stability 0.7 dB noise figure 60 dB gain(Typical) +15-+24V

#### Microwave Filter Company 13961 WE TI filters

Improved insertion loss performance Improved passband edge roll-off Aluminum body to reduce weight/stress on feed system

## EASI. CUSTOM control cable (Availability subject to inventory levels) (UL) PLTC DIR BUR or (UL) ITC or (UL) CM C(UL) US 105'C SUN RES DIR BUR "ROHS II" FT-4 Suitable for wet locations

### Standards

11.1. UL listed as type PLTC per UL standard 13
11.2. Cable is UL approved for Sunlight Resistant and Direct Burial Applications
11.3. Cable is suitable for Wet Locations
11.4. All materials used in the manufacturing of this cable are RoHS II and REACH compliant
11.5. Maximum Operating Voltage: 300V RMS
11.6. Made in the USA

Commscope 5940R Quad RG 11 cable

75 ohm
14 AWG solid center conductor

14 AWG solid center conductor 14 SOL CCS FPE Foil+60% AL BRD+Foil+40% AL Braid FRPVC Foam PE 5.08 (dB/100ft) attenuation at 1450 MHz Safety Standard cETL ETL CMR Non-Plenum RoHS 2011/65/EU ISO 9001 :2015 100% sweep tested 15 dB structural return loss @ 1000-3000 MHz

#### EASi. Wiring kits

Combination of RG 6 Quad feed motor control cable

## Feed control cable

(UL) PLTC DIR BUR or (UL) ITC or (UL) CM C(UL) US 105'C SUN RES DIR BUR "ROHS II" FT-4 Suitable for wet locations

## Commscope 5781 RG 6 Quad

75 ohm Bare copper center conductor 18 SOL BC FPE Foil+60% AL BRD+Foil+40% AL BRD FRPVC CMG cETL ETL 7.49 (dB/100ft) attenuation at 1450 MHz RoHS 2011/65/EU ISO 9001 :2015 15 dB structural return loss @ 1000-3000 MHz

**Installations of EASi systems** including controller programming for motorized antenna Assembly of the following to manufacture spec:

> Kingpost Actuators or turnbuckle systems Low voltage wiring of all required outdoor systems EASi supplied Feed assembly with filters and LNBs. Low voltage if required Complete reflector assembly with integration to kingpost Low voltage wiring of all required indoor systems EASi supplied Termination of all RF Setup of all hard and soft limits Antenna aiming and or programming of antenna controller

## EASi. 4.5 De-Ice Options:

Clearsat Vinyl snow shield

Walton Kynar snow shield/opt. rain/ice quake/electric or gas heat Walton Tedlar snow shield/opt. rain/ice quake/electric or gas heat Walton Sefar snow shield/opt. rain/ice quake/electric or gas heat

**RTI** active rear mounted systems in multiple configurations **Walton** fear mounted systems in multiple configurations

#### EASi. communication options for antenna control

RCI Web Server

Compusat type automation and control

## Electrical Considerations for system installation:

All electrical services/connections to be completed by local licensed electrician Electrician to be provided by buyer unless other arrangements made 90 VDC systems require 30 amp single phase 115 VAC circuit w/disconnect

De ice systems require applicable electrical service based on system

Disconnect may be required

GFI circuit may be required

All electrical services to be available at antenna location before or at time of install