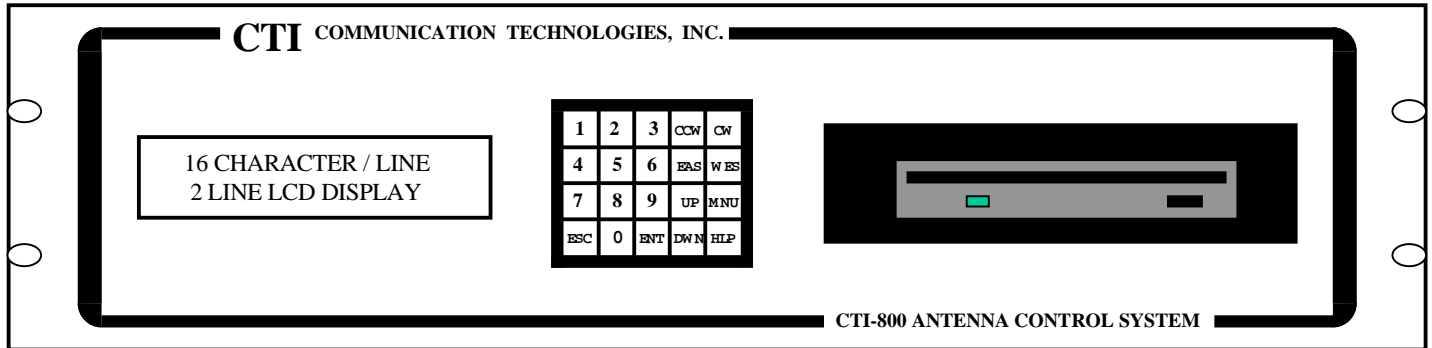




CTI-850 Antenna Controller



The **CTI-850 Satellite Antenna Control System** is a flexible, microprocessor-based satellite antenna controller capable of controlling as many as four satellite antennas.

The CTI-850 features three modes of operation:

- **DIRECT MANUAL CONTROL:** The user can control all antenna functions directly from the keypad.
- **CALIBRATED POSITION RECALL:** Up to 500 preset positions can be "calibrated" by the user. Once calibrated, the CTI-850 will move the antenna to any position on command. Preset positions can be recalled either by the Position Number or by satellite longitude.
- **DIRECT LONGITUDE ENTRY:** The CTI-850 will move the antenna to any specified orbital longitude, even if the desired satellite has not been calibrated.

Standard features:

- **Rack-Mounted Control Unit** mounts in a standard 19" equipment rack; requires 5¼" of rack space.
- **Built-in Illuminated Display and 20-Button Keypad** provide fast, easy access to all features.
- **Optical Encoders** permit precise control of the antenna and feedhorn.
- **Universal Antenna Compatibility** supports polar or AZ/EL antenna mounts.

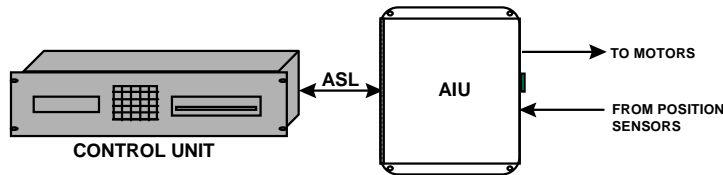
- **Three-axis Capability** provides control over all antenna axes:
 - Hour Angle or Azimuth
 - Declination or Elevation
 - Feedhorn Polarization
- **Choice of Hour Angle/Azimuth Motor Voltage** accommodates 24-volt DC, 36-volt DC, or 115-volt AC motors.
- **Choice of Declination/Elevation Motor Voltage** accommodates 24-volt DC, 36-volt DC, or 115-volt AC motors.
- **Choice of Polarization Motor Voltage** accommodates 24-volt DC, 36-volt DC, or 115-volt AC motors.
- **Choice of AIU Serial Link (ALS)** accommodates direct coaxial cable, RS-232 link, RS-422 link, or dual-optical-fiber link.
- **Built-in Floppy Disk Drive** permits easy software upgrades, and accommodates optional scheduling software and tracking software packages.
- **Complete Instruction Manual** covers all installation and operational procedures.
- **One-year Warranty** includes telephone assistance for registered purchasers.

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Optional features:

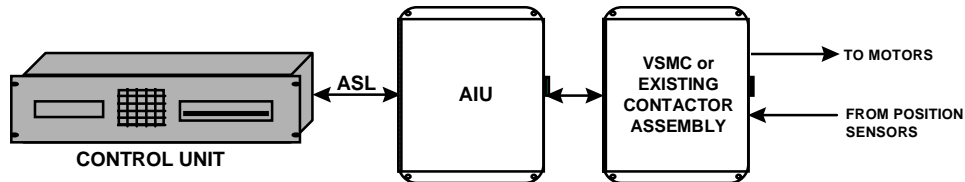
- **Optional Variable-Speed Motor Controller (VSMC)** permits precise operation of 230-volt AC antenna-drive motors.
- **Optional Multiple Antenna Feature** allows control of up to four antennas with one controller. Polar-mount and AZ/EL-mount antennas may be intermixed within the same installation.
- **Optional Retrofit Capability** allows the CTI-850 to be configured for older antennas from a variety of manufacturers. Antennas from different manufacturers may be intermixed within the same installation.
- **Optional Antenna Position Sensor Compatibility** allows the use of Hall Effect or reed switch sensors.
- **Optional Feedhorn Position Sensor Compatibility** allows the use of potentiometer sensors or pulse-width-modulated servos.
- **Optional ComTrack Tracking Software** tracks inclined-orbit or elliptical-orbit satellites, and maintains a log of all activity. Tracking can be referenced to receiver AGC level or external ephemeris data in Two-Line Element (TLE) format.
- **Optional ComSched for Windows Remote Control Software** permits operation of the CTI-850 from an external IBM-compatible PC. Plug-in cards allow the user to select the desired remote-control interface: EIA-232, EIA-422, EIA-485 or telephone modem. Remote control can be implemented over fiber optic or microwave links.
- **ComSched for Windows Software** also permits advance scheduling of several hundred future events. Many satellite receivers of various types, and as many as four controllers can be scheduled. On special order, other devices such as VTRs, VCRs, or routing-switchers can be included in the schedule.

When used with an antenna equipped with 24-volt DC, 36-volt DC, or 115-volt AC motors, the CTI-850 consists of two units: a CONTROL UNIT and an ANTENNA INTERFACE UNIT (AIU). The control unit is installed in a 19" equipment rack, and the AIU is installed at the antenna. The two units are connected by a single cable called the AIU Serial Link (ASL):



The ASL can be implemented with a single run of coaxial cable, an RS-232 link, an RS-422 link, or two optical fibers.

When used with an antenna equipped with larger motors (230-volt AC and/or current in excess of 4 amperes), an additional motor drive unit is required. On older antennas, an existing contactor assembly (if it is in satisfactory operating condition) can be used. For new antennas, CTI offers a Variable-Speed Motor Controller, model VSMC-1 (for polar-mount antenna) or VSMC-2 (for AZ/EL-mount antenna).



At multiple-antenna sites, up to four antennas can be operated from a single control unit.

The AIU and VSMC provide all motor-drive voltages. In addition, the AIU provides connections for optical encoders or other sensing devices. Optical encoders are available for all axes.

Ordering Information:

- **Control Unit for one antenna** Model CTI-851
- **Control Unit for up to four antennas** Model CTI-854