

Features:

- PC-104 Based Controller
- Wide Angle Viewing TFT Touch Screen
- Local Control via LAN, RS-232/422 or Fiber Optic
- Help Menu with ACU User Guide
- Password Protection for Sensitive Settings
- BIT (Built in Test) Features
- Robust Field Tested Software
- Analog and Digital Display of Antenna Position, Error Signals, and AGC
- 5 Modes of Operation - Standby, Manual, Track / Acquire, Search and Slave
- Removable Flash Memory Drive
- Standard 19 inch Rack Mount
- Controller Operates with Analog, Pulse Width Modulated, and Serially Controlled Servo Amplifiers
- Utilizes Commercial Off-The-Shelf Hardware
- Integrated Handwheels



- IMU Self Stabilization (Optional)
- Fiber-Optic Control Interface (Optional)

The P-Series Antenna Control Unit (ACU) is a digital control system that provides the necessary commands and displays required for real time operation of an antenna system, pedestal, and associated equipment. Utilizing commercial off-the-shelf hardware, the P-Series ACU offers a high level of functionality, field-proven software, and superior reliability. The antenna control unit utilizes the latest available CPU processors, ensuring adequate processing power. The operating systems are Windows™ and Linux based, and CPI Malibu's proprietary application software is written using several host languages including C, C++ and others.

The ACU operates with the CPI Malibu pedestal hardware of different sizes to produce a complete Antenna Tracking System. Software settings of threshold, hysteresis, saturation and noise floor are part of the standard ACU package.

The rear panel of the ACU is customized for the individual system requirements, which include the following:

- AC power connector
- Pedestal interface cable connector
- BNC-female connectors for AM & AGC input (will accept up to sixteen receivers)
- Ethernet interface connector
- RS-232/422 interface connector
- IEEE-488 connector
- Two USB interface connectors (one used for the desktop mounted joystick provided)
- Keyboard and mouse connections

Related Data Sheets

• **HD Pedestal Series**

• **Acquisition-Aid Antenna**

• **CS Series**

Model **P-Series ACU**
Antenna Control Unit

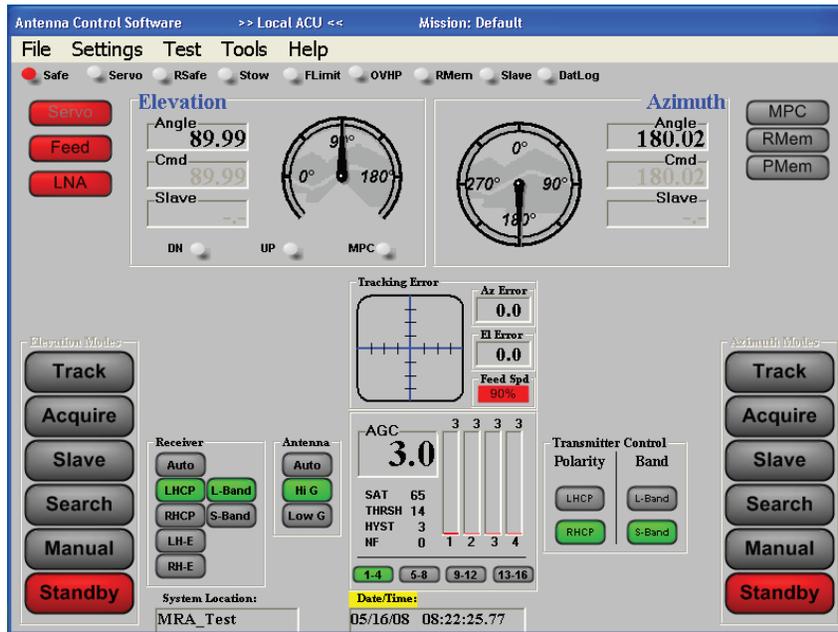


Model P-Series ACU

Specifications*

Modes of Operation	Function
Standby	All positioning commands are disabled and brakes are set.
Manual	Operator may position antenna via handwheels, joystick, immediate designate command or user pre-programmed position selection.
Track/Acquire	If Acquire mode is activated, antenna will automatically track the target once the AGC detected level is greater than threshold level set by operator.
Search	The pointing angle of the antenna is scanned in search of the target in a box type pattern. The search center, width and rate can all be modified real-time.
Slave	The antenna is slaved to another system via an RS-232/422 communication link or digital inputs.
Test and Calibrate Modes	
Velocity/Acceleration	Verifies pedestal dynamics. Can be programmed by operator in GUI set-up.
Sun Track	Used to verify tracking operation and perform G/T measurements.
GPS Track	Accepts GPS data for pointing.
Satellite Track	Uses COTS software with information on most commercial satellites to guide the ACU.
Demodulator Calibration	Used to optimize tracking control loop. User specified or automatically set.
General Specifications	
General	Designed for use in indoor environments; Rugged MIL versions available
Power Requirement	110-220 VAC, 50-60 Hz (150 watts)
Weight	<28 lbs. (13 kg)
19" Rack Mount	Standard for rack mount

*Specifications subject to change.



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