

MODEL 8200™

ANTENNA CONTROL SYSTEM



The Next Generation in Antenna Control

Performance – Flexible tracking modes, intuitive menu layouts and a compact parameter set keep your limited motion antenna applications on point.

Availability – We understand the need for quick delivery. Lean manufacturing methods allow us to ship most systems within 30 days of an accepted order!

World-Class Support – You are never on your own with a Radeus Labs product. The experts at Radeus Labs are standing by if you need help.



Modular,
Configurable,
Compatible.

This antenna control system meets the requirements of retrofits and new installations. As a retrofit option, the 8200 ACU is compatible with industry standard drive-cabinet interfaces and legacy position-feedback devices such as absolute rotary optical encoders, standard single-speed brushless size 11 resolvers, and two-speed brushless size 20 resolvers.

Features

- Touchscreen controls for all operations
- Efficient, intuitive graphical user interface
- Hardware jog buttons with LED indicators
- Data and parameters secured in nonvolatile storage
- Innovative setup wizard eases installation
- Secure TeamViewer integration for remote and shared ACU operation
- Field-proven in critical applications



Modes of Operation

Manual — Front-panel buttons for two-speed, manual jog control.

Move to Longitude — Position to AZ and EL angles determined from the longitudinal orbital slot.

Move to Look Angles — Position to user-provided AZ, EL, and POL angles.

Step Track — Periodic algorithm to perform an AZ-EL scan pattern to peak up signal strength.

Predictive Track — Point the satellite dish using an orbital model created from previous peak AZ and EL step-track data points.

Optional Modes

TLE (Two-Line Element) — Track automated positioning based on NORAD two-line element sets.

INTELSAT Track — Automated tracking to AZ and EL coordinate sets derived from Intelsat 11 parameters.

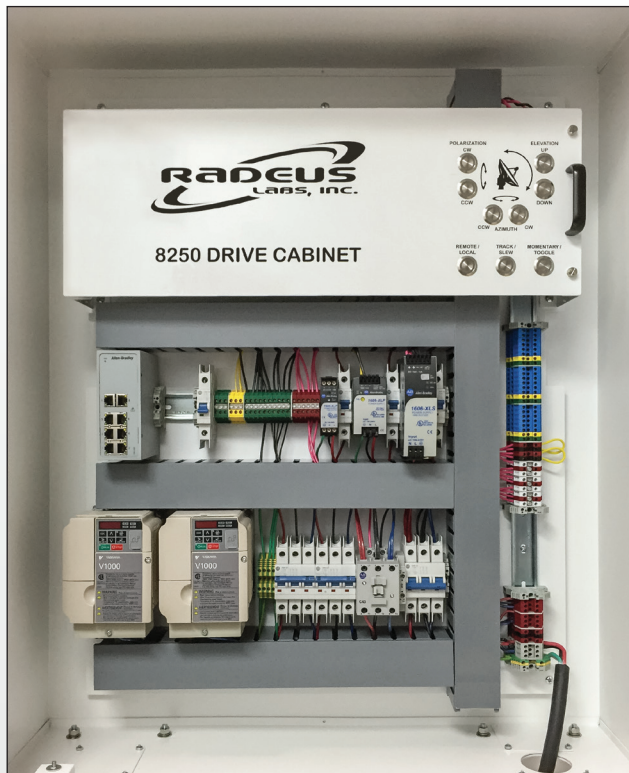
Computer Track — Automated positioning using commanded angles supplied from an external computer.

Sun and Moon Track — Automated positioning to AZ and EL locations of the sun and the moon.

Star Track — Automated positioning to AZ and EL locations of radio stars.

Drive Cabinet Model 8250

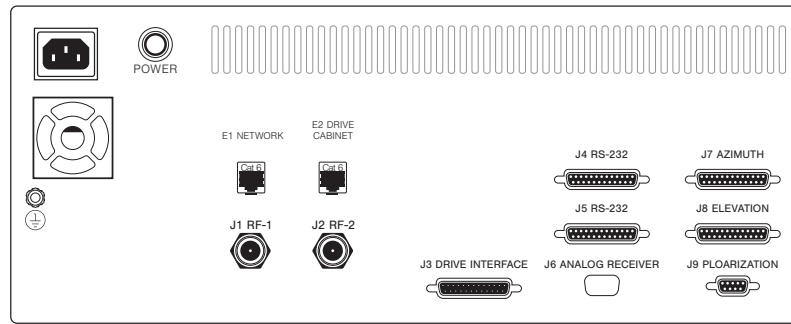
The Radeus Labs 8000 Series™ drive cabinet reduces IFL costs. It also requires fewer connections between the control center and the antenna.



Features

- Remote system control over ethernet via SNMP.
- The IFL requires an ethernet cable (for Drive Enable/E-Stop).
- Remote system control via a secure TeamViewer connection to the ACU.
- Dedicated jog button-indicators — like those on the ACU — show when motors are engaged, whether from drive cabinet or ACU.
- Options enable users to monitor and control brakes, interlocks, and feed status, as well as various position-feedback resolution and accuracy options.

Rear Panel



Tracking Accuracy

Better than 10% receive 3dB beamwidth RMS in step track.
Nominally, 5% receive 3dB beamwidth RMS with predictive track.

Specifications may be subject to change. Please contact our sales staff for details.

Environment

ACU

Temperature: 0 to 50°C
 Humidity: 95% non-condensing

Drive Cabinet

Temperature: -40 to 50°C (low-temp package necessary below -10°C)
 Humidity: 100% condensing

Power

ACU

100–240 VAC, 47–63 Hz; 100 W typical

Drive Cabinet

200 and 400 Volt Class, 50-60 Hz, 5-wire WYE
 Current requirements are determined by motor horsepower.

Mechanical

ACU

7"H x 19"W x 19"D (4-rack units)
 Weight: 20 lbs.

Drive Cabinet

36"H x 30"W x 10"D (legs: 18"H)
 Weight: 100 lbs.
 Motor size: 1–5 HP standard. Larger sizes available.

Interfaces

Remote: Ethernet, SNMP

Serial: USB, RS-232 (x2 each)

Alarm: summary output

Receiver:

- Built-in tracking receiver
- Optional serial DTR

ADU:

- Standard drive Interface, or
- Ethernet or fiber interface

25-bit Optical Encoder



This EnDAT encoder provides position feedback for azimuth, elevation, and polarization. At 25 bits of resolution, this allows a display resolution of 0.001°.

Accuracy: $\pm 60''$ or $\pm 0.016^\circ$

Higher-accuracy option: $\pm 20''$ or $\pm 0.005^\circ$

Warranty

Three-year warranty, parts and labor, for the Model 8200. Ask about extended warranties.

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