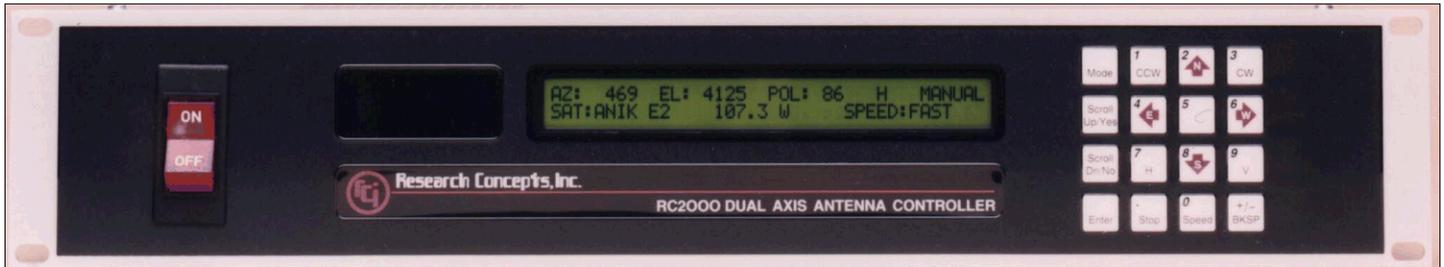




# RC2000A

## Commercial Satellite Antenna Controller for Dual Axis Antennas



### FEATURES

- **Automatic Positioning**  
*precisely positions antenna with the press of a single key*  
*stores up to 50 preset position and polarization combinations*
- **Auto-Pol Input**  
*polarity output tracks receiver transponder value*
- **High Resolution Sensor Processing**  
*insures accurate Ku-band positioning*
- **Three-wire Polarotor™ Interface**  
*allows automatic or manual polarizations control*
- **Dual Speed**  
*for fast slewing, fine positioning, user Programmable*
- **Solid-State Drive Circuitry**  
*provides reliable, quiet operation, rated at 10A*
- **Built in Current Limiting**  
*protects controller from excessive loads*
- **Adapti-Drive™**  
*maintains stable speed with varying load*
- **Software Controlled Limits**  
*provides backup to mechanical limits*
- **RS-422 PC Control Interface**  
*allows scheduling of movements and automated control*
- **Non-volatile Memory**

# Research Concepts, Inc.

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## OPERATIONAL OVERVIEW

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The RC2000A was designed to provide years of reliable operation through the use of a heavy duty solid-state drive network coupled with a novel microcontroller-based fault monitoring system. The 10 amp drive output capability is unparalleled in the market and the Adapti-Drive™ digital servo speed control optimizes antenna movement for today's demanding Ku-band applications. Additional features like an RS-422 communication port for PC control and a very user-friendly, menuing scheme make the RC2000A a unique and highly adaptable piece of equipment.

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## MODES

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The RC2000A operates in a mode architecture whereby the controller's operational status is governed by the selected mode. An explanation of these modes are listed below.

- MANUAL:** Allows for manual jogging of the antenna azimuth, elevation and polarization axis. The fast/slow speed toggle is active in this mode.
- AUTO:** A satellite, previously saved in memory, can be recalled and the RC2000A will position the antenna on the selected satellite.
- SETUP:** This mode is invoked to store azimuth, elevation and polarization values memory for a selected satellite.
- RESET:** Used to reset the drive over-current protection circuits after the load error has been corrected.
- DELETE:** Allows the user to delete a satellite from the list of stored values.
- FIX:** Used to restore the proper position counters in the event of a memory error or sensor failure.
- AZIM SLOW:** This mode allows the user to select an appropriate drive slow speed value to optimize system performance.
- ELEV SLOW:** Same as for Azim Slow
- CONFIG:** Provides a concise point to enter any necessary system constants or enable options. Examples are Auto-Pol sense and status as well as simultaneous movement of axis during an Auto move.
- LIMITS:** Software limits are set for both axis in this mode. They provide backups for the mechanical limits and establish an estimate of the antenna range of operation.

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## SPECIFICATIONS

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<b>Power:</b>	115/230 VAC, 48W
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<b>Size:</b>	19.0" W x 3.5" H x 9.0" D
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<b>Weight:</b>	12.5 lbs.
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<b>Temperature:</b>	0 – 50° C
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<b>Drive Output:</b>	12 – 36 VDC, 10 Amps
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<b>Sensor Input:</b>	Reed, Hall Effect, Optical
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<b>Polarization:</b>	Standard Polarotor™ interface
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<b>PC Interface:</b>	RS-422, 4 wire
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