

B. RCP02 Chassis

SIGMET, Incorporated, provides the RCP02 chassis with a rackmount/tabletop enclosure that fits a standard 19-inch EIA rack.

The chassis features universal-input power supplies which sense the line voltage and automatically adjusts. A snap-off front panel allows the user an easy access to the board for configuration and maintenance. Another feature is a 9U × 280 extender card that can be inserted into the unit.



Warning: The line cord should be disconnected before accessing the internal components. The power must be deactivated when removing or installing the PC board. Check the information label located on the back panel before the power is reactivated.

B.1 Use of Static Protection

The RCP02 unit contains many static sensitive components. Do not handle the boards unless a properly grounded wrist strap is worn.

B.2 Front Panel

The front panel of the RCP02 houses the four-line by 20-character dot matrix, vacuum fluorescent display. The panel snaps open by firmly pulling on the two silver knobs located on each side of the unit, providing access to the boards as well as the display.



Warning: Do not attach the cable to the display or remove the RCP02 main board without deactivating the power to the chassis or damage to the display or main board may result.

B.3 Back Panel

The back panel has a power entry device and operates the I/O between the RCP02, the radar, and the host computer.

B.3.1 Input Power

The back panel is equipped with a modular power entry device containing a line filter, a switch, and a fuse holder. This unit has universal input power and operates on a voltage between 100–240V AC 50–60 Hz without tap changes. Before activating

the unit, check the information label located on the back panel to verify the specifications of your particular unit. If you have any questions, consult with the factory for voltage operations outside of the specified ranges.

B.3.2 Fuses

For continued protection against the risk of fire, only replace the fuses with the same type and rating listed on the back panel. The fuse may be accessed by first removing the line cord and then, with a small screwdriver, opening the cover to the fuse compartment on the top of the unit.

B.3.3 25-pin D Connectors

The pin assignments for the socket 25-pin "D" connectors are installed by SIGMET, Incorporated and are specified in Appendix A.

B.4 Converting from Table Top to Rack Mount Option

A table-top unit can be converted for rack mount by installing rack mount ears and by removing the four rubber feet. The rack ears are installed with #8–32 flat-head screws by first removing the small round caps and washers near the front on each side of the chassis. It is strongly recommended that the rack mount brackets, supplied with the unit, should be installed in the rack for additional structural support.

B.5 Cooling

Two fans are mounted on the side of the enclosure that draw ambient air through the slots through the front, the bottom, and the sides. Periodically remove any dust that may accumulate on the main board and the interior surfaces of the chassis.



Warning: Do not block the slots or the exhaust grills of the fans. This may cause the main board to overheat and result in an unreliable operation.

B.6 Shipping

The boards should be removed from the chassis and placed in separate protective cartons whenever the unit is shipped. To ensure that protective cartons are always available, save the original packing provided.

B.7 Chassis Specifications

- **Input Voltage**

The autoranging is 85–264V AC; 110–330V DC and nominal 120/240V AC

- **Input Frequency**

The frequency ranges from 47–440Hz

- **Input Current Operating Temperature**

An ambient temperature ranging from 0–50°C

- **Storage Temperature**

The temperature ranges from – 40°C to + 75°C

- **Operating & Storage Relative Humidity**

The relative humidity is up to 90% — wet bulb <35°C non-cond.

- **Safety**

The unit is designed to meet UL 1950 & IEC 950. All components are UL, CSA, and VDE compliant.

- **EMI**

The chassis uses integral shielding and line filters designed to limit emissions and susceptibility to interference from other devices. The + 5 volt power supply is designed to meet the FCC and the VDE “Class B.” The – 15V power supply is compliant with the FCC “Class A.”

- **Cooling**

The cooling is forced convection. Two 84m³/hr (50cfm) fans draw air into the unit from the front and from one of the sides. The air is then exhausted on the opposite side.

- **Dimensions**

Width — 17" (432mm)

Depth — 19.5" (495 mm) footprint including front panel and 17.5" (445mm)
17.5" (445mm) inside rack

Height — 5.25" (134mm) footprint incl. front panel

Unit mounts in an EIA standard 19" rack.

- **Weight**

The weight of the unit is 30 pounds (13.6 kg) with the board installed.

- **Construction**

The case is aluminum alloy and welded. The back panel is cold rolled steel.

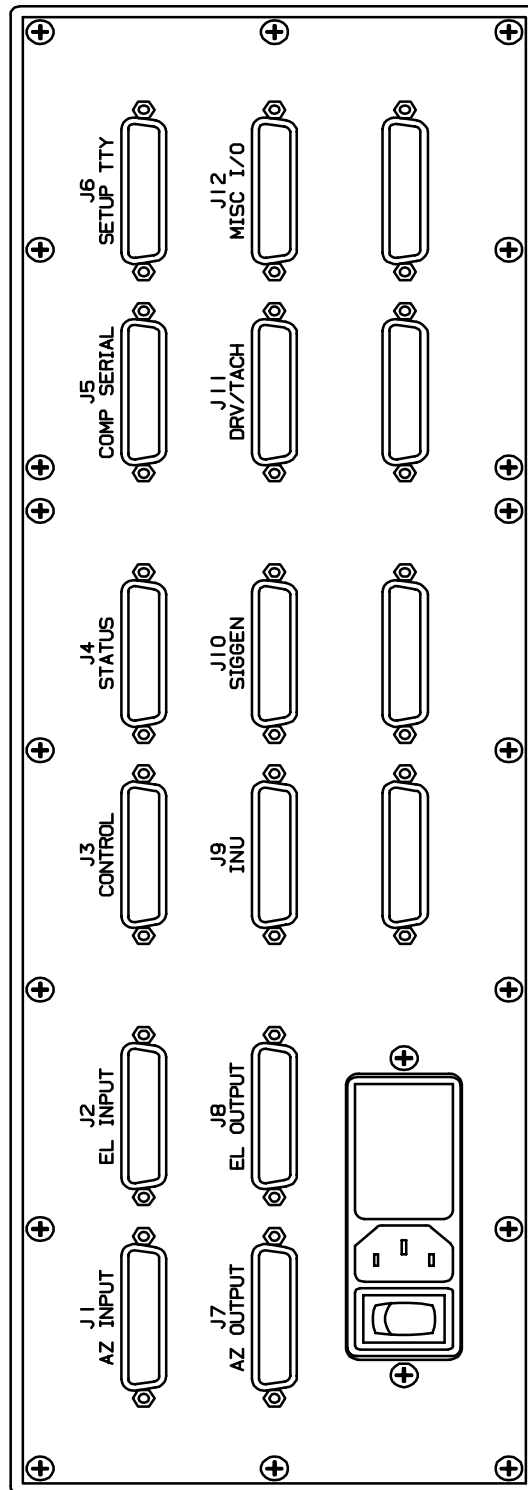


Figure B-1: Back Panel Display of the RCP02

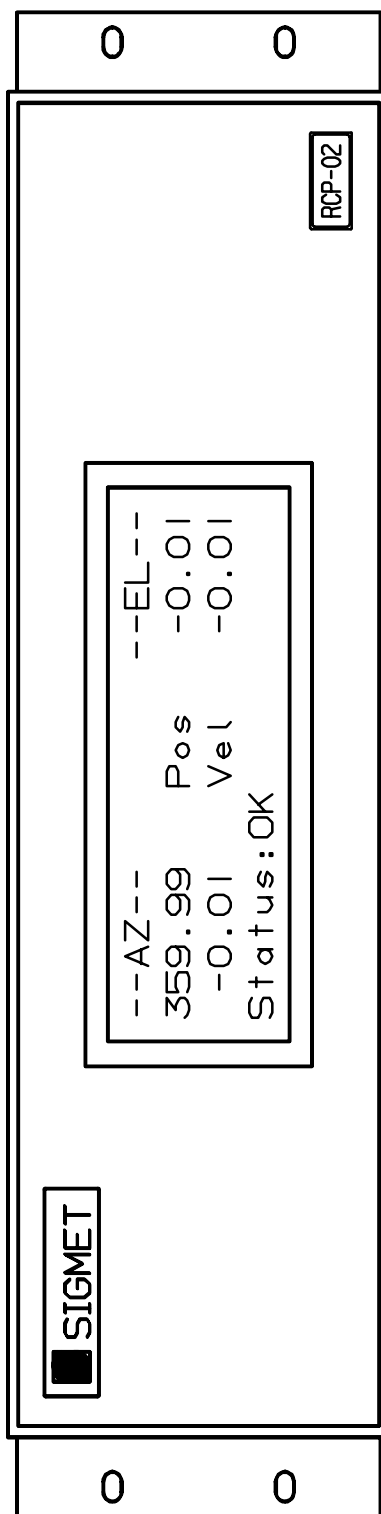


Figure B-2: Front Panel Display of the RCP02