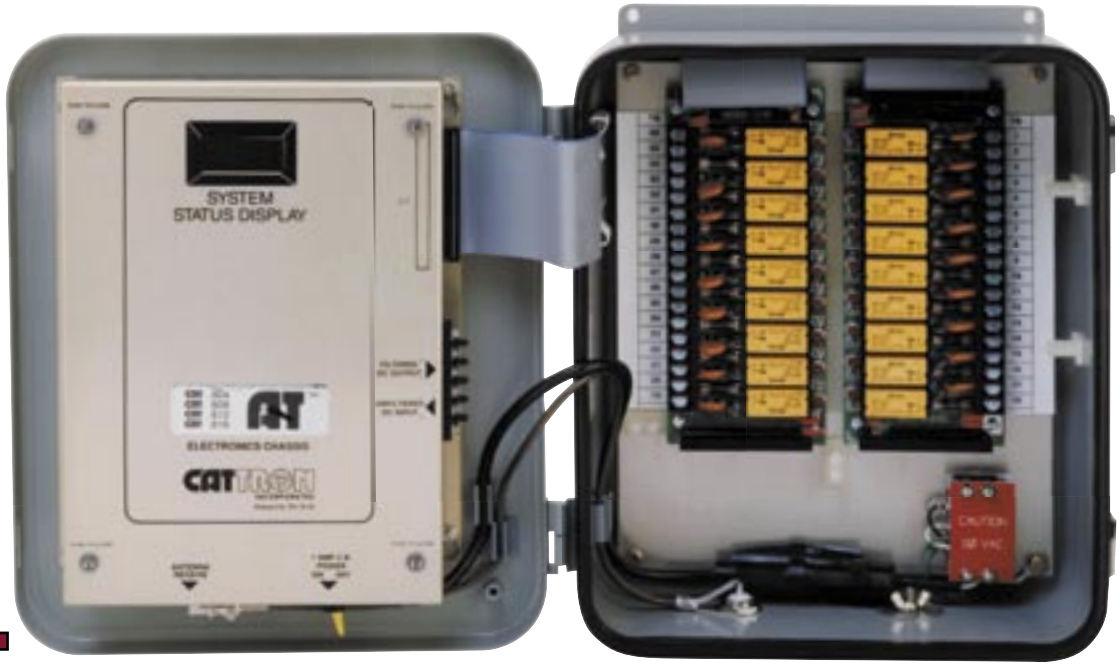
CATTRON™ GROUP INTERNATIONAL

INDUSTRIAL RADIO REMOTE CONTROL



AT

Advanced Technology

The Cattron® brand AT Series, by Cattron Group International™, offers the safety and dependability required for operating machinery in harsh, industrial environments. AT Series Systems can be installed on overhead cranes, furnace doors, conveyors, shiploading equipment, mining machinery, agricultural equipment and much more.

All Cattron® brand AT Series Systems are custom engineered to meet individual application needs, and can be engineered for up to 32 outputs and/or stepless.

Receiver/Decoder

All receiver/decoder units (shown above) used with the AT are high quality, industrial units which are housed in compact NEMA 12 (IP 65) enclosures. The AT utilizes high-performance microprocessors with a minimum number of components. A single board decoder responds to the direct control of a rugged, hand-held controller/transmitter. The entire electronics portion of the receiver/decoder is protected with an EMI/RFI shielded sub-chassis (gold box). This compartmentalized chassis contains the power supply, the RF receiver, and the microprocessor-based decoder.

AT Series systems are available with options such as Close Start™, Range Limiting™, and Multi-Frequency Using Synthesis. Multiple microprocessors prevent undesired signals from entering the decoder, thereby improving operation and reliability.

AT decoders incorporate extensive self-diagnostics which perform on a continuous basis to insure reliable and safe operation. A two-character status display shows both normal running status and any fault conditions. Outputs are connected to the relay interface via a single ribbon cable. Long-life electromechanical relays are organized for easy function recognition. All relays plug into sockets with mechanical hold-down screws and snubber circuits are provided for inductive loads. LED's located beside each relay show, at a glance, when it is energized.

Cattron Group International™ application engineers ensure that all AT receiver/decoders are programmable. This allows for complex sequential logic, function timing, interlock, etc., to be built-in, often eliminating the need for a second interface, such as a PLC with timers and latching relays. Because the AT is programmable, it can be adapted to a wide variety of equipment. AT systems will also work with several different Cattron® controller/transmitter styles.

CATTRON™ theimeg REMTRON vectran™

Key Features

- **Low cost per output**
- **Compact enclosure**
- **1-32 relay outputs + ON/OFF (mainline)**
- **Extensive self-diagnostics**
- **Single point status display shows normal and fault condition**
- **"Dry" relay contact outputs which allow mixed control voltages**
- **Automatic safety override (ASO) output verification**
- **Custom factory engineering for each application**
- **Multiple "watch dog" timers provide redundancy to insure that no motion is carried out without command (total of five – two hardware, three software for CPU, Mainline, & Motor Functions)**
- **EMI/RFI shielded/compartmentalized sub-chassis**
- **No motherboard or card cage**
- **Multiple power supply options**
- **FCC/DOC/CE non-licensed and licensed systems available**
- **Long "ride thru" time during power interruptions to the receiver/decoder**
- **Stepless output available for smoother operation and control**
- **Can be configured with several different controller/transmitter styles**
- **Complete custom wiring diagrams simplify installation (Optional)**

Technical Specifications

Interface Type: Mechanical relays normally open contacts of 8 A @ 250 VAC or 5 A @ 30 VDC. (Outputs fused at 5 Amps; normally closed contacts optional)
Output Termination: Two screw terminals per relay contact allowing for mixed control voltages and transformer (two 14 AWG per terminal)
Number of outputs: 1-32 independent and/or simultaneous, plus mainline on/off (operate)
Enclosure: NEMA 12 (IP65) standard – dust, water and oil tight; NEMA 4 and 4X (IP66) optional
Dimensions: AT-16: 12"H x 10"W x 4.5"D (305mm x 254mm x 115mm);
AT-32: 14"H x 12"W x 6"D (375mm x 330mm x 165mm)
Control Voltage Range: 30 VDC or 12-250 VAC fused @ 5Amps (higher voltages with derated current); Stepless: 0-80V Bipolar maximum
Power Requirements: 32/48/110/220VAC 50-60Hz or 12 VDC +/- 20% @ less than 1 Amp; optional 12 to 48 VDC power regulators available
Receiver Frequency (Crystal & Synthesized): 72 – 76 MHz, 403 – 424 MHz or 447 – 471 MHz (Radio); 880 nanometers (Infrared)
Sensitivity: 0.5 uV (20 dB quieting) typical
Frequency Stability: +/- 0.0005% of reference frequency
Environmental: approx. -4ºF to +140ºF (-20ºC to +60ºC), RH 0 to 95%, non-condensing (special units available)
Microcomputer Speed: 12MHz
Memory Size: E-Prom 32K bytes (programmed by Cattron) EE-Prom 512 bytes (field programmable)
Optional diagnostic Port: RS232C (DB25 Connector) or RS422 (MTA Connector)
RF Range: 300 ft. nominal (92m) (no license required); 800+ ft. (246+m) dependant on local conditions

*Specifications are subject to change or revision without notice. Consult the factory for verification.

CATTRON™ GROUP INTERNATIONAL

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