

Keltron RF7500 Radio Network Receiver



Keltron's extensive experience with alarm monitoring and receiving systems enabled the development of a unique radio life safety event monitoring system that is fast, scalable, reliable and cost-effective. It enables instantaneous emergency response capability for any size facility or municipality, with better supervision than digital alarm transmitters (DACTs) provide.

Keltron's RF7500 is the receiver for the active network radio alarm and data transport system - the central command location for all life safety events and responses. The system's smart transceivers dynamically adapt themselves to changes in the network, continually optimizing the system. Unique technology ensures that reliable communication paths are always available and even overlaid networks do not conflict. The receiver acknowledges all transmissions ensuring that the message is received and decoded correctly.

Keltron RF7500 benefits

- High performance** - dynamic, self-routing and healing network ensures instant monitoring
- Fast ROI** - eliminates monthly telephone line costs and reduces service calls
- Reliability** - retries and sophisticated error checking protocols ensure dependable data delivery
- Versatility** - provides a private active radio network
- Scalability** - monitors remote clusters of radios with Keltron RF7100 signal converters

Keltron RF7500 features

- Controls two-way radio-based alarm and data transport
- 9th Edition UL 864 listed for fire alarm systems
 - Central Station
 - Remote Supervising Station
 - Proprietary Supervising Station
- Plug and play configuration facilitates installation
- Provides fault indicators
- Self-routing and healing
- Provides extensive status information to the technician or installer
- Automatic software controlled primary and secondary operating mode
- Both hot and cold redundant system configurations available
- Supports both small and large applications
- Linux operating system
- 128 bit encryption

Keltron is a single-source supplier that provides all products and services including system design, technical support, parts, wireless transceivers, antennas, accessories, documentation and technical training.

Keltron develops and manufactures universally-compatible, UL listed life safety event management systems for the campus, multi-building facility and municipal markets. Solutions include Ethernet/IP, active network (mesh) radio, distributed multiplex, digital receivers, and direct wire signaling systems. This document is not intended for installation or maintenance purposes. All specifications are subject to change without notice. For more information visit www.keltroncorp.com or contact us at 781-894-8710.

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Keltron RF7500 specifications

The Keltron RF7500 radio network receiver is a system controller that provides extensive information about the status of the Keltron active network radio system:

- Displays overall system activity as it isolates and corrects faults within the network or control equipment
- Provides data outlets for the Keltron RF7100 signal converters, remote access, supervisory PC, radio network monitoring system and network printer
- Decodes the data received from the wireless transceiver(s)
- Provides error detection and correction for both the transmitted and received data
- Converts the received data to a format suitable for decoding and database storage by the supervision software and annunciation by the monitoring system

The Keltron RF7500 can be programmed for either the primary or secondary mode and the chosen mode is indicated at the Keltron LS 7000 alarm management system or the Keltron DMP703 alarm receiver. A logging printer is connected to each radio receiver. Printers activate only when the radio receiver is active and the connected alarm receiver or software automation system fails to communicate and the receiver requests acknowledgement. The Keltron RF7500 radio receiver can monitor multiple radio signal converters to enable efficient network expansion.

The Keltron radio receiver front panel features a 4-line by 20-character LCD display, an alert section, a status section, and a power button which combine to provide the interface between the radio network receiver and the system operator. The alarm receiving system to which it is connected provides additional communication and status information.

Status section visual status indicators include the following:

- Receiver LED which activates when specific hardware or system faults exist such as printer offline and LCD display faults
- CPU LED indicates that the radio receiver processor has reset
- Ethernet LED indicates a network communications fault as detected by the absence of an expected check-in signal from the Keltron RF7100 signal converter
- Automation LED activates if the alarm receiver or automation system does not respond properly with an acknowledgement of alarm data transmissions
- RF interference LED indicates that carrier-detect is active for more than 20 consecutive seconds
- Power LED indicates that input power is applied

The alert section includes two momentary pushbutton switches - silence and acknowledge - and a single LED. It becomes active when specific faults exist. The LED indicates unacknowledged messages requiring manual acknowledgement. Manual acknowledgement is only required if the automation system is not responding.

Depressing the silence switch silences the sounder whereas the acknowledge switch also clears the unacknowledged message from the buffer and allows the next message in the queue to be displayed.

The Keltron RF7500 is AC-powered and draws no more than 600 Ma at 120 V AC. It requires a UPS connected to a circuit backed up by a generator. The UPS provides backup power for the time period required by the owner and at a minimum, double the expected generator activation, startup and on-line delay. The radio network receiver must be installed in accordance with the NEC, applicable UL standards and local building codes.

Technical specifications

- Standard frequency ranges: UHF 450-470 MHz, VHF 150-174 MHz
- Operating voltage: 110 VAC, 60 Hz
- Operating temperature range: 0 to 50°C (32 to 122°F)
- Storage temperature range: -10°C to 60°C (14 to 140°F)
- Physical dimensions: 19"W X 3.5"H, (2U) X 12.24", 13.25" including rack handles
- Approximate weight: 8.2 lbs
- Power draw: .6 A at 110 VAC

