



Description

The LONMARK®-compatible Raptor™ Network Manager provides user-programmable system-level applications, including alarming, trending, scheduling and totalization information. The Raptor Network Manager resides on a LONWORKS® network, providing seamless system-level control and interaction with other LONMARK products.

Additionally, the Raptor Network Manager can be used to expand system memory capacity for increased system-level functionality and data archiving.

Features

- System-level control and interaction of alarming, trending, scheduling and totalization with LONMARK products.
- **LONMARK-compatibility** enables peer to peer communication and information sharing with Talon Controllers and other LONMARK products.
- Firmware and control applications contained in Flash ROM, upgradeable from any network connection.
- Built-in energy management applications and DDC control strategies provide complete facility management capabilities.
- Real-time clock enables stand-alone operation and time-based functionality.
- Comprehensive alarm management and historical trend data collection.
- Management of scheduling, trending and alarming functionality.



Figure 2. Raptor Network Manager

Hardware

The Raptor Network Manager consists of three major components:

- **Power Supply** - provides 24V power for Raptor Network Manager functions.
- **Controller Board** - contains the main processor, Neuron, and LonTalk communication components.
- **Internal Cover** – provides protection for internal electronic components.

Power Supply

The Power Supply provides regulated power to the Controller Board. This integral power source is pre-assembled in the Raptor Network Manager sub-base housing, .

The Power Supply ensures smooth power up and down sequences even during unstable power conditions.

Status LEDs indicate 24 Vac power and 24 Vdc supplied to the Input/Output Point Board.

Controller Board

The Controller Board is a microprocessor-based multi-tasking platform for program execution and communication with other LONWORKS devices. The Controller Board scans field data, optimizes control parameters, and manages operator requests for data. Communication to the LonTalk network is provided through a Neuron transceiver.

A lithium battery back-up protects programming and database information stored in RAM memory for a minimum of 60 days, in the event of power interruption. This feature saves substantial programming and database re-entry effort, following even an extended power failure. The lithium battery is field-replaceable. When battery replacement is necessary, the Controller Board illuminates a “battery low” status LED and can send an alarm message to selected printers or workstations.

The operating system firmware is stored in non-volatile Flash ROM memory. Flash ROM is easy to upgrade at the job site or remotely over any network connection.

Power interruption and recovery circuitry protects the Controller Board from power fluctuations. Controller programming is stored in Flash ROM, eliminating the need to re-load applications or databases after power failure.

Internal Cover

The internal cover protects the power supply and controller boards. It contains LED status lights which provide information on controller operation. Additionally, the cover has a flat surface for mounting a modem and a serial LonTalk adaptor (SLTA), enabling remote access to the TALON network.

Optional Outside Enclosure with Door

The outside enclosure with door provides protection and knock-out conduit access to the controller. The enclosure can be installed and wired prior to installation of the electronics, reducing damage to the controller board.

The enclosure is available in four styles:

- Enclosure only
- Enclosure with 115V transformer
- Enclosure with 230V transformer
- Enclosure with 115V transformer and outlet box

The transformer/outlet box provides cost-effective access for plugging in a modem/Serial LonTalk Adapter (SLTA).

The styled door provides protection and viewing of the system status LEDs.

System Level Programmable Control

The high-performance Raptor Network Manager is easily programmable with control strategies to manage alarming, trending, scheduling and totalization routines.

Built-in Energy Management Applications

The following applications are pre-programmed in the Raptor Network Manager and require simple parameter input for implementation:

- Equipment scheduling, optimization and sequencing
- Automatic Daylight Savings Time switchover
- Temporary schedule override
- Holiday scheduling
- Calendar-based scheduling
- Event scheduling
- Alarm detection and reporting
- Trend Capability
- Trending
- Totalization

Specifications

Specification	
Processor Type	Neuron MC143150 Motorola 68302
Processor Clock Speed	10 MHz - Neuron 16.67 MHz - Motorola 68302
Network Communication Speed	78.8K bps
Memory Size	6 Mb (4 Mb flash / 2 Mb RAM)
Battery Backup of RAM	60 days (minimum)
Local Network Communication Interface	LonTalk port
Voltage Requirements	24 Vac @ 50/60 Hz
Power Consumption	45 VA @ 24Vac
Ambient Operating Environment	+32°F to +122°F (0°C to +50°C) 95% RH (Non-condensing)
Agency Listings	UL 916 PAZX/PAZX7 (Enclosed Energy Management)
Agency Compliance	FCC Part 15, Class B CISPR 22 Class B CE Mark Australian EMC Framework
Dimensions	
Raptor Network Manager with cover	11.6" H × 9.5" W × 3.5" D (294 mm × 241 mm × 89 mm)
Raptor enclosure with door	15.0" H × 16.2" W × 4.4" D (381mm × 411mm × 111mm)
Weight	Controller board: 5 lbs. Enclosure and door: 10.2 lbs.
Mounting Surface	Building Wall or Structural Member

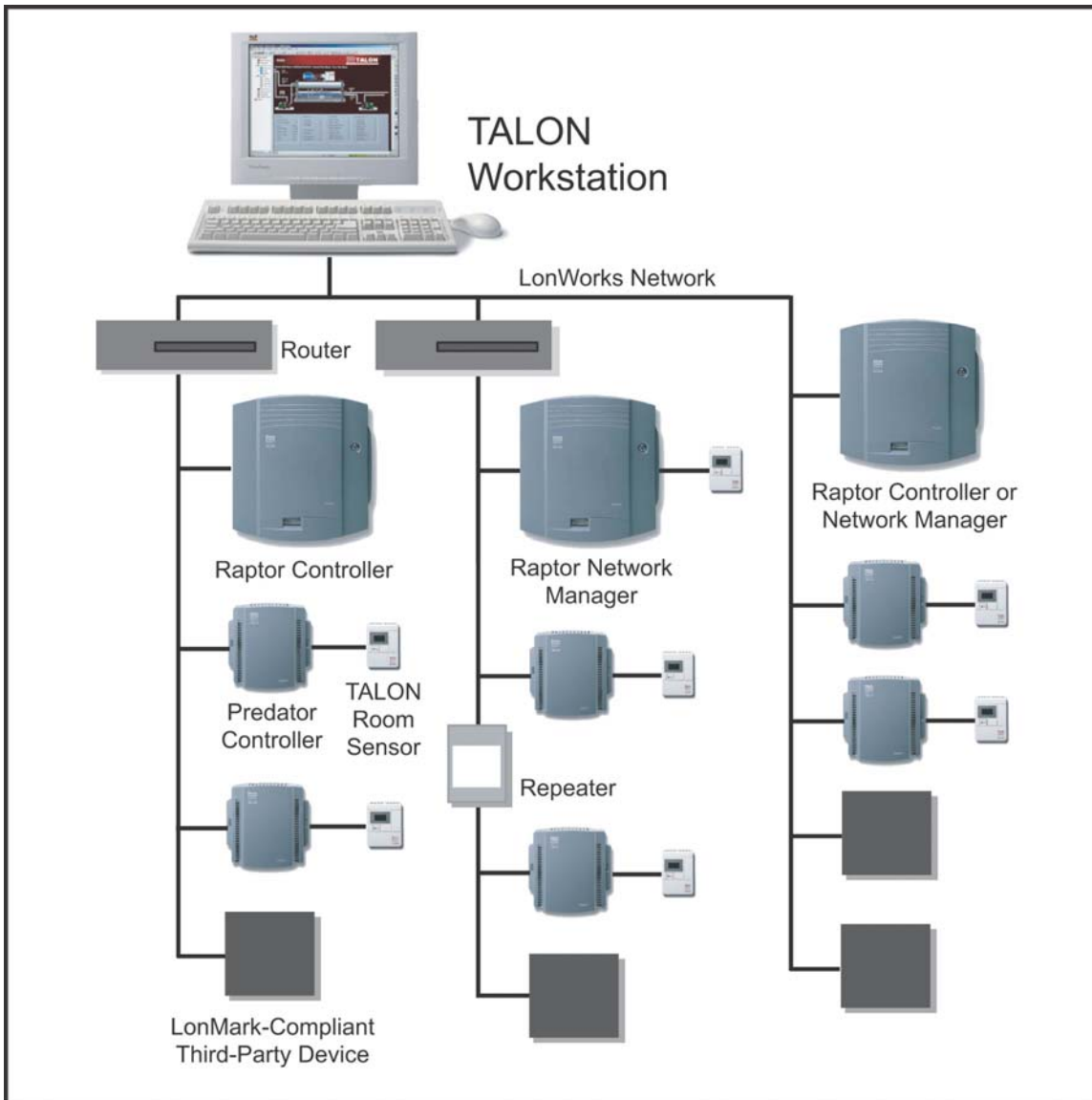
Ordering Information

Controllers	
Description	Product Number
Raptor Network Manager (controller with internal cover)	587-700
Raptor Enclosure	587-660
Raptor Enclosure with 115V transformer	587-661
Raptor Enclosure with 230V transformer	587-662
Raptor Enclosure with 115V transformer / outlet box	587-665
Raptor Styled Enclosure Door	587-663

Accessories	
Description	Product Number
Raptor Battery Replacement (package of 10)	587-667
Raptor Network Connector (package of 10)	587-668

Documentation	
Description	Product Number
TALON Information Library CD	587-980

TALON Architecture



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