

MX-7000 Control Unit

Multiplex communications system

Features & Benefits ▾

- Easy interface to other systems
- Built-in charger for optional external battery
- Flash program storage, local or remote upgrades
- Intuitive touchscreen or mouse user interface
- Multi-level security for operators
- Remotely accessible diagnostics with Alarm Record Keeping System (ARKS)
- Fully embedded Linux operating system
- Audio speakers and controls built-in
- Solid-state reliability - no moving media
- System status report - on command (i.e. shift change), a status report is printed for the entire system
- Zone association - alarm / priority status for dual sensor systems
- Built-in versatility and expandability - 3 expansion slots for sensor loop cards
- Audio from sensors enhances alarm assessment
- Alarm thresholds set in software
- Monitors and controls up to 60 zones
- Timed out access - allows the facility to choose how long a particular zone can be accessed before it automatically re-secures the zone
- Remote self-test of compatible sensors
- Monitored power status - an alarm indicator sounds and reads out on the LCD if primary power is lost. A second alarm indication sounds and reads out on the LCD when the battery back-up is low

CONTROL, DISPLAY & SECURITY MANAGEMENT SYSTEMS

DESCRIPTION

The **MX-7000** series control unit provides centralized control and management for Senstar's FPS-2-2M/AP and FPS-5 series of fence sensors, the MPS-4100 microwave protection system and the Standalone Transponder (SAT). It interfaces to the outdoor sensors through either a fiber-optic sensor network or over Senstar's robust copper-based CEnDe sensor network, collecting all alarm and status information and presenting it on the built-in touchscreen displays. The MX-7000 can also communicate the collected alarm and status information to a separate security management system via either serial port or Ethernet and can additionally drive relay outputs.



For the supported FPS fence sensors, the MX-7000 implements Senstar's unique EDAPT (Environmentally Derived Adaptive Processing Technique) technology whereby sensor responses from all zones are evaluated simultaneously in making an alarm decision. This provides optimal discrimination between real intrusions that affect a single zone and environmental disturbances such as wind and rain that affect multiple zones.

APPLICATION

The MX-7000 is installed in the security system control room environment and can be either wall-mounted or rack-mounted.

HOW IT WORKS

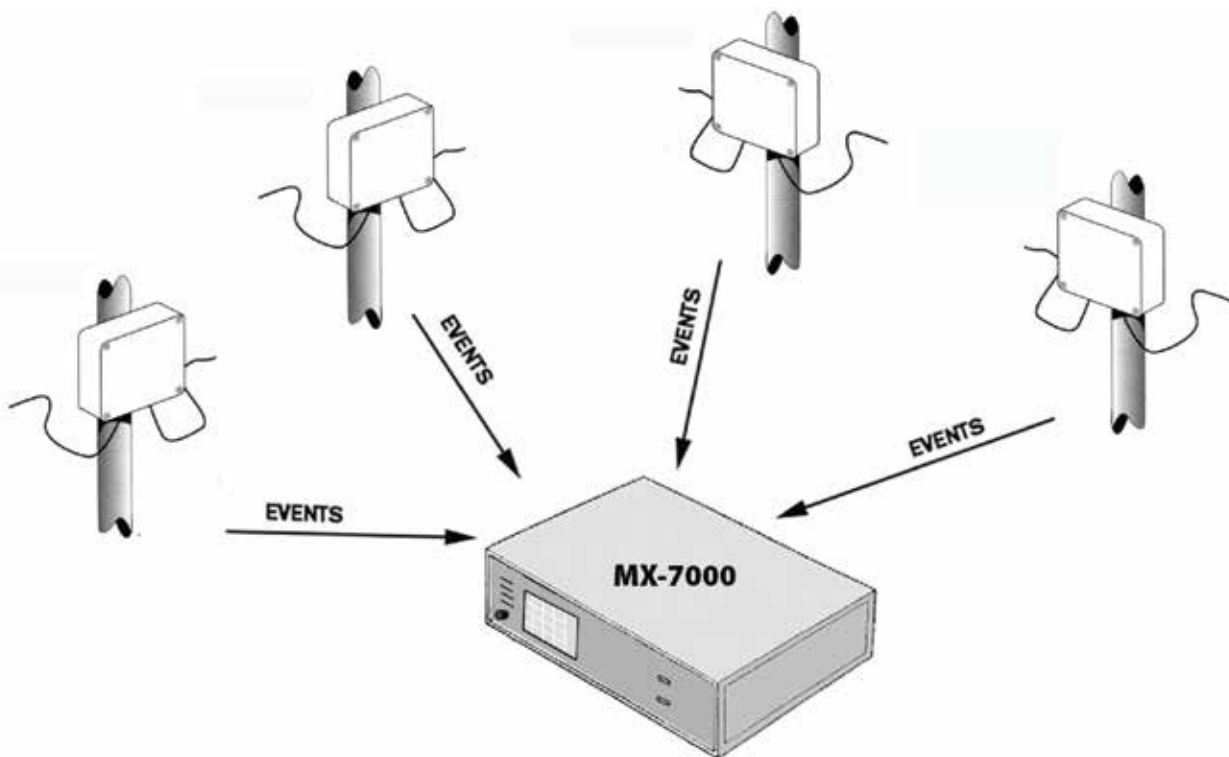
All decisions involve comparative analysis of data from all sensors as opposed to the information from a single sensing point. This enables the MX Control Unit to optimize processing for each signal and reduce the environmental interference in the alarm. The advanced processing technology - Environmentally Derived Adaptive Processing Techniques (EDAPT) moves the alarm decision from an individual zone processor in the field to the MX Control Unit which collects all pre-alarm (event) information for the entire site. The alarm threshold is now set in the MX Control Unit in software rather than at the individual zone location. The alarm decision is then made using all of the information available.

The system learns, over time, the environmental characteristics of the site and changing fence conditions.

It knows which zones are affected similarly and which zones suffer from fewer effects. This allows the system to compare zones under varying conditions to achieve a maximum reduction in the nuisance alarm rates while maintaining critical high detection levels.

Display functions (built-in flat panel graphics, host GUI, mobile maps, printer, external relays, digital voice transmissions, etc.) of the MX Series units are connected to either the local external bus, or the RS-232 buses. The data displayed is software controlled in a fashion that allows maximum flexibility to choose what data goes where.

MORE INFORMATION MEANS BETTER DECISIONS ...

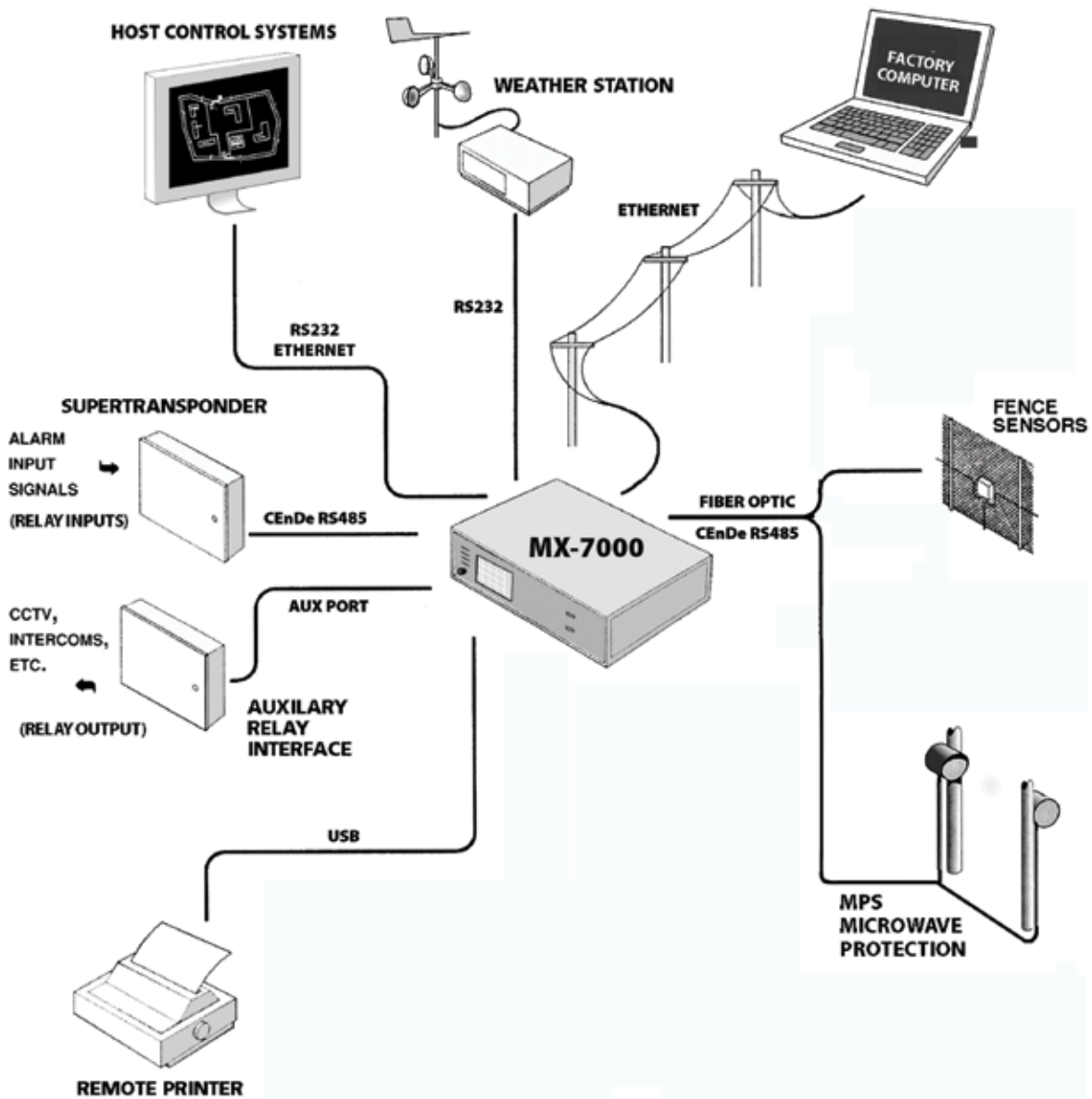


MX-7000 - COPPER MULTIPLEX COMMUNICATION SYSTEM

The MX-7000 Multiplex Control Unit uses the field proven proprietary CEnDe (Communication Encoder / Decoder) copper multiplex system, designed specifically for outdoor security sensors. Most system requirements can be accommodated within the 20,000 ft. (6,096 m) limit of a standard MX-7000 loop card, thereby eliminating the need for repeaters.

MXF-7500 - FIBER OPTIC COMMUNICATION SYSTEM

The MXF-7500 Multiplex Control Unit receives information from the sensors via an intelligent redundant fiber optic data bus. The fiber optic capability provides EMI / RFI immunity, particularly in long outdoor cable runs and adds a significant resilience in high lightning areas. The integrated fiber optic transponder communicates by an intelligent redundant (two data paths) bus that only transmits "good" data at a rate of 2 Mbps. The data transmission is fully supervised and will show the location of a cut fiber.



OPTIONAL ALARM RECORD KEEPING SYSTEM (ARKS)

The Alarm Record Keeping System (ARKS) uses an SD memory module installed inside the MX Unit. The ARKS continuously records all system alarms, tampers, acknowledges, reset, self-test results, communications failures, pre-alarm events (EDAPT), and alarm classifications by date, time to the nearest second and the local weather conditions (if the optional weather station is installed). The ARKS information is retrieved locally through a USB port or remotely by modem or network connection.

The ARKS alarm data analysis software installs on a standard PC compatible computer and is designed for operation using the Windows® operating system. ARKS software reduces alarm system data to a few important and easy-to-read graphic displays and reports. A few simple commands from the “pull-down” menus will display the activity of each alarm zone in the system. Displaying alarms this way shows troublesome zones. Displaying alarm activity of any zone over a period of time indicates when alarms are most likely to occur. Comparing alarm data with weather conditions (wind, rain, etc.) will isolate defective fence installations and maintenance requirements.

STANDARD SPECIFICATIONS MX-7000 SERIES

Size: 48 cm x 13.5 cm x 33 cm (19" W x 5.25"H x 13"D)

Weight: Approximately 9.07 kg (20 lbs.)

Mounting: 48 cm (19 in.) Rack mount or table top (please specify)

Power requirements: 24 VAC from transformer provided, Standby power provision (24 Volt - 26 Amp-hour from optional batteries)

Operating temperature: 0°C to 50°C (32°F to 120°F)

MX-7000 sensor bus:

- Up to 4 independent sensor networks, CEnDe bus - up to 6.1 km (20 k ft.) on 1 #18 AWG twisted shielded pair
- RS-485 redundant path ring

Output to FPS-2-2M/AP transponders:

DC power and multiplex data

Comm. bus configuration: Class A or B

MXF-7500 sensor bus:

- One duplex multimode fiber out; one in
- Supports 30 processors, up to 3 km (9842.5 ft.) apart

Output to transponders (fiber optic):

Multiplex data and digitized audio

Comm bus configuration (fiber optic): Redundant (self-healing) loops

Output port configuration:

- 3 RS-232 ports (DB9M)
- 4 USB ports
- 1 RJ45 ethernet port
- 1 DB25F parallel printer port
- 1 DB25M auxiliary port

Alarm record keeping system (ARKS):

- Memory capacity: 2 GB
- Data transfer to PC: USB drive

Circuit components: Mounted on plug-in circuit boards for ease of maintenance

System control: Touchscreen or mouse

Alarm & tamper indication: Visual (LCD display), and audible signal

Audio assessment: Automatic selection on alarm and manual selection by touchscreen command

Parallel / serial printer: Timed to nearest second, printer displays time, date, system events

Remote system test: Selectable - individual or all zones

Programming control: Multi-level access codes

EDAPT processing: Sensitivity adjustment pass code protected

PART	DESCRIPTION
02-195001	20 zone monitor and control system for copper field network. Includes manuals (MX-7020).
02-195001R	20 zone monitor and control system for copper field network. Rack-mount. Includes manuals (MX-7020R).
02-195002	40 zone monitor and control system for copper field network. Includes manuals (MX-7040).
02-195002R	40 zone monitor and control system for copper field network. Rack-mount. Includes manuals (MX-7040R).
02-195003	60 zone monitor and control system for copper field network. Includes manuals (MX-7060).
02-195003R	60 zone monitor and control system for copper field network. Rack-mount. Includes manuals (MX-7060R).
02-195004	20 zone monitor and control system for fiber optic field network. Includes manuals (MXF-7520).
02-195004R	20 zone monitor and control system for fiber optic field network. Rack-mount. Includes manuals (MXF-7520R).
02-195005	60 zone monitor and control system for fiber optic field network. Includes manuals (MXF-7560).
02-195005R	60 zone monitor and control system for fiber optic field network. Rack-mount. Includes manuals (MXF-7560R).

Specifications are subject to change without prior notice.

