



OVERVIEW

Our Outdoor Mantrap System was designed for use in an outdoor environment, such as the perimeter of a secured property where limiting access to only authorized persons is mission critical. This high security system provides automated physical access control to a secured location while reducing the need and cost associated with providing a full-time security guard at each entry point. The mantrap system consists of a stand-alone ADA compliant metal housing with 2 interlocking doors, local annunciation, and a remote annunciation and control panel. Options include: cameras, mounting for a biometric reader system, intercom system, and metal detection.

TECHNICAL SPECIFICATIONS

System Power

A 120 VAC dedicated circuit is required for mantrap system power.

Power Backup and Surge Protection*

An uninterruptible power supply with battery backup and surge protection is integrated into the internal mantrap system power system.

System Monitoring and Control

A Kouba Systems Multi Channel Input/Output board is used to monitor and control the mantrap system interlocking door operation. The control board has color coded LED's associated with all inputs and outputs for instant visual analysis of system operation. The processor firmware is programmed into non-volatile memory. All inputs are fully supervised. Interlocking door control system prevents both doors from being open at the same time and generates an alarm if they are both open. The control board monitors the door contacts, tamper switches, and system control contacts from the remote control panel. The control board activates lock outputs for the doors, system status relays to the access control system, and local and remote audible and visual annunciation.

Door Monitoring

Concealed supervised normally closed-door position switches monitor the doors.

Tamper Switches

Tamper switches are positioned inside the housing to monitor access to all electronics.

Door Locks*

Electronic door locks feature fail secure operation, inside and outside locked, mortise cylinders, ADA compliant lever handle, 24 VDC operation, integral latch bolt, and door secure sensor. The doors are normally locked by the control system until a request to unlock is received from the remote control panel and the opposite door is closed and locked. High security mortise cylinder locks unlock both doors manually.

Local Annunciation

Display plates located outside both doors and inside the housing indicate system status and operation to users. Audible annunciation using sounders indicate improper system use, pre-alarm warning, and alarm conditions.

Intercom System*

A request to talk button is located inside the mantrap, and outside each door. An intercom link to the remote control panel is activated when a request to talk button is pressed. The call station is automatically activated when the mantrap system's interlocked door rule is violated.

Video System*

The mantrap has four (4) commercial grade, high-resolution color cameras placed for full inside coverage, drivers license viewing, and outside both doors. Each camera is equipped with a 1.6 mm lens for wide-angle, short-range focus. Each camera is mounted inside a steel protective housing. A quad video multiplex processor is connected to a 14-inch color monitor. The video processor and monitor are mounted on the remote control panel.

The cameras have a 2 year manufacturer's warranty, the monitor has a 1 year manufacturer's warranty, and the video processor has a 1 year manufacturer's warranty. Refer to the options and upgrades section for video system upgrades. Communication: Data connections to the remote monitoring panel are pre-configured for hardwired audio, video, and system monitoring and control cabling. Exact wiring specifications will be provided with system submittal drawings.

Remote Control Panel

The mantrap system is directly controlled by the remote panel. The panel has two (2) momentary request to unlock buttons, one (1) interlock override key switch, LEDs indicating system status, intercom request to talk, and a sounder. The intercom station, color monitor, and video processor are also located on the panel. The panel fits in a standard 19" rack space. The panel is constructed of stainless steel with a brushed finish, and engraved and filled text. Exact dimensions and panel layout will be provided with system submittal drawings.

Biometric Reader System* Mounting

The Biometric Reader System processing software and hardware is provided by installing company.

The Biometric Reader System (BRS) is mounted inside the mantrap system. The BRS housing is designed to protect the BRS from direct environmental exposure. The BRS housing is mounted on a pivoting fixture to allow both ADA compliant wheelchair use of the BRS, and use by persons standing in a normal upright position. BRS housing details will be provided with system submittal drawings.

Lighting

Interior 40-Watt lights are located inside the mantrap.

Electrical Work

All electrical work conforms to the National Electrical code.

PHYSICAL SPECIFICATIONS

Interior Dimensions

Floor to ceiling height is 86"

Door opening is 36" x 84"

Floor area is 54" x 54"

Outer Dimensions

Outer Base is 60" x 60"

Outer Roof is 60" x 60"

Ground to top of roof is 98"

*Item is warranted by the manufacturer

Housing Construction:

The mantrap is constructed with 1/8" carbon steel internal framing.

The outer shell is constructed with punched steel panels, wire weave (2" x 4" spacing with 3/16" wire), or with 3/4" x 1 1/2" grid expanded metal.

The outer building corners are rounded with a 1/8" radius.

The mantrap housing has two (2) 36" x 84" doors. The doors are constructed with the same material used for the mantrap outer shell. Doors are equipped with passive automatic closing mechanism.

The mantrap has a self draining, slip resistant metal floor. The floor is secured to the housing with bolts and may be removed for cleaning.

Locking equipment closet access inside the housing holds all electronic controls for the mantrap system.

Tamper switches are positioned inside the housing to monitor access to all electronics.

The mantrap housing has forklift rails under the framing for movement and placement. A ramp is provided for wheelchair access to the door after the mantrap is permanently placed.

OPTIONS AND UPGRADES

The mantrap system components may be upgraded to provide enhanced operation. Contact us for pricing.

Optional Tailgate Detection

A tailgate detection system may be incorporated into the mantrap housing on one or both doors. The tailgate detection system determines the direction and count of persons passing through the mantrap doors. The mantrap control system prevents passage if more than one person is inside the mantrap.

Optional Presence Sensing Floor Mat*

A dual zoned presence sensing floor mat made of an industrial grade material may be added to the mantrap. The control system prevents passage if more than one person is inside the mantrap. The mat has 1 large zone and 1 small zone (12" x 12") to determine if more than one person is inside the mantrap. It has a non-skid surface, and is fire resistant and self-extinguishing. The actuation force is 20 lbs. The coverage area of the mat includes the entire inside floor space of the mantrap. The floor mat is resistant to water, oil, grease, and chemical solvents.

Optional Dual Technology Presence Sensor*

A dual technology detector is mounted inside the mantrap for the control system to determine if the unit is occupied or empty.

Video System Options

Video system pricing will need to be recalculated to meet exact final specification requirements if the proposed basic commercial grade system is not used. Manufacturers' warranties range from 90 days to 2 years for video equipment. Upgrade options include:

- 24 Hour Real Time VCR*
- Digital Video Recorder*
- 20 Inch high resolution video monitor*

Camera Upgrade to Detention Grade Camera*

Silent Witness V27Plus series detention grade cameras are used in place of commercial grade cameras. Manufacturer's warranty is 3 years.

*Item is warranted by the manufacturer