

HERITAGE MEDCALL TECHNICAL SPECIFICATIONS

Model HM-550 MASTER CONSOLE

- INDUSTRIAL MICRO-CONTROLLER
- DESKTOP OR WALL MOUNT
- WATCHDOG SYSTEM FOR AUTO RESET
- SYSTEM TROUBLE ALARM OUTPUT
- EXPANDABLE TO OVER 4000 DEVICES
- INTEGRATES WITH FIRE, NURSE-CALL, AND DOOR MONITOR.



DESCRIPTION: The Sentry Model HM-550 Master Console monitors and controls an entire Sentry communication system. The controller cabinet contains the necessary power supply, the micro-controller module, and the appropriate interface devices for the entire master console. The HM-550 Master Controller can be optionally configured for up to 16 separate data lines to monitor 832 host panels, 216 auxiliary inputs/outputs, 1536 supervised auxiliary inputs/outputs, and 16 remote LCD displays. A HM-550 Master Controller can also be configured to monitor up to four other HM-550 Master Controllers in a host - remote connection for virtually unlimited monitoring capability. Serial input capability also allows the Master Controller to interface with other systems such as Fire Panels, Nurse Call Systems, and Access Control. Serial output can send calls to either local area alphanumeric pocket page, or through a voice synthesizer for annunciation over two-way radio.

The HM-550 Master Controller comes standard with the following:

- Industrial desktop/wall-mount case with switching power supply.
- Industrial controller CPU.
- KVM extender for allowing secure remote CPU location.
- Console control watchdog card with data line monitor.
- VGA video with 14" color monitor.
- System monitor annunciator panel with battery back up.
- Desktop console keypad.
- Full keyboard for system programming.
- Printer port and two RS-232 serial communications ports.
- Dual Serial Interface Card (Model HM-501).
- Sentry Operating System Software

Hardware options which can be added to the HM-550 Master Console:

- Additional serial interface cards (Model HM-501 - dual port, Model HM-502 - quad port, Model HM-503 - quad isolated port) to a maximum of 16 ports.
- Model HM-617 Auxiliary Input Cards for monitoring and/or controlling up to 216 local inputs/outputs.
- Additional RS-232 serial communications ports to a maximum of 5.
- Model HM-825 Console Terminal Board for basic intercom control, fire alarm system interface, equipment monitoring, or any special application requirement.
- Model HM-516 Line Printer for logging all system activity with date and time stamp.
- Model HM-533 Standby Power Supply.

Software options which can be added to the HM-550 Master Console:

- Model HM-663 Event Recording for logging all system activity to disk with date and time stamp.
- Model HM-665 Medical History Database for displaying personal medical information during an emergency call.

The controller CPU can be mounted in a limited access location within 150 feet of the video display screen, and console alarm panel. Normal locations may be a secure equipment or electrical room. Adequate ventilation is essential. The console keypad, video monitor, and console alarm panel connects to the controller CPU and typically locates at a 24 hour staffed location. All controller functions are controlled and set via the console keypad. The audio alarm is located in the Console Alarm Panel, Model HM-506. This separate 2 gang panel provides the indication and alarm for calls and system trouble. The master controller CPU provides supervision to all system components. All host panels, emergency call devices, smoke detectors, power supplies, batteries, etc. will be supervised. Any component failure will initiate a trouble/service alarm and be displayed on the monitor screen.

The Master Controller will display operator instructions on the video screen when the Help Screen key is pressed.

A time and date set routine is installed in the controller to allow an operator to manually change the date and time by using the console keypad. Other special function screens will display specific options when initiated by keypad commands. All special function displays are overwritten with a message when an alarm event occurs. The controller is equipped with a special watchdog system that continuously monitors a data line for proper serial data. Upon detecting a system malfunction, the watchdog will attempt to reset the computer. If two reset attempts are unsuccessful, it will activate the System Trouble alarm and indicator on the Console Alarm Panel. The Sentry Model HM-550 Master Controller requires a dedicated 120 Volt AC receptacle. The controller should always be supported for operation during a power outage by Sentry Model HM-533, Standby Power Source. Sentry recommends the use an emergency electric circuit whenever possible.

CONTROLLER CONFIGURATION

Sentry Dual Serial Interface Card addresses up to 104 apartment host panels on two data lines. For systems with more than 104 apartments, additional serial interface cards must be ordered. Each serial data line controls up to 52 apartment host panels. The Sentry HM-501 Dual Interface Card can address up to 104 apartment host panels, the HM-502 or HM-503 Quad Interface can support up to 208 host panels. Each standard data line provides communication with up to 52 apartment host panels, 8 utility panels, and a power supply supervisor. A separate dedicated data line is required for up to 16 Remote LCD display modules. Host panels should be connected in organized groups of up to 52 apartments. Since many buildings are not arranged in practical apartment groupings, it is often less expensive to install an additional serial interface card than to install extra wiring. With this in mind, estimates are more accurate by planning one interface card for each 90 apartments, over the first 104. Contact the factory for assistance in the layout of large or special installations. EXAMPLE: A building complex with 348 apartments should use a controller with a total of 7 data lines. $348 \text{ rooms} \div 52 \text{ rooms/data line} = 6.7$, round up to 7. The controller comes standard with two data lines, which will require the addition of 5 optional data lines utilizing either Model HM-501 - dual port, Model HM-502 - quad port, Model HM-503 - quad isolated port cards. It is always suggested to contact the factory for assistance in system design when systems require more than the basic configuration.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

SENTRY MASTER CONTROLLER

MODEL HM-550

The Master Controller shall be capable of monitoring up to 832 host panels and 1752 special purpose auxiliary inputs. It will monitor and control an entire Sentry communication system. The controller shall be micro-controller based, use multiplexed address digital communication techniques, and shall be completely solid state.

The system shall be of modular design to allow the future additions of available options or expansion of control points with a minimum of hardware and software additions. The system shall have the capacity to connect with up to four remote Master Controllers for virtually unlimited monitoring capabilities. The stand-alone master controller shall have the capacity to monitor, supervise, record, alarm, and display 5080 separate points on up to 16 data lines. The console video screen shall have the ability to show up to 132 alarm events simultaneously in up to sixteen colors denoting alarm categories. The controller shall be of adequate speed to scan the status of all emergency and input points within 3 seconds. The controller shall have the capacity to record alarm events to an optional line printer or an optional floppy disk. Printed or stored alarm events shall be recorded with a date and time stamp. A trouble condition shall be generated if the controller should stop functioning properly. A Watchdog timer system shall automatically attempt to reset the entire system, and shall sound the system trouble alarm if the reset is unsuccessful. Any other system component malfunction shall sound the trouble alarm and be listed on the display screen with a request for service. The controller shall be equipped with electrical surge suppression and noise filtering. The controller cabinet shall contain the necessary power supplies, the microcomputer module, and the appropriate interface devices for the entire master console. Any auxiliary inputs and outputs, interfaced to a separate electrical system, such as a fire alarm, shall be electrically isolated. All data lines that go out of the building shall be electrically isolated from the controller. An output shall be optionally provided for the connection of a line printer. The printer shall have the ability to: record all alarm events with the date and time, print medical history reports when an emergency call is received, and print a daily assurance report of check-in status. The master controller shall have the ability to operate additional video screens for remote annunciation. It will also support additional input keys for alarm silence and other functions that may be required at a remote site. The Controller operation shall be unchanged in an ambient temperature of 0 C to 40 C with a relative humidity of 10% to 95% non-condensing. The Controller's enclosure dimensions shall not exceed 8"W x 14"H x 18"D.

FCC REQUIREMENTS: This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications of Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. If this equipment does cause interference to radio or TV reception, contact your Sentry representative