

MODEL 5000
S E N T R Y
GAS MONITORING SYSTEM

Version 6

Model 5392 Individual Relay



APPLICABILITY & EFFECTIVITY

Effective for all Sentry systems manufactured after September 1, 1995.

Instruction Manual Part Number T12001-A1

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8.6 APPENDIX F - MODEL 5392 INDIVIDUAL RELAY

8.6.1 RELAY PANEL DESCRIPTION

Model 5392-00 Individual Relay Panel extends Sentry low alarm and high alarm capability by providing individual single pole double throw (SPDT) dry contacts for each alarm level for each module. The panel is designed to be installed as follows:

- Rack or Chassis Controllers: Mounted on stand-offs on the connector panel of the controller, or installed on the back of spare slots in 19" instrument shelf Model 5331-00.
- Wall Mount: Supplied pre-installed on a separate wall mounting panel
- NEMA 4X Enclosure: Mounted on swinging connector panel beside the display panel. (When other options are installed in the enclosure, the Individual Relay panel may be installed inside the swinging panel)

The panel connects to the Sentry controller via a ribbon cable.

8.6.2 RELAY PANEL ASSEMBLY

Individual Relay Panels supplied with original Sentry shipments are factory pre-assembled with the controller. For NEMA enclosures, the panel is fully installed prior to shipment. For other controllers minor final assembly is described below.

Individual Relay Panels supplied as add-on to original Sentry controllers require that the connector panel of the controller be removed so that threaded stand-offs (supplied) can be installed onto the four corners of the panel.

8.6.3 INSTALLATION

The following are instructions for final installation and wiring of the Individual Relay panel:

1. Perform normal installation of the Sentry controller and modules and perform function checks of the basic system.
2. Power down the system.
3. Plug the Individual Relay Panel ribbon cable into the connector on the controller.
4. Mount the panel on the four stand-offs on the connector panel of the controller [not required for NEMA enclosures].

5. Make the necessary connections to the high and low relays for each of the modules as required for the particular application. Note that these are dry contact relays and that power must be connected from an external source.

8.6.4 OPERATION

Figure 8-2 shows the location of the sixteen relays which are marked as "high" and "low" alarms for the respective modules.

When any module connected to the controller is in alarm it's respective relay will be energized.

To operate alarms or other auxiliary equipment connect to the required relays according to the module number.

Several logic configurations are available:

- The user can configure each alarm as latching or non-latching via the **CHANGE MODULE** menu activity.
- A factory option available with the Enhancement Package allows all high, or all low alarms, or both, to be configured for alarm acknowledge when latched.
- A factory option available with the Enhancement Package allows alarm states to be combined into zones and voting groups for activation of individual relays.

Table 8-2 is helpful for determining the relay actions which will occur under various alarm conditions based on the user's configuration.

To use the table:

1. Select one of the nine possible combinations of high and low alarm relay configurations in the top two lines across the table.
2. Select one main block of the three alarm status scenarios from the left column.
3. Trace the relay and LED status conditions for each change in alarm status.
4. Where there are secondary columns, move to the secondary columns at any point by pressing Alarm Reset, Enter.

8.6.5 INDIVIDUAL RELAY SPECIFICATIONS

- Dimensions 6.97" X 4.2" X 1.5" (HWD)
- Number of Relays 16 SPDT
- Contact Rating 6A
- Wire Terminals Screw Terminals

LOW RELAY:		NON-LATCH			LATCH			ACKNOWLEDGE		
HIGH RELAY:		NON	LATCH	ACKN	NON	LATCH	ACKN	NON	LATCH	ACKN
Status	Outputs	Status conditions are indicted as "0" = Off, "1" = On, "F" = Flashing								
No Alarm	Low Relay	0	0	0	0	0	0	0	0	0
	High Relay	0	0	0	0	0	0	0	0	0
	LED	0	0	0	0	0	0	0	0	0
Low Alarm	Low Relay	1	1	1	1	1	1	1-0	1-0	1-0
	High Relay	0	0	0	0	0	0	0-0	0-0	0-0
	LED	1	1	1	1	1	1	1-1	1-1	1-1
No Alarm	Low Relay	0	0	0	1-0	1-0	1-0	1-0	1-0	1-0
	High Relay	0	0	0	0-0	0-0	0-0	0-0	0-0	0-0
	LED	0	0	0	1-0	1-0	1-0	0-0	0-0	0-0
No Alarm	Low Relay	0	0	0	0	0	0	0	0	0
	High Relay	0	0	0	0	0	0	0	0	0
	LED	0	0	0	0	0	0	0	0	0
Low Alarm	Low Relay	1	1	1	1	1	1	1-0	1-0	1-0
	High Relay	0	0	0	0	0	0	0-0	0-0	0-0
	LED	1	1	1	1	1	1	1-1	1-1	1-1
High Alarm	Low Relay	1	1	1-1	1	1	1-1	1-0	1-0	1-0-0
	High Relay	1	1	1-0	1	1	1-1	1-1	1-1	1-1-0
	LED	F	F	F-F	F	F	F-F	F-F	F-F	F-F-F
Low Alarm	Low Relay	1	1-1	1-1	1	1-1	1-1	1-0	1-0-0	1-0-0
	High Relay	0	1-0	1-0	0	1-0	1-0	0-0	1-1-0	1-1-0
	LED	1	F-1	F-1	1	F-1	F-1	1-1	F-F-1	F-F-1
No Alarm	Low Relay	0	0-0	0-0	1-0	1-1-0	1-1-0	1-0	1-0-0	1-0-0
	High Relay	0	1-0	1-0	0-0	1-0-0	1-0-0	0-0	1-1-0	1-1-0
	LED	0	F-0	F-0	1-0	F-1-0	F-1-0	1-0	F-F-0	F-F-0
No Alarm	Low Relay	0	0	0	0	0	0	0	0	0
	High Relay	0	0	0	0	0	0	0	0	0
	LED	0	0	0	0	0	0	0	0	0
Low Alarm	Low Relay	1	1	1	1	1	1	1-0	1-0	1-0
	High Relay	0	0	0	0	0	0	0-0	0-0	0-0
	LED	1	1	1	1	1	1	1-1	1-1	1-1
High Alarm	Low Relay	1	1	1-1	1	1	1-1	1-0	1-0	1-0-0
	High Relay	1	1	1-0	1	1	1-1	1-1	1-1	1-1-0
	LED	F	F	F-F	F	F	F-F	F-F	F-F	F-F-F
Low Alarm	Low Relay	1	1-1	1-1	1	1-1	1-1	1-0	1-0-0	1-0-0
	High Relay	0	1-0	1-0	0	1-0	1-0	0-0	1-1-0	1-1-0
	LED	1	F-1	F-1	1	F-1	F-1	1-1	F-F-1	F-F-1
High Alarm	Low Relay	1	1-1	1-1-1	1	1-1	1-1-1	1-0	1-0-0	1-0-0-0
	High Relay	1	1-1	1-1-0	0	1-1	1-1-0	1-1	1-1-1	1-1-1-0
	LED	F	F-F	F-F-F	1	F-F	F-F-F	F-F	F-F-F	F-F-F-F
Low Alarm	Low Relay	1	1-1-1	1-1-1	1	1-1-1	1-1-1	1-0	1-0-0-0	1-0-0-0
	High Relay	0	1-1-0	1-1-0	0	1-1-0	1-1-0	0-0	1-1-1-0	1-1-1-0
	LED	1	F-F-1	F-F-1	1	F-F-1	F-F-1	1-1	F-F-F-1	F-F-F-1
No Alarm	Low Relay	0	0-0-0	0-0-0	1-0	1-1-1-0	1-1-1-0	1-0	1-0-0-0	1-0-0-0
	High Relay	0	1-1-0	1-1-0	0-0	1-1-0-0	1-1-0-0	0-0	1-1-1-0	1-1-1-0
	LED	0	F-F-0	F-F-0	1-0	F-F-1-0	F-F-1-0	1-0	F-F-F-0	F-F-F-0

Table 8-2
Individual Alarm Relay Logic

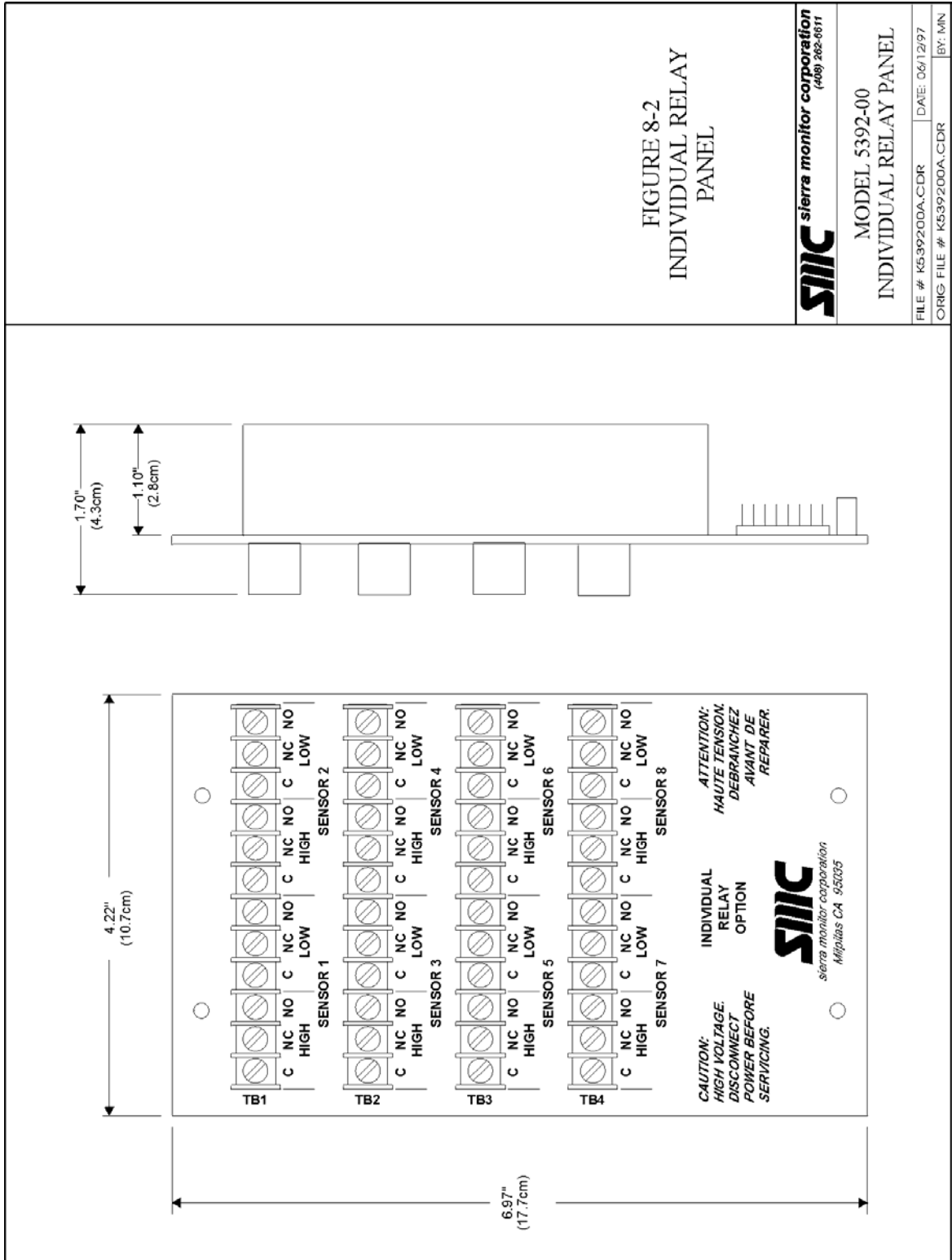


Figure 8-2
Individual Relay Panel

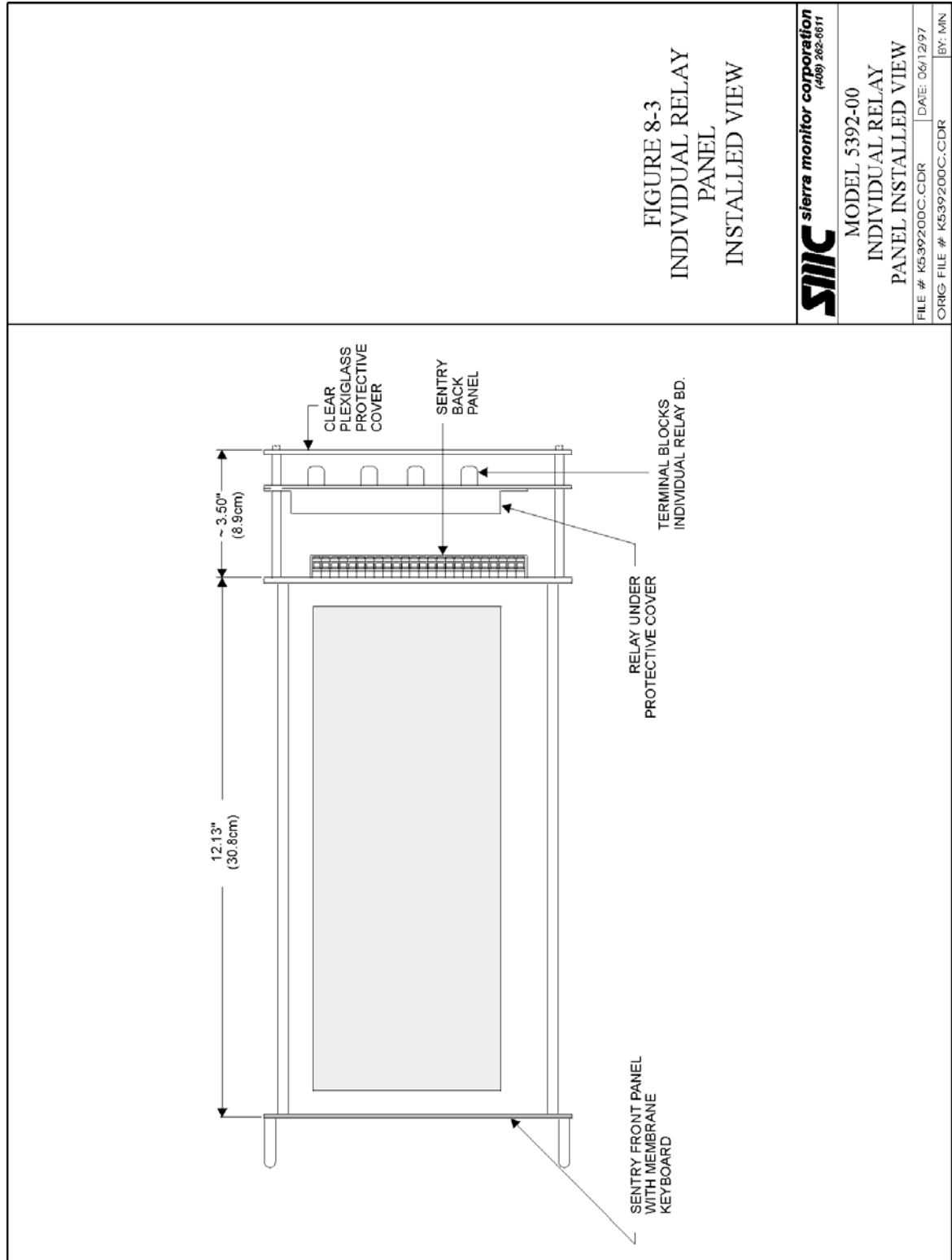


Figure 8-3
Individual Relay Panel - Installed View