



# RM-4005

## REMOTE PANEL AND ANNUNCIATOR

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### Technical Manual

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## Introduction

The RM-4005 Remote Panel and Annunciator enables control and supervision of the ADR-3000 Fire Alarm Control Panel from remote locations and key positions such as: security officer, premises manager, or maintenance office.

The RM-4005 Remote Panel consists of an LCD display, keypad, internal buzzer, and features such as alarm output, trouble output, and an interface relay that diminishes the need for additional input/output interface cards.

The connection between the remote panels and the main control panel is performed through a twisted wire pair (RS-485). Up to 16 remote panels can be connected to the control panel using the same line. Each remote panel should be allocated with a unique address from 1 to 16. The communication and input/output circuits are fully supervised.

In large systems incorporating several control panels connected via a peer-to-peer network, up to 16 remote panels can be connected to each of the control panels.

The RM-4005 operates with a 24 VDC power source that can be supplied from one of the following options:

- 24 VDC supplied from the main control panel (connector JP6)
- 24 VDC supplied from a remote power supply such as Telefire's TPS-34A Analog Addressable External Power Supply.
- Local power supply, based on a standard ADR-3000 power supply and 24-Volt rechargeable batteries. This option will provide the ability to supply 24 VDC via JP8 to other addressable devices in the vicinity. The RM-4005 will automatically detect the presence of a power supply module and will perform all the supervision required.

## Keypad and Display

The RM-4005 is equipped with an illuminated alphanumeric LCD display. Four rows of 40 characters each can display descriptions of all analog devices.

The RM-4005 contains the following indicating LEDs:

**System OK** (green)

**Alarm Mode** (red)

**Trouble Mode** (yellow)

A flickering red LED means that the Alarm or Trouble were silenced.

Any occurring event is clearly displayed on the LCD screen and relevant LEDs.

The RM-4005 keypad includes a numeric pad and the following keys:

1. **Silence** – Press this key silence the alarm bells or the trouble buzzer. In order to activate this feature, an access code is required. This code will enable only authorized personnel to silence the alarm.
2. **Recall Memory** – Press this key to scan all the system's events, when more than one event occurring simultaneously.
3. **Arrows** – The 4 arrows enable navigating between the menus displayed on the screen.
4. **Numerical keypad** – Enables to enter codes, numbers and the selection of menus.

## Programming the RM-4005

Both the ADR-3000 control panel and the RM-4005 need to be configured as part of the installation process.

### Configuring the ADR-3000 Control Panel

1. Press the asterisk (\*) key on the keypad to get to the menu.
2. From the main menu press 1 to select system program.
3. At the request enter the system's password.
4. Press 3 to choose system config.
5. Press the right arrow key three times so that the remote control is highlighted.
6. Press the up arrow key to select the remote control's address (1-16).
7. Press the "on" key to add the appropriate RM-4005.  
Repeat steps 6 and 7 for each additional remote panel in use.
8. Exit the system's programming mode by pressing "quit" three times.

### Configuring the Remote Control Panel

1. Enter the main menu screen by pressing the asterisk (\*) key.
2. Select system config.
3. Enter the password. The system will display a sub-menu.
4. Select address program by pressing 1 on the keypad. The current address will be displayed.
5. Enter the new address (1-16). Use unique addresses for each remote panel connected to the same ADR-3000.
6. Exit program mode.

## Output Programming

Output programming sets the alarm and trouble output circuits' characteristic and operating conditions.

1. Select system config.
2. Select output program by pressing 4 on the keypad.
3. The alarm output is marked AL and the trouble output is marked TR.
4. Each can be configured as silenced or not silenced, during silencing of the system. Choose the desired mode by using the navigating arrows.
5. The relay marked RL contains both normally open and normally closed dry contacts. It can be programmed as an alarm relay or trouble relay and can be either silenced or not silenced during silencing conditions.

The alarm and trouble outputs are supervised and operate on level-activating mode delivering 24 VDC during alarm or trouble condition.

## Operating Instructions

### ***Recall Memory***

Whenever more than one event occurs simultaneously in the ADR-3000 system and the first event is displayed on the screen, it is possible to scroll in order to display the previous events by using the recall memory push button.

### ***Lamp Test***

Enter the main menu by pressing the asterisk (\*) key and select Lamp Test by pressing 1 on the keypad.

All the LEDs will light and the internal buzzer will sound for a few seconds.

### ***Language Selection***

The RM-4005 Remote Panel can operate in either of two languages: English and Hebrew.

The "change language" feature in the main menu is disabled. You can change languages via the ADR-3000's "system config" utility under "RM language". Please refer to the ADR-3000 Technical Manual for further details.

### ***System State***

Selecting system state in the main menu enables to monitor the system's status and to display alarm and trouble details.

## Fuses

The following fuses are being used in the RM-4005 Remote Panel:

Fuse	Rating	Function
F1	2 A	Protects the 24 VDC outputs
F2	0.1 A	Protect the LCD display's illuminating circuit

**Table 1. RM-4005 fuses**

**NOTE:** in addition to fuse protection both the alarm output (AL) and trouble output (TR) are protected electronically against short circuit and over-current.

## The RM-4005 Terminals

- J1 Connector to ADR-4004TSW local power supply.
- JP6 Entry for 24 VDC from an auxiliary source.
- JP8 Output of the 24 VDC for additional devices like: remote panels or different input/output interface cards.
- JP10 Alarm output, trouble output and relay connections.
- JP2 Communication terminals (RS-485). Make sure you connect the wires with proper polarity.
- JP9 LCD illuminating circuit connection.

## Operating Modes

### Alarm Mode

During an alarm the alarm red LED will latch on and the following information will be displayed:

The event's number, time of occurrence, description (up to 40 characters), card number, detector address, detector type, and total event count (if there is more than one event).

### Trouble Mode

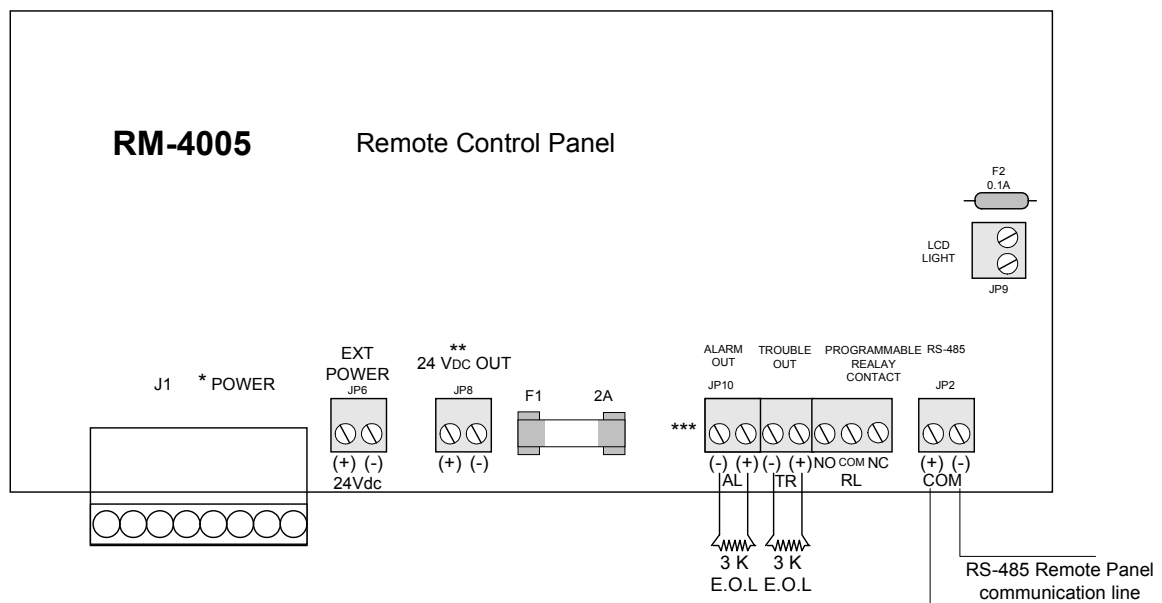
This mode is similar to the alarm, except that the yellow trouble LED will latch on.

When in trouble mode the yellow LED will flicker and the following information will be displayed:

The event's number, time of occurrence, description (up to 40 characters), card number, detector address, detector type, and total event count (if there is more than one event).

### Silencing – Alarm and Trouble

In order to silence the systems sirens from the RM-4005 Remote Panel, press the key marked with the siren symbol. The system will request a password. After entering the password and pressing the Enter key, the sirens of the entire systems will be silenced and the red flickering LED will light up.



\* To optional Telefire power supply module (ADR-4004TSW)

\*\* 24 Vdc Out (JP8) to addressable devices. Can be used only with optional power supply connected to J1

\*\*\* Programmable outputs

When supplying 24 Vdc to the RM-4005 via EXT POWER (JP6) rather than the optional power supply module, **DO NOT** connect anything to the 24 Vdc OUT (JP8)

Figure 1. Terminals, connectors and fuse position

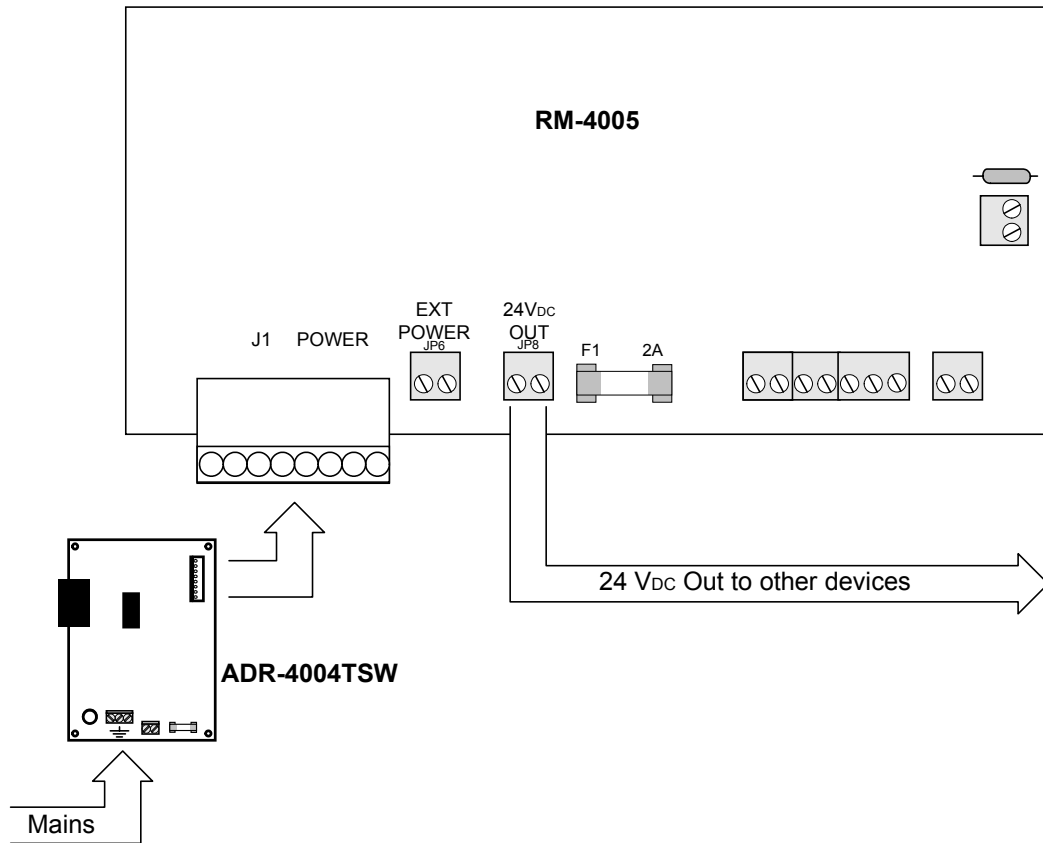


Figure 2. Optional power supply connections

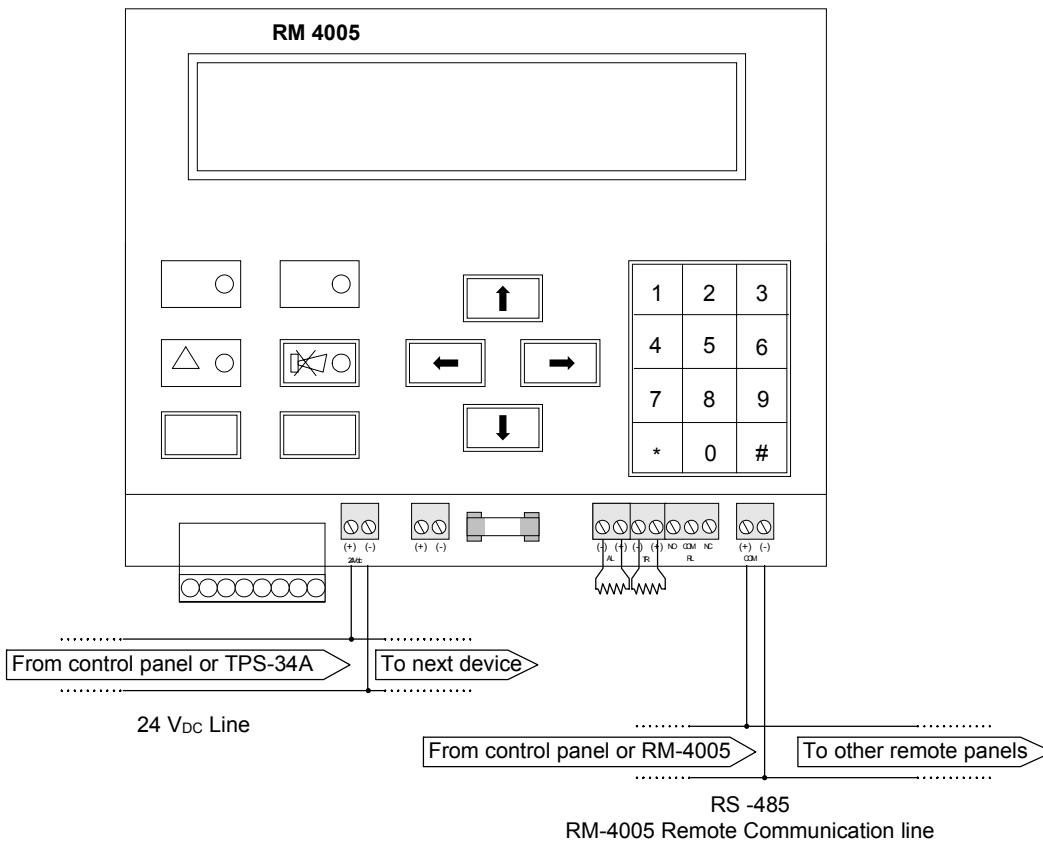


Figure 3. Keyboard and wiring to control panel.

## Specification

Height .....	190 mm (7.5")
Width .....	280 mm (11")
Depth .....	50 mm (2")
Operating Temperature Range:.....	-10°C – +60°C (14°F - 140°F)
Relative Humidity Range: .....	10% – 93% non-condensing
Input Voltage (from an auxiliary source).....	24 VDC
Standby current (normal operating mode, LCD not illuminated).....	60 mA
Alarm current (excluding external siren current, if connected) .....	82 mA
Maximum alarm output current.....	500 mA
Maximum trouble output current.....	500 mA

Specifications are subject to change without prior notice.

## Certification

Telefire's RM-4005 Remote Panel and Annunciator has the following approvals:

- SI 1220 Approved
- EN-54 Approved