

Remote Control Panel

The Remote Control Panel (RCP), used in conjunction with PM4, PM5, Advantage, and VF Telephone Entry (TE) systems, serves as the control hardware for related access control functions, most commonly elevator controls. In this use, the unit is designed to supplement a TE system by providing floor access control in addition to port control without a proportional load burden being placed on the telephone entry unit.

Each RCP, with added Expander Control Panels (ECP), can control up to 64 low current outputs (150 mA, AC/DC capacity). Standard RCP configuration is an RCP-16 which is designed for 16 low current outputs. An RCP requires a 12 VAC power supply. If existing power supplies are not capable of delivering the required voltage, an optional 120 VAC wall transformer can be used.

1.0 Specifications

- Size of Mounting Plate
 - 10 1/2 inches High x 7 inches Wide x 3 1/16 inches Deep (includes circuit boards)
- Environment
 - Temperature Range – 0° to 100° F
 - Humidity – 0% to 95% noncondensing
- Power Supply
 - 120 VAC 60 Hz Class II Transformer – outputs 12 VAC @ 20 VA
- Outputs/Access Control Points – 8 per ECP to a maximum of 64 (8 ECPs)
 - 150 mA
 - AC/DC
 - 30 V maximum
 - normally open



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2.0 Installation

2.1 Mounting Elevator RCPs

Any RCP used to control an elevator can be installed in one of two methods, depending upon elevator design. The two methods are:

1. Installed directly on the elevator cab.
2. Installed in the elevator control room.

Use the method which best serves to minimize wiring and facilitates the RCP interface with existing elevator control systems. For detailed information regarding RCP wiring interface with specific elevators, refer to the elevator manufacturer's service and installation manuals.

NOTE: For safety and liability reasons, all connections to an elevator cab must be made by a certified elevator technician or installer.

2.2 Wiring RCPs

2.2.1 Connecting RCPs to the Telephone Entry System

Communication is established between the TE system (via DB-25 connector) and the RCP (10-pin connector) via the TE system's RS-485 serial port connector using two sets of twisted pair wires.

- see Table 1 for wiring a PM4, PM5, or Advantage TE system to a single RCP
- see Table 2 on page 3 for wiring a VF TE system to a single RCP
- see Table 3 on page 3 for wiring multiple RCPs together via a daisy-chain

Table 1: Wiring a PM4, PM5, or Advantage TE System to a Single RCP

TE DB-25 Pin	RCP J2 Pin
2 – Tx-	6 – Rx-
1 – Tx+	5 – Rx+
14 – Rx-	4 – Tx-
15 – Rx+	3 – Tx+

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Table 2: Wiring a VF TE System to a Single RCP

TE BS2 Pin	RCP J2 Pin
6 – Tx-	6 – Rx-
5 – Tx+	5 – Rx+
4 – Rx-	4 – Tx-
3 – Rx+	3 – Tx+

Table 3: Wiring Multiple RCPs Together

RCP 1 Pins	RCP 2 Pins	RCP 3 Pins
7 – Tx+	5 – Rx+	
8 – Tx-	6 – Rx-	
9 – Rx+	3 – Tx+	
10 – Rx-	4 – Tx-	
	7 – Tx+	5 – Rx+
	8 – Tx-	6 – Rx-
	9 – Rx+	3 – Tx+
	10 – Rx-	4 – Tx-

2.3 Wiring ECPs to RCPs

The basic RCP-16 board is delivered with one RCP board and two ECP boards mounted on the Mounting Plate. The necessary connections have been made at the factory. The required connections are provided here for troubleshooting purposes.

For RCPs with additional ECPs, the only changes are in the board addresses (in increasing order, set at the factory), and the additional wiring of the output points. The internal RCP connections have been made at the factory.

2.3.1 Connections

A 16-pin ribbon cable runs from the RCP to each ECP board. This is a parallel connection. See Figure 1 on page 4 for pin orientation.



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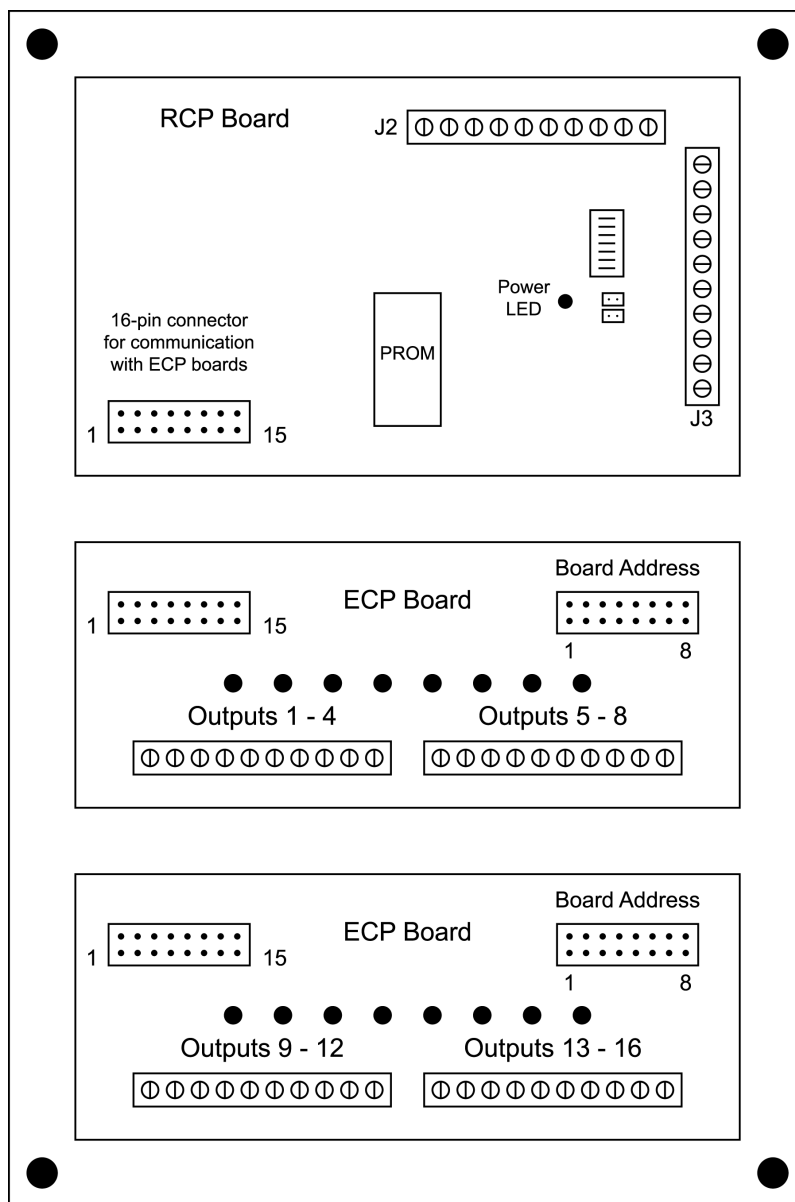


Figure 1: The RCP and ECPs on a Mounting Plate

The board address for each ECP is set by a jumper at the factory and the software interface information is hard coded into the RCP at the factory. Do NOT move this jumper unless directed to by a Tech Support technician. Moving the jumper will result in communication problems between the RCP and the ECP boards.

The cable and the address jumper are the only connections/settings required for proper operation of the RCP and the ECPs. All other connections are for system power or for the operation of control points.

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2.4 RCP Setup

There are three things to do before wiring the RCP to control points (see Figure 2).

1. Verify all dip switches are set to OFF. Do NOT change these settings.
2. Connect a jumper between pins 4 and 6.
3. Run power to the RCP from a 120 VAC transformer. Connect power using a twisted-pair of AWG 18 wire to "AC IN" (pins 7 and 8).

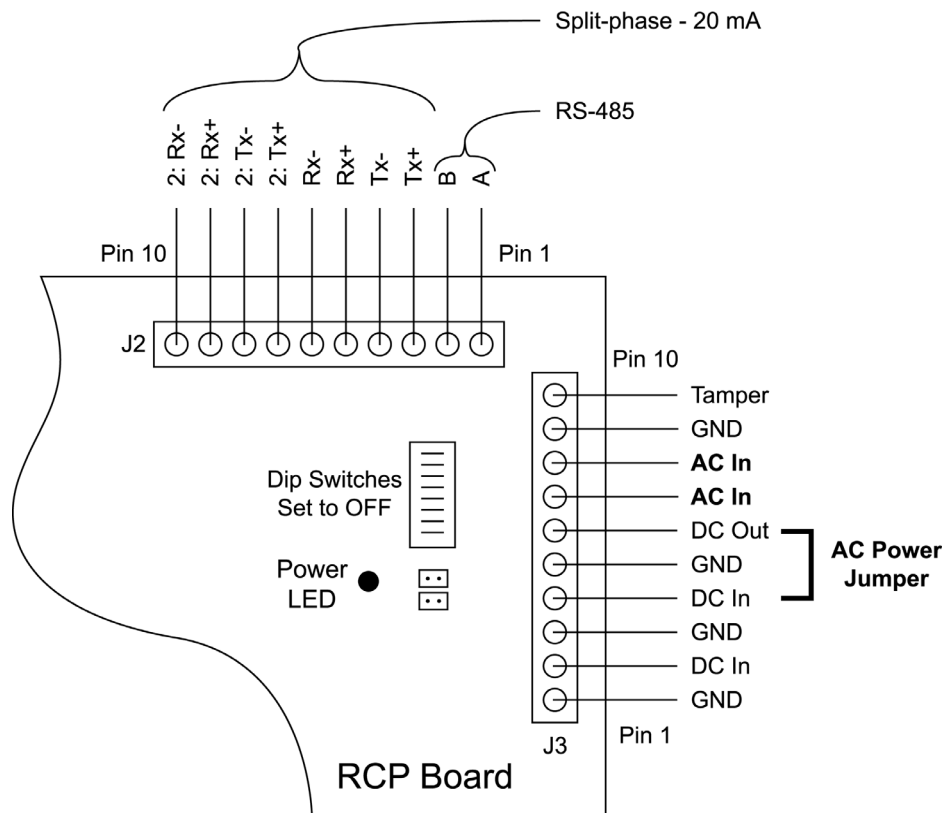


Figure 2: RCP Setup Connections

NOTE: The PROM installed on the RCP must be at revision 1.6 for proper operation with ECPs (see Figure 1 on page 4).

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2.5 Wiring an ECP to its Control Points

Each control point must be individually wired using AWG 22 twisted-pair wire (long distance runs may require a heavier gauge). Figure 3 displays output point locations; Table 4 displays output point number per ECP card. When in operation, output LEDs identify when an RCP output is active; one LED per output point.

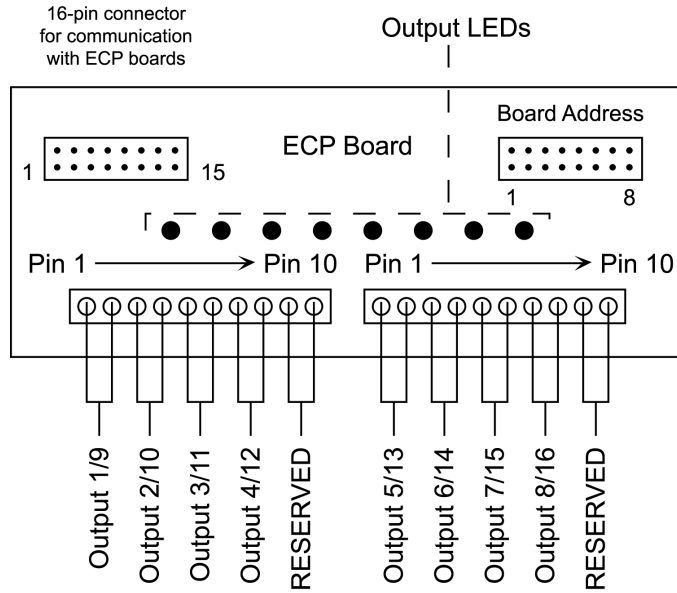


Figure 3: ECP Setup Connections

Table 4: Outputs by ECP

ECP #	Output A	Output B	Output C	Output D	Output E	Output F	Output G	Output H
1	1	2	3	4	5	6	7	8
2	9	10	11	12	13	14	15	16
3	17	18	19	20	21	22	23	24
4	25	26	27	28	29	30	31	32
5	33	34	35	36	37	38	39	40
6	41	42	43	44	45	46	47	48
7	49	50	51	52	53	54	55	56
8	57	58	59	60	61	62	63	64

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2.6 Power LED Sequence

To verify proper RCP/ECP configuration, the LEDs on the ECP blink in a specific sequence when the unit is powered on. When power is first applied to the RCP, the Green power LED on the RCP blinks 5 times. The Yellow ECP output LEDs turn ON from left-to-right, top board to bottom board until all LEDs are lit. Then the LEDs turn OFF in the order they came on.



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3.0 Programming for PM4, PM5, and Advantage Units

3.1 To Assign Floors to a Given Tenant Directory Number

This command allows you to assign elevator floor access to a tenant through the tenant's directory number.

1. Press *.
2. Enter the 8-digit programmer passcode.
3. Press #. The Enter lamp should be on indicating the unit is now in programming mode.
4. Press * 1 8.
5. Enter the 2 or 3-digit directory number of the tenant for whom you want to assign a Floor Number.
6. Enter the Floor Number. When entering a Floor Number, you must enter leading 0s to fill the Floor Number out to a 3-digit number.
7. Press ##. This exits you from programming mode.

Examples:

To assign tenant directory number 101 to floor number 007 (a 3-digit directory number):

* <8-digit passcode> #	to enter programming mode
* 1 8 1 0 1 0 0 7 #	to assign floor 7 to tenant directory number 101
##	to exit programming mode

To assign tenant directory number 12 to floor number 007 (a 2-digit directory number):

* <8-digit passcode> #	to enter programming mode
* 1 8 1 2 0 0 7 #	to assign floor 7 to tenant directory number 12
##	to exit programming mode

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3.2 To Delete an Elevator Floor

This command allows you to delete an elevator floor from the list of accessible floors. The command is similar to assigning a floor to a tenant directory number, but by entering 000 as the tenant directory number the floor is deleted.

1. Press *.
2. Enter the 8-digit programmer passcode.
3. Press #. The Enter lamp should be on indicating the unit is now in programming mode.
4. Press * 1 8.
5. Enter 000 as the tenant directory number.
6. Enter the Floor Number to be deleted. When entering a Floor Number, you must enter leading 0s to fill the Floor Number out to a 3-digit number.
7. Press ##. This exits you from programming mode.

For example:

To delete elevator floor number 13:

* <8-digit passcode> #	to enter programming mode
* 1 8 0 0 0 0 1 3 #	to disable access to floor 13
##	to exit programming mode

3.3 To Assign an Elevator Panel Timeout Value

This command allows you to set the amount of time an elevator control panel's buttons remain active after a valid code has been entered. This command allows you to set a separate timeout for the elevator (as opposed to using the door unlock timeout command). The timeout range is from 1 to 240 seconds.

1. Press * 2 2. This enters the timeout value command.
2. Enter the timeout value in seconds (a minimum of 20 seconds is recommended). When entering a timeout value, you must enter leading 0s to fill the timeout value out to a 3-digit number.
3. Press #. This exits you from programming mode.

Example:

To set the elevator panel timeout value to 20 seconds:

* 2 2	to enter the timeout value command
0 2 0	to set the timeout value to 20 seconds
##	to exit programming mode



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4.0 Programming for VF Units

4.1 Enabling Elevator Control

This command allows you to enable elevator control through the RCP.

1. Press #1234. Ignore the “Invalid Password” message; it is a decoy to deter random access attempts. The screen displays as follows.

```
Entraguard System
Local Programming
Enter Password XXXXXXXXX
```

2. Enter your password and press E.
3. The screen displays one of the following three messages depending upon the programming rights assigned to your password.

```
Factory Edit Mode
Installer Edit Mode
User Edit Mode
```

4. After a brief delay, the screen displays as follows.

```
Tenant Edit - Press 1
Parameter Edit - Press 2
Set Clock - Press 3
End Edit - Press 4
```

5. Press 2 to enter the Parameter Edit mode.
6. Use the up and down arrow keys to scroll to the Elevator Control parameter.

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7. Press E. The screen displays as follows.

```
Elevator Control <status>
Press 0 to Disable
Press 1 to Enable
```

8. Press 0 to Disable Elevator Control or Press 1 to Enable Elevator Control. Once entered, the Elevator Control status is displayed.
9. If Elevator Control is Enabled, press * to display the Door Open Time. The screen displays as follows.

```
Door Open: 120 sec
```

10. The factory default door open time is 120 seconds. If you wish to change this time, use the up and down arrows to scroll to the desired time. The time can be set anywhere from 10 seconds to 120 seconds in 5 second increments.
11. When finished, press E to exit the Elevator Control command.
12. Press 4 to exit Local Programming mode.



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