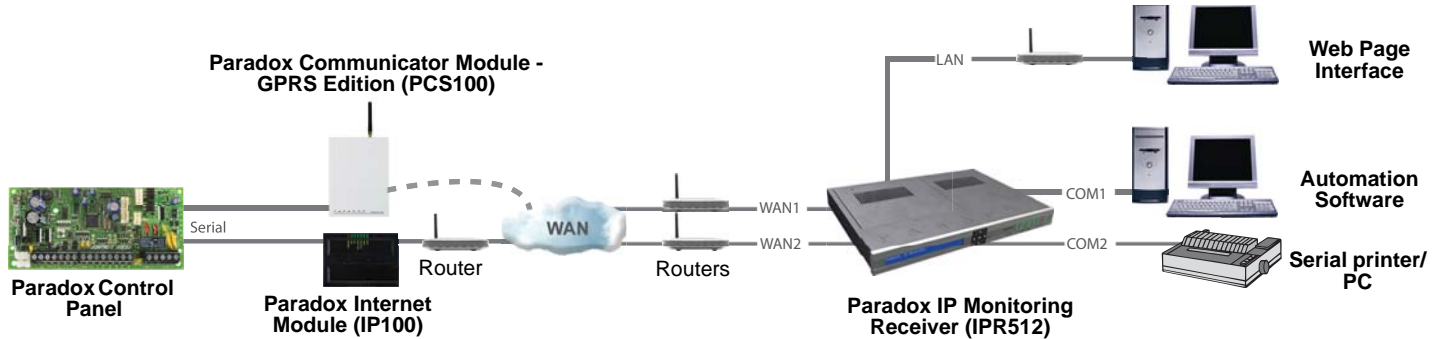


IPR512: IP Monitoring Receiver

Getting Started

The following instructions explain the basic connections and programming required to get your Paradox IP Monitoring Receiver up and running. They also guide the installer on how to register the Paradox reporting module (IP100 Internet Module or PCS100 Communicator Module - GPRS Edition) to the receiver. For more detailed information, please refer to the IPR512 Operations Manual.

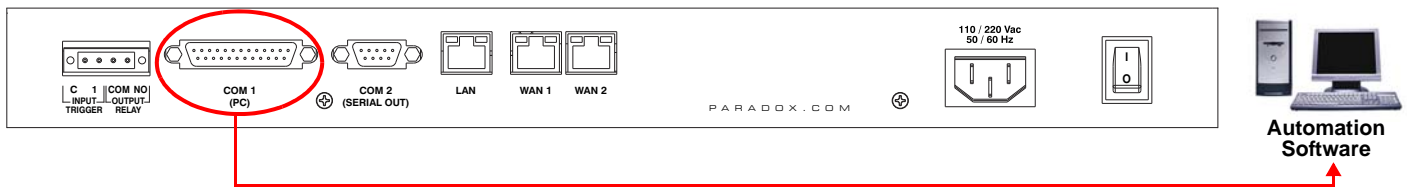
Figure 1: System Overview



Out of the Box (included):	Additional Items Required (not included)
<ul style="list-style-type: none"> • Paradox IP Monitoring Receiver (IPR512) • 1GB memory card • 1.8m (6ft) power cable • 3m (10ft) DB25 to DB9 serial cable for COM1 • DB9 gender changer • Rack-mount kit (brackets and screws) • Desktop installation kit (rubber feet) • Removable connector for Input/Output Relay 	<ul style="list-style-type: none"> • CAT5 network cable for LAN and WAN1/WAN2 • Optional: DB9 or DB25 serial cable (RS-232) for COM2 • Router and computer on a network to access internal web page interface (LAN) • Router on a network with internet access (WAN1) to receive control panel report codes

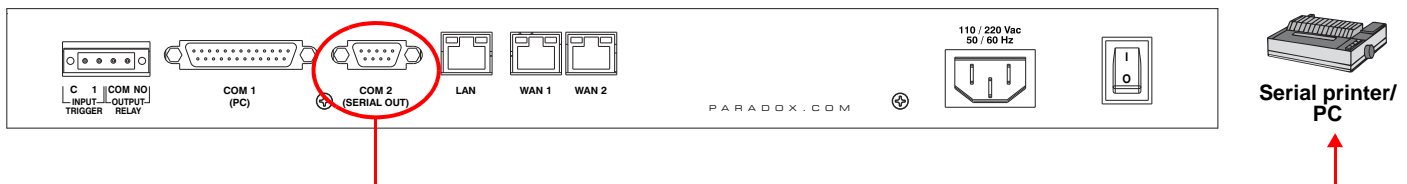
Step 1: Connect COM1 (Automation Software)

Connect the receiver to a PC running the Automation Software. Connect the provided 3m (10ft) DB25 to DB9 cable between the receiver's COM1 connector and a COM port on the PC, or on the PC's serial hub.



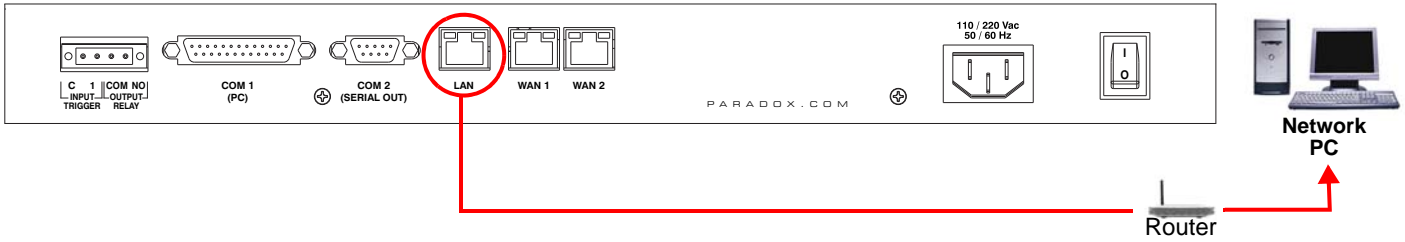
Step 2: Connect COM2 (Optional: Serial printer/PC)

This step is optional. Connect the receiver to a serial printer or to a PC running RS232 serial communication software. The receiver sends reported events in plain text format through COM2 (RS-232), which can be printed or viewed. Connect a serial cable between the receiver's COM2 (DB9) connector and a COM port on the serial printer or PC (gender changer is included).



Step 3: Connect LAN (Web Page Interface)

Connect the receiver to a router on a network. A computer on the network will be used to access the receiver's internal web page interface in order to configure the receiver. Connect a CAT5 network cable between the receiver's LAN connector and the router of the network.



Step 4: Connect WAN1 (Internet Service Provider)

Connect the receiver to a router on a network with access to the internet. System events are sent through the internet to the WAN port of the receiver defined by the IP address and port set in the control panel. Connect a CAT5 network cable between the receiver's WAN1 connector and the router of a network with internet access. Connect WAN2 to another router and network to provide redundant reporting through a different Internet Service Provider (ISP). **Note: WAN2 is not available on the present version. Check the Web for updates.**



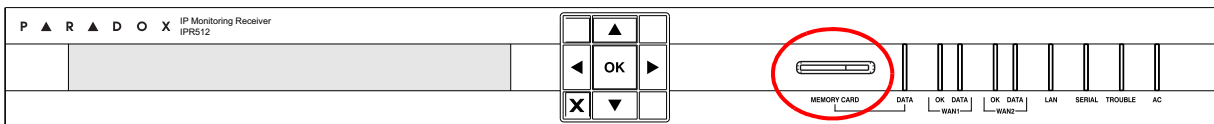
Step 5: Connect Power

Connect the AC power cable (included) between the plug at the back of the receiver and an Uninterruptible Power Supply (UPS).



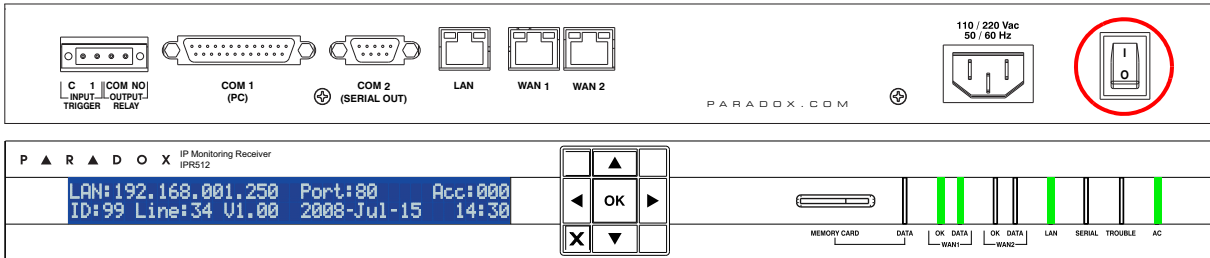
Step 6: Insert Memory Card (Data Backup)

Insert memory card (minimum 1GB recommended) into the Memory Card slot. The IPR512 supports any external SD, SD/HC, or MMC memory card. The receiver backs up data (receiver configuration and account information) at programmable intervals (default: every 2 hours). Manual backups can be performed from the receiver LCD menu (see IPR512 Operating Manual for details).



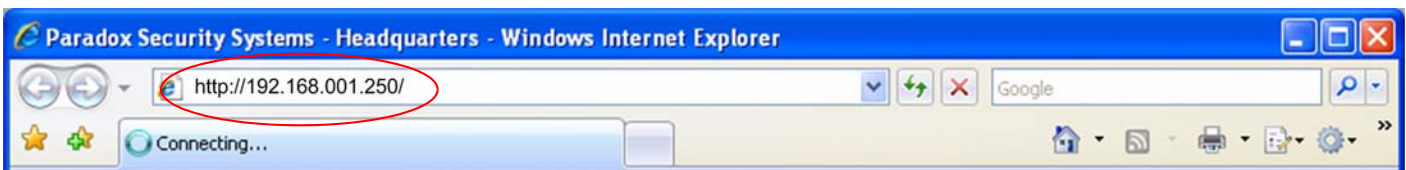
Step 7: Power Up

Turn on the receiver by pressing the on/off switch. The receiver will go through an initialization process. When complete, the LCD will display the information show below and the WAN1, LAN and AC lights will be ON as shown below. *Note: If the TROUBLE light is ON, please refer to “Trouble and LED Display” on page 7. However, as long as the AC and LAN lights are on, you can proceed to step 8.*



Step 8: Access Receiver's Web Page Interface

Open a web browser from a computer on the network connected to the receiver's LAN port. Refer to “Step 3: Connect LAN (Web Page Interface)” on page 2. In the address line, enter the receiver's LAN IP Address (default: 192.168.001.250).



The Login window will appear. If you get an error page, you must change the receiver's **LAN** IP address and Subnet Mask. Speak to your network administrator to obtain an IP Address and Subnet Mask that will permit access to the receiver on your network. Perform the following to change the receiver's default IP Address and Subnet Mask:

1. Press **OK** on the receiver to access the Main Menu. If there are any troubles, pressing OK will enter the Trouble Menu. If this occurs, press X to access the Main Menu.
2. Use the Up/Down arrows and scroll to **LAN Settings** and press **OK**. The LCD will display the LAN IP Address and LAN Subnet Mask.
3. To change the IP Address, use the Up/Down arrows to change the value, use the Left/Right arrows to scroll and press **OK** when done.
4. To change the Subnet Mask, use the Up/Down arrows to change the value, use the Left/Right arrows to scroll and press **OK** when done.
5. The LCD will display **New LAN settings saved for 4 seconds**.

Step 9: Login

Enter the username (default: **admin**) and password (default: **admin**) and press the **Login** button. The username cannot be changed, but you can change your password by clicking on **Change Password**.

Step 10: Configure the Receiver

The following lists only the minimum programming required to get the receiver up and running. For more detailed information on the settings in the Web Page Interface, please refer to the IPR512 Operations Manual.

1. From the Main Menu, click **Receiver Configuration**.
2. Enter the required **WAN1** settings (speak to your network administrator).
3. Enter the required **LAN** settings (speak to your network administrator).
4. According to the automation software set the **Receiver ID** and **Line #**. (ID = 00 to 99 and Line = 00 to 34))
5. Select the **ACK/NACK protocol** check box, if you want the receiver to supervise communication with the Automation Software.
6. In the PC column, adjust the COM1 port settings as required to communicate with the automation software.
7. Optional: In the Serial column, adjust the COM2 port settings as required to communicate with the printer/PC.
8. Type a password in the **Receiver password** text box. The password is a numerical value from 1 to 32 digits in length. This password is used by the installer when registering a paradox reporting module to the receiver.
9. Select your **Time Zone**.
10. Scroll to the bottom of the page and click the **Save** button.

The screenshot shows the IP Receiver Configuration web interface. The browser title is "IP Receiver - Configuration - Windows Internet Explorer" and the address bar shows "http://192.168.001.250". The interface is divided into several sections:

- Main menu:** Includes "Accounts", "Security profiles", and "Receiver configuration" (highlighted with a red box and labeled 1). There are also links for "Change password" and "Logout".
- Search:** Includes search options for "Account #", "MAC address", and "Show all accounts".
- Info:** Displays "IP receiver ID: 99", "Accounts used: 0 / 512", and "Profiles used: 4 / 32".
- WAN1:** (highlighted with a red box and labeled 2) Includes "Interface enabled" (checked), "Port: 16001", "IP address: 192.168.1.251", "Netmask: 255.255.255.0", "Gateway: 192.168.1.1", "DNS primary: 192.168.1.1", and "DNS secondary: 192.168.1.1".
- WAN2:** (highlighted with a red box and labeled 3) Includes "Interface enabled" (unchecked), "Port: 16002", "IP address: 192.168.1.252", "Netmask: 255.255.255.0", "Gateway: 192.168.1.1", "DNS primary: 192.168.1.1", and "DNS secondary: 192.168.1.1".
- LAN:** (highlighted with a red box and labeled 3) Includes "Interface enabled" (checked), "Port: 80", "IP address: 192.168.1.250", "Netmask: 255.255.255.0", "Gateway: 192.168.1.1", "DNS primary: 192.168.1.1", and "DNS secondary: 192.168.1.1".
- Receiver configuration:** (highlighted with a red box and labeled 4 & 5) Includes "Output format: D6500", "Receiver ID: 99", "Line #: 34", "ACK/NACK protocol" (unchecked), "Periodic test message" (unchecked), "Periodic interval: 30 sec", and "Backup Card: 2 hrs".
- COM 1 (PC) and COM 2 (Serial Out):** (highlighted with a red box and labeled 6 & 7) Includes "Baud rate: 19200", "Data bits: 8", "Parity: No", "Stop bits: 1", and "Flow: None" for both.
- Other configuration:** (highlighted with a red box and labeled 8) Includes "Language: English", "Receiver password: 123456", "Bootloader port: 10000", "Polling web site: www.google.com", "NTP server: utcnist.colorado.edu", and "Time zone: (GMT-05:00) Eastern Time (US & Canada)" (highlighted with a red box and labeled 9). The date and time are shown as "Date: 07/15/2008" and "Time: 09:40".

Step 11: Set Supervision Loss Report Code

The Paradox reporting module will send a presence message (~100 bytes) at intervals defined by the Module Polling Time. If the receiver does not receive at least one presence message from the module within the Receiver Supervision Time, the receiver can report a communication loss to the Automation Software. For more information, see “Step 12: Set Security Profile” on page 6

1. On the Receiver Configuration page, scroll to the bottom of the page. Highlight the *Account supervision loss* event.
2. Click the **Edit** button.
3. Select the **Enabled** check box to activate reporting of the selected event.
4. In the Code column, enter a report code (3 digits for CID format, 2 alphanumeric characters for SIA format). This report code will be reported in CID or SIA format to the Automation Software whenever the selected event occurs. The receiver uses the same report format used by the registered account.
5. Click the blue **Save** link.

The screenshot shows the 'IP Receiver - Configuration' web interface. The 'Special event reporting' section contains a table with the following data:

Enabled	Events description	Code
<input type="checkbox"/>	Account supervision loss	
<input type="checkbox"/>	Account supervision restore	
<input type="checkbox"/>	Account registration	

Annotations on the screenshot:

- 1: Red arrow pointing to the 'Account supervision loss' row.
- 2: Red box around the 'Edit' button.
- 3: Red box around the 'Enabled' checkbox.
- 4: Red box around the 'Code' input field.
- 5: Red box around the 'Save' link.

Step 12: Set Security Profile

The receiver supervises the presence of up to 512 assigned Paradox reporting modules. Up to 32 security profiles can be created per receiver with a programmable polling time (seconds, minutes, or hours). These profiles are then assigned to each module during registration. The module will send a presence message (~100 bytes) at intervals defined by the Module Polling Time. If the receiver does not receive at least one presence message from the module within the Receiver Supervision Time, the receiver can report a communication loss to the Automation Software (see “Step 11: Set Supervision Loss Report Code” on page 5).

1. From the Main Menu, click **Security Profiles**.
2. Click the **Add** button.
3. Type a name for the new security profile.
4. In the Module Polling Time column type a 2-digit value and select a base time from the drop down list. Represents interval at which the Paradox reporting module will send a presence message.
5. In the Receiver Supervision Time column type a 2-digit value and select base time from the drop down list. This value must be higher than the Module Polling Time. Represents the time the receiver will wait before reporting a communication loss.
6. Click **Save**.
7. The ID column represents the 2-digit value used by the installer when registering a Paradox reporting module to the receiver.

The screenshot shows the 'IP Receiver - Configuration' web interface. The 'Main menu' has 'Security profiles' highlighted with a red box and '1'. Below it, the 'Security profile' section has an 'Add' button highlighted with a red box and '2'. A table lists existing profiles. A new profile row is highlighted in red, with its 'ID' field (7), 'Name' field (3), 'Module polling time' field (4), and 'Receiver supervision time' field (5) all highlighted with red boxes. The 'Save' button (6) is also highlighted. The interface includes search filters, info panels, and navigation controls.

ID	Name	Module polling time	Receiver supervision time	Accounts using this profile
00	No Supervision	24 hours	24 hours	0 accounts
01	High Security	2 minutes	5 minutes	0 accounts
02	Medium Security	10 minutes	30 minutes	0 accounts
03	Low Security	20 minutes	1 hours	0 accounts
<input type="text"/>	<input type="text"/>	<input type="text"/> seconds	<input type="text"/> seconds	0 accounts

NOTE: For the Receiver Supervision Time (item #5), we recommend a minimum value of 1 minute. Also, the Module Polling Time (item #4) must be at least than half the Receiver Supervision Time (e.g., RST: 1 minute - MPT: 30 sec.)

Step 13: Installation and Set Up Complete

This completes the basic installation and set up required to get the receiver up and running. The next step is to register Paradox reporting modules to the receiver. No monitoring station operator action is required to register a module. Registration is initiated by the installer upon installation of the module. However, the monitoring station must provide the installer with the following information that is entered by the installer.

- **Account #** for each partition of the site.
- **IP Address** and **Port** of the receiver(s) you wish that site to report to. See item #2 in “Step 10: Configure the Receiver” on page 4.
- **Receiver Password** (1 to 32 digits). See item #8 in “Step 10: Configure the Receiver” on page 4.
- **Security Profile** (2 digits). See “Step 12: Set Security Profile” on page 6.

Once the installer has entered this information, the installer then initiates communication with the receiver and the Paradox reporting module will be automatically registered in the receiver. Refer to “Installer Instructions” on page 8.

----- This completes installation and setup of the IPR512 -----

Trouble and LED Display

Trouble Display

If a trouble occurs on the receiver, the TROUBLE LED will turn on and the screen will display “XX Troubles, click [OK] to view”. Press **OK** to access the trouble menu, which will display one or more of the following troubles.

- Automation software communication failed
- LAN: Not connected to a network
- WAN1: Not connected to a network
- WAN1: Not connected to Internet
- WAN2: Not connected to a network
- Memory card not connected
- Memory card init failed
- Time server inaccessible

LED Display

The Status LEDs on the front of the receiver provide the following information:

LED On	Status
DATA (memory card)	Accessing (reading/writing) the memory card (back up).
WAN1 OK	Network connection is detected on WAN1 port.
WAN1 DATA	Sending or receiving data through WAN1 port.
WAN2 OK	Network connection is detected on WAN2 port.
WAN2 DATA	Sending or receiving data through WAN2 port.
LAN	Network connection is detected on the LAN port.
SERIAL	Connected with the automation software on COM1 (ACK/NACK must be enabled, see item# 5 in “Step 10: Configure the Receiver” on page 4).
TROUBLE	Trouble with the unit is detected. Troubles can be viewed through the LCD.
AC	The IPR512 is powered.

