PARADOX

IP150+MQ

Internet Module



INSTALLATION MANUAL

V6.15.000

Thank you for choosing Paradox Security System products. The following manual describes the connections and programming for the IP150+MQ Internet Module. For any comments or suggestions, send an email to manualsfeedback@paradox.com.

Introduction

The IP150+MQ Internet Module provides access to Paradox systems. The IP150+MQ reports only to the IPC10 Paradox receiver/converter and BlueEye, based on MQTT technology making it stable, fast, and reliable.
The IP150+MQ is remotely upgradeable from InField and the BlueEye application. It supports all Paradox + panels and should operate with most Paradox panels produced after 2012.

THINGS YOU SHOULD KNOW, PLEASE READ:

While the IP150+MQ (MQTT) programming is similar to the IP150+ there are some differences you should know:

- You can configure static IP in BlueEye installer menu for BlueEye, but BlueEye does not support static IP connection and IP150+MQ must have internet connection.
- IP150+MQ reports in Contact ID format only to the IPC10 (**make sure the panel is set to Contact ID reporting**), and from IPC10 to CMS MLR2-DG, Ademco 685, or Ademco CID-TCP.
- IP150+MQ supports and supervises up to two IPC10 reporting receivers.
- When IP150+MQ (MQTT) is connected, only the BlueEye application will connect; Insite Gold will not connect to the IP150+MQ.
- PCS port is not enabled, the combo configuration is not supported in MQTT reporting.
- I/O outputs are not enabled.

NOTE: Please make sure the reporting format is set to CID. The IPC10 can only receive CONTACT ID format.

Before You Begin

Make sure you have the following to configure your IP150+MQ Internet Module:

- Router
- 4-pin serial cable (included)
- CAT5 Ethernet cable (maximum 90m (295 ft.), not included)
- BlueEye app installed in a smartphone
- Connect IP150+MQ to the serial port on your panel and Ethernet port of your router

Installation

IP150+MQ

The IP150+MQ should be installed in the panel metal box enclosure to be tamper-protected. Clip the IP150+MQ to the top of the metal box, as shown in Figure 1.

Serial to the Panel

Connect the serial output of the IP150+MQ to the Serial port of the Paradox panels. If it is Paradox + Series, connect it to Serial1 as it is the main reporting channel, as shown in Figure 4. If the panel is powered up, the on-board LEDs will illuminate to indicate the IP150+MQ's status.

Ethernet

Connect the Ethernet cable to an active Ethernet socket and the left side of the IP150+MQ, as shown in Figure 4.

Metal Box

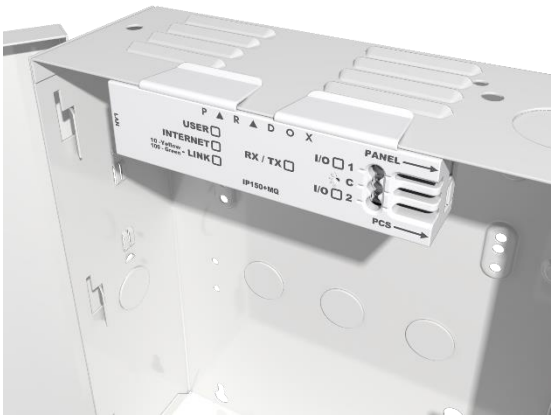


Figure 1

Attaching the IP150+MQ to the Panel

To connect the IP150+MQ, plug in the Serial cable to panel, refer to Figure 4. After a few seconds, the RX/TX LED starts flashing; this indicates that the IP150+MQ is powered and is communicating with the panel.

Open Network

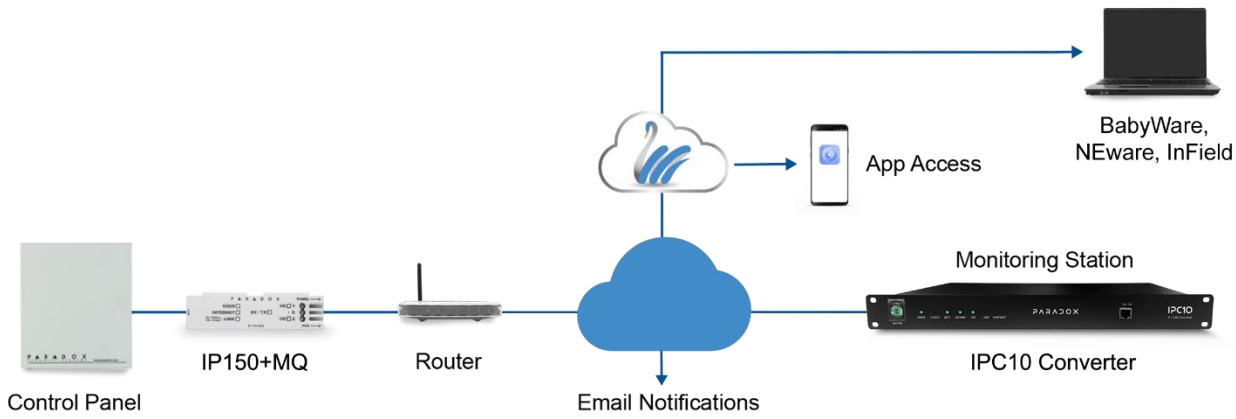


Figure 2

Closed Network

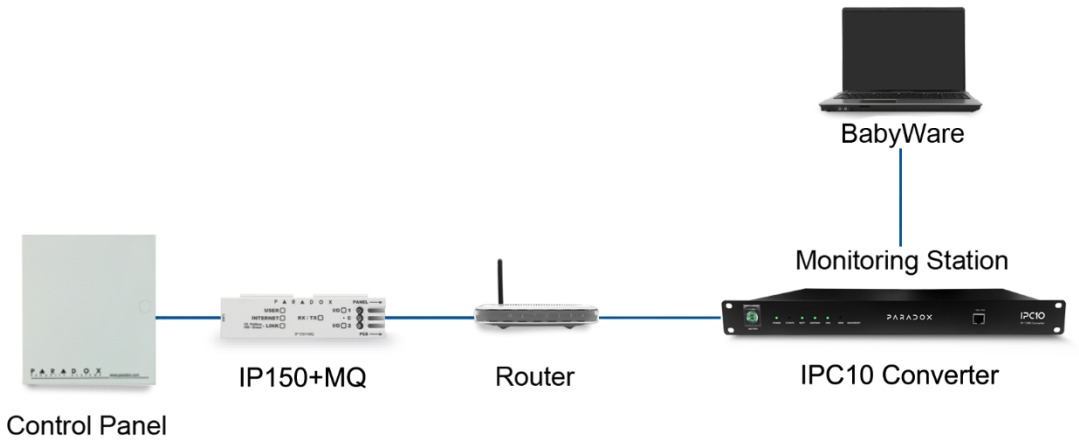


Figure 3

IP150+MQ Overview

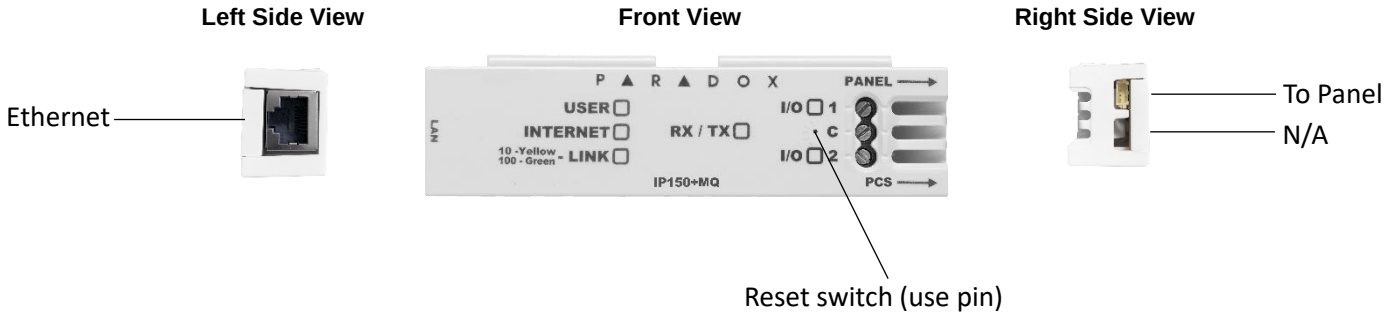


Figure 4

LED Indicators

LED	Description
User	Green - On when a user is connected via BlueEye/BabyWare/InField/ NEware.
Internet	ON - Connected to Internet and connected to Swan-Q. Flashing every 1 second - connected to Internet, not connected to Swan-Q (no site token). OFF - no internet
Link	ON - Connected to Ethernet (GREEN 100mbps Orange 10mbps)
RX/TX	ON - when connected to panel Flashes when data is transmitted or received through/from panel. OFF when no connection to panel.
I/O 1	N/A
I/O 2	N/A

Connectivity - Port Settings

When connecting to most routers, the IP150+MQ will automatically connect, and nothing needs to be configured. Should you have issues connecting, please make sure that the ISP, router/firewall is not blocking the following ports. They need to be permanently open (TCP/UDP, and inbound and outbound).

Port	Description (used for)
UDP 53	DNS
UDP 123	NTP
UDP 5683	COAP (back up)
TCP 8883	MQTT port SWAN and IPC10 receiver
TCP 443	OTA (firmware upgrade + certificate download)
TCP Port 465, 587	Usually for email server, may differ depending on the email server used.

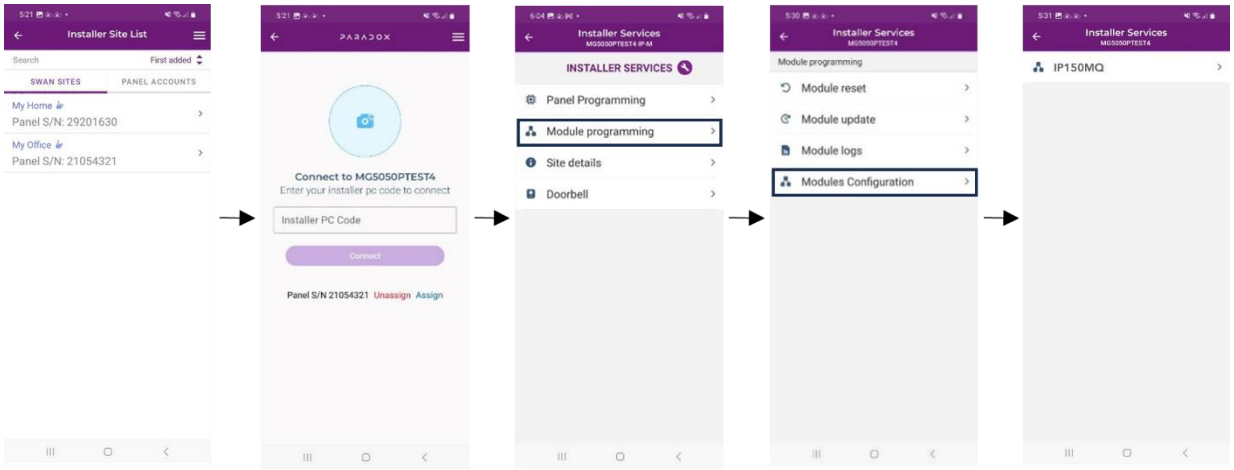
Creating a Site

1) Open the **BlueEye** app.
2) Select the **Menu**, and then select **Installer Menu**.
3) Press on the 3-dot menu and select **Create New Site.**
4) Enter the Panel SN, Site Name, and email address.
5) Tap on **Create New Site**.
6) Site is created.

Configuring the IP150+MQ Using BlueEye

Configuring IP150+MQ in a Connected Site

1) Open the **BlueEye** app.
2) Select the **Menu** and then **Installer Menu**; the Installer Site List screen will be displayed.
3) Select the Site.
4) Enter the Installer PC code of the panel (same as the PC Password in BabyWare, default 0000).
5) Select the **Modules Programming** option from the Installer Services tab.
6) Select **Module Configuration**.
7) Select IP150+MQ.



Configuration:

Reporting to the IPC10 Receiver in open networks (internet available)

To configure reporting, enter panel programming via keypad or BabyWare. Enter the CMS account number, IP address(es) of the receiver(s), Port, and security profiles (2-digit number), that indicates the supervision time.
Up to two receivers can be used to report with the IP150+MQ. If you are currently reporting to four receivers, once you upgrade to an IP150+MQ, you will no longer be able to configure or report to four receivers.

Security Profiles

Security profiles cannot be modified.

ID	Supervision
01	1200 seconds
02	600 seconds
03	300 seconds
04	90 seconds

Setting Up IP Reporting at Keypad or BabyWare

NOTE: The IP150+MQ can only report CID format, make sure reporting is set to CID (Ademco contact ID).

1) Ensure the panel's report code format is set to Ademco Contact ID:
   MG/SP: section **[810]**
   Enter value 4 (default)
   EVO/EVOHD+: section **[3070]**
   Enter value 5

2) Enter the IP reporting account numbers (one for each partition):
   MG/SP: section **[918]** / **[919]**
   EVO: section **[2976]** to **[2978]**
   EVOHD+ section **[2976]** Receiver 1 Main
   Note: For EVOHD+ panels, Receiver 2 Backup and Receiver 3 Parallel automatically assumes the account number of Receiver 1 Main and cannot be modified.

3) Enter the monitoring station's IP address(es), IP port(s), and security profile(s) (information must be obtained from the monitoring station).

Note: **The IP150+MQ can report only to two receivers.**

MG/SP Sending IP Credentials to Receiver			
IP Receiver	**#1**	**#2**	**#3**
Save and Send/Status	[935]	[942]	[949]

EVO/EVOHD+ Sending IP Credentials to Receiver			
IP Receiver	**Main**	**Parallel**	**Backup**
Save and Send/Status	[2985]	[2987]	[2989]

Email Configuration (only with open networks)

Configure the IP150+MQ's email server settings. Please note that emails are not supported in a closed network configuration.

Email Addresses

MG/SP Sections			
IP Receiver	**#1**	**#2**	**#3**
IP Address 1	[929]	[936]	[943]
IP Port 1	[930]	[937]	[944]
IP Profile	[934]	[941]	[948]

EVOHD+			
IP Receiver	**Main #1**	**Backup #2**	**Parallel #3**
IP Address 1	[2984]	[2986]	[2988]
IP Port 1	↓	↓	↓
IP Profile	↓	The IP profile for this receiver is the same as the Main receiver IP profile.	

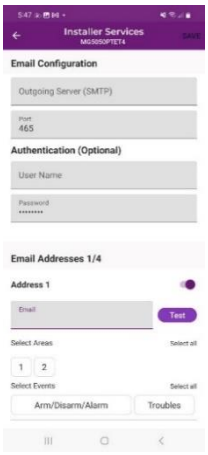
EVO Sections			
IP Receiver	**#1**	**#2**	**#3**
IP Address 1	[2984]	[2986]	[2988]
IP Port 1	↓	↓	↓
IP Profile			

You can configure your IP150+MQ to send email notifications to up to ***four*** email addresses to receive notification of system events.

To configure an email address:

1) In **BlueEye** app, Installer Menu, Module Configuration section**,** enable the Address toggle button.
2) Enter the Email address. Use the test button to verify that the recipient's address is correct.

3) Select the Areas and Event groups that generate email notifications.



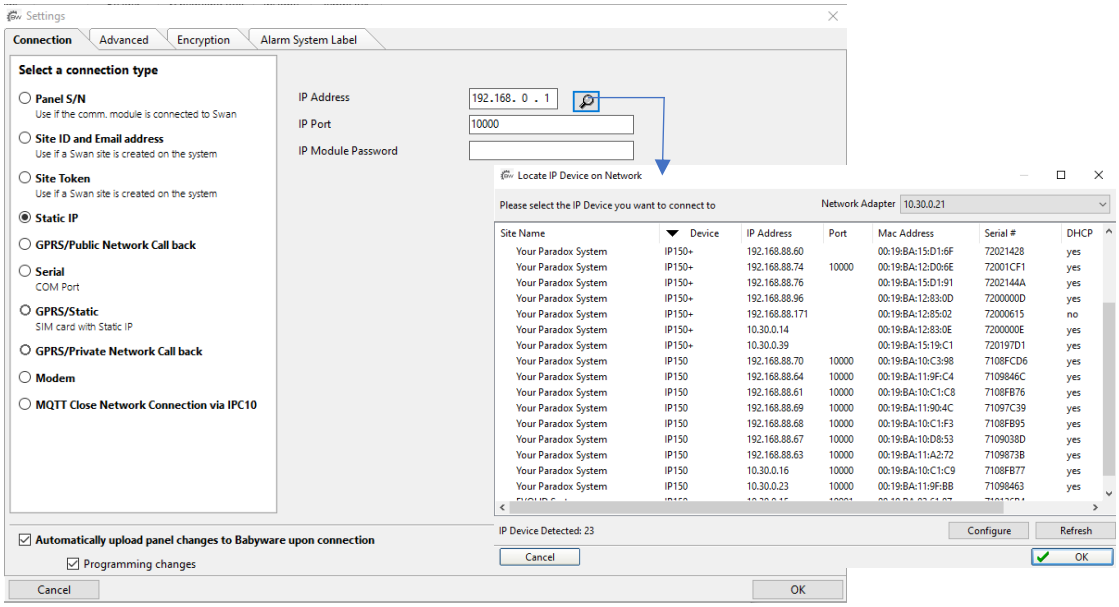
NOTES:

- Enter the username without the @domain.
- Sending emails is not supported in closed networks (custom SMTP not supported).

Reporting to the IPC10 Receiver in closed networks (no internet)

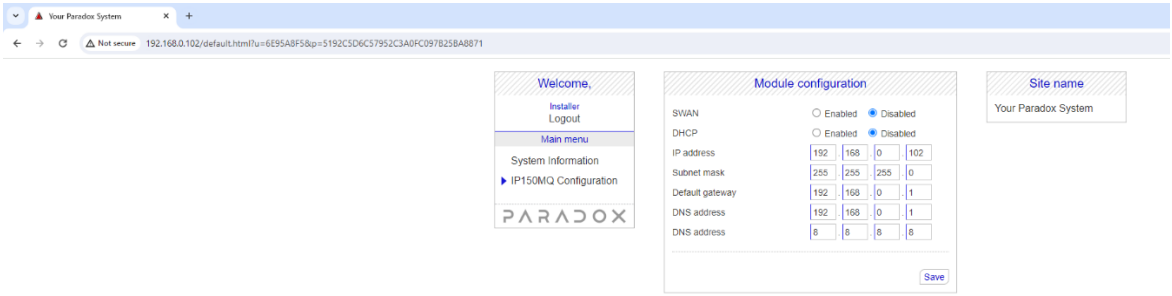
Reporting in a closed network requires IPC10 V1.01.000 (and up), and BabyWare V5.6.40 (and up) for connection/configuration. The below will be valid only if the Internet is not available on the connected network.

When IP150+MQ is connected to the network without internet access, it will enable web page access. With a PC connected to the same local network of the IPC10 and the devices, use BabyWare, select Static IP connection type, and use the scan feature to find the IP of the IP150+MQ modules. A list of Paradox IP devices will appear (IP150+, IP150, and IP180 with supported versions) with their IP addresses and their serial numbers. Added the two pictures below.



Enter the IP address of the device you wish to configure in a web browser. Enter the Installer PC Code of the panel (same as the PC Password in BabyWare, default 0000).

From the web interface, once connected to the web page, disable Swan connection as shown below and disable DHCP if needed. If DHCP is disabled and unable to connect with the device, reset to default will enable DHCP.



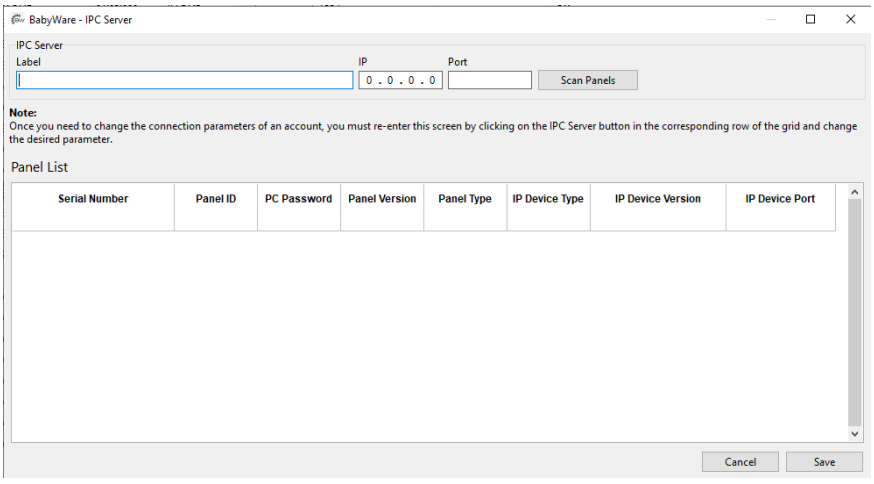
To configure reporting, enter panel programming via keypad or BabyWare (serial port). Enter the CMS account number, IP address(es) of the receiver(s), Port, and security profiles (2-digit number), that indicates the supervision time. Up to two receivers can be used to report with the IP150+MQ. If you are currently reporting to four receivers, once you upgrade to an IP150+MQ, you will no longer be able to configure or report to four receivers.

After the reporting configuration is finalized (panel registered to an IPC10), a panel connection with BabyWare can be established following one of the next procedures.

Option 1

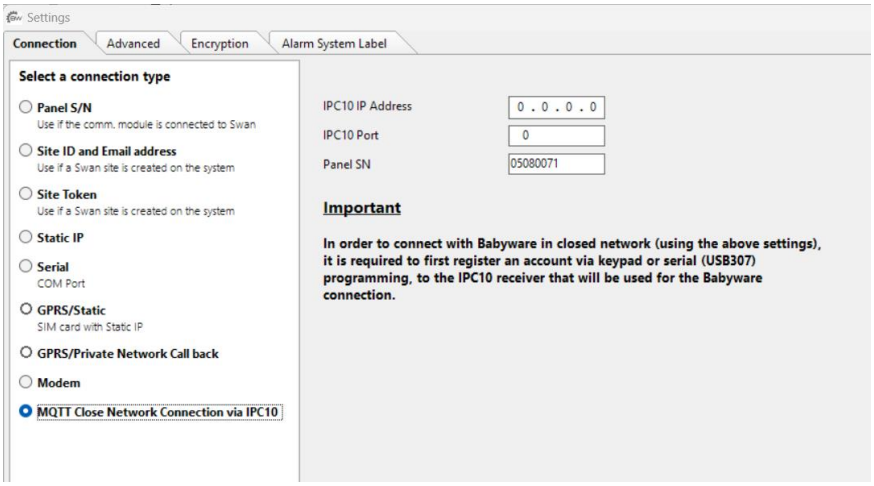
To connect with BabyWare follow the below steps:

1. Open the Account page and select the IPC server option.
2. Enter the label of the IPC10 receiver, the IP of the IPC10, and the port (8883 default).
3. Select the Scan Panel option and follow the messages on the screen.
4. From the list of the IPC Server Group, you can now connect to the panel of your choice.



Option 2

1. Open the Account page and add an account.
2. Select the Connection option.
3. Select the option MQTT Close Network Connection via IPC10.
4. Enter the IPC10 IP address, port and panel serial number.
5. Select OK and add the panel ID, PC password, and connect to the panel.



NOTE: Configuring the reporting with BabyWare will require serial port connection, with a 307USB.

Firmware Upgrade

1) Firmware upgrading is available from the BlueEye app using the installer Menu, (or Infield software).
2) Select the site from the sites list.
3) Enter the PC password in the field and press **Connect**.
4) Select **Modules Programming**.
5) Select **Modules Updates**.
6) Select **IP150+MQ**.
7) The list of firmware available will appear, select the firmware to use.

Reset IP150+MQ to Default Settings

To reset the IP150+MQ module to its default settings, ensure that the module is turned on and then insert a pin/straightened paper clip (or similar) into the pinhole located between the two I/O LEDs. Press down gently until you feel some resistance; hold it down for approximately five seconds. When the I/O and RX/TX LEDs start flashing, release it, and then press it again (Figure 4). The I/O and RX/TX LEDs will remain lit during the reset.

Firmware Version Fallback

To revert the IP150+MQ module to its previously installed firmware version, unplug the power cable from the panel and insert a pin/straightened paper clip (or similar object) into the pinhole located between the two I/O LEDs. Press down gently until you feel some resistance; plug in the power cable while holding the pin down for approximately five seconds and release it when the I/O 2 LED starts flashing (Figure 4). The I/O LED will turn solid and start blinking (resetting to the backup version). Once complete, the IP150+MQ will reboot automatically to the previously installed firmware version.

Technical Specifications

The following table provides the technical specifications for the IP150+MQ Internet Module.

Specification	Description
Panel Compatibility	Compatible with EVOHD+, SP+, MG+, and most Paradox panels produced after 2012
Upgrade	Remotely via InField or BlueEye app
IP Receiver	IPC10 up to two supervised receivers simultaneously direct supervised encrypted independent connections
Encryption	AES 128-bit
IPC10 to CMS Output Format	MLR2-DG, Ademco 685, or Ademco CID-TCP
Current Consumption	100 mA
Operating Temperature	-20 c to +50 c
Input Voltage	10V to 16.5 Vdc, supplied by the panel serial port
Enclosure Dimensions	10.9 x 2.7 x 2.2 cm (4.3 x 1.1 x 0.9 in)
Approvals	CE, EN 50136-1, EN 50136-2 SP5, EN 50131-10 Grade 3, Class II

Warranty

For complete warranty information on this product, please refer to the Limited Warranty Statement found on the Web site www.paradox.com/Terms. or contact your local distributor. Specifications may change without prior notice.

Patents

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