

## UC300 Universal Converter



Revision V1.00

### Description

The Paradox Universal Converter, the UC300, is an innovative device that allows the CMS to receive events and alarms from any security control panel via a Paradox IP receiver. The UC300 provides the link between CID control panel security systems and Paradox communication devices, IP150 and PCS250/PCS250G. UC300 converts Contact ID (CID) events generated by a security panel connected to a landline interface via Paradox proprietary protocol. Events are then forwarded to the monitoring station by the IP150 and/or PCS250/PCS250G. The UC300 enables end-users to self-monitor their secured location by allowing receipt of instant, SSL-encrypted emails via the IP150 and SMS alerts via the PCS250/PCS250G from any location once the system detects activity.

### Parallel and Backup Connection Methods

The UC300 supports two reporting sequences. Configuring the Reporting Sequence is done through BabyWare =>Reporting => Reporting Sequence, see "Reporting Sequence" below. Each reporting sequence should be linked to a specific phone number.

- Serial Reporting (Backup)** - defines the primary method for reporting and the number of failed attempts. Once the number of failed attempts is reached the UC300 will switch to the backup reporting channels if defined. Each reporting sequence supports up to 3 channels (primary + 2 backups).
- Parallel Reporting** - all report codes are transmitted simultaneously over all available media channels (GPRS and IP).

### Before You Start

Before you begin, make sure that you have a web-enabled computer. You will also require the following system requirements in order to configure your UC300 Universal Converter.

System requirements include:

- Internet access (required for remote access)
- IP150 with firmware version 1.27 or higher— You will need the IP module password (default IP150: "paradox").
- PCS250/PCS250G with firmware version 2.06 or higher — If using PCS250 or PCS250G, you will need a SIM card from your local wireless service provider with GPRS access
- In-Field with firmware version 3.8 or higher
- Paradox BabyWare Software version 2.8 or higher
- Router if you are connecting an IP150
- PSTN line
- CAT-5 Ethernet cable (maximum 70m, 295 ft) not included

**Note:** Software can be downloaded from our website ([www.paradox.com/](http://www.paradox.com/))

### Inputs/Outputs I/Os



Figure 1 - UC300 LEDs

1	Tip/ring - go to the end user's land line (not mandatory)
2	T1/R1 - connection to the end user's control panel telephone line
3	Serial mini type connector - for FW upgrade, IP150 and PCS250/PCS250G connection
4	DC in - supervised power input
5	Two LED indications (green and blue see LED Assignment section)
6	Reset switch

### LED Assignment

#### Power - Green

Description	Green LED Behavior
<9v	Off
9v - 12v	Slow (1s on, 1s off) flashing green
12v - 15v	Steady green
15v - 18v	Fast (0.5s on, 0.5s off) flashing green
>18v	Off

#### Dialer indication - Blue

Description	Blue LED Behavior
In report listening	Steady blue
When data is recognized	Flashing blue

### Reset and Firmware upgrade

Description Special Feature	Blue and Green LED Behavior
Reset - after holding down the reset button for 5 seconds	Blue and green flash fast
Reset - after confirmation	Blue and Green off until reboot complete
Firmware upgrade or no firmware present	Blue Blinking fast

### Installation

**Note:** The control panel must have a valid ground connection. With the control panel grounded there is no need to ground the UC300.

### Cables

- Cables supplied in the box.
- UC300 to IP150 4 wire with two 0.8mm socket ends
  - IP150/UC300 to PCS250/PCS250G 4 wire with one 0.8mm socket end and one 2.54mm socket end

**Note:** Extra cables must be ordered separately.



Figure 2 - Connector Cable IP150 to UC300



Figure 3 - Connector Cable IP150/UC300 to PCS250/PCS250G

### Option #1: IP150 Communication Device

- Clip the UC300 to the system panel box.
- Clip the IP150 to the system panel box near the UC300.
- Plug in the UC300 to the IP150 using the IP150 Panel port and the UC300 serial port. See Figure 2 for the proper cable.
- Connect the Tip and Ring from the UC300 to an outgoing telephone jack.
- Connect the customer's control panel Tip and Ring to the UC300 T1 and R1 terminals.
- Connect the 12Vdc power supply to a supervised power supply.
- Connect an Ethernet cable from the IP150 to the LAN.

When the power is connected the blue and green LEDs will start to flash fast as the module boots up.

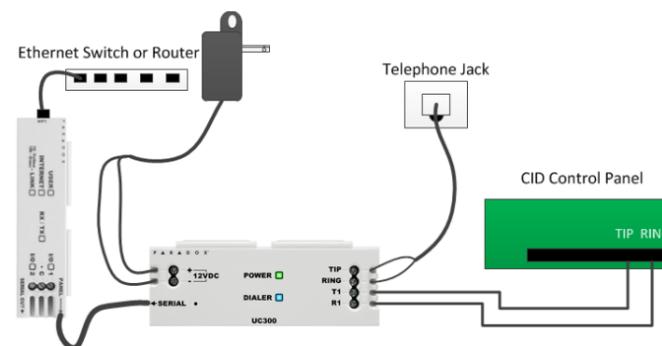
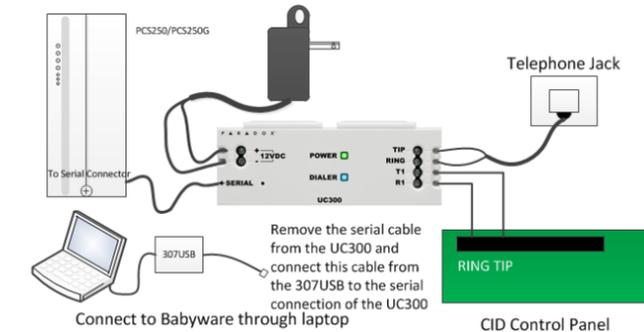


Figure 4 - Connecting the UC300 with an IP150

### Option #2: PCS250/PCS250G Communication Device

- Clip the UC300 to the system panel box.
- Plug in the PCS250/PCS250G cable between the UC300 serial port and the PCS250/PCS250G serial port. See Figure 3 for the proper cable.
- Connect the Tip and Ring from the UC300 to an outgoing telephone jack.
- Connect the customer's control panel Tip and Ring to the UC300 T1 and R1 terminals.
- Connect the 12Vdc power supply to a supervised power supply.
- Use a connector cable IP150/UC300 to PCS250/PCS250G and a 307USB to connect to your laptop. This will allow you to configure the setup using BabyWare. See Figure 5 insert.
- In BabyWare =>Accounts use Connection Option Serial.

When the power is connected the blue and green LEDs will start to flash fast as the module boots up.



**Note:** If you are programming the UC300 using the 307USB disconnect the PCS250/PCS250G, from the UC300 and connect the 307USB to the serial port. You may need to replace the serial cable with a cable in Figure 3.

Figure 5 - Connecting the UC300 with a PCS250/PCS250G

### Option #3: Both IP150 and PCS250/PCS250G Communication Devices

- Clip the UC300 to the system panel box.
- Clip the IP150 to the system panel box near the UC300.
- Plug in the UC300 to the IP150 using the IP150 Panel port and the UC300 serial port. See Figure 2 for the proper cable.
- Plug in the IP150 to the PCS250/PCS250G using the IP150 PCS250/PCS250G port and the PCS250/PCS250G serial port. See Figure 3 for the proper cable.
- Connect the Tip and Ring from the UC300 to an outgoing telephone jack.
- Connect the customer's control panel Tip and Ring to the UC300 T1 and R1 terminals.
- Connect the 12Vdc power supply to a supervised power supply.
- Connect an Ethernet cable from the IP150 to the LAN.
- In BabyWare =>Accounts use Connection Option IP Static and connect through the IP150.

When the power is connected the blue and green LEDs will start to flash fast as the module boots up.

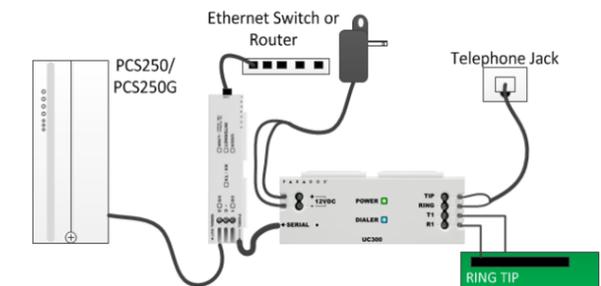


Figure 6 - Connecting the UC300 with an IP150 and PCS250/PCS250G

### Using a CA38A/RJ31 Phone Jack (available from your local supplier)

A CA38A phone jack allows the user to disconnect the panel/UC300 in case of a system malfunction and the system holds the land line off the hook. The user will then disconnect the panel/UC300 from the line to enable its use by the user.

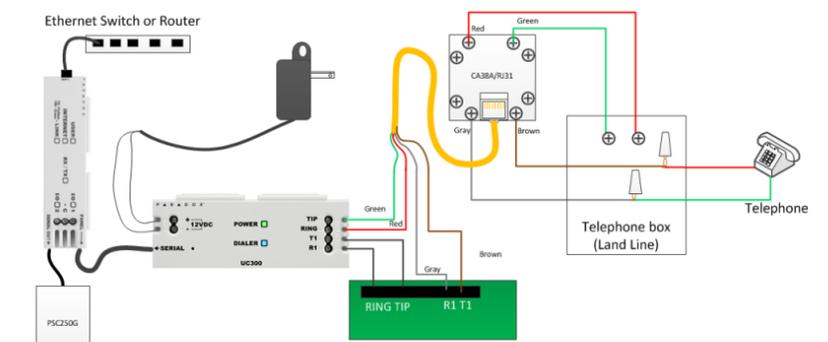


Figure 7 - Using a CA38A Device

## Resetting the Switch

**Note:** Resetting the UC300 puts all of the default configurations back in place.

1. Press reset switch for 5 seconds or until both status LEDs flash fast.
2. Release switch.
3. Press it again within the next 2 seconds to confirm the action.

**Note:** You will need a paper clip or other thin hard tool to insert through the reset hole to the PC board ~ 1" inside the UC300 case.

**Caution: Do not use any sharp objects like a pin or a needle as this may damage the pc board or reset switch.**

## Restart

To restart the UC300 without affecting the configuration you have two options:

- Unplug the power transformer from the outlet and reinsert the plug
- Restart using Babyware

## Programming

Use Paradox BabyWare™ software to configure the UC300. The configuration requires Internet parameters for reporting through the IP150 and cellphone parameters for reporting through the PCS250/PCS250G.

Before configuration make sure that you have the following: UC300 Panel ID and PC password — Default 0000 and 0000.

If you are connecting an IP150 you will need the IP module password.

**Note:** If you are connecting a PCS250/PCS250G without the IP150 you will need to initiate the connection using an SMS message. See the PCS 250/G Installation guide.

**Note:** To configure the UC300 when NO IP150 is connected you will need a 307USB from Paradox and a connector cable IP150/UC300 to PCS250/PCS250G see Figure 3.

## Connect to BabyWare through an IP150

Open Paradox Babyware Rev 2.8 or higher.

1. Click **Accounts**.
2. Click the **Connection Option Details** button.

3. Click  to locate the IP150 module on the LAN.
4. Select the IP150 Device.
5. Write down this information. You will need it to forward the port and bind the IP to the MAC address in your router.
6. Click **Configure**.

In the UC300 Properties => Reporting => Network Settings => Internet Settings set the IP address and port numbers to match the Accounts and router settings.

Now go to your router web page and port forward the port according to the information in the "Locate IP Device on Network" window.

In the router browser window, bind the MAC address to the IP address from the "Locate IP Device on Network" window.

7. Port forward the IP150 IP address in your router.
8. Reserve the IP address (Bind the MAC to the IP address).

## Directly Connect the UC300 to BabyWare

It is possible to connect a UC300 with a 307USB connector directly to the UC300, or in conjunction.

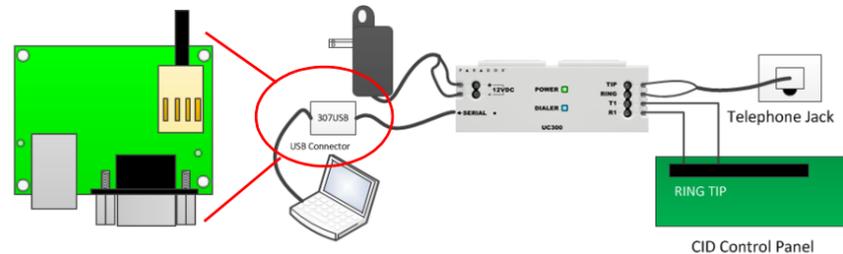


Figure 8 – Direct connection to UC300

1. To connect the 307USB directly to the UC300 you must replace the serial cable from the 307USB.
2. Unscrew the four screws for the 307USB case. Remove the back of the case.
3. Flip over the PCB board.
4. Remove the serial cable.
5. Replace with the serial cable with the connector cable IP150/UC300 to PCS250/PCS250G see Figure 3.
6. set the PCB back into the front section of the case.
7. Reconnect the back of the case using the four screws.
8. In BabyWare =>Accounts, add a new account and for Connection Options use USB and Auto detect.
9. Or If your account exists got to Communication =>Settings => Connection => Serial and set the com port to USB serial.
10. Connect to UC300.

## Configure End User Email System Includes IP150

In BabyWare fill in the User Identification and Number 000 and Code. There is a user #000 with code #123456 and is the master user. The code can be changed for security purposes. This code is needed to by the end user to connect to the IP150 web page to configure the email SMTP and recipient email addresses.

If you make any changes to the default settings click **OK** to save your changes.

## Reporting

### Network Settings

### Internet Settings

**Note:** Settings vary according to the Internet provider. Typically, it will be DHCP.

To get the Internet settings:

1. From the BabyWare home page click **Communication**.
2. Select **Settings**.
3. Select IP Static for the connection type.
4. Click  to locate the IP150 module on the LAN.
5. Write down the MAC address, IP Address and port number for the IP150 connection. You will need this in order to bind the MAC address to the IP address and to do port forwarding. Both of these operations need to be done through the router.
6. Click **Configure**.

If you make any changes to the default settings click **OK** to save your changes.

### GPRS Settings

If you are using a PCS250/PCS250G you must configure this page.

**Note:** These parameters are usually provided by the Cell phone provider.

If you make any changes to the default settings click **OK** to save your changes.

### SMS Settings

You can set up to eight phone numbers for SMS in BabyWare.

If you make any changes to the default settings click **OK** to save your changes.

### Configuring IPRS7/ IPR512 CMS IP Addresses and Password

The IP150 sends reports to the CMS through the Internet. The IP Addresses of the CMS is configured through BabyWare. The CMS will supply all of the IP parameters (settings) of their server and IPRS7 or IPRS12 receivers.

If you make any changes to the default settings click **OK** to save your changes.

### Trouble Reporting

Configure the reporting trouble parameters.

If you make any changes to the default settings click **OK** to save your changes.

### Reporting Sequence

Configure the reporting sequence parameters through BabyWare. This page controls whether you will use parallel reporting or serial (backup) reporting. If you are using serial reporting select your media primary, secondary, tertiary. If you make any changes to the default settings click **OK** to save your changes.

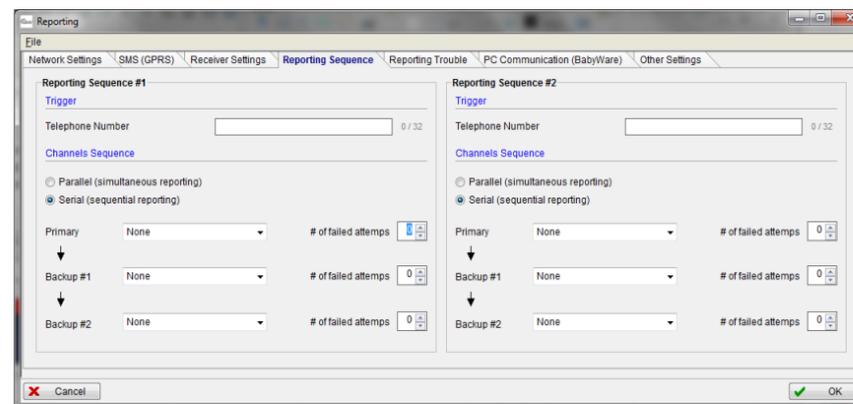


Figure 9 – Reporting Sequence

### PC Communication

If you make any changes to the default settings click **OK** to save your changes.

### Other Settings

Get these parameters from your local telephone service provider. If you make any changes to the default settings click **OK** to save your changes.

### Firmware Updating

Firmware is updated using In-Field software.

Firmware is upgradeable via all media:

- Direct connect through 307USB
- Ethernet through IP150
- GPRS through PCS250/PCS250G

1. In BabyWare Select In-Field
2. In-Field Opens up. Disconnect BabyWare.
3. Connect In-Field to the UC300.
4. Select the new firmware file.
5. Upload the new firmware.

### SMS / Text Messages

Personal reporting of events is available through SMS (if a PCS250/PCS250G is present). Up to eight people can receive personal reporting.

Each event shall be classified according to group.

- Alarm
- Trouble
- Arm/Disarm

For each event group you have the ability to enable/disable the personal reporting for each phone number.

### Compatibility

The UC300 is compatible with control panels that support a landline interface with CID reporting protocol. The UC300 can also interface with the following Paradox products.

- IPRS12
- IPRS7
- PCS250/PCS250G version 2.10 or higher
- IP150 version 1.30 or higher / Combo
- Babyware version 2.8 or higher– for product configuration
- InField version 3.8 or higher

### UC300 Specifications

<b>Voltage input</b>	12 - 15 VDC
<b>Weight</b>	166g (5.86 OZ)
<b>Dimensions</b>	(H x W x D) 4.0 cm x 10.3 cm x 2.3 cm (1.57in x 4.05 in x 0.9 in)
<b>Current consumption</b>	60mA excluding the IP150 and the PCS250/PCS250G.
<b>Operating temperature</b>	0° C to +50° C (32° F to 122° F)

### Certifications (Pending)

CE compliance – EN 50130-4; EN 61000-6-3; EN 60950-1; ETSI ES 203 021 EN50136-1:2012; EN 50136-2 – SP2/DP1 or ATS2.

Certification Body: Applica Test and Certification



### WARRANTY

For complete warranty information on this product, please refer to the Limited Warranty Statement found on the website [www.paradox.com/terms](http://www.paradox.com/terms). The terms and conditions are subject to change without notice, from time to time, in Paradox's sole discretion. We invite you to visit our website on a regular basis for the latest Limited Warranty Statement. Your use of the Paradox product signifies your acceptance of all warranty terms and conditions. Please ensure that your use of the Paradox product is in compliance with local, national, and international laws.

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