



App Note 304

Control4 UPB Driver (updated 26-Oct-23)

To facilitate the integration of UPB devices and the Control4 automation system PCS has contracted with [Chowmain](#), the leading developer of integrations for the most popular automation platforms, to develop this driver. A link to download the driver package is in this application note.

We assume that you have experience with Control4 systems and understand the methods of adding drivers, working with their integration software, and using Control4 with 3rd party lighting systems.

To use this driver, you will need a PulseWorx Gateway as the interface from URC to UPB. This driver operates only with the PulseWorx Gateway and not the PIM-R, PIM-U, or PIM-IP.

If you don't have a PulseWorx Gateway, it is available from the PCS web store.

<https://pcswebstore.com/collections/interfaces/products/pulsexorx-gateway-interface>

Tip: If you are not a registered installer, you can easily become one and get an excellent discount off list price. Instructions are on the website: <https://pcswebstore.com/pages/pcs-dealer-sign-up>

Before beginning with the URC driver, you may need to update the Gateway firmware to version 1.12 or later. That firmware version has features needed for the URC integration.

There are many resources available on the PCS site that you may want to have available as you proceed:

- Gateway Quick Start Guide
- Gateway User Guide
- UPStart User Guide
- Application note #201: Getting started with UPStart
- Application note #302: Updating the Gateway Firmware

The Gateway Quick Start Guide and full User Guide is on the [support site Gateway page](#).

The UPStart User Guide, and the download for the latest version is on the [support site Software page](#).

The application notes are on the [support site App Notes page](#).

In addition to these, there are also videos and other resources on the [PCS Lighting website](#).



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Network Information and Device setup

You should know the connection information used by the Gateway before beginning with the Control4 system. This is the same information used by UPStart.

- Network IP Address of the Gateway
- Username and password. **The Gateway must be configured for user access control, or the driver will not function correctly.**

The UPStart power line interface selection dialog shows these settings: Port, IP Address, Username, and password.

Network Connection

TCP Port: 2101

By IP Address 192 . 168 . 0 . 80 Find PulseWorx Gateway Network Settings

By Name conradstation.dyndns.org

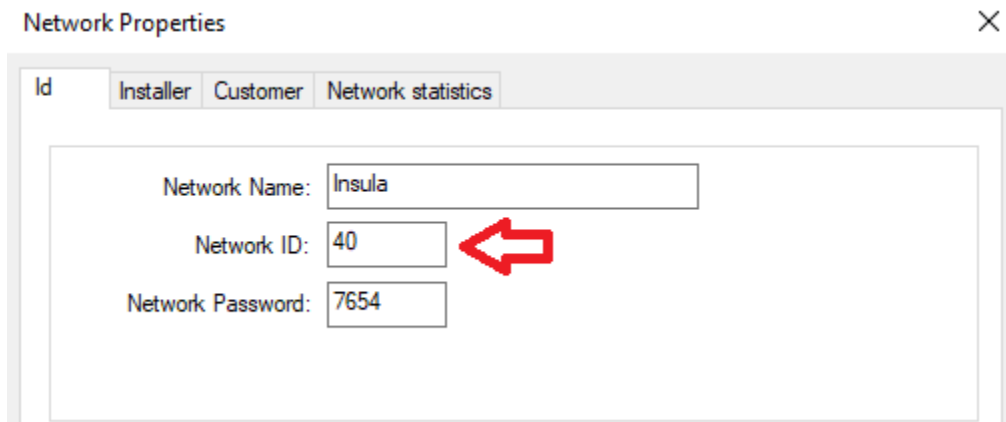
For example: myhome.mypim.homedns.org

User Name: kimberly Password: kimberly Mask the password

You also must have installed and configured all your UPB devices before working with the Control4 system. The Control4 system cannot add UPB devices or modify their configuration.

You must export your design to the Gateway so that all the information that UPStart creates is available in the Gateway for the Control4 driver to use. If you don't export, or your export information is out of date, the driver will not operate correctly. Each time you make a substantive change to your design – add or remove a device or scene, configure scene transmission or response by a device – you must export again. Exporting is done using the buttons on the *PulseWorx Gateway* ribbon category in UPStart.

You should also take note of your UPB network id of the installation. This can be found by starting UPStart, opening the design file for the installation, and selecting "Properties" from the "network" ribbon category. The network password is not needed. The network id is shown in the example image below, marked with a red arrow.



PCS has only limited knowledge of Control4 systems and its configuration software. If you have questions about the Gateway, UPB, UPStart, and the process of updating firmware we can help. Please send email to one of the PCS support addresses. As we have only limited knowledge of Control4, we may not be able to help with specific questions about Control4 hardware and software tools.

BIG Very important thing to remember!

When UPStart is connected to the Gateway, the C4 system can't be connected. Before working with the C4 system, it is necessary to disconnect the Gateway from UPStart – press the *Disconnect* button in the *Network* ribbon category or simply shutdown UPStart. If you forget and leave UPStart connected to the Gateway, then then control of UPB devices with the C4 system will not work. Once UPStart finishes with the Gateway then the C4 driver will reconnect. The Gateway mobile apps can operate simultaneously with the C4 system.



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Driver download

The URC driver and installation documentation are downloadable from the driver creator website linked to by the [PCS site Software/Drivers page](#).

A few Helpful Tips

As a Control4 installer you are familiar with crafting User Interfaces but here are some ideas that may help get the most out of your installation.

Scene Control

It is best practice not to use direct commands to control devices if possible. If you do, then any linked keypad indicators that show the state of that device may not be correct. Also, end-users are accustomed to the actions of a device when locally controlled. For example, a wall switch controls its load but could also be configured to control other devices in the room by transmission of a scene command. Users will expect the same action when the device is controlled by a button in your UI as when they tap the paddle on the physical switch.

Because of this, it is best to always use a scene command to control devices. If you need to control only a single device, it is better to create a scene for that. While not 100% necessary if the device has no links or indicators, it is a good practice as a subsequent modification to the network could add those dependencies.

Multi-User Gateway

The PulseWorx Gateway supports multiple connections. This means that both the Control4 system and the Gateway mobile applications – available for Windows, iOS, and Android - can connect and operate simultaneously with the Control4 system. The only exception to this is when UPStart connects to the Gateway. When that happens, all other connections are dropped as it requires exclusive access.

The Control4 driver is designed so that if it loses connection, it attempts to connect to the Gateway every 15 seconds until it regains the connection.

This allows a UPB installer to use the Gateway with UPStart to make modifications to UPB device configuration. When complete and UPStart terminates, the Control4 system regains the connection and operates as usual.

##end##



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