

Irisys 3000 Series OUTDOOR IP Counter Installation Guide

1. Installation

- 1.1 Unscrew the four corner screws on the front of the counter (shown in [Figure 1](#)) to access the mounting holes ([Figure 2](#)) and connectors ([Figure 3](#)) inside.
- 1.2 Select a suitable location for mounting the metal back box. Refer to the 'Applications Notes' document, IPU40184, for details on suitable locations. Ensure that the 'Traffic Flow Direction Arrows' ([Figure 2](#)) of all units are pointing in the same direction in the case of wide opening installations (parallel to each other), preferably in the direction of traffic flow. Ensure that the mounting position will not exceed the 100m (328ft) maximum cable length for the IP connection.



Figure 1 – Counter Front

- 1.3 Use the four inner screw holes to mount the back box of the counter to the ceiling, alternatively, an optional ball joint mount is available (part no. IWC2030), if required. Do not drill holes in any part of the unit as this will cause water ingress and invalidate the warranty. All cable connections must go through the sides of the unit using the holes provided.

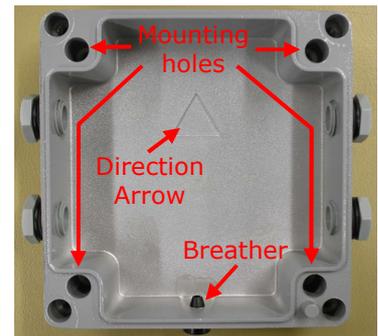


Figure 2 – Back Box

- 1.4 A number of cable glands are supplied with the unit to provide wiring connections, whilst maintaining the weather resistant integrity of the counter. You must use a separate gland for each cable connection into the unit. Notice that one of the holes in the housing is marked with a triangle to show where the optional setup cable connects; this hole cannot be used for wiring connections. Cable glands should be secured tightly to create a watertight seal up to the housing. Insert a single cable through each cable gland, as required, and connect the signal wires to the corresponding connector block terminals. Note that any RJ45 connections must be terminated only after the bare cable has been inserted through the cable gland - pre-made patch cables cannot be utilised. Do not exceed the maximum number of units

	Power Supply	Max No Of Units
Power via Terminals	12V	6
	24V	7
Power via CAT5	15V	4
	24V	5

Table 1 – Maximum No Of Units

- 1.5 Power is supplied via the dedicated power terminal block (12 – 28V dc), OR via the (silver) IP connector but only when the Irisys Power Injector is used (part number IWC3060) (15 – 28V). The power supply should also be grounded. Power over Ethernet (PoE) is NOT supported. **ENSURE POWER IS OFF** before connecting the power and data cables to the counter connectors. Do not over tighten any terminal screw connections.



Figure 3 – IP Master

- 1.6 If CAN nodes are to be utilized, connect together using RJ45 terminated cables connected between the black RJ45 CAN connectors as below in [Figure 4](#) - use either socket on CAN nodes.

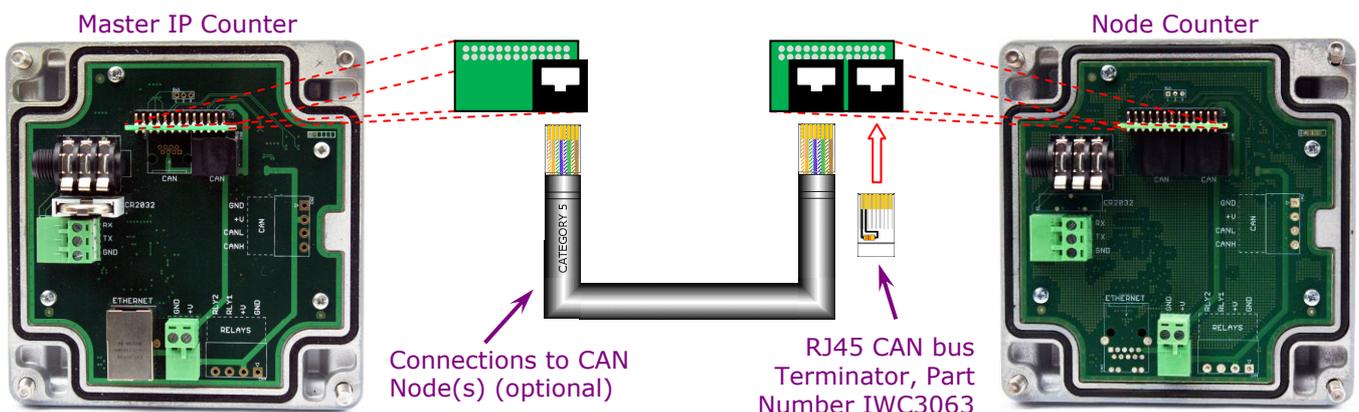


Figure 4 – IP Master to node connections for Wide Openings



Note: All RJ45 terminations must be made only after feeding the bare cable through the cable gland. Pre-made RJ45 patch cables will not fit through the cable glands and therefore cannot be used.

- 1.7 Providing power requirements are met (Table 1), up to 7 nodes can be connected to each IP master on a wide opening network (8 units total)> These are connected in a 'daisy-chain' style (max cable length 60m/196ft). The last CAN node must be terminated correctly by inserting the included RJ45 terminator connector (part number IWC3063) into the last free RJ45 socket. Consequently, there should be no RJ45 sockets which do not contain either a cable, or the RJ45 terminator. If additional node units are not being used, the RJ45 terminator should be left inserted in the black RJ45 connector on the IP masters base.
- 1.8 The button cell battery, supplied, should now be inserted into the battery holder on the underside of the master unit. This will keep the time and date if power fails and is required for correct time stamped count data. Do not force the battery into the holder as it is keyed so that the battery will only fit one way around. Only master units require this. Note: this button cell may not be required if your software time syncs the clock at every connection attempt and reconciles any count data logged against the wrong time interval following a power outage.
- 1.9 Once the counter is reassembled in place, power can be applied and it will begin its warm up routine, indicated by alternate flashing of the two LEDs.
- 1.10 The 'Link Indicator' on your network switch should now illuminate. If it does not, ensure that the connection cable is the correct type - 'straight through' type and not 'crossover' type. Also, if connected to a managed switch ensure that it is not locked to 100Mbps as this can sometimes prevent a connection from being established. Change to 10Mbps or enable auto negotiation.



Note: Never drill holes in any part of the metal casing as this will invalidate the warranty and will inevitably lead to water ingress. All cable connections should go through the sides of the unit using the holes provided. Each cable gland used should accommodate only 1 cable.

2 Configuration

All counters require configuring before use. Connecting to the IP master counter also provides the means of configuring all of the counters connected to that master via the CAN bus. Outdoor counters are configured in exactly the same way as the equivalent indoor counter.

- 2.1 The preferred method of configuring IP counters is to use your Internet browser to connect over the network to the counters integral web server configuration program which uses the Microsoft Silverlight plug-in. Alternatively, if Silverlight is not available, you can use the installed version of the setup tool which allows both an IP connection or a serial connection when using the Irisys USB/serial cable accessory (IWC3062), see below. All the common internet browsers now support Silverlight following a free download.
- 2.2 Simply enter the IP address in the address bar of your Internet browser. By default, a new counter will have an IP address of 192.168.0.10. You may need to temporarily change your laptops IP address so that it is within this range in order to communicate with the counter. See your network administrator for details of this procedure if required. If the IP address has been changed to an unknown value then you will need to configure via serial connection, see below.
- 2.3 Once the IP address is entered, you will need to provide the correct login information in order to connect to the Irisys 'Welcome' screen and be able to proceed with the configuration. The username is 'admin' and the default password is 'installer'. If the password has been changed to an unknown value you then you will need to configure via serial connection, see below.
- 2.4 If you are configuring the counter via serial connection, simply connect the IWC3062 USB/serial cable from the 'headphone' type jack on the counter to your laptop's USB/serial port and run the software. You must enter the correct COM port number and then you will be connected to the counter. The older IWC2031 cable can also be used if available.

For details on configuring options and functions, as well as how to trouble shoot connection problems, see document IPU 40183.



Warning: This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.