

# SafeCount™



## LED Display Kit Installation Guide

# LED DISPLAY KIT INSTALLATION GUIDE

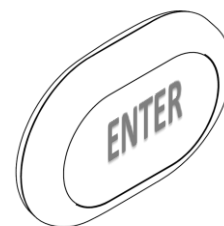
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- 3** Equipment Required
- 4** System Overview
- 5** Installation Location
- 6** Display Kit Installation
- 7** Testing & Commissioning
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# 1 LED DISPLAY KITS

This installation guide applies to the following LED Display Kits

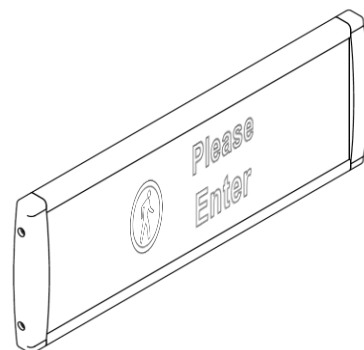
## Mini LED Display (IWC6257)

The IWC6257 Mini LED Display is designed for internal use only and displays a simple 'Enter' (Green) or 'Do Not Enter' (Red) message.



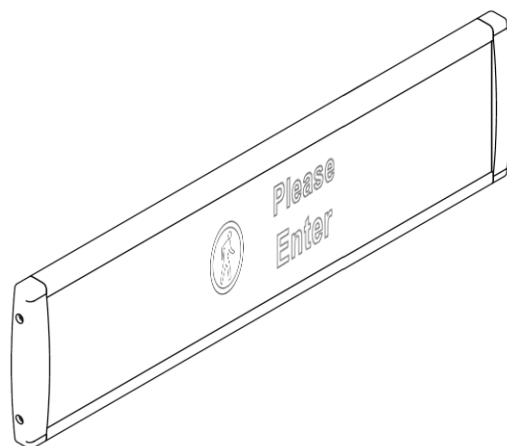
## Large 470 LED Display (IWC6258)

The IWC6258 Large 470 LED Display is designed for internal use only and displays an ultra-bright 'Enter' (Green) or 'Do Not Enter' (Red) message.



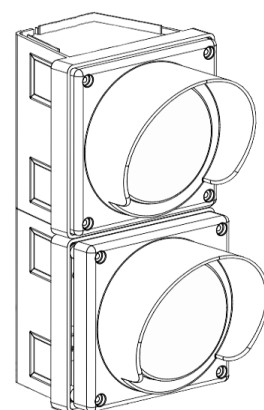
## Weatherproof 580 LED Display (IWC6260)

The IWC6260 Weatherproof 580 LED Display is designed for internal or external use and displays an ultra-bright 'Enter' (Green) or 'Do Not Enter' (Red) message.



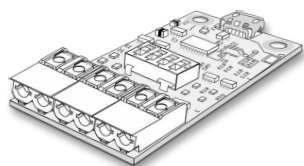
## Traffic Light Display (IWC6265)

The IWC6265 Traffic Light Display is IP65 rated designed for internal or external use and displays red and green signals



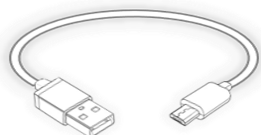
## 2 EQUIPMENT PROVIDED

In addition to your chosen display option, the following equipment is provided as part of each Display Kit:



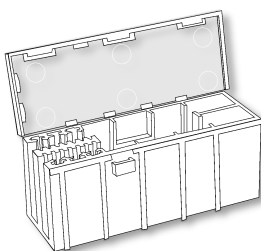
### USB I/O Module (IWC6203)

The IWC6203 USB-IO Module is an input/output hardware module which connects over USB to your SafeCount Sensor and allows external display signs to be integrated as part of the SafeCount System



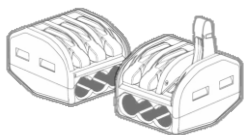
### USB Cable

A short 25cm USB Type A to Micro B cable is provided to connect the USB I/O Module to your SafeCount Sensor



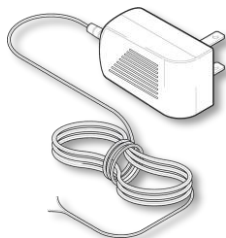
### Connector Enclosure

A multipurpose enclosure that has been designed for use with the provided terminal blocks.



### Connector Terminal Blocks

We provide 4 x three-way screwless terminal connector blocks.



### 24V Power Supply

A 24V Power Adapter is also supplied with your chosen Display Kit and includes interchangeable plug heads for USA, EU, UK & Australia.



### 5M 2-Pair 4-Core Cable

This 5m cable is designed to sit between the junction box and USB I/O Module. An additional 5M cable is pre-attached to each display.. This means a total distance of 10M between display and SafeCount Sensor. Additional cable will be required, should the total distance exceed 10M.

# 3 EQUIPMENT REQUIRED

The following equipment is required in addition to your chosen display kit in order to ensure operation as part of your SafeCount System.



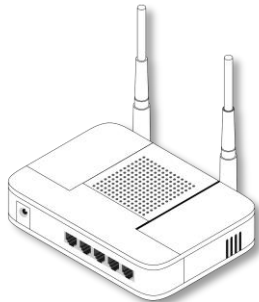
## SafeCount Sensor(s)

Either an individual SafeCount Primary Sensor or a complete system of SafeCount Primary and Secondary Sensors



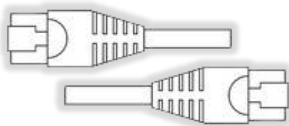
## PoE Switch

The SafeCount Primary and Secondary Sensors require a Power over Ethernet (PoE) Switch in order for them to be powered



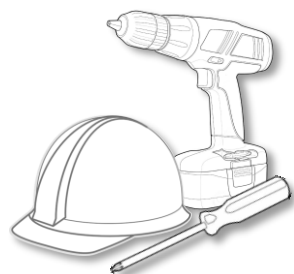
## Wireless Router

A Wireless Router is required in order to provide system access via a tablet or browser enabled device. It should have a wired connection to your PoE Switch.



## CAT6 Ethernet Cables

Your SafeCount Sensor should be connected to a PoE Switch on your network via Cat 5 or 6 Ethernet Cables.

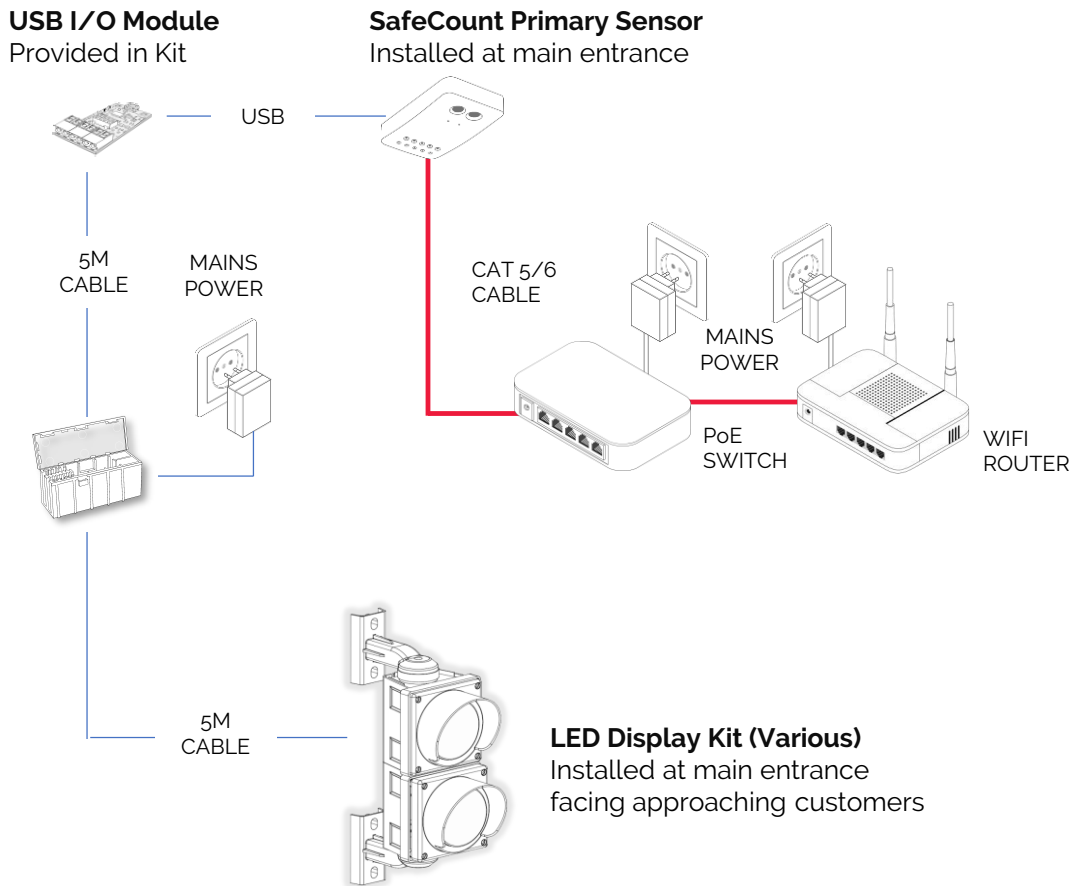


## Suitable Tools & PPE

You will require suitable tools and hardware i.e. screws, to mount each SafeCount Sensor. We also recommend personal protective equipment, especially when working at height.

# 4 SYSTEM OVERVIEW

The following diagram shows, in general, how your LED Display is connected to the rest of your installed SafeCount System.



Each Display is pre-fitted with a 5M cable and an additional 5M cable is included to run between the USB I/O Module and the supplied junction box, making a total distance of 10M. The Junction Box should be within 1.5m of a mains power socket as this is the length of cable supplied with the included Power Supply Unit.



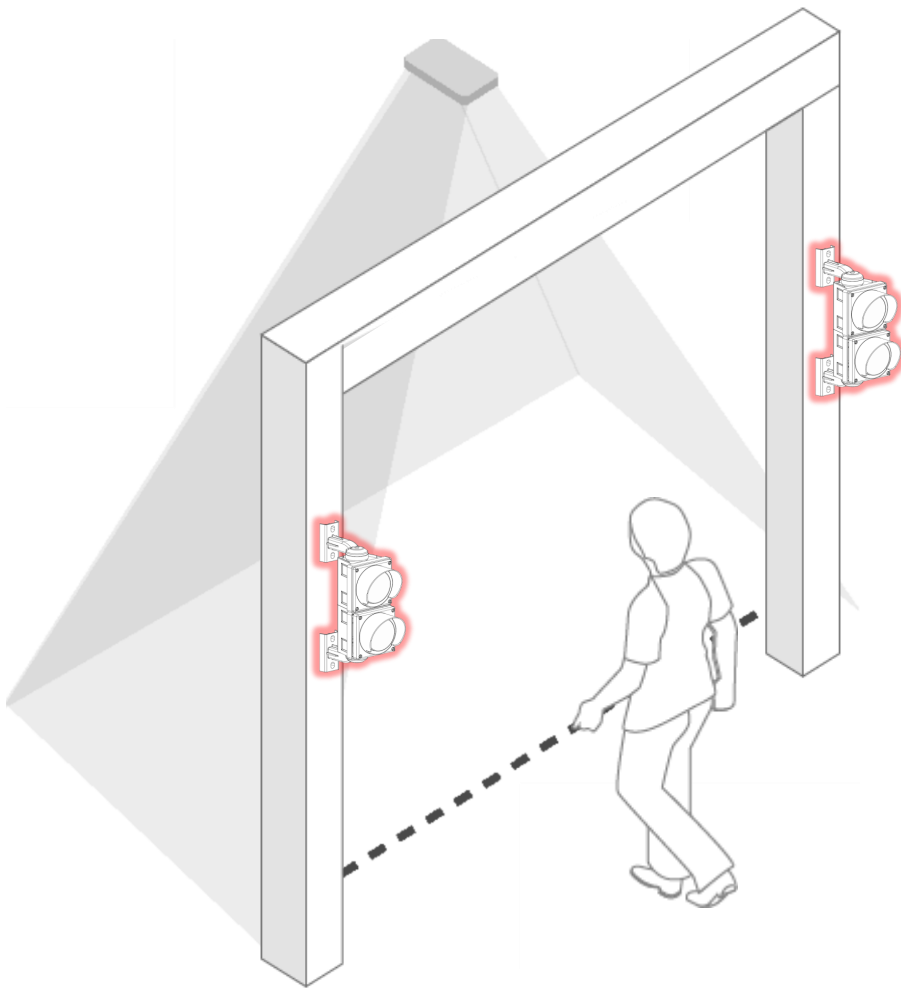
Before installing and connecting your LED Display Kit, we strongly recommend that you first install your SafeCount Sensor(s) as per the SafeCount Installation Guide.

When your SafeCount Sensor(s) are fully installed and ready to be powered up, then you can refer to this guide to install your chosen accessories.

# 5 INSTALLATION LOCATION

For optimum performance, we recommend that you install your chosen Display Kit with the following in mind:

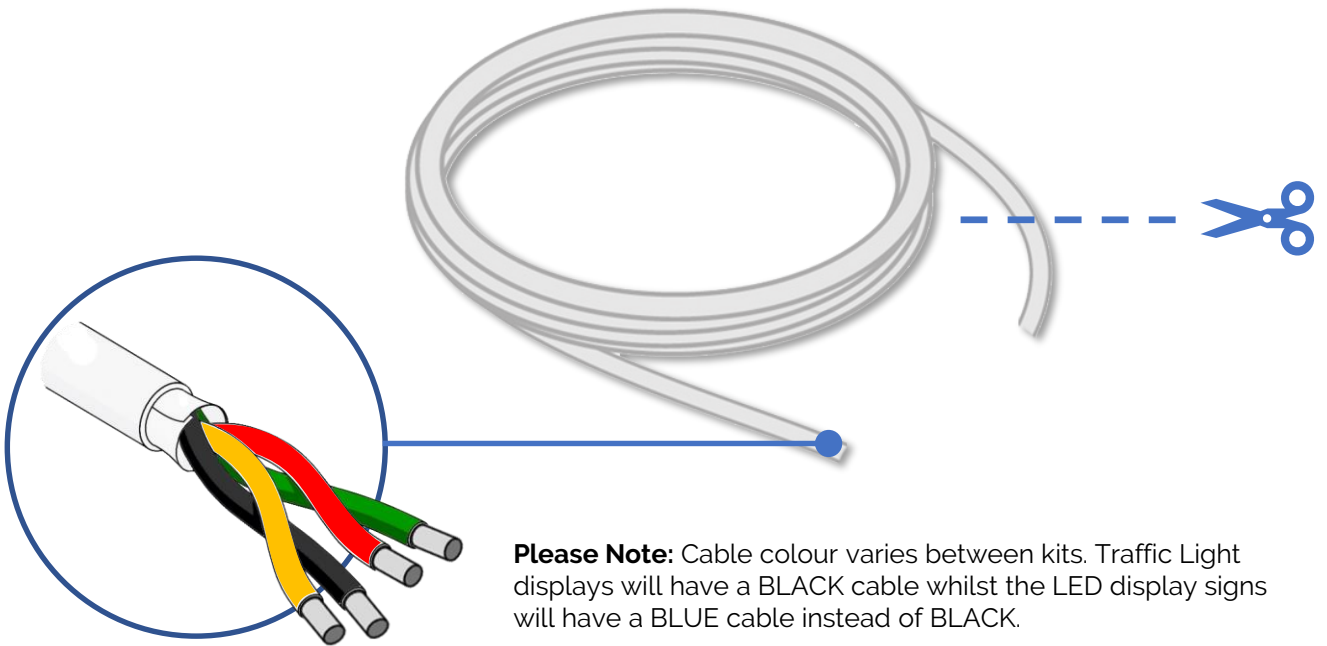
- Install your Display inside your SafeCount monitored area pointing outwards so that it faces approaching visitors.
- Mount the display at eye level and ensure that it remains unobscured at all times.
- Only install outdoors if you have opted for the weatherproof display or traffic light kit and you are able to run a cable from the mounting location, back inside the SafeCount area for connection to your SafeCount Sensor.



\*Products not shown to scale

## 6 DISPLAY KIT INSTALLATION

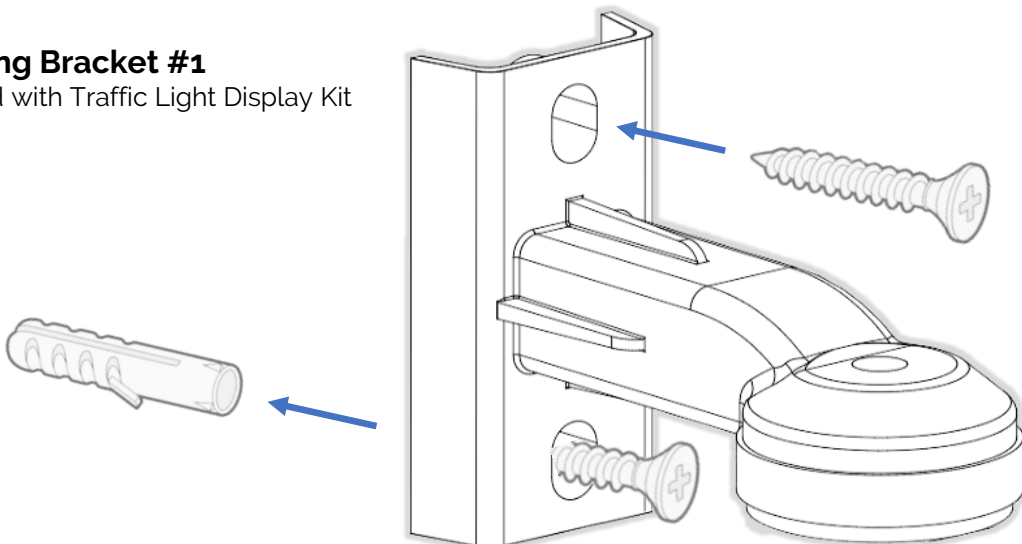
Your display is supplied with a **pre-attached 5M cable**. This is different to the separate **5m 2-Pair 4-Core Cable** that is also included in the kit, which will be covered later. If the total distance between display and SafeCount Sensor exceeds 10M, additional cable will be required. We recommend checking distances before cutting any cable.



Fix the **Mounting Bracket** for your chosen LED display at your chosen location using appropriate hardware i.e. screws/bolts (not provided).

### Mounting Bracket #1

\*Supplied with Traffic Light Display Kit



\*Products not shown to scale



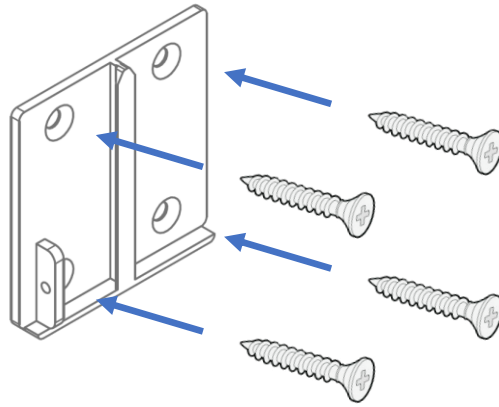
# 6 DISPLAY KIT INSTALLATION

Fix the mounting bracket for your chosen LED display at your chosen location using appropriate hardware i.e. screws/bolts (not provided).

## Mounting Bracket #2

\*Supplied with Mini LED Display Kit

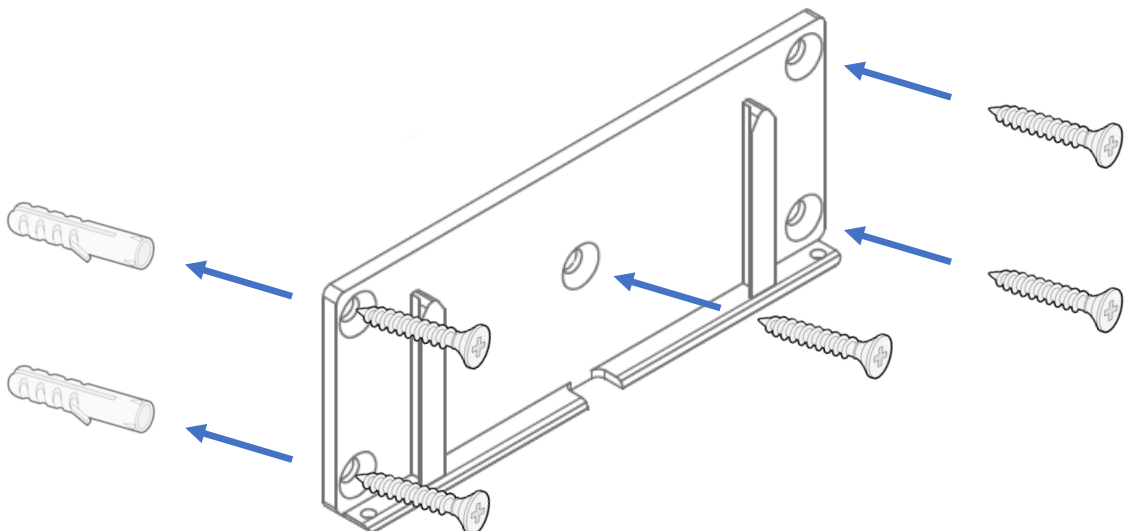
\*Display Slides down on to bracket once fitted.



## Mounting Bracket #3

\*Supplied with Large 470 and Weatherproof 580 LED Display Kits

\*Display Slides down on to bracket once fitted.



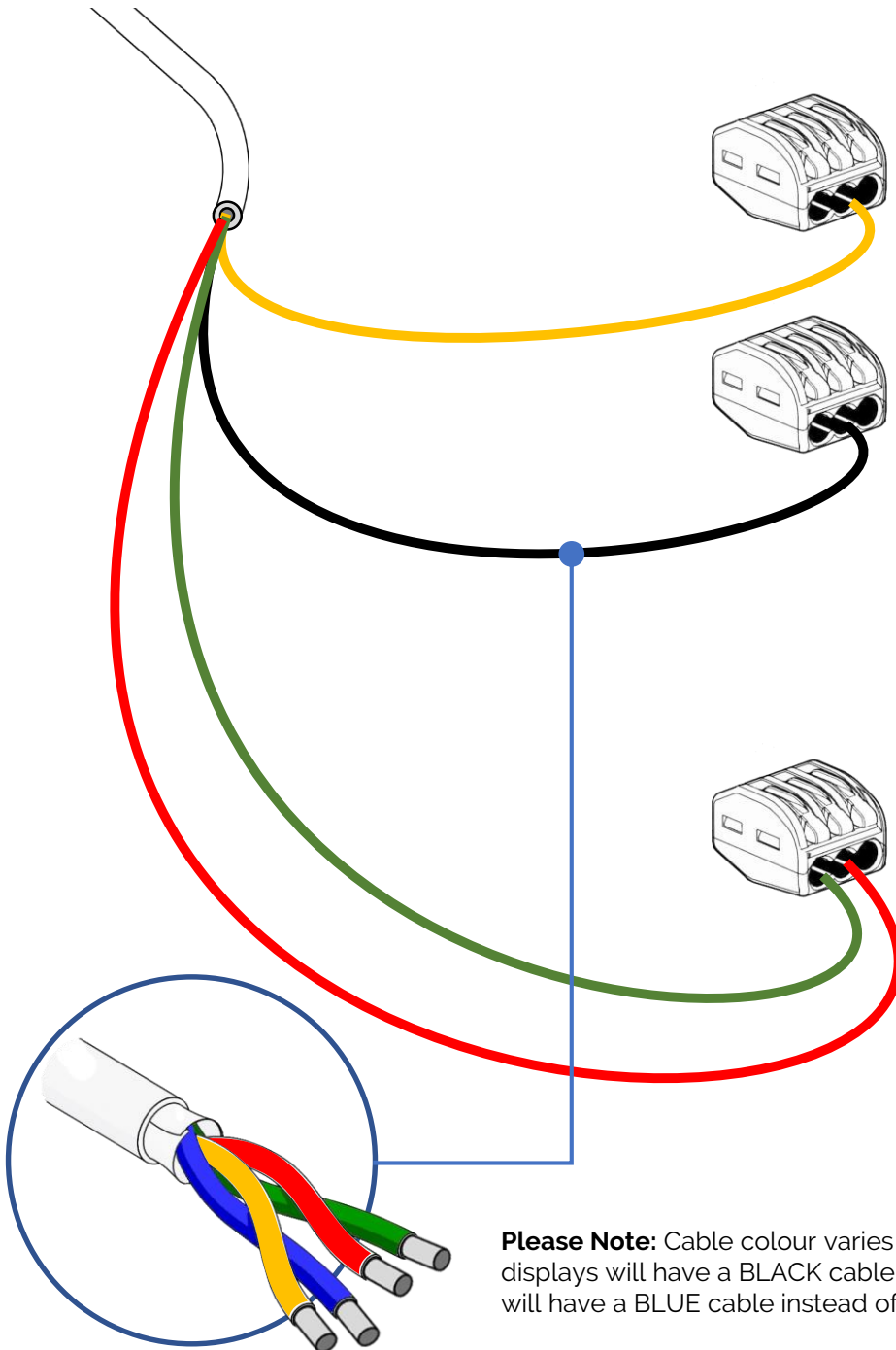
\*Products not shown to scale

# 6 DISPLAY KIT INSTALLATION

The first step will be to connect the exposed ends of the attached **5M Display Cable** to **THREE** of the **3-Way Connector Blocks** as per the following wiring diagram.

## 5M Display Cable

\*Supplied pre attached to chosen display



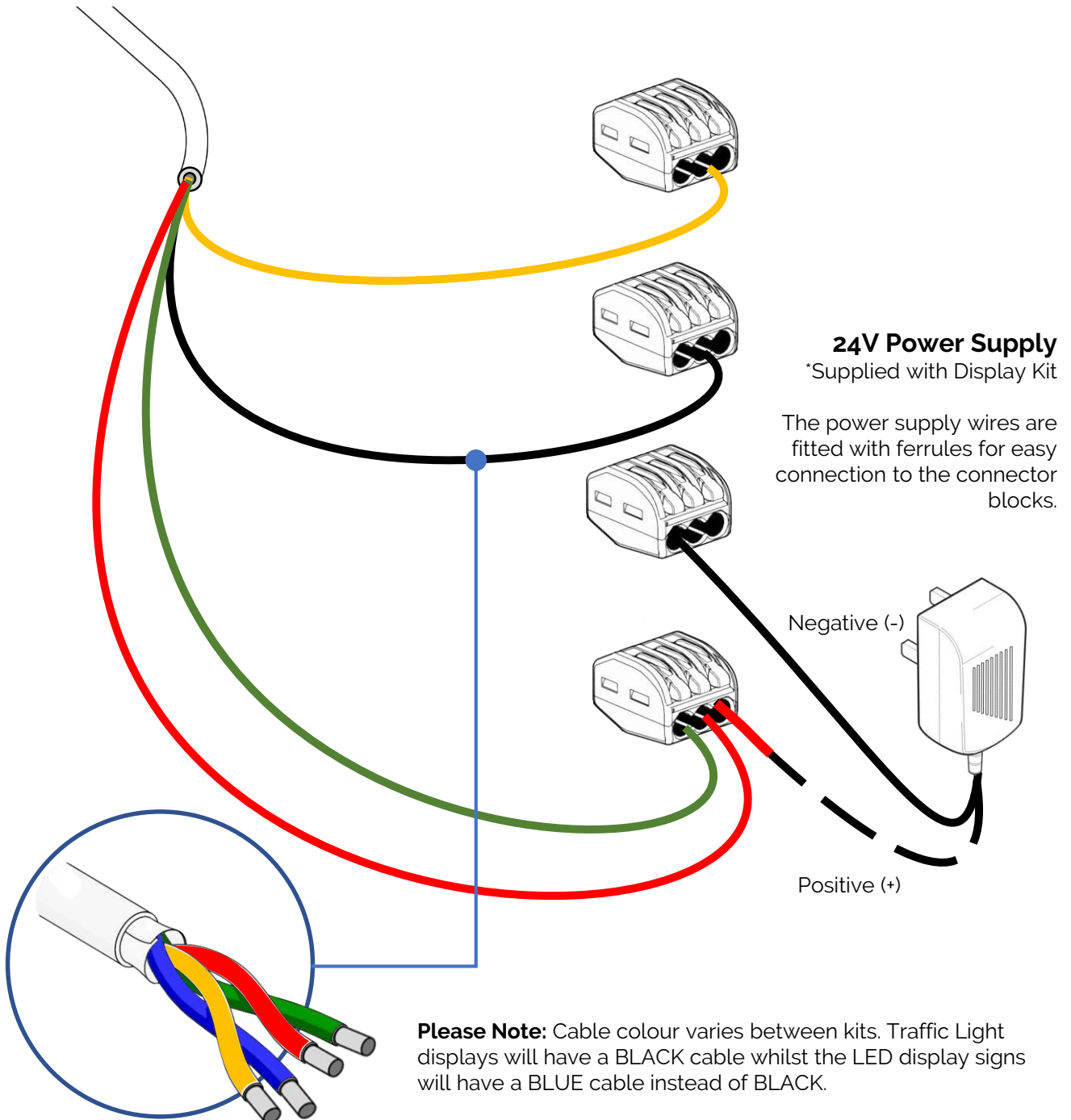
**Please Note:** Cable colour varies between kits. Traffic Light displays will have a BLACK cable whilst the LED display signs will have a BLUE cable instead of BLACK.

# 6 DISPLAY KIT INSTALLATION

Next, you need to use the last available **3-Way Connector Block** together with the supplied **24V Power Supply** and connect as shown in the diagram below. Please ensure power is NOT switched on until everything has been fully connected.

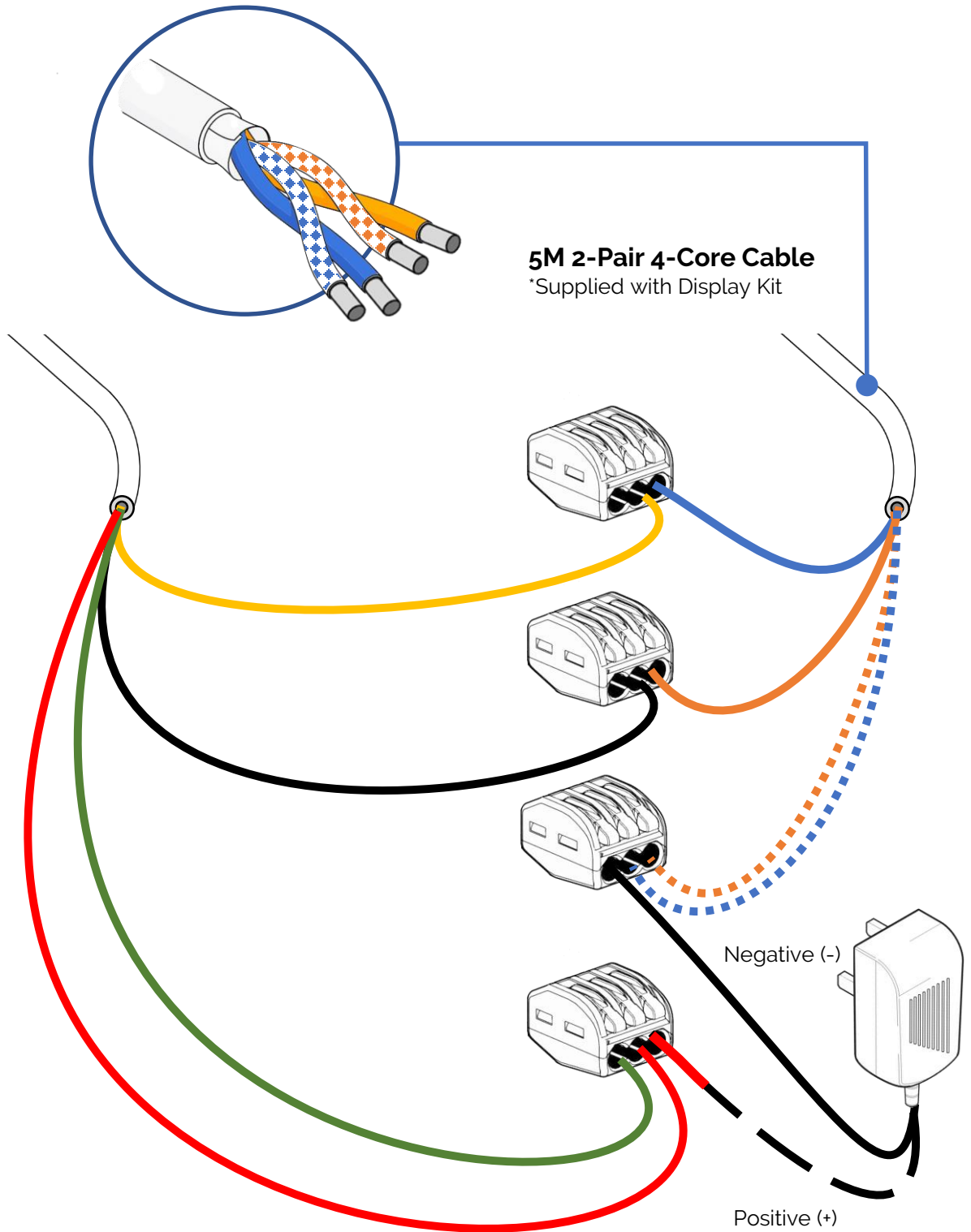
## 5M Display Cable

\*Supplied pre attached to chosen display



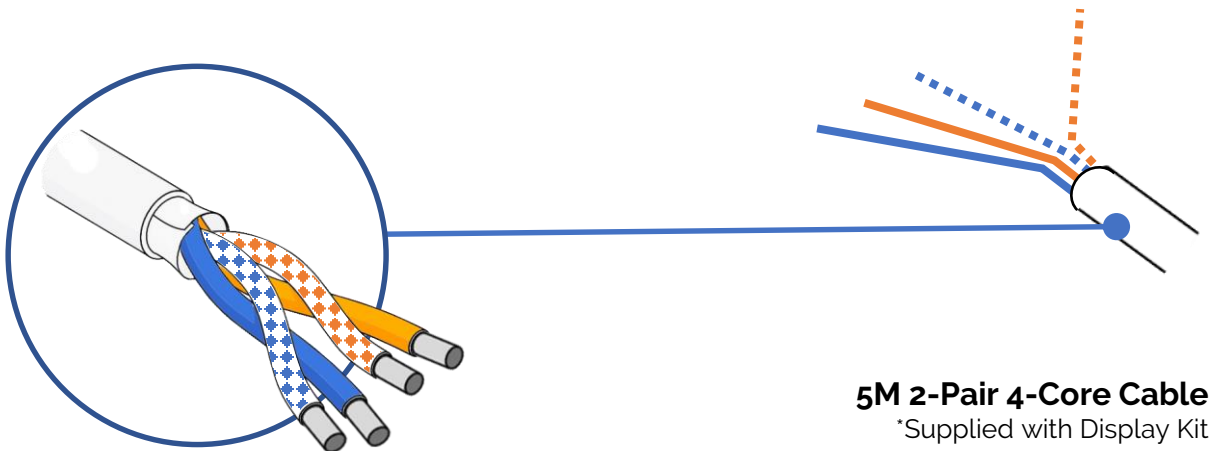
# 6 DISPLAY KIT INSTALLATION

Next, connect one end of the separate **5M 2-Pair 4-Core Cable** to THREE of the **3-Way Connector Blocks** as per the following wiring diagram.

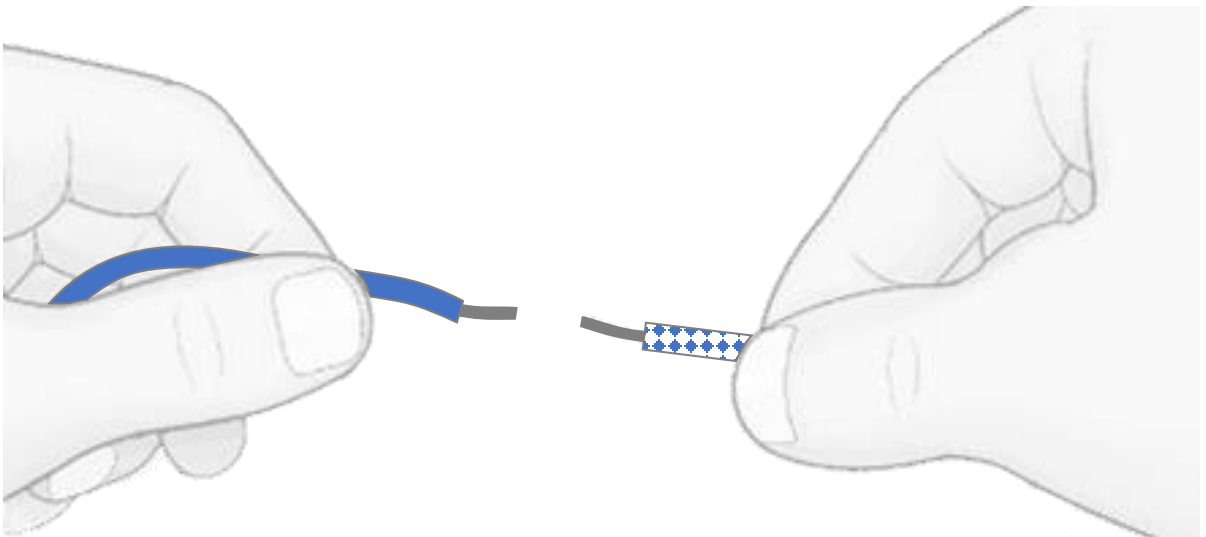


## 6 DISPLAY KIT INSTALLATION

At this stage you may wish to carry out a basic electrical test to ensure that everything has been wired correctly, before connecting the spare end of the separate **5M 2-Pair 4-Core Cable** to the supplied **USB I/O Module (IWC6203)**,



To carry out this test you will need to ensure that the supplied **24V Power Supply** is powered on. Use the wires from the spare end of the separate **5M 2-Pair 4-Core Cable**. Care should be taken to avoid touching the exposed wire.

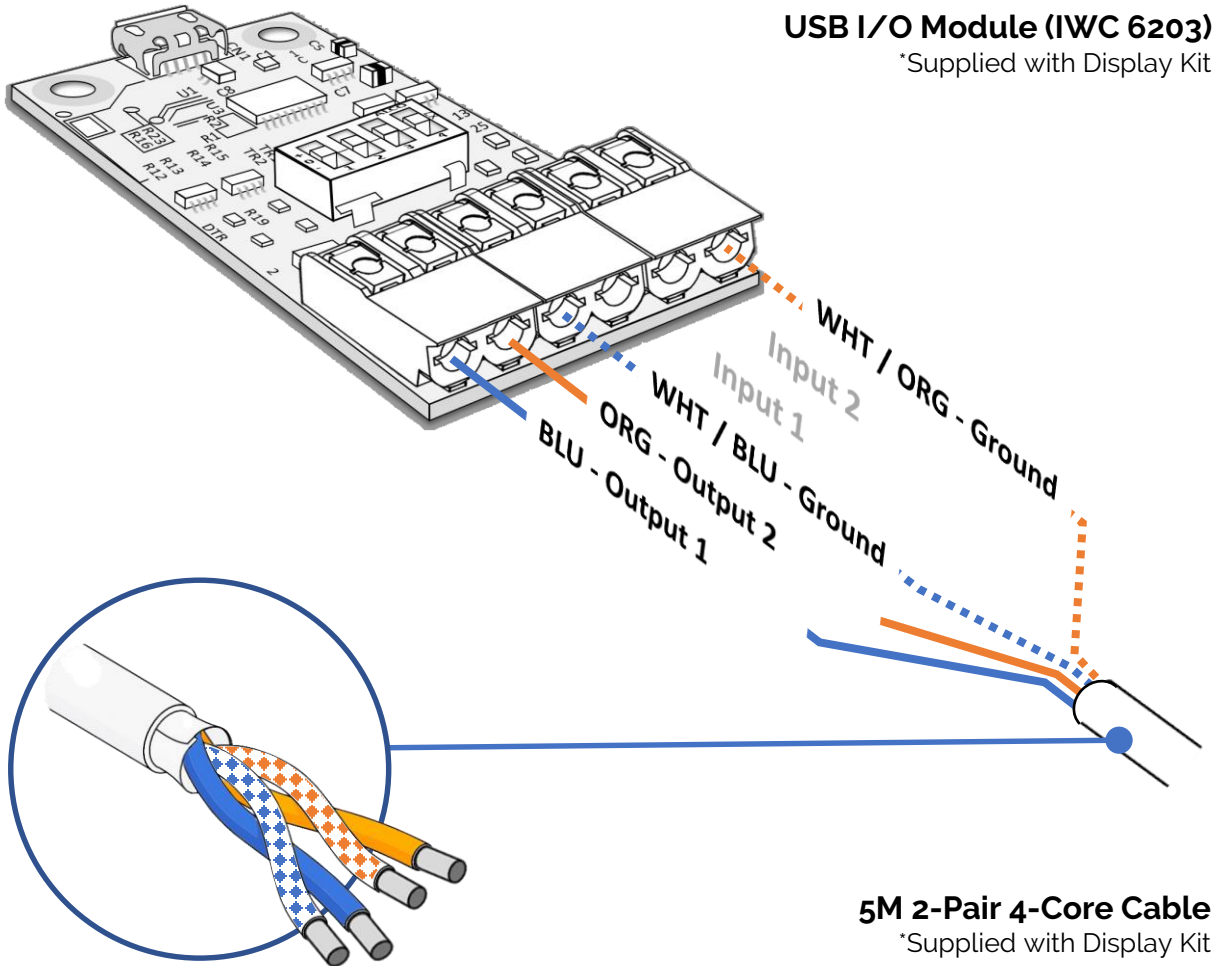


To test the **Red** (Do Not Enter) display, touch together the exposed ends of the **Orange** and **Orange/White** wires

To test the **Green** (Enter) display, touch together the exposed ends of the **Blue** and **Blue/White** wires

# 6 DISPLAY KIT INSTALLATION

If you are happy with the basic testing, the next step in the wiring will be to connect the supplied **USB I/O Module (IWC6203)**, to the spare end of the separate **5M 2-Pair 4-Core Cable** as per the following wiring diagram.



The USB I/O Module (IWC6203) has a heat shrink wrapping applied at the factory and attempts should not be made to remove or interfere with this covering.

\*Products not shown to scale

# 6 DISPLAY KIT INSTALLATION

With the **USB I/O Module (IWC6203)** now connected you should now have everything connected as per the diagram below.

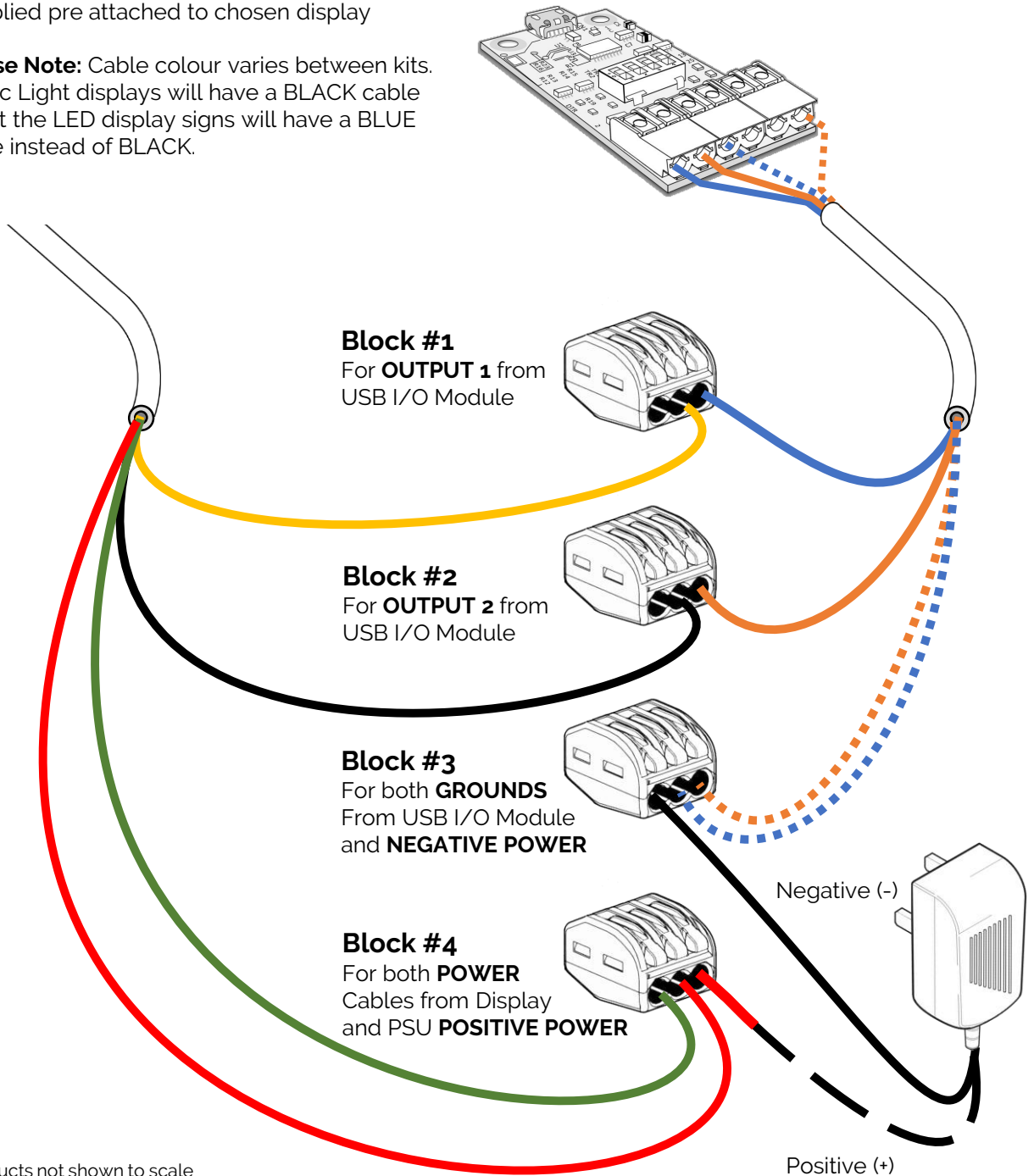
## 5M Display Cable

\*Supplied pre attached to chosen display

**Please Note:** Cable colour varies between kits. Traffic Light displays will have a BLACK cable whilst the LED display signs will have a BLUE cable instead of BLACK.

## USB I/O Module (IWC 6203)

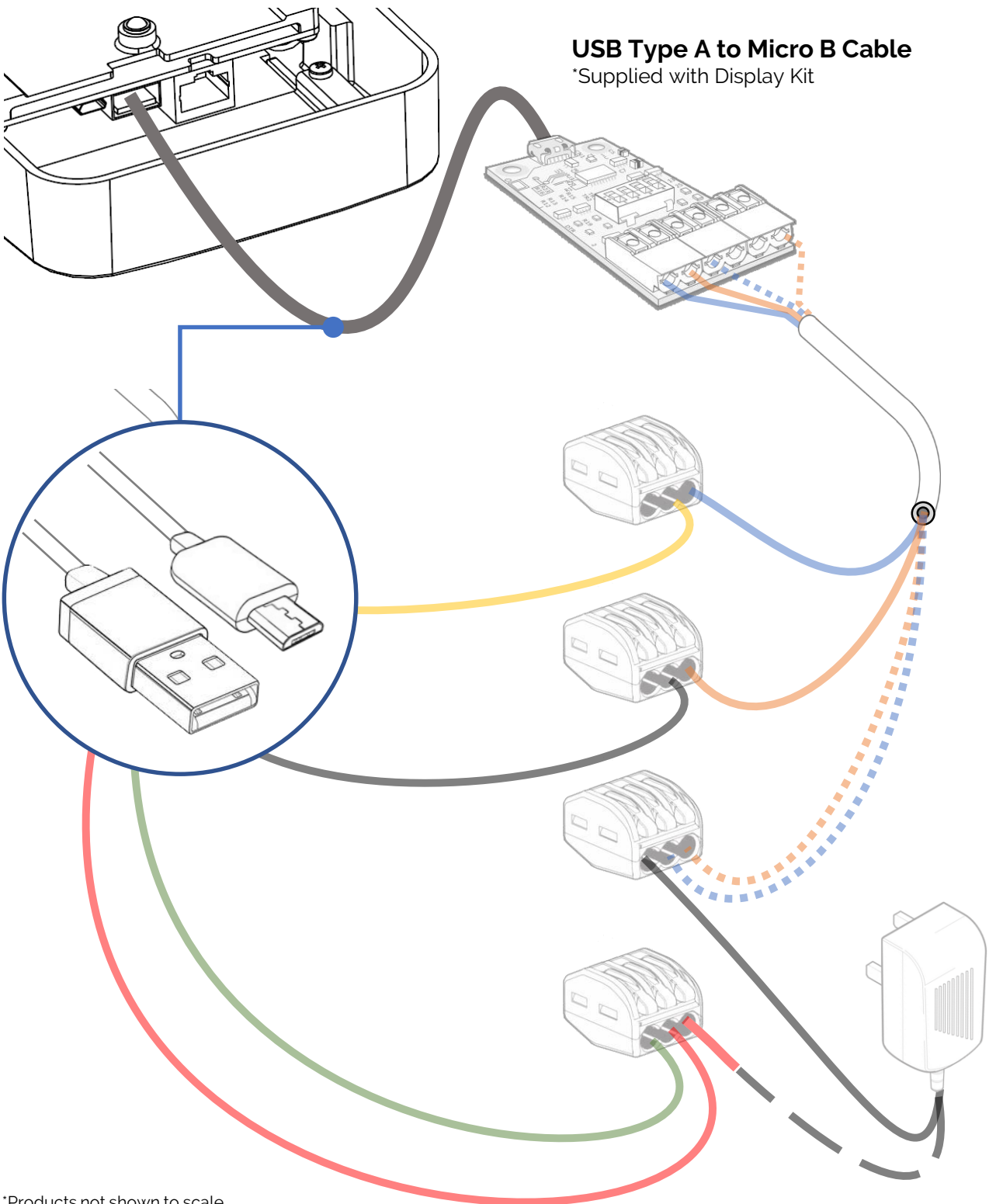
\*Supplied with Display Kit



\*Products not shown to scale

# 6 DISPLAY KIT INSTALLATION

The last step in the installation process will be to connect the **USB Cable** from the USB I/O Module to the SafeCount Sensor



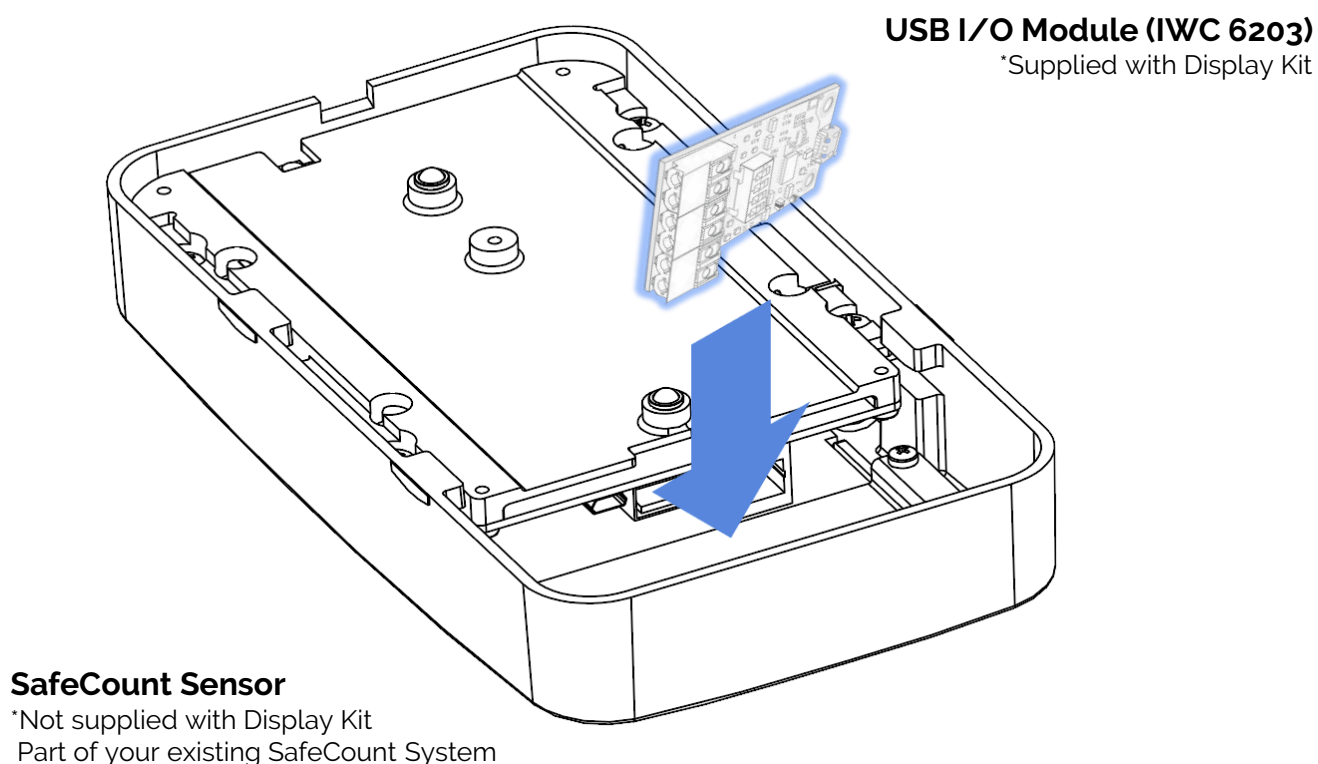
\*Products not shown to scale



## 6 DISPLAY KIT INSTALLATION

The USB I/O Module has been designed to fit within the housing of your SafeCount Sensor once all cabling is complete.

Simply connect and wire all cables as per the previous pages and, once complete, fit the cover to your SafeCount Sensor, ensuring that the USB I/O Module, the USB Cable, Network Cable and the cable running from the USB I/O Board are all housed within the enclosure cavity at the base of the SafeCount Sensor as shown below.



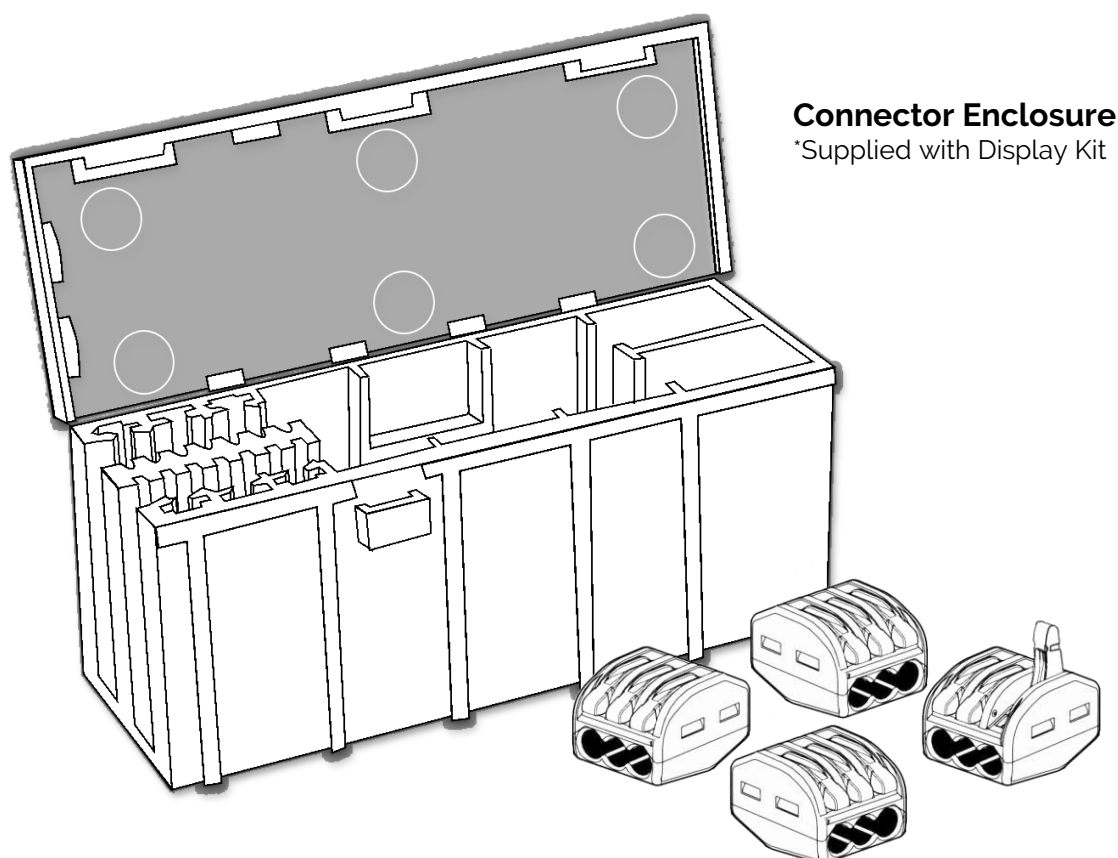
It is always advisable to double check each of the connections before finally fitting the SafeCount Sensor cover in place.

Fitting the USB I/O Module and cabling into this cavity will ensure a neat installation and reduce the risk of wires working loose from the USB I/O Module.

\*Products not shown to scale

## 6 DISPLAY KIT INSTALLATION

With the wiring complete, the four 3-way screwless terminal connector blocks can be fitted inside the enclosure that has been provided along with your chosen Display Kit. It has been specifically designed for use with the provided terminal blocks.



It is always advisable to double check each of the connections before finally fitting in to the provided enclosure.

Using the enclosure will ensure a neat installation and reduce the risk of wires working loose from the connector blocks.

The Connector Enclosure box should be within 1.5m of a mains power socket as this is the maximum length of cable supplied with the included Power Supply Unit.

# 7 TESTING & COMMISSIONING

With your chosen Display Kit now connected to the rest of your SafeCount System, it only remains to test the configuration to ensure that the LED Display is displaying correctly and is reflective of the occupancy of the monitored area.

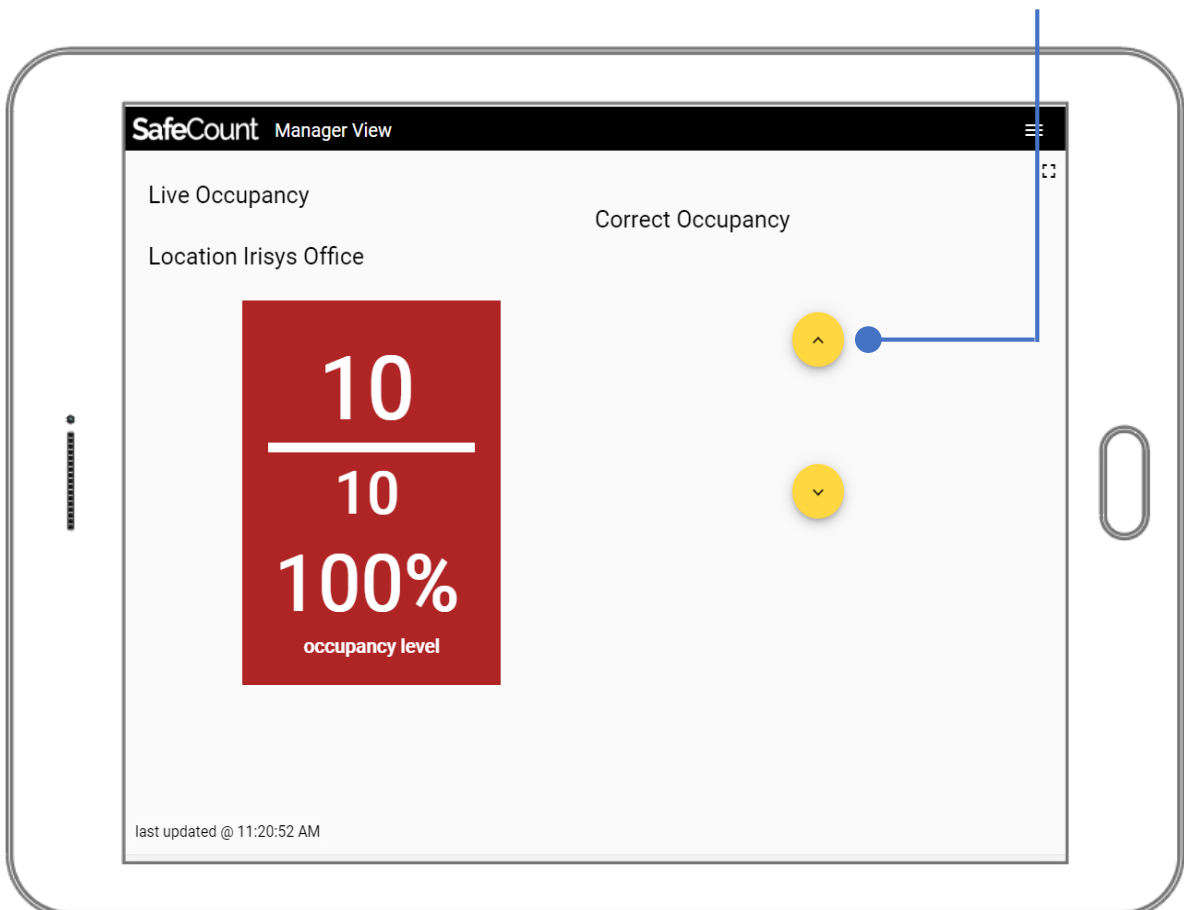
At this stage your Display is NOT expected to display **Red** (Do Not Enter) or **Green** (Enter) as the software needs to be updated to include the new inputs. You will need to re-run the **Setup Wizard** as detailed in the general Installation Guide, ensuring that the Inputs are discovered correctly.

Once the **Setup Wizard** has been re-run, you can use the Manager Screen of the SafeCount System, to test the **Red** (Do Not Enter) and **Green** (Enter) display outputs, by manually incrementing/decreasing the occupancy counts above/below the threshold.

Once tested, the occupancy count should be re-adjusted to reflect the correct value based on current occupancy.

## Adjust Occupancy Levels

Here you can manually adjust the occupancy count until threshold reached




# 8 DISCLAIMER


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