

# **ILLUMIRAIL®**

#### **LED HANDRAIL**





Illumirail is a stylish and practical lighting application for incorporating into handrailing installations. With the choice of RGB, coloured and bright white LEDs, it doesn't just aesthetically provide the finishing touch to any handrail project, it also offers a solution to safety and security issues surrounding dark stairwells and walkways. Illumirail can be fitted in wall mounted or post mounted handrailing.

#### THERE ARE 2 CHOICES FOR ILLUMINATING YOUR HANDRAIL:

- Bar System fitted into our standard split tube handrail
- Pod System can be fitted in any round Ø 42.4 48.3mm handrail system. Also retrofittable





Illumirail is ideal for specification in a wide range of applications including residential, restaurants, offices, night clubs, leisure and retail. In fact anywhere that requires illumination, inside or out, with Stainless Steel Type 316 as standard. Both systems are waterproof and fully rated to IP67. They can be used with PIR movement sensors, daylight sensors (dusk to dawn) and the solid colours can also be linked into emergency lighting back-up systems.

With thousands of colours to choose from, it's easy to create the right mood or ambience in any environment.



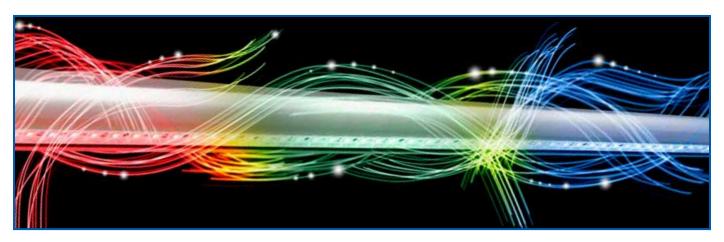








**LED HANDRAIL** 



The ColourTouch 4.3" controller is at the heart of the RGB bar system enabling it to change colour, flash, pulse, dim and fade on and off. The ColourTouch controller can be sited in any location up to 50m from the installation and requires a 24V DC supply. Where this is outdoor, the unit must be contained within a waterproof enclosure.

Both our Bar and POD systems can be used with a variety of infill options such as glass, wire rope or our 7 bar systems. For more information please request our Pro-Railing catalogue or visit <a href="https://www.fhbrundle.co.uk">www.fhbrundle.co.uk</a>.

Illumirail uses 24V DC for LED bar and 12V DC for POD, LED bar requires 100W and POD required 70W transformers connected to 230V AC 50Hz mains supply.

#### **ILLUMIRAIL OPERATION CAN BE:**

- On/Off via a mains supply switch. All variants should have isolation by this method
- All systems should be protected by appropriate residual-current circuit breaker with overcurrent protection (RCBO)
- With a PIR and daylight sensor housing with engineer calibration trim pot. The trim pot will be factory set and should not require on site alteration except in areas which are particularly shaded or bright

#### **COLOUR CHANGING SYSTEM (WITH COLOURTOUCH CONTROLLER):**

- With a wall mounted ColourTouch controller (RGB rigid bar only) one per system
- With an in-line pulse width modulation colour changing driver one per transformer output for RGB system
- With an in-line relay (on/off) module one per transformer output for PIR system



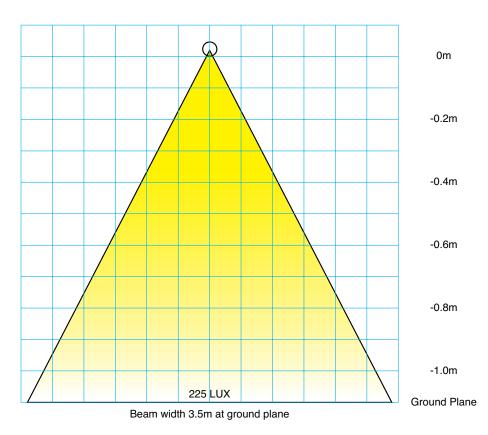


#### **LED BAR & LIGHTING INFORMATION**



#### **LIGHT DISTRIBUTION AT 1100mm HANDRAIL HEIGHT**

#### 850mm WARM WHITE LED RIGID BAR



Our Illumirail LED bar fits discreetly and securely into our  $\emptyset$  42.4mm split tube. It is supplied with an internal trunking that offers a tidy cable management system. Plus a full range of fittings to provide a handrailing solution that can work on post or wall mounted handrails.

Illumirail LED bar is available in both 425 and 850mm lengths. The standard length is 850mm and is designed to fit between our 1200mm Pro-Railing post centres.

#### **STANDARD COLOURS:**

- Warm white (3000K), 1035 lumens per metre and 135 lumens per watt
- RGB (colour changing)

The single colour LED bars in red, green, blue and yellow are available to order. Please enquire.

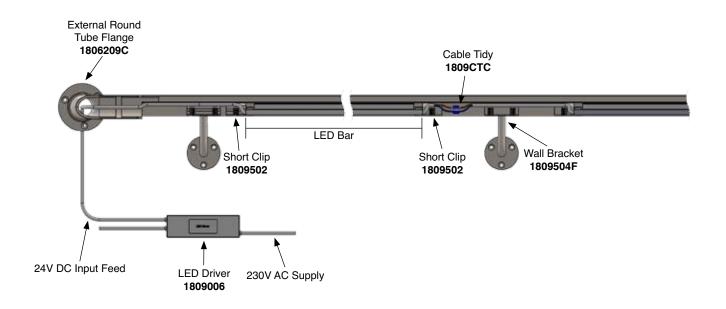


LED bar is a sealed one piece unit rated to IP67, with 54 LEDs totalling 12.24W. With a brightness of 3000K. They are supplied with a 200mm cable with waterproof connectors.



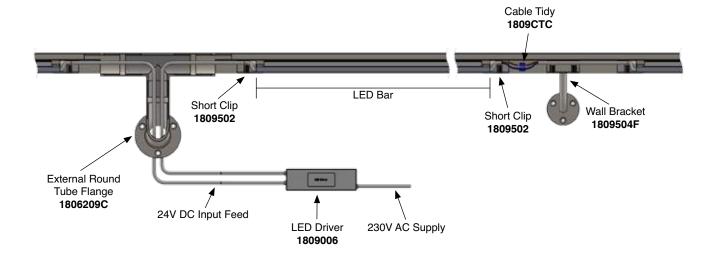
**WALL MOUNT WIRING** 

#### POWERING LEDS FROM END WALL CONNECTION



#### **POWERING LEDS FROM MID RAIL POSITION**

Recommended installation method

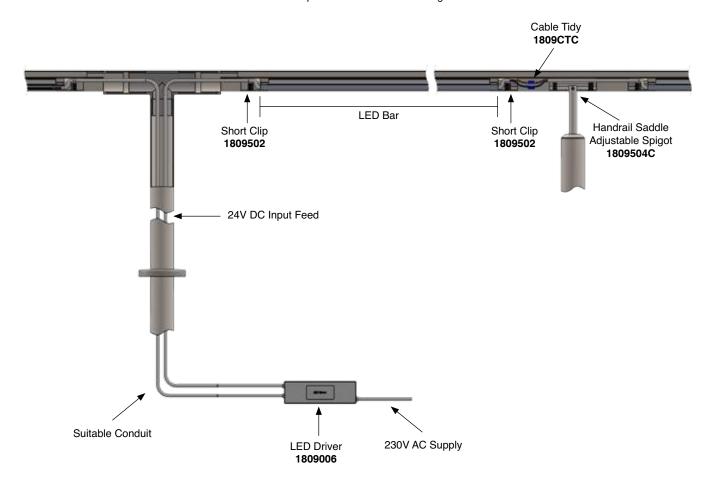




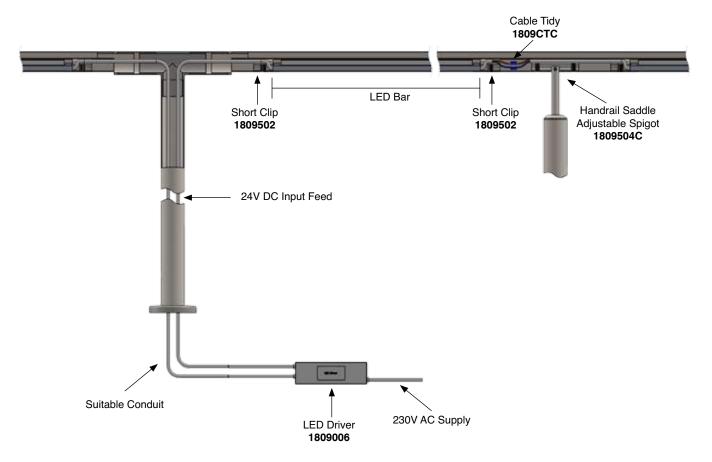
**POST MOUNT WIRING** 

#### **EXTENDED POST MOUNTED INTO POCKET**

Core drilled post fitted into a hole in the ground



#### **EXTENDED POST MOUNTED ONTO CONCRETE**





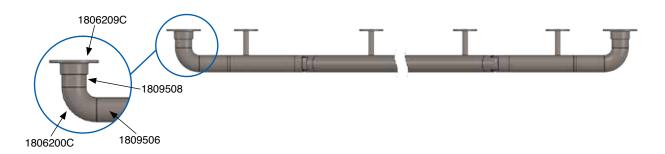
1809504F

# **ILLUMIRAIL® BAR SYSTEM**

**WALL MOUNTING GUIDE** 

#### HANDRAIL WITH RETURN TO WALL ENDS FOR CABLE

Plan view



#### HANDRAIL WITH RETURN TO WALL ENDS FOR CABLE

Front view 1809505 1806416C 1806705C 1809506 1806209C 1809504F LED Bar 1806417C

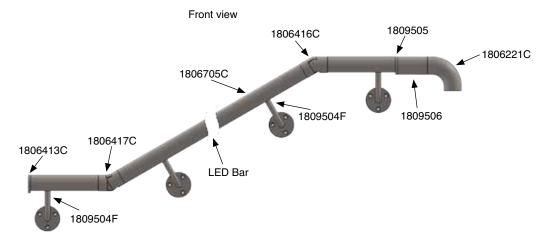
#### HANDRAIL WITH END CAPS OR SCROLL ENDS

Cable runs through fixed wall bracket. Plan view



#### HANDRAIL WITH END CAPS OR SCROLL ENDS

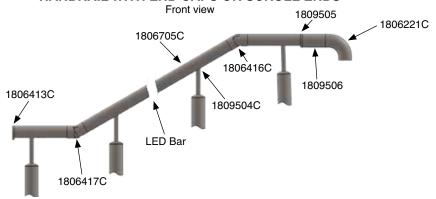
Cable runs through fixed wall bracket.



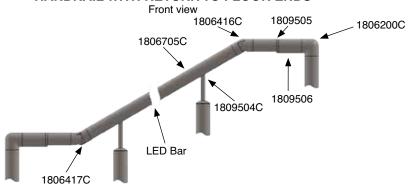


**POST MOUNTING GUIDE** 

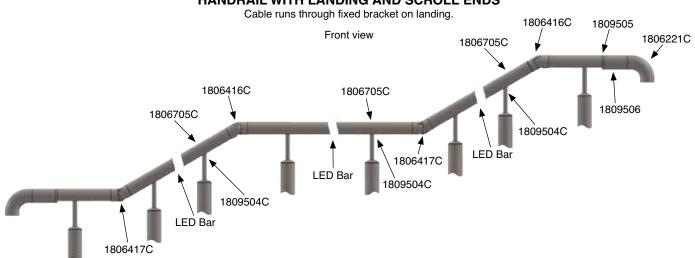
#### HANDRAIL WITH END CAPS OR SCROLL ENDS



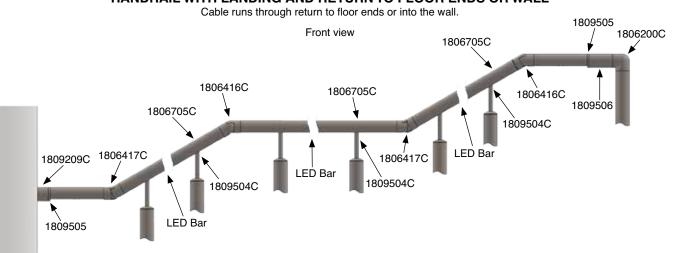
#### HANDRAIL WITH RETURN TO FLOOR ENDS



#### HANDRAIL WITH LANDING AND SCROLL ENDS

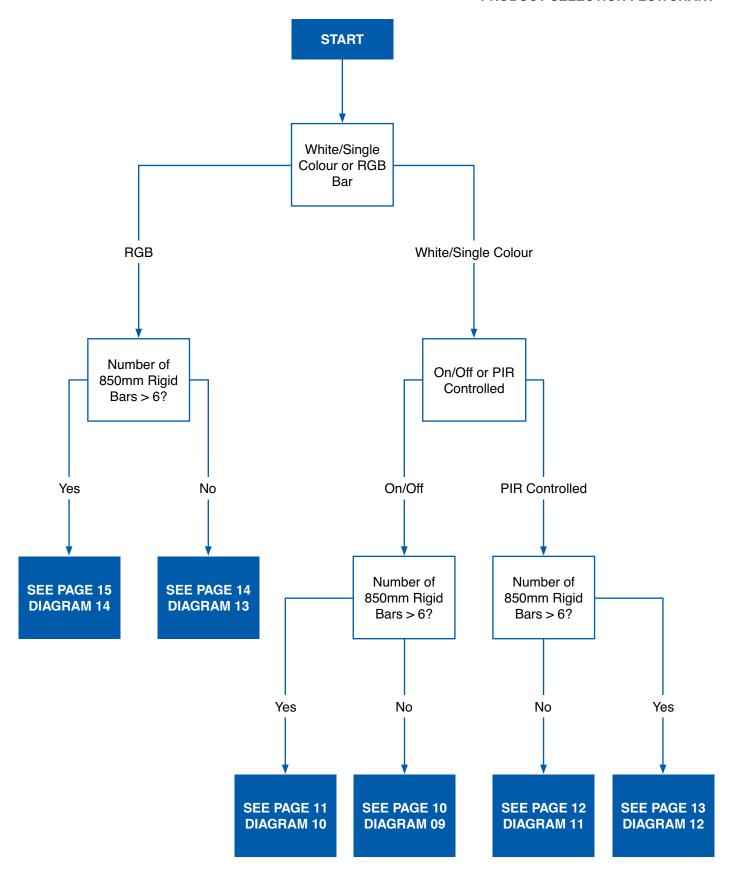


#### HANDRAIL WITH LANDING AND RETURN TO FLOOR ENDS OR WALL





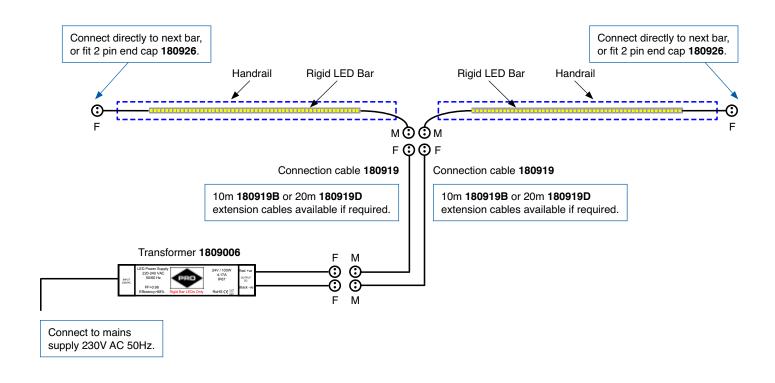
#### PRODUCT SELECTION FLOWCHART





#### **DIAGRAM 09**

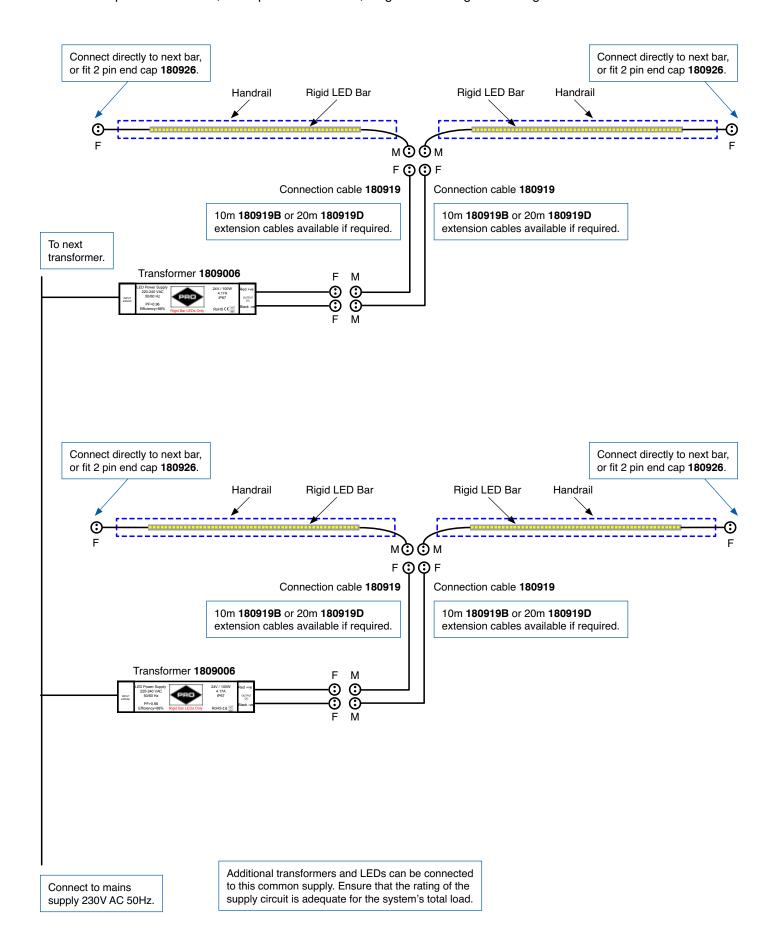
Up to 6 pieces of 850mm, or 12 pieces of 425mm, long white or single colour rigid LED bar. On / Off.





**DIAGRAM 10** 

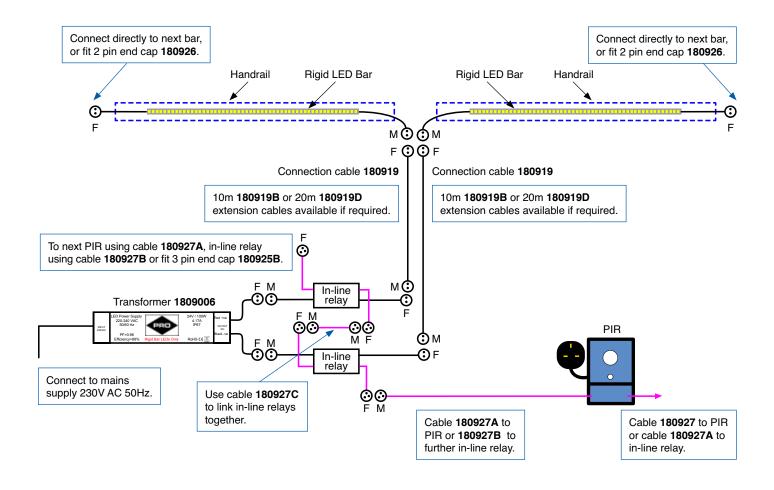
More than 6 pieces of 850mm, or 12 pieces of 425mm, long white or single colour rigid LED bar. On / Off.





#### **DIAGRAM 11**

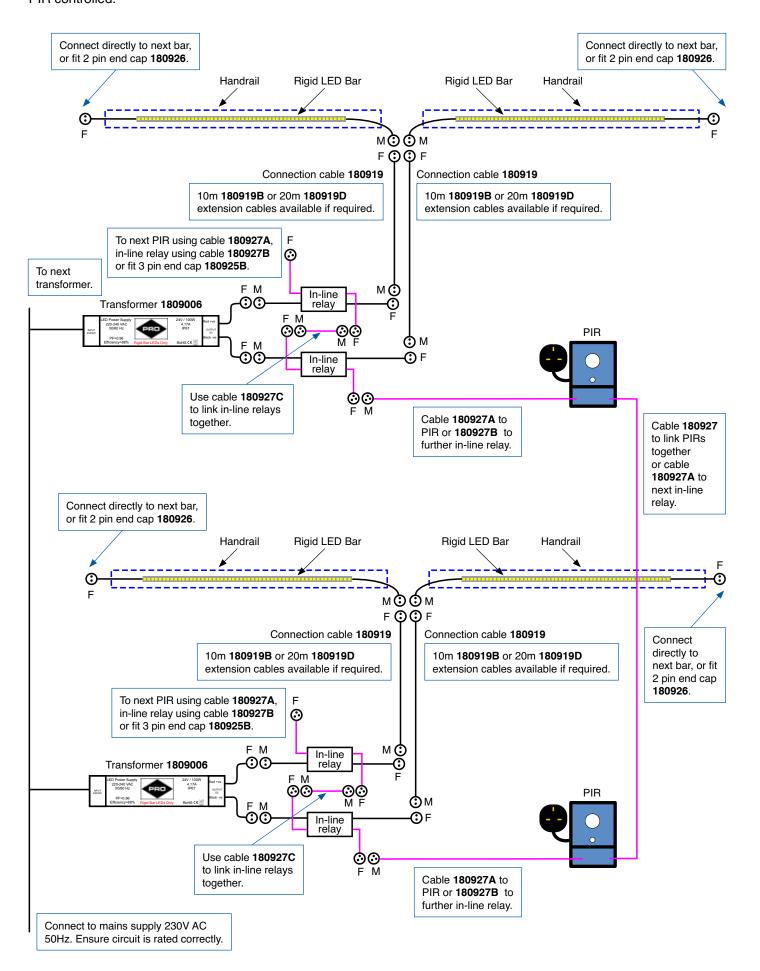
Up to 6 pieces of 850mm, or 12 pieces of 425mm, long white or single colour rigid LED bar. PIR controlled.





**DIAGRAM 12** 

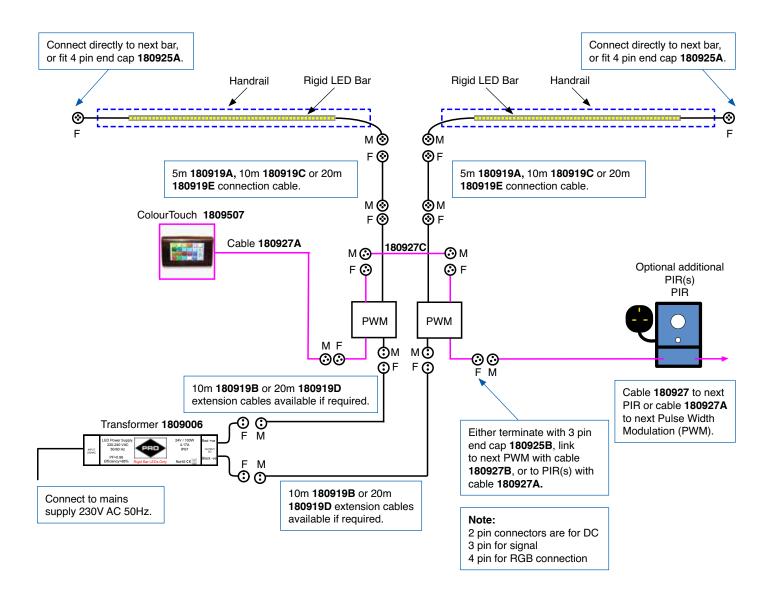
More than 6 pieces of 850mm, or 12 pieces of 425mm, long white, or single colour rigid LED bar. Single or multiple PIR controlled.





#### **DIAGRAM 13**

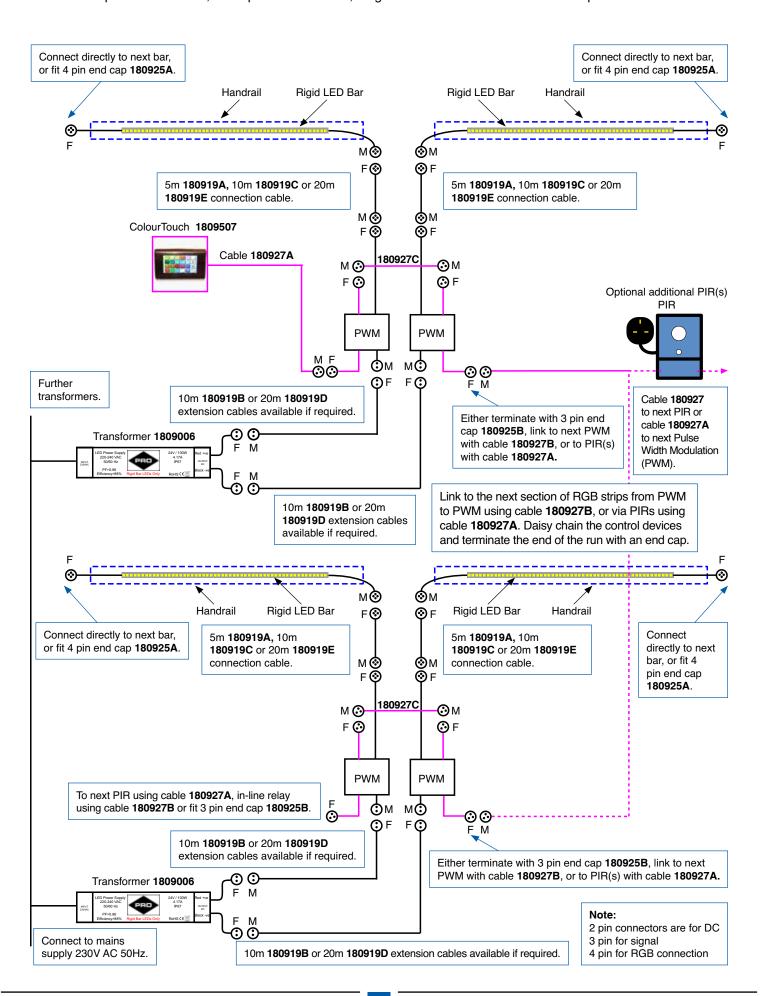
Up to 6 pieces of 850mm, or 12 pieces of 425mm, long RGB LED bar. ColourTouch with optional PIR ontrol.





**DIAGRAM 14** 

More than 6 pieces of 850mm, or 12 pieces of 425mm, long RGB LED bar. ColourTouch with optional PIR control.



# BRUNDLE

#### **WALL MOUNTING FITTINGS**

**SPLIT TUBE** 1.5mm wall thickness



| Finish | Ø mm | Length m | Code      |
|--------|------|----------|-----------|
| 316    | 42.4 | 3        | 18067053C |
| 316    | 42.4 | 6        | 1806705C  |

WALL BRACKET For split tube clamping



| Finish | Clip Length mm | Code     |
|--------|----------------|----------|
| 316    | 60             | 1809504F |

With cable hole

CABLE TIDY
Glue fit



| Finish | Ø<br>mm | Length<br>mm | Depth<br>mm | Code    |
|--------|---------|--------------|-------------|---------|
| 316    | 42.4    | 300          | 20          | 1809CTC |

Thickness 1.2mm

# 25° TO 55° DOWNWARDS ADJUSTABLE CONNECTOR



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806416C |

#### 25° TO 55° UPWARDS ADJUSTABLE CONNECTOR



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806417C |

#### **IN-LINE CONNECTOR**



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806412C |

#### SEE PRO-RAILING CATALOGUE FOR OUR FULL RANGE OF SPLIT TUBE FITTINGS.

# SPLIT TUBE TO PLAIN TUBE CONNECTOR



| Finish | Ø mm | Code    |
|--------|------|---------|
| 316    | 42.4 | 1809505 |

**TUBE SECTION** 



| Finish | Ø mm | Length mm | Code    |
|--------|------|-----------|---------|
| 316    | 42.4 | 55        | 1809508 |
| 316    | 42.4 | 70        | 1809506 |

90° ELBOW RADIUSED CORNER



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806200C |

OTHER ELBOW OPTIONS AVAILABLE, SEE PRO-RAILING CATALOGUE.

#### **SCROLL END**



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806221C |

#### **EXTERNAL ROUND TUBE FLANGE**



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806209C |

**END CAP** 



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806413C |



#### **POST MOUNTING FITTINGS**

#### **SPLIT TUBE**

1.5mm wall thickness



| Code      | Length m | Ø mm | Finish |
|-----------|----------|------|--------|
| 18067053C | 3        | 42.4 | 316    |
| 1806705C  | 6        | 42.4 | 316    |

#### HANDRAIL SADDLE, **ADJUSTABLE SPIGOT**

For split tube clamping



| Finish | Ø mm | Clip Length mm | Code     |
|--------|------|----------------|----------|
| 316    | 42.4 | 85             | 1809504C |

With cable hole

IN-LINE CONNECTOR



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806412C |

# **HANDY TIP** For ease of application use pre-assembled posts, just replace the saddle for one with a cable hole.

**CABLE TIDY** 

Glue fit



| Finish | Ø<br>mm | Length<br>mm | Depth<br>mm | Code    |
|--------|---------|--------------|-------------|---------|
| 316    | 42.4    | 300          | 20          | 1809CTC |

Thickness 1.2mm

#### FOR RETURN TO FLOOR ENDS USE HOLLOW TUBE, PLEASE VISIT www.fhbrundle.co.uk

#### 25° TO 55° DOWNWARDS **ADJUSTABLE CONNECTOR**



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806416C |

25° TO 55° UPWARDS **ADJUSTABLE** CONNECTOR



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806417C |

SPLIT TUBE TO PLAIN **TUBE CONNECTOR** 



| Fig. 1 - I. | ~    | 0-4-    |
|-------------|------|---------|
| Finish      | Ømm  | Code    |
| 316         | 42.4 | 1809505 |

**TUBE SECTION** 



| Finish | Ø<br>mm | Length<br>mm | Code    |
|--------|---------|--------------|---------|
| 316    | 42.4    | 70           | 1809506 |

90° ELBOW **RADIUSED CORNER** 



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806200C |

**SCROLL END** 



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806221C |

**END CAP** 



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806413C |

**WALL CONNECTOR** 



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1809209C |

With cable hole

OTHER ELBOW OPTIONS AVAILABLE, SEE PRO-RAILING CATALOGUE.

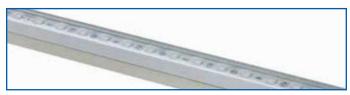
SEE PRO-RAILING CATALOGUE FOR OUR **FULL RANGE OF SPLIT TUBE FITTINGS.** 



#### **FIXED COLOURS & RGB COLOUR CHANGING**



| Colour        | 425mm Length Code | 850mm Length Code |
|---------------|-------------------|-------------------|
| White (3000K) | 18095015          | 1809501           |
| Blue          | 18095015B         | 1809501B          |
| Green         | 18095015G         | 1809501G          |
| Red           | 18095015R         | 1809501R          |
| Yellow        | 18095015Y         | 1809501Y          |



| Colour | 425mm Length Code | 850mm Length Code |
|--------|-------------------|-------------------|
| RGB    | 18095015RGB       | 1809501RGB        |

Supplied with 4 gel crimps

Supplied with 2 gel crimps

#### **CABLES**

| Description   | Fixed<br>Colour | RGB      | Length    | Code    |
|---|-----------------|----------|-----------|---------|
| 2 pin M-F, over-moulded IP67 cable. 5 amp max. DC connection cable for LED bar                      | ✓               |          | 5m        | 180919  |
| 2 pin M-F, over-moulded IP67 cable. 5 amp max. DC extension cable                                   | ✓               |          | 10m       | 180919B |
| 2 pin M-F, over-moulded IP67 cable. 5 amp max. DC extension cable                                   | ✓               |          | 20m       | 180919D |
| 2 pin small sealing cap M. Makes end of run of LED bar watertight. For DC power cables              | ✓               |          |           | 180926  |
| 4 pin M-F over-moulded IP67 cable. 5 amp max. DC connection cable                                   |                 | ✓        | 5m        | 180919A |
| 4 pin M-F, over-moulded IP67 cable. 5 amp max. DC connection cable                                  |                 | <b>✓</b> | 10m       | 180919C |
| 4 pin M-F, over-moulded IP67 cable. 5 amp max. DC connection cable                                  |                 | ✓        | 20m       | 180919E |
| 3 pin sealing cap M. Makes end of run of cables watertight. For signal cables                       | ✓               | <b>✓</b> |           | 180925B |
| 4 pin sealing cap M. Makes end of run of cables watertight. For RGB power cables                    |                 | <b>✓</b> |           | 180925A |
| STP signal cable, bare ends. Connects between PIR enclosures and ColourTouch controller             |                 | <b>✓</b> | Per metre | 180927  |
| STP signal cable, bare ends to M. Connects in-line relays and PWM's to PIR or ColourTouch enclosure | ✓               | <b>✓</b> | 10m       | 180927A |
| STP signal connection cable M to M. Connects between PWMs and in-line relays                        | ✓               | ✓        | 10m       | 180927B |
| STP signal connection patch cable M to M. Connects between PWMs and in-line relays                  | ✓               | ✓        | 300mm     | 180927C |
| STP signal extension cable M to F. Extends cables   | ✓               | ✓        | 10m       | 180927D |

#### **CONTROLS**

| Description   | Fixed Colour | RGB | Code      |
|---|--------------|-----|-----------|
| ColourTouch control enclosure with colour changing system and built in timer  |              | ✓   | 1809507   |
| In-line PWM RGB driver module. Male 2 pole female 4 pole, one per transformer |              | ✓   | 180929A   |
| Power supply for ColourTouch control  |              | ✓   | 1809507PS |
| PIR enclosure, one or many per installation                                   | <b>√</b>     | ✓   | 1809PIR   |
| In-line relay module, one per transformer                                     | ✓            |     | 1809IR    |

#### **TRANSFORMER**



#### **SPECIFICATIONS:**

- 100W
- 230V AC to 24V DC
- CE approved
- IP67, supplied with waterproof connector on the DC output
- PFC 98%
- Efficiency >88%
- Supplied with one end cap

| Description                           |         |
|---------------------------------------|---------|
| LED Driver - 24V DC/100W - IP67 Rated | 1809006 |

**SHORT CLIP**For securing LED bar

# CRIMPING PLIERS For gel crimps



| Code      |  |
|-----------|--|
| 180959902 |  |

#### HIGH STRENGTH RETAINER

For use with tube fittings



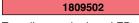
| ml | Code       |
|----|------------|
| 50 | 1899007638 |

#### HIGH STRENGTH RETAINER

For use on assembled posts



| ml | Code         |
|----|--------------|
| 10 | 189900763810 |

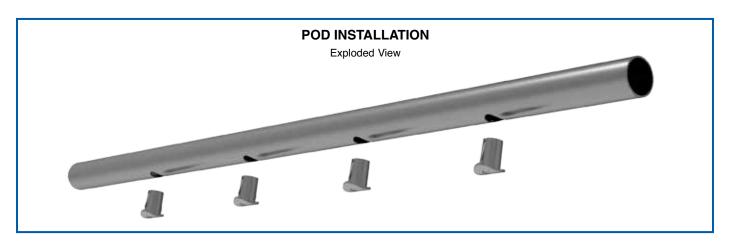


Code

Two clips required per LED

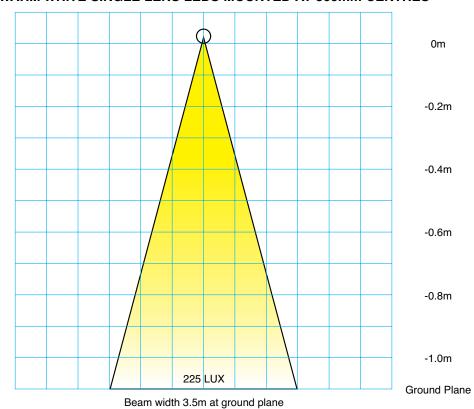


#### **PODS & LIGHTING INFORMATION**



#### **LIGHT DISTRIBUTION AT 1100mm HANDRAIL HEIGHT**

#### 4 x WARM WHITE SINGLE LENS LEDS MOUNTED AT 300mm CENTRES



The Illumirail POD system is designed using top quality CREE LEDs. The single lens PODs are rated at 1.2W. They are directly connected to the bus power cable **Code: 180920** using gel crimps. PODs are fitted with a diode on the negative side of their circuit to prevent the POD LEDs from blowing if they are wired incorrectly.

#### POD SYSTEM AVAILABLE TO SUIT:

• 2.0 - 3.2mm wall thickness for Ø 42.4 and 48.3mm tube

There is a spring assembly incorporated into the lens body so it securely snaps into place and the lens can be removed if necessary. There is also the option to drill two holes in the flange of the lens which allows permanent fixing using a 2mm stainless steel rivet into pre-drilled holes in the tube.



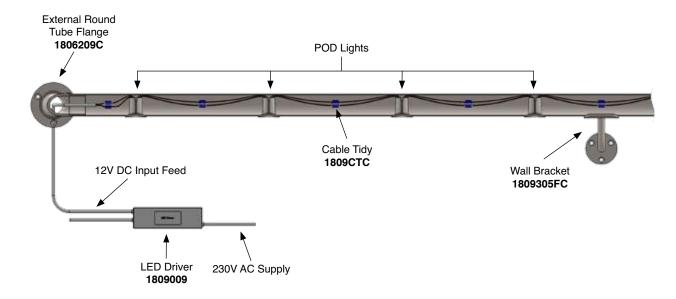
We recommend the holes for the PODs are machined out in a workshop or they can be drilled on site using a 24mm step drill. NB: Note polarity and ensure to connect the wires accordingly.

THE POD SYSTEM WORKS WITH ALL OF OUR GALVANISED, MILD STEEL & PRO-RAILING FITTINGS. SEE PAGES 29 - 30 FOR OUR RECOMMENDED TYPE 316 FITTINGS.



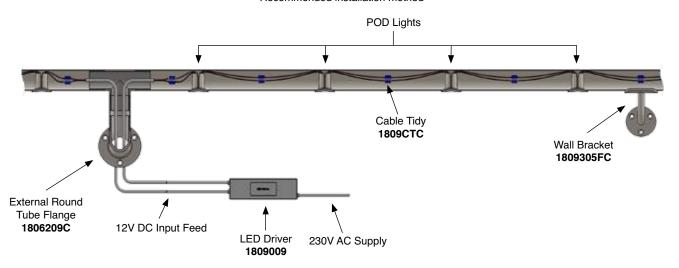
**WALL MOUNT WIRING** 

#### POWERING PODS FROM END WALL CONNECTION

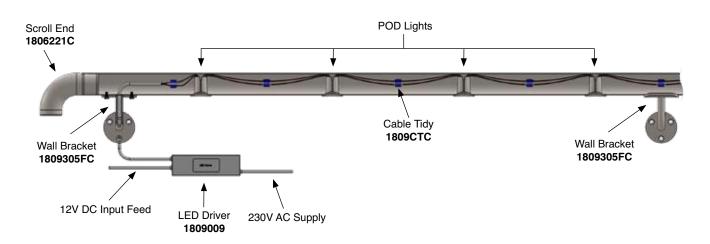


#### **POWERING PODS FROM MID RAIL POSITION**

Recommended installation method



#### POWERING PODS THROUGH HANDRAIL BRACKET

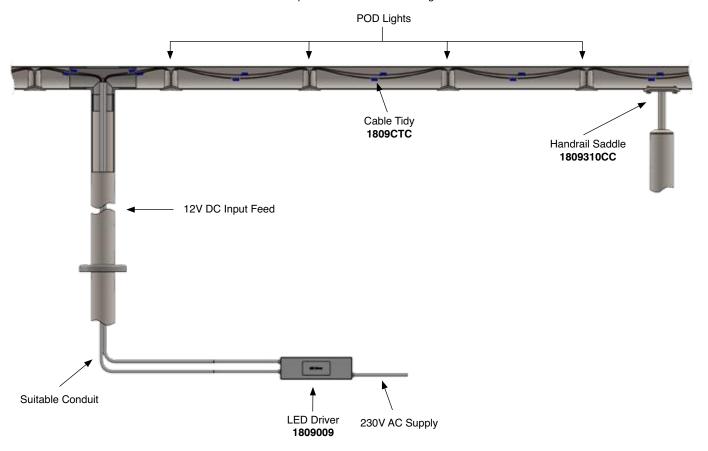




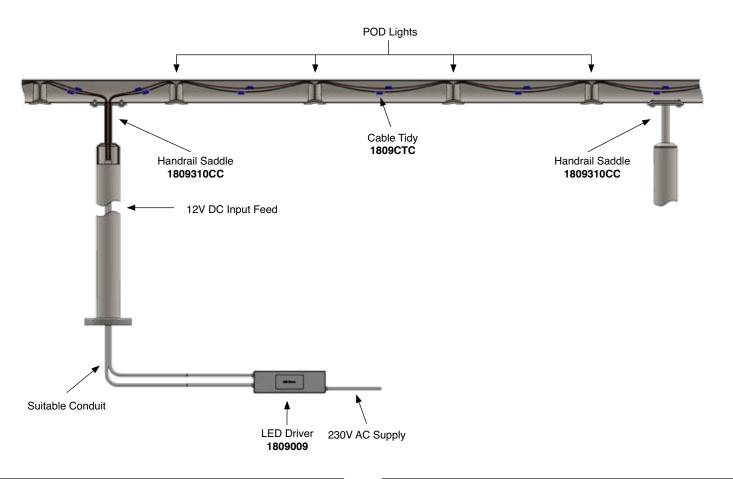
**POST MOUNT WIRING** 

#### **EXTENDED POST MOUNTED INTO POCKET**

Core drilled post fitted into a hole in the ground



#### **EXTENDED POST MOUNTED INTO POCKET**





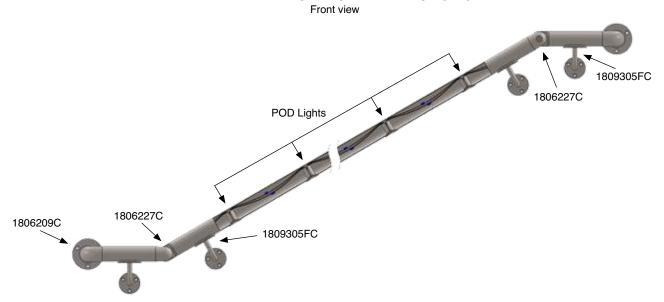
18062521C

#### **WALL MOUNTING GUIDE**

#### HANDRAIL WITH RETURN TO WALL ENDS FOR CABLE



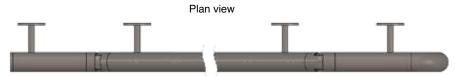
#### HANDRAIL WITH RETURN TO WALL ENDS FOR CABLE



#### HANDRAIL WITH END CAPS OR SCROLL ENDS

Cable runs through fixed wall bracket.

HANDRAIL WITH END CAPS OR SCROLL ENDS Cable runs through fixed wall bracket.

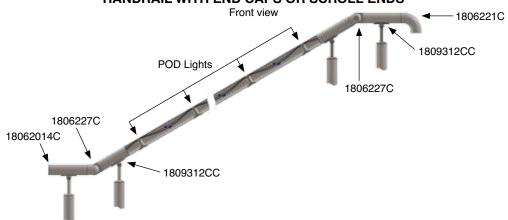


# Front view 1806227C 1809305FC 1806227C 1809305FC

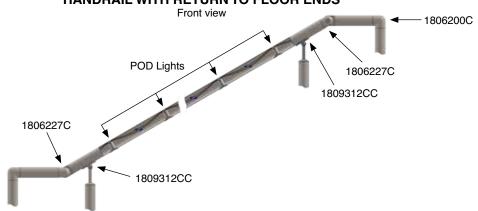


#### **POST MOUNTING GUIDE**



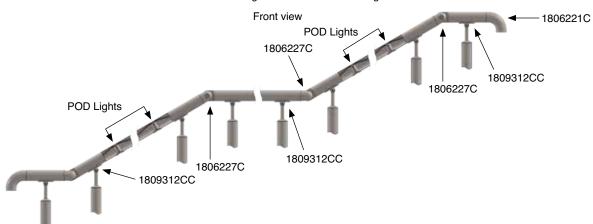


#### HANDRAIL WITH RETURN TO FLOOR ENDS



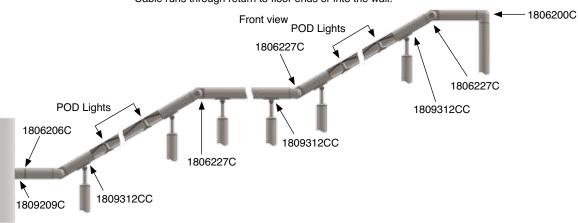
#### HANDRAIL WITH LANDING AND SCROLL ENDS

Cable runs through fixed bracket on landing.



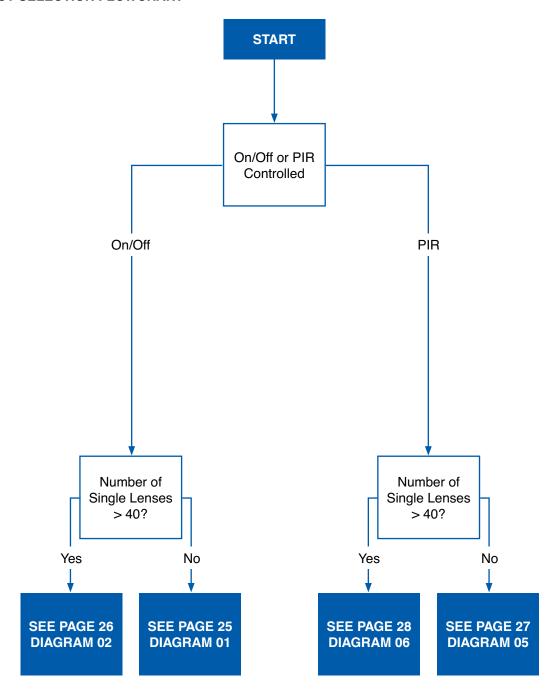
#### HANDRAIL WITH LANDING AND RETURN TO FLOOR ENDS OR WALL

Cable runs through return to floor ends or into the wall.





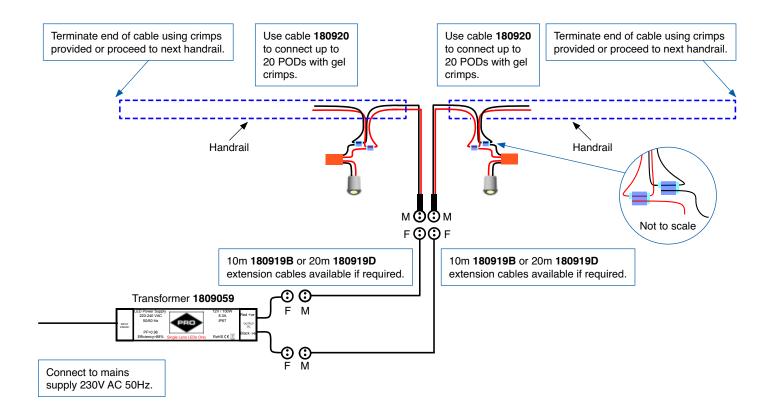
#### PRODUCT SELECTION FLOWCHART





**DIAGRAM 01** 

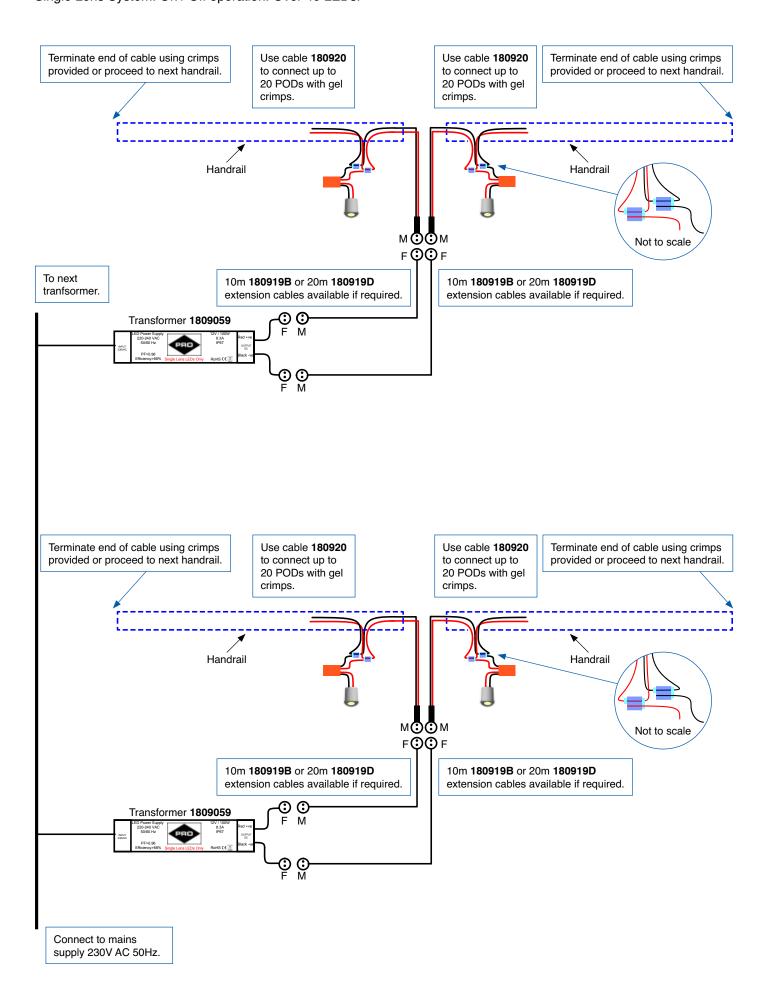
Single Lens System. On / Off operation. Up to 40 LEDs.





#### **DIAGRAM 02**

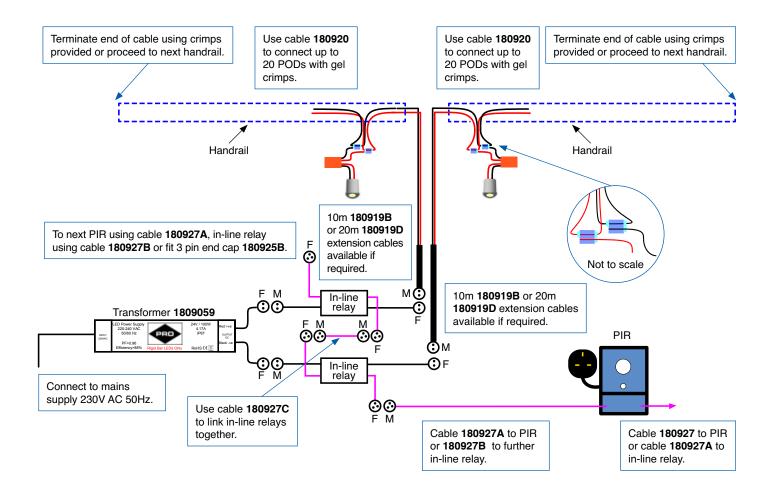
Single Lens System. On / Off operation. Over 40 LEDs.





**DIAGRAM 05** 

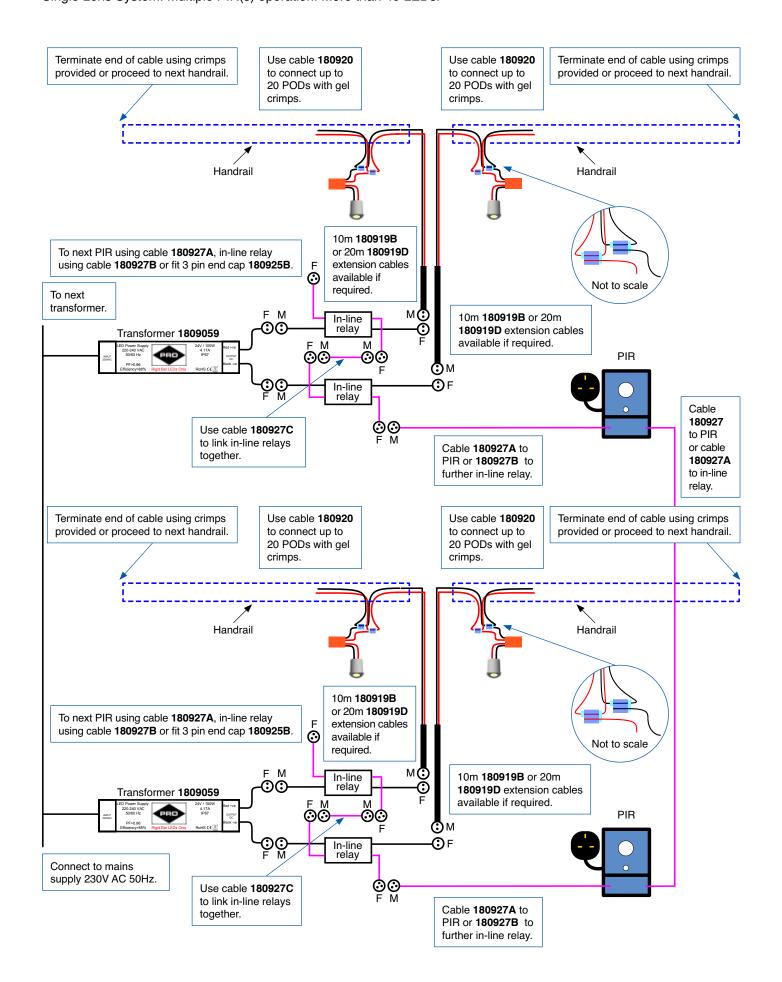
Single Lens System. PIR(s) operation. Up to 40 LEDs.





#### **DIAGRAM 06**

Single Lens System. Multiple PIR(s) operation. More than 40 LEDs.





#### **WALL MOUNTING FITTINGS**

#### **HOLLOW TUBE**

#### **WALL BRACKET**





| Finish | Ø mm | Length mm | Wall Thickness mm | Code     |
|--------|------|-----------|-------------------|----------|
| 316    | 42.4 | 3000      | 2.0               | 1806704C |
| 316    | 42.4 | 6000      | 2.0               | 1806700C |

**Finish**  $\emptyset$  mm Code 316 1809305FC 42.4

With cable hole

#### **SMOOTH ADJUSTABLE ELBOW**

#### **IN-LINE CONNECTOR**





| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806227C |

| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806206C |

#### 90° ELBOW RADIUSED CORNER

**FLAT TOP END CAP** 





| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806200C |

| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806214C |

#### OTHER ELBOW & END CAP OPTIONS AVAILABLE, SEE PRO-RAILING CATALOGUE.

**EXTERNAL ROUND** 

**TUBE FLANGE** 



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806209C |

**TUBE SECTION** 



| Finish | Ø mm | Length mm | Code    |
|--------|------|-----------|---------|
| 316    | 42.4 | 55        | 1809508 |

**SCROLL END** 



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806221C |

**HANDY TIP** 

For ease of application use pre-assembled

posts, just replace the saddle for one with a cable hole.

#### **POST MOUNTING FITTINGS**

#### **HOLLOW TUBE**



| Finish | Ø mm | Length mm | Wall Thickness mm | Code     |
|--------|------|-----------|-------------------|----------|
| 316    | 42.4 | 3000      | 2.0               | 1806704C |
| 316    | 42.4 | 6000      | 2.0               | 1806700C |

#### **HANDRAIL SADDLE**



| Finish | Ø mm | Code      |
|--------|------|-----------|
| 316    | 42.4 | 1809310CC |

**HANDRAIL SADDLE ADJUSTABLE SPIGOT** 



| Finish | Ø mm | Code      |
|--------|------|-----------|
| 316    | 42.4 | 1809312CC |

With cable hole. With cable hole To be used with double clip

**OTHER ELBOW & END CAP OPTIONS AVAILABLE, SEE** PRO-RAILING CATALOGUE.

#### **TUBE CONNECTOR**



| Finish | Ø mm | Code      |
|--------|------|-----------|
| 316    | 42.4 | 1809313CC |

With cable hole. Use instead of saddles

#### 90° ELBOW **RADIUSED CORNER**



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806200C |

#### **ADJUSTABLE ELBOW**



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806203C |

**WALL CONNECTOR** 

Ø mm

42.4

SMOOTH



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806227C |

## **ADJUSTABLE ELBOW**



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806227C |

#### **SCROLL END**



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806221C |

#### **IN-LINE CONNECTOR**



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806206C |

**FLAT TOP END CAP** 



| Finish | Ø mm | Code     |
|--------|------|----------|
| 316    | 42.4 | 1806214C |

With cable hole

Finish

Code

1809209C



WHITE LEDS

#### **LED PODS**



#### **SPECIFICATIONS:**

- CREE LED
- Spring assembly
- Includes driver
- Required DC supply
- Ø 24mm holes required in tube to fit POD lights
- Single lens POD, supplied with 2 gel crimps

| Finish | Colour               | To Suit Wall Thickness mm | Code    |  |
|--------|----------------------|---------------------------|---------|--|
| 316    | White (2700 - 3000K) | 2.0 - 3.2                 | 1809550 |  |

#### **TRANSFORMER**



#### **SPECIFICATIONS:**

- 70W
- 230V AC to 12V DC
- CE approved
- IP67, supplied with waterproof connector on the DC output
- PFC 98%
- Efficiency >88%
- Supplied with one end cap

| Description                           |         |  |
|---------------------------------------|---------|--|
| LED Driver - 12V DC/100W - IP67 Rated | 1809509 |  |

#### **CABLES**

| Description   | Length m  | Code    |
|---|-----------|---------|
| 2 pin M-F, over-moulded IP67 cable. 5 amp max. DC extension cable                                   | 10m       | 180919B |
| 2 pin M-F, over-moulded IP67 cable. 5 amp max. DC extension cable                                   | 20m       | 180919D |
| 2 pin M, over-moulded IP67 cable. 5 amp max. DC to PODs, no outer sheath                            | 10m       | 180920  |
| 3 pin sealing cap M. Makes end of run of cables watertight. For signal cables                       |           | 180925B |
| STP signal cable, bare ends. Connects between PIR enclosures and ColourTouch controller             | Per metre | 180927  |
| STP signal cable, bare ends to M. Connects in-line relays and PWM's to PIR or ColourTouch enclosure | 10m       | 180927A |
| STP signal connection cable M to M. Connects between PWMs and in-line relays                        | 10m       | 180927B |
| STP signal connection patch cable M to M. Connects between PWMs and in-line relays                  | 300mm     | 180927C |
| STP signal extension cable M to F. Extends cables   | 10m       | 180927D |

#### **CONTROLS**

| Description  | Code    |
|--|---------|
| PIR with enclosure, one or many per installation, wired to work directly from 230V AC supply | 1809PIR |
| In-line relay module, one per transformer  | 1809IR  |

#### **TOOLS**

**CRIMPING PLIERS** For gel crimps

STEP DRILL

**HIGH STRENGTH RETAINER** 

For use with tube fittings

**HIGH STRENGTH RETAINER** 

For use on assembled posts



Code 180959902





| ml | Code       |  |  |  |  |
|----|------------|--|--|--|--|
| 50 | 1899007638 |  |  |  |  |



|  | Drill Size Ø mm | Code      | ml | Code       | ml | Code         |  |
|--|-----------------|-----------|----|------------|----|--------------|--|
|  | 16 - 30         | 180959901 | 50 | 1899007638 | 10 | 189900763810 |  |

# **ILLUMIRAIL®**



#### **PIR ENCLOSURE**

The PIR assembly also includes the daylight sensor on the front face of an IP67 ABS enclosure. In the enclosure is an engineer adjustment trim pot, which will be factory set and should not require on site alteration except in areas which are particularly shaded or bright.

A stainless steel enclosure is available. Please enquire.

The motion detection function can be provided by one, or many, PIRs. Requires 12V DC, plug top adaptor provided. Any PIR, once activated, will activate all LEDs and PODs in a system. The switching function is not performed within the PIR enclosure, but by an in-line relay at the transformer location.

A bus connection is made between all PIR enclosures and in-line relays. The bus uses three pin waterproof connectors and the bus cable is shielded as a twisted pair.

# ALL PIRS USE 12V DC AND THIS CAN BE SUPPLIED IN TWO WAYS DEPENDING ON THE INSTALLATION:

- The PIR can have a waterproof power supply for connection to the mains within an enclosure. This requires a mains connection outside
- A plug in power supply is supplied as standard, which can be used in an indoor/waterproof location. This can be connected via twin 0.75mm cable to the PIR via a gland entry to the enclosure



PIRs can be added to the ColourTouch controller, to act as subordinate activators.

#### **RGB - COLOURTOUCH INSTALLATIONS**

The ColourTouch 4.3" controller allows for the selection of discrete colours or produces patterns of colour changing effects at various user defined rates.

A local DC power supply is required and is supplied to suit a standard UK electrical double back box.

The ColourTouch controller can be sited in any location up to 50m from the installation and requires a 24V DC supply. When sited outdoors, the unit must be contained within a waterproof enclosure.

PIRs can be added to the system in a bus configuration. The PIR provides an on/off and daylight sensor function.

Colour changing is achieved using in-line PWM (Pulse Width Modulation) devices at the transformer location, connected to a bus using the same cable and connectors as the PIR bus.









# **GLASS CLAMP FAMILY**



# OTHER PRODUCT RANGES



#### TILT-LOC™



Spigots have been developed with our revolutionary tilt-lock adjustment technology to cover all loading requirements and glass thicknesses. Made from ultra-marine stainless Duplex 2205, these spigots are stronger and require less cleaning than Type 316.

#### JULIETTE BALCONY



Glass balconies are sought after architectural features in today's homes, our single and double Juliette glass balcony kits are fabricated from Ø 48.3mm Type 316 stainless steel and come complete with rails, brackets & pre-assembled posts with glass clamps.

#### **PANELGRIP®**



The PanelGrip® System utilises a unique locking mechanism of high-strength aluminium and PVC isolators combined with a specially designed aluminium Shoe Moulding.

#### **WIRE ROPE**



A stainless steel 3mm strand wire rope system is simple and cost effective. It can be fixed to most surfaces including wood, metal and brick and is ideal for external applications in residential and commercial environments.

#### **FLEXIRAIL®**



The most flexible handrailing solution for stairs, gradients and around corners. Made with  $\emptyset$  48.3 x 3.2mm galvanised tube.

#### **MEZZIRAIL®**



The system is supplied with BZP square RHS posts, tube and galvanised flat bar kick plate to conform to BS 4592-0:2006+A1:2012 requirements.



# OTHER PRODUCT RANGES

#### **PRE-ASSEMBLED POSTS**



Satin polish pre-assembled glass clamp posts come in both  $\emptyset$  42.4 and 48.3mm, Type 304 and 316 stainless steel. End, corner and mid posts cut installation time dramatically to create a stylish glass handrail, made for 10mm glass, other size rubbers available.

#### **BAR SYSTEM**



Our crossbar system can provide a modern handrail and balustrade for many applications. Providing another practical alternative to a glazed balustrade. Flexible components allow for 7 rails to be fitted as standard.

#### **GLASS STAND-OFF ADAPTORS**



Adjustable glass stand-off adaptors suit glass up to 25.52mm. Available in stainless steel Type 316 these adaptors are a great solution for a stylish look and feel.

#### MINITOP RAIL



This system has been designed to reduce visual impact on top rail. Available in either round or square, stainless steel Type 316, all products are satin finish. Mini top rail is designed to suit 10 - 12mm glass and requires no welding.

#### WEDGE-LOC™- 3KN



A flexible system allowing installation of glass panels from 15 - 25mm thick to achieve up to 3kN/m loadings. Various fixing options result in a system suitable for almost every application you will come across.





WROUGHT IRON COMPONENTS



**PRO-RAILING** 



**TUBE CLAMPS** 



**GATE AUTOMATION** 



**STEEL** 



**MESH** 

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