

PRODUCT USER GUIDE

Attracta Magnetic Lighting



Rev: C1



PLEASE READ THIS USER GUIDE BEFORE INSTALLING, OPERATING
OR PERFORMING MAINTENANCE ON THE ATTRACTA SYSTEM



INTRODUCTION

Thank you for purchasing this UFO Attracta lighting system.

Please read these instructions fully before performing any installation, operation or maintenance on the system and before connecting your Attracta lighting system to the electrical mains. Please keep this manual for future reference.

The UFO Attracta is a fully configurable magnetic track lighting system which has been specifically designed for ease-of-use and many installation environments.

Models and accessories covered by this manual:

UFO ATR-CM – Corner Mount Extrusion

UFO ATR-SM – Surface Mount Extrusion

UFO ATR-LG – L Shaped Gantry

UFO ATR-UG – U Shaped Gantry

UFO ATR-FS – Free Standing Extrusion

UFO ATR-SP – Special Extrusion

IMPORTANT - The UFO Attracta extrusions and tracks are ordered cut to length from UFO and cannot be cut or modified on site. Any attempt to cut or modify the extrusions and tracks will invalidate warranty for the complete UFO Attracta installation.

These LED fittings are only mains dimmable with an appropriate mains dimmable constant voltage driver.

Available in multiple configurations with LED spot lights and LED linear light fittings available in a choice of 2700k, 3000K, 4000K, 5000K and 6500K colour temperatures.

These LED fittings operate on a constant voltage low voltage supply. Constant current and constant voltage LEDs cannot be intermixed on the same driver. Please refer to the specific section within this manual for wiring/connection guidance.

WARNING – These constant voltage LED fittings operate on a 5v DC output only. Connecting these fittings to a driver with excessive voltage output will result in catastrophic damage to the LED devices within these fittings. Always check the output voltage of the driver to ensure correct output voltage prior to powering up the system.

These LED fittings are suitable for indoor/dry areas and must not be installed in damp or wet conditions.

IMPORTANT

THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT, ITS COMPONENT PARTS AND THE HAZARDS INVOLVED.

Before assembly, unpack the shipment and check that all component parts against your order before commencing your build (see Component Parts Section below)

COMPONENT PARTS

ATRF1



ATRF2



ATTRACTA FITTINGS

ATRF1 - small magnetic spotlight

ATRF2 - large magnetic spotlight

EXTRUSIONS & FITTINGS

A - corner mount power in

B - corner mount extrusion

C - rectangular power in

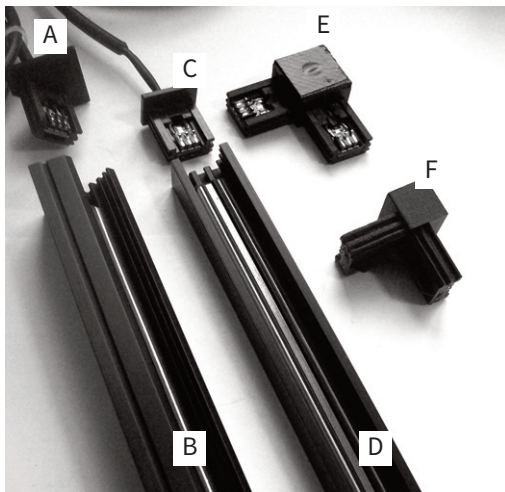
D - rectangular extrusion

E - horizontal corner mount

F - vertical corner mount

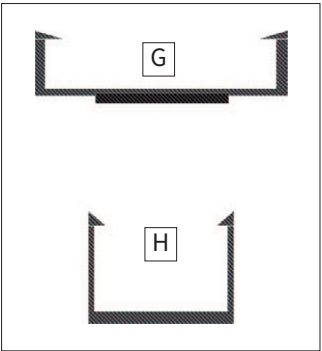
G - corner mount surface fixing

H - surface mount surface fixing



Note:

For power supplies and/or driver components see later in this manual



CONNECTION

Check which Track Power option is supplied and in particular check the PSU for the correct output voltage. Follow the instructions below.

TRACK POWER

There are two power options for the Attracta magnetic track system;

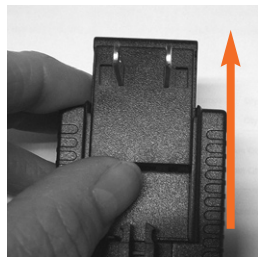
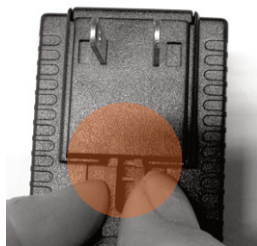
- a) Direct connection to a 5V DC power supply (two versions – 4 Amp or 6 Amp) this option has no dimming or control functionality. This option is powered directly from EITHER a 5V DC multifunction, 4 Amp plug top Power Supply Unit, OR 5V DC 6 Amp Desk Top PSU with an IEC input.
- b) Functional connection driven by the UFO CV2 Constant Voltage driver which in turn is connected to a 12V DC power supply.

DIRECT CONNECTION 5V DC 4A PLUG TOP PSU

Remove the 5V Plug Top PSU from its box. This PSU is a multi-plug device catering for UK, European and USA plugs. Images below show a USA plug type. UK and European plugs are assembled in identical fashion.



Select the correct plug and push it into the receptacle and press down until it clicks securely into place as shown above. The plug can be removed by squeezing together the locking pins and sliding the plug back out as shown below.



The PSU is now ready for power. **DO NOT CONNECT POWER TO YOUR ATTRACTA SYSTEM UNTIL ALL PARTS ARE FULLY CONNECTED.**

DIRECT CONNECTION 5V DC 6A IEC BOXED PSU

Remove the 5V desk top PSU from its packing. This PSU is an IEC mains lead device catering for UK, European and USA plugs. Plug the mains lead into the IEC socket on the PSU – see below. The PSU is now ready for power. **DO NOT CONNECT POWER TO YOUR ATTRACTA SYSTEM UNTIL ALL PARTS ARE FULLY CONNECTED.**



FUNCTIONAL CONNECTION 12V DC 7A IEC BOXED PSU AND CV2 DRIVER

There are two parts as detailed below:



FUNCTIONAL PART 1 - 12V DC 7A IEC BOXED PSU

Remove the 12V desk top PSU from its packing. This PSU is an IEC mains lead device catering for UK, European and USA plugs. Plug the mains lead into the IEC socket on the PSU. The PSU is now ready for power.

DO NOT CONNECT POWER TO YOUR ATTRACTA SYSTEM UNTIL ALL PARTS ARE FULLY CONNECTED.

FUNCTIONAL PART 2 - CV2 DRIVER

Remove the driver from its packing. The driver is powered by the 12V desk top PSU.

DO NOT CONNECT POWER TO YOUR ATTRACTA SYSTEM UNTIL ALL PARTS ARE FULLY CONNECTED.

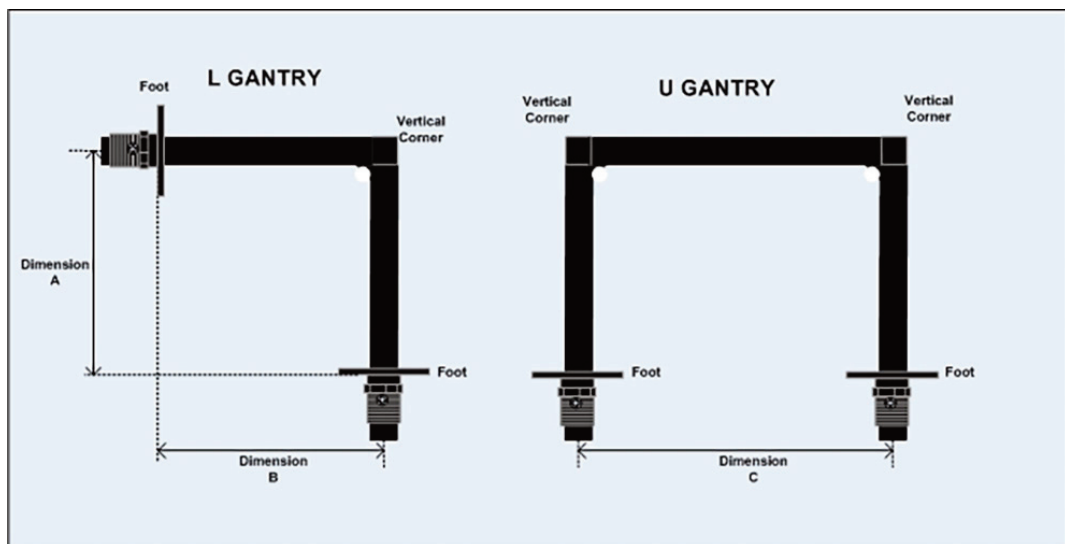
Refer to the CV2 driver user guide for detailed connections and configuration.

Prior to assembly lay out all the extrusion sections and fittings on protective material (to avoid marking or scratching) on a flat surface. All plastic Attracta components fit into the matching keyed sections of the metal extrusions.

GANTRY MOUNTING

To mount an L shaped or U shaped Attracta gantry to a solid surface, proceed as follows:

- Check sufficient space is available below the mounting surface to accommodate the mounting foot, extrusion, power in connector and cables.
- Assemble the gantry completely (without any LED fittings) as in Figure 1 and Figure 2 below and lay on a flat surface
- Measure the distance between the centres of each extrusion section.

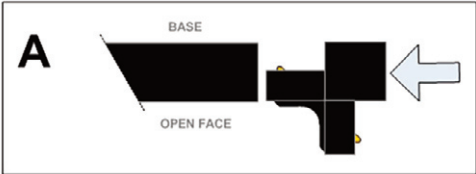


For an L Gantry as shown above it is essential that each foot is fitted and locked into place by the grub screw before any measurements are taken, as this will affect the final dimensions A & B. Once the holes are cut in the mounting surface, the L gantry must be disassembled and mounted one section at a time without locking the feet until the both extrusion sections are pushed fully into the vertical corner.

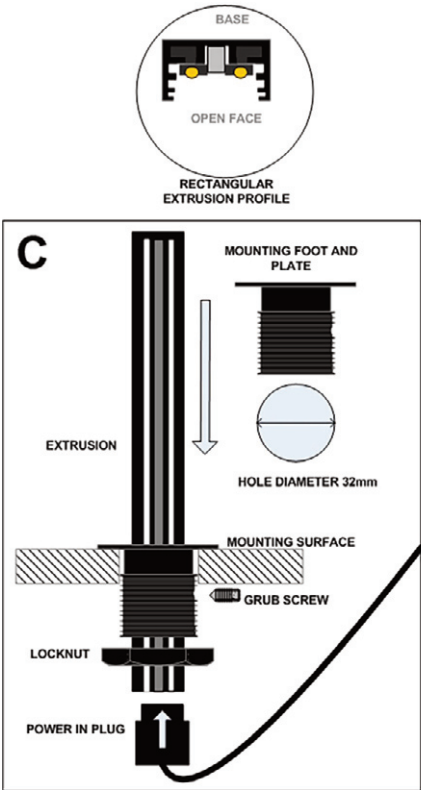
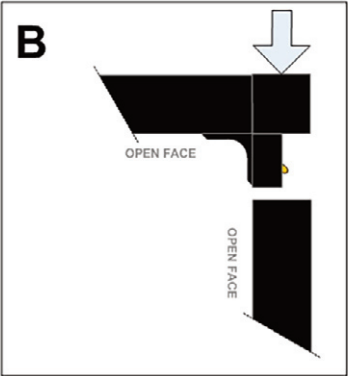
For a U Gantry as shown above, once dimension C is measured and the hole cut to the centre spacing the foot can be mounted and the gantry dropped into place and locked as shown in Figure 2 opposite.

FREE STANDING

A
TAKE THE VERTICAL CORNER FITTING IN ONE HAND AND THE RECTANGULAR EXTRUSION IN THE OTHER AND CHECK THEY ARE CORRECTLY ORIENTATED AS SHOWN. ALIGN THE FITTING WITH THE CORRESPONDING INDENTS ON THE EXTRUSION PROFILE AND PUSH THE FITTING CAREFULLY BUT FIRMLY INTO THE EXTRUSION. MAKE SURE THE VERTICAL CORNER IS PUSHED FULLY HOME



B
REPEAT THE PROCESS WITH A SECOND RECTANGULAR EXTRUSION SO THAT A 90° CORNER IS FORMED. AGAIN ENSURE THE VERTICAL CORNER IS PUSHED FULLY HOME INTO THE EXTRUSION



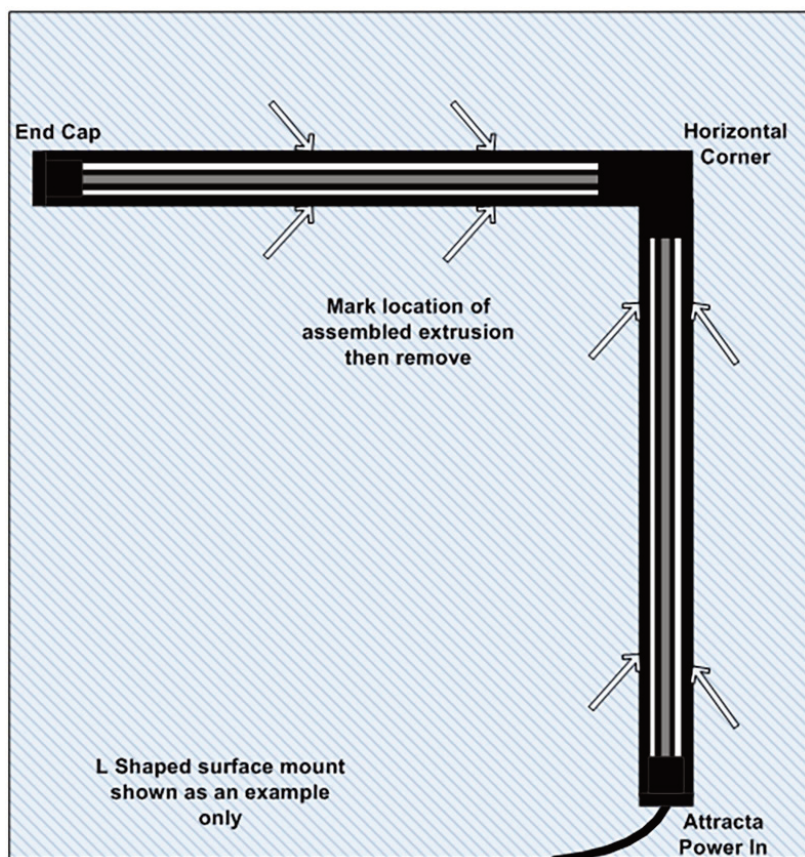
C
DROP THE MOUNTING FOOT AND PLATE INTO THE 32mm HOLE AND SECURE IN PLACE USING THE LOCKNUT. FEED SUFFICIENT EXTRUSION THROUGH THE HOLE UNTIL THE DESIRED HEIGHT ABOVE THE SURFACE IS ACHIEVED. LOCK THE EXTRUSION INTO THE MOUNTING FOOT USING THE GRUB SCREW. ALIGN THE POWER IN PLUG WITH THE CORRESPONDING INDENTS ON THE EXTRUSION PROFILE AND PUSH THE PLUG CAREFULLY BUT FIRMLY INTO THE EXTRUSION. MAKE SURE THE POWER IN PLUG IS PUSHED FULLY HOME.

To mount a free standing extrusion mark and cut the hole in the mounting surface in the required position and fit the extrusion as detailed in Figure 2. Once the gantry or free standing extrusion is locked in position, fit the power in connector as detailed in Figure 2 detail C

RECTANGULAR SURFACE MOUNTING

To mount a surface Attracta extrusion to a solid surface, proceed as follows:

- Check sufficient space is available on the mounting surface to accommodate the extrusion, power in connector and cables.
- Assemble the extrusion section or sections completely including power in (without any LED fittings) as in Figure 3 and Figure 4 below and lay on the mounting surface in the correct position
- Mark the location of the extrusion, remove and set aside.
- Place the rectangular clip mounts in position and fix with a counter sunk screw, so that their fixing holes align with the centre of the extrusion.
- Push fit the extrusion into the clip mounts until held securely in place by the retaining clip



NOTE

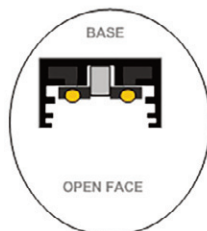
IF A HORIZONTAL CORNER IS TO BE USED START AT STEP A. IF A SINGLE EXTRUSION IS TO BE FITTED (NO HORIZONTAL CORNER) PROCEED TO STEP C

A



A

TAKE THE HORIZONTAL CORNER FITTING IN ONE HAND AND THE RECTANGULAR EXTRUSION IN THE OTHER AND CHECK THEY ARE CORRECTLY ORIENTATED AS SHOWN. ALIGN THE FITTING WITH THE CORRESPONDING INDENTS ON THE EXTRUSION PROFILE AND PUSH THE FITTING CAREFULLY BUT FIRMLY INTO THE EXTRUSION. MAKE SURE THE VERTICAL CORNER IS PUSHED FULLY HOME

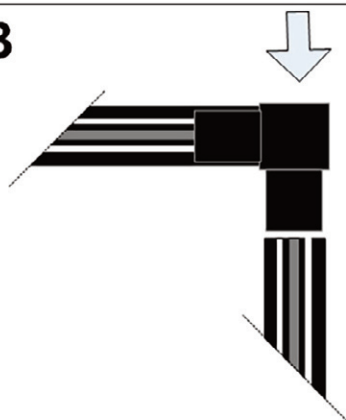


RECTANGULAR
EXTRUSION PROFILE

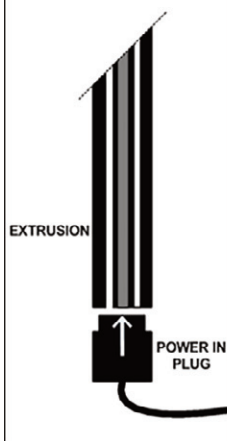
B

REPEAT THE PROCESS WITH A SECOND RECTANGULAR EXTRUSION SO THAT A 90° CORNER IS FORMED. AGAIN ENSURE THE HORIZONTAL CORNER IS PUSHED FULLY HOME INTO THE EXTRUSION

B



C



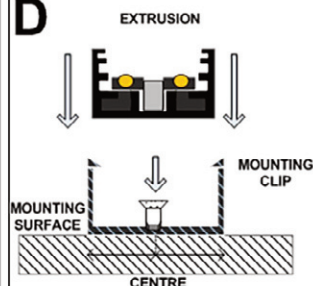
C

ALIGN THE POWER IN PLUG WITH THE CORRESPONDING INDENTS ON THE EXTRUSION PROFILE AND PUSH THE PLUG CAREFULLY BUT FIRMLY INTO THE EXTRUSION. MAKE SURE THE POWER IN PLUG IS PUSHED FULLY HOME.

D

MARK THE EXTRUSION LOCATION ON THE MOUNTING SURFACE. LOCATE THE CLIPS IN POSITION WITH SCREW HOLES AT EXTRUSION CENTRE. FIX CLIPS TO MOUNTING SURFACE USING COUNTERSUNK SCREWS. PUSH FIT EXTRUSION INTO CLIPS UNTIL THEY LOCK.

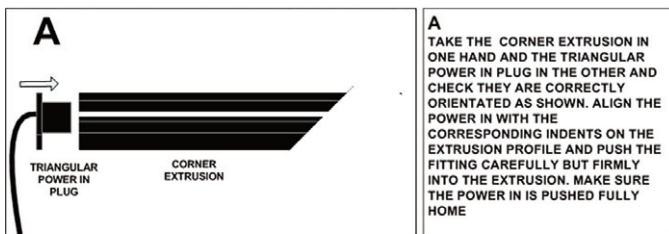
D



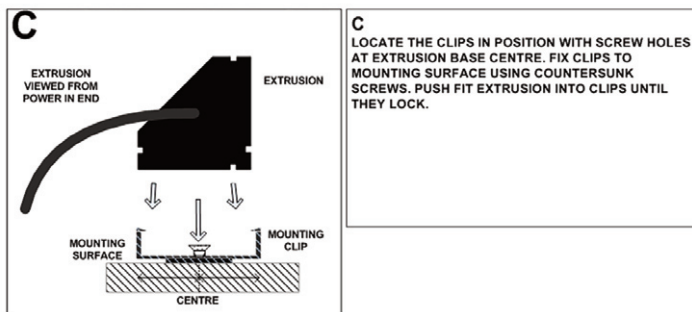
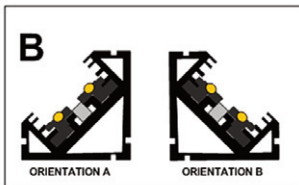
CORNER MOUNT SURFACE MOUNTING

To mount a surface Attracta extrusion to a solid surface, proceed as follows:

- Check sufficient space is available on the mounting surface to accommodate the extrusion, power in connector and cables.
- Assemble the extrusion section or sections completely including power in (without any LED fittings) as in Figure 5 below and Figure 3 on page 8 and lay on the mounting surface in the correct position
- Mark the location of the extrusion (see Figure 3 on page 8), remove and set aside.
- Place the rectangular clip mounts in position and fix with a counter sunk screw, so that their fixing holes align with the centre of the extrusion.
- Push fit the extrusion into the clip mounts until held securely in place by the retaining clip



B
PLACE THE EXTRUSION ON THE MOUNTING SURFACE ENSURING CORRECT ORIENTATION (SEE BELOW). EXTRUSION SHOWN WITHOUT END CAP OR POWER IN



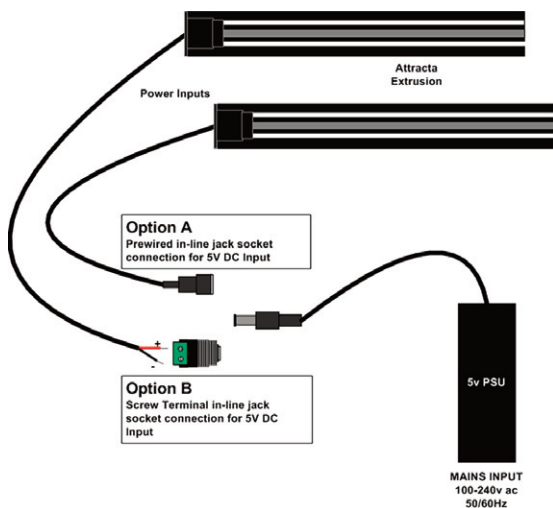
MANUAL OPERATION

Once assembly is complete the final power connections can be made. As previous stated there are two power options for the Attracta magnetic track system;

- a) Direct connection to a 5V DC power supply (two versions – 4 Amp or 6 Amp) this option has no dimming or control functionality. This option is powered directly from EITHER a 5V DC multifunction, 4 Amp plug top Power Supply Unit, OR 5V DC 6 Amp Desk Top PSU with an IEC input.
- b) Functional connection driven by the UFO CV2 Constant Voltage driver which in turn is connected to a 12V DC power supply.

DIRECT CONNECTION

If ordered correctly, a direct connection system will have an in-line jack socket connected to the power in cable as detailed below.

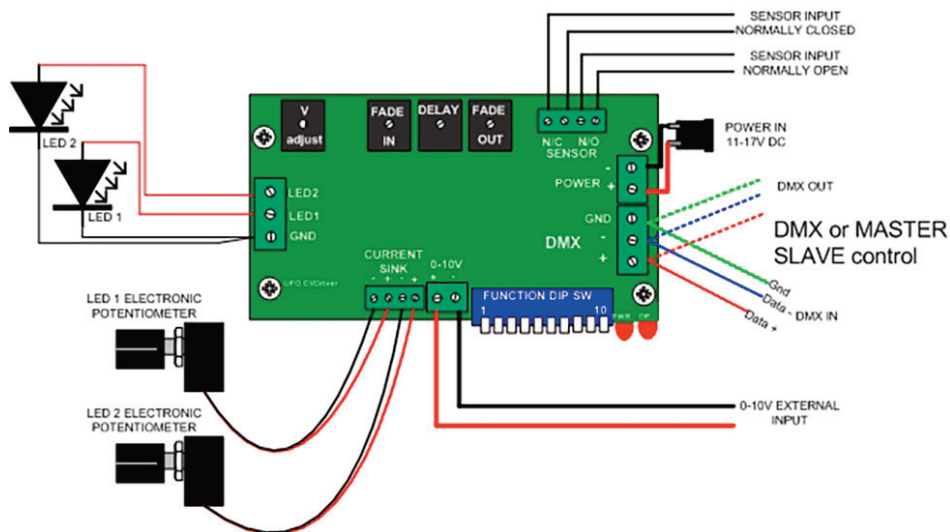


Option a) If the Attracta system has been supplied with pre-wired connectors as in A above, connect the DC jack plug from the 5V PSU directly into the in-line jack socket and connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings.

Option b) If the Attracta system has been supplied with screw terminal connectors connect the extrusion input wires to the screw terminals as shown in B above. Observe correct polarity making sure that all screw terminals are screwed tight down on the copper conductor. Note: the wires must be connected so that the screw terminal connector is centre positive. Once connected, plug the DC jack plug from the 5V PSU directly into the screw terminal jack socket and connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings.

FUNCTIONAL CONNECTION

If ordered correctly this Attracta system should be supplied with a Unidrive CV2 LED Driver and a 12V PSU. There are several wiring configurations possible for an Attracta functional system as detailed in Figure 7 below and the following text. For full function settings of the Unidrive CV2 LED Driver, consult the UFO Unidrive CV2 LED Driver User Guide. Before making any connections to the CV2 driver read the CV2 BASIC GUIDE below.



CV2 LED DRIVER BASIC GUIDE (REFER TO THIS BASIC GUIDE DURING ALL FUNCTIONAL CONNECTIONS)

- To access the PCB screw terminals, remove the black countersunk screws in the flange base and lift off the lid and set aside taking care not to damage the existing internal cabling.
- To prepare the fitted grommets for use, cut the rubber carefully with a sharp knife, to allow cable access. An X cut in the grommet is recommended.
- Push the cables through the grommet and strip approximately 200mm outer sheathing from the cable to expose the inner cores – taking care not to damage the inner insulation, strip sufficient insulation from the end of the inner cores to expose the copper wire. Make sure that all screw terminals are screwed tight down on the copper conductor and not on the outer insulation.
- When wiring is completed, push the cable ties provided through the cable tie base and around the cable and tighten to provide strain relief.
- On completion of all wiring and switch setting, carefully replace the lid and secure to the flange base using the black countersunk screws ensuring no internal wiring is trapped.
- Finally secure the Unidrive CV2 LED Driver to the mounting surface with a suitable fixing, using the fixing holes and slots provided.

FUNCTIONAL CONNECTION - 0-10V DIMMING FUNCTIONALITY

For this option there are four electrical connections and/or stages required before connecting the system to the mains.

1. Ensuring correct polarity, connect the Attracta Power In cable(s) to the output screw terminals marked:

- GND - Common
- LED 1 – LED positive output 1
- LED 2 – LED positive output 2

The two LED terminals are provided to allow more than one Attracta extrusion to be connected and controlled separately. For this option it does not matter which output is chosen.

2. Switch Function DIP Switches 1-9 OFF and Switch 10 ON and check there are no wire links across CURRENT SINK terminals + and -. Replace CV2 enclosure lid, and plug the DC jack plug from the 12V PSU directly into the jack socket on the enclosure. Connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings.

FUNCTIONAL CONNECTION - LOCAL MANUAL DIMMING FUNCTIONALITY

For this option where one or two dimming potentiometers are already mounted on the dimmer enclosure (Local) there are three electrical connections and/or stages required before connecting the system to the mains.

1. Ensuring correct polarity, connect the Attracta Power In cable(s) to the output screw terminals marked:

- GND - Common
- LED 1 – LED positive output 1
- LED 2 – LED positive output 2

The two LED terminals are provided to allow more than one Attracta extrusion to be connected and controlled separately, see Figure 7 above to establish which potentiometer controls which LED output.

2. Check potentiometer or potentiometers are correctly connected to CURRENT SINK terminals + and – observing correct polarity. NOTE: if only one potentiometer is used ensure the LED output positive wire is connected to the correct track for the potentiometer and also ensure that there is no wire link on the unused CURRENT SINK terminals.

3. Switch Function DIP Switches 1-9 OFF and Switch 10 ON. Replace CV2 enclosure lid, and plug the DC jack plug from the 12V PSU directly into the jack socket on the enclosure. Connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings.

FUNCTIONAL CONNECTION - REMOTE MANUAL DIMMING FUNCTIONALITY

For this option where one or two dimming potentiometers are remotely mounted away from the dimmer enclosure there are three electrical connections and/or stages required before connecting the system to the mains.

1. Ensuring correct polarity, connect the Attracta Power In cable(s) to the output screw terminals marked:

- GND - Common
- LED 1 – LED positive output 1
- LED 2 – LED positive output 2

The two LED terminals are provided to allow more than one Attracta extrusion to be connected and controlled separately, see Figure 7 above to establish which potentiometer controls which LED output.

2. Once the CVD3 (remote single dimming potentiometer) or CVD4 (remote double dimming potentiometer) with a suitable link cable are installed (See separate CVD3/CVD4 instruction sheet), connection to the CURRENT SINK terminals + and – can be completed, observing correct polarity.

NOTE: if only one remote potentiometer (CVD3) is used ensure the LED output positive wire is connected to the correct track for the potentiometer and also ensure that there is no wire link on the unused CURRENT SINK terminals.**3.** Switch Function DIP Switches 1-9 OFF and Switch 10 ON. Replace CV2 enclosure lid, and plug the DC jack plug from the 12V PSU directly into the jack socket on the enclosure. Connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings.

3. Switch Function DIP Switches 1-9 OFF and Switch 10 ON. Replace CV2 enclosure lid, and plug the DC jack plug from the 12V PSU directly into the jack socket on the enclosure. Connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings.

FUNCTIONAL CONNECTION - 0-10V DIMMING FUNCTIONALITY

For this option there are four electrical connections and/or stages required before connecting the system to the mains.

1. Ensuring correct polarity, connect the Attracta Power In cable(s) to the output screw terminals marked:

- GND - Common
- LED 1 – LED positive output 1
- LED 2 – LED positive output 2

The two LED terminals are provided to allow more than one Attracta extrusion to be connected and controlled separately.

2. Connect the link cable from the 0-10V (Current Source) controller to the 0-10V + and – terminals observing correct polarity. NOTE: This is a current source dimming input which relies on an external control system providing a 10V varying input to the CV2 driver. The CV2 in response to a varying voltage input will dim both outputs (LED1 and LED2) simultaneously. See Unidrive CV2 LED Driver User Guide for 0-10V value table.

3. Check that there are wire links (linking + and -) correctly connected to CURRENT SINK terminals.

4. Switch Function DIP Switches 1-9 OFF and Switch 10 ON. Replace CV2 enclosure lid, and plug the DC jack plug from the 12V PSU directly into the jack socket on the enclosure. Connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings.

FUNCTIONAL CONNECTION - DMX DIMMING AND CONTROL FUNCTIONALITY

For this option there are four electrical connections and/or stages required before connecting the system to the mains.

1. Ensuring correct polarity, connect the Attracta Power In cable(s) to the output screw terminals marked:

- GND - Common
- LED 1 – LED positive output 1
- LED 2 – LED positive output 2

The two LED terminals are provided to allow more than one Attracta extrusion to be connected and controlled separately.

2. Connect the DMX input and output cables to the DMX data +, data - and GND terminals observing correct polarity. NOTE: In full DMX mode separate dimming and also ON/OFF control of outputs (LED1 and LED2) is available. See Unidrive CV2 LED Driver User Guide for DMX Channel table.

3. Check that there are wire links (linking + and -) correctly connected to CURRENT SINK terminals.

4. Switch Function DIP Switches 1-9 to the required DMX address and Switch 10 OFF. Replace CV2 enclosure lid, and plug the DC jack plug from the 12V PSU directly into the jack socket on the enclosure. Connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings.

FUNCTIONAL CONNECTION - SENSOR INPUT CONTROL FUNCTIONALITY

For this option which uses the output from a remote switch or sensor to trigger the LEDs, there are five electrical connections and/or stages required before connecting the system to the mains.

1. Ensuring correct polarity, connect the Attracta Power In cable(s) to the output screw terminals marked

- GND - Common
- LED 1 – LED positive output 1
- LED 2 – LED positive output 2

The two LED terminals are provided to allow more than one Attracta extrusion to be connected and controlled separately.

2. Connect the sensor cable to either the Normally Open (NO) input screw terminals or the Normally Closed (NC) input screw terminals. NOTE: A volt free switched input is required to trigger this function. For Normally Open use the input must go from closed to open circuit to trigger. For Normally Closed use the input must go from open to closed circuit to trigger. See Unidrive CV2 LED Driver User Guide for more information on triggers, controls and settings.

3. Check that there are no wire links (linking + and -) connected to CURRENT SINK terminals.

4. For Normally Open operation, Switch Function DIP Switches 2-9 OFF and Switch 1 and 10 ON. Set the FADE IN, DELAY and FADE OUT timers to the required settings. See Unidrive CV2 LED Driver User Guide for More information on fade and delay settings. Replace CV2 enclosure lid, and plug the DC jack plug from the 12V PSU directly into the jack socket on the enclosure. Connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings.

5. For Normally Closed operation, Switch Function DIP Switches 1 and 3-9 OFF and Switch 2 and 10 ON. Set the FADE IN, DELAY and FADE OUT timers to the required settings. See Unidrive CV2 LED Driver User Guide for More information on fade and delay settings. Replace CV2 enclosure lid, and plug the DC jack plug from the 12V PSU directly into the jack socket on the enclosure. Connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings

FUNCTIONAL CONNECTION - MASTER/SLAVE DIMMING AND CONTROL FUNCTIONALITY

For this option which enables a Master Slave control link between connected Unidrive CV2 LED Drivers there are seven electrical connections and/or stages required before connecting the system to the mains.

1. Ensuring correct polarity, connect the Attracta Power In cable(s) to the output screw terminals marked

- GND - Common
- LED 1 – LED positive output 1
- LED 2 – LED positive output 2

The two LED terminals are provided to allow more than one Attracta extrusion to be connected and controlled separately.

2. On the CV2 driver designated as Master connect the DMX output cable to the DMX data +, data - and GND terminals, observing correct polarity. NOTE: Once connected and correctly configured all Slave units will mirror what the Master CV2 driver is doing – i.e. if LED output 1 is being manually dimmed on The Master, it will be manually dimmed identically and so on.

3. On the CV2 driver designated as Master check that the driver is correctly wired for the desired functionality, Local dimming, Remote dimming, 0-10V dimming or Sensor Input Control Functionality as described in the preceding sections.

4. On the CV2 driver designated as Master switch Function DIP Switch 1-9 OFF (except for Sensor Input Control Functionality) and switch 10 OFF. Replace CV2 enclosure lid, and plug the DC jack plug from the 12V PSU directly into the jack socket on the enclosure. Connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings.

5. On the CV2 driver designated as Slave, connect the DMX input cable to the DMX data +, data - and GND terminals, observing correct polarity. NOTE: Any number of Slaves can be “daisy chain” connected to the Master CV2 driver.

6. On the CV2 driver designated as Slave, check that there are wire links (linking + and -) correctly connected to CURRENT SINK terminals.

7. On the CV2 driver designated as Slave, switch Function DIP Switch 1 ON and switches 2-10 OFF. Replace CV2 enclosure lid, and plug the DC jack plug from the 12V PSU directly into the jack socket on the enclosure. Connect mains power to the PSU. The Attracta extrusion is now live and ready for the Attracta magnetic fittings.

TROUBLESHOOTING - GENERAL

Problem	Possible cause	Possible Solution
System is dead. Power LED (D) not lit & no light output from LED1 and LED 2	Mains supply off.	Check supply and reinstate
	Loose connector(s) or faulty connection/cable	Check all cables/connections. Check plugs and sockets are fully mated.
	Loose DC output wire or connection	Check all connections
	PSU failed - check output with DVM	Get replacement from UFO
	Driver PCB failure	Get replacement from UFO
One output channel (either LED 1 or LED 2) is dead. Power LED (D) lit	Loose output wire to dead channel or faulty/poorly fitting power in on extrusion check output with DVM	Check all connections
	Driver PCB failure	Get replacement from UFO
LED1 and LED2 go out and Power LED (D) flashes rapidly	Short circuit between LED1 output and/or LED 2 output and GND	Check for short circuit on output cables using a DVM. Repair or replace faulty cable or devices
Heavily loaded system- LED1 and LED2 go out momentarily and Power LED (D) flashes rapidly	System overloaded beyond 30W	Reduce load by removing some Led fittings until a safe working load of not more than 30W is achieved
LED1 and LED2 go out momentarily and Power LED (D) flashes rapidly	Driver ambient temperature too hot	Resite driver to cooler ambient environment

TROUBLESHOOTING - MANUAL DIMMING MODE

Problem	Possible cause	Possible Solution
Power LED (D) lit – control LED not lit - LED1 andLED2 illuminated but not dimming	Switch 10 is off	Switch 10 to on
Power LED (D) lit – control LED lit - LED1 and LED2 illuminated but either one or both not dimming	Electronic potentiometers wired incorrectly – wrong polarity	Check polarity of connections and reconnect correctly

TROUBLESHOOTING - 0-10V DIMMING MODE

Problem	Possible cause	Possible Solution
Power LED (D) lit – control LED not lit - LED1 andLED2 illuminated but not dimming	Switch 10 is off	Switch 10 to on
Power LED (D) lit – control LED not lit - LED1 and LED2 not illuminated	0-10V wired incorrectly – wrong polarity	Check polarity of connections and reconnect correctly
	0-10V control signal missing check input with DVM	Check all connections and output of 0-10v controller using DVM
Power LED (D) lit – control LED lit - LED1 and LED2 illuminated but flickering	0V from 0-10V control signal is missing	Check all connections and output of 0-10v controller using DVM

TROUBLESHOOTING - DMX DIMMING MODE

Problem	Possible cause	Possible Solution
Power LED (D) lit – control LED lit - LED1 and LED2 illuminated but not responding to DMX	DMX address not set on DIP switch 1-9	Set DMX address
Power LED (D) lit – control LED not lit - LED1 and LED2 not illuminated	Switch 10 is ON	Switch 10 to OFF
	Incorrect DMX address set	Set correct DMX address
Power LED (D) lit – control LED not lit - LED1 and LED2 illuminated but not responding to DMX	DMX control signal missing	Check all connections are secure and correct polarity and confirm output of DMX controller and/or previous DMX device in the DMX chain

TROUBLESHOOTING - SENSOR MODE

Problem	Possible cause	Possible Solution
[Normally open or closed operation] Power LED (D) lit - control LED not lit - LED1 and LED2 illuminated but not responding to sensor	Switch 10 is OFF	Switch 10 to ON
[Normally open operation] Power LED (D) lit - control LED not lighting - LED1 and LED2 not illuminated and not responding to sensor	Switch 1 is OFF	Switch 1 to ON
	Current sink input links in place	Remove links
[Normally closed operation] Power LED (D) lit - control LED not lighting - LED1 and LED2 not illuminated and not responding to sensor	Switch 2 is OFF	Switch 2 to ON
	Current sink input links in place	Remove links
[Normally open or closed operation] Power LED (D) lit - control LED not lighting - LED1 and LED2 not illuminated and not responding to sensor	Sensor control signal missing	Check all connections and output of sensor using DVM
	Sensor wired to wrong input	Check input connections and rewire

TROUBLESHOOTING - NO DIMMING MODE

Problem	Possible cause	Possible Solution
System is dead. Power LED (D) lit & no light output from LED1 and LED 2	Current sink input links in place - switch 10 on	Switch 10 off or remove links
	Loose output GND wire or poorly fitting power in on extrusion	Check all connections
	PSU failed - check output with DVM	Replace PSU
	Driver PCB failure	Replace driver
One output channel (either LED1 or LED2) is dead- power LED (D) lit	One current sink input link input is a loose or open connection – switch 10 ON	Switch 10 to OFF or replace link
	Loose output wire to dead channel or faulty/poorly fitting power in on extrusion check output with DVM	Check all connections
	Driver PCB failure	Replace driver

TROUBLESHOOTING - SLAVE MODE

Problem	Possible cause	Possible Solution
Power LED (D) lit – control LED not lit - LED1 and LED2 illuminated but not responding to Master control	Master driver not set up correctly	Check master driver set up
	DMX control signal from Master driver missing	Check all connections are secure and correct polarity and confirm output of the Master driver and/or previous devices in the Master/Slave DMX chain

MAINTENANCE

Please Note that a record of all maintenance **MUST** be kept in the table below, indicating what maintenance was undertaken and when.

Description	Details	
Track Power	5V DC 6A	
Min Ambient Temperature	-10°C	
Max Ambient Temperature	+45°C	
Power Connection	UFO rectangular and triangular power input connectors	
Attracta Fitting Type	ATRF1	ATRF2
Lens Option	16° / 23° / 36° / 70°	16° / 23° / 36° / 70°
Colour Temperature	2700K / 3000K / 4000K 500K / 6500K	2700K / 3000K / 4000K 500K / 6500K
Typical CRI	98 (2700K, 3000K) 97 (4000K)	98 (2700K, 3000K) 97 (4000K)
Nominal Voltage	5V DC	5V DC
Nominal Power	0.75W	2W
Working Current	150mA	400mA
Length Options	N/A	N/A
Optical Efficiency	50lm/W***	43lm/W**
LED Life	50,000 hours	

Due to the special conditions of the manufacturing processes of LED, the typical data or calculated correlations of technical parameters can only reflect statistical figures. These do not necessarily correspond to the actual parameters of each single product, which could differ from the typical data and calculated correlations or the typical characteristic line.

*based on Photometric results for a 45mm linear LED

**based on 3000K with13.5°lens

***based on 3000K with a 23°lens



DESIGN



SPECIFY



BUILD



INSTALL

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