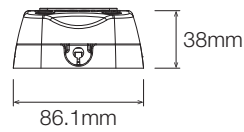
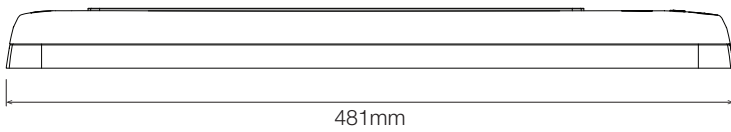


**DIMENSIONS**

**KIT INCLUDES:**

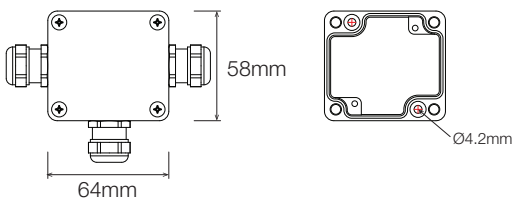
- Machine Light LED luminaires 12V
- Emergency luminaire connection loom
- Machine Light DT extension looms
- Junction box
- ELV emergency pack

**MC22-XXX-12**

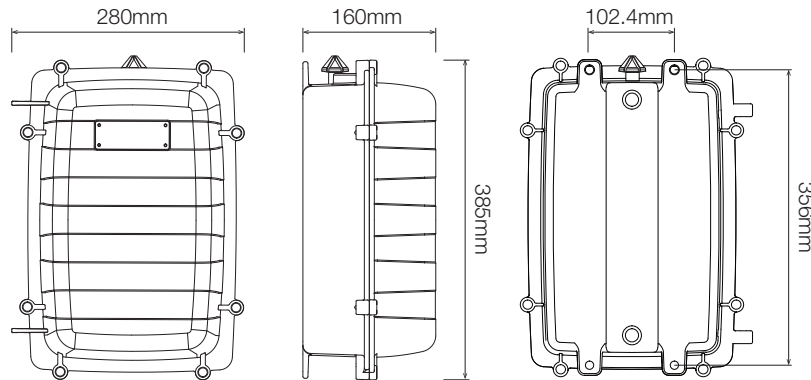


<b>Electrical Characteristics</b>	
<b>Voltage In</b>	12 – 16 VDC
<b>Power</b>	20W @ 13.5 VDC

**G104 Junction Box**



**Extra Low Voltage Emergency Power Pack (ELV EMP)**



<b>Electrical Characteristics</b>	
<b>Voltage In</b>	20 – 30 VDC
<b>Power</b>	30W

**NOTE**

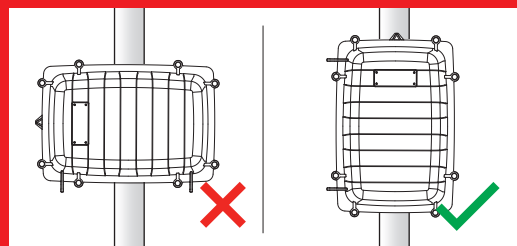
The Coolon ELV EMP is designed for mobile plant applications.  
The ELV EMP provides minimum of 10 minutes emergency lighting at maximum load of 100W

**⚠ ATTENTION:**

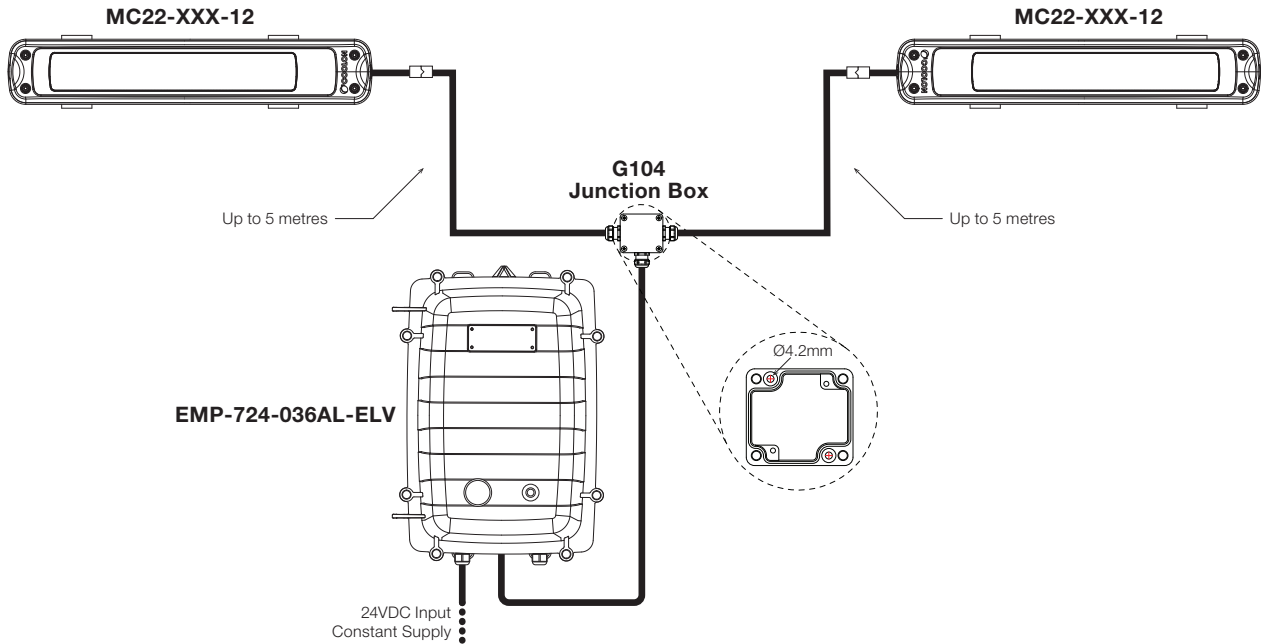
**ELV EMP must be installed in the upright position**

Pole Mounting Kits are available designed for mounting products on a variety of poles used in the industry.

For more information visit:  
<http://www.coolon.com.au/ind-acc-pdf>



**WIRING DIAGRAM**



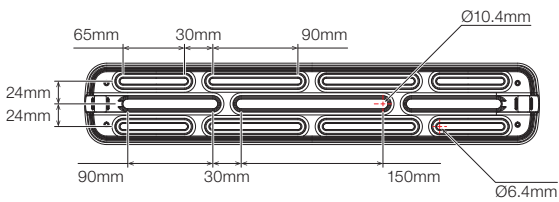
**INSTALLATION INSTRUCTIONS / MC22-XXX-12**

**Step 1**

Remove the 4x socket head screws to separate the base and the main assembly.

**Step 2**

Secure base to the mounting surface.

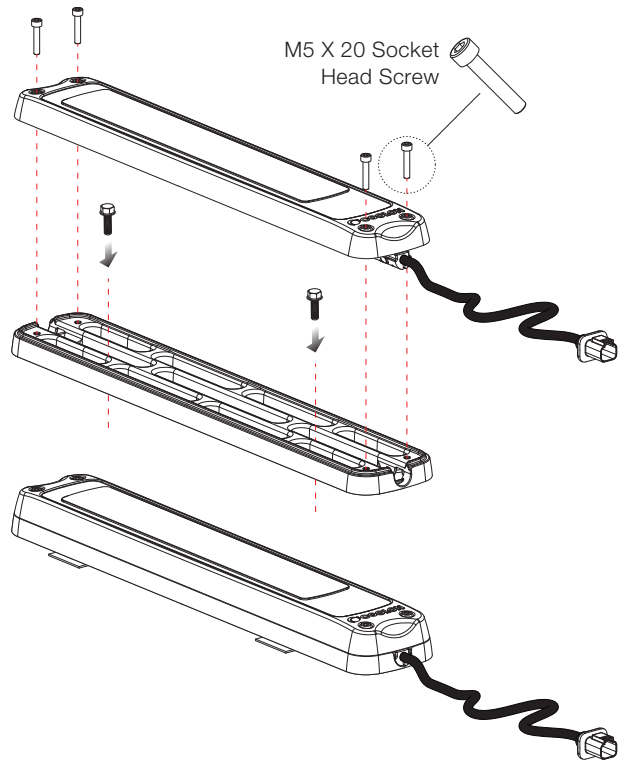


**Step 3**

Place main assembly onto the base and secure using 4x socket head screws from Step 1.

**Step 4**

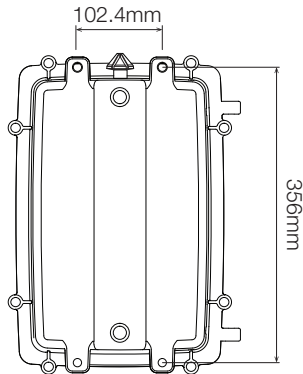
Your Machine Light is now ready to be connected!



**INSTALLATION INSTRUCTIONS / EMP-724-036AL-ELV**

**Step 1**

Bolt the ELV EMP to a flat surface.



If attaching to a pole, use the U-Bolt Pole Mounting Plate for AL036 Enclosure (ACC-PMB-XXXX-PL100-GAL) available separately. Download the document below for more information: <http://www.coolon.com.au/mounting-acc-pdf>

**Step 3**

Mount the splitting junction box central to the emergency luminaires. Ensure the emergency loom can reach the EMP.

**Step 4**

Connect the luminaires to the respective terminal in the junction box.

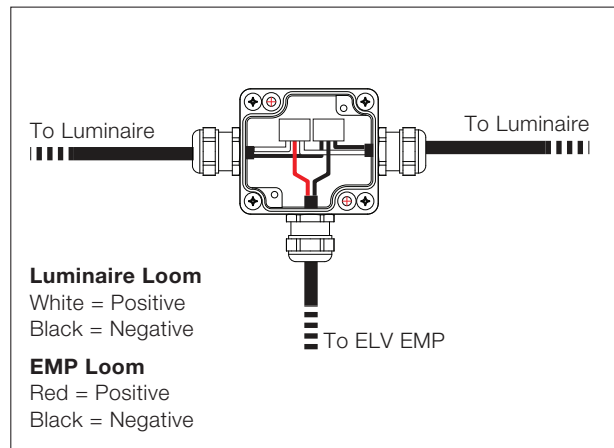
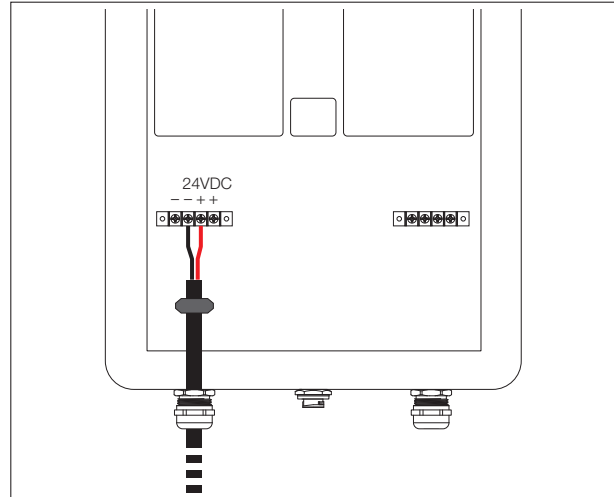
**Step 5**

Connect the emergency loom to the EMP enclosure. The ELV EMP system is now ready for commissioning.

**Step 2**

Connect power to the 24VDC terminal block.

**NOTE:** The 24VDC supply is to be provided from a source which only loses power in case of an emergency.



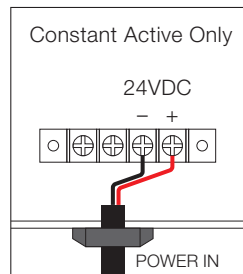
**Battery Details**

Unit only designed to operate using either LEAD CRYSTAL® or VRLA batteries.

Recommended battery listed below. Contact Coolon for replacement batteries.

<b>MANUFACTURER</b>	Betta Batteries
<b>MODEL</b>	6-CNFJ-7.2
<b>CAPACITY</b>	12V, 7.2Ah / 20HR

**Emergency Pack Operating Modes**



**NON-MAINTAINED**  
Emergency use only.

The ELV EMP allows only non-maintained operation. The emergency luminaires will energise in emergency operation, i.e: when power is lost.

**Commissioning Test**

Energise the ELV EMP and turn the battery isolation switch ON.

Once energised allow up to 10 seconds for the ELV EMP controller to go through the self-test procedure.

Batteries are labelled with their last charge date. If the batteries have not been used more than 3 months, they have to cycle 2–3 times to restore their capacity.

A typical cycle includes a 16 hour charge followed by a complete discharge.

The ELV EMP will provide a minimum 10 minutes of emergency lighting when using a maximum load of 100W.

**Emergency Pack Operation**

1. Once the EMP is connected to power the Red Indicator LED on the lid will illuminate to indicate power presence.
  - a. If the Indicator LED is flashing, check that the battery isolation switch is in the “ON” position.
  - b. If the battery isolation switch is in the “ON” position and the Red Indicator LED is still flashing, see the EMP TROUBLESHOOTING section for further details.
2. Pressing the “TEST BUTTON” on the lid will disconnect the power simulating a power outage. The Red Indicator LED will stop illuminating and the EMP will operate in emergency mode if the battery isolation switch is in the “ON” position.
3. Critical system fault is indicated by the flashing Red Indicator LED during power presence. See the EMP TROUBLESHOOTING section for further details.

**Emergency Pack Troubleshooting**

On-board processor monitors the state of the EMP modules and periodically checks the batteries. Internal operations and fault conditions are signalled by on-board LEDs. Critical Fault will cause external Indicator LED to flash.

Error Code	<span style="color: red;">■</span>	<b>RED LEDs (Internal Fault Indicator)</b>
Error Code	<span style="color: red;">■</span>	Internal RED Fault indicator LEDs used for internal diagnostics. LEDs indicate internal faults using binary codes.
Error Code	<span style="color: red;">■</span>	In the event external Indicator LED is flashing, information about the internal LED status may help diagnostic and fault rectification on-site. Contact COOLON support ( <a href="mailto:support@coolon.com.au">support@coolon.com.au</a> ) for guidance.
Charger 2	<span style="color: green;">■</span>	<b>GREEN LEDs (Operating Mode Indicator)</b>
Charger 1	<span style="color: green;">■</span>	
Power	<span style="color: green;">■</span>	POWER LED will illuminate when mains is present.
	<span style="color: green;">■</span>	CHARGER 1 and CHARGER 2 LEDs flash during charge and stay ON once the individual respective batteries are fully charged.

**Battery Replacement Procedure**

1. Isolate power supplied to the EMP.
2. Put battery isolation switch to “OFF” position.
3. Disconnect the spade terminals from the batteries.
 

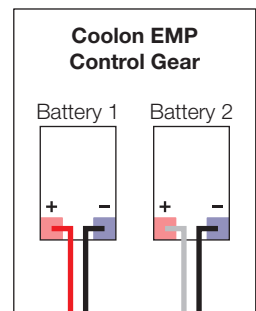
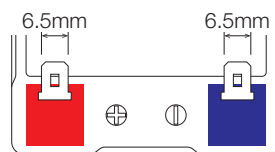
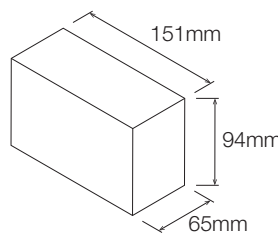
**NOTE:** Do not use any conductive material to remove the terminal connector.
4. Loosen the top then the bottom battery housing keeping the captive screws within the housings.
5. Remove the batteries and insert new batteries.
 

**NOTE:** Fit the rubber battery tray to the new batteries before installation. The spade terminals connector must fit snug on the terminal – if the terminal connection is loose compress the connector slightly to ensure a sturdy connection.
6. Tighten the bottom then the top battery housing. The batteries should sit snug with the battery housing flat on the base.
7. Carefully connect respective spade terminals observing battery polarity.
 

**NOTE:** Black wire always connects to negative terminal of the battery.

Battery wiring diagram is provided on the right

**Battery Dimensions**



**CAUTION**

- Do not short circuit the battery terminals
- Dispose of the used batteries in accordance to State Law