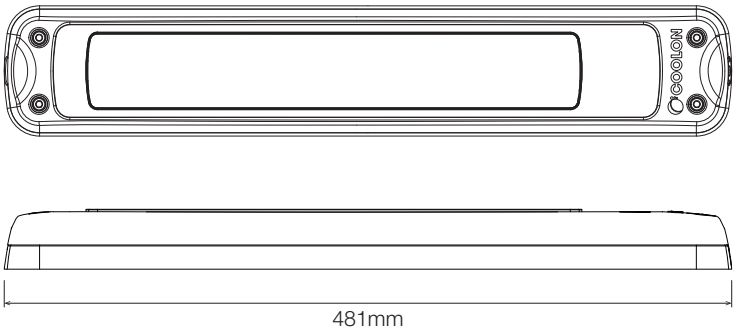
DIMENSIONS

KIT INCLUDES:

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

MC22-XXX-12

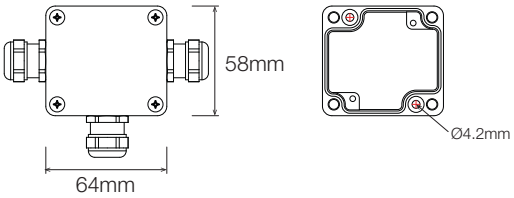


Technical Specifications

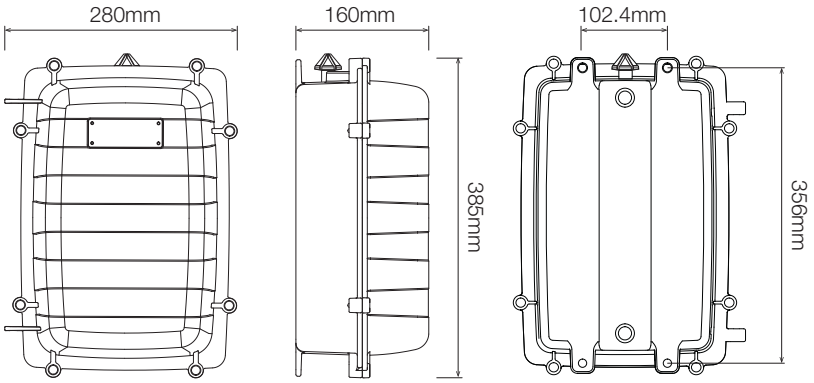
Voltage In
12 – 16 VDC

Power
20W @ 13.5 VDC

G104 Junction Box



Extra Low Voltage Emergency Power Pack (ELV EMP)



Technical Specifications

Voltage In
20 – 30 VDC

Power
30W

NOTE

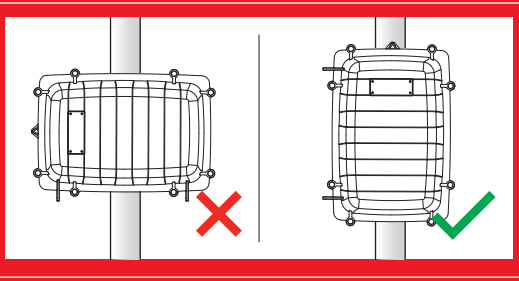
The Coolon ELV EMP is designed for mobile plant applications.
The ELV EMP provides minimum of 10 minutes emergency lighting at maximum load of 100W

⚠ ATTENTION:

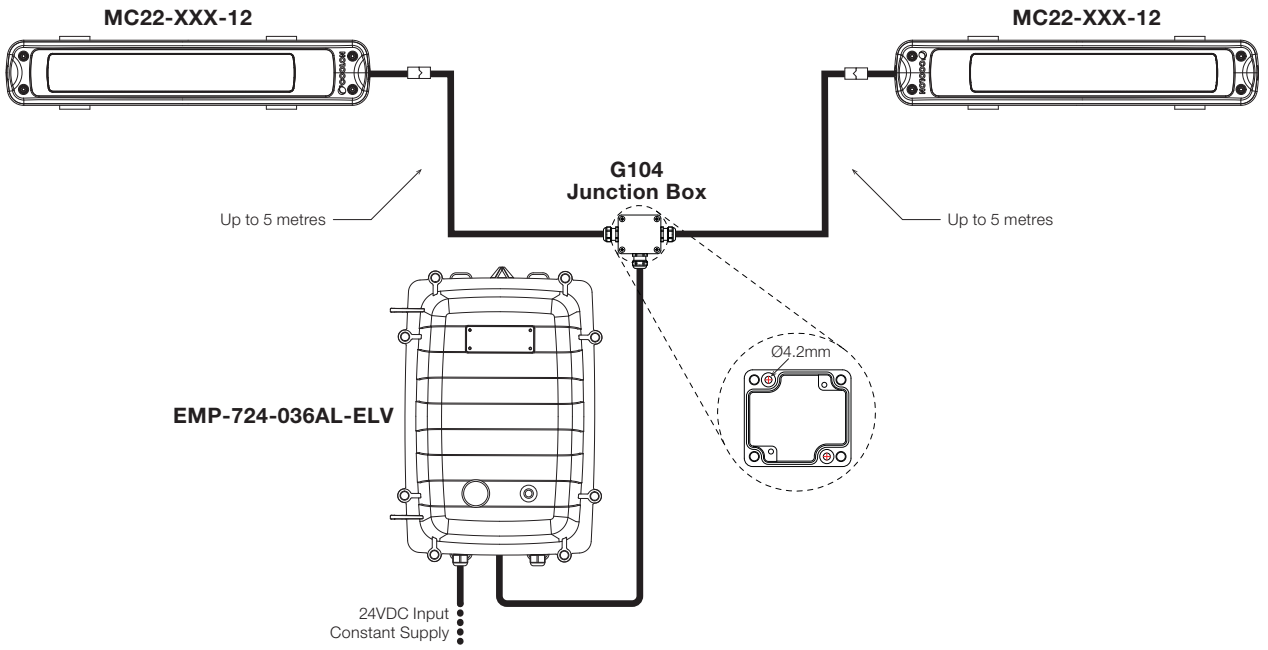
ELV EMP must be installed in the upright position

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



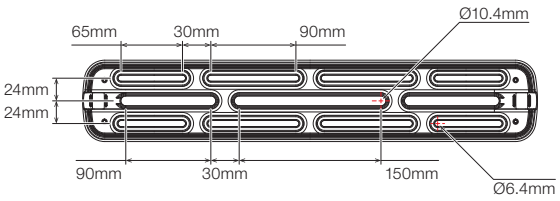
INSTALLATION INSTRUCTIONS / MC22-XXX-12

Step 1

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

Step 2

Secure base to the mounting surface.

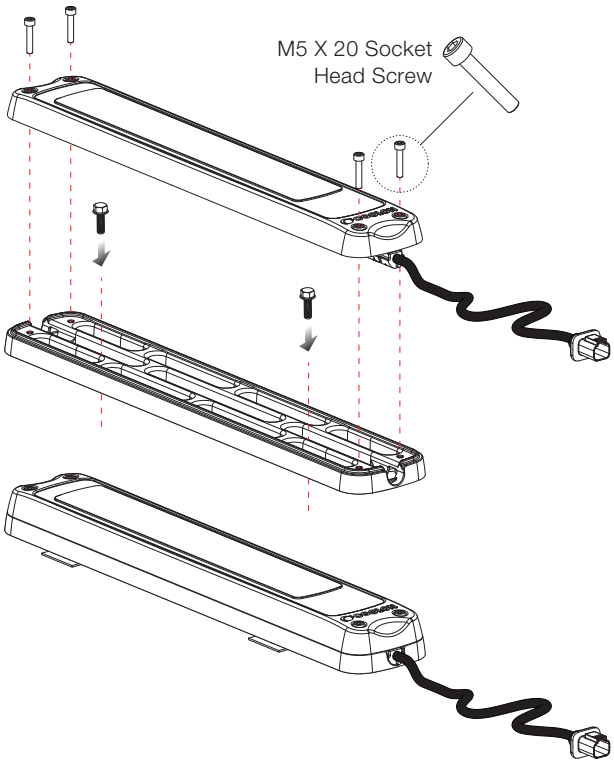


Step 3

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

Step 4

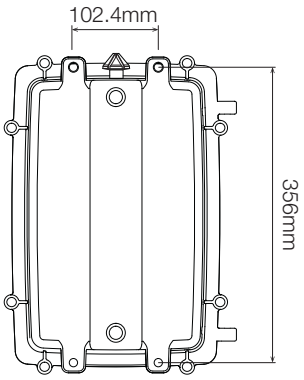
Your Machine Light is now ready to be connected!



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.

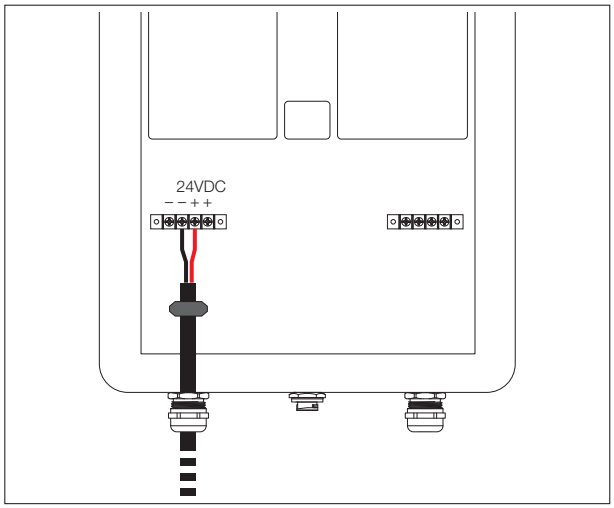
Step 5

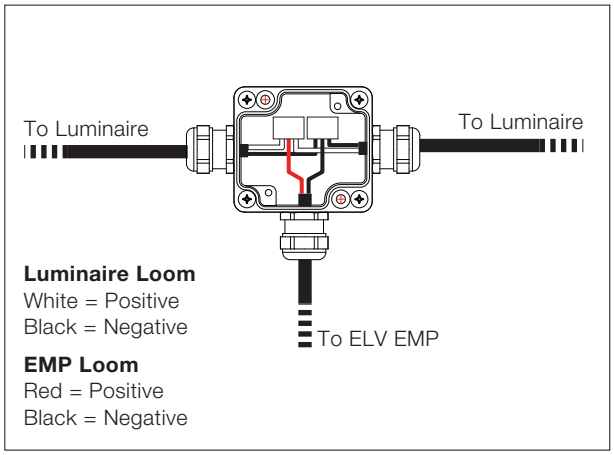
Connect the emergency loom to the EMP enclosure.
The ELV EMP system is now ready for commissioning.

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.





Luminaire Loom
White = Positive
Black = Negative

EMP Loom
Red = Positive
Black = Negative

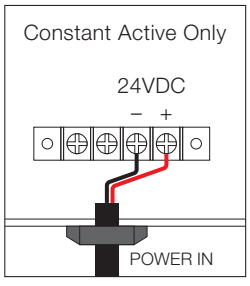
Battery Details

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

Recommended battery listed below. Contact Coolon for replacement batteries.

MANUFACTURER
Betta Batteries
MODEL
6-CNFJ-7.2
CAPACITY
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
Error Code
Error Code
Charger 2
Charger 1
Power

RED LEDs (Internal Fault Indicator)
Internal RED Fault indicator LEDs used for internal diagnostics. LEDs indicate internal faults using binary codes.

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 (support@coolon.com.au) for guidance.

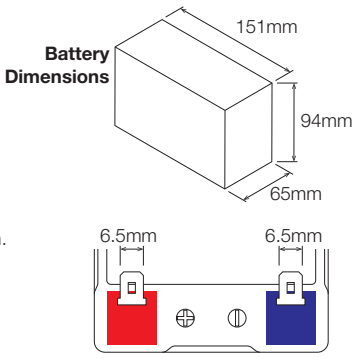
GREEN LEDs (Operating Mode Indicator)
POWER LED will illuminate when mains is present.

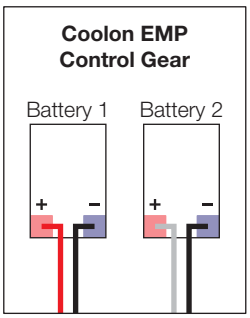
CHARGER 1 and CHARGER 2 LEDs flash during charge and stay ON once the individual respective batteries are fully charged.

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.





⚠ CAUTION

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

Storage Shelf Life

The ELV EMP has a storage shelf life of up to 12 months when stored at a temperature of 20±5°C.

Storage temperatures outside of 20±5°C but within the prescribed unit operating temperature limit will result in a decreased product shelf life of up to 6 months.

If the ELV EMP cannot be commissioned (put into in-service operation) within the prescribed shelf life then it should be put through a charge cycle (see below).

Following a charge cycle, the unit can be stored for a further period appropriate to the storage temperature.

Failure to comply with the above requirements may result in irreparable damage to the battery since such a state would permanently alter the battery chemistry, this type of failure is not covered by warranty.

The charge cycle procedure is as follows:

1. Connect the unit to mains supply, Control line connection does not need to be made, just A, N, E
2. Turn the battery isolation switch to the ON (connected) position
3. Energise the unit and allow to charge for 16 hours (a red indicator should be observed, the indicator should not flash)
4. De-energise the unit and disconnect mains supply
5. Turn the battery isolation switch to the OFF (disconnected) position
6. Pack the unit for storage