## Clevertest and Clevertest Plus

Refer to the supplementary operation guide supplied with the Product.

After Power ON, the Status LED on a Clevertest Plus enabled fitting will display a rapid Green or Red flashing for a period up to 2 minutes.

The lid of the remote enclosure will need to be removed to gain access to the Test/Status Switch and LED.
The clear lid of the remote enclosure may need to be removed when scanning the status LED.

**4HR:** CTP will only test for the 2 hours (first test) and 90 minutes duration. 4 hours testing would only be facilitated as a Manual Discharge Test.

## Zoneworks, HIVE and DATA Monitored Options

Fittings with part numbers -ZW, -HV/-HVG, -DATA are fitted with Zoneworks communications modules (nodes). These fittings are monitored using either Powerline Carrier Technology that utilize the power cable to provide data communication, RF transceiver modules operating in the ISM band or a dedicated data cable to/from data routers installed on a dedicated data trunk connected to a central Server (can also be connected via Ethernet/Internet/Fibre). Zoneworks software on the server is used to monitor, coordinate testing and collate test data from each fitting. Zoneworks Fittings can be commissioned by a single push of the test switch or by scanning the supplied barcode. The LED Test Switch indicator provides a multifunction indication of the status of the fitting during testing and normal operation:

| Option | State | LED Operation |
|---|---|---|
| ZW, HV, HVG, DATA | Commissioned | LED on Solid (Green) |
| ZW, DATA | Un-commissioned | **Batt plugged-in:** yellow 1s, green 1s |
| | | **Batt unplugged:** red 1s, off 1s |
| HV, HVG | Un-commissioned With network connectivity | **Batt plugged-in:** yellow 1s, green 1s |
| | | **Batt unplugged:** red 1s, off 1s |
| HV, HVG | Un-commissioned Without network connectivity | **Batt plugged-in:** yellow 250mS, green 250mS, yellow 250mS, green 250mS, green 1s |
| | | **Batt unplugged:** red 250mS, off 250mS, red 250mS, off 250mS, off 1s |
| ZW, DATA | Emergency Light Test In Progress | LED flashes at yellow 5s , 0ff 1s |
| HV, HVG | Emergency Light Test In Progress | LED flashes at yellow 1s , 0ff 1s |

In the case of the DATA version a 2-way "figure 8" cable and terminal block facilitates the connection to the DATA network via a multi-drop bus (daisy chain connection).  For further information of installation of a Zoneworks system, please refer to the Zoneworks Users Guide and Commissioning Guide (incl. DATA version)
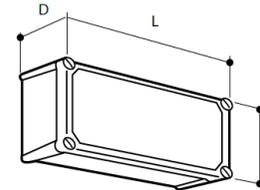
## DALI EM Option

Luminaires with part numbers having -DALI are fitted with DALI modules (nodes) that facilitate connection and integration to 3rd Party Lighting Control Systems.  Before installing the -DALI luminaire, please confirm that the Lighting Control System has the capability to monitor DALI Emergency Luminaires.  The -DALI fitting will be addressed and configured into the control system by the Lighting Control System Commissioning Technicians and not Clevertronics.

| State | LED Operation |
|---|---|
| Commissioned/ Un-commissioned | LED on Solid (Green) |
| Emergency Light Test in progress | LED flashes at 1s On (Yellow) & 1s Off |
| "IDENTIFY COMMAND" | Lamp and Status LED Flash for 30 seconds |

A 2-way "figure 8" cable and terminal block facilitates the connection to the DALI network.  DALI connections are marked as Da Da.

# L10™ Weatherproof Surface Mount LED Exit
## With Weatherproof Remote-Control Gear
## Installation & Maintenance Instruction Leaflet



**Designed in Australia to comply with the requirements of AS2293.3: 2005 and AS/NZS CISPR15: 2017**
NOTE: Standard product codes with this symbol are enabled with Clevertest Plus capability.  Please refer to the operation guide supplied with the product for details.

### LWELED-$-IPREM-yy-zz

## Models:
**Testing:**

| | | Options: | |
|---|---|---|---|
| Manual Test | $ = Blank | Lanyard fitted | yy =LYD |
| Zoneworks | $ = ZW | Tamper Proof | zz=TP |
| Z/W DATA | $ = DATA | | |
| Zoneworks HIVE | $ = HV/VHVG | | |
| DALI Registered. | $ = DALI | | |

**TAMPERPROOF** variants use 4 T10 security screws to secure the cover

## Spare Parts:

| | |
|---|---|
| 1530110 | Replacement Battery |
| 8002710 | Replacement Emergency LED Board |
| AUM01370570001 | Replacement Emergency Driver |

## Important:

It is illegal for anyone, except for a licensed electrician to install or maintain this product. Before installation, ensure that the electricity supply has been switched off and isolated. Installation must be carried out in accordance with the relevant Australian and International Standards.

## Installation:

The L10 Weatherproof (WP) LED Exit is a 2-part assembly. The LED light source and EXIT decal is housed in a separate WP enclosure to the WP control gear enclosure. The EXIT enclosure is suitable for temperature environments of -40°C to +40°C. The remote-control gear enclosure is suitable for temperatures of 0°C to +40°C. The enclosure bases are attached to the wall using screws installed through the 4 isolated holes. The remote-control gear enclosure is connected to the EXIT enclosure via a 2-core cable to be supplied by the installer (not supplied by Clevertronics with the product). To install the 2-part assembly follow these steps.

**Remote Control Gear**
1. Remove the enclosure cover (4 plastic screws at each corner).
2. Remove the gear tray (4 screws holding the gear tray onto 4 mounting posts).
3. Determine power entry hole (typically the back) and separately the hole for the 2-core cable (end/side) to the EXIT enclosure.
4. Drill power access hole in the box base and separately the hole for the 2-core cable to the EXIT enclosure.
5. Position the box base in the mounting position.
6. Mark the 4 holes for mounting. Install the base using appropriate fixings (not supplied).
7. Connect the 240VAC supply to the terminal block labelled L, N, E.
8. Reinstall the gear tray and reinstall the enclosure cover.

**EXIT Enclosure**
9. Please refer to 1947440 Weatherproof LED Exit Enclosure for installation instructions.

**2 core cable connection between the 2 enclosures**
10. During the installation of each component the installer should consider installing the interconnecting cable between the two components. This will avoid the need to re-visit each enclosure and opening the covers and remove the gear trays a second time.
11. The 2-core interconnecting cable should use a conductor size of 1.5mm$^2$ to a maximum distance of 2m. For lengths greater than 2m, a 2.5mm$^2$ conductor should be used and the cable should be fire rated to class WS4X up to a distance of 10m. Please contact Clevertronics for advice on cable lengths and cable size beyond 10m.
12. Terminate the cable at each end (each enclosure) to the appropriate terminations in the images below marked LED+ and LED-.
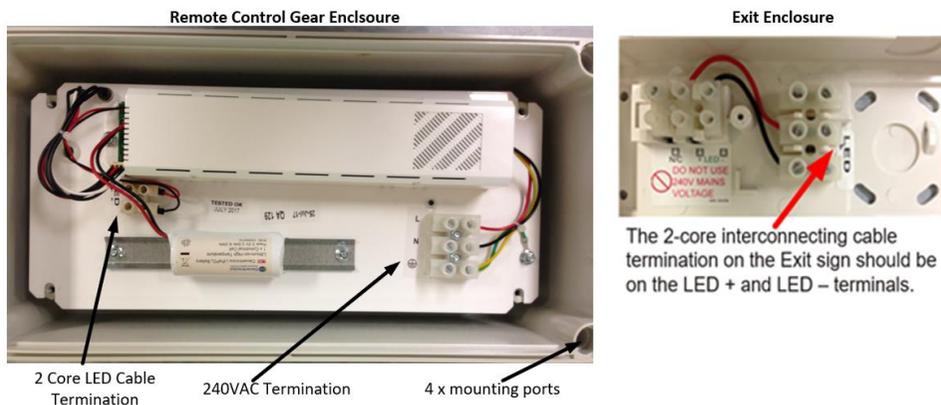
NOTE: ensure that any cable entry point is suitably sealed using a gland appropriate to the cable type and size or the entry hole is sealed using a suitable compound such as silicone.

- If the CTP capabilities are activated, please affix the CTP status Label to a visible surface and Four Segment Marking on the product will include an ''F'' in third segment block.

## Networking:

When installing the product on a monitored network, (ZONEWORKS, DATA, DALI) simply insert the relevant Smart Node PCA.

## Dimensions:

**Remote Control Gear Enclsoure**



2 Core LED Cable Termination    240VAC Termination    4 x mounting ports

**Exit Enclosure**



The 2-core interconnecting cable termination on the Exit sign should be on the LED + and LED – terminals.

## Testing:

Once connected to the 240V mains supply, the unit must be allowed to charge the battery for at least 24 hours. Conduct the following tests:
- For the first test, the emergency lamp must remain illuminated for at least 2 hours (4 hrs for the -4HR fittings) after disconnection from the mains supply.
- Subsequent tests require the unit to illuminate for at least 90 minutes. The results of all tests are required to be recorded in a service logbook, which is to be kept on-site at all times. If the unit fails to remain illuminated for the requisite time, remedial action must be taken to repair the situation and once completed, the unit must pass a subsequent test. For more specific information, please refer to the current edition of the AS 2293.3 Standard.

## Maintenance:

### Lamp Replacement:

- Use only the lamp(s) recommended on the label inside the Weatherproof Exit.
- To replace the lamp bar, remove the screws, disconnect the signal cable and install the new lamp bar.

### Battery Replacement:

- Use only the battery recommended on the label inside the Exit fitting and on this instruction.
- Remove the cable ties holding the battery, un-plug the lead from the PCB and remove the old battery.
- Clip the new battery into the holder, route the DC cable to the PCB and plug the new battery into the PCB.
- Secure the battery using suitable cable ties

## Trouble Shooting:

Below are a list of common problems and their possible causes.

**Fault:** **The Green LED Test Switch indicator is not illuminated.**
**Check:** A.C. is connected and is turned on.
Battery is connected.
Test Switch for damage.

**Fault:** **Lamp does not illuminate in emergency mode.**
**Check:** A.C. is connected.
Lamp is correctly inserted.
Battery is connected

**Fault:** **Lamp illuminates in emergency mode, but only stays on for a short period.**
**Check:** Battery has been allowed to charge for at least 24 hours.
Battery for damage.

## Rated Emergency Lumen Output in accordance with AS2293.1, not applicable for –TH (theatre) version (refer to spacing tables for installation positions):

Refer to the Technical Label for classification information.

## Caution:

On many building sites, power circuits may be cut off in an uncontrolled and repetitive basis during construction. As a result, any Exit & Emergency Units, on these circuits, will have their batteries discharged or "cycled". The battery in this fitting has been selected to give excellent long-life performance in a controlled AS2293 testing environment. Excessive battery cycling will reduce through-life performance and may lead to premature battery failure. Battery warranty claims, as a result of such abuse, are specifically EXCLUDED from Clevertronics warranty terms.

## Warranty:

For Product Warranty information and Terms and Conditions of Sales please refer to our website http://clevertronics.com.au/terms-conditions-sale-australia-nz/