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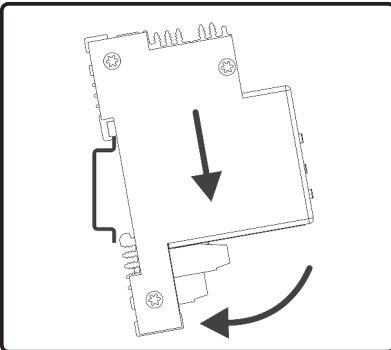
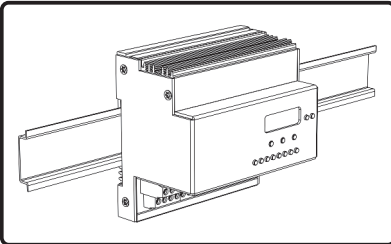
- Universal Ballast Control Module
- 300mm Data-Bus Link Cable

INSTALLATION GUIDE:

Universal Ballast Control Module DIN-UBC-01-05-PLUS

The Universal Ballast Control module is a 6M sized DIN rail mounted unit which can be configured to accept up to 4 channels of 0-10V, 1-10V, DSI or switched contact inputs or to provide up to 4 channels of fully isolated 0-10V, 1-10V or DSI outputs as well as a single DALI universe.

SPECIFICATION & MOUNTING



Modules must be installed within a suitable surface mount enclosure with integral DIN rail. Installation must be carried out by a qualified electrician in accordance with National Wiring Regulations and other applicable regulations. Compliance to EC EMC and Low Voltage Directives may be invalidated if not used or installed according to the published specification.

eDIN+ modules are designed to attach to a standard 35mm wide DIN rail (*EN 50022, BS 5584*). To install, simply hook the module from the top, push down and click into place (see diagram).

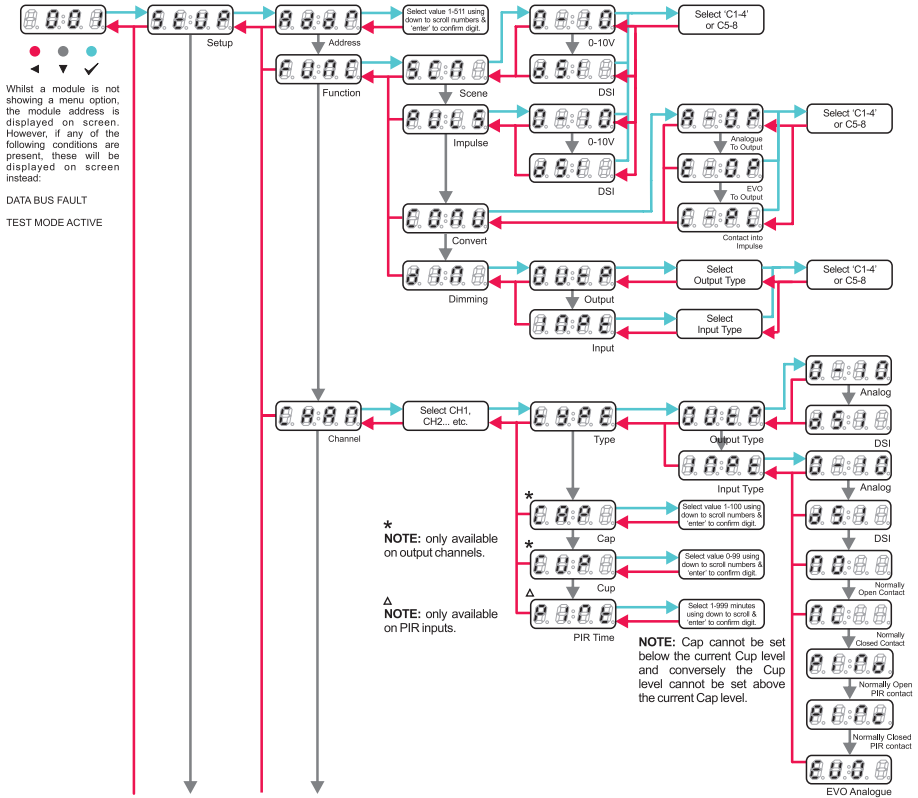
All eDIN+ modules must be earthed. Modules contain no user serviceable parts and should not be opened.

Module Size:	6M, L 106mm x W 100mm x H 64mm
Mains Input:	90-264V, 50 / 60Hz
Power Input:	24V, 50mA nominal
Max. Wire Size:	1,5mm ²
Control Input:	Mode M-BUS
M-BUS Connection:	2 x RJ-45 (in and out)
ta Max:	40°C
tc Max:	60°C
Standards:	(CE EMC & LVD) EN55015, EN61547, EN61000-3-2, EN61000-3-3 & EN60669-2-1

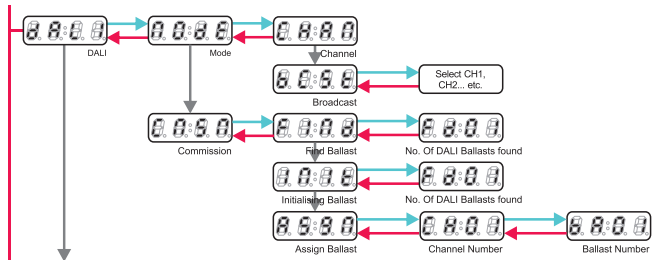
0-10V / 1-10V /	
DSI Outputs:	100mA each max.
Max. # DALI Ballasts:	64
DALI PSU:	250mA



ONBOARD SET-UP: I/O SETTINGS



DALI OPERATING MODES



- The module can control DALI ballasts in one of two modes. The operating mode 'CHAN' (channel mode) or 'BCST' (broadcast mode) is selected from the SETUP-DALI-MODE menu.
- In 'Broadcast' mode, the current level of one eDIN+ channel is broadcast to all of the DALI ballasts that are connected. When broadcast mode is selected, a sub menu appears from which the user selects which eDIN+ channel to broadcast (CH1 to CH8).
- In 'Channel' mode, every ballast is allocated to an eDIN+ channel and individually controlled as per other eDIN output modules. In this mode, the ballasts need to be commissioned. The procedure for this is outlined on the following page (in 'Broadcast' mode, no commissioning is required).

DALI BALLAST COMMISSIONING

DALI ballast commissioning is only required for modules running in 'channel' operation, it is not required for modules running in 'broadcast' mode. Commissioning of the DALI ballasts running in stand-alone mode (ie; without a Network Processor Unit) is carried out using two simple steps: The first step is to 'init' all of the ballasts connected to the ballast control module and the second step is to assign each ballast to an eDIN channel.

Step 1 : INIT Ballasts



From the SETUP-DALI-CMSN menu, select 'INIT'. The display will 'ripple' and all of the ballasts connected to the UBC module will extinguish their lamps.

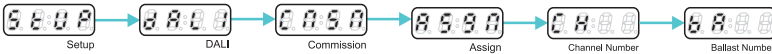
The display on the UBC will then display ' xx' where xx is the number of ballasts found so far. As each ballast is found, its lamp will be lit and the display of the number of ballasts found will increment. It will take a few seconds to find each ballast.

When all the ballasts are found, the display will stop 'rippling' and 'FDxx' will be displayed, where xx is the total number of ballasts found. Once all the ballasts are found, press the ✓ (select) button where you will be returned to the DALI-CMSN menu. Proceed to step 2.

Alternative Step 1: Find Ballasts.

If you have already commissioned the DALI ballasts the CMSN FIND option will find the ballasts keeping their previous Assignments. This allows you to edit the assignment in Step 2.

Step 2 : Allocate each ballast to an eDIN channel by first selecting a channel then selecting the ballast.



From the SETUP-DALI-CMSN menu, select ASGN.

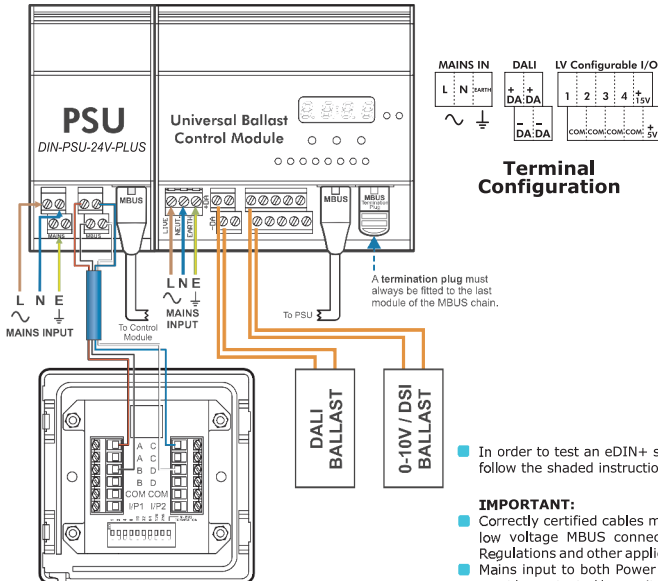
Step 2a : CHxx will be displayed where xx is the currently selected channel. All ballasts previously assigned to the channel will now be slowly flashing. All other lamps will be lit. Use scroll ▼ button to change which channel is selected then press ✓ button to select the channel.

Step 2b : bAxx will be displayed where xx is the currently selected ballast. Only the selected ballast will now be slowly flashing. All other lamps will be lit. Use scroll ▼ button to change which ballast is selected then press ✓ button to allocate the ballast to the channel.

The display will show SET then return to step 2a. More ballasts can be allocated to the same channel or a different channel can be selected and the process repeated.

Please Note: DALI MODE must be set to CHAN before allocating.

WIRING



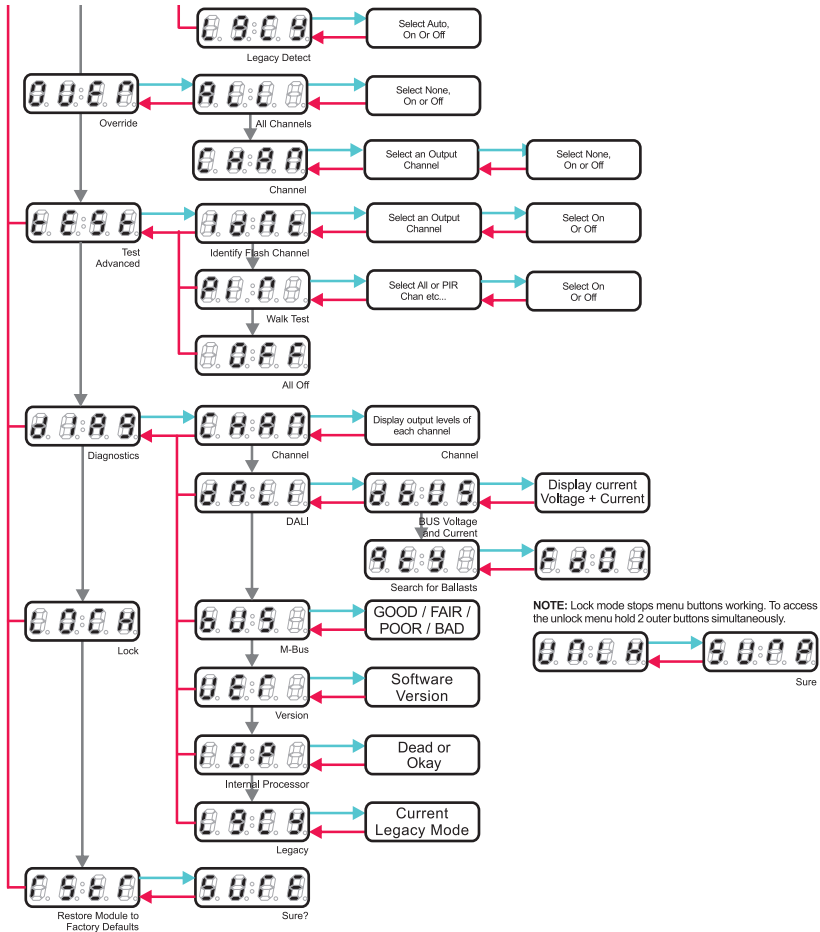
SUPPORTED CONTROL TYPES

Protocol	Input	Output
0-10V	✓	✓
1-10V	✓	✓
DSI	✓	✓
DMX	✗	✗
Volt-Free Contact	✓	○

✗ Not Supported
 ✓ Supported
 ○ Supported using eDIN Relay Module

- In order to test an eDIN+ system once it has been wired together, follow the shaded instructions on the back page.
- IMPORTANT:**
- Correctly certified cables must be used for all mains voltage and extra low voltage MBUS connections in accordance with National Wiring Regulations and other applicable regulations.
- Mains input to both Power Supply & Universal Ballast Control module must be protected by a suitably rated MCB.

ONBOARD SET-UP: TESTING



FAULT FINDING

- **'ERR' displayed when entering 'ASGN' menu.**

No ballasts have been found yet. Carry out step 1 of DALI ballast commissioning procedure first.

- **When finding ballasts during commissioning, the number of ballasts found is not the number expected.**

When carrying out step 1 of the DALI commissioning procedure, all ballasts connected to the DALI universe should extinguish. If any do not, check the wiring to those ballasts.

Due to the way DALI operates, in rare cases two ballasts may reply as one. If the number of ballasts found is less than expected and the wiring is correct, repeat step 1 of the commissioning procedure.