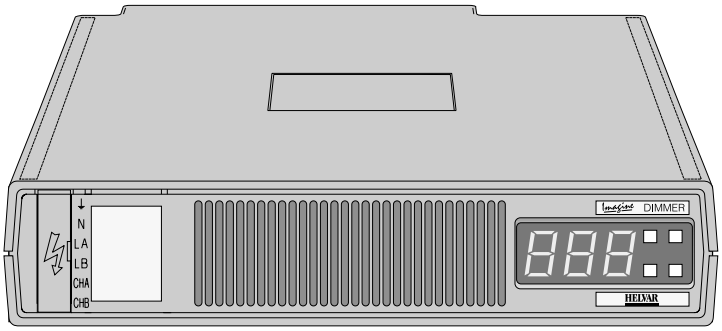
Installation Instructions

DIMMER MODULE

HES92020, HES92021, HES92220, HES92221

HELVAR



INTRODUCTION

This leaflet describes the installation, connection and basic setting-up of an *Imagine DIMMER* Module in a *STACKER* Unit or Pre-wired Cabinet. For full operational details, please refer to the User Guide (part number I434GB).

REMOVAL PROCEDURE

If an existing *DIMMER* module needs to be removed from the *STACKER* unit, ensure that the channel addresses for both outputs are known. If not, check the addresses by following the instructions for Stage 4 of the Setting-up Procedure overleaf. Then proceed as follows:

> ***WARNING***
> *For your own safety, before attempting to remove the DIMMER module, ensure that all of the input supply MCB's are in the 'off' position and if possible, isolate the MCB input terminals from the mains supply.*

1. Insert the blade of a small flat-bladed screwdriver into the notch on the terminal cover plate, and gently prise out the plate to gain access to the power connector (see Fig.1-2).
2. Insert the screwdriver blade as far as it will go into each terminal release point (see Fig.1-3) this will open the cage clamp allowing the cable to be withdrawn.
   It is recommended that you label the live input and output cables to assist reconnection. If the DIMMER module (or a replacement) is not to be refitted immediately, ensure that the ends of the connecting cables are made safe and secured away from all other connections.
3. Unplug any leads to the analogue input connector (right-hand side).
4. Remove the locking screw (if fitted) from the left-hand side of the module (see Fig.1-1).
5. Grip the sides of the *DIMMER* firmly with both hands (through the slots in either side of the *STACKER*) and carefully ease the module forward to disengage the rear connector. Continue to ease the module out until the front is clear of the other modules, then grasp the module from the front and withdraw it completely.

INSTALLING INTO A STACKER UNIT

> ***WARNING***
> *For your own safety, before attempting to install the DIMMER module, ensure that all of the input supply MCB's are in the 'off' position and if possible, isolate the MCB input terminals from the mains supply.*

1. Carefully insert the *DIMMER* module into the appropriate slot of the *STACKER* unit, ensuring that the rear connector locates firmly into the motherboard at the back of the *STACKER*.
2. If required, secure the module to the *STACKER* by inserting a suitable retaining screw on the left-hand side (see Fig.1-1).
3. Insert the blade of a small flat-bladed screwdriver into the notch on the terminal cover plate, and gently prise out the plate to gain access to the power connector (see Fig.1-2).
4. Using suitable cable, make the following connections between the *DIMMER* module and the distribution panel (see Fig.1-3):

> ***WARNING***
> *Both live feeds to terminals LA and LB must be of the same phase.*

***DIMMER* Module**	**Distribution Panel**	**Wire Colour**
Terminal ⏚	Earth.	Green / Yellow.
Terminal N.	Neutral.	Blue.
Terminal LA.	Live feed from MCB.	Brown.
Terminal LB.	Live feed from MCB.	Brown.
Terminal CHA.	Appropriate output terminal.	Red.
Terminal CHB.	Appropriate output terminal.	Yellow.

...continued overleaf

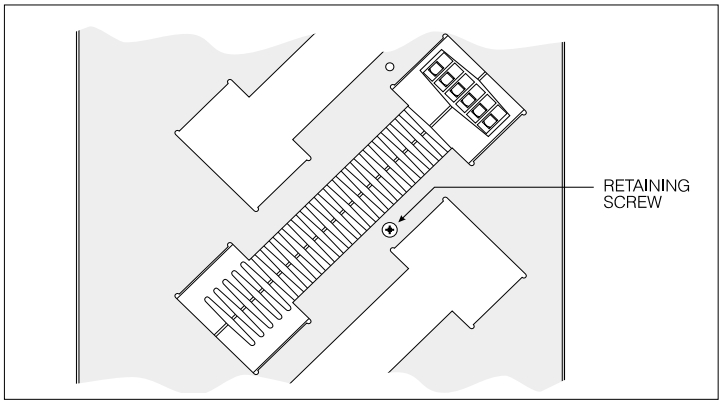


Fig.1-1: Location of retaining screw.

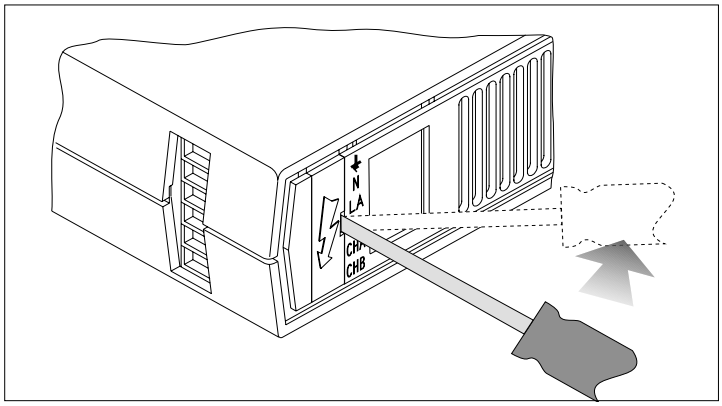


Fig.1-2: Removing the power terminal cover.

Recommended cable type: TRI rated 105C (BS6231 approved).
Cable size: 2.5mm^2.
Stripping length: 10mm.

Insert the screwdriver blade as far as it will go into each terminal release point (see Fig.1-3) this will open the cage clamp allowing the cable to be inserted. Release the pressure on the screwdriver, and check the security of the cable connection.

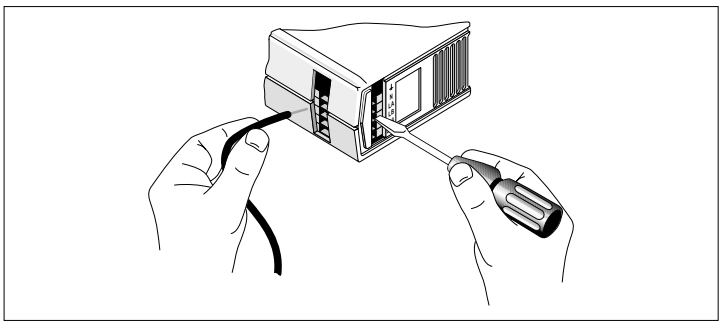


Fig.1-3: Connecting to 'cage clamp' terminals.

5. Clip the terminal cover back into position.
6. Write the function or circuit details of both channels on the label in the recessed area of the front panel next to the terminal cover plate. If required, the label may be removed.

SETTING-UP PROCEDURE

The setting-up procedure for the *DIMMER* module is divided into four stages, which must be followed in the order listed below:

- Stage 1 – Power-up Test.
- Stage 2 – Set the Correct Dimming Law.
- Stage 3 – Output Test.
- Stage 4 – Set the Output Channel Addresses.

If it is not required to test the outputs (*i.e.* to check for correct load operation and wiring) then stages 2 & 3 may be omitted.

IMPORTANT NOTE
The DIMMER module will not respond to S-DIM commands from an Imagine System until the output channel addresses have been correctly set (stage 4).

Stage 1 – Power-up Test

Turn on the supply to the *DIMMER* module; the display will briefly show '888', then the firmware version, and then clear to show the default display mode (Fig.1-4).

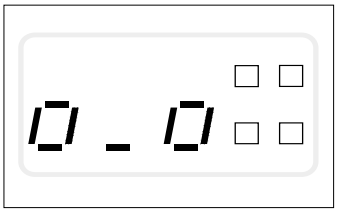


Fig.1-4: Default display.

When the display shows '888', the right-hand digit will be noticeably brighter than the others; this is normal and does not indicate a fault.

If the display clears to show a diagnostic message (a letter E or C followed by a two-digit number), please refer to the User Guide for further advice.

Stage 2 – Set the Correct Dimming Law

The Dimming Laws applied to both *DIMMER* outputs are normally down-loaded via the S-DIM data line from the controlling *SCENESET* module.

However, if the outputs are to be tested, a Dimming Law appropriate to the output load type *must* be selected manually first.

To set the Dimming Law, refer to the User Guide.

Stage 3 – Output Test

CAUTION
Before attempting this test, ensure that any loads connected to the DIMMER module outputs are suited to the Dimming Law selected. An incompatible Dimming Law or load type may result in damage to the module or the load.

Press and hold the top left-hand button on the *DIMMER* module's control panel to turn-on and raise the level of CHA (as indicated by the left-hand digit on the display). Press and hold the lower left-hand button to return the output to zero level.

Repeat this process for output CHB by using the right-hand buttons.

NOTE *If Dimming Law Table 0 is selected, the level will toggle between zero '0' and full power 'F'. Table 8 causes output CHB to behave as per Table 0 and to act under CHA control.*

Stage 4 – Set the Output Channel Addresses

Before the *DIMMER* module can operate correctly as part of the *Imagine* System, the Channel Address for each power output must be defined.

The module is supplied with the output CHA set to address 251 and CHB set to 252. These need to be changed according to the application:

Procedure	Display & Buttons
1. With the display showing Output Level Mode (default), press and hold the two left-hand buttons.	
2. Wait for the display to change to Channel Address Mode (approximately 1 second) then release both buttons. ***Note:*** *The display will show the current address for output CHA.*	
3. To change the address, press and hold either the top left-hand button to increase, or the bottom left-hand button to decrease the number. (To leave the address as it is, go to step 5.)	
4. To store the new address shown, press and hold both left-hand buttons until the display briefly shows '888' to confirm that the new value has been stored in the *DIMMER*'s memory.	
5. To view the address for output CHB, momentarily press either the top or bottom right-hand buttons.	
6. To change the address, press and hold either the top right-hand button to increase, or the bottom right-hand button to decrease the number. (To leave the address, do nothing – the display will revert to Output Level Mode after 10 secs.)	
7. To store the new address shown, press and hold both right-hand buttons until the display briefly shows '888' to confirm the new value has been stored. ***Note:*** *The display will revert to Output Level Mode after 10 seconds.*	

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Part No. I433GB
Document Ref. EPD05534
issue 3 (04/12/03)