Information specifically for:

PD-PACKPRO6

V2

This manual contains important information.
Please read before operating fixture.

CE

⚠ IMPORTANT INFORMATION ⚠

Save original packing and documentation for warranty, service and return issues.

Limited Warranty: This warranty covers defects or malfunctions in this equipment. This warranty lasts for a period of one year from date of purchase. It is the owner's responsibility to provide invoices for proof of purchase, purchase date and dealer or distributor. If purchase date can not be provided, warranty period will start at manufacture date. It is the sole discretion of Techni-Lux to repair or replace parts or equipment. All shipping will be paid by purchaser. This warranty does not cover lamps, fuses, belts, power semiconductors, relays, cleaning, standard maintenance adjustments or normal wear items or any problem resulting from the following: improper wiring, incorrect voltage (including low or over voltage conditions and lightning), abuse, misuse, improper maintenance or an act of God or damage resulting from shipping. Warranty will be null and void if the product is altered, modified, misused, damaged, or subjected to unauthorized repairs. Lamps are covered by relevant manufacturer warranty. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Any liability for consequential and incidental damages is expressly disclaimed. No other warranty, expressed or implied is made. Techni-Lux liability in all events is limited to, and shall not exceed, the purchase price paid.

Returning equipment and Repairs: All returns must be accompanied by a Return Merchandise Authorization (RMA) number and sent pre-paid. Contact the dealer or Techni-Lux directly to obtain an RMA. The RMA number must be clearly listed on the shipping label. Due care must be exercised in packing all merchandise to be returned. All repairs must be accompanied by a written explanation of the claimed problem or error encountered. Techni-Lux is solely responsible for determining a product's eligibility for coverage under warranty. If returning for consideration of credit, all accessories and documentation, original protective material and cartons must be included and the equipment, packing and carton must be in new resalable condition. Credit for returned merchandise will be issued at the lowest current price and is subject to a restocking fee. No returns accepted on discontinued items. Techni-Lux is not responsible for merchandise damaged in transit and reserves the right to refuse any return that is damaged by the carrier, not accompanied by a Return Authorization Number (RMA#) or sent by freight collect.

Claims: All claims must be made within seven (7) days of receipt of merchandise. Any physical damage must be reported to carrier upon receipt of merchandise.

Please record the following information for future reference:
Model Number: PD-PACKPRO6

Serial Number: _____

Dealer: _____

Date of Purchase: _____

www.Techni-Lux.com

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UNPACKING

Immediately upon receipt, carefully unpack and inspect the fixture to verify that all parts are present and have been received in good condition. If any parts appear damaged from shipping or the shipping carton shows signs of mishandling, retain all packing material for inspection and notify the shipper immediately. Save all original packing and carton. In the event that the merchandise is to be returned, the original carton and packing must be used. The customer will be billed for a new carton and packing if merchandise is received without the original carton and packing. The plastic bag shipped with the fixture can be used to keep the fixture clean if stored or installed in a temporarily dusty environment. Do not operate fixture with plastic bag in place.

Save Shipping Materials

The packing and carton are designed to provide the fixture with protection during shipping. Save original packing and documentation for warranty, service and return issues. Additional charges will be applied to return items not received in original or incomplete packing.

Claims

Physical damage must be reported to the Freight Carrier or Shipping Company upon receipt of merchandise. Damage incurred in shipping is the responsibility of the Freight Carrier or Shipping Company. It is the customer's obligation in the event that merchandise is received damaged caused by shipping to notify the Freight Carrier or Shipping Company immediately. All other claims not related to damage incurred during shipping must be made to the Dealer or Distributor within 7 (seven) days of receiving merchandise.

Returns

Returned merchandise must be sent prepaid, in the original packing with a Return Merchandise Authorization number (RMA) clearly listed on the shipping label. Items sent by Freight Collect or without a RMA number will be refused. Call your sales person and request a RMA prior to shipping. Be prepared to provide the model number, serial number and a brief description of the nature of the return. Shipping damage resulting from inadequate packaging is the customer’s responsibility. Customer will be charged additional shipping charges to return products received in non original packing and or cartons.

INTRODUCTION

Thank you for your purchase of this 6-channel Professional Dimmer Pack. Please read this user guide thoroughly before operation. Proper use and care of this product will prolong the life of this device.

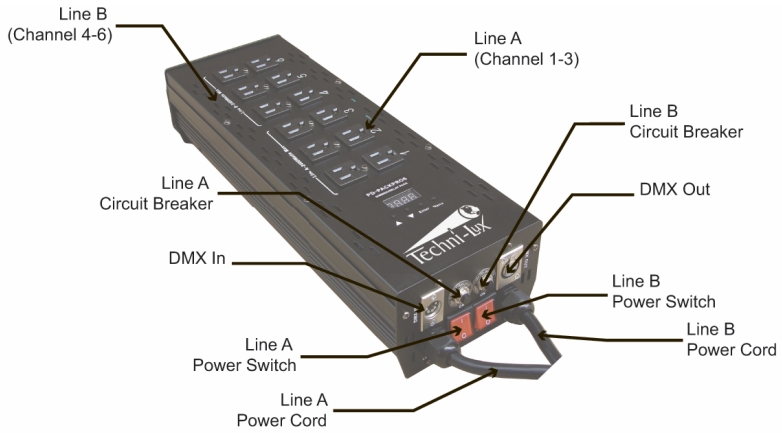
FEATURES

- 6-channel DMX-512 dimmer / switch pack
- Each channel can be set to any DMX address individually
- Variable electronic dimmer (0-100%)
- Each channel can be set as either dimmer or relay
- Dimmer curve selection for each channel: square, switch or linear
- Dual 20A power lines (requires 2 input circuits of power for full power output)
- Individual switch, circuit breaker and plug per input line
- 2 output Edison U-ground plugs per channel
- Aluminum extruded casing
- Multiple Operation Modes: Auto, Sound Activation, Manual, DMX and Master/Slave

SPECIFICATIONS

Output: 10A per channel, 20A per line channels 1-3 or 4-6, 40A total maximum using 2 separate input circuits
AC power: 110V or 230V 50/60Hz
Input voltage equals output voltage
Data control: DMX512 via XLR 5 pin In/Out
Size: 19.5” x 5.78” x 4”
Weight: 10lbs. (4.5Kgs)

PRODUCT VIEW



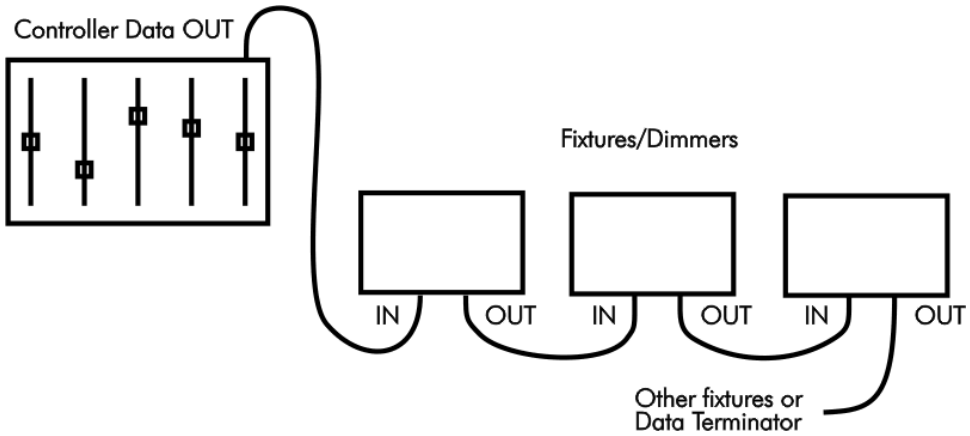
DMX-512 Background

DMX-512 is a digital data transmission standard developed by the United States Institute for Theater Technology (USITT). It is designed to enable control of lighting equipment, originally dimmers. DMX deals solely with the formatting of data for transmission and does not dictate how the data is created or used.

Under DMX, signals are transmitted in much the same way a computer modem transmits data. The Data, divided in to channels, is "Framed" using a start bit, high (1), eight data bits and finally, two stop bits, both high (1). DMX uses no parity to check the integrity of the signal. Instead, DMX relies on the ultra low probability of an error occurring in the same place when the data is resent. The rate at which data is sent is fixed at 250k bps, almost four and a half times faster that a 56k modem. This speed allows all data on a DMX chain to be updated more than 44 times every second.

The transmitted data follows a specific format. DMX allows for 512 channels each with eight data bits, giving each channel the possibility of 256 values. When a data "Packet" is sent, all channels are transmitted one after another. Even if the data on a specific channel has not been changed, it must be sent. In a packet, a "start code" of all zeros is sent before the data to identify the signal as a Standard DMX transmission. This start code is transparent to the user and is handled by the controller.

The physical signals are transmitted using a twisted pair of wires and a common shield, a configuration called Balanced. The controller and all receiving equipment are connected using a “Daisy Chain" connection. The signal is jumped from the controller to a piece of DMX equipment. From there, the signal is jumped to the next piece of equipment and so on until the last piece of equipment is connected. No branches are allowed and the signal does not come back to the controller. The final piece of equipment will have only one cable connection. As a result, all equipment connected to the chain will see exactly the same signal whether it is first or last. When connecting equipment, no particular attention needs to be paid to the order in which the equipment is connected. Depending on the conditions and equipment, a line terminator may be required. If there is any question, in most circumstances the addition of a terminator will not degrade the signal. To make a terminator, add a 120-ohm resistor between the Signal Data Negative and Signal Data Positive pins of a connector in the last piece of equipment in the chain.

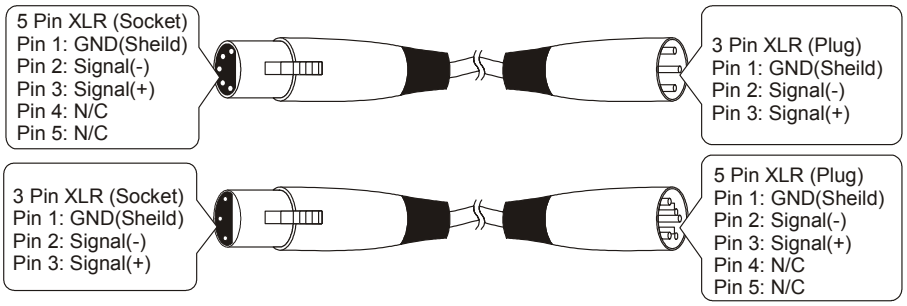


The DMX Standard calls for connections between DMX compatible equipment to be made using 5 pin XLR connectors. However, it is common to see fixtures with 3 pin XLR connectors as these types of balanced or "Lo-Z" cables are common in the audio industry. In either case, pin numbers are the same and carry the same signals.

Pin	*Connection*
1	Common (Shield)
2	Data Negative (S- or Cold)
3	Data Positive (S+ or Hot)
4	n/c (not used)
5	n/c (not used)

Adapter 5-to-3 pin

Numbers designating each pin can be found on connectors. Converting between the two XLR types is done in a pin-to-pin fashion. Connect the shields to pin 1, then connect pin 2 to pin 2 and pin 3 to pin 3. This is true for converting either 5 to 3 pin or 3 to 5 pin regardless of either connector's gender. Pins 4 and 5 are not used on the 5 pin XLR connectors.



OPERATING INSTRUCTIONS

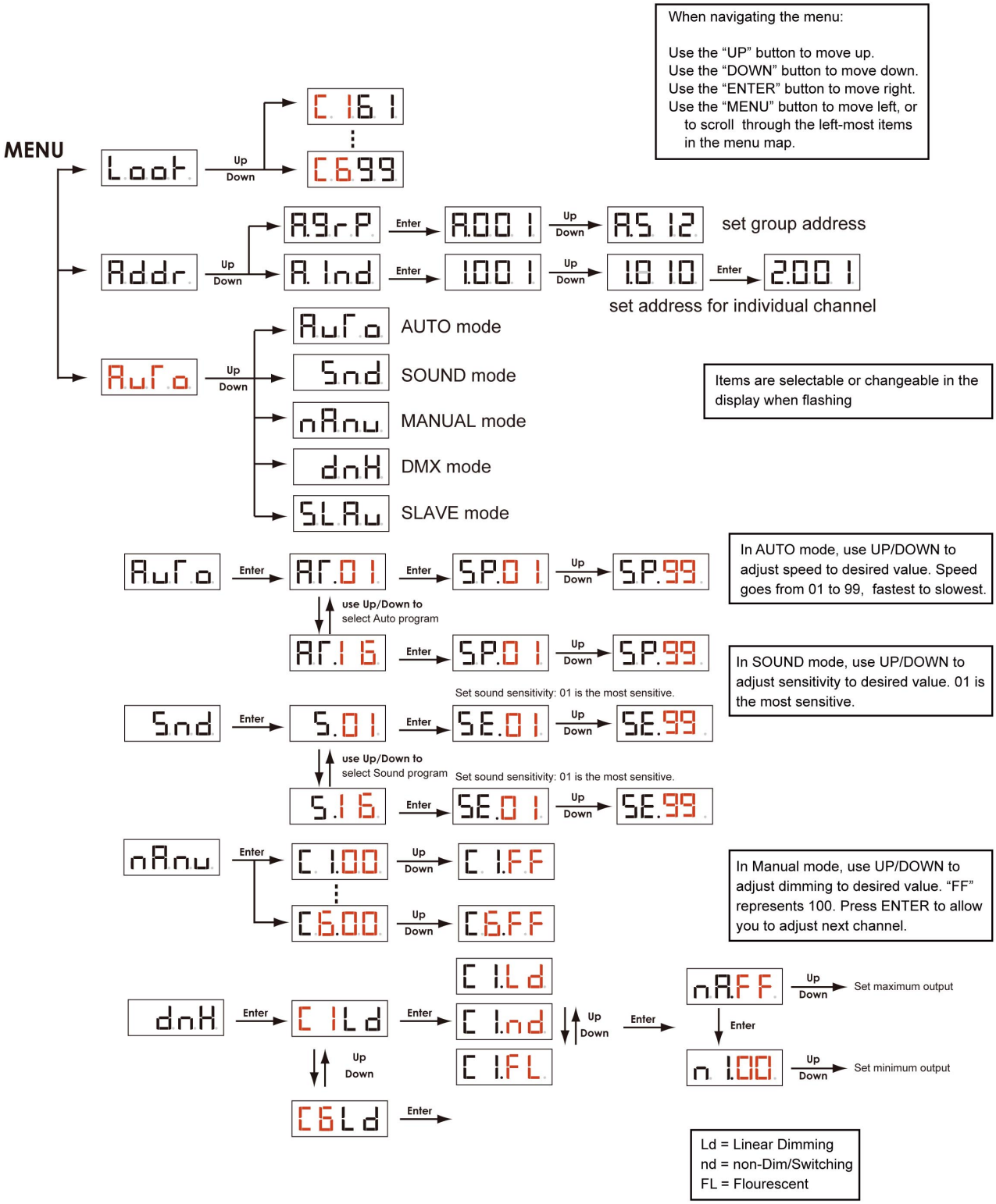
Power line A of the dimmer pack powers the display and Channels 1 to 3. Power line B powers channels 4 to 6. Each output channel has 2 edison U-Ground female plugs. You must never exceed the 10 amp output of any single channel, and you must never exceed the total output of all 3 channels on a power line. Doing may reset the breakers on the side of the pack. The pack requires 6 channels of DMX to operate via data control.

The Control Panel LED Display shows the menu items you may select from the MENU MAP. When a menu function is selected, the display will show immediately the first available option for the selected menu function. Under the display there are four buttons, <UP>, <DOWN>, <ENTER> and <MENU>. These buttons are used to perform all of the following settings. A flashing digit represents that you may change such value.

Pressing the <MENU> button will allow access to the top of the menu map. Use the <UP> and <DOWN> buttons to navigate the menu map and menu options. Press the <ENTER> button to access the menu function currently displayed, or to enable a menu option. To return to the previous option or menu without changing the value, press the <MENU> button again.

Note: Input Power Line A must be used when only one line is needed in order for the unit to operate and power the display controls.

MENU MAP


When navigating the menu:
Use the “UP” button to move up.
Use the “DOWN” button to move down.
Use the “ENTER” button to move right.
Use the “MENU” button to move left, or to scroll through the left-most items in the menu map.
MENU
Loot
Up
Down
C.161
C699
Addr
A9rP
Enter
A.001
A.ind
1.001
A5.12
set group address
1.010
2.001
set address for individual channel
AUTO mode
SOUND mode
MANUAL mode
DMX mode
SLAU
SLAVE mode
Items are selectable or changeable in the display when flashing
AR.01
SP.01
SP.99
use Up/Down to select Auto program
AR.16
In AUTO mode, use UP/DOWN to adjust speed to desired value. Speed goes from 01 to 99, fastest to slowest.
Snd
S.01
SE.01
SE.99
Set sound sensitivity: 01 is the most sensitive.
use Up/Down to select Sound program
S.16
In SOUND mode, use UP/DOWN to adjust sensitivity to desired value. 01 is the most sensitive.
nAnu
C1.00
C1.FF
C6.00
C6.FF
In Manual mode, use UP/DOWN to adjust dimming to desired value. “FF” represents 100. Press ENTER to allow you to adjust next channel.
dnH
C1Ld
C1.Ld
C1.nd
C1.FL
C6Ld
nA.FF
n.100
Set maximum output
Set minimum output
Ld = Linear Dimming
nd = non-Dim/Switching
FL = Flourescent

MENU DESCRIPTIONS

The following table is an explanation of each of the menu functions that are available from the digital display.

Digital Display	Mode details
	(Look): Allows user to check the current channel output.
	(Addr): Allows the user to select the DMX address for each channel independently. Select if grouped together as 1 through 6 sequentially or allow individual addressing of each channel independently.
	(Auto): Fixture operates in automatic mode without data lines. Allows user to set a set speed and select an internal chase program.
	(Snd): Sound allows user to set the packs to audio and its sensitivity.
	(Manu): Allows user to manually set the dimmer output levels on channels 1-6 without any DMX controller input.
	(DMX): Set channel functions and output level ranges utilized while receiving DMX input. User can set to dimming/switch and set a minimum and maximum channel output level per channel.
	(Slave): Sets the pack to be in SLAVE mode.

OPERATION MODES

This Dimmer Pack has 5 working modes: Auto, Sound activation, Manual, DMX and Master/slave. The DMX and Master/Slave modes require the use of data cables to be connected between the dimmer packs. Setting each mode is explained below in steps.

AUTO Mode

1) Press <MENU> button until display reads “AuTo”, or use the <UP>/<DOWN> buttons to select “AuTo” when “Snd” (or “nAnu”, “dnH”, “SLAu”) is flashing.

2) Press <ENTER> and use <UP>/<DOWN> to select one of 16 built-in programs, then press <ENTER> again to set speed for that selected program. Auto speed goes from 01 to 99, fastest to slowest.

SOUND Mode

1) Press <MENU> button until display reads “Snd”, or use <UP>/<DOWN> button to select “Snd” when “AuTo” (or “nAnu”, “dnH”, “SLAu”) is flashing.

2) Press <ENTER> and use <UP>/<DOWN> to select one of 16 built-in programs, then press ENTER again to set sensitivity level for that selected program. Sensitivity goes from 01 to 99 where 01 is the most sensitive and 99 is the least sensitive.

MANUAL Mode

1) Press the <MENU> button until “nAnU” (MANU) appears on the display, or use

<UP>/<DOWN> to select “nAnU” when “AuTo” (or “Snd”, “dnH”, “SLAu”) is flashing.

2) Press <ENTER> to enter the menu, at which point the display will read C1.00 and the value is flashing for channel 1.

3) Use the <UP> and <DOWN> arrows to set the value from 00-FF, where FF represents 100%.

4) Press <ENTER> to reach the next channel and use the <UP>/<DOWN> to set desired value.

5) Repeat step 4) to set dimmer levels for each of the remaining channels.

> **Note:** Each channel becomes available once the channel immediately preceding it is set.

DMX Mode

When the dimmer pack is receiving DMX data, the LED dot indicator located in bottom right of the Display will flash, regardless of mode settings.

DMX Address Set-up

1) By pressing the <MENU> button repeatedly, advance until the display shows “Addr”. Press <ENTER>.

2) You will now be allowed to set whether you address the unit’s channels as a group or individually to a different address. The group is the most common way, where the address is set and all the rest of the channels follow in sequence. So if you selected Group, and set the start address to 10, the rest of the channels would automatically become: 11, 12, 13, 14, 15. In the individual mode, you can address each of the 6 dimmer channels to a different DMX address. To select which method you wish to use, press the <UP> or <DOWN> keys and select A.grP for Group or A.Ind for Individual, then press <ENTER> to choose.

3) With A.grP selected, use the <UP> or <DOWN> to set the start address from 1-512. Press <ENTER> to accept address.

4) With A.Ind selected, use the <UP> or <DOWN> to set the start address of the first channel. Press <ENTER>, then repeat to set the next channel. The first number indicates the channel being addressed, and will flash. The next three numbers represent the DMX value being assigned to this channel. Use the up and down arrow keys to select the correct value.

MAXIMUM / MINIMUM OUTPUT VALUE IN DMX MODE

1) Press the <MENU> button until the display reads "**dnH"** (DMX), or use <UP>/<DOWN> to select "dnH" when "AuTo" (or "Snd", "nAnU", "SLAu") is flashing. Then press <ENTER> to progress into the menu.

2) You will see the channel being modified flashing on the left side of the display, for channel 1, it will flash C1.

3) Use the <UP> or <DOWN> arrow keys to select the channel, press <ENTER> button to enter the dimming mode. "Ld" (or "nd", or "FL") is flashing and selectable by using the <UP> or <DOWN> buttons. For linear dimming, select C1.Ld. Non-dimming (also known as switching ON/OFF) can be set with the value C1.nd, which turns the unit to FULL OFF when input received is below 40% (DMX value of 102), and turns to FULL ON when above 60% (DMX value of 153). Lastly, C1.FL stands for Fluorescent output, which does not turn on a fixture until input level reaches 50% (DMX value 128).

4) Press <ENTER> button and use <UP> or <DOWN> to select the maximum output value for the selected channel when DMX value 255 is received. Set the value from 00-FF, where FF represents 100%.

5) After setting maximum output, press <ENTER> button and use <UP> or <DOWN> to select the minimum output value for the selected channel when DMX value 0 is received. Set the value from 00-FF, where FF represents 100%.

MASTER / SLAVE

In this mode you can link up multiple units to run the whole system in sync.

1) One of the units is to be set as MASTER and it must run under Auto or Sound mode.

2) Others are set to SLAVE mode.

3) Connect DMX Out of MASTER unit to DMX In of first Slave unit, and DMX Out of first Slave to DMX In of next Slave.

RESET TO FACTORY DEFAULT SETTINGS

While holding the <MENU> button, turn ON the power switch of LINE A. The dimmer pack will confirm a successful default reset by flashing the display 3 times.

Note: The digital display will turn off if there is no activity with the buttons after 3 minutes. By pressing any of the buttons, the display will reactivate.

Mounting

Always consult a qualified professional when rigging. This unit may be placed on any flat surface or truss. When selecting a mounting position, take into consideration access for routine maintenance. This unit may be mounted in any position provided there is adequate room for connections. Mount the unit securely using one mounting clamp and a safety cable. The mounting hole size provided is ½". Safety cables must always be attached to the unit. Do not mount in a place where the unit will be exposed to rain, high humidity or extreme temperature changes. This unit is for dry / indoor use only.

Accessory Items **(sold separately)**

Order Code	Description
CLAMP-MINI/B	Mini Clamp Black for 3/4"-2"
CLAMP-CBHALF/N	Half Cheeseborough Coupler Narrow 300kg Max Load
CA-XLR5/1	Pre-made 1' 5-pin XLR Cable
CA-XLR5/5	Pre-made 5' 5-pin XLR Cable
CA-XLR5/10	Pre-made 10' 5-pin XLR Cable
CA-XLR5/25	Pre-made 25' 5-pin XLR Cable
CA-XLR5/50	Pre-made 50' 5-pin XLR Cable
CA-XLR5/100	Pre-made 100' 5-pin XLR Cable
CO-XLR5M	XLR Connector 5-pin Male
CO-XLR5F	XLR Connector 5-pin Female
CO-XLRTERM5	XLR 5 Pin Data Terminator
CO-XLR3MTO5F	XLR 3 Pin Male to 5 Pin Female Adapter
CO-XLR5MTO3F	XLR 5 Pin Male to 3 Pin Female Adapter