───── **MAIN FEATURES** ─────

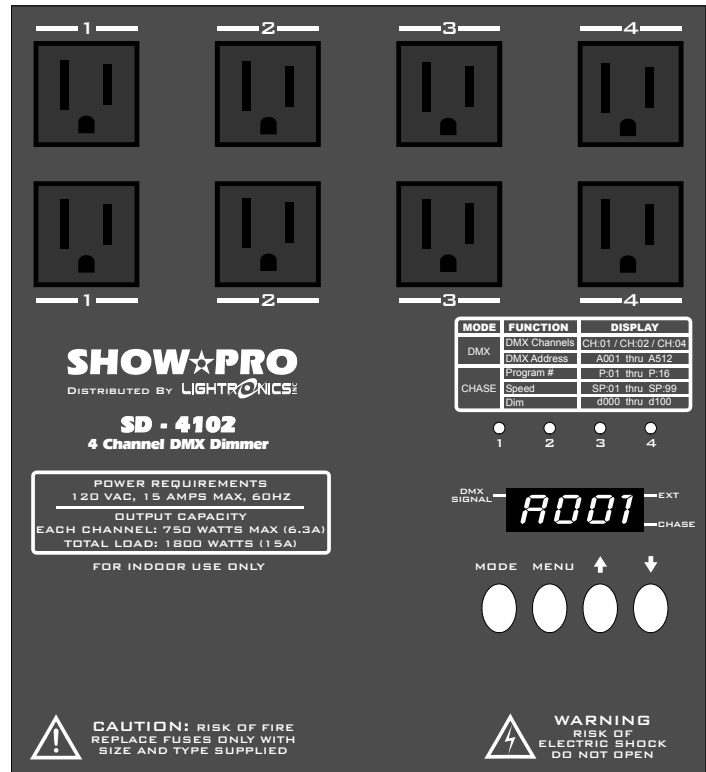**4 Channels**

4 digit LED display

Power Input: 120VAC, 50/60 Hz, 15 Amps

Power Connector: NEMA 5-15P Edison Plug

Fuse Size: 6.3 Amps each channel

Dimensions: 10.5"H x 8.5"W x 3.0"D

Weight: 5lb 2oz

SHOW☆PRO
DISTRIBUTED BY LIGHTRONICS

SD - 4102
4 Channel DMX Dimmer

POWER REQUIREMENTS
120 VAC, 15 AMPS MAX, 60HZ
OUTPUT CAPACITY
EACH CHANNEL: 750 WATTS MAX (6.3A)
TOTAL LOAD: 1800 WATTS (15A)

FOR INDOOR USE ONLY

MODE	FUNCTION	DISPLAY
DMX	DMX Channels	CH:01 / CH:02 / CH:04
	DMX Address	A001 thru A512
	Program #	P:01 thru P:16
CHASE	Speed	SP:01 thru SP:99
	Dim	d000 thru d100

1   2   3   4

DMX SIGNAL   *A001*   EXT   CHASE

MODE MENU ↑ ↓

⚠ **CAUTION:** RISK OF FIRE REPLACE FUSES ONLY WITH SIZE AND TYPE SUPPLIED

⚠ **WARNING** RISK OF ELECTRIC SHOCK DO NOT OPEN

───── **GENERAL DESCRIPTION** ─────

The SD-4102 is a 4 channel DMX dimmer pack. Each channel has a maximum capacity of 750 Watts.

The total dimmer load capacity is limited to 1800 Watts.

The SD-4102 can run chase programs independently of a DMX controller. There are 16 preset programs to select from.   The speed and intensity of chase programs is user selectable.

───── **INSTALLATION** ─────

LOCATION

The SD-4102 is intended for **INDOOR USE ONLY.**

Locate the unit in a well ventilated area away from moisture and heat. Various holes are provided on one end of the dimmer to install a lighting bar pipe clamp and suitable safety cables.

POWER CONNECTIONS

The SD-4102 has a line cord for connection to a 120 VAC, 15 Amp, 60Hz, grounded service.

LOAD CONNECTIONS

There is a dual edison socket connector provided for each channel.   Markings on the cover indicate the channel numbers for each connection. The maximum capacity of each channel is 750 Watts.

DMX CONNECTIONS

A system using DMX control should be connected as a chain of devices. In other words the control signal cable should proceed from the controller to the first dimmer and then to other dimmers in a continuous "daisy chain" fashion. Most dimmers have a DMX IN and a DMX OUT connector to be used to connect the chain. The control cable should NOT be split into a multiple run star arrangement with a cable running from the controller directly to each dimmer pack.

DMX CONNECTOR PIN ASSIGNMENTS

There are two different connectors which can be used for DMX control. They are both XLR type connectors. Some units use 3 pin connectors. Others use 5 pin connectors. The SD-4102 receives a DMX signal on the 3 pin MALE connector on the end of the unit. The 3 pin FEMALE connector is used to continue the signal on to additional DMX dimmer packs.

If your console uses a 5 pin connectors then you can make up an adapter cable to accommodate this. The table below shows the pin assignments for BOTH the 3 pin and 5 pin connectors.

PIN #	SIGNAL NAME
1	DMX COMMON
2	DMX DATA -
3	DMX DATA +
4	NOT USED
5	NOT USED

DMX TERMINATION

A DMX chain should be terminated at the last fixture (and ONLY the last fixture) on the chain. This is done by installing a commonly available 1/4 Watt, 120 Ohm resistor across the DATA - and DATA + wires at the last fixture. If you have only a few fixtures very close together and a very short run to the controller then you may be able to operate without the terminator.

──── OPERATION ────

⚠ **CAUTION** **The SD-4102 can become HOT when operating. Allow the unit to cool before handling it**

An ON/OFF switch is provided on the lower end of the SD-4102. It controls all power to the unit.

The SD-4102 operates either with external DMX control or independently in the chase mode. A DMX signal indicator in the LCD display will flash continuously anytime a DMX signal is present.

There is a LED indicator for each dimmer channel which shows the current channel intensity.

CHANNEL ASSIGNMENTS

The SD-4102 can be set to start at any DMX channel (1 thru 512). This is done by setting the units starting address. The starting address determines the DMX address of channel one. The other 3 channels will normally be the next 3 consecutive channel numbers. The behavior of channels 2, 3, and 4 can be altered by COMBINING CHANNELS as described in this manual.

SETTING THE STARTING ADDRESS:

During DMX (external control) operation the DMX channel starting address for the unit is shown on the LCD display prefixed with **A**.

Use the ⬆ and ⬇ buttons to change the address. The starting address for DMX channel five would appear on the display as **A005**.

COMBINING CHANNELS

The SD-4102 can operate as four independent dimmer channels, two pairs of channels, or as a single channel.

TO CHANGE THE CHANNEL COMBINE SETTING:

1. Push MENU.

2. The current setting will be shown prefixed by **CH:**. Use the ⬆ and ⬇ buttons to select **CH:04** for four independent channels, **CH:02** for two pairs of two channels each, or **CH:01** to make the unit run with all four channels acting together.

OPERATING MODES

The operating mode is controlled by the MODE button. You can switch between external and chase modes at any time.

EXTERNAL MODE (DMX CONTROL) OPERATION

Operation is automatically controlled by an external DMX signal from a lighting console when the unit is in the external mode.

The EXT indicator in the LCD display is on when in external mode. The DMX SIGNAL indicator in the display will be flashing if a DMX signal is present.

CHASE MODE OPERATION

Chase mode provides the ability to automatically run one of 16 chase programs. The CHASE indicator on the LCD display will be on in chase mode. The DMX signal is ignored in chase mode.

You can control the speed and intensity of chase programs. Speed and intensity settings apply to all chase programs.

TO SELECT A CHASE PROGRAM

1. Push MODE to switch the unit to chase mode.

   The LCD display will show which chase program is active preceded with **P:**. Chase program 12 would be shown as **P:12**.

2. Use the ⬆ and ⬇ buttons to select any other chase program. It will become active immediately.

TO SET THE CHASE SPEED

1. Push MODE to switch the unit to chase mode.

2. Push MENU once to access chase speed selection.

   The current speed selection will be shown on the LCD display preceed by **SP:**. The speed ranges from **SP:01** which is about 30 seconds per step to **SP:99** which is about 10 steps per second. A speed of about 1 sec./step would be shown as **SP:75**.

3. Use the ⬆ and ⬇ buttons to make the chase run faster or slower.

TO SET THE CHASE INTENSITY

1. Push MODE to switch the unit to CHASE mode.

2. Push MENU twice to access intensity selection.

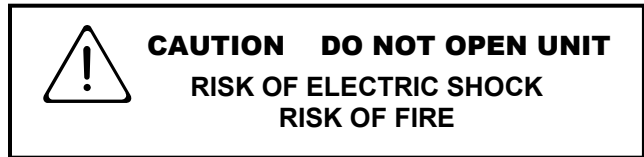   The current intensity (0% - 100%) selection will be shown on the LCD display preceed by **D**. An intensity selection of full would be shown as **D100**.

3. Use the ⬆ and ⬇ buttons to make the intensity brighter or dimmer.

———— MAINTENANCE AND REPAIR ————

TROUBLESHOOTING

Check that you have power applied to the dimmer.

Check that all light fixtures are functional.

Check the fuses.

Check the DMX control cable.

Check the address settings of the dimmer and the controller.

REPAIR

⚠ **CAUTION   DO NOT OPEN UNIT**
RISK OF ELECTRIC SHOCK
RISK OF FIRE

The only SD-4102 user serviceable parts are externally accessible fuses. Replace fuses **ONLY** with 6.5 Amp, 125VAC, fast blow fuses.

Internal service on the unit by other than Lightronics authorized agents will void the warranty. If service is required, contact the dealer from whom you purchased the dimmer, or contact the Lightronics, Service Department, 509 Central Drive, Virginia Beach, VA 23454. Tel: 757 486 3588.

SHOW☆PRO WARRANTY SHOW☆PRO

All **SHOW☆PRO** products are warranted for a period of TWO YEARS from the date of purchase against defects in materials and workmanship.

This warranty is subject to the following restrictions and conditions:

A) If service is required, you may be asked to provide proof of purchase from an authorized Lightronics dealer.

B) This warranty is valid only for the original purchaser of the unit.

C) This warranty does not apply to damage resulting from abuse, misuse, accidents, shipping, and repairs or modifications by anyone other than an authorized Lightronics service representative.

D) This warranty is void if the serial number is removed, altered or defaced.

E) This warranty does not cover loss or damage, direct or indirect arising from the use or inability to use this product.

F) Lightronics reserves the right to make any changes, modifications, or updates as deemed appropriate by Lightronics to products returned for service. Such changes may be made without prior notification to the user and without incurring any responsibility or liability for modifications or changes to equipment previously supplied. Lightronics is not responsible for supplying new equipment in accordance with any earlier specifications.

G) This warranty is the only warranty either expressed, implied, or statutory, upon which the equipment is purchased. No representatives, dealers or any of their agents are authorized to make any warranties, guarantees, or representations other than expressly stated herein.

H) This warranty does not cover the cost of shipping products to or from Lightronics for service.

I) Lightronics Inc. reserves the right to make changes as deemed necessary to this warranty without prior notification.