TL3012

MEMORY CONTROL CONSOLE

OWNERS MANUAL

Version 0.8

07/13/2021

SPECIFICATIONS

Channels:	12	Output connector:	5 pin XLR connector for DMX (Optional add on 3 pin XLR for LMX) (One 3 pin XLR for DMX option also available)
Operating modes:	Two Scene Manual Mode Preset Scene Playback Mode Chase Mode		
Scene memory:	24 scenes total in 2 banks of 12 each	Compatibility:	LMX-128 protocol compatible with other multiplexed systems
Chase:	12 programmable 12 step chases	Power input:	12 VDC, 1 Amp external power supply provided.
Control protocol:	DMX-512 Optional LMX-128 (multiplex)	Dimensions:	10.25" W X 9.25" D X 2.5" H

DESCRIPTION

The TL3012 is a compact, portable, digital dimmer controller. It provides 12 channels of DMX-512 control via a 5-pin XLR connector. It can optionally provide an LMX-128 output on a 3 pin XLR connector. An option to have only one output connector as a 3 pin XLR connector with DMX is available. The TL3012 operates in a 2 scene manual mode or can provide 24 preset scenes organized in 2 banks of 12 scenes each. Twelve user defined chase patterns are always available. Scene fade rate, chase rate and chase fade rate are user controlled. Audio may also be used as a chase rate control. Other features of the TL3012 include: a master fader, momentary buttons, and blackout control. Scenes and chases stored in the unit are not lost when the unit is turned off.

INSTALLATION

The TL3012 control console should be kept away from moisture and direct sources of heat. The unit is intended for indoor use only.

DMX CONNECTIONS: Connect the unit to a DMX Universe using a control cable with 5 pin XLR connectors. An external power supply must be used if only the DMX connector is being used. A 3 pin XLR connector for DMX instead of a 5 pin XLR connector is also an option.

LMX CONNECTIONS: Connect the unit to a Lightronics (or compatible) dimmer using a multiplex control cable with 3 pin XLR connectors. The TL3012 can be powered through this connection by the dimmer(s) which it is connected to. It may also be powered via an optional external power supply. This option is not available if the 3 pin XLR connector option for DMX is chosen.

DMX-512 Connector Wiring
5 PIN OR 3 PIN FEMALE XLR

5-PIN #	3-PIN #	SIGNAL NAME
1	1	Common
2	2	DMX data -
3	3	DMX data +
4	-	Not Used
5	-	Not Used

LMX-128 Connector Wiring
(3 PIN FEMALE XLR)

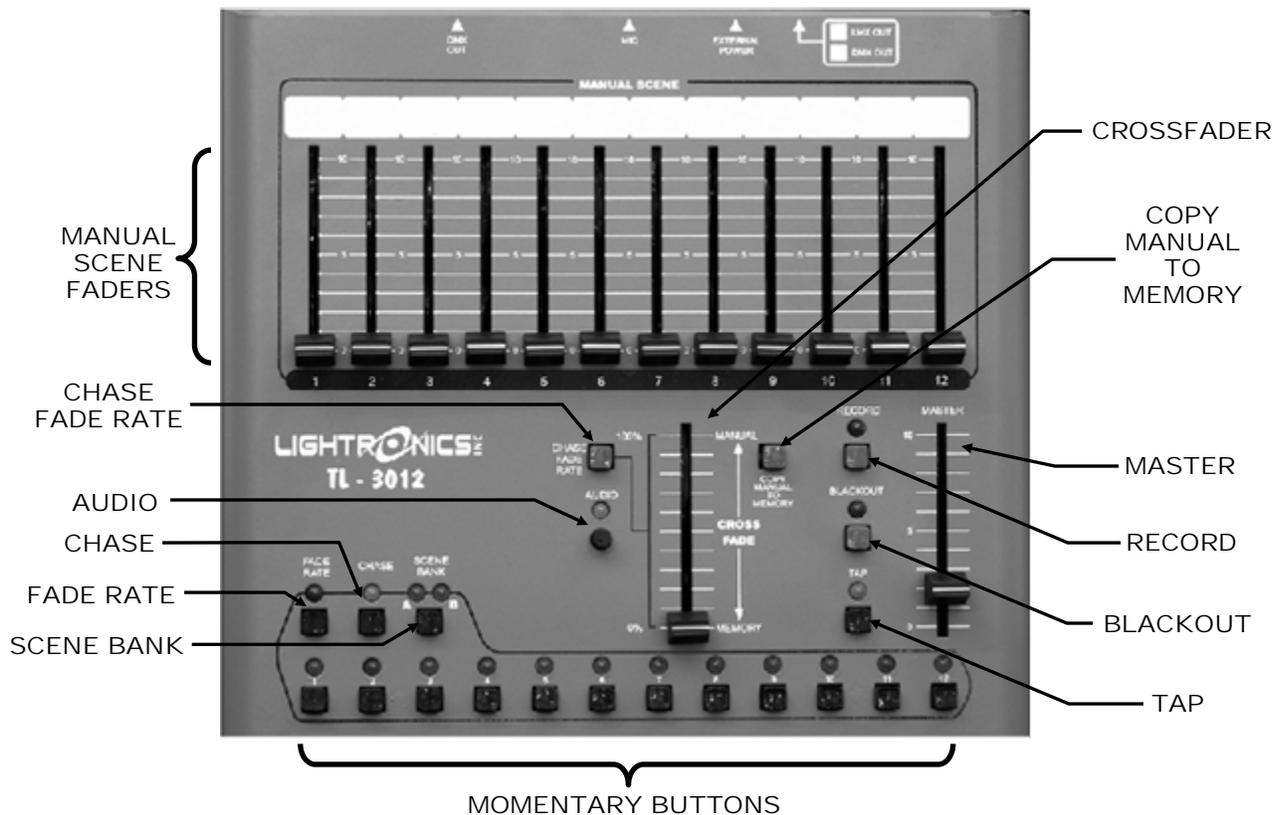| PIN #	SIGNAL NAME
1	Common
2	Phantom power from dimmers Normally +15VDC
3	LMX-128 multiplex signal

If you are using audio for chase control - ensure that the microphone holes on the back of the unit are not covered.

You should check the address settings of the dimmers before proceeding with TL3012 operation.

CONTROLS AND INDICATORS

MANUAL SCENE Faders:	Control individual channel levels.
CROSS FADE:	Transfers between fader setting and stored scenes. Also used for chase fade rate control.
COPY MANUAL TO MEMORY:	Records fader settings to manual scene memory.
Momentary Buttons:	Activate associated channels at full intensity while pressed. They are also used for chase selection, prestored scene selection, and scene fade rate selection.
TAP Button:	Press three or more times at desired rate to set chase speed.
TAP Indicator:	Shows the chase step rate.
BLACKOUT Button:	Turns on and off console output from all scenes, channels, and chases.
BLACKOUT Indicator:	Lit when blackout is active.
MASTER Fader:	Adjusts output level of all console functions.
RECORD Button:	Used to record scenes and chase steps.
RECORD Indicator:	Flashes when chase or scene recording is active.
AUDIO Control:	Adjusts chase sensitivity to internal audio microphone.
AUDIO Indicator:	Indicates that audio chase control is active.
FADE RATE Button:	Allows momentary buttons to be used to set a universal scene fade rate.
CHASE Button:	Allows momentary buttons to be used to select a chase number.
SCENE BANK A and B:	Selects scene bank A or B and enables momentary buttons to be used to select a scene number within the associated bank.
CHASE FADE RATE:	Reads the CROSS FADER setting as a chase fade rate setting.

TL3012 FACE VIEW

LIGHTRONICS

OPERATING MODES

The TL3012 has 3 modes of operation: (1) Two Scene Manual Mode. (2) Preset Scene Mode. (3) Chase Mode. General operation of the unit in each mode is described below.

Two Scene Manual Mode: Start by moving the "CROSS FADER" up (to the MANUAL position). The upper 12 faders will control the output channels. If you push "COPY MANUAL TO MEMORY" the fader settings will be copied to a manual scene memory in the unit. At this point you can move the "CROSS FADER" to the MEMORY position. The channel information is now being provided by memory data which you just copied from the faders. The 12 upper faders are now free and can be moved without disturbing the output channels since the memory is now providing the channel output. You can set your NEXT scene on the upper 12 faders. When you move the "CROSS FADER" back to the MANUAL position - the unit will again take its channel information from the faders. By proceeding this way you can always create your next scene and then fade to it with the CROSS FADER.

The "COPY MANUAL TO MEMORY" function records at the end of the currently set scene fade rate. You must leave the "MANUAL SCENE" faders in a stable state for this duration or you may not record the scene correctly.

Preset Scene Mode: In this mode you can activate a series of up to 24 scenes which you have programmed or preset ahead of time. These scenes are stored in 2 banks of 12 scenes each. This memory is separate from the memory described in Two Scene Manual Mode operation above. The inter-scene fade rate is controllable and you can activate the scenes in any desired order. Multiple scenes may be on at the same time (including scenes from both banks A and B). If multiple preset scenes are on then they will merge in a "greatest of" manner with respect to individual channels. Specific scene recording and playback instructions are provided in this manual.

Chase Mode: In this mode a series of light patterns is automatically sent to the dimmers. Up to 12 chase patterns can be created by the operator. Each chase pattern may contain up to 12 steps. The chase step rate and step fade time may also be controlled. Step times may be set quite long. This will result in what appears to be an automatic slow scene progression. Specific Instructions for creating and playing chases are provided further on in this manual. Chases are exclusive (Only one chase may be on at a given time.).

RECORDING PRESET SCENES

1   Adjust the MANUAL SCENE faders to the desired levels (create the scene).
2   Push "SCENE BANK" to toggle to the desired scene bank (A or B).
3   Press "RECORD".
4   Press a momentary button (1 -12) to record the fader settings as a scene.

PRESET SCENE PLAYBACK

NOTE: The "CROSS FADER" <u>must</u> be in the MEMORY position to activate preset scenes.

1   Push "SCENE BANK" button to toggle to the desired (A or B) scene bank.
2   Push the momentary button (1-12) for the scene you want to activate.

PRESET SCENE FADE RATE

The fade rate for preset scenes may be set between 0 and 12 seconds and applies universally to all preset scenes. The preset scene fade rate may be set at any time.

1   Push "FADE RATE". The FADE RATE indicator will light.
2   Push one of the momentary buttons (1-12) to set the rate. The left button is 1 sec.. The right one is 12 secs.. You can set a 0 second fade rate (instant on) by pushing the momentary button which has its indicator lighted.
3   Once you have selected a fade rate - push "FADE RATE". The FADE RATE indicator will go out and the unit will return to normal operation.

RECORDING CHASES

1   Press "RECORD". The RECORD LED will begin flashing.
2   Press "CHASE". This causes the momentary buttons (1-12) to act as chase number selectors.
3   Press a momentary button (1-12) to select the chase number for recording.
4   Use the MANUAL SCENE faders to set the channel intensities for the FIRST chase step.
5   Press "RECORD" to store the settings and advance to the next chase step. The RECORD LED will continue flashing and the unit is ready to record the next step.
6   Repeat steps 4 and 5 for the next and following steps until all desired steps are recorded (up to 12 steps).
7   Press the momentary button (1-12) for the chase being programmed to end the recording process. If you record all 12 steps, press the "CHASE" button to end the recording process.

CHASE PLAYBACK

1   Press the "TAP" button 3 or more times at the desired rate to set the chase speed.
2   Press "CHASE". This causes the momentary buttons (1-12) to act as chase number selectors.
3   Press the momentary button (1-12) for the chase you want to activate. The chase will begin running.

The chase step fade time is controllable as follows: While the chase is running - move the CROSS FADER to set a fade time (0–100% of step duration) then push "CHASE FADE RATE" to read the fader and lock in the rate.

To turn off a chase: Push "CHASE". The Chase indicator and one of the momentary indicators will be lighted. Push the momentary button associated with the indicator. The chase will stop and the indicator will go out. Push "CHASE" to deselect chase setup. The amber chase indicator will go out. The "BLACKOUT" function will inhibit chases when it is active.

AUDIO DRIVEN CHASE

The chase rate may be controlled by an internally mounted microphone. The microphone picks up sounds nearby and circuitry in the TL3012 filters out all but low frequency sounds. The result is that the chase will synchronize with bass notes of music being played nearby.

Rotate the "AUDIO" control clockwise to increase the sensitivity of the microphone. This control is disabled when turned fully counterclockwise.

LMX OPERATION

If the LMX option is installed, the TL3012 will transmit both DMX and LMX signals simultaneously. If power for the TL3012 is provided by an LMX dimmer via pin 2 of the LMX - XLR connector, then an external power supply is not required. The LMX option is not available if the 3 pin XLR option for DMX is chosen.

QUICK START INSTRUCTIONS

The bottom cover of the TL3012 contains brief instructions for using scenes and chases. The instructions are not intended as a substitute for this manual and should be viewed as "reminders" for operators who are already familiar with TL3012 operation.

MAINTENANCE AND REPAIR

TROUBLESHOOTING

Check that the AC or DC power supply is providing power to the TL3012 console

To simplify troubleshooting - set the unit to provide a known set of conditions.

Make sure that the dimmer address switches are set to the desired channels.

OWNER MAINTENANCE

The best way to prolong the life of your TL3012 is to keep it dry, cool, clean, and COVERED when not in use.

The unit exterior may be cleaned using a soft cloth dampened with a mild detergent/water mixture or a mild spray-on type cleaner. DO NOT SPRAY ANY LIQUID directly on the unit. DO NOT IMMERSE the unit in any liquid or allow liquid to get into the controls. DO NOT USE any solvent based or abrasive cleaners on the unit.

The faders are not cleanable. If you use a cleaner in them – it will remove the lubrication from the sliding surfaces. Once this happens it is not possible to re-lubricate them.

The white strips above the faders are not covered by the TL3012 warranty. If you mark on them with any permanent ink, paint, etc., it is likely that you will be unable to remove the markings without damaging the strips.

There are no user serviceable parts in the unit. Service by other than Lightronics authorized agents will void your warranty.

EXTERNAL POWER SUPPLY INFORMATION

The TL3012 may be powered by an external power supply with the following specifications:

Output Voltage:	12 VDC
Output Current:	800 Milliamps minimum
Connector:	2.1mm female connector
Center Pin:	Positive (+) polarity

OPERATING AND MAINTENANCE ASSISTANCE

Dealer and Lightronics Factory personnel can help you with operation or maintenance problems. Please read the applicable parts of this manual before calling for assistance.

If service is required - contact the dealer from whom you purchased the unit or contact Lightronics, Service Dept., 509 Central Drive, Virginia Beach, VA 23454   TEL: (757) 486-3588.

WARRANTY

All Lightronics products are warranted for a period of TWO/FIVE 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) The FIVE YEAR WARRANTY is only valid if the warranty card is returned to Lightronics accompanied with a copy of the original receipt of purchase within 30 DAYS of the purchase date, if not then the TWO YEAR WARRANTY applies.   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.