THRILL Multi-FX LED

User Guide

Martin
by HARMAN®

Fixture overview
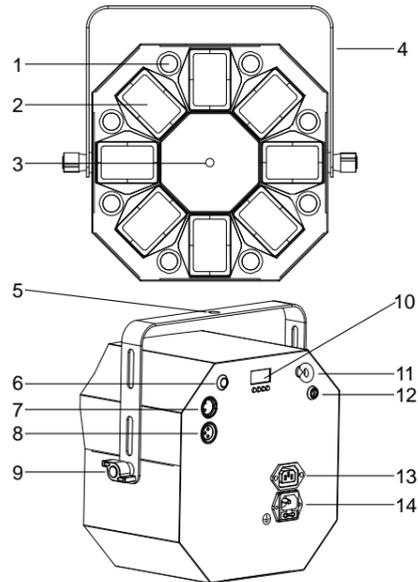
1	White strobe LEDs	8	DMX in
2	Multibeam lenses	9	Hand wheel
3	Laser aperture	10	User Interface
4	Mounting bracket	11	Secondary attachment point
5	Clamp attachment point	12	Laser lockout switch
6	Microphone	13	AC mains out
7	DMX out	14	AC mains in & fuse

Using the control menu

The control menu is shown below. To access the menu, press the MENU button. Scroll through options with the ▼ (down) and ▲ (up) buttons. Press ENTER to select an option. To return to a higher level in the menu, press MENU. To exit the menu, press and hold MENU or wait a few seconds.

The default menu settings are shown in **bold**.

Menu	Sub-menu		Explanation
Addr	**001** – 511		Set DMX address
CHAn	2Ch		Select 2-channel DMX personality
	16Ch		Select 16-channel DMX personality
MASL	SL 1		Set fixture to client mode 1
	SL 2		Set fixture to client mode 2
	MASt		Set Master fixture
ShoU	SH-		
		oFF	Show selection off
		Auto	Set Automatic trigger
		Sh 1	
		Sh 2	
		Sh 3	
		Sh 4	Select preprogrammed show.
		Sh 5	
		Sh 6	
		Sh 7	
		Sh 8	
	SPEd		Select auto-trigger speed from 1-8
SoUn	on-**oFF**		Toggle sound activation on/off
SEnS	1 - 100		Set microphone sensitivity
dMH	bLCH		Black out if no DMX
	ShoU		Run stand-alone show if no DMX
	hoLd		Hold last values if no DMX
di SP	Lcd	**on**/oFF	Toggle display on/off
	i nut	YES	Inverted/normal display
MAnu	Stro		Set multibeam effects (DMX ch 1)
	di M		Set multibeam intensity (ch 2)
	rEd		Set red intensity (ch 3)
	grEE		Set green intensity (ch 4)
	bLUE		Set blue intensity (ch 5)
	AMbr		Set amber intensity (ch 6)
	UHI t		Set white intensity (ch 7)
	coMA		Set preset color value/effect (ch 8)
	rot		Set multibeam effect rotation (ch 9)
	Stdi		Set strobe intensity (ch 10)
	Stro		Set strobe effect (ch 11)
	StFH		Set strobe effect speed (ch 12)
	LASE		Set laser effect (ch 13)
	LArt		Set laser effect rotation (ch 14)
tESt			Run test of all effects
FhrS			Readout fixture hours
uEr			Readout firmware version
rSt	no/YES		Reset to default values

Show Mode operation

The Multi-FX LED provides 8 pre-programmed shows that can be selected from a DMX controller or from the control panel in Show Mode. The shows use different variations of strobe, multibeam, and laser effects, that can be triggered automatically or by sound.

> **Lasers can cause serious injury. Read the *Safety and Installation Guide* before use.**

Enable Show Mode

For Show Mode operation, the fixture must not be receiving commands from a DMX controller. It must be set to run in Show Mode when there is no DMX signal. Show mode settings are stored to an EPROM chip, and can be recalled even after powered off. Enable Show Mode as follows:

1. Press MENU to enter the control menu.
2. Scroll to dMH. Press ENTER.
3. Scroll to SHOU. Press ENTER.

Show selection

To select a programmed show:

1. Scroll to ShoU. Press ENTER.
2. Scroll to SH-. Press ENTER
3. Scroll to a show from 1 - 8, or select Auto to run all shows.
4. Press ENTER.

Sound/Auto trigger selection

Shows can be automatically triggered or sound triggered. To select the trigger type:

1. Scroll to SoUn. Press ENTER.
2. Select on to enable sound trigger, or oFF to enable auto-trigger.
3. Press ENTER.

Auto trigger speed

If using auto trigger, set the speed as follows:

1. Scroll to Shou. Press ENTER.
2. Scroll to SPEd. Press ENTER.
3. Select a trigger speed from 1 (slow) to 8 (fast). Press ENTER.
4. Press and hold MENU to start show mode operation.

Microphone sensitivity (SEnS)

If using sound trigger, adjust microphone sensitivity as follows:

1. Scroll to SEnS. Press ENTER.
2. Press ▲ to make the fixture more responsive, up to 100. Press ▼ to make the fixture less responsive, down to 0.
3. Press ENTER.
4. Press and hold MENU to start show mode operation.

Master/client operation

Up to 32 Multi-FX LED fixtures can be linked in a chain for synchronized operation where the first fixture controls the others using the first fixture's Show Mode settings.

Two client modes are available. When set to Client Mode 1, fixtures behave exactly like the master. In Client Mode 2, fixtures synchronize with the master fixture with slightly different routines.

Note: Having more than one master fixture may cause damage. Set client fixtures before connecting them to the first fixture.

To set the first fixture to be the master:

1. Press MENU to enter the control menu.
2. Scroll to MASL. Press ENTER.
3. Scroll to MASt. Press ENTER to set as master.

Set the master fixture's show mode options as described above.

To set the other fixtures to be clients:

1. Press MENU to enter the control menu.
2. Scroll to MASL. Press ENTER.
3. Select SL 1 or SL 2. Press ENTER.
4. Press and hold MENU to exit the menu.

Connect client fixtures to the master fixture using DMX cable. Connect the master fixture's DMX OUT socket to the DMX IN socket of the first client fixture. Continue connecting DMX OUT to DMX IN as described in the Safety and Installation Guide.
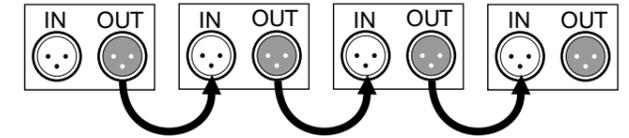
DMX operation

The Multi-FX LED may be linked to a DMX controller and operated in DMX mode. The fixture has two DMX personality modes: a 2-channel mode that provides remote control of show mode options, and a 16-channel mode that provides full control of each effect including Show Mode options. The fixture automatically runs in the selected DMX personality mode when connected to an operating controller.

The fixture's DMX start address must be set to match the address assigned to it on the DMX controller.

The control panel indicates DMX mode operation by displaying the fixture's DMX start address.

To select the DMX personality mode:

1. Press MENU to enter the control menu.
2. Scroll to CHAn. Press ENTER.
3. Scroll to the desired mode: 2Ch or 16Ch. Press ENTER.
4. Press and hold MENU to exit the menu.

Assign an address for the fixture on the DMX controller. Then set the address on the Multi-FX LED as follows:

1. Press MENU to enter the control menu.
2. Scroll to Addr. Press ENTER.
3. Scroll to the address assigned to the fixture. Press ENTER.
4. Press and hold MENU to exit the menu.

For independent control, each fixture must have its own unique address and control channels. Two or more Multi-FX LED fixtures may have the same address if symmetric control is desired.

DMX commands, 2 Channel Mode

Ch.	Value	Function
1		**Show Selection**
	0-7	Off (no show)
	8-37	Show 1
	38-67	Show 2
	68-97	Show 3
	98-127	Show 4
	128-157	Show 5
	158-187	Show 6
	188-217	Show 7
	218-247	Show 8
	248-255	Random Show
2		**Trigger Selection and Speed**
	0-10	Sound activation
	11-255	Auto trigger, slow to fast

DMX Commands, 16 Channel Mode

Ch.	Value	Function
1		**Multibeam Effects Selection**
	0-7	Multibeam effect off

Ch.	Value	Function
	8-15	Continuous beams
	16-131	Slow to fast flash
	132-139	Continuous beams
	140-181	Pulse, fast close/slow open
	182-189	Continuous beams
	190-231	Pulse, slow close/fast open
	232-239	Continuous beams
	240-247	Random flash
	248-255	Sound trigger flash
2	0-255	**Multibeam Master Intensity** 0-100%
3	0-255	**Red Intensity** 0-100%
4	0-255	**Green Intensity** 0-100%
5	0-255	**Blue Intensity** 0-100%
6	0-255	**Amber Intensity** 0-100%
7	0-255	**White Intensity** 0-100%
8		**Multibeam Preset Colors**
	0-10	No preset color
	11-190	Color 1-36
	191-192	No preset color
	193-214	Color scroll, fast to slow
	215-221	Color scroll stop
	222-243	Reverse color scroll, slow to fast
	244-245	Random colors, fast
	246-247	Random colors, medium
	248-249	Random colors, slow
	250-255	Sound trigger color
9		**Multibeam Rotation**
	0-99	Reverse rotation, fast to slow
	100-109	Stop
	110-209	Forward rotation, slow to fast
	210-255	Sound trigger rotation
10		**Strobe Intensity**
	0-255	Intensity, 0-100%
11		**Strobe Selection**
	0-10	Steady on
	11-20	Strobe
	21-30	Pulse close-open
	31-40	Random strobe
	41-50	Single dots
	51-60	Pair of dots
	61-70	Opposite dots
	71-80	Opposite pair of dots
	81-90	4x alternate
	91-100	Single dot criss-cross
	101-110	Ring chases on / All off
	111-120	Ring chases on / Ring Chases off
	121-130	Ring chases on / Ring chases off – Reverse
	131-140	Random single dots
	141-150	Left/right halves
	151-160	Top/bottom halves
	161-170	X to X
	171-240	reserved
	241-255	Random FX
12		**Strobe Speed**
	0-99	Reverse, fast to slow
	100-109	Stop
	110-209	Forward, slow to fast
	210-255	Sound trigger
13		**Laser Selection**
	0-10	Off
	11-20	Red
	21-30	Green
	31-40	Red + Green
	41-50	Red Strobe
	51-60	Red Random Strobe
	61-70	Red Strobe / Green on
	71-80	Green Strobe
	81-90	Green Random Strobe
	91-100	Green Strobe / Red on
	101-110	Red / Green alternate strobe
	111-120	Red/ Green Random Strobe
13	121-210	Reserved

Ch.	Value	Function
	211-220	Sound Trigger Red
	221-230	Sound Trigger Green
	231-240	Sound Trigger Alternate Red / Green
	241-255	Random
14		**Laser Rotation**
	0-99	Reverse rotation, fast to slow
	100-109	Stop
	110-209	Forward rotation, slow to fast
	210-255	Sound trigger
15		**Show Mode: Show Selection**
	0-7	Show mode off
	8-37	Show 1
	38-67	Show 2
	68-97	Show 3
	98-127	Show 4
	128-157	Show 5
	158-187	Show 6
	188-217	Show 7
	218-247	Show 8
	248-255	Random Show
16		**Show Mode: Trigger and Speed**
	0-10	Sound activation
	11-255	Auto trigger, slow to fast

Other settings and readouts

DMX state (dПH)

When there is no DMX signal, the fixture can be set to run in Show Mode, black out, or hold the last DMX values received. **For Show Mode operation, DMX state must be set to 5hoU.**

To select behavior when there is no DMX signal:

1. Select dПH in the control menu and press ENTER.
2. Select the desired behavior: 5hoU (Show Mode), bLcH (black out), or hoLd (hold last received DMX values).
3. Press ENTER to save your selection.

Manual setting (ПAnu)

All DMX-controllable effects can be activated from the control panel. To set effects manually:

1. Enter the control menu.
2. Engage Show Mode (dПH > 5HOU)
3. Turn off show selection (5hoU > 5H- > oFF).
4. Disable sound trigger (5oUn > oFF).
5. ПAnu should now be displayed.
6. Select ПAnU in the control menu and press ENTER.
7. Select an effect and press ENTER.
8. Referring to the 16-channel DMX command table, scroll from 0 to 255 to select the desired look.
9. Press ENTER to store the setting.
10. Press MENU and repeat steps 2-4 for each desired effect.

The settings are retained until the fixture is operated in Show Mode, DMX Mode, or is turned off.

LED display on/off (Lcd)

To set the control panel's LED display to be on all the time, or set to automatically sleep when not in use:

1. Select dISP in the control menu and press ENTER.
2. Select Lcd and press ENTER.
3. Select on (LED on) or oFF (LED off when not in use).
4. Press ENTER to save your selection.

LED display inversion (InuE)

To invert the control panel's LED display for easier reading:

1. Select dISP in the control menu and press ENTER.

2. Select InuE and press ENTER.
3. Select YE5 to invert the display.
4. Press ENTER to save your selection or MENU to escape.

Auto test (tE5t)

To test the entire fixture functions select tE5t and press ENTER. The fixture runs a sequence of all effects. Press ENTER to stop the test routine.

Fixture readouts

Hours: To display the fixture's total operating hours select Fhr5 and press ENTER. Press ENTER or MENU to exit.

Firmware: To display the firmware version number, select uPr and press ENTER. Press ENTER or MENU to exit.

Settings reset

To return all user settings to the factory default values, select r5t in the control menu. Scroll to YE5 press ENTER to confirm. Press MENU or no to escape.

Troubleshooting

Symptom	Potential Causes	Remedies
No light from fixture, control panel dead	Power supply issue such as blown fuse, faulty connector or damaged cable	Ensure that the mains supply is connected and supplying power to the fixture.
		Check all power connections and cables.
		Check and if necessary replace the fuse.
Fixture does not respond to DMX control	Fault in the DMX network due to connector or cable damage, incorrect DMX addressing, or signal interference.	Ensure that fixture's DMX address matches address set on DMX control device.
		Check DMX cables and connections.
		Ensure that DMX link is terminated.
		Reduce number of fixtures on DMX link.
		Attempt to control the fixture with another DMX control device.
		Move or shield link if it is close to unshielded high-voltage cables.
Fixture does not respond in Show Mode	Fixture set to run as client	Change master/client setting to tSAП under LSAП menu.
	Sound trigger disabled	Enable microphone in 5oUn menu.
	Show Mode disabled or no show selected	Change DMX state setting to 5hoU in dПH menu.
		Select a show in 5hou menu.
	Microphone sensitivity too low	Increase sensitivity setting.
Fixtures don't respond in master/client mode	Fixture receiving multiple control signals	Disconnect or turn off DMX controller.
		Verify there is only one fixture master fixture.