



LightWild's DMX Director

HOW TO PROGRAM
THE LIGHTWILD DMX DIRECTOR
WITH A COMPUTER

LIGHTWILD

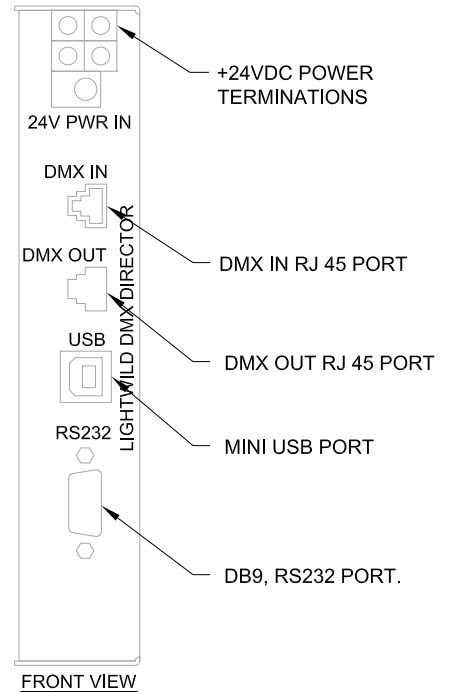
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(See also a separate document, **LightWild's DMX Director Instructions**, for more information.)

Establish Communication With Your Computer

- 1 Connect your computer to the LightWild DMX Director using a DB9 serial cable or a USB cable (not included).

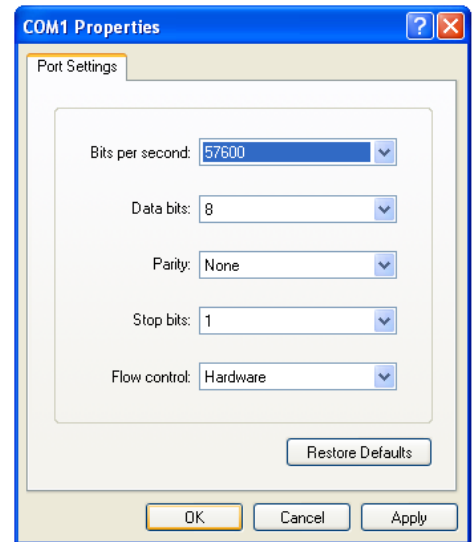


- 2 A serial communication program is required for your computer to communicate with the DMX Director. For Windows users the Hyperterminal program included with Windows can be used. It is typically found under Programs/Accessories/Communication/Hyperterminal.

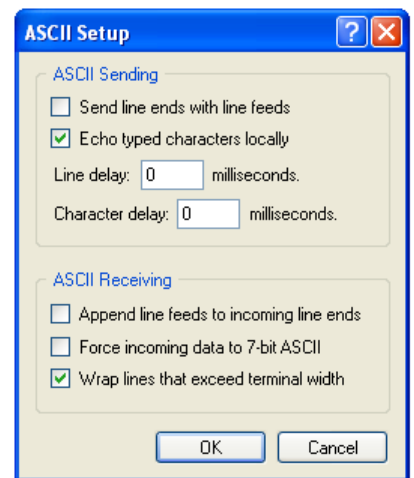
Select the name of the DB9 connection port on your computer, this is typically identified as COM1



- 3 Set the Port Settings as shown in the screen shot.
(This can also be set under File/Properties/Settings)



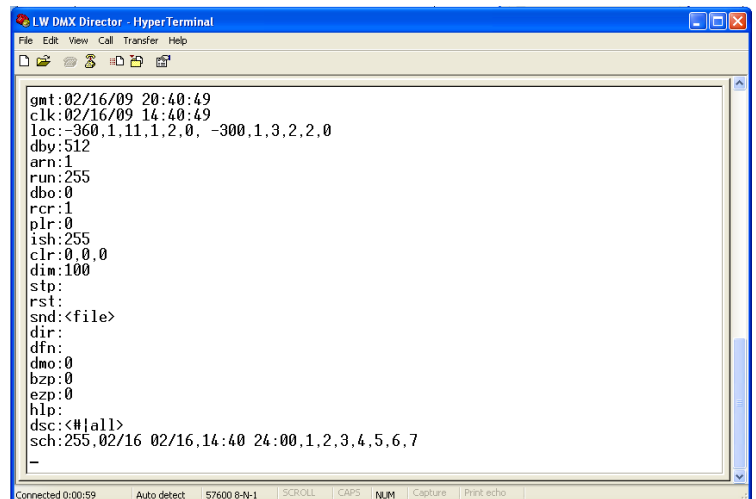
- 4 Change the ASCII Setup as shown in the screen shot.



- 5 Once communication is established, you can view all commands and their current settings by typing the following command:
?(enter)

A screen similar to this one will appear.

These commands can be used to play and record shows, change settings and upload shows as described in the tables on the following pages.



LightWild DMX Director • Commands

Command	Description	Example Setting	Variable Description	Explanation
gmt:	Greenwich Mean Time	02/16/09 20:40:49	02: Month: February 16: Day: 16th 09: Year: 2009 20: Hour: 8 PM 40: Minute 40 49: Second 49	All scheduling within the DMX Director is determined by Greenwich Mean Time. Current Greenwich Mean Time is at www.greenwichmeantime.com . If it is 3:15 pm on February 24th in Kansas City, Greenwich Mean Time would be + 6 hours or 9:15 PM. To set Greenwich Mean Time type: gmt=02/24/09 21:15:00
clk:	Local Time	02/16/09 14:40:49	02: Month: February 16: Day: 16th 09: Year: 2009 14: Hour: 2 PM 40: Minute 40 49: Second 49	Local Time can be set, or it will be automatically determined by setting both the GMT (see above) and LOC (see below) commands. If it is 3:15 pm on February 24th in Kansas City, to set Local Time type: clk=02/24/09 15:15:00
loc:	Local time settings as adjusted off of Greenwich Mean Time and when they occur	-360,1,11,1,2,0 -300,1,3,2,2,0		
		-360,1,11,1,2,0		The first set of numbers represent Standard Time (Std Bias). In the United States time is adjusted from Daylight Savings time to Standard Time at 2: AM on the first Sunday in November
			-360: STD BIAS	the number of minutes from GMT for std bias (varies by location)
			1: STD OCCURANCE	the day of the week that the change occurs (Sunday). If you set this value to 0, then the Day is treated as a specific day of the month rather than the occurrence of a day of the week.
			11: STD MONTH	the month that the change occurs (November).
			1: STD DAY OF WEEK	the instance of the day in the month (First Sunday)
			2: STD HOUR	the hour the change occurs (2 AM).
			0: STD MINUTE	the minute the change occurs (0 min).
		-300,1,3,2,2,0		The second set of number represents Daylight Savings Time (Dst Bias). In the United States time is adjusted from Daylight Savings time to Standard Time at 2: AM on the first Sunday in November.
			-300: DST BIAS	the number of minutes from GMT for std bias (varies by location)
			1: DST OCCURANCE	the day of the week that the change occurs (Sunday) If you set this value to 0, then the Day is treated as a specific day of the month rather than the occurrence of a day of the week.
			3: DST MONTH	the month that the change occurs (March).
			2: DST DAY OF WEEK	the instance of the day in the month (Second Sunday)
			2: DST HOUR	the hour the change occurs (2 AM)
			0: DST MIN	The minute the change occurs (0 min)

LightWild DMX Director • Commands (continued from previous page)

Command	Description	Example Setting	Variable Description	Explanation
dby:	DMX Bytes	512	512 bytes	Quantity of DMX bytes you want to record. A DMX signal is composed of 512 bytes, this command will let you chose how many of those bytes you want to record. This is typically left at 512. To change the number of DMX bytes recorded to 125 type dby=125(enter).
arn:	Auto Run	1	Auto Run Enabled	Arn Enables(=1) or Disables(=0) the scheduler. The scheduler, when enabled, automatically runs shows based on schedules you create using the sch (schedule) command. When no schedules apply based on the current date/time then the scheduler will run the show specified with the ish (idle show) command. If the ish value is 255 then no show will be run and the DMX Director will set the DMX output stream to the default color specified by the clr command. When disabled no scheduled shows will run. All shows must be started and stopped manually using the run and stop commands. To turn autorun ON type: arn=1(enter) To turn autorun OFF type: arn=0(enter)
run:	Run Show	255	Current Show is show 255	This command allows the user to manually specify a show to run immediately. When the scheduler is enabled the run command provides a temporary override to the current schedule. The scheduler will resume control when the currently scheduled item would have ended or at midnight. When the scheduler is disabled the run command will run the specified show indefinitely until another run or stop (stop) command is issued. Up to 255 shows can be recorded and run. To Run Show 1 type: run=1(enter)
dbo:	DMX Offset	0	Start recording at DMX byte 0	Determines at which DMX byte you want to start recording. The DMX signal is made up of 512 bytes. If you set dbo to 100, you will start recording at byte 100. If dby (see above) is set to 125, you would stop recording at byte 225 (100-125). To set the DMX Offset to 50 type: dbo=50(enter)
rcr:	Record Rate	1	1 packet per second	Sets the packet per second sampling rate. This can be set between 1 and 35. The greater the sampling rate, the larger the size of the DMX file. The RCR should be set higher for fast, changing shows, and lower for slow changing shows. To change the Record Rate to 20 type: rcr=20(enter)
plr:	Play Rate	0	Play rate set to 0	Sets the play rate of a show in frames (or packets) per second. This command can be used to speed up or slow down a show. Typically a show should be played at the rate at which it was recorded. To do this set the playrate to 0. The play rate can be set between 1 and 35, with 35 being the fastest setting. To set the Play Rate at 25 type plr=25(enter)
ish:	Idle Show	255	Idle show set to 255	This sets the "Idle Show," the show that plays when there is no other show scheduled to play or the scheduled show is set to 255. This can be set to any of the 255 shows. Setting the idle show to 255 results in there being no "Idle Show". To set the Idle Show to show 2 type: ish=2(enter)

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LightWild DMX Director • Commands (continued from previous page)

Command	Description	Example Setting	Variable Description	Explanation
clr:	Off Color	0,0,0	Off color is set to all colors at level 0.	<p>Sets the color if a show is not running, and an idle show has not been selected or has been set to 255.</p> <p>The format is in Red/Green/Blue format with each variable being an integer between 0 and 255.</p> <p>For a Red Off color type: clr=255,0,0(enter)</p> <p>For a Green Off type: clr=0,255,0(enter)</p> <p>For a Blue Off Color type: clr=0,0,255(enter)</p> <p>For a mix of Red and Green type: clr=100,100,0</p>
dim:	Global Dim Level	100	Dim level is set to 100%.	<p>This setting dims the show between 0% and 100% of its programmed output.</p> <p>To set the overall dimming to 50%, type dim=50(enter)</p>
stp:	Stop (Record or Play)	Stops a record or play command. To stop a play or record command type: stp(enter)		
rst:	Reset	To reset the DMX Director type RST (Enter)		
snd:	Send	Send a show to the DMX director from your computer. See additional instructions below.		
dir:	Directory	To See a directory of the DMX shows currently on the DMX director SD card type dir(enter)		
dmo:	Set DMX Mode	0	DMX Mode currently set to play.	<p>The DMX Mode can be set to PLAY (0) or RECORD (1).</p> <p>This switches the DMX Director between recording the show it is receiving on the DMX In Port and playing the show it has stored on the DMX Out Port.</p> <p>To set the DMX mode to PLAY type: dmo=0(enter)</p> <p>To set the DMX mode to RECORD type: dmo=1(enter)</p>
bzp:	Beginning Zero Packet	0	Currently set to erase beginning zero packets	<p>When recording a show, there is typically a time gap between when someone starts recording and actually starts playing the show to be recorded.</p> <p>This will result in "blank" packets at the beginning of the show where all the DMX levels are 0 (zero packets) and nothing appears on the LED fixtures.</p> <p>To erase beginning zero packets type: bzp=0(enter)</p> <p>To leave beginning zero packets type: bzp=1(enter)</p>
ezp:	Ending Zero Packet	0	Currently set to erase ending zero packets.	<p>Identical to beginning zero packets (see above), only it occurs at the end of a show.</p> <p>To erase ending zero packets, type: ezp=0(enter)</p> <p>To leave ending zero packets, type: ezp=1(enter)</p>
hlp:	Help	To see Help information, type: hlp(enter)		
dsc:	Delete Schedule Item	4	Specifies to delete schedule item 4 from the list of scheduled shows.	<p>This command deletes a single item or "all" items from the list of scheduled shows.</p> <p>Display all scheduled items and their item number, type: sch(enter)</p>

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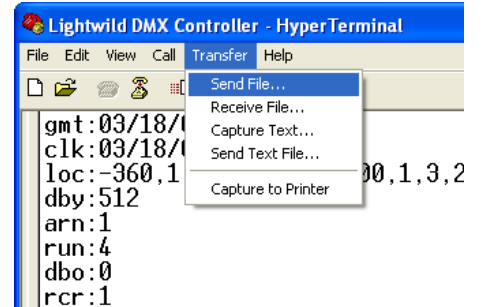
LightWild DMX Director • Commands (continued from previous page)

Command	Description	Example Setting	Variable Description	Explanation
rec:	Record Show	Sets the show between 0 and 254 which you want to record. To record show 3 type: rec=3(enter). See also step by step instructions to record a show below.		
gma:	Gamma Correction	1	This value controls the mapping of input DMX stream to the DMX output stream. Adjusts the intensity curve for the 256 possible DMX intensities between 0 and 10.	By default this value is set to 1 to indicate a straight line approach. Increasing this value to numbers greater than one increases the contrast on DMX values with higher intensities while reducing the contrast on lower DMX intensities. Values smaller than 1 have the opposite effect.
dsh:	Displays Show Header.	1	Display the show information for show001.dmx. Type: dsh:show001(enter)	The header contains: 1) Packet Size which is the number of bytes output in this show with each DMX packet. 2) Play Rate which is the speed at which the show was originally recorded. 3) Total Packets which is the total number of DMX packets contained in the show. 4) Show Length which is how long the show will run if played at the recorded Play Rate
pr:	Packet Refresh Rate		Displays the current play rate when in PLAY mode or the current receive rate when in RECORD mode.	See information for the dmo: command.
sch:	Schedule	4,02/25 02/25,08:41 24:00,1,2,3,4,5,6,7		
		4	SHOW Currently set to Show004.dmx	Specifies the show that should be run during the scheduled time. A value of 255 specifies that the idle show should be run.
		02/25	START DATE Currently set to Feb. 25th.	The starting date, for the range of days, that the specified show should run.
		02/25	END DATE Currently set to Feb. 25th.	The ending date, for a range of dates, that the specified show should run.
		08:41	START TIME Currently set to 8:41AM	The starting time each day, within the range of dates, that a show should run.
		24:00	END TIME Currently set to midnight.	The ending time each day, within the range of dates, that a show should run. The end time may be less than the start time. In this case, the scheduler will run a show from Midnight to the End Time and then from the Start Time to Midnight.
		1,2,3,4,5,6,7	DAYS OF WEEK Currently set to all days.	Specifies specific days during the range of days to run. Use this to limit the date range to certain days of the week. Sunday is 1 and Monday is 2, etc.
?:	Query	Tells the LightWild DMX Director to respond with all commands and their current settings. To see all commands, type: ?(enter)		

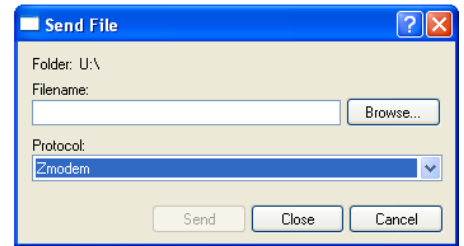
(See also the **Establish Communication With Your Computer** section in this document.)

Transfer a Show to the LightWild DMX Director

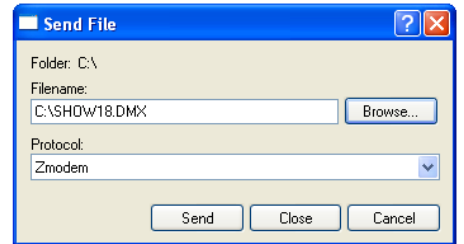
1 After connecting your PC and the LightWild DMX Director, select Transfer/Send File from the HyperTerminal menu.



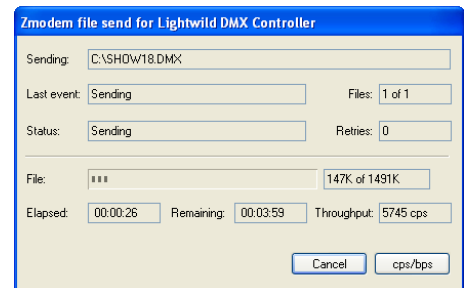
2 From the Send File dialog, select Zmodem as the protocol from the protocol dropdown list.



3 From the Send File dialog, click Browse to select a file to be transferred.



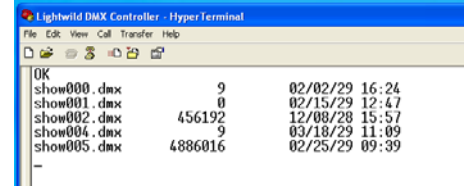
4 Click Send to transfer the file to the LightWild DMX Director. A progress dialog box will appear to monitor the transfer.



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Transfer a Show to the LightWild DMX Director (continued from previous page)

- To list the shows saved to the SD Card in the LightWild DMX Director, type: dir(enter)

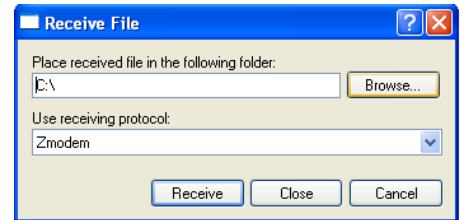


- From the HyperTerminal menu select “Transfer/Receive File...”

Select Zmodem as the protocol from the protocol dropdown list.

From the Receive File dialog click Browse to select a folder to place transferred files.

Click Close to save settings.



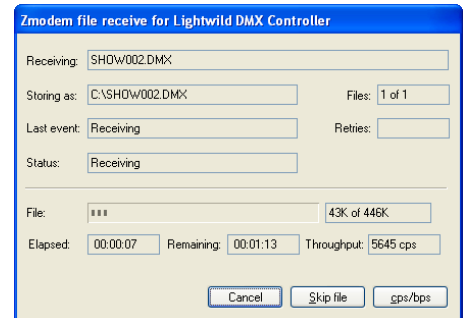
- To initiate a transfer from the LightWild DMX Director to your PC type, SND: <filename><enter>.

A progress dialog will appear and monitor your transfer.

EXAMPLE:

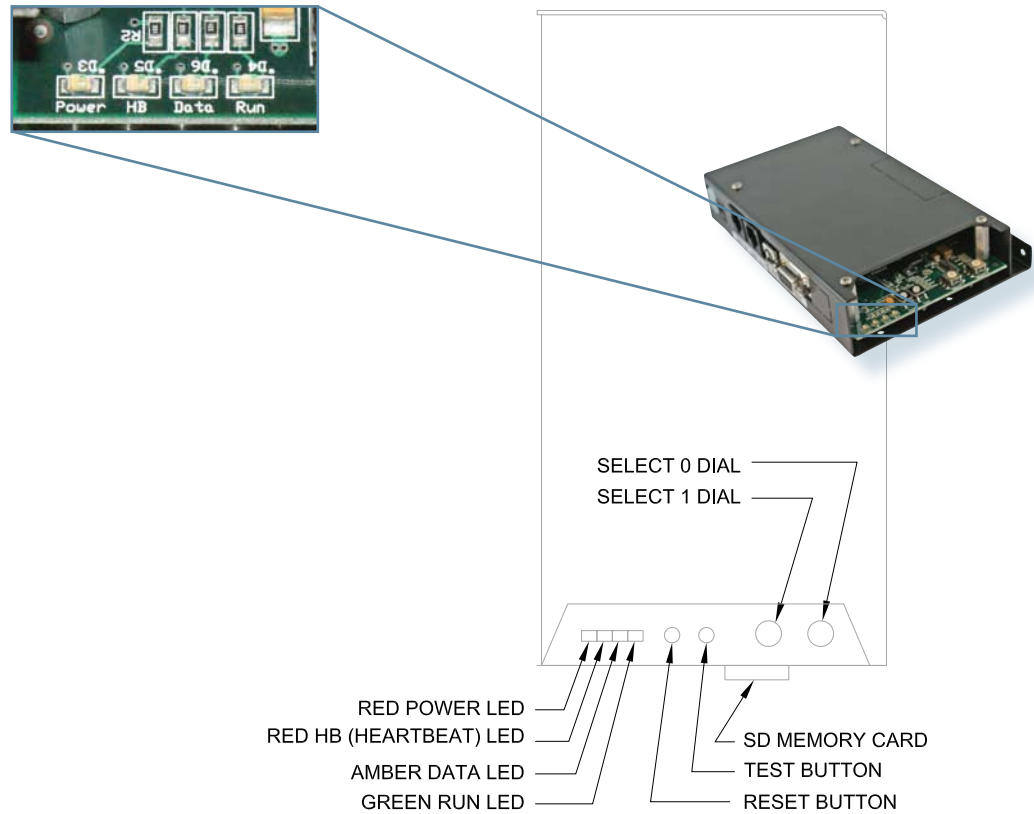
SND:show002.dmx

Will transfer show002.dmx from the DMX Director to your PC.



Recording a Show to the LightWild DMX Director

Locate the indicator LEDs on the LightWild DMX Director.



NOTE: Connect a DMX device to the DMX IN port on the LightWild DMX Director and establish communication before beginning these steps. See the **Establish Communication With Your Computer** section in this document for more information.

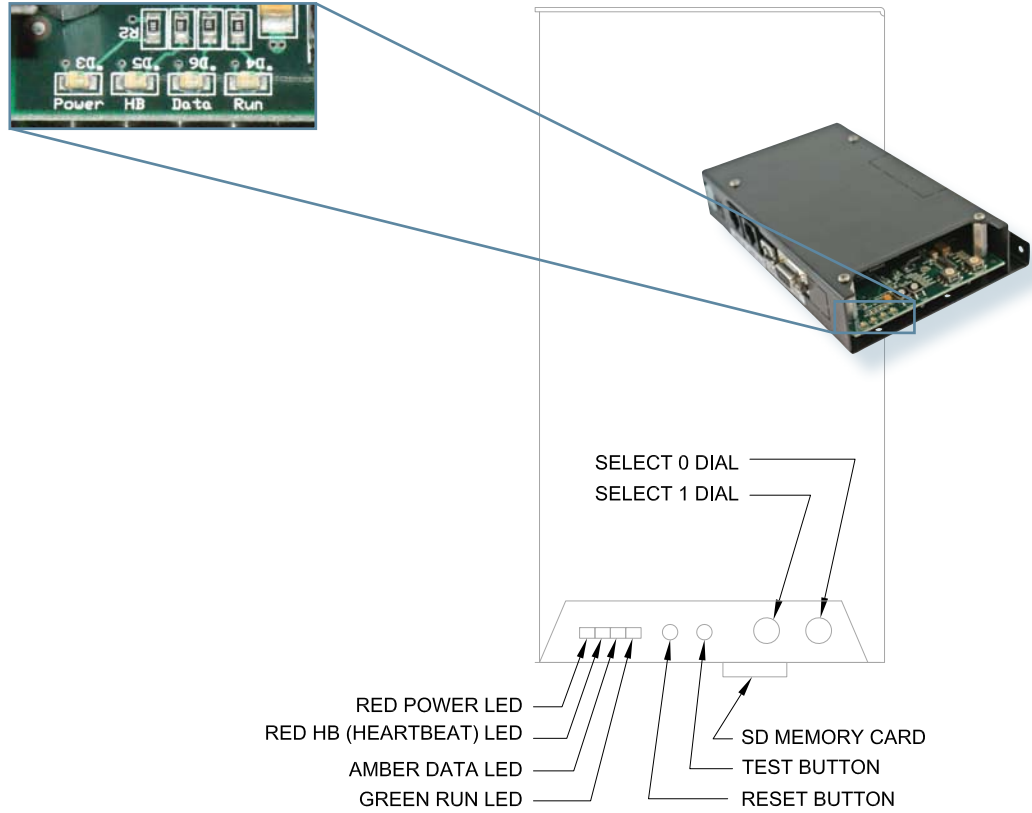
STEP	DESCRIPTION	COMMAND*	LED STATUS			
			RED	RED	AMBER	GREEN
1	Set the DMX mode to RECORD. If the DATA LED is CONSTANT ON but not FLASHING, the DMX director is not receiving a DMX signal. Ensure that the DMX director is receiving a DMX signal from the 3rd party DMX device before proceeding.	dmo=1(enter)	ON	FLASHING	ON	OFF
2	Start recording the show.	rec=5(enter) <small>(Show 5 used as an example here. Change number to match the show you want to record.)</small>	ON	FLASHING	FLASHING	FLASHING
3	Stop recording the show.	stp(enter)	ON	FLASHING	FLASHING	OFF

⚠ Do not drive the 485 lines with two DMX devices at the same time.

* Commands are not case sensitive.

Playing a Show on the LightWild DMX Director

Locate the indicator LEDs on the LightWild DMX Director.



NOTE: Disconnect any third party DMX devices from the DMX IN port on the LightWild DMX Director.

STEP	DESCRIPTION	COMMAND	LED STATUS			
			RED	RED	AMBER	GREEN
1	Set the DMX mode to PLAY.	dmo=0(enter)	ON	FLASHING	OFF	SLOWLY FLASHING
2	Start playing a show.	run=5(enter) (Show 5 used as an example here. Change number to match the show you want to play.)	ON	FLASHING	OFF	ON
3	Stop playing a show.	stp(enter)	ON	FLASHING	OFF	SLOWLY FLASHING

⚠ Do not drive the 485 lines with two DMX devices at the same time.

* Commands are not case sensitive.