

200 Console

Operations Manual



Manual
Part No. 24-004-0897

Welcome

Thank you for buying Strand Lighting control equipment. We hope that you will find that your lighting needs are met by your new system and that you will enjoy exploring the new facilities that your new system offers. You are provided with essential information to help you install and operate your system. Please look through all the documents and keep them safely for future use. If you have any difficulties, please do not hesitate to contact Strand Lighting or any authorized Strand service center for advice.

This equipment is designed to operate from the main electrical supply and contains voltages, which, if touched, may cause death or injury. It should only be operated in accordance with the instructions provided and for the purpose of a lighting control system.

Do not open the console. There are no user serviceable parts inside.

Avoid spilling liquid on the equipment. If this should happen, switch the equipment off immediately. To reduce the risk of fire or electric shock, do not expose the equipment to rain or moisture.

For indoor use only.

This equipment is designed and manufactured to comply with international safety standards 1EC950, UL1950, CS950 and is intended for use as part of a lighting control system. It must not be used for other purposes where there is a risk of safety to persons. The equipment contains power voltages, socket outlets will be installed near the equipment and be easily accessible.

- Working Voltage/Current 100-120 (2A) 220-240 (1A)
- Frequency 50/60 Hz
- Max Ambient Temp 35°C
- Do not restrict ventilation

This manual describes the installation and operational procedures for Strand Lighting's 200 Control Console.

Offices and Service Centers

Please confirm all country codes or other international access data.

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Getting Started

Concept

The Strand 200 series console is a mid-level preset lighting desk that is available in two sizes. A 12/24 channel version and a 24/48 channel version. The 12/24 channel version can either control 24 channels in 1 scene or 12 channels in 2 scenes with the ability to expand scenes with the Hold feature. The 24/48 channel version can either control 48 channels in 1 scene or 24 channels in 2 scenes with the ability to expand scenes with the Hold feature.

Both versions of the console patch a single universe of DMX-512 and can contain up to 24 effects (99 steps) - (6 effects x 4 pages), A submaster can be recorder for every fader and advanced features such as Audio/MIDI are available.

Ordering Information

Catalog # 64312 – 200 series 12/24 console 120 volt
Catalog # 64313 – 200 series 12/24 console 230/240 volt
Catalog # 64320 – 200 series 24/48 console 120 volt
Catalog # 64321 – 200 series 24/48 console 230/240 volt
Catalog # 64315 – Dust Cover 200 12/24
Catalog # 64325 – Dust Cover 200 24/48

Mechanical & Environmental Data

Weight: 12/24 – 6.9 kg unpacked 9.5 kg packed
24/48 – 9.5 kg unpacked 12.5 kg packed
Finish: Blue powder coat epoxy paint
Construction: Rigid folded sheet steel
Temperature: 0 – 35°C
Humidity Range: 0-90% non-condensing
Ingress Protection: IP20

Standards Compliance

All units are CE marked. 120 volt consoles include UL, cUL power supplies.

Unpack the Console

Unpack the console from the packaging and check that the following components are contained within. If any parts are missing, or damaged, please contact the carrier and the nearest Strand Lighting office.

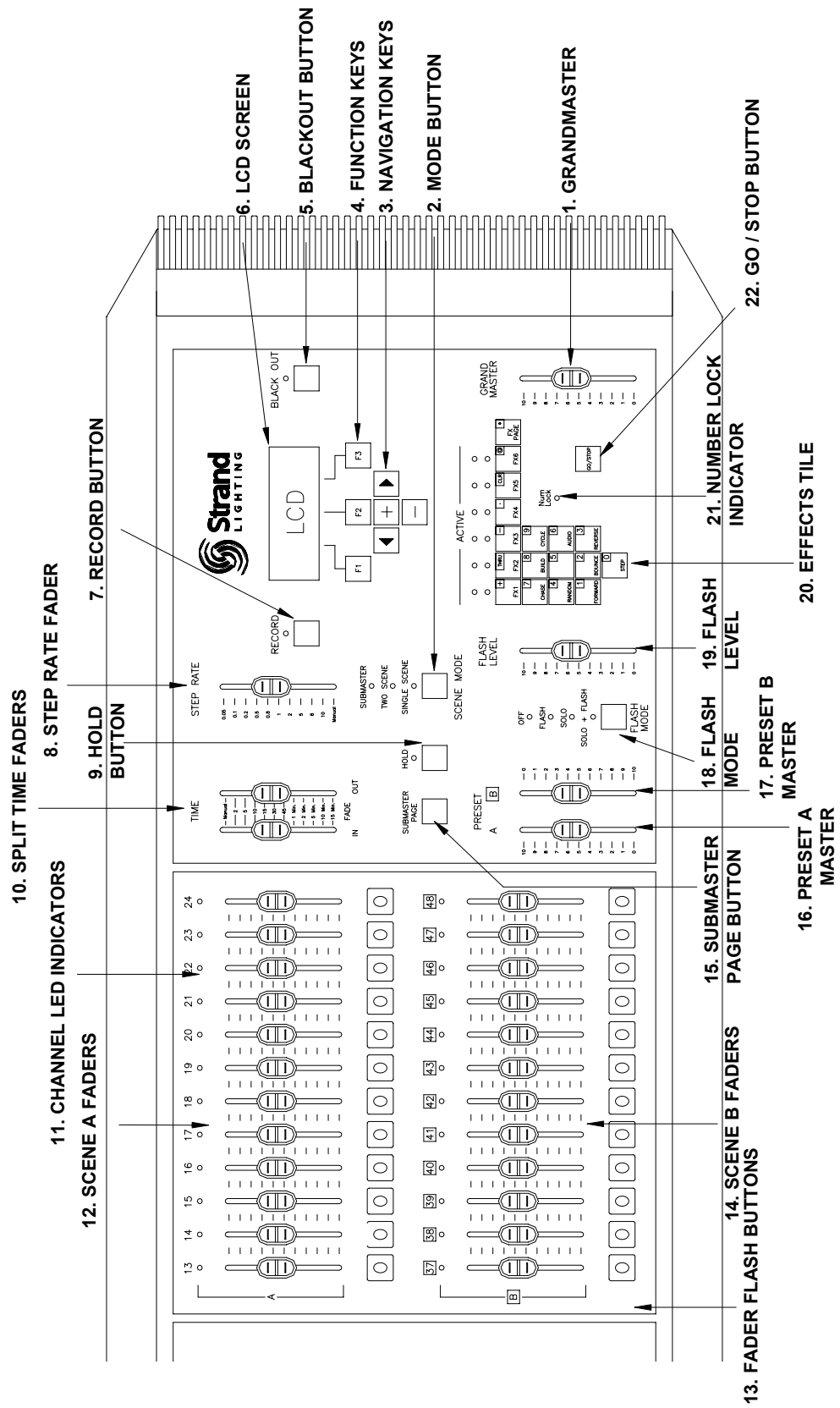
List of Parts for North America...

- (1) 200 series console
- (1) Power cable with UL power supply cable with US 2 pin connector
- (1) Manual

List of Parts for Europe and Asia...

- (1) 200 series console
- (1) Power cable with cUL power supply cable with
- (1) UK 2 pin connector and EU 3 pin connector
- (1) Manual

Layout



Note: Only one fader panel is fully shown.

Quick Guide

1. Grand Master– an inhibitive fader that proportionately controls all other level faders. This determines maximum output of all faders at all times. The master is always active.

2. Mode Button - toggles the console between the 3 different modes; submaster mode, two scene mode and single scene mode. The LED will show current mode.

3. Navigation Keys– these keys allow for navigating within the LCD screen.

4. Function Keys – these keys allow access to all scene, effect and setup change functions.

F1 – the function of this key will be displayed at the bottom left of the LCD screen. It allows the operator to go back a screen.

F2 – the function of this key will be displayed at the bottom center of the LCD screen. It allows the operator to advance screens within a function.

F3 – the function of this key will be displayed at the bottom right of the LCD screen. It allows the operator to confirm an operation.

5. Blackout Button– when pressed, all levels go to zero. (The flashing LED above the button will indicate this) Press again, and all levels will return.

6. LCD Screen – displays current information about the console's status.

7. Record Button – allows recording of levels of faders. When pressed, the LED above will flash indicating the console is in record mode.

8. Step Rate Fader – changes rate of effect steps according to level. The range is from 0.05 seconds to 10 seconds with manual being at zero.

9. Hold Button – this button will freeze the output of the faders so that the operator can reset the channel faders for a different look or cue. This feature only works in one scene mode.

10. Split Time Faders – allows the operator to set a timed fade for the levels going up (IN) and a different timed fade for the levels going down (OUT). The range is from manual to 15 minutes.

11. Channel LED Indicators – each fader has one and it will glow in proportion with the fader level.

12. Scene A Faders –

Submaster mode – all faders are submasters and not controlled by Preset A.

Two scene mode - top row of faders are mastered by Preset A.

One Scene mode – all faders are mastered by Preset A.

13. Fader Flash Buttons - will flash the corresponding fader according to the flash mode and the flash level.

14. Scene B Faders –

Submaster mode – all faders are submasters and not controlled by Preset B.

Two scene mode - bottom row of faders are mastered by Preset B.

One Scene mode – all faders are mastered by Preset A.

15. Submaster Page Button – toggles between page 1 and page 2 of the submaster pages. The active page will be indicated on the LCD screen as *Scene Pg:#*

16. Preset A Master –

Submaster mode – used for crossfades between scenes.

Two scene mode – masters the top row of faders.

One Scene mode – masters all faders.

17. Preset B Master –

Submaster mode – used for crossfades between scenes.

Two scene mode – masters the bottom row of faders.

One Scene mode – disabled.

18. Flash Mode –

Off – disabled.

Flash – flashes the level of the corresponding fader. This is mastered by the flash level master.

Solo – flashes the level of the corresponding fader and takes all other faders to zero.

Solo+Flash – flashes the level of the corresponding fader and takes all other faders to zero. This is mastered by the flash level master.

19. Flash Level – this sets the level of the flash function.

20. Effects Tile – this grouping of keys allows for recording of effects.

21. Number Lock Indicator – this LED indicates that the Number Lock is on. It allows the effects tile to become a numeric keypad.

22. Go / Stop Button – allows start and stop of effects.

DMX Output – accepts a DMX512 5 pin XLR connector from the dimmers or any other DMX device.

Audio Input – allows a fader to control the audio trigger threshold from an audio source connected to the console.

MIDI Input – allows an external source to control the triggering of effects from the console. (MIDI stands for Musical Instrument Digital Interface)

MIDI Thru – allows the in-line connection of the console from one MIDI source to another.

Power Connector – accepts the power adaptor from the power transformer.

Console Power Switch – rocker switch to turn power to the console on and off.

Compact Flash Slot – allows for saving of shows onto a compact flash card. Only a 32M compact flash card can be used. The compact flash card has to be dedicated to the 200 console. It cannot share with other devices due to a different file format. The show file cannot be read on a standard PC.

Video Display Card (optional) – allows for the addition of a video display card for a display monitor.

Terminology Notes

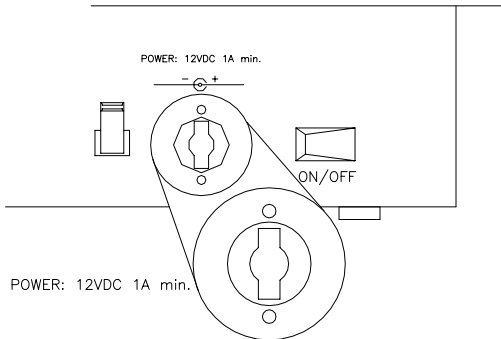
It is easy to confuse the terms of scenes and submasters. The following information will help clarify...

Submasters – faders that contain cues or looks that are played back manually.

Scenes – faders that contain cues or looks that are played back via the playback faders. All levels recorded into scenes will be controlled by the submaster of the same number.

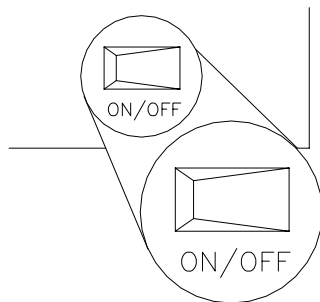
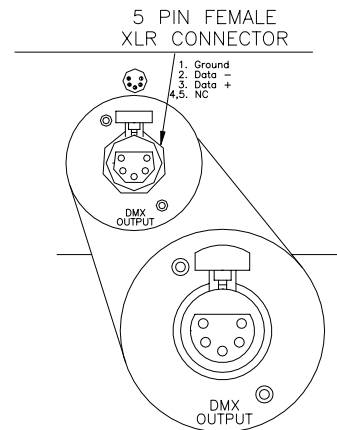
Setup

Note: The power supplies are pack in the side of the packing material.



Plug the appropriate power adaptor into the console where shown. Plug the male end into the appropriate electrical service.

Plug the DMX512 cable from the dimmer rack (or any DMX device) into the DMX512 output of the 200 console.



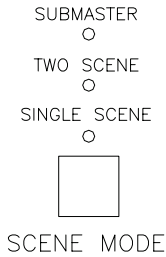
Turn the console on via the rocker switch on the back plate and the console is ready to go!

The 200 console will go through a self-test and return to the last known state.

Operation

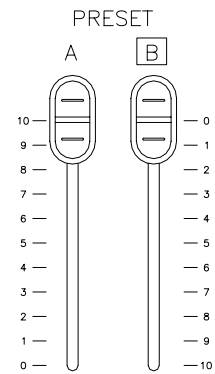
Single Scene Mode

Basic Operation

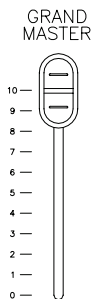


First, make sure the console is in single scene mode by identifying the scene mode LED indicator. The LED below single scene will be lit. If not, toggle the scene mode button until the proper LED is glowing.

Adjust the preset A master to full (UP) and the preset B master to 0 (UP)

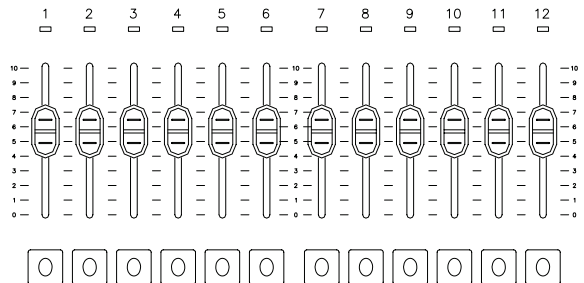


Note: Preset master levels will be shown on the LCD screen.



Make sure the grand master is at full.

Provide level to any combination of faders. This will bring up each dimmer on a one to one basis with the fader for the number of faders on your console. (i.e. fader 1 brings up dimmer 1, fader 15 brings up dimmer 15) If this is the 12/24 model, the operator has control of 24 faders. If this is the 24/48 model, the operator has control of 48 faders.



See the *Patch* section to change the dimmer assignment.

Hold

HOLD



In single scene mode only, using hold allows the operator to freeze all dimmer output and manually reset the levels for all faders to create a different look on stage. Here's how it works...

Select current settings with channel faders. Make sure playback A master is at 10 and playback B master is at 0. (That's both playbacks in the UP position). The hold feature can only be activated and deactivated with playbacks in these positions. Press the hold key (The hold LED will now be on), move playback A's master to 0 while moving playback B's master to 10 (both down). During the crossfade, the hold LED will be flashing. Although no levels are changing, all levels are now held from the moment the masters begin to move.

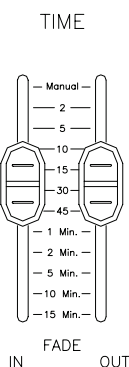
The LCD will also support this by the Preset B:HOLD flashing.

The current fader settings will now be recorded into hold's memory. (The hold LED will stop flashing but remain on indicating the activation of the hold feature. The operator is now free to reset all channel faders to the levels for the next cue. Once the channel faders are set, crossfade playback A's master back to 10 and playback B's master back to 0. (During crossfade the hold LED will flash) After a crossfade is completed, the second cue will now be outputting live. (The hold LED will still be on) Repeat the above step for the next crossfade or press hold again to release the hold function. After pressing hold, the hold LED will turn off.

Also note, that playback B is now the master for the held scene. So if playback B is moved to 0 (UP) then the held state fades out.

The hold feature only works in single scene mode.

Time Fades for Hold

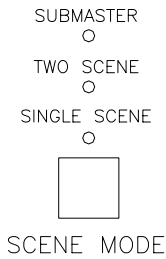


Smooth timed crossfades between the held and active scene can be achieved by setting the time fade faders. The left fader is for all levels that are going up (IN) and the right fader is for all levels going down (OUT). (i.e. If the operator is crossfading out of a held scene and into the current fader levels, then the *in* fader will affect the time of the current fader levels coming *in* while the *out* fader will affect the time of the held scene going *out*).

Note: All crossfades done in this manner are dipless.

Two Scene Mode

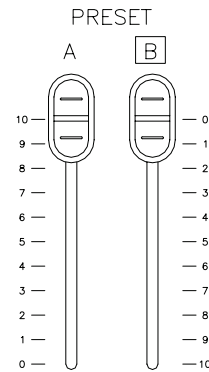
Basic Operation



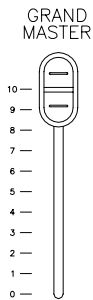
Make sure the console is in two scene mode by identifying the scene mode LED indicator. The LED below two scene will be lit. If not, toggle the scene mode button until the proper LED is glowing.

Adjust the preset A master to full (UP) and the preset B master to 0 (UP)

Operating both preset faders UP and DOWN at the same time allows for dipless crossfades.

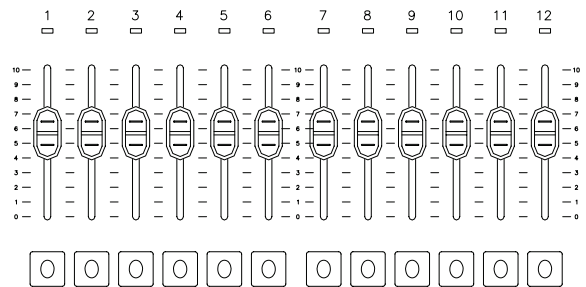


Note: Preset master levels will be shown on the LCD screen.



Make sure the grand master is at full.

Provide level to any combination of faders. This will bring up each dimmer on a one to one basis with the fader for the number of faders on your console. (i.e. fader 1 brings up dimmer 1, fader 15 brings up dimmer 15) If this is the 12/24 model, the operator has control of 12 faders in 2 scenes. If this is the 24/48 model, the operator has control of 24 faders in 2 scenes.



See the *Patch* section to change the dimmer assignment.

Crossfade

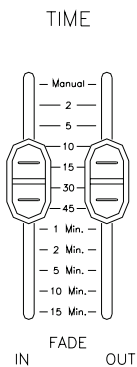
A crossfade allows one scene to fade out as another scene is faded in.

Dipless Manual Crossfade

The reverse configuration of the preset B master allows the operator to have both faders set in the up position (A will be at 100%, B will be at 0%) and move them at the same time in the same direction physically while the light levels from both presets move in the opposite direction.

Note: Remember, there must be levels in faders that are controlled by BOTH preset masters for the dipless manual crossfade to function properly.

Time Fades



Smooth timed crossfades can be achieved by setting the time fade faders. The left fader is for all levels that are going up (or fading in) and the right fader is for all levels going down (or fading out). (i.e. If the operator is crossfading out of preset A and into preset B, then the *in* fader will affect the time of preset B coming *in* while the *out* fader will affect the time of preset A going *out*).

Submaster Mode

Basic Operation

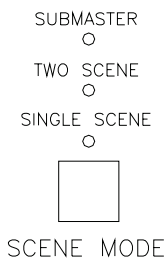
*Note: Submasters are faders that contain cues or looks that are played back manually.
Scenes are faders that contain cues or looks that are played back via the playback faders.*

Submaster mode allows the operator to record a different look or scene into every fader times 2 as the console has 2 submaster pages. The current page is identified on the LCD screen by *Scene Pg:#*.

To record a submaster, the console must be in either single or two scene mode to bring up faders. Recorded from either of these modes, then activated after switching to the submaster mode to play the submasters.

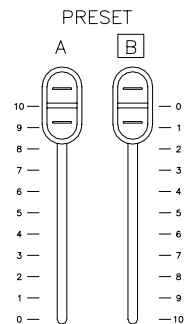
Also, multiple scenes can be recorded into a single submaster.

*Note: A combination of scenes and effects cannot be recorded into a single submaster.
The effects will be ignored.*

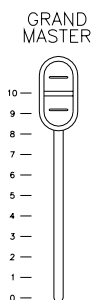


Make sure the console is in single scene mode by identifying the scene mode LED indicator. The LED below single scene will be lit. If not, toggle the scene mode button until the proper LED is glowing.

Adjust the preset A master to full (UP) and the preset B master to 0 (UP)



Note: Submasters work in a highest takes precedent mode. So, if either preset master has a level and faders have levels (indicated by green LEDs) then the console will pile on the submasters levels to the current fader levels.



Make sure the grand master is at full.

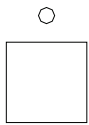
Recording Submasters

Provide level to any combination of faders (or scenes in submaster mode). Assuming the patch has not been edited yet, this will bring up each dimmer on a one to one basis with the fader for the number of faders on your console. (i.e. fader 1 brings up dimmer 1, fader 15 brings up dimmer 15) If this is the 12/24 model, the operator has control of 24 faders. If this is the 24/48 model, the operator has control of 48 faders.

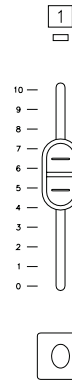
Press the record button. The LED indicator will start flashing.

(Notice that any flashing amber LED indicates that the fader has already been loaded with a scene. A new scene can overwrite any previously recorded scene or effect.)

RECORD



Press and hold the flash button to the appropriate fader until it's LED starts flashing.



Press the record button again and all LEDs will go out. This is the console's indication that the recording process is complete.

SUBMASTER
○
TWO SCENE
○
SINGLE SCENE
○

Switch to submaster mode and take all channel faders to zero. The submaster that was just recorded will be indicated by the amber LED that corresponds to the fader that was just recorded.



Take that fader to full and the lights will go to the recorded level.

SCENE MODE

Note: After switching to submaster mode with a live fader, the faders hold their levels even though the mode has been switched. Any fader having any level will hold through a mode change until the fader is taken to zero.

Note: When switching from submaster mode to any scene mode with a live submaster. It will hold its levels until the submaster is taken to zero. This will be indicated by the amber LED of the appropriate submaster flashing.

Submaster Pages

There are two submaster pages on the 200 console. They are also referred to as scenes on the LCD screen. The submaster page can be identified by the scene page number on the LCD screen.

Scene Pg: 1	Fx Pg: 2	
Preset A: FL	B: 00	
Scene	FX	Setup

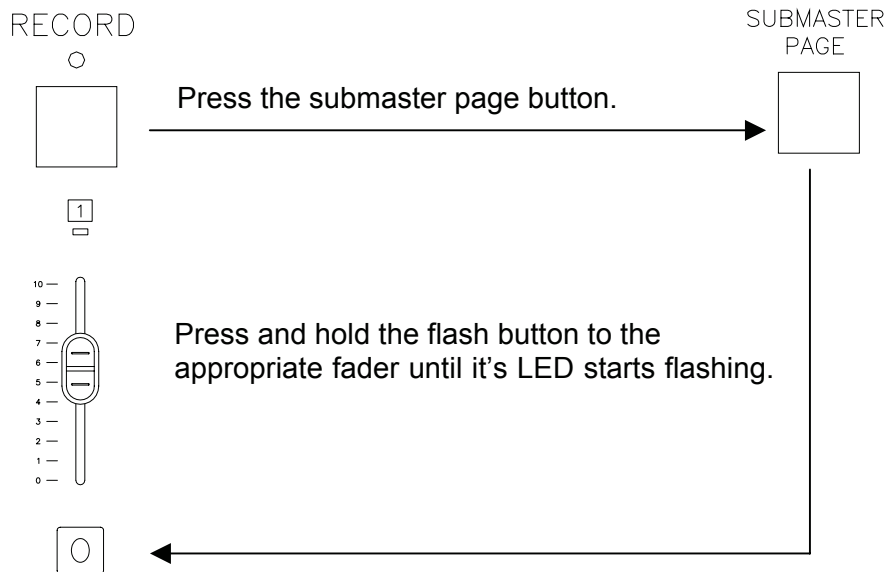
Changing Submaster Pages

Changing submaster pages is as simple as pressing the submaster page button. The LCD will always identify the current submaster page.

Note: When switching between submaster pages, any active submaster will be indicated by its flashing LED indicator.

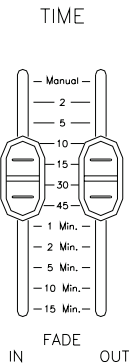
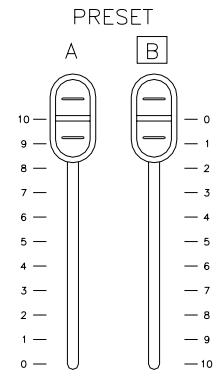
Recording Submasters on Page 2

Press the record button. The LED indicator will start flashing.



Crossfade between Submasters

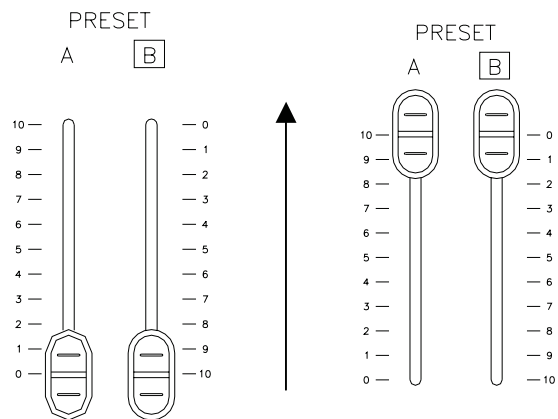
Aside from the normal two fader crossfade, in submaster mode the operator can crossfade in sequence. Make sure the preset A & B masters are in the UP position.



Set the *In – Time Fade* fader to the desired fade in time and set the *Out – Time Fade* to the desired fade out time.

Move the preset A & B masters down (the first recorded fader’s LED will begin flashing green)

Now move the preset A & B masters up to fade in the first scene (the first recorded faders LED will stop flashing and the scene will fade in.



When the fade is complete the second recorded fader’s LED will begin flashing green). Repeat down and up master action to continue crossfading between scenes. This will crossfade the second scene with the first one. Repeating the process will crossfade all available scenes until it reaches the last scene of page two and then returns to the first recorded scene of page one again.

Additional Information for Submaster Crossfading

- To stop the crossfade, move only preset A master down and then up. This will fade out the last output scene.
- Changing mode will also stop the crossfade immediately and take out the last fade output and is not recommended.
- Any empty submasters, submasters with effects or submasters that already have a level, will be ignored. For example, If any of the submasters are already in the up position (i.e. outputting a level), the sequential crossfade will start from the scene immediately after the highest outputting fader (i.e. If fader 1,3,5 are up, the crossfade will start from scene 6).
- The LCD screen will show the fader percentage values for both the fade in and fade out as the fade is occurring.

Note: See Crossfade Start Scene Option for changing the submaster that is crossfaded first.

Advanced Features

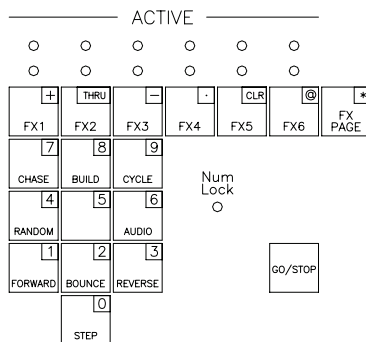
The advanced features section will cover advanced programming items such as effects, scene editing and setup.

Effects

The effects feature of the 200 console, allows the operator to program and run a sequence of levels or cues at a rate that ranges from 0.05 seconds to 10 seconds per step or stepped through manually or triggered by an audio / MIDI signal.

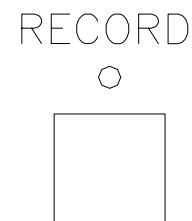
There are 4 pages of 6 effects per page with a maximum of 99 steps per effect.

Programming an Effect

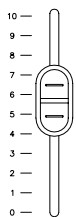


The grouping of keys at the bottom right of the 200 console is the effects tile.

Select the effect page by toggling the FX page button. (The LCD screen will display the current effect page)



Press the record key, the “record” LED will light up indicating the console is now in record mode and ready. Press the corresponding effect’s number key to record that effect. The yellow LED above that button will start flashing indicating that it is ready to record.



Set the desired fader(s) (while in either one scene or two scene mode) or scene(s) (while in submaster mode) to the preferred level and then press step to record that step. The LCD screen will display all relevant information.



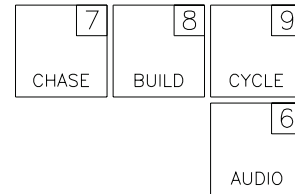
Notice that the effect step will advance from 1.01 to 1.02 (with the first digit being the effect number). Change the fader levels to the desired levels in step 2 and press step to record that step. Repeat for as many as 99 steps. After recording the steps, select the effect mode and direction and step time (see below for mode and direction information), then press the

selected effect key, it will record the selections upon exiting from that particular effect's recording and the yellow LED will stop flashing.

When finished with effect recording, press the record key again, the console will exit from record mode and the record LED will turn off.

Effect Mode

There are 4 effect modes to choose from...



Chase - the steps will flash in the order set by the direction mode.

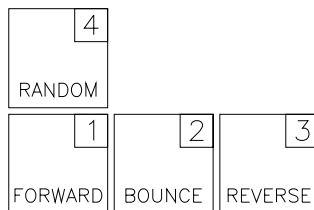
Build – the steps will pile on in order set by the direction mode.

Cycle - the steps will fade up and down in the order set by the direction mode.

Audio – will allow an audio signal to trigger effect steps to the beat of the music.

Note: See Audio section in Setup for more information.

Effect Direction



There are 4 effect direction modes to choose from...

Random – the steps will flash in a non-ordered sequence.

Forward – the steps will flash in order from lowest to highest.

Bounce – the steps will flash in order from lowest to highest then back from highest to lowest.

Reverse - the steps will flash in order from highest to lowest.

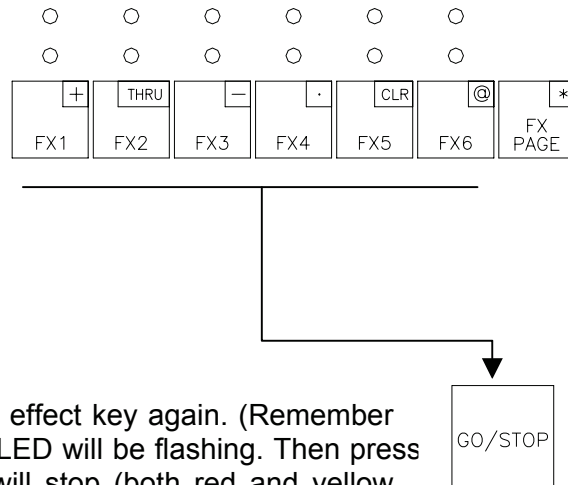
Additional Information for Effects

- To program another effect, simply repeat the above procedure. Any Yellow LED will light up for effect numbers that are already recorded.
- To access a scene from a different page in submaster mode, select scene(s) from page 1 to desired level and then change to page 2 with the page button.
- Note: each step will only allow recording of either multiple channels or scenes. No mix of scenes and channels is allowed.
- Up to 6 different effects can be played back at the same time.

Effects Playback

Each recorded effect will display the yellow LED above it. To run an effect, press the effect button that is requested. The yellow LED above it will begin flashing. Then press the “Go/stop” button to start the effect(s). The lower LED’s will now go off and the upper LED (red) will be on indicating the effect is running.

To stop an effect, press the corresponding effect key again. (Remember to select the correct page first), the yellow LED will be flashing. Then press “Go/Stop” key again, the selected effect will stop (both red and yellow LED will turn off).



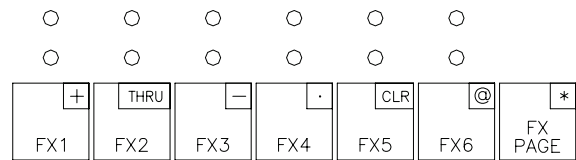
Additional Information for Effects Playback

- To change the effect mode, direction and step rate for any particular effect while it is running, select the effect itself followed by the wanted mode, direction and step time, the effect will immediately change to the new mode and direction. Press effect key again to exit from change. The effect now will run on the new setting. (note: the recorded setting will not change).
- During effect playback, the red LED for the running effect(s) will be flashing when the effect(s) is on the current selected page, to provide the operator easy visual reference, which effect(s) on which page is actually active.
- The following combinations will be allowed:
 - Chase (Random or forward or reverse or bounce or audio)
 - Build (forward or reverse or bounce)
 - Cycle (forward or reverse or bounce)

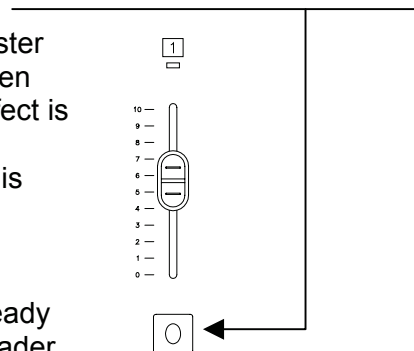
Note: See Audio section of Setup to properly configure the console to have an audio source trigger an effect.

- To step an effect from an audio source, set your effect to chase/audio. (See instructions for above). Select the effect as normal (select effect key and press go/stop button), it will step thru that effect when audio signals within that frequency range is fed in. Deactivate the effect as usual (select effect key and press go/stop button).

Running Effects on Submasters



Alternatively, effect(s) can be playback on a normal fader (only at submaster mode). All 24 effects can only be loaded onto any empty submaster or submaster with effect. Select the wanted effect, then press the flash button and hold it for 1 second, the effect is now loaded into the corresponding fader channel, the fader LED will now light up with red color indicating this fader is loaded with the effect.



An effect cannot be assigned to a submaster that already has a scene recorded into it. Activating the channel fader will start the effect running.

(Note: Must be in submaster mode for this to occur).

Step time, mode and direction can be changed at any time before or during playback. Press and hold the corresponding flash button and then move the step rate fader at the same time, the effect will change to the new step rate, or select a different mode or direction. The mode and direction will change immediately. Returning the fader to zero will stop the effect.

Note: Unlike the standard effects, any changes made on effects assigned to a submaster will be recorded even after the fader is returned to zero.

To check any effect's information that is assigned to a submaster, press and hold the corresponding flash button at any time, the LCD display will show the effect's number with the mode and step time information if the effect is running.

Scene Pg: 1	Fx Pg: 2
Preset A: FL	B: 00
sFX:20.00Cha	For 0.2
Scene	FX Setup

(Note: Up to 24 effects can be played back simultaneously from effects on subs. An effect can not be copied from one sub to another, nor can an effect from the standard effect pages be copied to more than one sub).

Note: If the console is switched from submaster mode to channel mode during effect playback, effect(s) will continue and the faders assigned for effect playback will remain at same status until the fader is returned to zero and will automatically change back to act as a channel fader.

Editing an Effect

From the main LCD screen, press F2 for FX.

Scene Pg: 1	Fx Pg: 2
Preset A: FL	B: 00

Scene	FX	Setup
-------	----	-------

1. Edit Effect	
2. Delete Effect	
3. Effect Fade Time	
Esc	Confirm

Notice the cursor flashing over the 1 for edit effect. Press F3 to *Confirm*.

The Num Lock LED will now be on and the effect disabled. Pick the effect number then scroll with the arrow keys to place the cursor on the step location. Pick the step to be edited.

Fx:##	Step:xx
Ch:01 02 03 04 05 06	
LL:xx xx xx xx xx xx	
Esc (+/-)	Confirm

Note: The format for Fx: ## is the first number is the effect page and the second is the effect number.

Fx:1.1	Step:01
Ch:01 02 03 04 05 06	
LL:FL 00 00 00 00 00	
Esc (+/-)	Confirm

Continue scrolling and each channel edited will flash. Edit the level with either the + or – keys or use the keypad entry.

When editing is complete press *Confirm* and it will automatically advance to the next step for continued editing.

Note: The arrow keys will advance channels quickly.

Effect Delete Options

From the main LCD screen, press F2 for *FX*.

Scene Pg: 1	FX Pg: 2	
Preset A: FL	B: 00	
Scene	FX	Setup

1. Edit Effect	
2. Delete Effect	
3. Effect Fade Time	
Esc	Confirm

Notice the cursor flashing over the 1 for edit effect. Press the right arrow to advance to the delete effect option and press F3 for *Confirm*.

At this point, the choices are...

1. Delete a step
2. Delete an effect
3. Delete a page of effects

1. Del step	
2. Del effect	
3. Del page effect	
Esc	Confirm

Each of the three options will continue their key sequences from this point. Repeat above for each option below.

Note: When Num Lock is on, the effect tile can be used as a numeric keypad for entry.

Delete an Effect Step

Fx:##		
Delete step: xx		
Esc	(+/-)	Confirm

The Num lock LED will now be on and the effect disabled. Pick the effect number then scroll with the arrow keys to place the cursor on the delete step location. Scroll for the step that is to be deleted. Press *Confirm* to delete.

After confirming, it will return to the same screen but will have the next available step shown. Repeat above process to make changes and/or delete. Pressing *Esc* will return to main display.

Note: The format for Fx: ## is that the first number is the effect page and the second is the effect number.

Delete an Effect

Delete Fx page: #		
Effect No.: #		
Esc	(+/-)	Confirm

Num lock LED will now be on and the effect disabled. Pick the effect page number then scroll with the arrow keys and pick the effect number.

Press *Confirm* to delete. Select *YES* or *NO*.

After confirming, the display will return to the same screen but will show the next available effect. Repeat above process to make changes and delete. Pressing *Esc* will return to main display.

Delete an Effect Page

Delete Effect
Page: #
Esc (+/-) Confirm

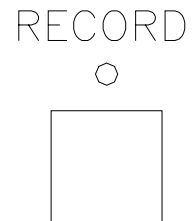
Num lock LED will now be on and the effect disabled.
Pick the effect page number.

Press *Confirm* to delete. Select *YES* or *NO*.

After confirming, it will return to the same screen but will the next available effect shown.
Repeat above process to make changes and delete. Pressing *Esc* will return to main display.

Inserting an Effect Step

A step can be inserted into an existing effect. Press the record key, the “record” LED will light up indicating the console is now in record mode and ready. Select the effect to be edited (the corresponding yellow LED will start flashing). Press the + and – keys together for 1.5 seconds, the effects address will start flashing.



Press + or – to change to the step to be inserted **in front of**, then record the new step using the normal step record procedure. After recording the effect LED will stop flashing. Press the record key to exit the record mode.

Effect Fade Time Options

From the main LCD screen, press F2 for FX.

Scene Pg: 1	Fx Pg: 2	
Preset A: FL	B: 00	
Scene	FX	Setup

1. Edit Effect	
2. Delete Effect	
3. Effect Fade Time	
Esc	Confirm

Notice the cursor flashing over the 1 for edit effect. Press the right arrow to select the effect fade time option. Press F3 to *Confirm*.

Each of the two options will continue their key sequences from this point. Repeat above for each option below.

Editing Effect Fade Time

Effect fade in time can be set between 0-10 seconds using the edit fade time function. Effect fade in time will be defaulted at zero when record. Fade out time is not available, an effect will stop immediately when deactivated.

Press *Confirm* to edit the fade time.

Effect	
3. Edit fade time	
4. Set fade time to 0	
Esc	Confirm

Page: #	
Effect: #	
Fade time: 00.0 sec	
Esc	(+/-) Confirm

Num lock LED will now be on and the effect disabled. Pick the effect page then scroll with the arrow keys to place the cursor on the effect number. Select the effect to be edited. Scroll to edit the fade time. The range is from 00.0 to 10.0 at 1/10th second increments.

Reset Effect Fade Time to Zero

Press the right arrow to select the second option and press *Confirm* to set the fade time to zero.

Effect	
1. Edit fade time	
2. Set fade time to 0	
Esc	Confirm

Reset effect fade time to 0.0 sec?	
Yes	No

Select Yes or No.

Scene Options

From the main LCD screen, press F1 for *Scene*.

Scene Pg: 1	Fx Pg: 2
Preset A: FL	B: 00
Scene	FX Setup

Note: Scene and Submaster are interchangeable terms for this manual.

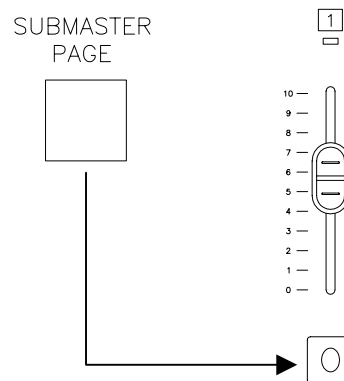
Edit a Scene

- | | |
|----------------------|---------|
| 1. Edit Scene | |
| 2. Delete Scene | |
| 3. Xfade Start Scene | |
| Esc | Confirm |

Notice the cursor flashing over the 1 for edit scene. Press F3 for *Confirm*.

Press the submaster page button as needed to access the correct page, then press the flash button for the correct submaster that needs to be edited.

(The LCD screen will show the corresponding submaster information).



Page:01	Scene:01
Ch:01 02 03 04 05 06	
LL:FL 00 00 00 00 00	
Esc	(+/-) Confirm

The channel that is selected will flash. Change channels using the left and right arrow keys. Change levels using either the +/- keys or the numeric keypad.

Note: When Num Lock is on, the effect tile can be used as a numeric keypad for entry.

Press *Esc* to disregard changes or *Confirm* to accept.

Delete Scene Options

1. Edit Scene 2. Delete Scene 3. Xfade Start Scene Esc	Confirm
---	---------

Notice the cursor flashing over the 1 for edit scene. Press the right arrow to advance to the delete scene option and press F3 for *Confirm*.

Delete One Scene

Notice the flashing cursor over the delete one scene option. Press F3 for *Confirm*.

1. Del one scene 2. Del page scene Esc	Confirm
--	---------

Scene page: 1 Delete scene: 01 Esc	(+/-)	Confirm
--	-------	---------

Press the submaster page button to access the correct page, then press the flash button for the correct submaster or scroll using the +/- keys. Press F3 for *Confirm*.

Press F2 for Yes or F3 for No.

Delete scene 01?	
Yes	No

Delete Page Scene

Notice the flashing cursor over the delete one scene option. Press the right arrow to advance to the delete page scene option and press F3 for *Confirm*.

1. Del one scene 2. Del page scene Esc	Confirm
--	---------

Delete page Page No.:1 Esc	(+/-)	Confirm
--------------------------------------	-------	---------

Press the +/- buttons to access either page 1 or page 2. Press F3 for *Confirm*.

Press F2 for Yes or F3 for No.

Delete page 01?	
Yes	No

Crossfade Start Scene Option

1. Edit Scene 2. Delete Scene 3. Xfade Start Scene Esc	Confirm
---	---------

Notice the cursor flashing over the 1 for edit scene. Press the right arrow to advance to the crossfade start scene option and press F3 for *Confirm*.

Use the +/- keys to change the submaster that will start the crossfade sequence.

Xfade start address Scene:1.01
Esc (+/-) Confirm

Press *Esc* to disregard changes or *Confirm* to accept.

Note: The next submaster crossfade will start with the selected scene. Upon completion of the crossfade, the setting will be automatically reset to 1.01.

Setup

The following is all of the options that can be accessed through the setup menu.

Press F3 to go into the *Setup* menu.

Scene Pg: 1	Fx Pg: 2	
Preset A: FL	B: 00	
Scene	FX	Setup

Patch

Patch allows you to assign any DMX output address(es) to any channel.

Notice the cursor flashing over the 1 for patch.
Press F3 to *Confirm*.

1. Patch		
2. Self Test		
3. Midi		
Esc	Next	Confirm

Each of the four options will continue their key sequences from this point. Repeat above for each option below.

Note: The Next command allows the operator to access any option above the third option.

Edit Patch

The console defaults to a one to one patch. This function allows the operator to edit this to any combination in a command line input format.

Notice the cursor flashing over the 1 for edit patch.
Press F3 to *Confirm*.

1. Edit patch		
2. Display patch		
3. Default patch		
Esc	Next	Confirm

The Num lock LED will now be on and the effect disabled. The LCD displays an empty command line. Type in the patch information using the following format:

Cmd: _____

Esc

Dimmer @ Channel.

For example...for dimmer (output) 12 to be patched to channel 3 then type...

12 @ 3 ENTER *

*Note: On consoles that use command lines, the typical key for enter is the asterisk * key. Here that is the FX Page key with Num Lock enabled.*

Other acceptable commands are...

<u>Key</u>	<u>Command</u>	<u>Description</u>
+	1 + 2 @ 5 *	Patches dimmers (output) 1 and 2 to channel 5.
Thru	1 > 5 @ 3 *	Patches dimmer (output) 1 through 5 to channel 3.
-	1 > 5 - 4 @ 3 *	Patches dimmer (output) 1, 2, 3 and 5 to channel 3.

Unpatch a Dimmer

Acceptable commands are...

	1 @ *	Unpatches dimmer 1.
	1 @ 0 *	Unpatches dimmer 1.
Thru	1 > 5 12 @ *	Unpatches all dimmers.

Note: Press clear to delete previous entry.

Proportional Patch

Proportional patching will patch a dimmer (output) at any level from zero to full.

<u>Command</u>	<u>Description</u>
1 @ 1 @ 50	Patches dimmer (output) 1 to channel 1 at a maximum level of 50%

Dimmer one's maximum level is now 50%.

Note: The proportionally patched dimmer output will not rise above proportioned level.

Continue entering all necessary patch information.

Display Patch

This will display all current patch information.

Notice the cursor flashing over the 1 for edit patch. Press the right arrow key to access display patch then press F3 to *Confirm*.

1. Edit patch
2. Display patch
3. Default patch
Esc Next Confirm

Channel: 01
Dim:001
LL: FL
Esc

Display patch will start by showing channel one and it's dimmer (output) assignment. The screen at the left shows the default patch information.

The right arrow key will allow the user to step through the patch by channel in numerical order.

Default Patch

This will default all patch information back to a one to one status.

Notice the cursor flashing over the 1 for edit patch. Press the right arrow key to access default patch then press F3 to *Confirm*.

1. Edit patch		
2. Display patch		
3. Default patch		
Esc	Next	Confirm

Turn on default Patch?		
Yes	No	

Press F2 for Yes or F3 for No.

Unpatch Patch

This will unpatch all dimmer (output) information.

Notice the cursor flashing over the 4 for unpatch all. Press F3 to *Confirm*.

4. Unpatch all		
Esc	Next	Confirm

Unpatch the patch table?		
Yes	No	

Press F2 for Yes or F3 for No.

<i>Note: This will unpatch all dimmers (outputs). If lights are on at the console, all stage lights will go out.</i>
--

<i>Note: This can be a very useful way to patch a show. Start by unpatching all dimmers (outputs), then patch the dimmers to the channels that are needed for the show.</i>

Additional Information for Patch

Multiple Channel Patch Matrix

A powerful feature of this console is the ability to have any dimmer patched to multiple channels at once. This allows scenarios like patching a dimmer to a channel to act as a special. Then patching the same dimmer to a different channel at a proportional level to be part of a wash.

Self Test

Self Test is a set of on-board diagnostics that will check for problems in all areas of the console.

Notice the cursor flashing over the 1 for patch.
Press the right arrow key to access self test then press F3 to *Confirm*.

1. Patch		
2. Self Test		
3. Midi		
Esc	Next	Confirm

1. This will test all of the following items.
2. This will test the display functions on the console.
3. This will test all faders on the console.

1. All test		
2. Display test		
3. fader test		
Esc	Next	Confirm

4. This will test all buttons on the console.

4. Key test		
Esc	Next	Confirm

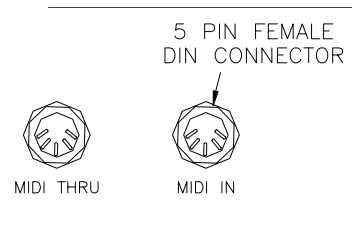
Follow all prompts on screen to complete the self tests. For the fader test, activate all faders to full as the screen prompts for each one. For key test, press all buttons as the screen prompts for them.

Any errors should be reported to your local Strand Distributor, Authorized Service Centre or Strand representative.

MIDI

Musical Instrument Digital Interface is the standard communications protocol that allows a musical instrument to send a signal to the 200 console to trigger cues and effects.

Connect the MIDI generator via a DIN cable to the MIDI IN input at the back of the console.



Note: MIDI thru allows MIDI commands that are not related to the 200 console to pass through the console and on to other devices. Connect all MIDI devices accordingly.

Follow these steps to setup the MIDI properly.

Press F3 to go into the *Setup* menu.

Scene Pg: 1	Fx Pg: 2	
Preset A: FL	B: 00	
Scene	FX	Setup

Notice the cursor flashing over the 1 for patch. Press the right arrow key to access MIDI then press F3 to *Confirm*.

1. Patch		
2. Self Test		
3. Midi		
Esc	Next	Confirm

Notice the cursor flashing over the 1 for channel. To assign a MIDI channel press F3 to *Confirm*.

Midi	
1. Channel	
2. Assign	
Esc	Confirm

Enter the MIDI setup and turn MIDI on. Then assign a channel number from the MIDI generator that will control this 200 console. There are a total of 16 channels (1 –16).

Num lock LED will now be on and any effect(s) disabled. Notice the cursor flashing over the OFF. +/- will turn MIDI on. The right arrow key will move to channel. +/- will allow the selection of the channel or enter the channel using the numeric keypad. The options are channels 1 through 16.

Midi: OFF		
Channel:01		
Esc	(+/-)	Confirm

Press *Confirm* when done.

After selecting the channel, go to assign. This will allow you to assign a note (key) to control a selected scene. All together there are 128 notes (keys) that can be assigned. After assigned the note, then select the desired submaster (can be a scene or an effect depending on what is loaded on each sub) that will be activated by that note.

Notice the cursor flashing over the 1 for channel. Press the right arrow key to access *Assign* then press F3 to *Confirm*.

Midi	
1. Channel	
2. Assign	
Esc	Confirm

Num lock LED will now be on and any effect(s) disabled. Pick the note (key) then scroll with the arrow keys and pick the scene number.

Assign Key:001		
To Scene:1.01		
Esc	(+/-)	Confirm

Note: The scene number refers to the page (to the left of the period) then the submaster (to the right of the period).

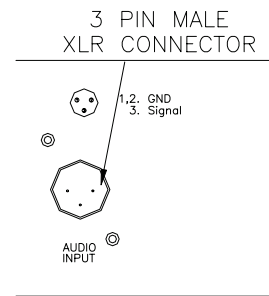
Repeat this scene assignment for every note (key) that is needed.

When playing a midi source instrument, whenever a particular note for that channel is on, the chosen scene or effect will be outputted. When the note is off or released, the scene or effect will go fade out or stop.

Audio

Audio allows the console to take an audio signal that will trigger steps of an effect to the beat of the music.

Plug the audio device to the 200 console via the AUDIO INPUT 3 Pin XLR connector.



Note: Signal input impedance is 4.7K ohm

The audio setup allows the operator to select bandwidth for the signal. Follow the steps below...

Press F3 to go into the *Setup* menu.

Scene Pg: 1	Fx Pg: 2
Preset A: FL	B: 00
Scene	FX
Setup	

Notice the cursor flashing over the 1 for patch. Press *Next* to go to the next setup screen.

1. Patch	
2. Self Test	
3. Midi	
Esc	Next
Confirm	

Notice the cursor flashing over the 4 for audio. Press F3 to *Confirm*.

4. Audio	
5. LCD setting	
6. Show file	
Esc	Next
Confirm	

This feature allows the operator to select high pass, band pass or low pass audio filter.

Num lock LED will now be on and any effect(s) disabled. Notice the cursor flashing over the 1 for high pass. Use the arrow keys to scroll between the options on screen.

1. High pass	
2. Band pass	
3. Low pass	
Esc	Confirm

Press F3 to *Confirm*.

Note : High pass trigger frequency > 1KHz.
Band pass trigger frequency between 300Hz – 1KHz
Low pass trigger frequency < 300Hz

LCD Settings

The LCD setting allows the operator to control both the contrast and the backlight level. Follow the steps below...

Press F3 to go into the *Setup* menu.

Scene Pg: 1	Fx Pg: 2	
Preset A: FL	B: 00	
Scene	FX	Setup

Notice the cursor flashing over the 1 for patch.
Press *Next* to go to the next setup screen.

1. Patch		
2. Self Test		
3. Midi		
Esc	Next	Confirm

Notice the cursor flashing over the 4 for audio.
Press the right arrow key to access *LCD setting*
then press F3 to *Confirm*.

4. Audio		
5. LCD setting		
6. Show file		
Esc	Next	Confirm

Change the level using the +/- keys. Navigate with
the left and right arrow keys.

Press F3 to *Confirm*.

Contrast: 99%		
Back lit: high		
Esc	(+/-)	Confirm

Show File

The show file options allows the operator to save, load and delete a show file. Follow the steps below...

Press F3 to go into the *Setup* menu.

Scene Pg: 1	Fx Pg: 2	
Preset A: FL	B: 00	
Scene	FX	Setup

Notice the cursor flashing over the 1 for patch.
Press *Next* to go to the next setup screen.

1. Patch		
2. Self Test		
3. Midi		
Esc	Next	Confirm

Notice the cursor flashing over the 4 for audio.
Press the right arrow key to access *Show file* then press F3 to *Confirm*.

4. Audio		
5. LCD setting		
6. Show file		
Esc	Next	Confirm

Pick and option for the action that is needed.

Press F3 to *Confirm*.

1. Save show		
2. Load show		
3. Del show		
Esc		Confirm

No show file functions can be performed without a compact flash card installed.

No card found!
Insert a 32M
Compact Flash
Esc

Only a 32M compact flash card can be used. The compact flash card has to be dedicated to the 200 console. It cannot share with other devices due to a different file format. The show file cannot be read on a standard PC.

A 32M compact flash card can be purchased at any local computer or electronics store.

Save Show

Notice the cursor flashing over the 1st x, enter a character (A-Z, 0-9) using the +/- key and move to the next digit with the > key.
Press F3 to *Confirm* when done.

```
Save show name
  As: xxxxxx
Esc      <+/->      Confirm
```

If no show name is entered before pressing confirm, the console will automatically assign an available show name as "show xx" between show01 – show30. The number can still be changed if not used already.
Press F3 to *Confirm*.

```
No show name !
Assign as:
Show XX
Esc      <+/->      Confirm
```

The save show will now start and the display will indicate the process during save.

```
Processing
■■■■■■■■■■
  xx %
"Show name"
```

After the show is successfully saved, the display will return to the normal screen.

Note: Up to 30 shows can be stored on a 32M compact flash card.

Please delete unneeded show files before saving if the CF card is full.

Load show

Notice the cursor flashing over the 1st show, use the <> key to select the wanted show and press F3 to *Confirm*.

```
Load show
01.SHOW01
02.SHOW02
Esc      Confirm
```

Notice the cursor flashing over the 1 for All. Press the right arrow key or press F2 key to next page to select either load all, patch and setting, scene or effect, then press F3 to *Confirm*.

```
Load SHOW01
3. All
4. Patch & setting
Esc  Next  Confirm
```

```
Load SHOW01
1. Scene
2. Effect
Esc  Next  Confirm
```

Note: Load scene will load all submaster's contents including effects on subs.

The selected show information will now be loaded
Onto the console memory and overwrite the existing
data.

```
Processing
■■■■■■■■■■
  xx %
"Show name"
```

Delete show

Notice the cursor flashing over the 1 show name.
Press the right arrow key to access the show file to be
deleted then press F3 to *Confirm*.

```
Del show
01.  SHOW01
02.  SHOW02
Esc           Confirm
```

```
Del show
  SHOW01
Confirm ?
Esc           Confirm
```

Press confirm again to delete show.

Once confirmed, the delete show file will function
proceed and the display will indicate progress.

```
Processing
■■■■■■■■■■
  xx %
"Show name"
```

Set Buzzer

The internal buzzer can be either enabled or disabled. When turned on, the buzzer will sound whenever a illegal key is pressed. Follow the steps below...

Press F3 to go into the *Setup* menu.

Scene Pg: 1	Fx Pg: 2	
Preset A: FL	B: 00	
Scene	FX	Setup

Notice the cursor flashing over the 1 for patch.
Press *Next* to go to the next setup screen.

1. Patch		
2. Self Test		
3. Midi		
Esc	Next	Confirm

Notice the cursor flashing over the 4 for Audio.
Press *Next* to go to the next setup screen.

4. Audio		
5. LCD setting		
6. Show file		
Esc	Next	Confirm

Notice the cursor flashing over the 7 for Buzzer.
Press F3 to *Confirm*.

7. Set buzzer		
Esc	Next	Confirm

Select enable or disable Buzzer with <> keys.
Press F3 to *Confirm*.

Set buzzer	
1. Disable buzzer	
2. Enable buzzer	
Esc	Confirm

The Buzzer's default is enabled.

Conclusion

This concludes the instructional manual for Strand's 200 series console.

Accessories

A video display card is available for the console.

A vinyl cover is available for the console.

Contact your local dealer for price and availability.

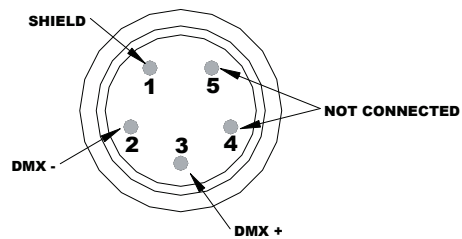
A compact flash card can be purchased at your local computer or electronics store.

Appendix A

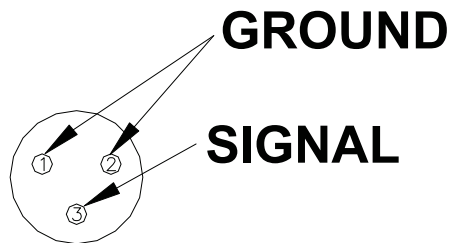
Control Input

The DMX512 output is a multiplexed digital control signal conforming to USITT specification DMX512 (1990). Details of this specification are available from USITT on request.

The control input is via a five-pin male XLR type connector. Pin connections are shown in Figure 9. A five-pin female XLR connector is fitted to allow dimmers (or other DMX equipment) to be connected together in 'daisy chain' fashion.



Audio Input



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