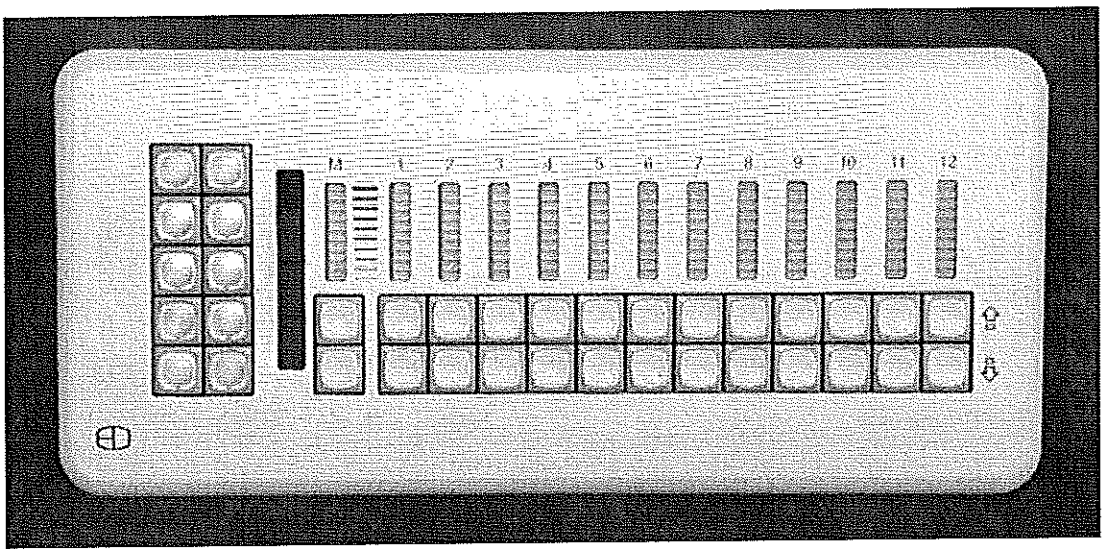
Twilite 12

Owner's Manual

Covers the Twilite 12 Series



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About the Twilite 12

The Twilite 12 Series preset lighting control system is designed to be used in a variety of applications, from lecture halls to multi-scene ballroom lighting. The memory function allows 10 different lighting presets. There are 8 dedicated preset buttons, the ON and OFF buttons may also be programmed as presets for a total of 10 presets.

The Twilite 12 uses the updated DMX-512A (ANSI E1.11) industry standard control protocol for dimmers, moving lights, and LED fixtures.

The Twilite 12 is California Title 24 certified (Automatic Time Switch Lighting Control Devices)

The Twilite 12 is easy to program and operate. Twilite 12 faceplates blend with current quality architectural trends for low profile lighting control in any room. The Twilite 12 series offers preset lighting features at an affordable price.

Features

- 10 presets/12 Zones
- Flexible – fits any installation
- Output level LED bar graph display for each channel
- Proportional master control of every preset
- Low profile design blends with any interior
- Custom colors and nomenclature available
- DMX "copy active" to presets
- Preset preview and blind editing
- Master stations available in 1 to 12 channel modules
- Up to 512 DMX addresses (0-512) may be assigned to each of the 12 channels
- DMX input assignment to either HTP or station OVERRIDE
- CAT-5 plug with power and DMX provisions
- 3-digit 7-segment display for easy programming and operation
- Individual channels may be assigned as non-dims
- 1 to 8 channels fit in a 4 gang box or 9 to 12 channels in a 5 gang box
- Non-volatile internal flash memory for channel patch and preset information
- Infrared Remote Control capability

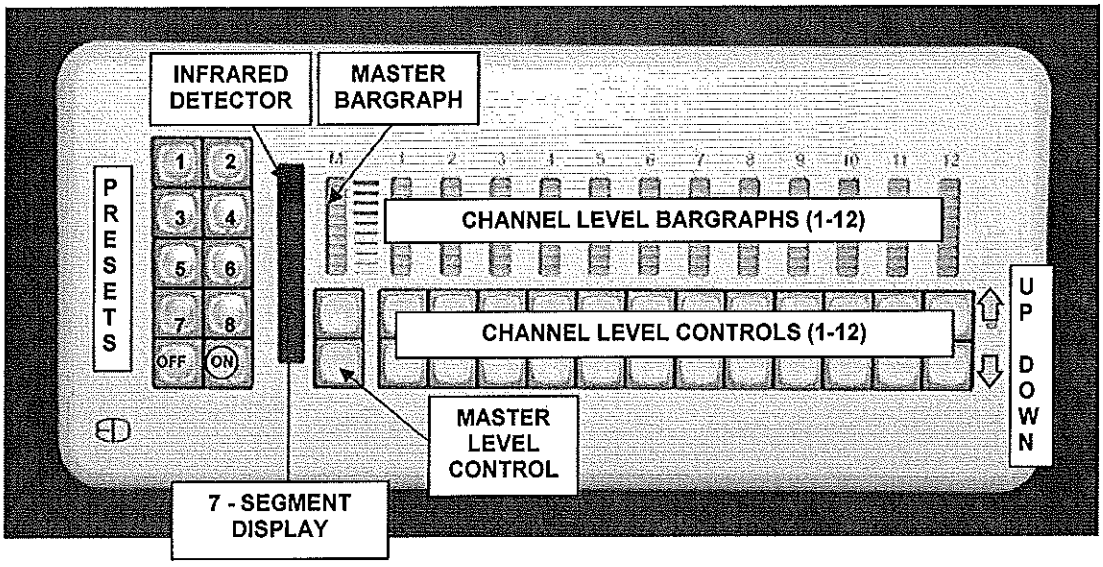


Figure 1 - Twilite 12 Front Panel

DMX Patching

The Twilite 12 can patch any of 512 dimmers to any of its 12 channels.

- Press ON and Preset 2 simultaneously and hold for 5 seconds. The 7-segment display will show the last selected dimmer address. The default address is 1.
- Use the UP and DOWN arrows of the master level control to select the DMX addresses of the dimmers you wish to patch.
- Press the UP button for the channel you wish to patch the dimmer to. Its bottom bar graph LED will light. It is possible to patch multiple dimmers to a channel.
- ***To Unpatch a Dimmer*** - Press the DOWN button for the channel it is patched to.
- ***To Exit Patch Mode*** - Press the ON button.

Assigning Nondim Channels

- Press and hold the ON button, and double press the UP level control button for the desired channel.

  NOTE: This selection must be made in less than 2 seconds.

- ***To Reenable Dimming on a Channel*** - Press and hold the ON button and double press the desired channel's DOWN level control button.

  NOTE: This selection must be made in less than 2 seconds.

Recording an Active Preset

Recording a preset stores channel level settings on the Twilite 12. It is possible to store up to 10 preset "looks" with the 8 preset buttons and the ON and OFF buttons.

- Select active preset to record.
- Adjust each of the individual channels to the desired level.
- Press and hold the ON button and double press the desired preset button.
- It is possible to save the same look to more than one preset by continuing to hold the ON button and double pressing other preset buttons.

Programming the ON and OFF Buttons as Active Presets

- Press and hold the ON or OFF button for about 2 or 3 seconds. The display will show a "1" on the center digit, and "1" on the lower digit, which indicates that the system is in blind mode (see "Editing Presets in Blind Mode" on Page 6).
- Adjust each of the 12 individual channels to the desired level. When the ON or OFF button is released, the existing look will remain unchanged.
- When the ON or OFF button is pressed again, the existing look will fade into the new look.

> ***NOTE:*** For products with serial numbers lower than 6020-1010, the display will read "BLD" when the ON or OFF buttons are selected for recording.

Adjusting the Fade Time for a Preset

It is possible to adjust the fade time from 0 seconds to 5 minutes for each individual preset.

- ***To Lengthen the Fade Time for a Preset*** Press and hold the ON button, and press the Master UP level control button. The fade time is displayed on the Master LED bargraph.

  > *NOTE:* This selection must be made in less than 2 seconds.

- ***To Shorten the Fade Time for a Preset*** Press and hold the ON button, and press the Master DOWN level control button. The fade time is displayed on the Master LED bargraph.

  > *NOTE:* This selection must be made in less than 2 seconds.

- ***To Adjust Fade Time For the ON or OFF Presets*** - Hold down the ON or OFF button until Blind Edit mode is displayed. The display will show a "1" on the center digit, and "1" on the lower digit, which indicates that the system is in blind mode.
- While still holding the ON or OFF button, adjust the fade time using the master UP and DOWN buttons.
- ***To Display the Fade Rate for a Selected Preset*** - Press the ON button and either the UP or DOWN level control button for the master channel at the same time and release. The fade rate will be displayed on the master LED bar graph. The higher the bar graph, the longer the fade time for the selected preset.

Editing Presets in Blind Mode

In blind mode, it is possible to change the levels and fade time of each of the individual channels in any preset without changing the current lighting levels.

- Press and hold the preset button of the preset you want to adjust. After about 2 seconds, the display will show a "1" on the center digit, and "1" on the lower digit, which indicates that the system is in blind mode.
- Make any desired changes to the channel levels.
- When the preset button is released, the existing look will remain unchanged.
- The next time the preset is pressed, the existing look will fade into the new look.

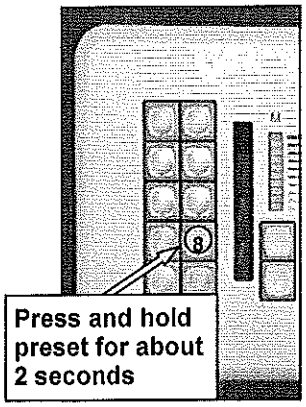


Figure 2 - Blind Mode Editing

NOTE: For products with serial numbers lower than 6020-1010, the display will read "BLD."

Activating a Preset

- Press the desired preset button. The existing look will fade into the new look.
- A total of 10 preset looks are available on the Twilite 12, including presets 1 - 8 and the ON and OFF buttons.

NOTE: The LED on the selected preset button will flash as the old look fades into the new look. To bypass the fade time for the preset, double press the button.

Changing the Level for a Single Channel

Use the UP or DOWN level control button for the desired channel. Its LED bar graph will go up or down in proportion to the lighting level.

Changing the Level for all Channels

- Use the MASTER LEVEL UP or DOWN control buttons. The LED bar graphs will change in proportion to the levels on their respective channels.

NOTE: It is possible to adjust all the channels all the way down to zero using the master level control. However, none of the levels will adjust higher than the levels set in the active preset.

Copy Active Mode

The Twilite 12 can import DMX levels for multiple dimmers and record them to a preset using the Copy Active function.

Since it is possible to assign multiple dimmers to a channel, the "Highest Takes Precedence" or HTP function will automatically force a single channel to assume the highest DMX level assigned to that channel. For example, assume Channel 1 has four dimmers patched to it. Dimmer 1 is at 10%, Dimmer 2 is at 20%, Dimmer 3 is at 30%, and Dimmer 4 is set to 0. Channel 1 will automatically be set to 30%, since this is the highest DMX value.

The Copy Active feature is like a snapshot event in that it copies the levels into a preset. The LED bar graphs show the events per channel.

- Press the ON button and preset 1 simultaneously and hold them for about 5 seconds. A "2" will be displayed in the middle digit of the display, and a "4" will be displayed in the lower digit.
- Press any of the preset buttons to copy the look to a preset on the Twilite 12. The preset button will light. Press the master UP button to copy the look to the preset. When the look is copied, the levels will appear on the bargraph displays.
- ***To Exit Copy Active Mode*** - Press the Master DOWN button.

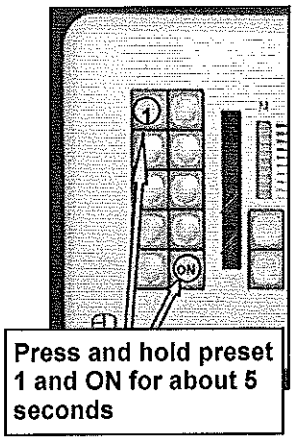


Figure 3 - Copy Active Mode

NOTE: For products with serial numbers lower than 6020-1010, the display will read "CPY"

Lockout Mode

The Twilite 12 can be locked to prevent unauthorized use or tampering.

- Press and hold the ON and OFF buttons simultaneously for about 5 seconds and release. A "1" will be displayed in the top digit of the display.
- Press the UP button on the master channel to lock the station.
- A "1" will still be displayed in the top digit of the display, and a second "1" will be displayed in the lowest digit. The middle digit will remain blank.
- ***To unlock the station*** - Press and hold the ON and OFF buttons simultaneously until the "1" on the bottom digit goes away.
- Press the DOWN button on the master channel. The "1" on the top digit will go away, and normal operation will resume.

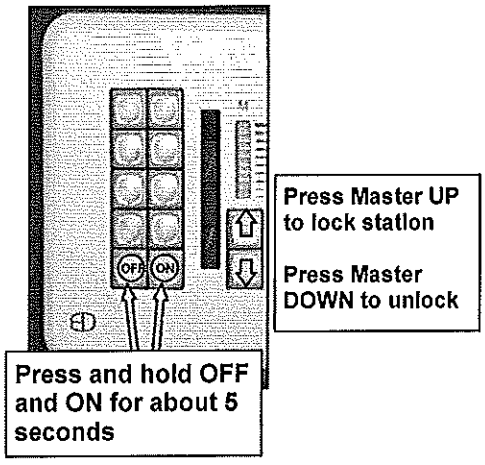


Figure 4 - Lockout Mode

NOTE: For products with serial numbers lower than 6020-1010, the display will read "lc" when lockout mode is entered. When the station is locked, the display will read "lcd."

Highest Takes Precedence (HTP) Function

The Highest Takes Precedence (HTP) function is the default mode for the Twilite 12. In this mode, lighting levels from the Twilite 12 combine with lighting levels from a stage lighting console to create an overall lighting look.

- ***To set a master station to HTP mode*** - press and hold ON and preset 3 for about 5 seconds at the desired master station.
- Press the Master DOWN button. The display will show a "2" on the low digit. No other digits will be present.

  NOTE: A "0" on the high digit indicates that the unit is currently in OVERRIDE mode. If there is a "2" on the low digit, the unit is already in HTP mode.
- The last executed preset will be displayed as it appeared before it was overridden.
- Press the ON button to return to normal preset operation.

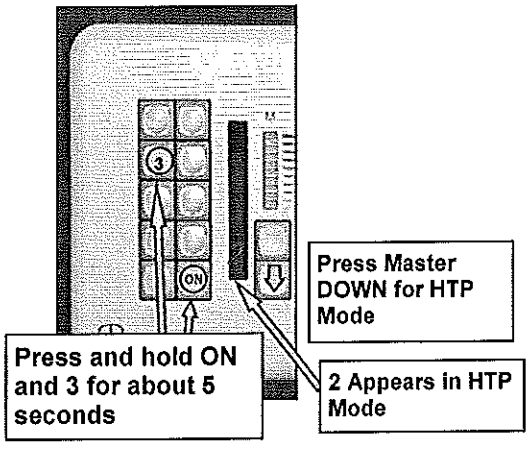


Figure 5 - HTP Mode Selection

OVERRIDE Function

In OVERRIDE mode, the Twilite 12 is overridden by an external DMX source. The Twilite 12 will be faded to OFF and effectively locked out if a DMX source is present. If the DMX source ceases to exist, the station's settings will fade from the last output with the DMX source online to the last executed preset.

- ***To set the Twilite 12 to OVERRIDE mode*** - press and hold ON and preset 3 simultaneously for about 5 seconds.
- Press the Master UP button. The display will show a "0" on the high digit. No other digits will be present.
- Press the ON button to return to normal preset operation.

  NOTE: A "2" on the lower digit indicates that the unit is currently in HTP mode. If there is a "0" on the high digit, the unit is already in OVERRIDE mode.

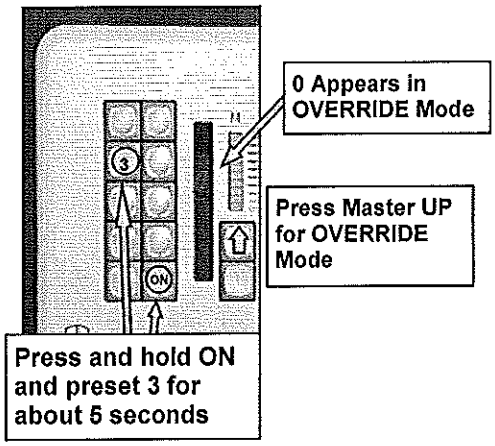


Figure 6 - OVERRIDE Mode Selection

NOTE: For products with serial numbers lower than 6020-1010, the display will read "OV" for OVERRIDE mode, and "UTP" for HTP mode.

Returning Settings to Factory Default

- Press and hold Presets 6 and 7 and the ON button simultaneously for about 5 seconds.
- A "1" will appear in the center digit of the display.
- The patching will default to DMX1 for Channel 1, DMX2 for Channel 2, and so on for all channels.

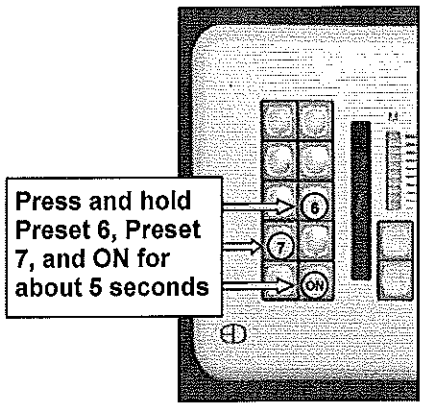


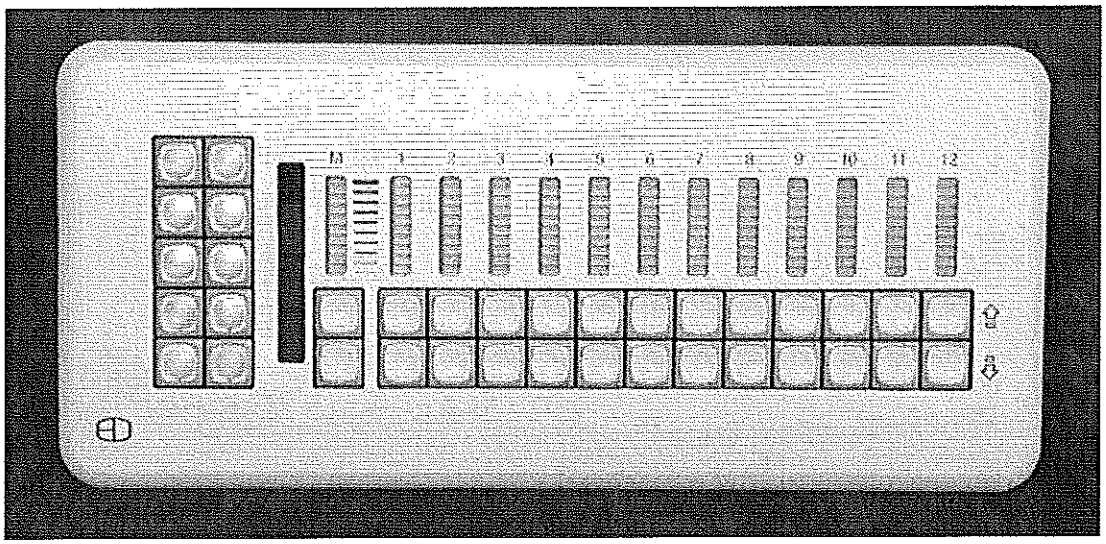
Figure 6 - Factory Default

NOTE: For products with serial numbers lower than 6020-1010, the display will read "CL."

Twilite 12

Installation Instructions

Covers the Twilite 12 Series



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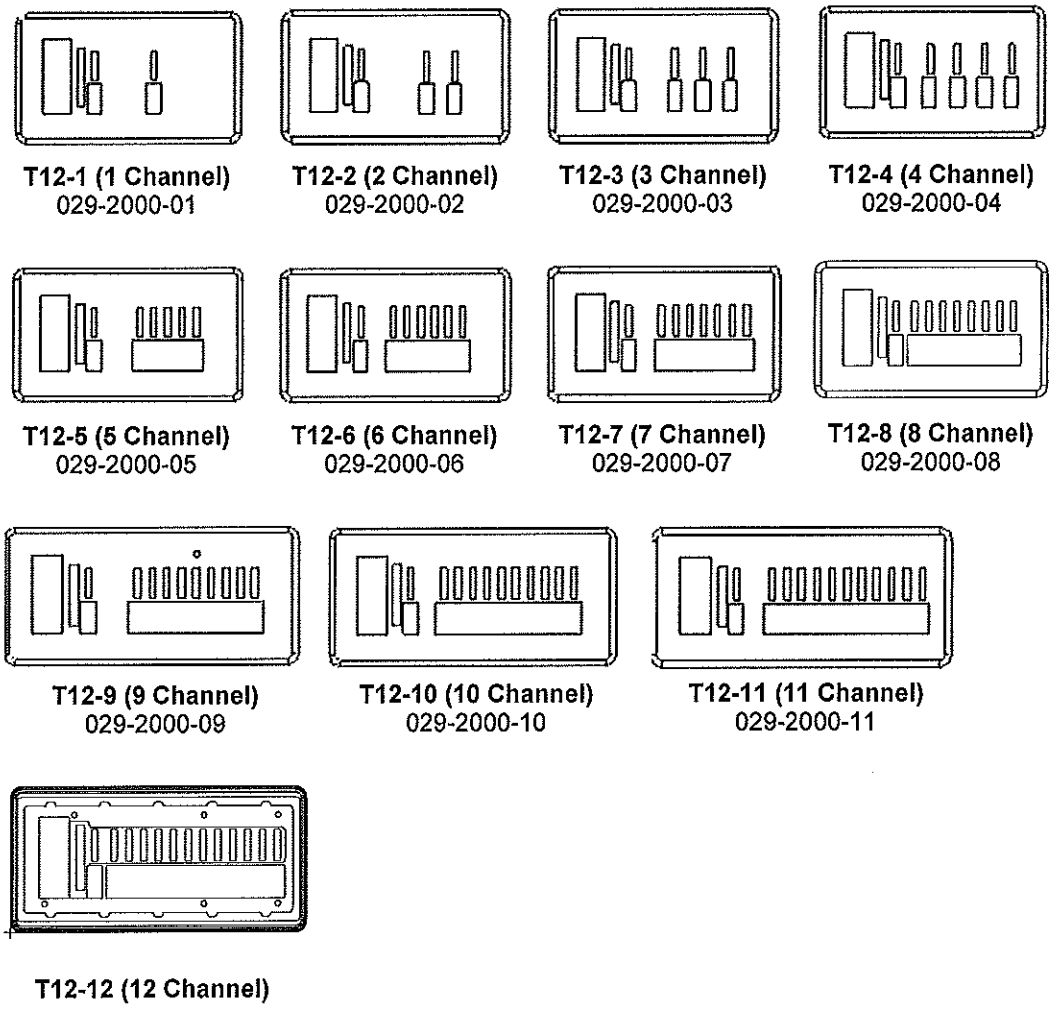
Unpack and Inspect Components

- Check the shipping container for puncturing, tearing, wetness, or other shipping-related damage.
- Check the contents against the packing slip to make sure that all of the components are present and undamaged before installation. EDI provides as-built drawings for all installations. These drawings provide necessary info for installing all equipment as sold to customer for their particular application. The available Twilite 12 panel options are shown below.
- If you find any damage or missing components, contact Electronics Diversified immediately at (800)547-2690.

Twilite 12 Options



T12-1 (1 Channel) 029-2000-01
T12-2 (2 Channel) 029-2000-02
T12-3 (3 Channel) 029-2000-03
T12-4 (4 Channel) 029-2000-04
T12-5 (5 Channel) 029-2000-05
T12-6 (6 Channel) 029-2000-06
T12-7 (7 Channel) 029-2000-07
T12-8 (8 Channel) 029-2000-08
T12-9 (9 Channel) 029-2000-09
T12-10 (10 Channel) 029-2000-10
T12-11 (11 Channel) 029-2000-11
T12-12 (12 Channel)

Figure 7 - Twilite 12 Faceplate Options

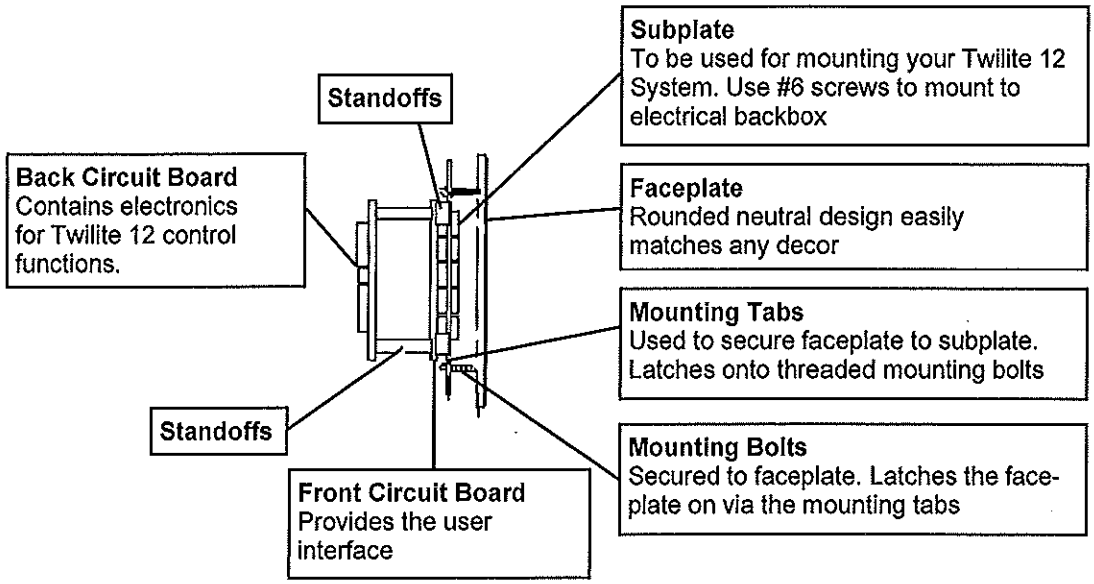


Figure 8 - Twilite 12 Hardware Pieces

Remove Faceplate

Work around area between faceplate and subplate with a flathead screwdriver, pulling forward. This will work the mounting bolts from the mounting tabs.

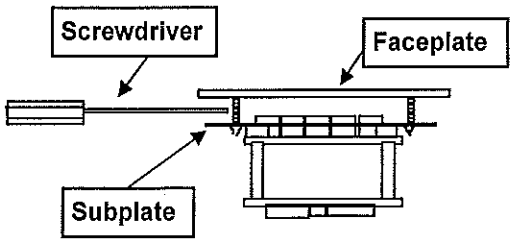


Figure 9 - Faceplate Removal

Mounting

1. Mount backbox (supplied with station).
2. Make sure that the front of the backbox is flush with the finished wall.
3. Using the nut block connectors supplied and the riser diagram on the next page as a reference, route wires from backbox to PCBA and connect to electronics on the subplate.
4. Align subplate and backbox. Attach using #6 pan-head screws (furnished).
5. Replace the faceplate.

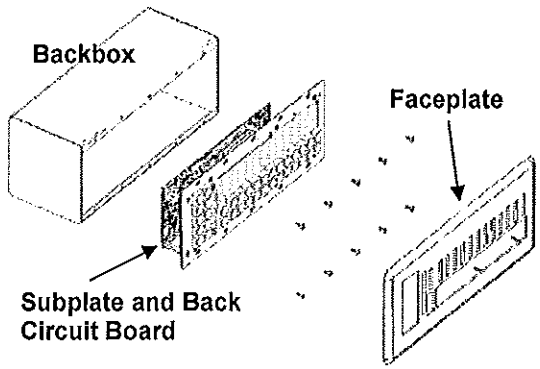


Figure 10 - Mounting Diagram

Riser Diagram (Wiring)

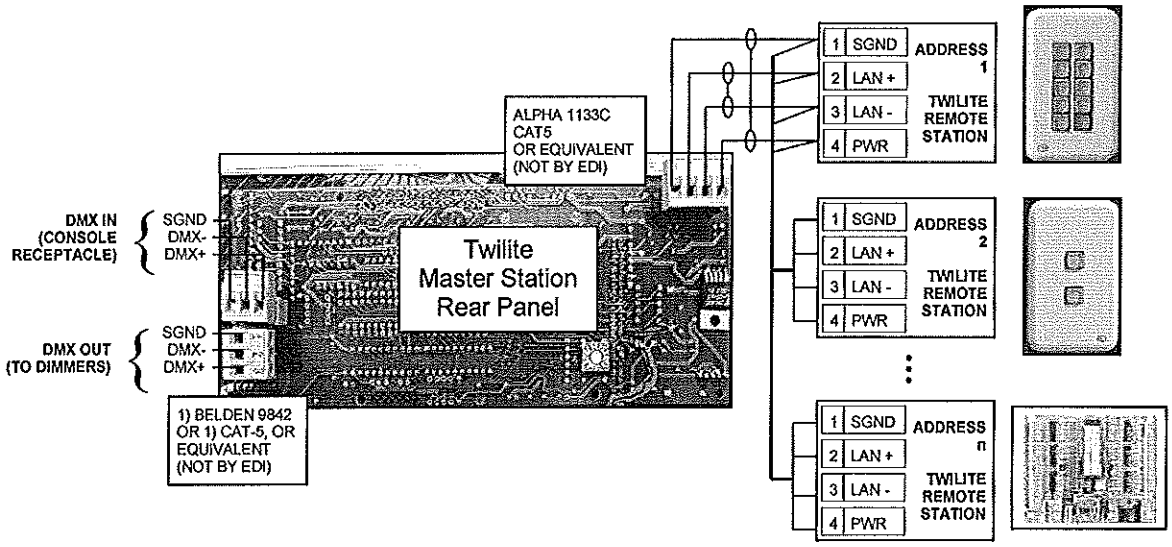


Figure 11 - Riser Diagram

DMX Channel Shifting

NOTE: If there is more than one Twilite 12 station, the master station must be assigned an address of 0. If there is only one Twilite 12 in your system, make sure the rotary switch on the back is set to 0. See Figure 11 below.

The DMX-512A standard requires that all receiving devices such as dimmers, dimming racks, etc. have a user-defined address. Using the 16-position rotary selector switch on the back of the circuit board, it is possible to configure the Twilite 12 to select the lowest or starting DMX address for the lowest channel.

The numbers on the rotary switch go from 0-9 and then from A-F. This is known as the *hexadecimal number system*, which simply means that there are 16 digits instead of 10. A-F correspond to the following decimal values:

A = 10	C = 12	E = 14
B = 11	D = 13	F = 15

Default DMX address of Channel 1 = (selector switch setting x number of channels) + 1

If the rotary switch is set to 0 on ANY station, regardless of the number of channels, the first channel will always default to DMX address 1, Channel 2 defaults to DMX address 2, and so forth up to the number of channels on the wallplate.

If the rotary switch is set to 1 on a 12-channel station, the first channel will default to DMX address 13, the second channel defaults to DMX address 14, etc., and Channel 12 will default to DMX address 24.

Default DMX address of the Top Channel = (selector switch setting x number of channels) + (number of channels)

If the rotary switch is set to 0 on ANY station, regardless of the number of channels, the DMX address of the highest channel will be the same as the number of channels. So for a 12 channel system, the highest default DMX address would be 12.

If the rotary switch is set to 1 on a 12-channel station, Channel 12 will default to DMX address 24. If it is set to 2, Channel 12 will default to DMX address 36, etc.

1. Using a small flat-bladed screwdriver, select a starting address for the station from "0" to "F" using the rotary switch on the back of the circuit board.

2. Press and hold Presets 6 and 7 and the ON button simultaneously for about 5 seconds to reset the system (see page 9). This will cause the new default addresses to take effect.

3. In order to display the level of the channels, it is necessary to enter Patch mode and scroll until the address of Channel 1 is shown on the display. Press ON and Preset 2 simultaneously and hold for 5 seconds. The display will show the last selected dimmer address. Select the desired dimmer address by pressing the UP and DOWN arrows of the master channel.

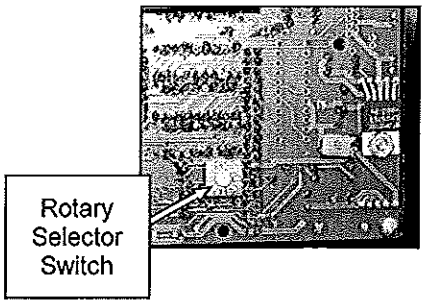


Figure 12 - location of rotary selector switch on circuit board