

The fixture schedule, lists all of the fixtures currently in your show, and allows you to edit them in various ways. The fixture schedule is automatically displayed after patching fixtures, and is the first window that opens upon tapping Setup, which opens ZerOS Setup.

By default, the fixture schedule will display your fixtures in fixture number order. However the fixture schedule can also be sorted, by holding the **[Shift]** key, and tapping the column headers. This will sort them numerically / alphabetically, and a second tap will reverse the order. For example hold **[Shift]** and tap **Address** to sort in order of DMX address.

Click to find out more about these Fixture Schedule subjects...

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Selecting Fixtures

Any individual cell within the Fixture Schedule can be edited by clicking on it, to edit a single fixture. Alternatively, you can select a range of fixtures first, and then use the column header to make your edits to multiple fixtures at once.

Selecting fixtures in the fixture schedule is very useful, as it allows you to edit multiple fixtures at once. To select fixtures, press the channel buttons of the fixtures you wish to select. Their channel buttons will light to indicate they are selected. Make sure your `Fader Function` button is toggled to "Channels". To select a sequential range of fixtures, press and hold the first channel button, and then tap the last of your range. For example pressing and holding channel button 1, and tapping channel button 12, will select fixtures 1 through to 12. Their buttons will light, and I will just see those fixtures displayed in my fixture schedule.

To clear your selection, tap the `Clear` button. You will then see all fixtures in your show file listed.

Selecting fixtures with syntax

You can use syntax commands, to select the fixtures you wish to view and edit in the Fixture Schedule. Syntax commands are typed into the command line, running along the bottom of the fixture schedule window.

You can use the `And`, `Thru` and `Except` keys, to select multiple fixtures at once. Some examples:

`1` `Enter`

`1,`

This selects fixture 1.

`2` `And` `3` `Enter`

`2, And 3,`

This selects fixtures 2 and 3.

`5` `Thru` `10` `Enter`

`5 Thru 10,`

This selects fixtures 5 through to 10.

`5` `Thru` `10` `Except` `7` `Enter`

`5 Thru 10, Except 7,`

This selects fixtures 5, 6, 8, 9 and 10.

`3` `Thru` `9` `Except` `5` `Except` `6` `Enter`

`3 Thru 9, Except 5, Except 6,`

This selects fixtures 3, 4, 7, 8 and 9. Note how Except is used twice to exclude two different channels from the range.

1 Thru 3 And 7 Thru 9 Enter

1 Thru 3, And 7 Thru 9,

This selects fixtures 1, 2, 3, 7, 8, and 9.

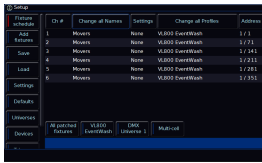
1 And 7 Thru 12 Except 9 Enter

1, And 7 Thru 12, Except 9,

This selects fixtures 1, 7, 8, 10, 11 and 12.

[You can also use Group syntax in the Fixture Schedule to select your groups of fixtures. See the groups section for more information.](#)

Fixture Channel Number



	Ch #	Change of Name	Settings	Change of Fixture	Address
1		None	None	None	1/1
2		None	None	None	1/21
3		None	None	None	1/21
4		None	None	None	1/21
5		None	None	None	1/21

The fixture numbers of your fixtures are displayed in the "Ch #" column.

Any fixture's number can be changed, so that the fixture can be controlled by a different fader/fixture number in syntax.

To change the channel number of a single fixture, tap on the channel number cell, and type a new fixture number. On FLX, this can be any number between 1-9999, on FLX S24 this is between 1-48, and on FLX S48 this is between 1-96. After changing the fixture number, that fixture can now be controlled using the new channel fader number.

To renumber multiple fixtures at the same time, select the fixtures in the order you wish them to be numbered. Then select the column header button which is labelled "Ch #". This will open an onscreen number pad. When you edit this value, the fixtures selected will be renumbered sequentially in the order they were selected and shown – they won't all be given the same channel number.

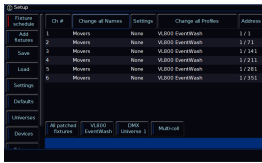
It is recommended that you take some time thinking about numbering your fixtures. For example, it is common to ensure your fixtures are sequential, from stage right to stage left, which won't necessarily be the order of DMX addresses.

On FLX, it is common to start each different type of fixture on a new hundred. For example, dimmers start from 1, LEDs start from 101, first type of movers from 201, next type of movers from 301 etc.

If you have fixtures such as MAC 700's, you might want to number these starting at 701 onwards, as a very quick way to remember which number they are.

On Solution consoles, the channel faders are numbered 1 - 48 (or 1 - 96 on the Solution XL). Fixtures can also however be assigned to the MFKs. These are numbered 101 - 300.

Fixture Settings



If your fixtures have additional Settings available, a "Settings" column will be shown.

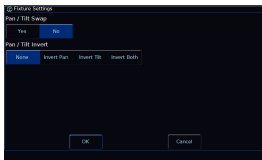
These settings can be changed by touching the relevant cell using the touch screen. Multiple fixtures can be changed at the same time by selecting the fixtures, and then tapping the **Settings** button at the top of the Settings column.

Scroll down to find out about the following Fixture Settings:

- [Pan / Tilt Swap](#)
- [Pan / Tilt Invert](#)
- [Reverse Cell Order](#)
- [Cell Intensities](#)
- [Colour Picker Controls UV](#)

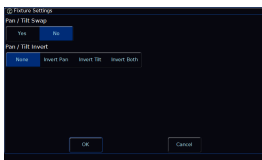
After patching fixtures, it is a good idea to configure their Fixture Settings to how you need them, prior to programming them. This is because changing Fixture Settings may change how existing cues look or behave.

Pan / Tilt Swap



If you have moving lights selected, the Pan / Tilt swap option will be available. Swapping the Pan and Tilt parameters can be particularly useful if a fixture is rigged on its side. In this function, any values defined for Pan will be output on the Tilt channel(s), and any values defined for Tilt will be output on the Pan channel(s).

Pan / Tilt Invert



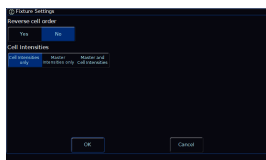
If you have moving lights selected, the Pan / Tilt invert options will be available. The invert options available are "None", "Invert Pan", "Invert Tilt" and "Invert Both".

Inverting Tilt can be particularly useful if you've rigged Front of House fixtures the opposite way around to those onstage, or you have some fixtures sat on the floor.

Inverting Pan can be particularly useful if you wish your rig to be symmetrical, so the beams move into and away from Centre Stage rather than all in the same direction.

With a fixture's home position of Pan and Tilt at 50%, inverting or swapping these parameters won't make an instant visible change. Therefore, it's recommended that before editing these values, you select all the fixtures and move them all to a different position. Now, as you change Invert or Swap options, you'll see the beams updating live.

Reverse Cell Order

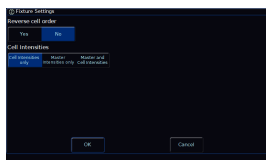


If you have a fixture selected, which has multiple light outputs arranged linearly, you will be given the option to reverse the order of the cells. This option will therefore be available if you have battens selected.

By default, a fixture's individual light outputs or cells, will be ordered as defined by the fixture manufacturer. However, ZerOS offers the ability to reverse the order. Therefore if you have a 10-cell batten, and you choose to reverse the cells, the first cell on the console will actually control cell 10, the second cell on the console will control cell 9 and so on.

This is particularly useful if you have a batten that has been rigged, placed or installed the wrong way round compared to other battens.

Cell Intensities



If you have a fixture selected, which has multiple light outputs that can be controlled individually, you will be given the option to change how you control the fixture's multiple intensity parameters.

The default option, is "Cell Intensities Only". When in this mode, the fixture's "Master Intensity" parameter (if present), is frozen at 100%, with no way of being able to adjust it. The fixture's light output is then controlled by adjusting the level of all of the fixture's cell intensities together. The fixture's channel fader, therefore controls all cells together. The nice thing about this method, is it means you never have a fixture's master intensity scaling a cell intensity, which can result in exponential level changes and strange cue transitions.

When set to "Master Intensities Only", you cannot adjust the intensities of the individual cells. This is particularly useful if the fixture has been patched in a multicell mode in your venue, but you just want to treat the fixture as a "standard" fixture, with a single intensity. If you have a large number of multicell fixtures patched, and don't need to access the individual cell intensities, choose this option.

When "Master and Cell Intensities" is chosen, you have access to both the fixture's Master Intensity, and individual cell intensities. The Master Intensity will be controlled by the fixture's channel fader. Beware that when using this method, the Master will usually scale the cells, and so care needs to be taken when programming.



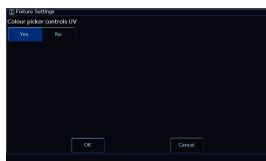
<https://youtu.be/QKPIL5oHeI>

Take a look at this video, for more information on how ZerOS handles multicell fixtures, including the Cell Intensities setting.

[Click here to find out more about Multicell fixtures](#)

Colour Picker Controls UV

By default, if a fixture has a "UV" parameter, this will be treated as a deep violet additive colour mixing parameter. This UV parameter will therefore be controlled by the ZerOS colour mixing tools such as Automatic Colour Palettes, Colour Picker, Image Picker, Colour Faders and Colour Filters.



However, Settings will be available for fixtures with UV parameters, to allow you to prevent the UV parameter from being included in the ZerOS colour mixing tools. In the fixture's settings, set "Colour Picker Controls UV" to "No".

[Click here to find out more about Colour controls](#)

Edit DMX Address



The Address column allows you to configure the DMX settings for your fixtures. This includes changing, removing, and adding DMX addresses. The DMX start address of each fixture will be displayed in this column, in the format x/y, where x is the universe number, and y is the address number. If a fixture does not currently have a DMX start address, the cell will be left blank.



Readdressing

When you touch the cell, the Edit DMX Address window will be displayed. This allows you to change the DMX address of the fixture.

You can also configure which Universe this fixture is patched onto, by clicking on the Universe button top left of the window, and typing the universe.



If you choose to readdress the fixture to an address that overlaps with other fixtures, you will receive a warning. This message will give the option to Cancel, allowing you to give the fixture you are addressing a different address, or you can choose Patch Anyway. Patch Anyway will give your fixture the address you defined, however leave the fixtures that were using those addresses unpatched, with no DMX address.

Unpatch

In this window you can also unpatch the fixture using the Unpatch button. A confirmation popup window will be displayed. Select the Yes button to confirm the operation. Unpatching a fixture removes that fixture's information from the DMX output, effectively disabling that fixture. However, the information is not removed from the showfile. Going back into Edit DMX Address and adding back in the DMX start address for that fixture will get it back up and running. This is useful when touring, where one venue may have more fixtures than another venue.

Add As Additional

Using the "Add as additional address" button instead of simply "OK", it is possible to patch a fixture to more than one DMX address in one or more universes. These additional patch addresses are known as duplicates. When duplicates are patched, additional rows are added to the Fixture Schedule table (one row per duplicate address). To change or remove a duplicate, select the Address cell and choose "Unpatch".

Delete

Fixtures can be deleted from the Edit DMX Address window, by pressing "Delete Fixture". Deleting a fixture removes it from all cues, and is a permanent change to the show file. There is no undo function, so exercise caution when using this function.

RigSync Tools



If you click the Address button of a RDM fixture patched by RigSync, there will be an "Identify" button in the Edit DMX Address window, which can be used to send an RDM identify command to the fixture. The fixture will then flash its light output, or its menu screen.

Editing the DMX address of a fixture patched by RigSync, will update the DMX address on the console, and also send the updated address to the fixture too.

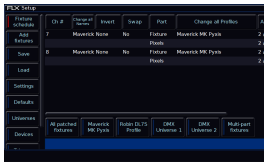
There is also an "Unlink" button. This can be used to turn the fixture in the console from a RigSync fixture to a normal fixture file. There is then no guarantee your fixture and console will remain synchronised.

[Click here to find out more about RigSync.](#)

DMX In

Some ZerOS consoles have a DMX input port, which allow another lighting console to be connected to remotely control them. The DMX In column in the Fixture Schedule will be shown on consoles with a DMX input, and can be used to give fixtures DMX In addresses, so that their intensities can be controlled by the DMX Input.

Patch Groups



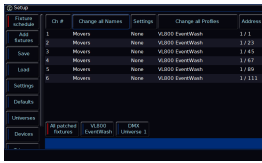
Running along the bottom of the fixture schedule, just above the blue command line bar, are the fixture patch groups. These patch group buttons are automatically created, and can be used to quickly filter the fixture schedule. The currently chosen patch group is indicated with a red stripe.

You will receive the following patch groups:

- All Patched Fixtures - allows you to see all fixtures with a DMX address
- Unpatched Fixtures - allows you to see all fixtures without a DMX address
- DMX Universe - a patch group will be created for each universe you patch onto
- Fixture Type - a patch group will be created for each different type of fixture in your show file
- P/T Settings - a patch group will be created if some of your moving lights have pan/tilt swapped or inverted
- Non-Library Fixtures - allows you to see any fixtures in your show file that are not from the fixture library, displayed in red
- Multi-Part Fixtures - a patch group will be created if you have multi-part fixtures in your show file.
- Multicell fixtures - a patch group will be created if you have multicell fixtures in you show file.

If you are unsure what these terms mean, read on to find out what these are.

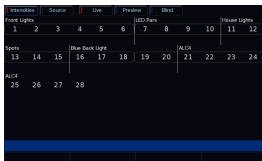
Fixture Names



Fixture	Ch. #	Change all fixtures	Settings	Change all fixtures	Address
LED	1	Movers	None	VL200 PowerWash	1711
Movers	2	Movers	None	VL200 PowerWash	1725
Spot	3	Movers	None	VL200 PowerWash	1745
LED	4	Movers	None	VL200 PowerWash	1767
Movers	5	Movers	None	VL200 PowerWash	1789
LED	6	Movers	None	VL200 PowerWash	1811

By default, fixtures are named using their fixture type (eg "LED Unit"). However they can be renamed to provide more useful information. For example, you may label them "Stage Left LED Unit", "Centre Stage LED unit", "Stage Right LED Unit" or "Movers".

To rename a fixture, tap on it in the "Name" column. To rename multiple fixtures, select them, and tap the column header button labelled "Change All Names" at the top.

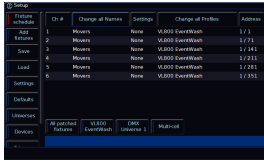


Channel	Source	Unit	Fixture	Unit
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28		

Fixture names are shown in the Output Window (pictured), along with the MFF Window. This allows you to see exactly what each channel fader is controlling.

When sequential names are identical, the name is only displayed once per row in the Output window. A vertical line splits up fixtures with different names.

Change Fixture



The Change Profiles column can be used to change the currently patched fixtures in your show.

Upon choosing a replacement fixture, ZerOS will attempt to apply all the programming that was done with the original fixture, to the replacement fixture. This is also done at cell-level for multicell fixtures.

ZerOS will use the following rules:

- Original parameters will be applied to matching parameters present in the replacement fixture
- If the original fixture's parameter and the replacement fixture's parameter have details, ZerOS tries to find a detail with the same name in the replacement fixture. If unable to, the DMX value is just copied across.
- The original colour mixing space will be converted to the replacement fixture's colour mixing space
- If the original fixture has a colour wheel and the replacement fixture has colour mixing (or vice versa), the closest colour match is used
- Parameter data in the original fixture that does not exist in the replacement fixture is lost
- Parameters in the replacement fixture that didn't exist in the original fixture are left unprogrammed.

If the new fixtures require more DMX channels per unit than the previous fixture type, you will be required to add in the new DMX start addresses.

After changing a fixture, it is strongly recommended to ensure they play back as expected by checking any cues the fixture was programmed in.

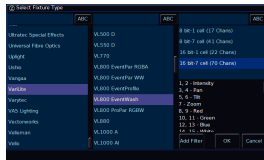
There are four key reasons you may wish to change a fixture:

- ["Swap" the currently patched fixture to a different type](#)
- ["Upgrade" the current fixtures to the latest version from the ZerOS Library](#)
- ["Convert" the current fixture, to a ZerOS Library fixture](#)
- ["Remotely" change the mode of an RDM fixture](#)

Swap

It is possible to swap out a fixture that has been patched, in situations where a mistake has been made. For example, the wrong model or mode may have been patched.

Swapping allows for a complete change of the physical fixtures from one type to another, for example if there's a fault and you can't get an identical replacement fixture, or you are touring and one venue has different fixtures to another.



To swap a fixture, touch the appropriate cell in the Change Profiles column, or select all the fixtures to be changed and touch the column header button labelled Change all Profiles. The Change Profiles window will open with the list of manufacturers, models and modes available.

Upgrade

Software updates and ZerOS Library updates, regularly include improvements to how your fixtures can be controlled.

If you load in a show file following a software update, or perform a ZerOS Library update, your show file will continue to use the fixtures that you originally patched. These fixtures may not fully support the latest ZerOS features.

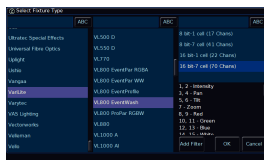


These fixtures will be displayed in red, indicating that these fixtures are from your show file, and are not using the latest versions of the fixtures from the installed ZerOS Library.

A "Non-library fixtures" patch group will be created, to allow you to quickly filter to see any fixtures that are not contained in the fixture library.

Change Profiles allows you to upgrade these fixtures to their latest versions from the installed ZerOS Library, to take advantage of the latest features and improvements.

To do this, tap a red "patch group" button at the bottom of the Fixture Schedule, to select all fixtures of a particular type.

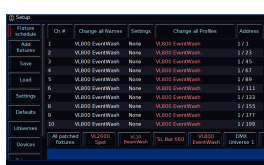


Then click the column header button labelled Change all Profiles. The Change Profiles window will open with the list of manufacturers, models and modes available. You should see the latest version of the chosen fixtures shown in white. Click this mode, and then click OK. The console will then upgrade your fixtures.

Convert Profiles

Sometimes, your show file may be using fixtures in the ".ift" format. This may be because your fixtures are from one of the following sources:

- Fixtures from show files saved in ZerOS 7.9.7 software or earlier
- Custom fixture files created using the Fixture Editor
- Fixture profiles created by importing an ASCII show file



Fixtures in the .ift format will be displayed in red in the profiles column, meaning these fixtures are not from the ZerOS Library currently installed on the console.

A "Non-library fixtures" patch group will be created, to allow you to quickly filter to see any fixtures that are not contained in the fixture library.

These fixtures may not fully support the latest ZerOS features. However, there may be a new version of that fixture in the latest ZerOS Library installed on the console. To take advantage of the latest features, personalities highlighted red can therefore be converted to the latest version of the fixture from the installed ZerOS Library.

To do this, tap a red "patch group" button at the bottom of the Fixture Schedule, to select all fixtures of a particular type.

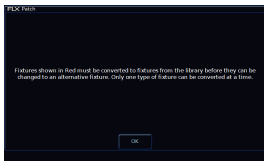


When selecting a single type of fixture that is not in the library format, the Change Profiles column becomes a "Convert Profiles" column and can be used to convert the non-library fixture, to a library fixture.



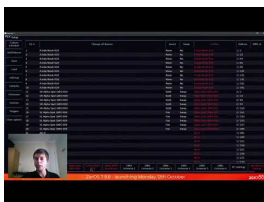
After clicking Convert, ZerOS will show you the library fixtures that it reckons this fixture is. You can then choose the correct one, and click OK to confirm, and your fixtures will be converted to use the library format fixtures.

If you click "Show All" at the bottom of the Convert window, you will be able to access the standard "Change Profiles" window, giving access to all fixtures currently on your console.



If you select multiple different types of non-library fixtures, the column header will display a greyed out "Profiles" button. This is because only a single type of non-library fixture can be changed at a time. This is stated in the message displayed if you tap the greyed out "Profiles" button.

You can therefore just choose a single type of non-library fixture, using the red patch groups, and convert them one at a time, if a library fixture is present.



Check out this video, for more information on converting fixtures.

[Click here to skip straight to the relevant section.](https://youtu.be/Zap0htl_ax4)

https://youtu.be/Zap0htl_ax4

Remotely Changing Mode

If your fixture has been discovered and patched automatically by RigSync, the Change Profiles column can be used to remotely change the mode of the fixture.

[Click here to find out more about RigSync](#)

Syntax

On FLX, syntax can be used in the fixture schedule to select, readdress, and also delete fixtures.

Syntax addressing

When readdressing fixtures, the syntax format is fixture number address :

1, @ 274

“Fixture 1” will be patched to DMX address 274 on Universe 1.

A specified universe can be defined by adding the universe number before the start address, separated by a point:

1, @ 2. 156

“Fixture 1” will be patched to DMX address 156 on Universe 2.

Group Patching is performed sequentially from a given start address. This results in all of the fixtures of this type being assigned one after another starting at the address you define. For example:

Group 1, @ 3. 1

The first fixture in Group 1 will be patched at DMX address 1 on Universe 3. All other fixture start addresses will increase sequentially until the whole group has been patched or the universe is full.

Syntax Deleting

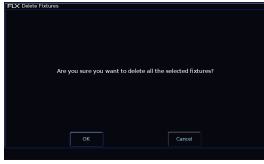
5, Delete

Fixture 5 will be permanently deleted

10 Thru 15, Delete

Fixtures 10 through to 15 inclusive will be permanently deleted.

Deleting Fixtures



Deleting fixtures is a permanent change to the show file and should not be carried out without intention. There is no undo function, so exercise caution when using this function. To delete a fixture, select the fixtures using the MFF channel buttons, or use the Patch Groups along the bottom of the fixture schedule, and then press the Delete button on the front panel. The desk will ask you to confirm the deletion and then remove the fixtures from the show file. This includes modifying all cues, groups and palettes to remove all references to this fixture. This action cannot be undone.