SmartLine

Version 1.64 firmware

User Manual

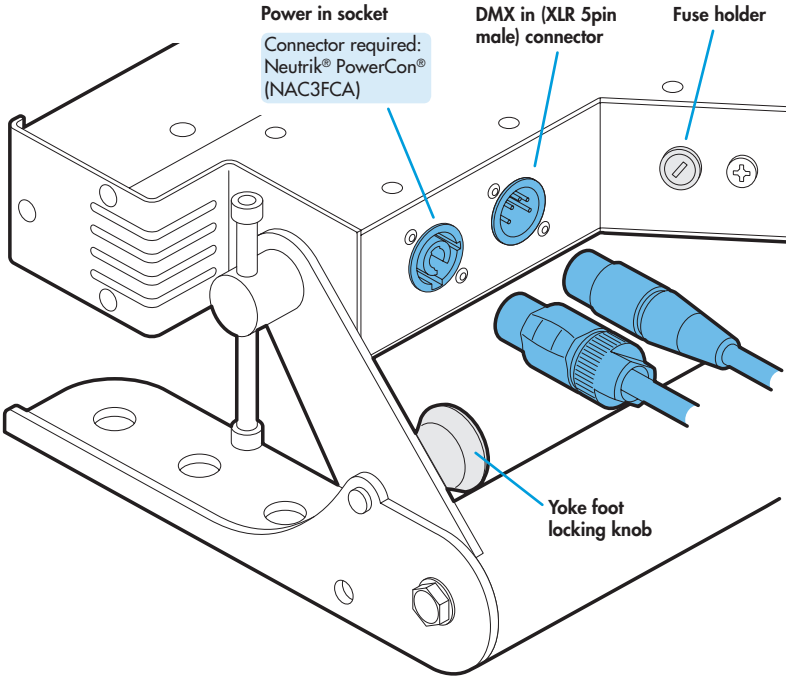
General set up

1 Mount the fixture in the required position. The integral yoke can act as a floor stand or hanger.

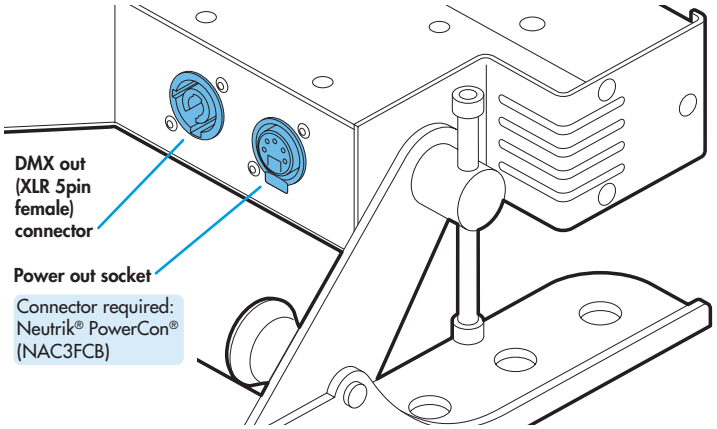
Important

- When suspended off ground, always use two independent fixing points. Also always use two safety wires rated to a minimum of 40kg (88lbs) **SL6** or 30Kg (66lbs) **SL4** around the yoke.

2 Where external control is to be used, connect a DMX lead (XLR 5-pin female) to the input socket at the rear of the fixture.



3 Where other fixtures are to be used in a control daisy-chain, connect a DMX lead (XLR 5-pin male) to the output socket at the rear of the fixture.



4 Connect power to the fixture using a Neutrik® PowerCon® connector. Insert the connector and twist it clockwise until it clicks into place.

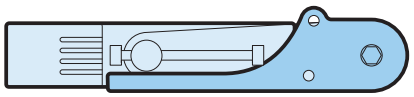
Important

- If power daisy-chaining fixtures, do not exceed a total load of 3kW in a single daisy chain (subject to supply and cabling restrictions). Please see page 7 for maximum power requirements per fixture and also 'Start up (peak)' details.

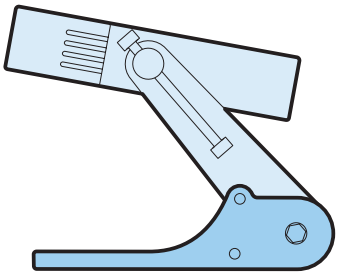
5 Use the control panel to access the internal menu and choose the appropriate operation mode and related settings (see over).

Using the yoke

The SmartLine yoke has an adjustable foot at each end to allow it to function as an effective floor stand or be folded away to allow multiple units to be closely stacked.



Yoke folded flat



Yoke feet extended for use as a floor stand

Important

Please see the warning on page 7 regarding the stacking of SmartLine fixtures.

Operation modes

The SmartLine provides a range of operation modes. These are selected using the ModE section of the control menu:

dMX	Allows RGBW control via DMX input. Internal chase effects are not available within this mode.
MANU	Provides RGBW colour mixing independently of any external control. Use the internal control menu (MAN section) to select the required colour values.
EF M	Allows the display of the dual internal chase effects, independently of any external control. Use the internal control menu (PRoG section) to select the required chase effects, speeds and cross fades.
96+E 144+	Provides control of individual emitter RGBW mixing and selection of the dual internal chase effects via DMX input. Requires 103 (SL4) or 151 (SL6) DMX channels.
4+E	Provides control of RGBW mixing and selection of the dual internal chase effects via DMX input. Requires 11 DMX channels.
16bT	Allows RGBW control via DMX input, using two 8bit channels per colour. Internal chase effects are not available within this mode.

SmartLine personalities are available for a variety of controllers. Please see **www.pixelrange.com** for details.

Factory reset (perform this prior to new use)

To clear previous settings: At the rear panel, press the middle two buttons (▶ and ▼) for two seconds while the current address and mode are being displayed. The four digit display will show FACT then SET to indicate that the fixture has been returned to its default condition. This is useful to remove any settings that might cause confusion in a new configuration (e.g. master intensity settings).

General notes

- Ensure that only one DMX device in the chain is set as master (e.g. the lighting desk). This fixture is usually set to slave mode.
- This fixture is shipped with the DMX address set to 001.
- The four digit display can be set to switch off when not in use. To restore, press MENU. To alter this mode use: PERS > dISP.

Using the menu

- When not in the menu, the four digit display scrolls the current DMX address and mode. The display's right hand decimal point (data dot) is used to indicate status (see below).
- Press MENU to enter the menu. The four digit display will show AddR.
- Use DOWN and UP to move between menu options (or to change a value within an option).
- Press ENTER to enter an option (or to fix a changed value within an option and return to the previous option level). *Note: If you do not press ENTER to fix a value, operation will revert to the previously set mode at the next power on.*
- Press MENU to exit from a menu option (and eventually exit the menu completely).

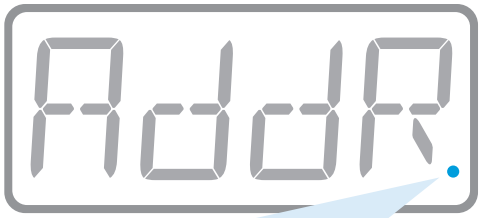
Chase effects

This section describes each of the internal chase effects that are selectable either via the control menu (PROG > C 1/C2 > EFEC) or using DMX values sent from an external source. To use the internal effects, set the ModE option either to EF M (for internal menu control) or 4+E, 5+E or 6 1+E (for external DMX control).

DMX value	EFEC value	Chase effect description
0-3	00	Off
4-7	01	Rainbow forward chase (6 cell)
8-11	02	Rainbow reverse chase (6 cell)
12-15	03	Cool white forward chase (6 cell)
16-19	04	Cool white reverse chase (6)
20-23	05	Cool white outer/inner/outer chase
24-27	06	50/50 duty cycle cool white strobe
28-31	07	50/50 duty cycle red strobe
32-35	08	50/50 duty cycle purple strobe
36-39	09	50/50 duty cycle yellow strobe
40-43	10	50/50 duty cycle green strobe
44-47	11	Pulse white strobe
48-51	12	Pulse light blue strobe
52-55	13	Pulse rainbow strobe
56-59	14	Pulse red/green/blue strobe
60-63	15	Rainbow forward strobe (cells together)
64-67	16	Rainbow reverse strobe (cells together)
68-71	17	Yellow/blue strobe (cells together)
72-75	18	Horizontal split rainbow chase
76-79	19	6 cell yellow/blue chase
80-83	20	6 cell red/blue chase
84-87	21	3 cell red/yellow chase
88-91	22	3 cell RGB forward chase
92-95	23	3 cell rainbow forward chase
96-99	24	3 cell RGB reverse chase
100-103	25	Static salmon pink
104-107	26	Static yellow
108-111	27	Static light blue
112-115	28	Static purple
116-119	29	Static red
120-123	30	Static green
124-127	31	Static cool white
128-131	32	Random colour dots - all emitters on
132-135	33	Random white dots - few emitters on
136-255	34	RGBW spread forward chase

Master/slave/data indication

The right hand decimal point (data dot) of the display is used to indicate the master/slave settings and also the presence of a DMX input signal, as shown below:



Data dot ON	Master mode
Data dot FLASHING	Slave mode (DMX data input present)
Data dot OFF	Slave mode (no DMX data present)

Notes:

- Ensure that only one DMX device in the chain is set as master (e.g. the desk).
- Use PERS > dATA to change between master and slave modes.
- When set to master mode, the fixture will scroll MASTER in place of a DMX address (when not within the menu).
- If the display has been set to auto off (dISP > AoFF), the data dot will remain active but at a lower brightness.

DMX links and termination

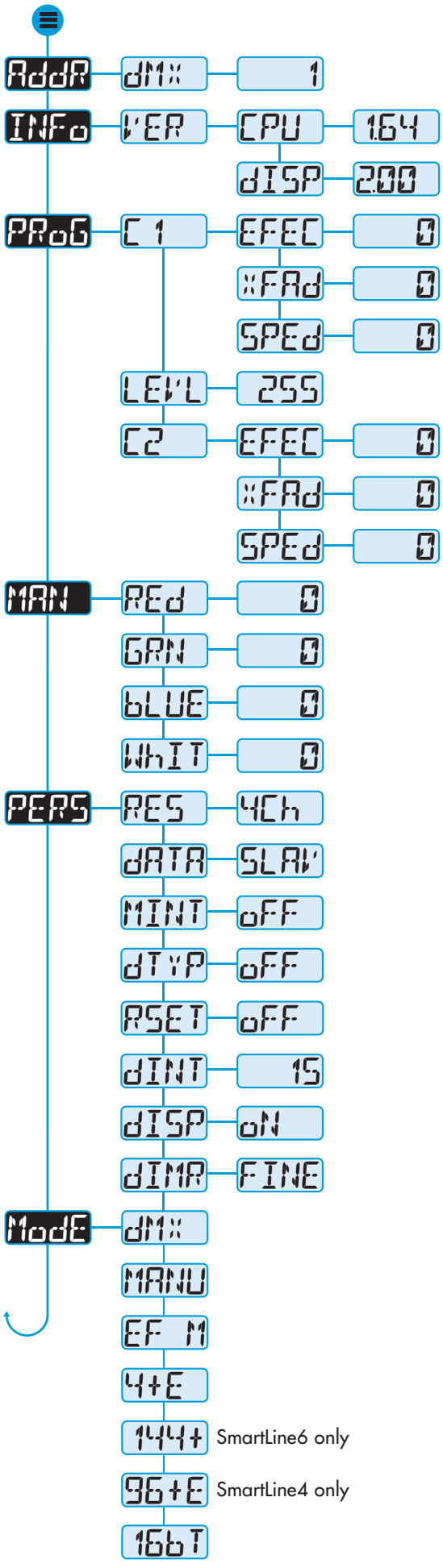
This section provides useful advice for gaining reliable operation from your DMX installation:

- Use good quality flexible twisted pair cable that has a nominal characteristic impedance of 120 ohms. Microphone cables have a lower impedance and a higher capacitance, which can lead to data errors.
- Use a daisychain arrangement to link fixtures together, so that the output of one fixture is connected to the input of the next.
- Connect no more than 32 devices to a single DMX run. If further fixtures are needed, then use a DMX booster to allow up to 32 more fixtures to be attached.
- Never split a DMX cable to form two branches (a Y-split). If separate branches are required, use a powered DMX splitter.
- Ensure that the devices at each end of the daisychain are both terminated using a 120 ohm resistor (usually contained within a separate XLR connector that has no cable - the resistor forms a link between pins 2 and 3). Control desks are usually internally terminated.

It is possible to get away with breaking some of the above rules, particularly on smaller installations that have short cable runs and few fixtures. However, results can be unpredictable and problems will inevitably hit you at the very worst time: During your show.

Please see the 'Troubleshooting' section for useful fault finding tips.

Control menu contents



SmartLine6 only

SmartLine4 only

AddR > dMX > 1	Sets the base DMX address from which the control channels will begin.
INFo > VER > CPU > 1.64	Shows the main processor software revision. No changes are possible within this option. Press ▼ while viewing this option to see the software sub-revision.
INFo > VER > dISP > 2.00	Shows the display controller software revision. No changes are possible within this option.
PRoG > C 1 > EFEC > 0	Selects the primary internal chase effect. See Chase effects for descriptions. Select ModE > EF M to show the selected chase.
PRoG > C 1 > xFAd > 0	Selects the cross fade speed between the steps of the selected C 1 chase effect.
PRoG > C 1 > SPEd > 0	Selects the speed of the selected C 1 chase effect.
PRoG > C 1 > LEVL > 255	Selects the master intensity level of chase effects C 1 and C2.
PRoG > C2 > EFEC > 0	Selects the secondary internal chase effect. See Chase effects for descriptions. Select ModE > EF M to show the selected chase.
PRoG > C2 > xFAd > 0	Selects the cross fade speed between the steps of the selected C2 chase effect.
PRoG > C2 > SPEd > 0	Selects the speed of the selected C2 chase effect.
MAN > REd > 0	Sets the red intensity. Select ModE > MANU (manual) to show the result.
MAN > GRN > 0	Sets the green intensity. Select ModE > MANU (manual) to show the result.
MAN > bLUE > 0	Sets the blue intensity. Select ModE > MANU (manual) to show the result.
MAN > WhIT > 0	Sets the white intensity. Select ModE > MANU (manual) to show the result.
PERS > RES > 4Ch	Selects number of channels required to control all emitters. Options are 1, 4 and 144 (SL6) or 96 (SL4). Emitters are grouped together accordingly.
PERS > dATA > SLAV	Determines whether this fixture will act as a master controlling others. When controlled via DMX this fixture must be set to SLAV.
PERS > MINT > oFF	dMX and 16bT modes only. When set oN this enables the master intensity channel. The master intensity is always 16bit. For 8bit control use the high (initial) mint channel.
PERS > dTYP > oFF	dMX mode only. When set oN, allows you to determine the dimmer type via DMX. This channel is always the final DMX channel. See 'Changing dimmer curve via DMX'.
PERS > RSET > oFF	When set oN, this option scrolls through the primary colours at power on to demonstrate correct operation of the emitters.
PERS > dINT > 15	Determines the intensity of the four digit control panel display. Values range from 0 (dimmest) to 15 (brightest).
PERS > dISP > oN	When set to RoFF, the control panel display will blank out 60 seconds after the menu is exited. The data dot indicator will remain active.
PERS > dIMR > FINE	Provides a choice of two dimmer curves (FINE or TUNG) to suit particular circumstances. See next page for descriptions of each option.
ModE > dMX	RGBW control using an external DMX control input. PERS > MINT set to oN provides a master intensity in dMX and 16bT modes. No chase effects are selectable.
ModE > MANU	Displays the resulting RGBW levels that are set via the MAN section of the internal menu. External DMX control is not possible in this mode.
ModE > EF M	Ch1 to 3: C 1 Effect, Speed & Xfade, Ch4 to 6: C2 Effect, Speed & Xfade, Ch7: Master intensity.
ModE > 4+E	DMX Ch1 to 4: RGBW colour mixing, Ch5 to 7: C 1 Effect, Speed & Xfade, Ch8 to 10: C2 Effect, Speed & Xfade, Ch11 to 12: Master intensity (16 bit).
ModE > 144+ (SmartLine6 only)	DMX Ch1 to 144: RGBW colour mixing, Ch145 to 147: C 1 Effect, Speed & Xfade, Ch148 to 150: C2 Effect, Speed & Xfade, Ch151 to 152: Master intensity (16bit).
ModE > 96+E (SmartLine4 only)	DMX Ch1 to 96: RGBW colour mixing, Ch97 to 99: C 1 Effect, Speed & Xfade, Ch100 to 102: C2 Effect, Speed & Xfade, Ch103 to 104: Master intensity (16 bit).
ModE > 16bT	16bit RGBW control using 2x the number of DMX channels determined by PERS>RES. PERS>MINT set to oN provides a master intensity. No chase effects are selectable.

Emitter layouts

SL6

The SmartLine4 has 24 separate emitters while the SmartLine6 has 36 emitters. Each emitter is a quad-colour unit with red, green, blue and cool white elements. The various operating modes (and the PERS > RES setting) provide choices as to how the emitters are assigned to DMX control channels. When the dMX mode is used and the PERS > RES option is set to 144 (SmartLine6) or 96 (SmartLine4), you can control the colour mix of individual emitters directly.

The emitters for the two models of SmartLine are addressed as shown in the diagrams. For both models, the first emitter is always closest to the end where the power and DMX input connectors are located.

SL4

Channel layouts for DMX mode

When using dMX mode, the manner in which LED emitters are assigned to DMX channels is directly determined by the PERS > RES option. The dMX mode does not use chase effects. The first channel of the fixture occurs at the DMX address selected using AddR and successive channels for the fixture follow from there.

Channel	dMX (RES=1)	dMX (RES=4)	dMX (SL4) (RES=96)	dMX (SL6) (RES=144)
1	All emitters	Red	[Aa] Red	[A] Red
2	Mast. int. (c)*	Green	[Aa] Green	[A] Green
3	Mast. Int. (f)*	Blue	[Aa] Blue	[A] Blue
4		White	[Aa] White	[A] Cool w
5	Dimmer select** is chan. **2** if Mast. int. is OFF or chan. **4** if Mast. int. is ON	Mast. int. (c)*	Warm white	[B] Red
6		Mast. int. (f)*	Mast. int. (c)*	[B] Green
7		Dimmer select** is chan. **5** if Mast. int. is OFF or chan. **7** if Mast. int. is ON	Mast. int. (f)*	[B] Blue
8			Dimmer select** is chan. **6** if Mast. int. is OFF or chan. **8** if Mast. int. is ON	[B] Cool w
.				.
47				[L] Blue
48				[L] Cool w
49				[M] Warm w
50				[N] Warm w
.				.
61				[Y] Warm w
62				Master int. (c)*
63				Master int. (f)*

Dimmer select** is chan. **62** if Mast. int. is OFF or chan. **64** if Mast. int. is ON

* The 16-bit master intensity channels are enabled only when the PERS > MINT option is set to on. For 8-bit master intensity control, use the high (coarse) intensity channel.

** The dimmer select channel is enabled only when the PERS > dTYP option is set to on. Values 0 to 85 select FINE dimmer response; values 86 to 255 select TUNGSTEN dimmer response. See 'Changing the dimmer curve via DMX'.

(c) = Coarse or high channel, **(f)** = Fine or low channel

Dimmer curve options (PERS > dIMP)

SmartLine provides two dimmer curve options to determine exactly how the digital values received via the DMX link are converted into emitter intensities. The dimmer curve setting affects all modes.

To alter the dimmer curve, go to the PERS menu, choose the dIMP option, select the required setting and then press the ▶ button to save.

The dimmer curve options are as follows:

- FINE Provides a square law dimmer curve with fast reaction to changing DMX values.
- TUNG Alters the dimming response to closely emulate the smooth thermal lag action of standard tungsten bulbs. The TUNG setting can be used with all operation modes. Note: This mode can affect the way that fast chase sequences appear.

Changing the dimmer curve via DMX (PERS > dTYP)

SmartLine allows you to change the dimming response curve remotely via DMX control. When enabled, the 'dimmer type' channel will be added as the last channel for the fixture, after the Master Intensity channels, if enabled. The dimmer curve via DMX setting affects the following modes: dMX, 16bT, 4+E and 24+E.

To enable remote 'dimmer type' control: Go to the PERS menu, choose the dTYP option and change its setting to on.

Once enabled, the value sent to the 'dimmer type' channel will dynamically affect which dimmer curve is used:

- Values 0 to 85 select the FINE dimmer response,
- Values 86 to 255 select the TUNGSTEN dimmer response.

Channel layouts for 16-bit mode

When using 16bT mode, the manner in which LED emitters are assigned to DMX channels is directly determined by the PERS > RES option. The 16bT mode does not use chase effects. The first channel of the fixture occurs at the DMX address selected using AddR and successive channels for the fixture follow from there.

Channel	16bT (RES=1)	16bT (RES=4)	16bT (SL4) (RES=96)	16bT (SL6) (RES=144)
1	All emitters (c)	Red (c)	[Aa] Red (c)	[Aa] Red (c)
2	All emitters (f)	Red (f)	[Aa] Red (f)	[Aa] Red (f)
3	Mast. int.(c)*	Green (c)	[Aa] Green (c)	[Aa] Green (c)
4	Mast. int.(f)*	Green (f)	[Aa] Green (f)	[Aa] Green (f)
5		Blue (c)	[Aa] Blue (c)	[Aa] Blue (c)
6	Dimmer select** is chan. **3** if Mast. int. is OFF or chan. **5** if Mast. int. is ON	Blue (f)	[Aa] Blue (f)	[Aa] Blue (f)
7		White (c)	[Aa] White (c)	[Aa] White (c)
8		White (f)	[Aa] White (f)	[Aa] White (f)
9		Mast. int. (c)*	[Ab] Red (c)	[Ab] Red (c)
10		Mast int. (f)*	[Ab] Red (f)	[Ab] Red (f)
11			[Ab] Grn (c)	[Ab] Green (c)
12		Dimmer select** is chan. **9** if Mast. int. is OFF or chan. **11** if Mast. int. is ON	[Ab] Grn (f)	[Ab] Green (f)
13			[Ab] Blue (c)	[Ab] Blue (c)
14			[Ab] Blue (f)	[Ab] Blue (f)
15			[Ab] White (c)	[Ab] White (c)
16			[Ab] White (f)	[Ab] White (f)
17			[Ac] Red (c)	[Ac] Red (c)
18			[Ac] Red (f)	[Ac] Red (f)
19			[Ac] Green (c)	[Ac] Green (c)
20			[Ac] Green (f)	[Ac] Green (f)
.			.	.
93			[Bl] Blue (c)	[Bl] Blue (c)
94			[Bl] Blue (f)	[Bl] Blue (f)
95			[Bl] White (c)	[Bl] White (c)
96			[Bl] White (f)	[Bl] White (f)
97			Mast. int. (c)*	[Ca] Red (c)
98			Mast. int. (f)*	[Ca] Red (f)
.			Dimmer select** is chan. **97** if Mast. int. is OFF or chan. **99** if Mast. int. is ON	.
141				[Cl] Blue (c)
142				[Cl] Blue (f)
143				[Cl] White (c)
144				[Cl] White (f)
145				Mast. Int. (c)*
146				Mast. Int. (f)*
				Dimmer select** is chan. **145** if Mast. int. is OFF or chan. **147** if Mast. int. is ON

* The 16-bit master intensity channels are enabled only when the PERS > MINT option is set to oN. For 8-bit master intensity control, use the high (coarse) intensity channel.

** The dimmer select channel is enabled only when the PERS > dTYP option is set to oN. Values 0 to 85 select FINE dimmer response; values 86 to 255 select TUNGSTEN dimmer response. See 'Changing the dimmer curve via DMX'.

(c) = Coarse or high channel, **(f)** = Fine or low channel

Channel layouts for remote effects modes

The table below shows how colour mixing, chase effects, master intensity and dimmer select controls are mapped to DMX channels for the 4+E, 5+E and 6 1+E modes. In all modes, the first channel of the fixture occurs at the DMX address selected using AddR and successive channels for the fixture follow from there.

Channel	4+E	96+E (SL4)	144+ (SL6)
1	Red	[Aa] Red	[Aa] Red
2	Green	[Aa] Green	[Aa] Green
3	Blue	[Aa] Blue	[Aa] Blue
4	White	[Aa] White	[Aa] White
5	C 1 Effect	[Ab] Red	[Ab] Red
6	C 1 Speed	[Ab] Green	[Ab] Green
7	C 1 Xfade	[Ab] Blue	[Ab] Blue
8	C2 Effect	[Ab] White	[Ab] White
9	C2 Speed	[Ac] Red	[Ac] Red
10	C2 Xfade	[Ac] Green	[Ac] Green
11	Master int.(c)	[Ac] Blue	[Ac] Blue
12	Master int.(f)	[Ac] White	[Ac] White
13	Dimmer select**	[Ad] Red	[Ad] Red
.		.	.
95		[Bl] Blue	[Bl] Blue
96		[Bl] White	[Bl] White
97		C 1 Effect	[Ca] Red
98		C 1 Speed	[Ca] Green
99		C 1 Xfade	[Ca] Blue
100		C2 Effect	[Ca] White
101		C2 Speed	[Cb] Red
102		C2 Xfade	[Cb] Green
103		Master int. (c)	[Cb] Blue
104		Master int. (f)	[Cb] White
105		Dimmer select**	[Cc] Red
.			.
143			[Cl] Blue
144			[Cl] White
145			C 1 Effect
146			C 1 Speed
147			C 1 Xfade
148			C2 Effect
149			C2 Speed
150			C2 Xfade
151			Master int. (c)
152			Master int. (f)
153			Dimmer select**

** The dimmer select channel is enabled only when the PERS > dTYP option is set to oN. Values 0 to 85 select FINE dimmer response; values 86 to 255 select TUNGSTEN dimmer response. See 'Changing the dimmer curve via DMX'.

(c) = Coarse or high channel, **(f)** = Fine or low channel. For 8-bit master intensity control, use the high (coarse) intensity channel.

Troubleshooting

- **Display panel is blank:** Press a control panel button, if the display still does not show, check the input power and fuse.
- **No response during DMX control:** Check whether a master intensity input is required. 4+E, 96+E and 144+ modes always require a master intensity input. dMX and 16bT have an optional master intensity, depending on the setting of PERS > MINT. If the MINT setting is oN then no output will occur until a level greater than zero is applied to the master intensity channel(s). See pages 4 and 5 for details.

  Note: It is good practice to perform a factory reset before these fixtures are used on any new installation.
  This will ensure that settings like the MINT option are set to off and do not create the potential for confusion. See page 1 for details of how to perform a factory reset.
- **No response during DMX control:** If live DMX is connected, the right hand decimal point on the display should flash - if not, check the DMX cable(s) and the desk output.
- **Erratic operation during DMX control:** Check that the final fixture within the DMX daisy chain is correctly terminated with a 120 ohm terminator plug.
- **Erratic operation during DMX control:** Check that the selected ModE matches the personality being used on the control desk.
- **Erratic operation during DMX control:** Ensure that only one DMX device in the daisy chain is set as master.
- **Rapid colour/intensity changes not occurring:** Check whether the tungsten dimmer mode is selected (PERS > dIMR > TUNG). This would slow the reaction times of the emitters and could mean that rapid changes are blended into each other. Choose FINE for a faster reacting dimmer mode.
- **Standalone chase effects not working:** Check that a chase has been programmed using PRoG > C 1 and/or PRoG > C2 and also that ModE > EF M is selected. Check also that PRoG > LEVL is not set at zero.
- **Standalone RGBW mixing not working:** Check that one or more colour values have been set within MAN section and also that the ModE > MANU is selected.

Firmware upgrades

Firmware upgrades are released from time to time in order to provide new operational features. The SmartLine has been designed to allow straightforward firmware upgrading via its DMX interface, a PixelU2D USB device and a computer.

Please contact PixelRange technical support for details.

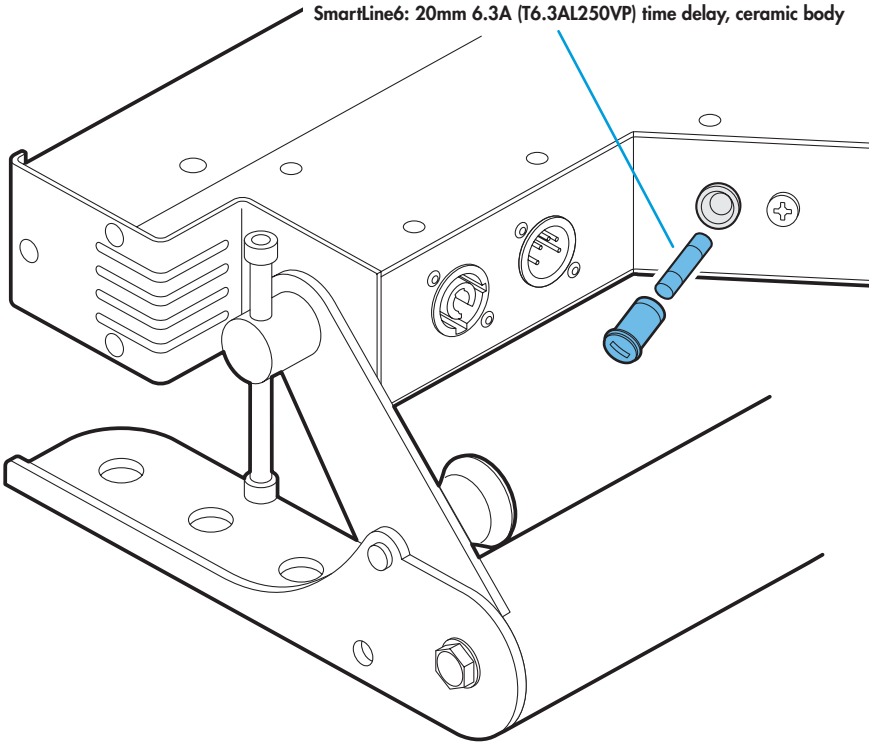
Fuse access

The single fuse is located near to the power and DMX input connectors. Use a small flat blade screw driver to twist the fuse holder anti-clockwise until the carrier can be extracted to reveal the fuse.

Fuse types

SmartLine4: 20mm ??A (T4AH250VP) time delay, ceramic body

SmartLine6: 20mm 6.3A (T6.3AL250VP) time delay, ceramic body



Using master mode to drive other units

This unit can control any number of other PixelRange fixtures via DMX links, without the need for a control desk.

1 Set this unit as **master** (PERS > dATA > MAST) and ensure all others are set to **slave** (PERS > dATA > SLAV). Connect all fixtures via DMX daisy-chain.

  Note: *Don't forget to terminate the devices at either end of the chain - see the section 'DMX links and termination'.*

2 Set each slave to ModE > dMX.

3 Set the master to either create chases or static colours:

  Chases: Select ModE > EF M and then use PRoG > C 1 and C2 to create the required effects (see the 'Chase effects' table).

  Static colours: Select ModE > MANU and then use MAN > REd, GRN, bLUE and WhIT to mix the colour.

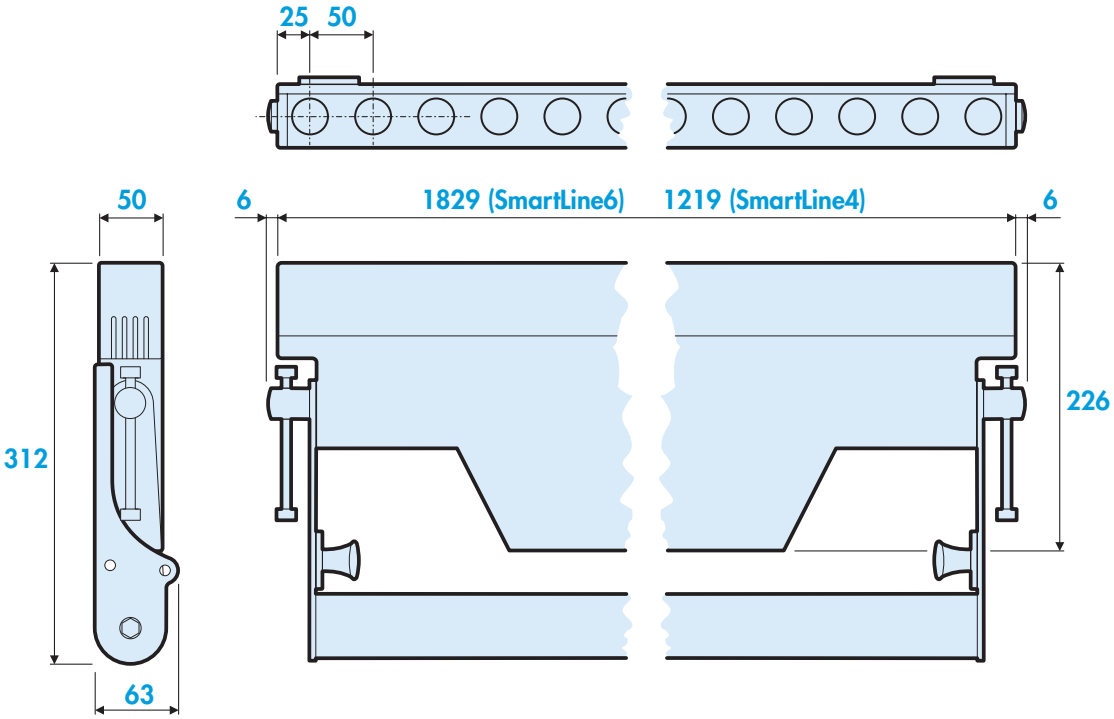
  Note: The setting of PERS > RES determines how the DMX channels are output when mixing static colours: PERS > RES=4 (or 96 or 144) sends out separate red, green, blue and white levels in repeated 4 channel blocks: i.e. 1 to 4, 25 to 28, etc. The RES=1 setting links all DMX output channels so that all emitters can be controlled by a single setting (MAN > REd).

4 Set each slave DMX address (using AddR > dMX) as appropriate:

  - For static colour mixing you can either set all fixtures to DMX channel 1 or position them at the beginning of the four channel cells: A001, A025, A049, A073, A097 or A121. The outputs within each cell will be the same.
  - For chases, six separate cells are output in groups of 4 DMX channels to give RGBW values per cell. Set the address of each slave fixture according to which of the 6 cells you want them to appear within, or to begin with (for multi-cell fixtures): (A001 for cell A, A025 for cell B, A049 for cell C, A073 for cell D, A097 for cell E or A121 for cell F).

Specifications

Dimensions



Weight

Fixture and yoke:	approx. 16kg (35.3 lbs)	(SmartLine6)
	approx. 12kg (26.5 lbs)	(SmartLine4)

Power

Input voltage: 100 to 240V AC, 47 to 63Hz autosensing

Earth leakage: 0.39mA?

Connectors: Supplied with cable only: live, neutral & earth

Power requirements:	*@ 230V/50Hz*	*@ 115V/60Hz*	
Standby	3 watts	3 watts	
Maximum (const.)	330 watts	330 watts	(SmartLine6)
Maximum (const.)	220 watts	220 watts	(SmartLine4)
Start up (peak)*	?? amps	?? amps	

** The peak value occurs only at first power up and lasts only for a period measured in microseconds.*

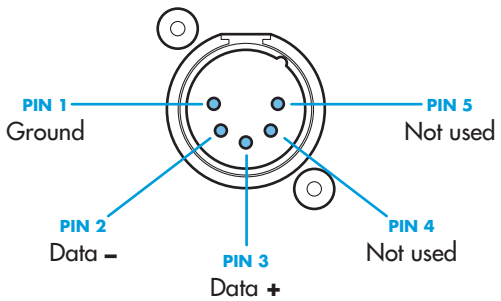
Approvals

CE

Miscellaneous

Enclosure rating: IP20 (not protected against moisture ingress)

Control input: USITT DMX512 (input connector pin out below)



Important

When closely stacking SmartLine units (e.g. to form a video wall), it is important to reduce the output intensity to no more than 30% of the maximum, in order to prevent overheating.

The SmartLine units are equipped with heat sensors throughout their circuitry to ensure protection. The units will begin to reduce output automatically (in stages) once the internal temperature exceeds 60°C.

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