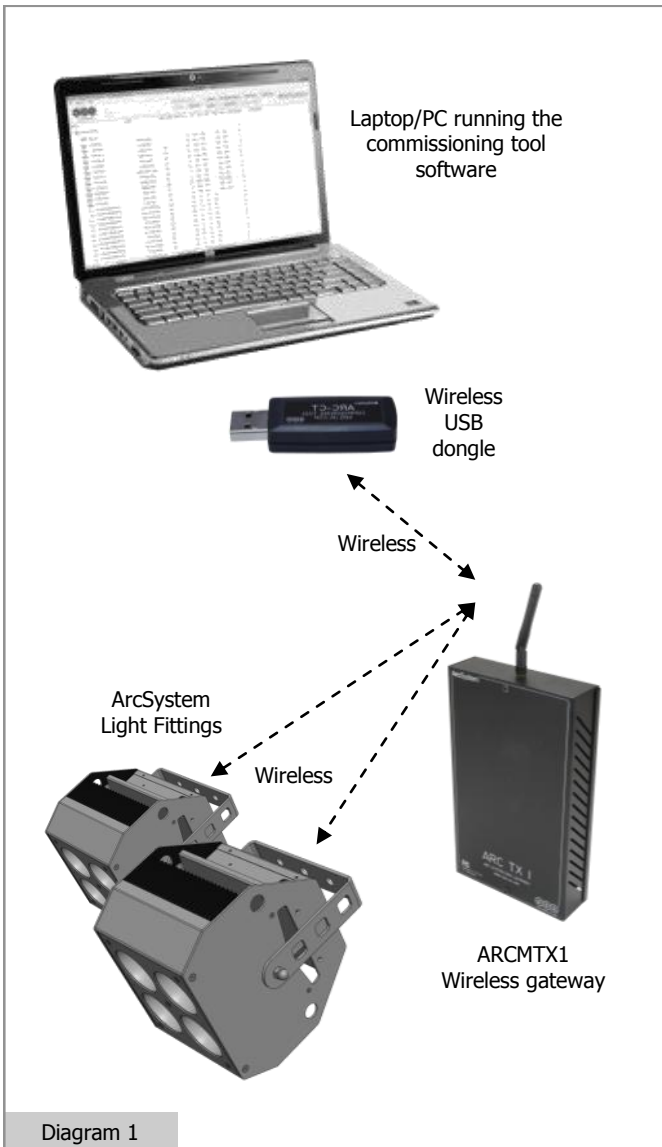
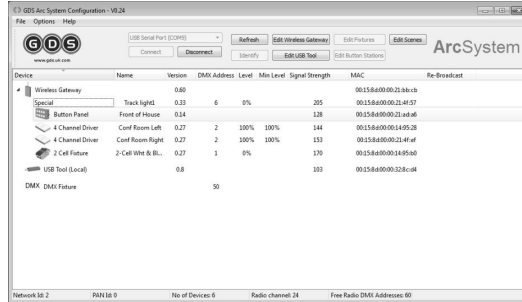


ArcSystem

Commissioning Tool Control



Project	Type	Catalog Number
Technical Data Sheet		



ArcSystem is a range of LED auditorium lighting fixtures specifically designed for use within environments where dimming, quality of light and ease of installation are of paramount importance.

The ARCMCT, is a wireless dongle and software for setting up ArcSystem products.

The USB wireless dongle communicates with an ArcSystem wireless gateway (ARCMTX1) which in turn communicates with the Arc System light fittings, see diagram 1.

The software and a wireless dongle will be referred to as the 'Commissioning Tool' hereinafter.

Technical Datasheet

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ArcSystem

Commissioning Tool Control



Technical Data Sheet Page 2

General Information

The commissioning tool (ARCMCT) facilitates setting up various parameters within the ArcSystem product range. The wireless dongle connects via a USB port on the laptop/PC and communicates with the wireless gateway (ARCMTX1). The software allows various configuration changes to be made.

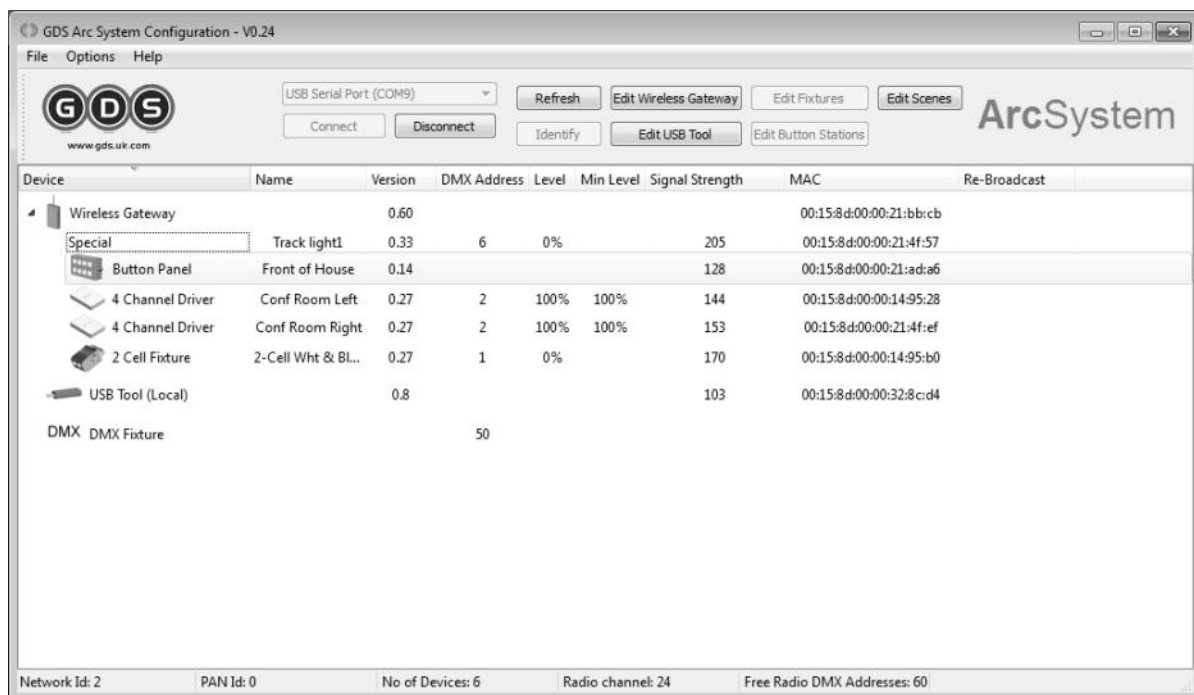
The commissioning tool will operate on the following platforms:

- Windows XP, Windows 7, Windows 8

Once the software has been installed, the USB dongle will automatically be loaded and found in the software. When this is complete, the commissioning tool can be connected to a wireless gateway (ARCMTX1).

Configuration - General

The commissioning tool lists all the ArcSystem products in the network, and they appear in the main window as below.



The following device types exist in the ArcSystem:

- Wireless Gateway
- USB Tool
- Wireless Fixtures/Driver
- DMX fixtures (for outputting DMX levels at the wireless gateway to third party DMX devices)
- Button Panels

A full help file is available in the software under help for further information.

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Release: Version 2

ArcSystem

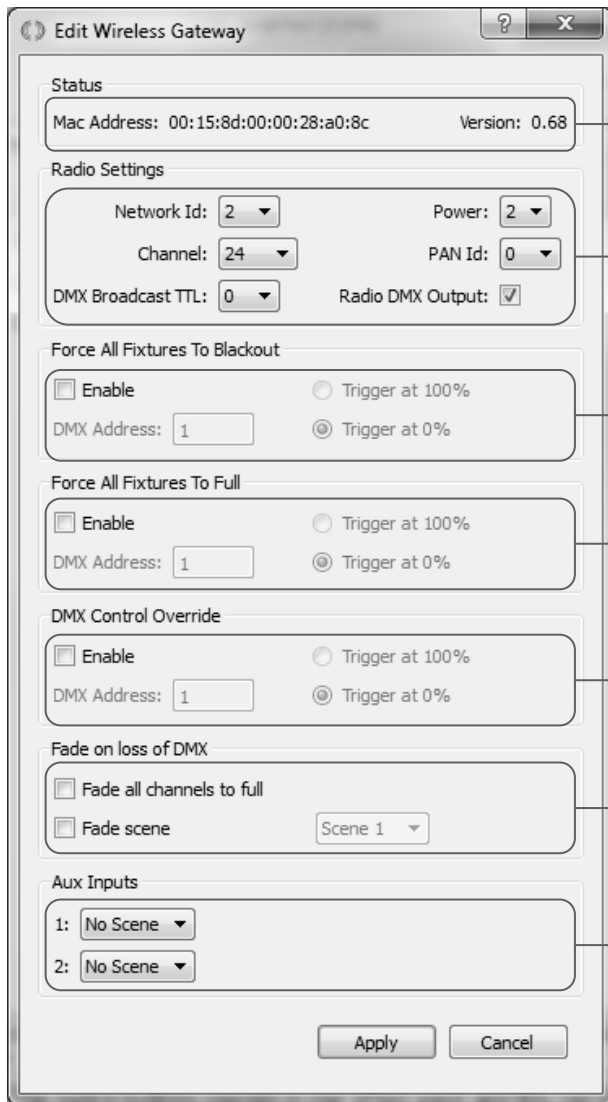
Commissioning Tool Control



Technical Data Sheet Page 3

Configuration - Wireless Gateway

The wireless gateway setup screen:



Obtain MAC address of unit and firmware version. The MAC address is the unique fixture identity and the firmware version indicated the internal fixture software revision.

Adjustment of radio settings. Useful for applications that require separate systems to operate within one building such as a main space and studio space. In this case, 2 wireless gateways will be required.

It is possible to select a DMX channel to override all levels and force all fixtures to blackout or full. This also includes all fittings with minimum levels, useful for auditoriums that require an Emergency trigger for evacuation, or stage scenes that need a darker environment than the minimum level set.

The DMX control override is used to lock out selected button panels during a performance. Useful for panels in lobbies of an auditorium etc.

The fixtures can be set to fade up on loss of DMX, or fade to a scene.

There are 2 Auxiliary inputs which can trigger scenes. This is useful for Fire Alarm inputs and other external devices that need to bring the lighting levels in the space up to a level. These Auxiliary inputs are located on the wireless gateway.

ArcSystem

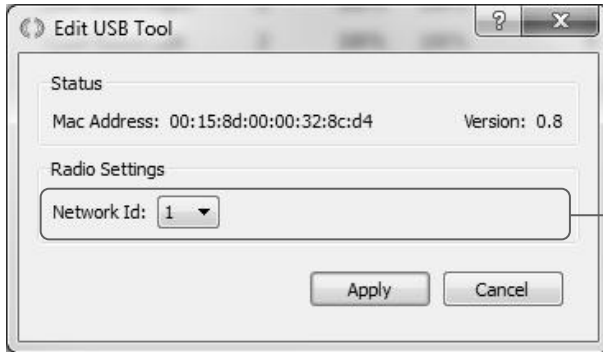
Commissioning Tool Control



Technical Data Sheet Page 4

Configuration - USB Tool

The USB Tool has the following setup page:



Network ID is used to determine which system you are configuring. Useful for multiple systems within one venue/building. There are 16 network ID's available.

ArcSystem

Commissioning Tool Control



Technical Data Sheet Page 5

Configuration - Wireless Fixture/Driver

The fixture editor screen:

The screenshot shows the 'Edit Fixture' dialog box with the following sections and callouts:

- Name:** A text field containing 'Conf Room Right'. Callout: Name of fixture edit.
- Status:** A box containing 'Mac Address: 00:15:8d:00:00:21:4f:ef', 'Version: 0.27', and 'Receive Strength: 0'. Callout: Obtain MAC address of unit and firmware version.
- Radio Settings:** A box containing 'Network Id: 2' and 'Power: 3'. Callout: Network selection and power rating.
- Dimmer Settings:** A box containing 'DMX Address: 1', 'Current Level (%): 100', and 'Minimum Level (%): 100'. Callout: DMX address setting and minimum levels, useful for fixing low level light conditions that cannot be adjusted from lighting desk.
- Fade on loss of radio:** A box containing 'Time: Never' and 'Level(%): 100'. Callout: Allows fade to a level if unit loses connection with the gateway.
- Status LEDs:** A box with a checked 'Enable' checkbox. Callout: If the lighting fixture is placed in a sensitive area, the status LED's can be disabled.
- Re-Broadcast DMX Data:** A box with an unchecked 'Enable' checkbox. Callout: If there are signal problems due to the space construction, certain fixtures can set to re-broadcast the DMX level data to ensure reliable operation.
- Dimmer Curve:** A box containing 'Name: D04A' and a 'Browse' button. Callout: The dimming curve of the fixture can be changed to match existing fittings, or for particular customer requirements.
- Buttons:** 'Identify', 'Apply', and 'Cancel' buttons at the bottom. Callout: The identify button flashes the fixture for easy identification.

ArcSystem

Commissioning Tool Control



Technical Data Sheet Page 6

Configuration - Fixture Cont

1. Addressing each fixture with a DMX address.

When you address a fixture in your device list, it is assigned in the internal patch of the ArcSystem. The ArcSystem can operate 64 independent control channels internally, so every time a unique DMX address is added in the device list, it is available for display in the Patch Display area. Below shows the patch on the right of screen:

Note:
Even though 4 fittings have been addressed, only 1 space has been used in the patch as they are all assigned to the same DMX channel.

Device	Name	DMX Address	Level	Min Level	Signal Strength	Re-Broadcast
Wireless Gateway						
USB Tool						155
1 Cell Fixture	what are these?	1	100%	100%	107	
1 Cell Fixture	what are these?	1	100%	100%	105	
1 Cell Fixture		1	100%		175	
1 Cell Fixture		1	100%		150	
USB Tool (Local)						106

DMX	DMX	Used	DMX	DMX	Used	DMX	DMX	Used	DMX	DMX	Used
0	1	4	16	0	32	0	48	0			
1	0	0	17	0	33	0	49	0			
2	0	0	18	0	34	0	50	0			
3	0	0	19	0	35	0	51	0			
4	0	0	20	0	36	0	52	0			
5	0	0	21	0	37	0	53	0			
6	0	0	22	0	38	0	54	0			
7	0	0	23	0	39	0	55	0			
8	0	0	24	0	40	0	56	0			
9	0	0	25	0	41	0	57	0			
10	0	0	26	0	42	0	58	0			
11	0	0	27	0	43	0	59	0			
12	0	0	28	0	44	0	60	0			
13	0	0	29	0	45	0	61	0			
14	0	0	30	0	46	0	62	0			
15	0	0	31	0	47	0	63	0			

Please note, the Patch Display has to be turned on though the options menu.

ArcSystem

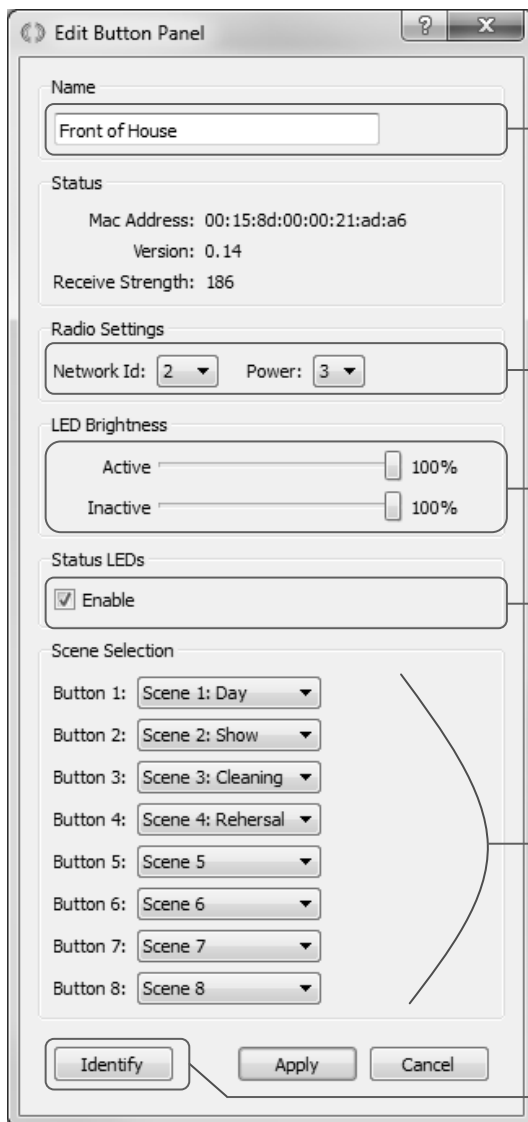
Commissioning Tool Control



Technical Data Sheet Page 7

Configuration - Button Panel

The Edit button Panel configuration screen:



Name of button panel in system

There are 16 Network ID's available. This allows separate systems to operate within one building such as a main space and studio space. In this case, 2 wireless gateways will be required.

Brightness control of button LED's. Active colour is white, inactive colour is blue.

Where button panels are installed in FOH areas, the internal status LED's can be turned off to avoid distraction.

Stored scenes are assigned to buttons here from the 24 available scenes within the wireless gateway, see next page.

The identify button flashes all 8 buttons so that the location of the button panel can be checked.

ArcSystem

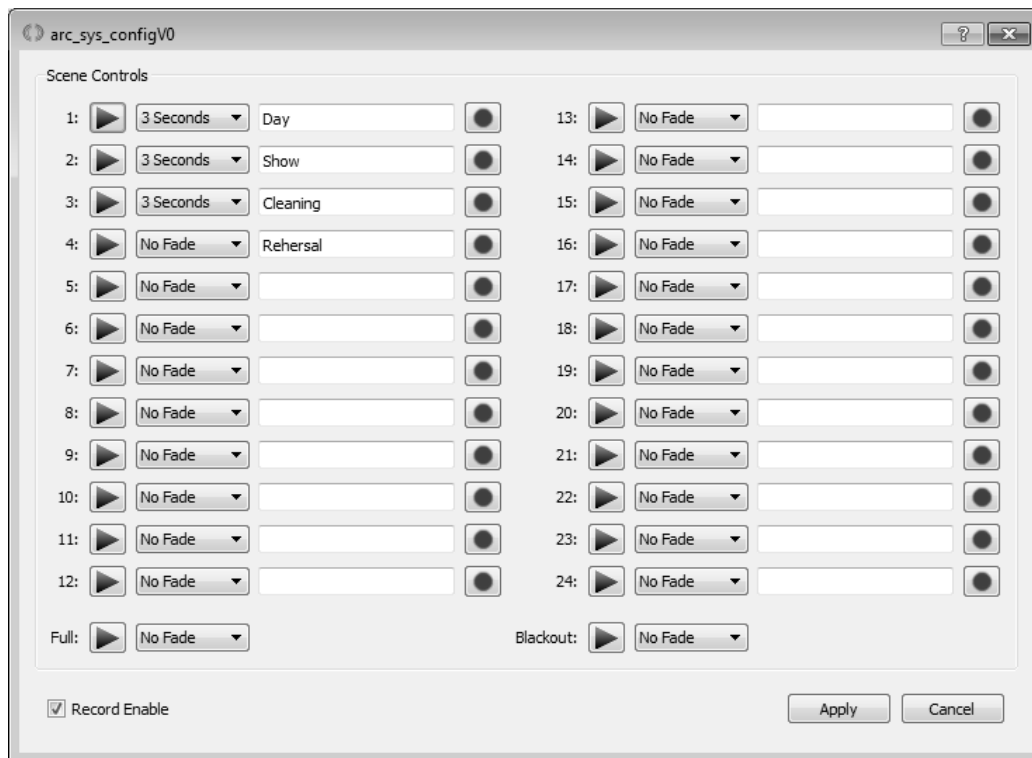
Commissioning Tool Control



Technical Data Sheet Page 8

Configuration - Button Panel Cont

The 24 available scenes that are stored in the wireless gateway are simply recorded from the DMX feed into the wireless gateway and given fade times and names, as below. Once this has been completed, they can be assigned to each switch button on the button panel.



General Notes:

Once the scenes have been stored in the wireless gateway, they are held in non volatile memory for recall as required.

Any number of buttons on any number of button panels can be assigned to each scene.

ArcSystem

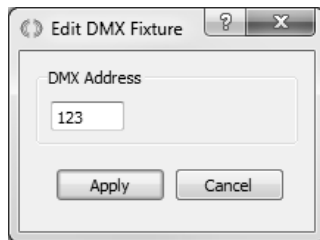
Commissioning Tool Control



Technical Data Sheet Page 9

Configuration - DMX Fixtures

If you have third party DMX devices that are required to be controlled using the 8 button panel playback, this can be achieved by using the DMX output of the wireless gateway. Please note due to the system constraints, only 64 DMX channels can be replayed by the button panels. These 64 channels can be assigned to wireless fittings or the DMX out port of the gateway.



By selecting 'add DMX fixture' from the options menu, a DMX fixture can be added and a required DMX address applied.

DMX	DMX	Used	DMX	DMX	Used	DMX	DMX	Used	DMX	DMX	Used
0	1	0	16	0	32	0	48	0			
1	2	0	17	0	33	0	49	0			
2	3	0	18	0	34	0	50	0			
3	123	1	19	0	35	0	51	0			
4	6	0	20	0	36	0	52	0			
5	5	0	21	0	37	0	53	0			
6		0	22	0	38	0	54	0			
7		0	23	0	39	0	55	0			
8		0	24	0	40	0	56	0			
9		0	25	0	41	0	57	0			
10		0	26	0	42	0	58	0			
11		0	27	0	43	0	59	0			
12		0	28	0	44	0	60	0			
13		0	29	0	45	0	61	0			
14		0	30	0	46	0	62	0			
15		0	31	0	47	0	63	0			

Once the apply button is pressed, the DMX fixture will appear in the device menu. It also appears in the patch against one of the 64 control channels available.

ArcSystem

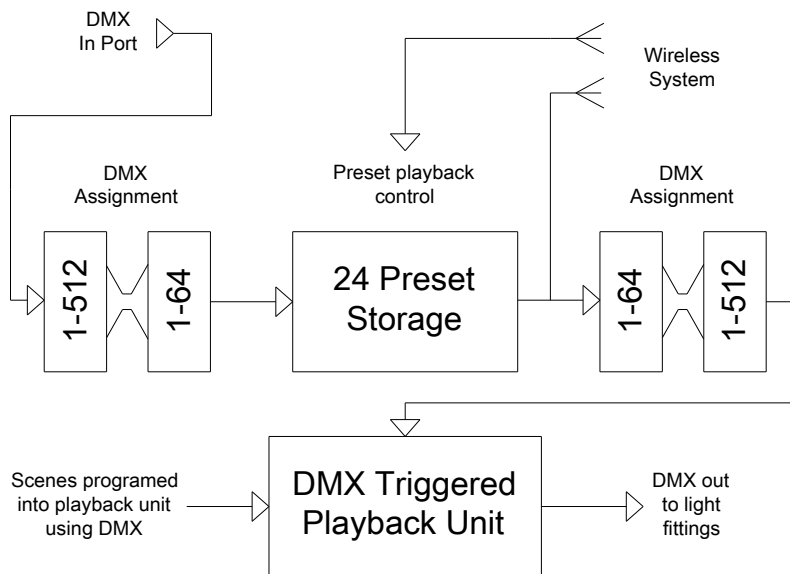
Commissioning Tool Control



Technical Data Sheet Page 10

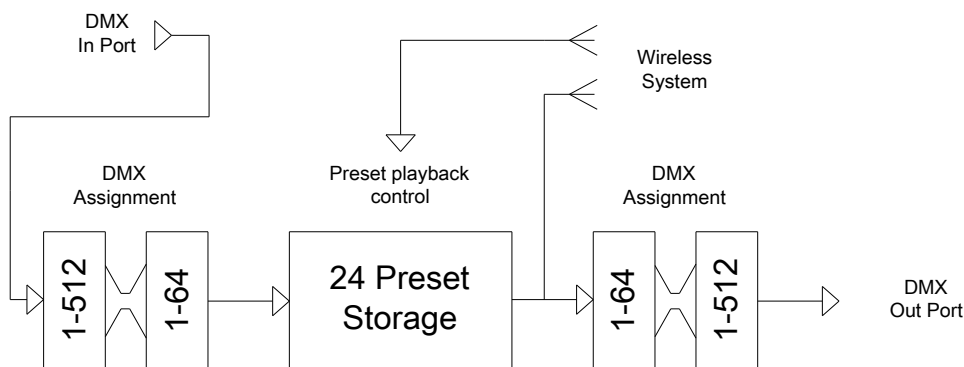
Configuration - DMX Fixtures - Cont

If you require more complex playback of DMX fixtures such as moving lights from the 8 button panels, a third party DMX triggered playback unit should be used. This can provide a means to playback many more DMX channels but be controlled from the ArcSystem button panels.



As previously explained, the ArcSystem has 64 control channels where DMX channels can be assigned to them. These 64 control channels can then be used by the button panels for recalling scenes.

When the DMX in stream is recorded in any of the 24 playback scenes, only the DMX channels that are patched are captured. Other DMX channels are ignored.



ArcSystem

Commissioning Tool Control



Technical Data Sheet Page 11

Configuration - Import/Export Settings

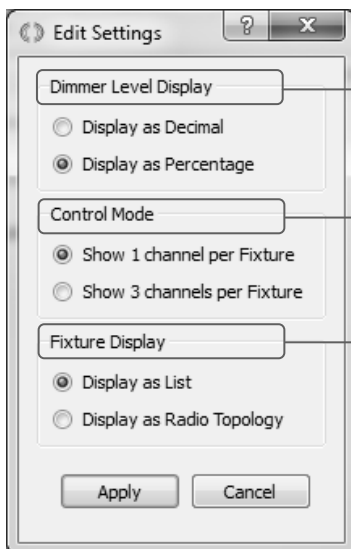
It is possible to export settings from the wireless gateway through the file drop down menu. This is useful for making a back up of the configuration file. The export contains the following data:

- Network ID
- Radio power
- Radio Channel
- Radio Pan ID
- DMX rebroadcast
- Force to black status
- Blackout fade time
- Full fade time
- DMX patch data
- All scene data
- Auxiliary input options

If the Wireless gateway gets damaged and has to be changed, the exported file can then be imported and no configuration data will be lost.

The fixture settings such as DMX address, Name, and minimum level are stored within each fixture. They do not form part of the export data, but will be read by the wireless gateway when connected.

Configuration - Settings



Changes the level display from decimal to Percentage within the main window

Each light fitting has up 3 channels of control available. This is useful if individual cell control of larger cell fittings is required, for indiscreet minimum levels etc.

With the 3 channels per fixture selected, a further 2 columns are made visible in the main window for assigning DMX channels. For this feature to operate in the field, the light fitting internal selection switches must be changed.

For further information on how to do this, please refer to the 2/4/8 cell luminaire datasheet.

The fixture display changes the main window display from list to radio topology. The radio topology selection shows the light fittings in the order they communicate within the MESH. In normal circumstances this should be kept as list display as the devices are displayed in a more logical order.

ArcSystem

Commissioning Tool Control



Technical Data Sheet Page 12

Configuration - Show Event Log

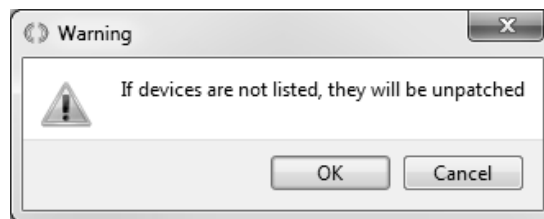
The show event log is accessed through options menu and shows commands sent to and from fixtures etc. This is useful for any fault finding, but is not normally required.

Configuration - Show Full Details

Show full details accessed from the options menu adds the devices version number and MAC address. This is not normally required, but useful for checking firmware versions if required.

Configuration - Tidy Patch

Selecting Tidy Patch from the options menu will remove any DMX addresses assigned in the patch that do not exist in the main device window.



Care should be taken before using this function, as devices which are not powered or shown in the main window, will be removed from the patch. The action can not be undone, so readdressing would be required when the fittings are back online.

Options

Order Code:	ARCMCT
Description	USB Commissioning Tool and Software.



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Release: Version 2