Installation and Operation Guide for the Anytronics Anyscene 512 Scene Recall Unit

This equipment should only be installed by competent electricians, the responsibility for safe and correct installation of the system rests with the installer and these notes are intended only for guidance.

Contents

1. Overview and Operation 2
2. Mounting 2
3. Power Supply & Connection 3
4. DMX Requirements 4
   4.1. DMX Loading 4
   4.2. DMX Wiring 4
   4.3. Line Bias Network 4
   4.4. DMX Backup 4
5. Multiple Anyscene 512 5
   5.1. Commissioning 5
6. Configuration 6
   6.1. Auto Cycle Mode 8
   6.2. Master / Speed Settings 8
   6.3. Fade Rate 9
   6.4. Clearing All Memories 9
7. Programming 10
   7.1. Single Anyscene 512 10
   7.2. Multiple Anyscene 512 10
8. External Scene Control 11
   8.1. Pre-July 2018 Models 11
   8.2. Post-July 2018 Models 12
9. Specification 13

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1. Overview and Operation

The front panel has ten buttons and ten LED indicators. Switches labelled 1-7 have their own blue mimic LEDs and are used for storing and recalling the contents of the 23 programmable memories.

The Up and Down buttons are normally used to control the Master level, allowing control of the overall lighting level. They also provide access to the upper and lower memory banks, each of eight scenes.

The green power LED shows when the unit is powered up, and the yellow data LED indicates that the unit is receiving suitable programming data from a DMX source. Switch 0 is the blackout switch and when enabled the corresponding red LED will flash to indicate the unit is in this mode.

The RJ45 sockets are on the back of the PCB along various option DIL switches and the connectors for the external scene recall control.

The Anyscene 512 is also available with a reduced number of buttons for applications that require less than the standard number of scenes. These include a 4-button version allowing four user defined scenes to be programmed / recalled and a 5-button version that also has the four user defined scenes, plus the blackout function / button of the standard unit.

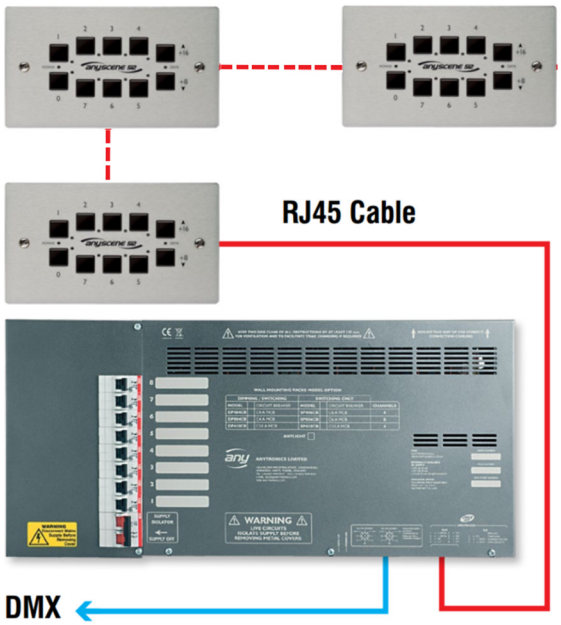
2. Mounting

The Anyscene 512 should be mounted using UK double pattresses with an approximate depth of 32 mm.

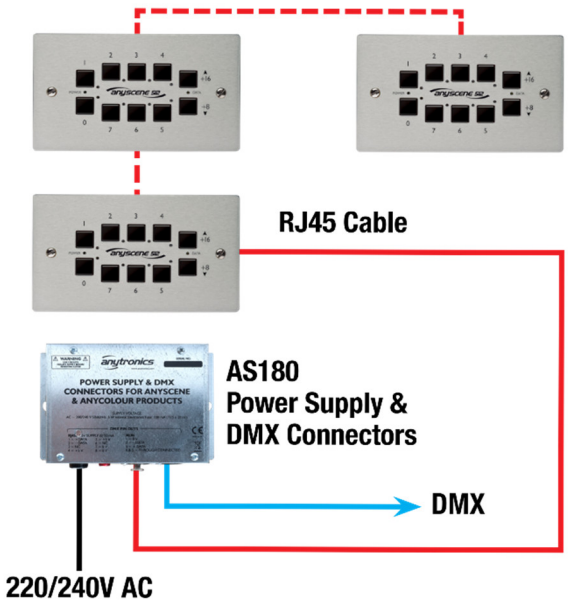
3. Power Supply & Connection

The Anyscene requires a +5V DC supply capable of suppling up to 50 mA. When using multiple Anyscene 512 they should be linked together in series with each other and then linked to the receiving equipment. (Anytronics dimmers or the AS180)

- If used with other Anytronics equipment the required supply will be supplied through the Cat5 cable and the system should be connected as follows,



- If used with other equipment an AS180 PSU should be used to supply power to the Anyscene and then provide connection to the wider DMX network as follows,



4. DMX Requirements

4.1. DMX Loading

The maximum number of DMX receivers allowed along a single line is 32 devices without the need for a buffer. If a DMX buffer is required within the system and multiple Anyscene 512s are being used the Anyscene's must all be linked together in a daisy chain configuration and then joined to the buffer for correct operation to the wider DMX line.

4.2. DMX Wiring

The DMX specification is based on the use of a single DMX source at one end of a twisted pair with receiving equipment connected along the twisted pair, the final receiver must then have the standard 120Ω termination resistor fitted. The use of multiple DMX sources in one system (as with a multiple Anyscene 512 installation) is not directly covered by the specification.

When connecting Anyscene 512 units into a DMX system the same topology should be emulated by using a daisy chain connection from one end of the system to the other. The DMX line should be linear from start to finish ideally with no branches or junctions.

Anyscene 512 units and receiving equipment may be placed in any order along the DMX line, but the equipment at either end of this DMX line (whether receiving equipment or an Anyscene 512) should have a termination resistor fitted for best results.

4.3. Line Bias Network

To ensure correct operation whether there are several or just one Anyscene 512 units in the system, only one Anyscene 512 should have its line bias network set to ON.

4.4. DMX Backup

With the power applied, the Anyscene 512 will power up and, if no input DMX data is detected within 2 seconds, it will start to output DMX data from the last used scene. If another source of DMX data is detected in the system, the Anyscene 512 will instead remain dormant in standby/receive mode capturing the current DMX data with start code zero from channels 1-512.

Whilst in this mode, the yellow Data LED will remain illuminated if valid data is being received at any of the decoded addresses. If the memory write protection (MWP) switch is in the OFF position, this captured DMX data can be stored as scenes as per the programming section of this document.

If the DMX source is then disconnected or fails, the yellow Data LED on the Anyscene 512 will be extinguished. After two seconds the Anyscene 512 will start to retransmit the last received DMX data, providing a standby or DMX backup feature. None of the mimic LEDs will be illuminated in this mode as the output data corresponds to the last data received rather than to the contents of any of the scene memories.

5. Multiple Anyscene 512

Up to four Anyscene 512 units can be used within the same DMX installation allowing smooth transfer of control from one unit to another and providing control of DMX installations from multiple locations.

Both this pushbutton unit and IR controlled Anyscene 512s may be mixed within the same system and they may have the same scenes or different scenes stored in each unit.

In normal operation the last activated unit will take over control of the system and provide the DMX data. After power up, the unit which was last in control of the system will restore the last selected scene (or auto cycle). If any normal DMX source is connected to the system, it will take over control of the system and force all the Anyscene 512 units into a standby/receive state.

To ensure that the scene memory contents remain intact in such multiple unit installations, it is vital that once scene programming has been completed, the MWP switches on all units are moved to the ON position. If this is not done, then the units may reprogram each other when attempting to recall scenes.

5.1. Commissioning

After programming the Anyscene 512s, first test the system by connecting each Anyscene 512 one at a time to check operation over the installed cabling. This is also the procedure to be followed in case of encountering any problems with the installation to isolate the problem area.

Once the wiring has been checked, build up the system by adding additional Anyscene 512 units in turn and checking that control of the DMX network is passed smoothly from one Anyscene 512 to the other when the scene recall buttons are pressed.

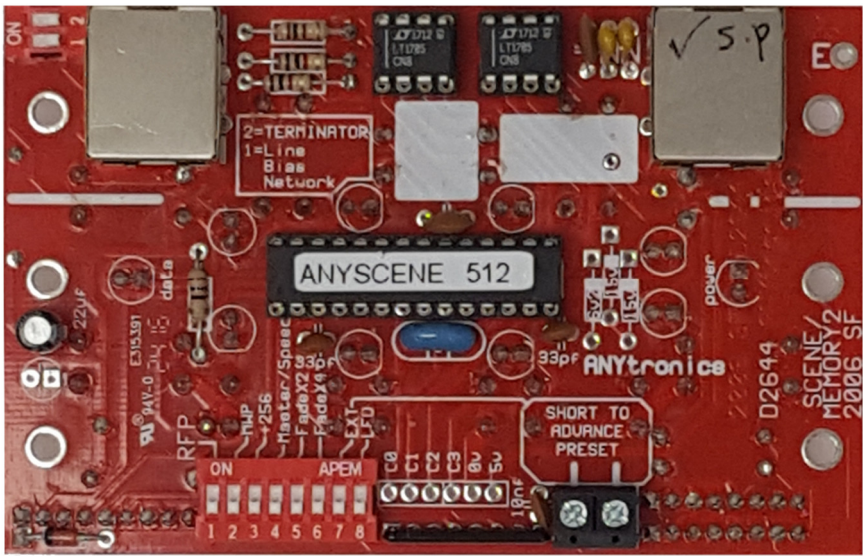
The dormant Anyscene 512 units should have their data LEDs lit showing that they are receiving DMX data from the active unit. The one active Anyscene 512 unit driving the DMX system should have its data LED extinguished and a scene LED lit.

6. Configuration

DIP Switch Settings

The age of the unit will determine the rear layout and the availability of the individual external scene recall headers.

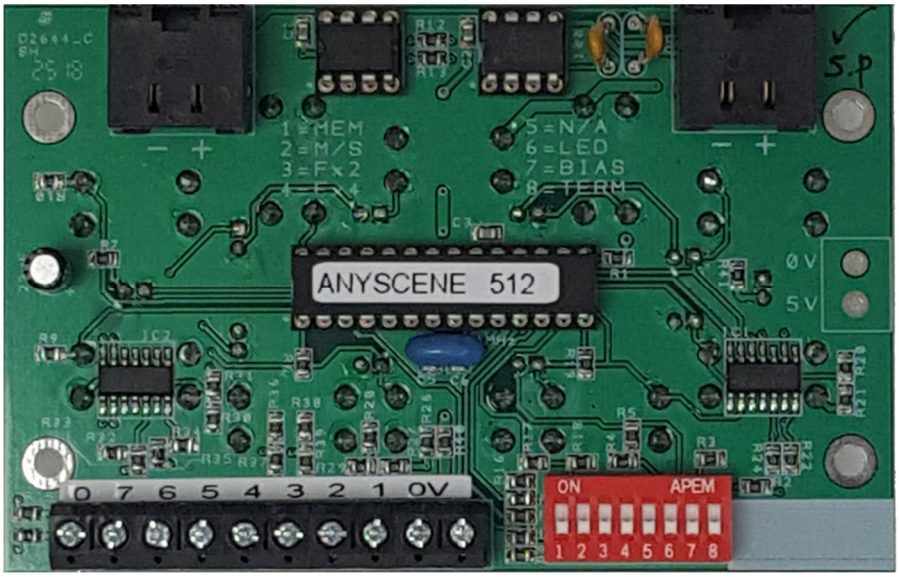
- Pre-July 2018 Version



Eight Way DIL Switch (Bottom Side)		
DIL No.	**Name**	**Function**
1	RFP	No Function
2	MWP	ON = Internal memory protected, Normal Operation OFF = Internal memory not protected, Programming Mode
3	+256	No Function
4	Master /Speed	See Section 6.2
5	Fade x2	See Section 6.3
6	Fade x4	See Section 6.3
7	EXT	ON = Shorting the 2-way screw terminal advances to the next scene. OFF = Shorting the 2-way screw terminal has no affect
8	LED	ON = Front panel LED are bright OFF = Front panel LED are dimmed

Two Way DIL Switch (Top Left)		
DIL No.	**Name**	**Function**
1	Line Bias	ON = Line Bias is used OFF = Line Bias is removed from DMX line
2	Terminator	ON = 120R Terminator across the DMX line OFF = Terminator is not used

- Post-July 2018 Version



Eight Way DIL Switch (Bottom Side)		
DIL No.	**Name**	**Function**
1	MEM	ON = Internal memory protected, Normal Operation OFF = Internal memory not protected, Programming Mode
2	Master /Speed	See Section 6.2
3	Fade x2	See Section 6.3
4	Fade x4	See Section 6.3
5		No Function
6	LED	ON = Front panel LED are bright OFF = Front panel LED are dimmed
7	Line Bias	ON = Line Bias is used OFF = Line Bias is removed from DMX line
8	Terminator	ON = 120R Terminator across the DMX line OFF = Terminator is not used

6.1. Auto Cycle Mode

To enter the auto cycle mode both the Up and Down buttons should be held for at least two seconds. On entering this mode, the yellow Data LED will be illuminated until the buttons are released and the Anyscene 512 will start to cycle round scene memories 1-7 in ascending sequence. Whilst in auto cycle mode the levels and speed can be adjusted as per section 4.2.

If the Anyscene 512 is powered down whilst in auto cycle mode, when powered up it will recommence the auto cycle, starting from the scene memory in which it originally started scene cycling.

Pressing any of the scene select buttons will terminate the auto cycle mode, and the Anyscene 512 will fade to the selected scene. The unit will also exit auto cycle mode if an external DMX source becomes active.

6.2. Master / Speed Settings

The Master / Speed DIL switch is used in conjunction with the auto cycle feature of the Anyscene 512 and can be used to alter the duration and speed of the cycling. As supplied, with DIL switch 4 set to OFF the default time spent in each scene is approximately 10 seconds

- Master / Speed DIL OFF
  The Up and Down buttons can be used to adjust the Master level in auto cycle mode and the setting is reset to maximum when leaving auto cycle mode.

- Master / Speed DIL ON
  The Up and Down buttons can be used to adjust the cycle Speed in auto cycle mode. The Up button will speed up the auto cycle and reduce the cycle period to under 3 seconds. The Down button will reduce the auto cycle speed and increase the scene cycle period to one minute. This altered setting will normally be maintained whilst the unit is powered.

To save the adjusted master level and speed settings the following procedure should be followed,

a) Set the Master Level as required
b) Set the Speed as required
c) Turn the MWP DIL off
d) Turn the Master / Speed DIL off
e) Turn the MWP DIL on

The current Master and cycle time settings are now saved as the power up default, and Master / Speed DIL can be set to ON or OFF to allow push button control either of Master level or auto cycle period as required. Note that any time Master / Speed DIL is moved from ON to OFF with MWP DIL in the OFF position, the current Master level and cycle speed will be saved as the new power up default.

6.3. Fade Rate

The full-scale fade period from one scene to another can be adjusted using the two DIL switches marked Fade x 2 and Fade x 4. The adjustment is as follows,

Fade x 2	Fade x 4	Fade Time (Seconds)
OFF	OFF	2.5
OFF	ON	5
ON	OFF	10
ON	ON	20

6.4. Clearing All Memories

To clear all saved scenes within the Anylight 512 the following procedure should be followed,

a) With the power removed
b) Hold both the Up and Down level buttons
c) Power the unit whilst continuing to hold both buttons
d) If this operation has been successful, the Data LED on the Anyscene 512 will light after approximately 4 seconds. It will cycle briefly on then off for 4 seconds until the Up and Down level buttons are released.

7. Programming

7.1. Single Anyscene 512

As supplied, the Anyscene 512 scene memories have a range of saved presets allowing electrical contractors to confirm correct operation before final commissioning of the system. They can be easily programmed from any source of DMX data including another Anytronics scene memory, DMX lighting desk or a computerised lighting system. The Anyscene 512 should be programmed whilst connected into the final installation and the programming source should be connected into the system.

a) Turn the MWP DIL switch to 'OFF'
b) Connect the DMX programming source (DMX Desk etc.) into the system
c) Power the DMX programming source
d) Power the Anyscene 512, the power and yellow data LED should be lit
e) Use the DMX programming source to adjust the required channels
f) Press and hold the button on the Anyscene 512 where the current scene should be saved
g) The Anyscene 512 data LED will flash twice to show the data has been saved.
h) Repeat e) to g) for all required scenes
i) Once all scenes have bee saved turn the MWP DILL 'ON' to protect the recently programmed scenes

Note: To access scenes 8 to 15 the down button should be held before the scene number is pressed. To access scenes 16 to 22 the up button should be held before the scene number is pressed.

Note: that unless the data LED is illuminated, and unless the internal MWP DIL switch is in the OFF position, no programming of the scenes will be possible.

7.2. Multiple Anyscene 512

When programming a multi Anyscene 512 installation each unit should be connected into the system individually and then programmed using the sequence of 7.1.

If all Anyscene 512 are to be programmed the same the following procedure should be followed,

a) Program the **first unit** as per section 7.1
b) Keep the **first unit** powered and then insert the **second unit** into the system
c) Ensure the MWP of the **second unit** is off
d) Recall the required scene on the **first unit**
e) Press and hold the required scene location on the **second unit**
f) The data LED on the **second unit** should flash twice
g) Repeat d) to f) for all scenes
h) Remove the **second unit** from the system and turn MWP DIL switch for that unit to 'ON'
i) Repeat b) to h) for all subsequent Anyscene 512

8. External Scene Control

8.1. Pre-July 2018 Models

The Anyscene 512 also has the ability to use external isolated closing contacts to cycle round memories 1-7 in ascending sequence. The contacts should be connected to the two screw terminals on the back of the Anyscene 512 PCB, and the EXT DIL switch should be set to ON.

When the Anyscene 512 is in DMX output mode (and not when in auto cycle mode), the next scene from the 1-7 scene cycle will be selected on each contact closure. To facilitate 'debouncing' of contact closure, contact closing inputs which occur less than two seconds after the previous contact closure will be ignored.

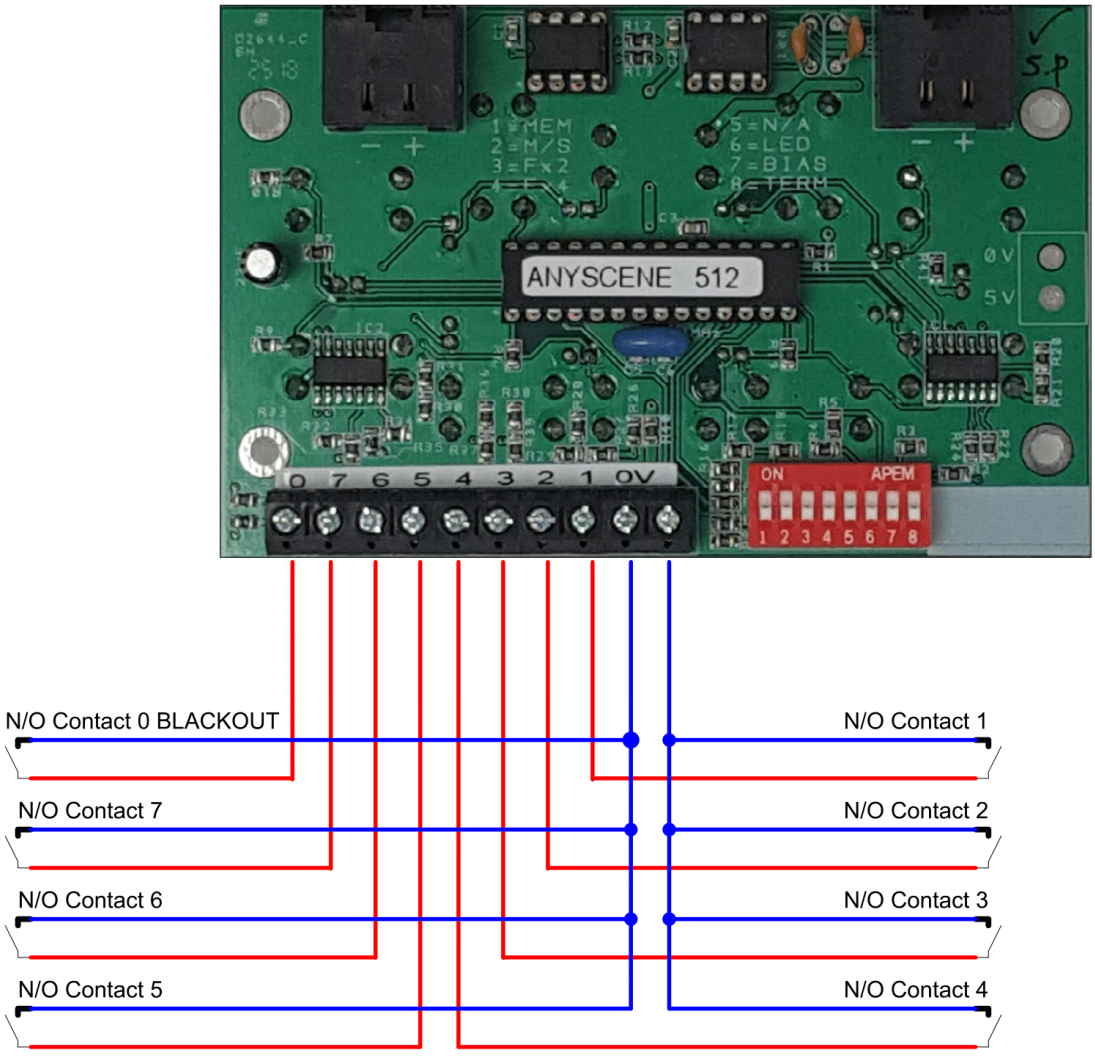
As with the auto cycle mode, if the power is disconnected during this step cycling, when the power is restored the cycle will be restarted from whichever scene was first in the cycle.

Whilst in step cycle mode, whichever scene is active, it can be overridden by pressing one of the scene recall buttons. The next contact closure will cause the Anyscene 512 to step on to the next scene after this manually recalled scene. The remote contacts can be disabled by switching the EXT DIL switch to OFF.

When in auto cycle or standby/receive modes, all contact closures are ignored.

8.2. Post-July 2018 Models

The post 2018 models have the ability to recall individual scenes using external zero-voltage contacts and the bank of screw terminals provided on the rear of the unit, as detailed in the following diagram,



Note: If the contact is held closed the Anyscene 512 will lock to the selected scene until the contact is reopened.

9. Specification

- Supply:
    - +5 V DC via Category 5 DMX cable from Anytronics Dimmer or AS180 PSU
- Connections:
    - DMX input/output via RJ45 connector
    - Data received from DMX addresses 1-512
    - Data output to DMX addresses 1-512
    - Low voltage closing contact input for external scene recall
- Controls:
    - 8 scene selection buttons
    - Master level up and down buttons
    - External scene recall via low voltage contacts
- Scenes:
    - 23 stored scenes, each of 512 channels of DMX data
    - 1 ’blackout’ scene with all outputs zero
- Temperature Range: Ambient 0°C to 40°C
- Dimensions: 148 x 86 x 15 mm, to be used with 25 mm UK double pattress
- Weight: Net 0.14 kg
- Country of Manufacture: UK
- Compliance:
    - Low Voltage Directive (2014/35/EU)
    - WEEE (2012/19/EU)
    - RoSH (2011/65/EU)
    - CE
- Warranty: 3 Year (Return to Base)