

SM-280 DMX Controller

User Manual

I. Overview

1. 280 channels for 14 units of 20-ch fixtures or 28 units of 10-ch fixtures
2. 14 chases, each with 255 steps
3. 14 programmable Banks, each with 22 scenes
4. Chases can be run under sound activation mode or auto mode
5. Chases in auto mode can be run in preset speed/fade
6. 2*16 LCD
7. DMX polarity output switch
8. Memory cards available

II. Settings of controller

1. ***Before operating lighting fixtures, channels of the fixtures must be set with the controller***
2. Settings of controller

2.1 Power on the controller, brand name will show on the LCD; tens of seconds later, the LCD will show as below

Manual
Sel"Fi-sc-ba-ch"

- 2.2 Press Setup button

Setup
Select: + / -

- 2.3 Press Up button

Sel" fixture **
Setup. scanner

- 2.4 Press Fixture, LED on. Now, press number key 1-14 to select a fixture, Eg: 1

Sel" fixture 01
Setup. scanner

But, if 10

Sel" fixture 10
Setup. scanner

2.5 Press Up button again; number of channel in the fixture and corresponding controller slider will show in the LCD.

Setup-fixture 01
Channel ** con*

Channel**-----Number of channel in the fixture

Con*-----Corresponding controller slider

Speed slider: to select channel*

Fade slider: to select con*

Eg1: to relate the 5th channel of the fixture with the 1st slider on page A of controller

2.5.1 Press PAGE, to light on the LED indicator for Page A

2.5.2 Push FADE slider

Setup-fixture 01
Channel ** con 1

2.5.3 Push Speed slider

Setup-fixture 01
Channel 05 con 1

2.5.4 Press REC to confirm, all LED indicators flashing

Eg2: to relate the 3rd channel of the fixture with the 2nd slider on Page B of the controller

2.5.5 Press PAGE button to light on the LED indicator for Page B

2.5.6 Push FADE slider

Setup-fixture 01
Channel ** con 2

2.5.7 Push Speed slider

Setup-fixture 01
Channel 03 con 2

2.5.8 press REC to confirm, all LED indicators flashing

2.6 Press +, it displays channel reverse setting

Setup-fixture 01
Channel ** rev *

Push Speed slider to select the channel that you want to set reversed

Push FADE slider to select Y or N

Eg: to set the third channel of the fixture reversed

2.6.1 Push Speed slider

Setup-fixture 01
Channel 03 rev *

2.6.2 Push FADE slider

Setup-fixture 01
Channel 03 rev Y

2.6.3 Press REC to confirm, all LED indicators flashing

2.7 Press Up button, it display Fade setting

Setup-fixture 01
Channel ** fade *

Push Speed slider to select channel of fixture

Push Fade slider to select Y, N

*****If N, then channel will run without Fade function*****

2.7.1 Push Speed slider until it shows

Setup-fixture 01
Channel 05 fade *

2.7.2 Push FADE slider until it shows

Setup-fixture 01
Channel 05 fade Y

2.7.3 Press REC to confirm, all LED indicators flashing

2.7.4 Push Speed and FADE sliders until it shows

Setup-fixture 01
Channel 06 fade Y

2.7.5 Press REC to confirm

After setting so, Channel 5 and Channel 6 will, then, run under FADE control

2.7.6 Push Speed and FADE sliders until it shows

Setup-fixture 01
Channel 03 fade N

2.7.7 Press REC to confirm

2.7.8 Push Speed and FADE sliders till it shows

Setup-fixture 01
Channel 04 fade N

2.7.9 Press REC to confirm

After setting so, Channel 3 and Channel 4 will run without FADE control

2.8 Press Up button till it display Black out settings. That is to set whether or not the channel values should be 0 after pressing Blackout

Setup-fixture 01
Channel ** dark *

Push Speed slider to select channel number of fixture 1

Push FADE slider to select Y or N

If Y, then the channel value will return to 0 after pressing Blackout button; If N, then blackout function does not work on the channel

Eg: Given iris on the first channel of the fixture, which normally requires blackout function, the setup procedure is as below:

2.8.1 Push Speed slider

Setup-fixture 01
Channel 01 dark *

2.8.2 Push FADE slider

Setup-fixture 01
Channel 01 dark

2.8.3 Press REC to confirm

Press Setup button to save and exit setup mode

III. Copy Settings

If you want to setup all fixtures (same model) with the same settings, you can just setup one fixture and then copy the settings of this one to other fixtures. Procedures areas below (The first fixture has been setup):

3.1 Switch on the controller and enter setup mode

Sel" fixture **
Setup. scanner

3.2 Press Fixture button then press 1-14 to select the fixture the channels of which have been setup

Sel" fixture 01
Setup. scanner

3.3 Press COPY button

COP" fixture 01-A1
fixture *-A1

3.4 Press 1-14 to select the fixture to which the settings will be copied

EG: To copy settings of the fixture on Position 01 to the fixture on Position 10, it will show as below:

COP" fixture 01-A1
fixture 10-A1

3.5 Press REC to confirm, all LED indicators flashing

Then, Fixture 10 and Fixture 01 have same settings

Press COPY button again to exit COPY mode

Press SETUP button to save the setting and exit SETUP mode

IV. Manual Control Mode

Manual Control Mode works only after all fixtures have been setup. It shows as below:

Manual
Sel fi-sc-ba-ch

"Sel Fi-sc-ba-ch" means to select fixture, scene or chase

Now press Fixture button, Scene button, or Chase button as desired

4.1 Press Fixture button

Sel" fixture **
Manual

4.1.1 Press 1-14 to select a fixture

4.1.2 Press Blackout button to close blackout function (LED indicator off)

4.1.3 Press 1-8 slider or move the joystick, the fixture will function correspondingly. It

shows

Hand-fixture 03
Slide * data **

4.1.4 Press Up or Down to fine tune, Eg: to fine tune Slider 3

4.1.5 Press Button 3, or push Slider 3

Hand-fixture 03
Slide 3 data 123

4.1.6 Press Up or Down to fine tune

4.1.7 If Fine button is pressed, Pan/Tilt data and Up/Down fine tune data will change

very fast

4.2 Press Scene button

Ma"Ban01-scen
Select scen**

4.2.1 Press 1-22, to fade in 3 scenes in Bank 01

M" slide *dat"***
Ban 01 sce 01/0S

"slide* DATA***: If fixture has been selected, it will display the last slider and the corresponding value

"Ban 03" indicates the bank which contains 3 scenes

Sc 05/03 indicates the number of programmed scenes in the bank

At the same time, the LED indicators on Bottom 1-14, in which the scenes have been programmed, will flash: if not, it means the scene has not been finished

The LCD shows

```
M "slide *dat"***  
Ban 02 sce **/**
```

It means the selected Bank 02 contain no programmed scene

4.3 Press Chase button

```
Manual  
Select. chase **
```

4.3.1 Press 1-14 to select a chase

```
M-cha (05)015/001  
B03 s01 p***5***
```

Cha(05)015/001 indicates that Chase 05 has been selected, and there are 15 steps in Chase 05

B03 s01 indicates that the present scene is the 1st scene in Bank 03

P***s*** indicates the preset value of Speed and FADE

Press Up or Down or fade in other scenes in the chase

V. To program a scene in a bank

To save a scene, channels of the lighting fixture must have been setup in priority

Always program scenes before program banks

5.1 To program a scene in a bank

5.1.1 The LCD shows the following after the unit switch on

```
Manual  
Sel" fi-sc-ba-ch
```

5.1.2 Press Program button and hold it till it shows:

```
Edit  
Sel" fi-sc-ba-ch
```

5.1.3 Press Fixture button

```
Sel" fixture**  
Edit
```

5.1.4 Press 1-14 to select one or more fixtures

5.1.5 Press Bank button to select a bank, it shows

```
Edit  
Select bank **
```

5.1.6 Press 1-14 again to select a bank which contains the scene to be programmed.

Only one bank can be selected. LCD shows:

```
Edit  
Select bank 05
```

5.1.7 Press Scene button

```
Ed"ban 05 -scen  
Select scen **
```

5.1.8 Press 1-22 to select a scene

```
E slide * da ***
Ban 05 sce **/**
```

Slide*da*** indicates the last slider and the present slider value

Ban05 sce **/** indicates that you are editing Bank 05, and the number of scenes in Bank 05

1-22 LED indicators with programmed scenes will light on

5.1.9 Edit the scene with sliders

5.1.10 Press REC button to save the scene, LED indicators flashing

Bank (scene) is the basic unit of programming chase

Always program bank (scene) before programming chase

Scenes in every bank can be used in any chase

Bank can be run separately

5.2 Revise a scene in a Bank (scene)

5.2.1 Enter Edit Mode

5.2.2 Activate desired scene by pressing the number key

5.2.3 Edit channel values

5.2.4 Press REC button to save the edit

5.3 Insert a scene in a bank (scene)

5.3.1 Enter Edit Mode

Eg: Insert a scene between Scene 2 and Scene 3

5.3.2 Press 3, then press INS

5.3.3 Program a scene with sliders

5.3.4 Press REC to save the insert

5.4 Delete a scene in a bank (scene)

5.4.1 Enter Edit Mode

5.4.2 Select the scene that you want to delete by pressing the number key

5.4.3 Press DEL button

```
Bank-del-scen
Bank 05 sce 2
```

5.4.4 Press REC to confirm

5.5 Copy a scene in a bank (scene)

5.5.1 Enter Edit Mode

5.5.2 Select the scene that you want to copy by pressing the number key

```
E" slide *da**
Bank 01 sce 05/02
```

5.5.3 Press COPY button

```
Ban-sce-copy
Select bank **
```

5.5.4 if you want to copy the second scene in Bank 01 to Bank 03, press BANK button again, and then the number key, it shows

```
Ban03 cop-sce
Select scen **
```

5.5.5 Press Scene button

```
Ba 01 sc 05/03
Ba 03 sc 04/05
```

5.5.6 Press REC to save, then Scene 03 in Bank 01 was copied to Bank 03 as its 5th scene

5.6 Delete all scenes in a bank

- 5.6.1 Press PROGRAM button and hold it for while to enter Edit Mode
- 5.6.2 Press Bank button to start editing banks

```
Edit
Select: bank **
```

- 5.6.3 Press any number key in 1-14 and hold it, then press DEL button

```
Bank-delet
Delet-bank **
```

- 5.6.4 Select the bank that you want to delete by pressing number key

Eg: To delete Bank 06, press 6

```
Bank-delet
Delet-bank 06
```

- 5.6.5 Press REC to confirm, all LED indicators flashing

5.7 Copy Bank (to copy all scenes in a bank to another)

- 5.7.1 Enter Edit Mode

```
Edit
Set" fi-sc-ba-ch
```

- 5.7.2 Press Bank button to start editing banks

```
Edit
Select: bank **
```

- 5.7.3 Press 2 and hold it, then press COPY button

```
Bank-copy
Select: bank **
```

- 5.7.4 Press 5, then Bank 02 was copied to Bank 05

```
Bank-copy
Ban02-ban05
```

- 5.7.5 Press REC to confirm, all LED indicators flashing

VI. Chase Editing

Always edit bank (scene) before editing chase

Switch on the unit it shows

```
Manual
Sel:fi-sc-ba-ch
```

- 6.1 Press PROGRAM button to enter Edit Mode

- 6.1.1 Press Chase button

```
Edit
Select: chase **
```

- 6.1.2 Press number key 1-14 to select the chase you want to edit

```
E"eha(03)***/**
Viewstep? +^-
```

6.1.3 Press Up or Down to review the scenes in Chase 03

```
E" cha(03)250/023
B05S13 p). 10 f 0
```

Cha(03) indicates that the present chase is Chase 03
250/023 indicates the number of total steps and the present step
B05 S13 indicates that the present scene in Chase 05 is Scene 13

6.2 Add a scene in a chase

6.2.1 Follow 6.1.1 to 6.1.3

```
E"eha(**)***/**
Viewstep? +^-
```

6.2.2 Press Up or Down

```
E"eha(**)***/**
B**s**p****f****
```

6.2.3 Press number key 1-14 to select a chase, Eg: Chase 03

```
E" cha(03)***/**
B**S**P****F****
```

6.2.4 Press Bank button

6.2.5 Press number key to select a bank, Eg: Bank 03

```
E" cha(03)***/**
B03S** P****f****
```

6.2.6 Press Scene button to select Scene 04 in Bank 03

```
E" cha(03)00/000
03S04 P****f****
```

6.2.7 Push Speed slider or select...and set fade time

```
E "cha(03)***/**
B03S04 P2.0 F 0
```

NB: Fade time setting works only after the channels of the lighting fixture have been set YES in fade function

6.2.8 Press REC to save the action, all LED indicators flashing

Repeat to add another scene

6.3 Delete a scene in a chase

6.3.1 Enter chase editing mode to review the steps

```
E" cha(02)006/003
B01 S03 P2.00 S1.00
```

6.3.2 Press Up or Down to select the step that you want to delete,

Eg: to delete Step 3

```
E" cha(02)006/003
B01S03P2.00 S1.00
```

6.3.3 Press DEL

```
E "cha(02)006/003
Del-step->003
```

6.3.4 Press REC to confirm the action

Repeat Step 1-4 to delete another step

6.4 Insert a scene in a chase

Enter chase editing mode to review the steps

6.4.1 To insert a step between Step 3 and Step 4, Press Up or Down till it shows

E" cha(03)006/004
B03 S04 P2.5F1.10

6.4.2 Press Bank Button

E" cha(03)006/004
B**S** P2.5F1.10

6.4.3 Press number key 1-14 to select the bank which the scene will be inserted, Eg:

Bank 06

E" cha(03)006/004
B06 S** P2.5F1.10

6.4.4 Press Scene button

E" cha(03)006/004
B06 S** P2.0F1.10

6.4.5 Press number key 1-22 to select a scene, Eg: Scene 21

E" cha(02)006/004
B06 S21 P2.0 F 0

6.4.6 Press INS button

E" cha(02)006/004
Ins-Step-b06 S21

6.4.7 Press REC to confirm the insert action

Press Up Or Down to review other scenes

6.5 Copy a bank when editing chase

6.5.1 Enter chase editing mode to review the steps

E" cha(03)006/004
B03 S04 P2.5F1.10

6.5.2 Press Copy button

E" cha(02)006/004
Copy-Bank **

6.5.3 Press number key 1-14 to select the bank that you want to copy, Eg: Bank 10

E" cha(02)006/006
Copy-Bank 10

6.5.4 Press REC to confirm

6.6 Delete all steps in a chase

6.6.1 Press PROGRAM button and hold it, to enter Edit Mode

Edit
Sel"fi-sc-ba-ch

6.6.2 Press Chase button

Edit
Select chase **

6.6.3 Press any number key in 1-14 and hold it, to enter Edit Mode

Chase-Delet
Delet-chase **

6.6.4 Press number key 1-14 to select the chase you want to delete, Eg: Chase 04

Chase-Delet
Delet-chase 04

6.6.5 Press REC to confirm action

6.7 Copy between chases

6.7.1 Enter Chase editing mode

Edit
Select chase **

Eg: to copy steps in Chase 01 to Chase 05

6.7.2 Press number key 1 and hold it, then press Copy button

Chase-copy
Cha 01-cha **

6.7.3 Press number key 5

Chase-copy
Cha 01-cha 05

6.7.4 Press REC button to confirm the action

6.8 Interval time and fade time of auto running chase

6.8.1 Enter chase editing mode and press Fine button to enter step time setting

E" cha(03)006/004
B03 S04 P2.5F1.10

6.8.2 Press Up or Down to review time settings of each step

6.8.3 Push Speed slider and Fade slider to set speed and fade time

6.8.4 Press REC to save the settings

*****Interval time ranges from 0.1second to 10 seconds, fade time 0 to 10 seconds*****

*****When chase is under auto running mode, push Speed slider and Fade slider to their bottoms, then the values of interval time and fade time will e the preset values*****

If Speed slider and fade slider are not at their bottoms, the values will be the results of the preset values multiplied by the sliders present values

VII. Auto Running Mode

Switch on the controller

Manual
Sel"Fi-Sc-bm-ch

7.1 Press Auto button to enter auto running mode

Auto
Select: Ban-cha

7.2 Press Bank button

Auto-Run-Bank
Select-Bank **

7.3 Press number key 1-14 to select one or more banks that you want to run

7.4 Push Speed slider and Fade slider for time settings and press Blackout button (LED indicator off) to automatically run the banks

Auto
Select-Bank-cha

7.5 Press Chase button to run chase

Auto: Run-chase
Select-chase **

7.6 Press number key 1-14 to select one or more chases that you want to run

7.7 Press Blackout button (LED indicator off) to automatically run the chases

When Speed slider and Fader slider are at their bottoms chases are running at preset values

When pushing Speed slider and Fade slider running values are the slider values

Under Auto Running Mode, to be controlled by Fade slider, the lighting fixture must be preset

When auto run banks, no preset time values, but only values of Speed slider and Fade slider at their positions

When auto running, press Pause button (LED indicator on) to pause the running, all DMX output data are hold at their original values; Press Pause button (LED indicator off), auto running starts again

When auto running, Press Blackout (LED indicator on), data of fixture channels, which are preset YES, will return to 0; those data without preset will keep the same

To run two or more banks, press Group button, up to 6 banks will run at the same time; otherwise, the banks will run one by one in sequence

F 0.5 Group
P2.0 Auto-Bank03

To run two or more chases, press Group button, up to 6 chases will run at the same time; otherwise, the chases will run one by one in sequence

F 0.6 Group
P2.0 Auto-chase

When two or more banks/chases are running at the same time, time values work only with Speed slider and Fade slider

Under Auto Running Mode, press TAP button twice, the interval time of the two pressings will be interval time and running program

VIII. Sound Control Mode

8.1 Switch on the controller

Manud
Sel"Fi-sc-ba-ch

8.2 Press Music button

Music
Select Bau-cha

8.3 Other operations are the same as the operation under Auto Running Mode

Under Sound Control Mode, the changing of scenes is related to sound signals, and the preset rhythms stop working

IX. Internal memory and external memory card

There is a 4MB memory in the controller, and another 4MB memory card option

9.1 memory Select button is to toggle the selection of internal memory and external memory card

9.2 Green LED indicator indicates internal memory. Program and program running are operating on internal memory

9.3 Red LED indicator indicates external memory card. Program and program running are operating on external memory card