RMD-1220

Rack Mount Dimmer-12Channel
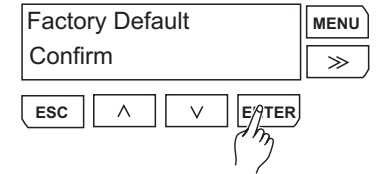
It is important to read this instruction book prior to installing or using your new product for the first time.

Contents

Operation Guide

7) SETUP

22. Secondly tap ENTER button to release all parameter to default or use ESC button exit without record.

> Factory Default   MENU
> Confirm   ≫
> ESC   ∧   ∨   ENTER

8) INFORMATION

This menu is used to view the software version and the internal dimmer pack temperature.

1. Use UP/DOWN button to select and tap ENTER button to enter INFORMATION menu. You can use >> button to scroll Software Version and Temperature.

> Information   MENU
> Software Version   ≫
> ESC   ∧   ∨   ENTER

> SOFTWARE   MENU
> Ver00.01 Jun07   ≫
> ESC   ∧   ∨   ENTER
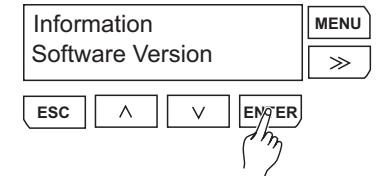
2. Tap ENTER button to select Software Version, the LCD will show you the version number and date. Tap ESC or ENTER button will back to the previous menu.
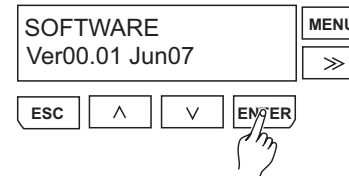
3. Tap >> button to select Temperature and use ENTER button to enter in. Two temperature are displayed, one for the left heat sink(dimmer1~6) and the other for the right heat sink(dimmer 7~12). Tap ESC or ENTER button will return to previous menu.
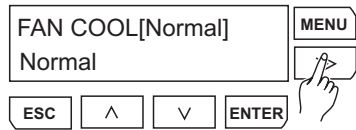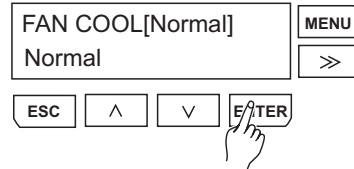
> TEMPERATURE   MENU
> L=+029 R=+029   ≫
> ESC   ∧   ∨   ENTER

> Information   MENU
> Temperature   ≫
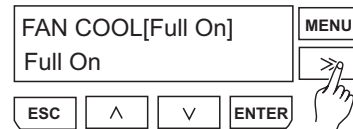> ESC   ∧   ∨   ENTER
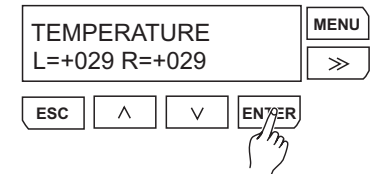
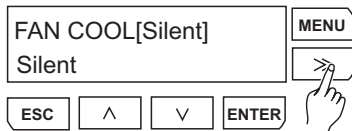4. Tap ESC button to exit and back to HOME page.
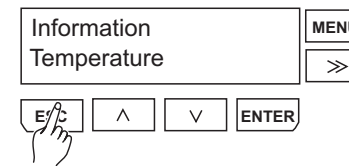
Operation Guide

16. Use >> button to select and tap ENTER button to enter FAN COOLING menu. This menu allow you to control how the internal cooling fans operate. The menu gives you a choice of Normal, Full On and Silent.

```
FAN COOL[Normal]        MENU
Normal                   ≫
ESC    ∧    ∨    ENTER
```

```
FAN COOL[Normal]        MENU
Normal                   ≫
ESC    ∧    ∨    ENTER
```

17. Use >> button to scroll Normal, Full On or Silent. When selected Normal, the dimmer pack will keep temperature not higher than 70 degree C.
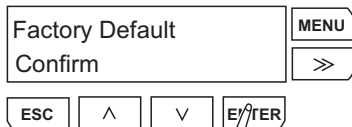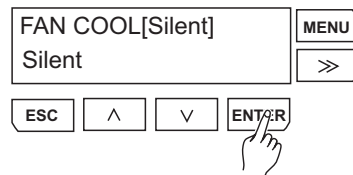
18. When selected Full On,all the time the Fans keep in full speed on.

```
FAN COOL[Full On]       MENU
Full On                  ≫
ESC    ∧    ∨    ENTER
```

```
FAN COOL[Silent]        MENU
Silent                   ≫
ESC    ∧    ∨    ENTER
```

19. When selected Silent, The Fans are running in lower speed and the temperature not higher than 90 degree C.

20. Tap ENTER button to save your set or use ESC button to exit without record.

```
FAN COOL[Silent]        MENU
Silent                   ≫
ESC    ∧    ∨    ENTER
```

```
Factory Default         MENU
Confirm                  ≫
ESC    ∧    ∨    ENTER
```

21. Use >> button to select and tap ENTER button to enter DEFAULT menu.

Important Safety Instructions

For Your Safety

- Never open this product under any circumstances. Any repairs or internal adjustments should be made only by a trained technician.

- Never operate this product with the cover removed.

- Do not use your unit immediately after transporting it from a cold place to a warm place, as condensation cause the unit to malfunction.

- To prevent fire or shock hazard,keep your unit away from humid areas and abnormally hot places.

- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

- The ventilation should not be impeded by covering the ventilation opening with items, such as newspaper, table-cloths, curtains, etc.

- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.

Caution

- This product must be grounded.

- No user serviceable parts inside, do not attempt repairs. Should you product fail, contact your local dealer.

- This product is not for domestic use .

- This product should be installed and serviced only by suitable qualified personnel.

- Provide occasional ventilation during use.

- Disconnect the power when not use for extended period.

- Do not use the unit in places subject to excessive humidity, vibration or bumps.

General Instructions

Thanks for you purchasing Botex RMD-1220 Rack Mount Dimmer. RMD-1220 is designed to build and expand your lighting control console.It is compact, portable and easy to operate by menus.

Features

- -19"/2U rack mount
- -12 channel modular digital dimmer pack,12 ways x 20A per channel
- High speed Micro Processor
- Standard USITT DMX-512 (1990)
- Dual fan cooling
- Dual SCR thyristor
- 16 digital in 2 lines LCD display
- 20A UL approved MCB x 12
- Power Requirement:AC 120V~60Hz
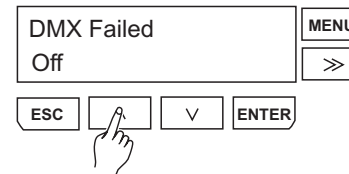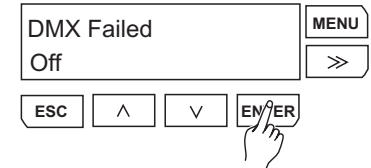- Connector: Terminal
- ArtNET(Ethernet protocol) available
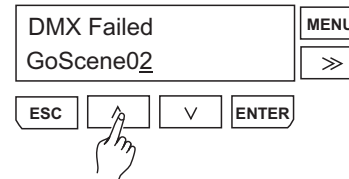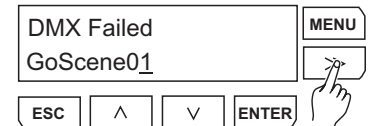
Physical Dimensions
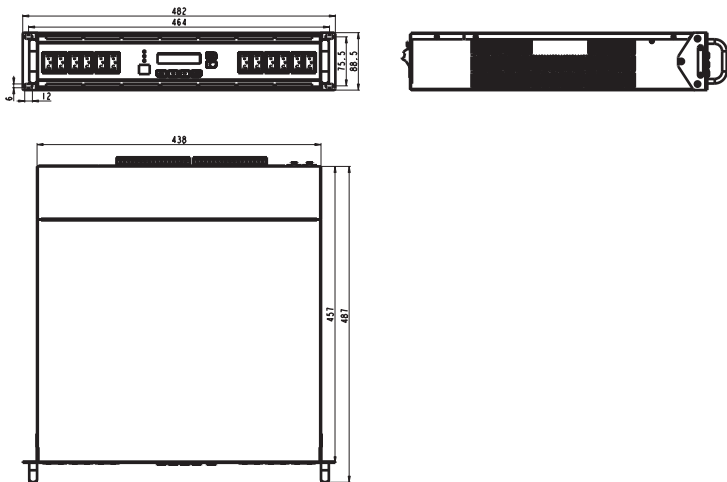
Operation Guide

7) SETUP

12. Use >> button to select and tap ENTER button to enter DMX Failed menu. This menu contains ArtNET Failed Off, Hold, Off After 10min, DMX fail ArtNET and GoScene##.

DMX Failed
Off
MENU
≫
ESC ∧ ∨ ENTER
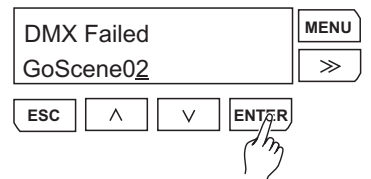
DMX Failed
Off
MENU
≫
ESC ∧ ∨ ENTER

13. In this page, tap UP/DOWN button to scroll Off, Hold, Off After 10min, DMX Fail ArtNET or GoScene##.

14. When selected GoScene##, tap >> button to activate cursor.

DMX Failed
GoScene0<u>1</u>
MENU
≫
ESC ∧ ∨ ENTER

DMX Failed
GoScene0<u>2</u>
MENU
≫
ESC ∧ ∨ ENTER

15. Tap UP/DOWN button to scroll GoScene## from 01~99
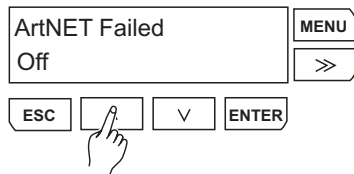
16. In DMXFailed menu, you can tap ENTER button to save your set or use ESC button to exit without record.

DMX Failed
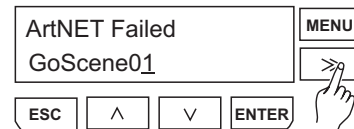GoScene0<u>2</u>
MENU
≫
ESC ∧ ∨ ENTER
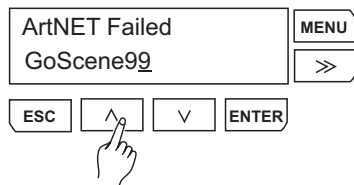
Operation Guide

7) SETUP

7. Use >> button to select and tap ENTER button to enter ArtNET Failed menu. This menu contains ArtNET Failed Off, Hold, Off After 10min, ArtNET fail DMX and GoScene##.

```
ArtNET Failed          MENU
Off                     ≫
ESC    ∧    ∨    ENTER
```

```
ArtNET Failed          MENU
Off                     ≫
ESC    ∧    ∨    ENTER
```
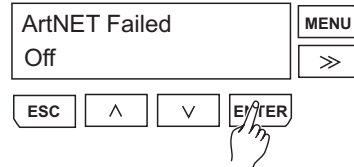
8. In this page, tap UP/DOWN button to scroll Off, Hold, Off After 10min, ArtNET Fail DMX or GoScene##.

9. When selected GoScene##, tap >> button to activate cursor.

```
ArtNET Failed          MENU
GoScene01               ≫
ESC    ∧    ∨    ENTER
```

```
ArtNET Failed          MENU
GoScene99               ≫
ESC    ∧    ∨    ENTER
```

10. Tap UP/DOWN button to scroll the GoScene## from 01~99.

11. In ArtNET Failed menu, you can tap ENTER button to save your set or use ESC button to exit without record.

```
ArtNET Failed          MENU
GoScene99               ≫
ESC    ∧    ∨    ENTER
```
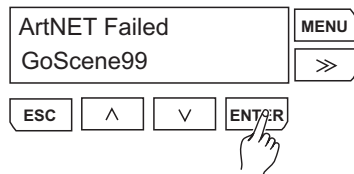
Technical Specification

Power Requirements

Voltage: 120V AC
Frequency: 60Hz

All RMD-1220 Rack Mount Dimmers must be grounded for safety use.

Dimming Capacity

Each pack contains twelve dimmers each with a Maximum load of 20A(4.6kW) per dimmer-total 55.2kW per dimmer pack.

Dimmer output Connections

RMD-1220 dimmer pack is available in terminal strips connector.

Control Inputs

USITT DMX512(1990) multiplexed digital control and ArtNET(Ethernet protocol) are available

DMX Output

Via 3Pin/5Pin XLR female XLR socket.

DMX Input

Via 3Pin/5Pin XLR male XLR socket and ArtNET(Ethernet protocol).

Physical

Length: 482mm
Width: 501mm
Height: 89mm

Weight: 21.5Kg(approx.)

Environment(Operating)

Temperature:0℃~37℃
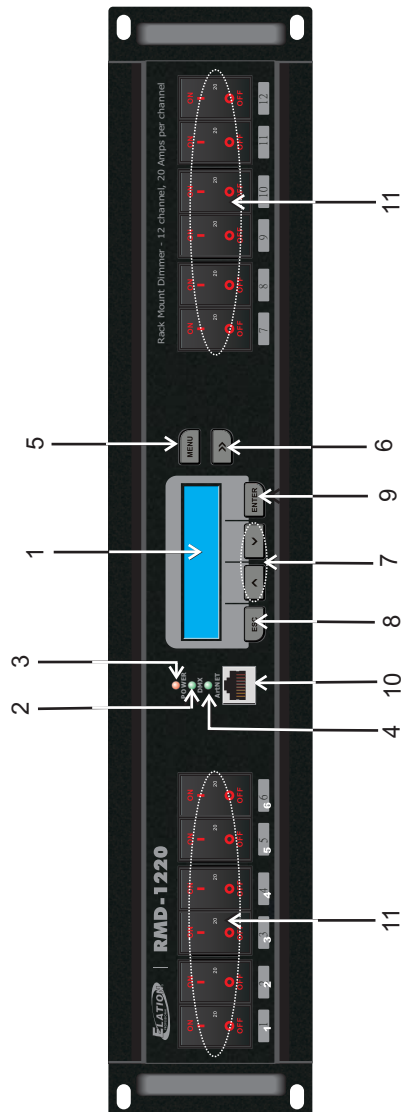Relative humidity:60%~90%
Condensation level: Zero

RMD-1220 is suitable only for use in a dry, internal environment.

Improvements and changes in specifications and design to this manual and unit may be made at any time without prior notice.
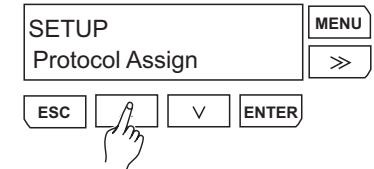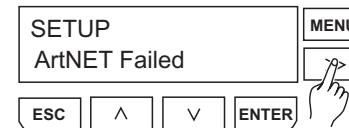
Overview

Front View

7) SETUP

This menu is to select what action the dimmer pack shoud follow. There are 5 modes available in this menu----- Protocol Assign, ArtNET Failed,DMX Failed, Fan Cooling and Default.
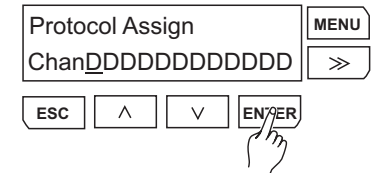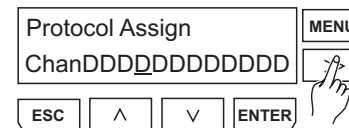
1. Tap UP/DOWN to scroll SETUP menu.

SETUP	MENU
Protocol Assign	≫

| ESC | | ∨ | ENTER |

SETUP	MENU
ArtNET Failed	≫

| ESC | ∧ | ∨ | ENTER |

2. Tap >> button to select the mode you want enter in.

3. Tap ENTER button to enter the mode you selected, say Protocol Assign.

Protocol Assign	MENU
ChanDDDDDDDDDDDD	≫

| ESC | ∧ | ∨ | ENTER |

Protocol Assign	MENU
ChanDDDDDDDDDDDD	

| ESC | ∧ | ∨ | ENTER |

4. Tap >> button to move cursor and select Channel 1~12.

5. Tap UP/DOWM button to swap between D(DMX) and A(ArtNET),Tap ENTER button to save or tap ESC to exit without record. The page will back to step 1.

Protocol Assign	MENU
ChanDDDADDDDDDDD	≫

| ESC | | ∨ | ENTER |

➡

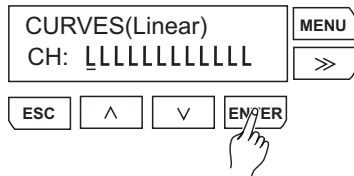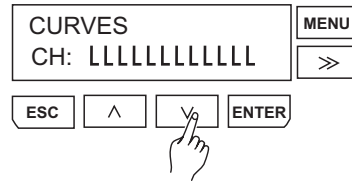| SETUP	MENU
Protocol Assign	≫

| ESC | ∧ | ∨ | ENTER |
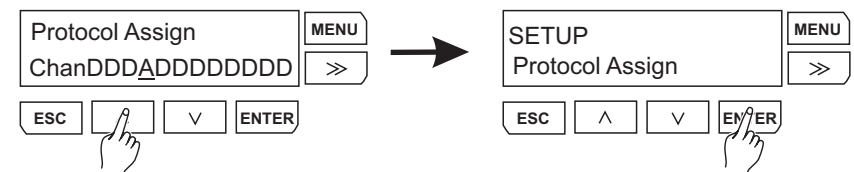
6. Repeat the step from 3~5, you can complete your set for Protocol Assign mode.

Operation Guide

6) CURVES

This menu is used to select a dimmer curve for any or all the dimmer in system. There are 3 dimmer curves available to choice from L-Linear, S-Square and N-NO-DIM.

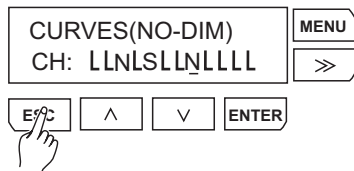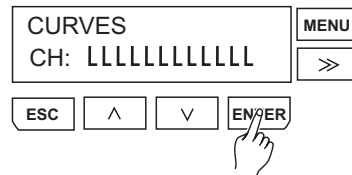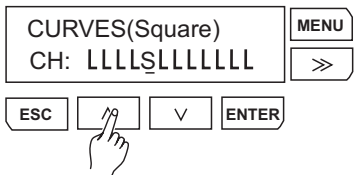1. Tap UP/DOWN button to scroll to CURVES menu.

```
CURVES            MENU
  CH: LLLLLLLLLLLL   ≫
ESC    ∧    ∨   ENTER
```

```
CURVES(Linear)    MENU
  CH: LLLLLLLLLLLL   ≫
ESC    ∧    ∨   ENTER
```

2. Tap ENTER button to enter CURVES menu. The cursor is blinking on bar 1.

3. You can tap >> button to move cursor from bar 1 to bar 12.

```
CURVES(Linear)    MENU
  CH: LLLLLLLLLLLL   ≫
ESC    ∧    ∨   ENTER
```
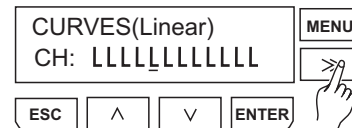
4. Tap UP/DOWN button to select Linear, Square or NO-DIM, and tap ENTER button to save your setup. The LCD page will back to step 1.

```
CURVES(Square)    MENU
  CH: LLLLSLLLLLLL   ≫
ESC    ∧    ∨   ENTER
```
→
```
CURVES            MENU
  CH: LLLLLLLLLLLL   ≫
ESC    ∧    ∨   ENTER
```

```
CURVES(NO-DIM)    MENU
  CH: LLNLSLLNLLLL   ≫
ESC    ∧    ∨   ENTER
```

5. Repeat the step 2~4,you can complete your setup for Dimmer Curve.
Tap ESC button to jump to previous page and the current page will not be recorded.

Overview

Front View

1. 2x16 LCD Display
Shows the current activities or adjustments of menus.

2. DMX LED Indicator
This LED blinks when DMX signal is present.

3. POWER LED Indicator
This LED will light when power source is connected.

4. ArtNET LED Indicator
This LED will blink when an available Ethernet network is connected.

5. MENU Button
This button is used to access set-up menus.

6. >> Button
This button is used to scroll the sub-menus or move the cursor to right.

7. UP(∧)/DOWN(∨) Button
Tap UP/DOWN button to scroll through or adjust desired levels, menu options during operation.

8. ESC Button
Tap this button to go back the previous menu level or escape without record.

9. ENTER Button
All functions must press ENTER button to activate.

10. ArtNET Port
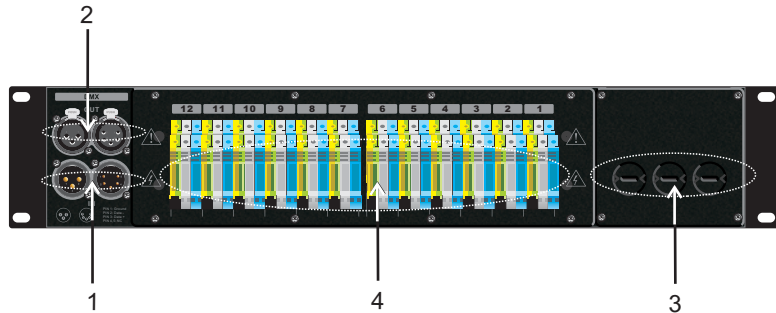With RJ 45 standard network port, use to connect your PC.

11. Channel Dimmer Module(x12)
The channel dimmer module is incorporated with a 20A UL approval MCB (Circuit Breaker) and SCRs (Silicon Controlled Rectifier) .

Overview

Rear View

2

1   4   3

1. DMX Input

The XLR connector is used to receive an incoming DMX signal

2. DMX Output

Used to connect to DMX Input socket of next RMD-1220 for parallel control

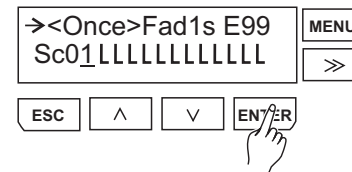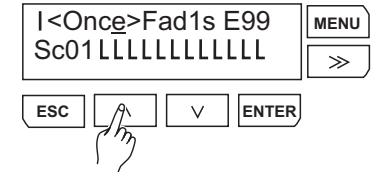### 3. Power Input

Single phase input:AC 120V~60Hz,total 75A
Three~phase input:AC 120V ~60Hz, total 75A per chase

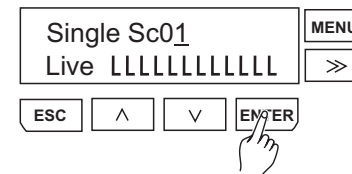### 4. Output wiring port

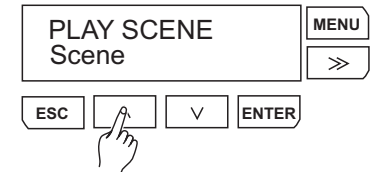Use to connect to 12 channels output

Operation Guide

5) PLAY SCENE

6. Tap UP/DOWN button to scroll the scene display mode(Once or Loop), Fade time(Fad1s,from 1s~10s) and the last scene(E01~E99).

```
I<Once>Fad1s E99      MENU
Sc01 LLLLLLLLLLLLL      ≫

ESC    ∧    ∨    ENTER
```

```
→<Once>Fad1s E99      MENU
 Sc01 LLLLLLLLLLLLL      ≫

ESC    ∧    ∨    ENTER
```
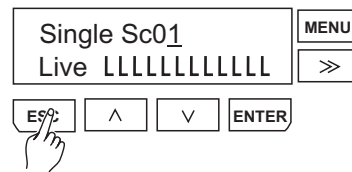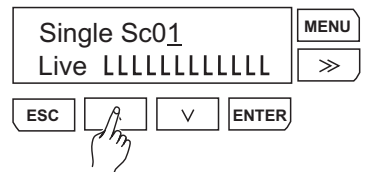
7.Tap ENTER button to Pause
 "I" or Play "→" the Scene.
 When one scene completed, Scene number will increase 1 and the bar 1~12 will display the output.

8. Tap ESC button to back to step 1 and use UP/DOWN button select sub-menu Scene.

```
PLAY SCENE      MENU
 Scene      ≫

ESC    ∧    ∨    ENTER
```

```
Single Sc01      MENU
Live  LLLLLLLLLLLL      ≫

ESC    ∧    ∨    ENTER
```

9.Tap ENTER button to enter Scene menu.

10. Tap UP/DOWN button to scroll the Scene number. And then tap ENTER button to play the Scene you selected,the bar 1~12 will display the output.
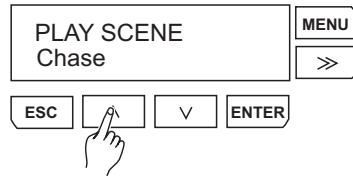
```
Single Sc01      MENU
Live  LLLLLLLLLLLL      ≫

ESC    ∧    ∨    ENTER
```

```
Single Sc01      MENU
Live  LLLLLLLLLLLL      ≫

ESC    ∧    ∨    ENTER
```

11.Tap ESC button to exit .

Operation Guide

5) PLAY SCENE

1. Tap UP/DOWN button scroll to PLAY SCENE menu to perform scene out.

```
PLAY SCENE          MENU
Chase               ≫
ESC    ∧    ∨    ENTER
```

```
PLAY SCENE          MENU
Scene               ≫
ESC    ∧    ∨    ENTER
```
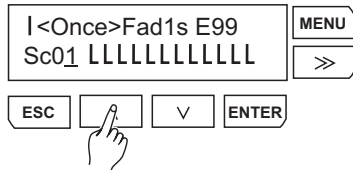
2. In this menu, there are 2 sub-menus, Chase and Scene.
   You can tap >> button to select the sub-menu you want to enter in.

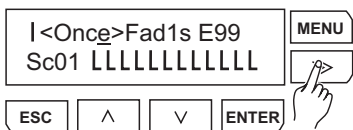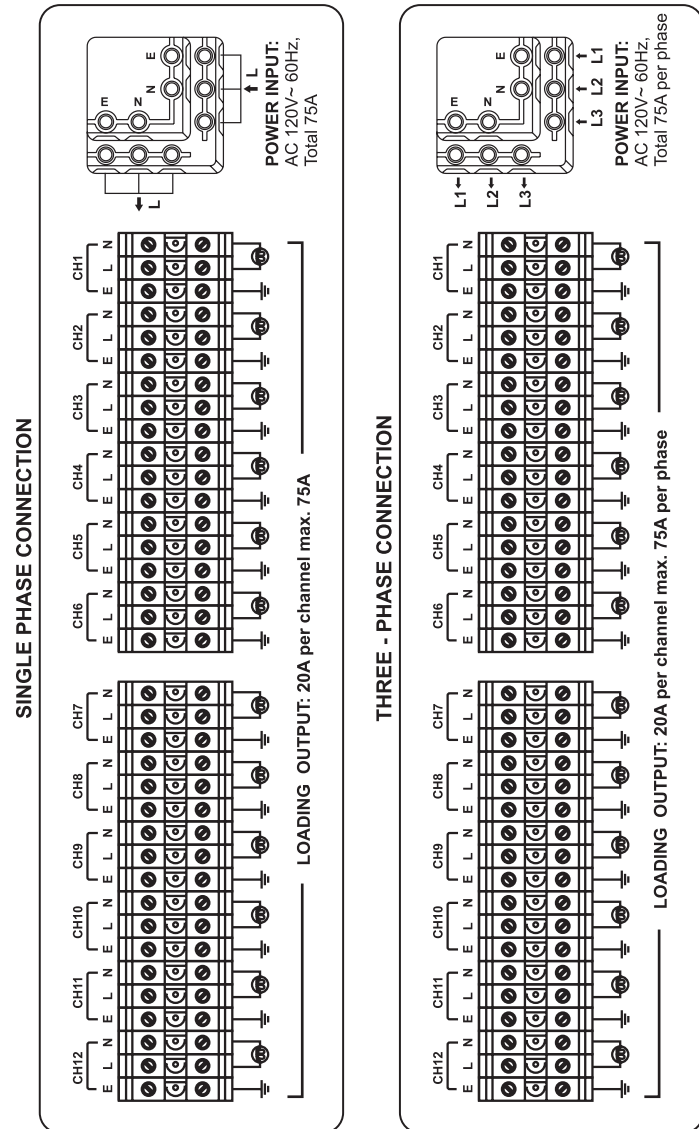3. Tap ENTER button to enter Chase.

```
I<Once>Fad1s E99    MENU
Sc01 LLLLLLLLLLLLL  ≫
ESC    ∧    ∨    ENTER
```

```
I<Once>Fad1s E99    MENU
Sc01 LLLLLLLLLLLLL  ≫
ESC    ∧    ∨    ENTER
```
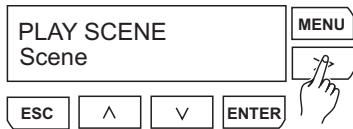
4. Tap UP/DOWN to scroll Scene number.

5. Tap >> button to move cursor.

```
I<Once>Fad1s E99    MENU
Sc01 LLLLLLLLLLLLL  ≫
ESC    ∧    ∨    ENTER
```


SINGLE PHASE CONNECTION

POWER INPUT: AC 120V~ 60Hz, Total 75A

LOADING OUTPUT: 20A per channel max. 75A

THREE - PHASE CONNECTION

POWER INPUT: AC 120V~ 60Hz, Total 75A per phase

LOADING OUTPUT: 20A per channel max. 75A per phase

Menus

There are 8 menus for RMD-1220:
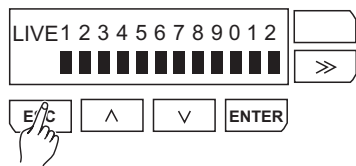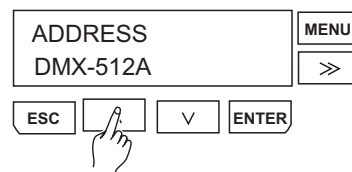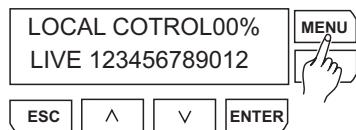1)Home(Live Display)
2)LOCAL CONTROL
3)ADDRESS,
4)SCENE REC
5)PLAY SCENE
6)CURVES
7)SETUP
8) INFORMATION.

1)Home (Live Display)

Power on this unit, the POWER led will be lit and the LCD shows "Initialize...", then enter Home(Live Display) mode automatically. Home as the ROOT position, except LOCAL CONTROL and PLAY SCENE, all menu pages will jump to Home page after free hand for 5 seconds.

Initialize...

LIVE1 2 3 4 5 6 7 8 9 0 1 2
∎∎∎∎∎∎∎∎∎∎∎∎
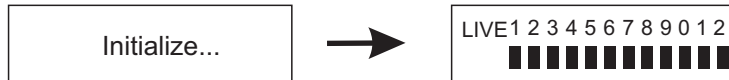
In Home mode, tap MENU button to enter set-up menus. Then you can tap UP/DOWN button to scroll the menu pages.

LOCAL COTROL00%
LIVE 123456789012
MENU ≫
ESC ∧ ∨ ENTER

ADDRESS
DMX-512A
MENU ≫
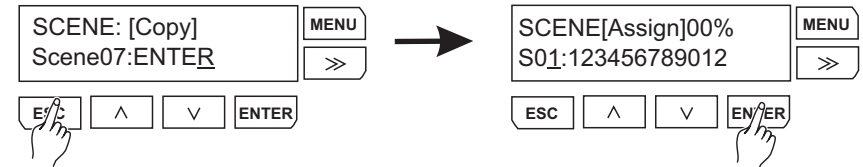ESC ∧ ∨ ENTER

LIVE1 2 3 4 5 6 7 8 9 0 1 2
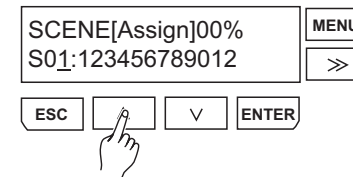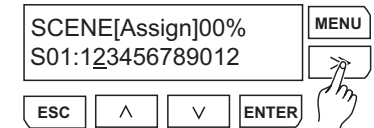∎∎∎∎∎∎∎∎∎∎∎∎
≫
ESC ∧ ∨ ENTER

Tap ESC button to exit and back to Home page.

4) Scenes REC

6.Tap ESC BACK Step 1 and use >> button to select Assign sub-menu, tap ENTER button enter in.

SCENE: [Copy]
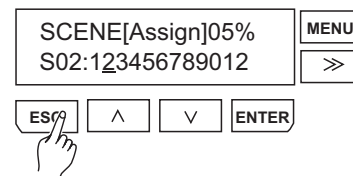Scene07:ENTER
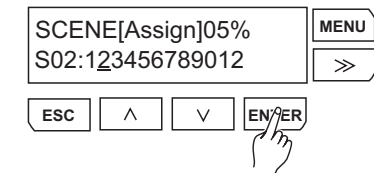MENU ≫
ESC ∧ ∨ ENTER

SCENE[Assign]00%
S01:123456789012
MENU ≫
ESC ∧ ∨ ENTER

7. Tap >> button to move cursor to next channel.

SCENE[Assign]00%
S01:123456789012
MENU ≫
ESC ∧ ∨ ENTER

8. Tap UP/DOWN button to scroll Scene number and increase/decrease channel level.

SCENE[Assign]00%
S01:123456789012
MENU ≫
ESC ∧ ∨ ENTER

9. Tap ENTER button to hold or release the selected channel.

SCENE[Assign]05%
S02:123456789012
MENU ≫
ESC ∧ ∨ ENTER

SCENE[Assign]05%
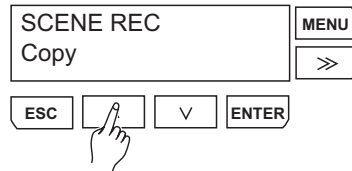S02:123456789012
MENU ≫
ESC ∧ ∨ ENTER

10. Tap ESC button to escape last page without record.

4) Scenes REC

2) LOCAL CONTROL

1. Tap UP/DOWN button to scroll to SCENES REC menu.

```
SCENE REC        MENU
Copy              ≫
ESC    ∨    ENTER
```

2. Tap >> button to swap sub-menu between Copy and Assign.

```
SCENE REC        MENU
Assign            ≫
ESC   ∧   ∨   ENTER
```

3. Tap ENTER button to enter the Sub-menu you selected, and tap UP/DOWN button to scroll scene number. In this mode, there are total 99 scenes, scene71~ scene 99 are build in patterns which can be covered with new scene, you can set default to resume them.

```
SCENE: [Copy]    MENU
Scene01:ENTER     ≫
ESC   ∧   ∨   ENTER
```
→
```
SCENE: [Copy]    MENU
Scene06:ENTER     ≫
ESC   ∧   ∨   ENTER
```
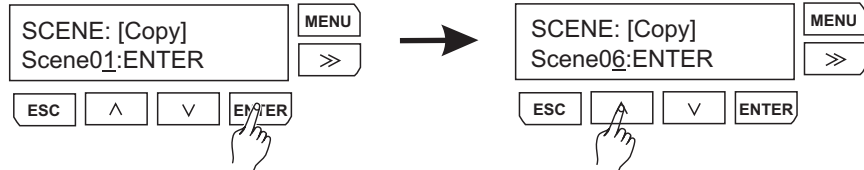
4. Tap >> button move cursor to blinking "ENTER" and ready to record.

```
SCENE: [Copy]    MENU
Scene06:ENTER     ≫
ESC   ∧   ∨   ENTER
```

```
SCENE: [Copy]    MENU
Scene07:ENTER     ≫
ESC   ∧   ∨   ENTER
```
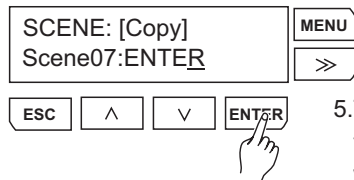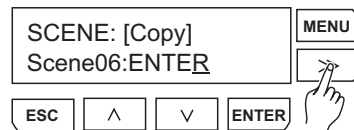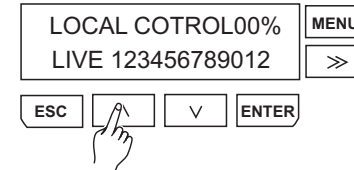
5.Tap ENTER button to record input DMX signal to current Scene. This page Scene number will increase 1 after signal record. For example, the Scene06 increased to Scene07 once Scene06 was recorded the input singal..
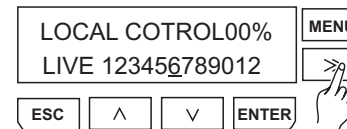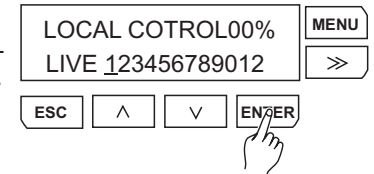
Local Control menu is to set the output level for the selected dimmers.

```
LOCAL COTROL00%   MENU
LIVE 123456789012  ≫
ESC   ∧   ∨   ENTER
```
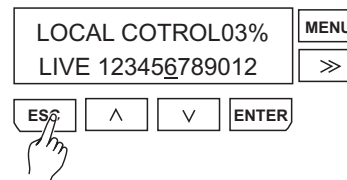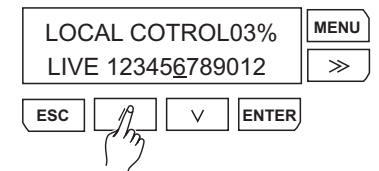
1. Use MENU button to enter set-up menus. Tap UP/DOWN button to scroll to LOCAL CONTROL menu.

2. Tap ENTER button to enter LOCAL CONTROL menu. The selected channel will keep blinking.

```
LOCAL COTROL00%   MENU
LIVE 123456789012  ≫
ESC   ∧   ∨   ENTER
```

```
LOCAL COTROL00%   MENU
LIVE 123456789012  ≫
ESC   ∧   ∨   ENTER
```

3. You can use >> button move cursor to to select the channel you want to adjust.

4. You can use UP/DOWN button to adjust the parameter(xx%) for the channel you last selected.
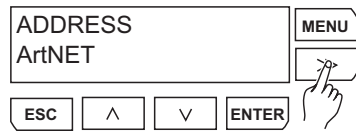
```
LOCAL COTROL03%   MENU
LIVE 123456789012  ≫
ESC   ∧   ∨   ENTER
```

```
LOCAL COTROL03%   MENU
LIVE 123456789012  ≫
ESC   ∧   ∨   ENTER
```
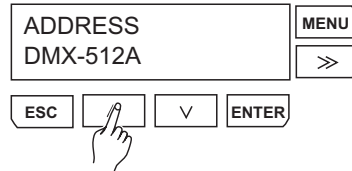
5.Tap ESC button to exit.

3) Address

This menu is used to set either the DMX512 start address or ArtNET address(SubNET and Universe are available).

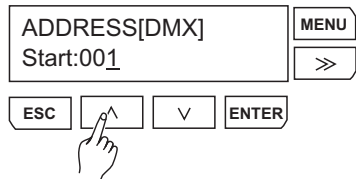1. Tap UP/DOWN button to scroll to ADDRESS menu.

```
ADDRESS          MENU
DMX-512A          ≫
ESC    ∧    ∨   ENTER
```

```
ADDRESS          MENU
ArtNET            ≫
ESC    ∧    ∨   ENTER
```

2. Tap >> button to select sub-menu DMX-512A or ArtNET.

3. Tap ENTER button to enter DMX-512A sub-menu.

```
ADDRESS[DMX]     MENU
Start:001         ≫
ESC    ∧    ∨   ENTER
```

```
ADDRESS[DMX]     MENU
Start:001         ≫
ESC    ∧    ∨   ENTER
```

4. Tap ENTER button to activate cursor, then tap UP/DOWN button to scroll Start address of 12 channels from 001 to 512.
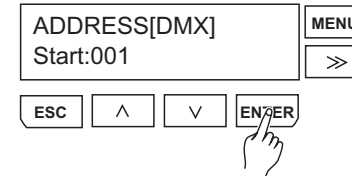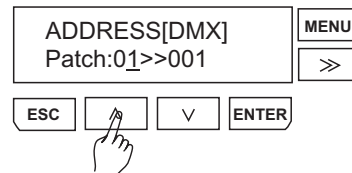
5. Tap ENTER button to save your set or use ESC button to exit without record. The page will back to the previous step, use >> button to select Patch mode.

```
ADDRESS[DMX]     MENU          ADDRESS[DMX]     MENU
Start:001         ≫     ➔      Patch:CC≫001      ≫
ESC    ∧    ∨   ENTER          ESC    ∧    ∨   ENTER
```
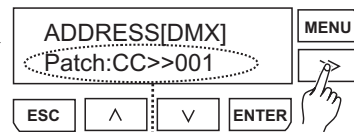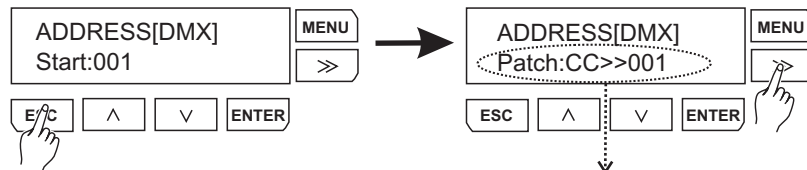
CC is channel from 1~12, 001 is address from 1~512

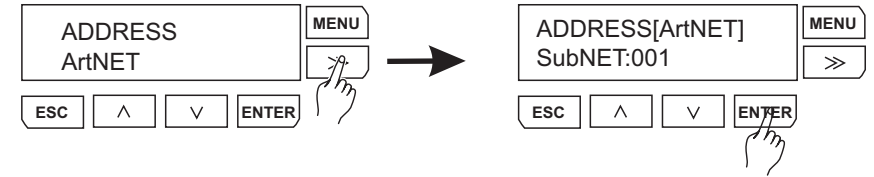6. Tap ENTER button to activate cursor, then tap UP/DOWN button to scroll address and channels, use >> button to swap between channels and address.

```
ADDRESS[DMX]     MENU
Patch:01≫001      ≫
ESC    ∧    ∨   ENTER
```

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7. Tap ENTER button to save your set in memory. Then tap ESC button back to step 2, use >> button select ArtNET sub-menu,tap ENTER button to enter in.

```
ADDRESS          MENU          ADDRESS[ArtNET]  MENU
ArtNET            ≫     ➔      SubNET:001        ≫
ESC    ∧    ∨   ENTER          ESC    ∧    ∨   ENTER
```

```
ADDRESS[ArtNET]  MENU
Universe:001      ≫
ESC    ∧    ∨   ENTER
```

8. Similarly, in this menu, you can tap >> button to swap between SubNET and Universe.

```
ADDRESS[ArtNET]  MENU
SubNET:001        ≫
ESC    ∧    ∨   ENTER
```
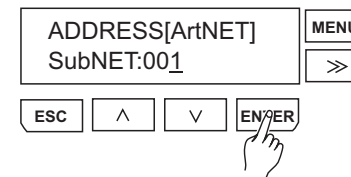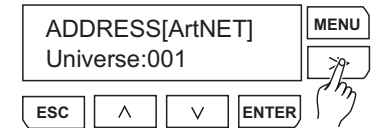
9. Tap ENTER button to enter the menu you selected, secondly tap ENTER button to activate cursor.

```
ADDRESS[ArtNET]  MENU
SubNET:001        ≫
ESC    ∧    ∨   ENTER
```

10. Tap UP/DOWN button to select from 000~255.
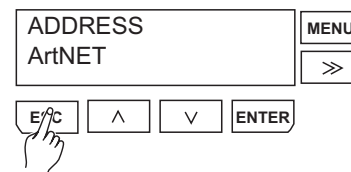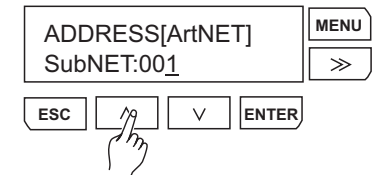
11. Tap ENTER button to save in memory and tap ESC back to step7.

```
ADDRESS          MENU
ArtNET            ≫
ESC    ∧    ∨   ENTER
```

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