# DP-2401

## 24 CH DMX SWITCH PACK
## USER MANUAL



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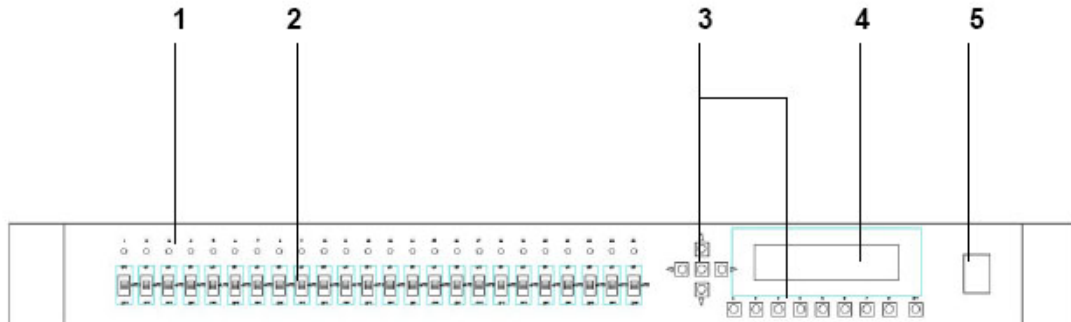
## Chapter 1   Introduction

## 1-1 DP-2401 features

- Control 24 channels.
- Able to set buffer time between actions of different channels (0 Sec - 4 Minutes).
- Action delay protection function. (0 Sec. - 30 minutes)
- Manual on/off control, DMX control and scenes control.
- Status indicator LED for each channel.   ( Different color under different status)
- Being attached with the signal input, the machine can control the channels through the standard DMX signal.
- Every channel has 3 points in terminal port, including NC (Normal close), C(Common) and NO(Normal open) dry contacts. The current through each contact can't exceed 10A.
- Accept EDX signal and connectable to ECP control panel.

## 1-2   DP-2401 Specifications

- AC Input   100~240V
- DMX Signal/Output   DMX512 , EDX SYSTEM
- DMX Output Channel   512 CHANNEL
- DMX signal Connector   4-PIN CONNECTOR
- Dimension   442× 162× 44
- Weight   2.5KG

## 1-3   Front Panel Introduction

### *Front Panel:*



| | |
|---|---|
| 1 | LED Display |
| 2 | Load CH Manual Switch |
| 3 | Function Key: <br> FNC : Function / Enter <br> Up, Down : Sub-Function Key <br> Left, Right : Sub-Function Key <br> 1, 2, 3, 4, 5, 6, 7, 8, off :Presetting Scenes Hot Key |
| 4 | LCD Display |
| 5 | Power Switch |

### *Real Panel:*
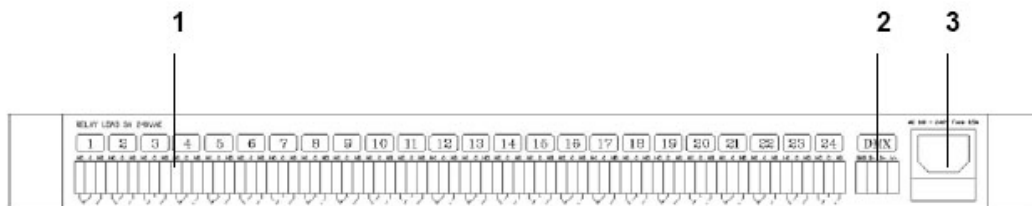


| | |
|---|---|
| 1 | Load output terminal |
| 2 | DMX "IN" terminal |
| 3 | AC Input |

## Chapter 2   DP-2401 Function Setting

## 2-1   Initialization

STEP1   Press   **FNC**     LCD display

▶ **F1: HOME**
  **F2: DMX ADDRESS**

STEP2   Press   **DOWN**   till display

  **F9: OFF DELAY**
▶ **F10: SHIP INIT**

STEP3   Press   **FNC**   till display

  **Ship     Initial**
  **YES (    ),   NO (✓)**

STEP4 Press   **LEFT**     mark on YES, and then press   **FNC**     confirm, LCD

display:

  **Ship     Initial**
    **Please wait**

And then display

  **SC: OFF     WT: 0S**
  **PRT: 0S     END:**

## 2-2   DMX Addressing Setting

STEP1   Press   **FNC**     LCD display

> ▶ **F1: HOME**
>    **F2: DMX ADDRESS**

STEP-2   Press   **DOWN**   till **F2**   and then press   **FNC**     LCD display

> **DMX START CH**
>    **CH     = 001**

STEP-3   Press   **UP**   ,   **DOWN**   to change DMX address

> **DMX START CH**
>    **CH     =   015**

STEP-4   Press    **FNC**     save setting   go back to "Home" display:

## 2-3   ID No. Setting

STEP1   Press   **FNC**     LCD display

> ▶ **F1: HOME**
>    **F2: DMX ADDRESS**

STEP2   Press   **DOWN**     LCD display

>    **F2: DMX ADDRESS**
> ▶ **F3: ID SET**

STEP-3   Press   **FNC**     enter ID setting   LCD display:

> **ID NUM = 001**

STEP-4  Press     **UP** ,  **DOWN**     change DMX address

> **ID NUM=015**

STEP-5 Press     **FNC**     save setting   go back to "Home" display

## 2-4 DMX input signal acceptance setting

STEP1 Press     **FNC**     LCD display

> ▶ **F1: HOME**
> **F2: DMX ADDRESS**

STEP2   Press     **DOWN**     LCD display

> **F3: ID SET**
> ▶ **F4:DMX   BYPASS**

STEP-3 Press   **FNC**     enter DMX BYPASS setting function   LCD display:

> **DMX   BYPASS   SUT**
> **ON         OFF**

**ON means system doesn't accept DMX signal.**
**OFF means system accept DMX signal.**

STEP4 Press     **LEFT** ,   **RIGHT**   choose "ON" or "OFF" press   **FNC**   to
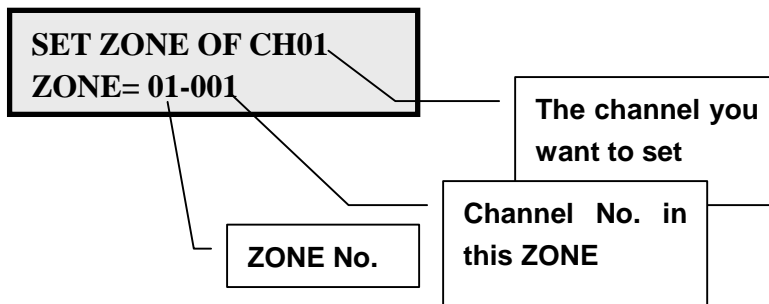
confirm   go back to "Home" display

## 2-5   Zone setting

STEP1 press   **FNC**   LCD display

```
 ▶  F1: HOME
    F2: DMX   ADDRESS
```

STEP2   Press   **DOWN**   LCD display

```
    F4:DMX   BYPASS
 ▶  F5:PER   CH   ZONE
```

STEP-3 Press   **FNC**   enter PER CH ZONE setting   LCD disply:

```
 SET ZONE OF CH01
 ZONE= 01-001
```

**The channel you want to set**

**Channel No. in this ZONE**

**ZONE No.**

STEP-4 CH01 on LCD as the graph show. Press   **UP**  ,  **DOWN**   choose channel.

STEP-5 Press   **RIGHT**   go back to choose its zone.

STEP-6 Press  **UP**  or   **DOWN**   change zone.

STEP-7 Press   **RIGHT**   go back choose this channel is which channel in this zone

STEP-8 Press   **RIGHT**   go back to choose channel.

STEP-9 Repeat STEP2, 3, 4, 5,6,7,8 to set all channel. Press   **FNC**   save setting, go back to "Home" display

## 2-6 Scenes Setting

STEP1 Press    **FNC**      LCD display

```
▶  F1: HOME
    F2: DMX   ADDRESS
```

STEP2    Press    **DOWN**      LCD display

```
    F5:PER   CH   ZONE
▶  F6:SCENE   SET
```

STEP-3    Press    **FNC**      into Scenes No. choosing    LCD display:

```
    Sc Setting        001
    KEYIN        1…100
```

STEP-4    Press    **UP**    ,    **DOWN**      choose scene No. need to setting, and press   **FNC**    into scene setting, LCD display

```
    EDIT SCENE        02
    CH01 --------> off
```

STEP-5    Press    **LEFT**    ,    **RIGHT**      to change channel, press    **UP**    ,    **DOWN**      chose on or off for this channel. For example

```
    EDIT SCENE        02
    CH01 -------->     on
```

It means the channel 2 in scene 2 is set as on.

STEP-6    After setting press    **FNC**      , LCD display

```
    SAVE SC OR QUIT?
    SAVE (✓)   QUIT(   )
```

STEP-7    Press again    **FNC**      save setting, go back to "Home" display

## 2-7    Action delay protection setting

When DP-2401 with the huge power output, and switch on in the same time. That will cause the power system drop the voltage. DP-2401 can set up the delay time

STEP1 Press     **FNC**     , LCD display:

> ▶ F1: HOME
>    F2: DMX ADDRESS

STEP-2 Press     **DOWN**     till display

> ▶ F6: SCENE SET
>    F7: OPEN DELAY

STEP-3   Press     **FNC**     into action delay time setting, LCD display

> OPEN   TACTIC   SET
>    Time   =   0S

STEP-4   Press     **UP**     ,     **DOWN**     could change the time, LCD display

> OPEN   TACTIC   SET
>    Time   =   4S

setting time 0s----4min

STEP-5 Press     **FNC**     save setting, go back to "Home" display

STEP-6 If have the Scenes change(or using DMX input control), output will follow the setting time.

Seting EX:

Sc1:   CH01=100, CH02=100, CH03=100 ……… CH24=100

OPEN TACTIC = 5sec

Press SC1 to recall scene 1, you will find CH01 switch on, LCD display

```
SC: 01      WT: 5S
PRT: 0S     NEXT:
```

( WT   5s        delay time between channels is 5s )

When "NEXT" flash, after 5 sec, the CH02 on. And after 5 sec, then the CH03 on……, Till   all the CH24 been switch on. Then "NEXT" will dispapper, and showing "END", it means no one of the channel on the waiting line

## 2-8    Preheat Setting for Protecting Loads

Some particular loads using the DP-2401 **High-intensity discharge lamps** those kind of the load between off and on has be cool down the temperatures otherwise this kind of the loads will be damage. The DP-2401 has the additional function for protecting loads. When the loads switch off and on again will automatic wait for the setting delay time.

STEP-1 Press **FNC** LCD display

```
 ▶ F1: HOME
    F2: DMX    ADDRESS
```

STEP-2 Press **DOWN** till display:

```
    F7:OPEN    DELAY
 ▶ F8:SELF     PROTE.
```

STEP-3 Press **FNC** enter preheat setting for loads protection, LCD display

```
  SELF    PROTECT SET
  Time =0S
```

STEP-4 Press **UP** , **DOWN** to change preheat time LCD display

```
  SELF    PROTECT SET
  Time =27S
```

(preheat time: 0s----30min)

STEP-5 Press **FNC** save setting go back to "Home" display

STEP-6 when using the scence or using the DMX control one of the channel switch "off" and "on" again can setting the delay time.

Ex. Setting:

Sc1: CH01=100,CH02=100,CH03=100 ……… CH24=100

SELF PROTECT = 27sec

Press SC1　Using Scenes 1, and Press "OFF"　Close all the CH. And Press SC1 again, you will find the Scene 1 did not call out　The LCD display:

```
SC: 01      WT: 0S
PRT: 27S    NEXT:
```

（PRT　27s　　　preheat time is 27s）

The "NEXT" Flash（some CH. waiting for switch on）. After 27 Sec. the SC01 will be call out　Switch on each CH.　　The flash "NEXT" on the LCD will be gone and Showing "END"　its mean no one of the channel on the waiting line.

# Chapter 3   DP2401 Operation

## 3-1   DMX Control

STEP-1   When DMX signal input, DP-2401 will automatically become DMX dimming pack, LCD display,

```
DMX:002      WT: 0S
PRT: 27S     END:
```

LCD first line shows "DMX; 001" it means DMX control and start channel is 002.

Ex, DMX input signal is,
DMX001=0%, DMX002=100%, DMX003=10%, DMX004=51%, DMX005= 19%, DMX006 = 0%, DMX007 = 0%    ………    DMX023 = 0%

DP-2401 each channel status are:
CH01->DMX002 =0N, CH02->DMX003=OFF, CH03->DMX004=ON, CH04->DMX005=OFF, CH05----CH24=OFF
CH01->DMX002=ON   meams DP-2401's first channel is correspond with DMX 002 signal from DMX controller, and DMX002 date is 100%, so DP-2401's first channel output is "ON".

Attention:
1. DMX dimming value > 50% DP-2401 setting is ON
   DMX dimming value < 20% DP-2401 setting is OFF
    50% > DMX dimming value> 20% maintain previous mode.

2. When DP-2401 using DMX signal control, the Scenes function will automatically closed.

## 3-2   Scene Control

STEP-1   No DMX signal input,DP-2401 works in scenes control function, LCD display

```
SC: 01       WT: 0S
PRT: 27S     NEXT:
```
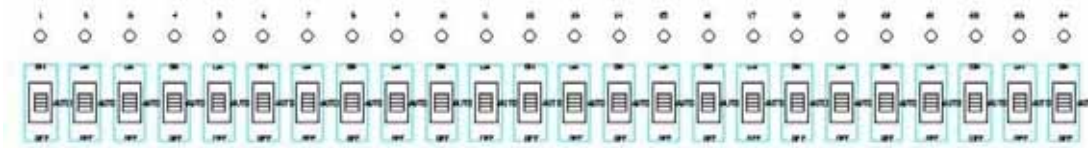
STEP-2   Press **SC1 , SC2 , SC3 … SC8     OFF** recall scene.

Press OFF    LCD display

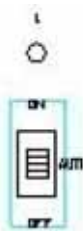| | |
|---|---|
| **SC:OFF** | **WT: 0S** |
| **PRT: 27S** | **END:** |

## 3-3 Manual Control

STEP-1 For the easy and fast control, DP-2401 provides easy manual control.

STEP-2 The manual control switch set on top is ON, on the bottom is OFF, on the middle is AUTO.

## 3-4 DP-2401 24 Channel LED Display

The DP-2401 one of the CH is "OFF", manual control switch "ON"    -----> RED
The DP-2401 one of the CH is "OFF", manual control switch "OFF"    -----> N/A
The DP-2401 one of the CH is "OFF", manual control switch "AUTO" -----> N/A
The DP-2401 one of the CH is "ON", manual control switch "ON" ----> Orange
The DP-2401 one of the CH is "ON", manual control switch "OFF"    ----> Green
The DP-2401 one of the CH is "ON", manual control switch "AUTO" --->Orange