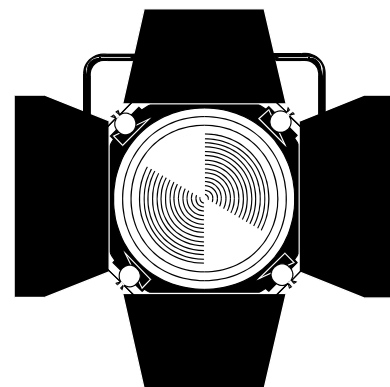


# ***VIKING***

## ***STAGE LIGHTING***



# ***VK1260 WAVE***

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## STATEMENT

The product has well capability and intact packing when leave factory. All of the user should comply with warning item and manual, any misuse cause of the damages are not included in our guarantee, and also can not be responsible for any malfunction & problem owing to ignore the manual.

# 1.Safety Instructions

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.

- Unpack and check carefully there is no transportation damage before using the unit.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Disconnect main power before replacement or servicing.
- Make sure there are no flammable materials close to the unit while operating as it is fire hazard.
- Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- Maximum ambient temperature is Ta: 40°C. DO NOT operate it where the temperature is higher than this Unit surface temperature may reach up to 85°C. DO NOT touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- the event of serious operating problem, stop using the unit immediately.Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- DO NOT touch any wire during operation as high voltage might be causing electric shock.

## **Warning:**

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

## **Caution:**

- There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

## **Installation:**

- The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.
- The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people.

## 2. Technical Specifications

Voltage: AC100~240V 50 / 60 HZ

Light Source : 12x60W RGBW LED

LED Top & Bottom Strip Section:

168 pcs 1W RGB WW CW LEDs

168 pcs 1W RGB WW CW LEDs

Control mode: DMX512, self-travel, master-slave, voice control, with RDM function.

DMX Channel Modes: CH20 CH53 CH169A CH169B CH101 CH155 CH179 CH299

Dimming: 32bit 0~100% Linear dimming

Beam Angle 3°-15°

Features: single swing + staining + beam

Operating temperature: -30 degrees ~50 degrees

Strobe frequency: 1-30 HZ

Appearance: metal, black

Connection mode: DMX512 in / out 3 pin IP65 Connectors

Power: 190w input / output on Truecon True1 IP65 in / out Connectors

ArtNet: in and out on IP65 RJ45 connectors

IP Grade: IP65

Dimensions: 1000 x 332 x 219 mm

Weight: 30.5kg

### 3.Control Menu

The schematic diagram of the lamp panel is shown in Figure 3:

1) Signal light: the upper DMX signal light is lit in blue when the lamp is connected to the control console, and does not light up in normal state; the lower fault error signal light is lit in red when the lamp reports error, and does not light up in normal state.

2) Temperature: As shown in the diagram, the lamp board temperature is 30°C. If the temperature display shows---°C, it indicates abnormal temperature detection in the luminaire. This may be caused by a broken circuit in the temperature control connection wire. If the temperature display shows\*\*\*°C and there is a significant difference from the ambient temperature, it could indicate a short circuit in the temperature control connection wire. The equipment must be repaired by a professional technician to resolve the issue before normal operation can resume.

3) Address code: can display the range 001-512, the address code shown on the figure is 001.

4) DMX mode: 512 mode.

- Key: UP: Up key
- MENU: Back button
- ENTER: Confirm key
- DOWN: Next key

Note: Do not use sharp or pointed objects to click the display screen to prevent damage.

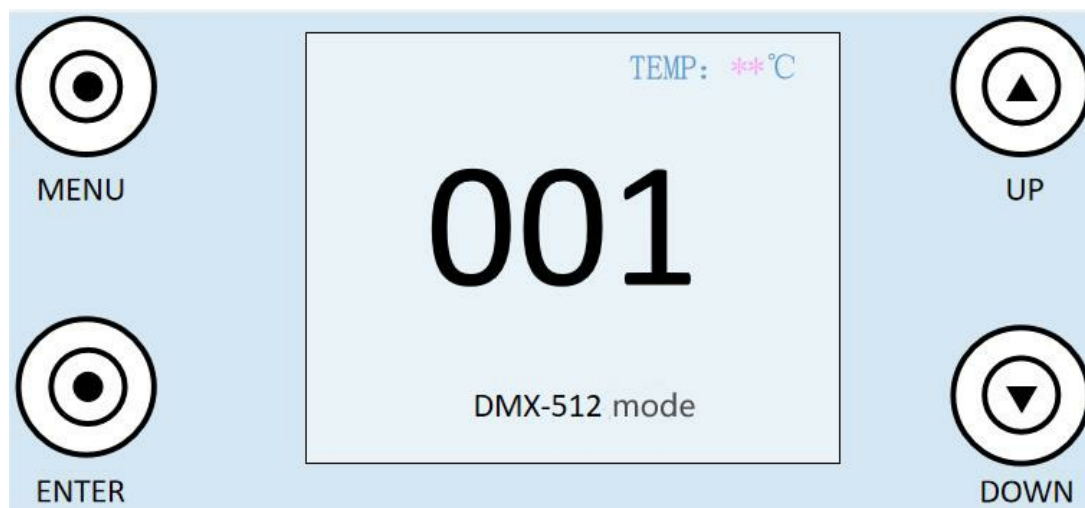


Figure 3 Schematic diagram of four key display panel

| Main Menu       | Submenu             | Option               |                                                                                 |
|-----------------|---------------------|----------------------|---------------------------------------------------------------------------------|
| 1. DMX SETTINGS | 1. DMX Address      | 1-512                |                                                                                 |
|                 | 2. DMX Channel Mode | 20CH                 |                                                                                 |
|                 |                     | 53CH                 |                                                                                 |
|                 |                     | 101CH                |                                                                                 |
|                 |                     | 155CH                |                                                                                 |
|                 |                     | 169ACH               |                                                                                 |
|                 |                     | 169BCH               |                                                                                 |
|                 |                     | 179CH                |                                                                                 |
|                 |                     | 299CH                |                                                                                 |
|                 | 3. No DMX Status    | 1. Blackout          | Takes all traits to 0 when DMX signal is lost or interrupted.                   |
|                 |                     | 2. Hold              | Holds all traits at last received value when DMX signal is lost or interrupted. |
|                 |                     | 3. Manual            | Defaults to values set in Manual Mode when DMX signal is lost or interrupted.   |
|                 | 4. Connect          | 1. DMX               |                                                                                 |
|                 |                     | 2. ArtNet            |                                                                                 |
|                 |                     | 3. sACN              |                                                                                 |
|                 | 5. Network          | 1. IP address        |                                                                                 |
|                 |                     | 2. Subnet Mask       |                                                                                 |
|                 | 6. Art-Net Settings | 1. Net 000           |                                                                                 |
|                 |                     | 2. Sub-Net 00        |                                                                                 |
|                 |                     | 3. Universe 00       |                                                                                 |
|                 | 7. sACN Settings    | 1. Universe 00001    |                                                                                 |
|                 |                     | 2. Priority 100      |                                                                                 |
| 2. PERSONALITY  | 1. Dim Modes        | 1. Fast              |                                                                                 |
|                 |                     | 2. Smooth            |                                                                                 |
|                 | 2. Dimmer Curve     | 1. Linear            |                                                                                 |
|                 |                     | 2. Square            |                                                                                 |
|                 |                     | 3. Inv. Sq.          |                                                                                 |
|                 |                     | 4. S-Curve           |                                                                                 |
|                 | 3. Display          | 1. Display Backlight | Off - 2 min                                                                     |
|                 |                     | 2. Display Lock      | Off - 2 min                                                                     |

|                 |                    |                                     |                   |
|-----------------|--------------------|-------------------------------------|-------------------|
|                 |                    | 3.Display Invert                    | No / Yes          |
|                 |                    | 4.Language                          | English           |
|                 |                    |                                     | 简体                |
|                 | 4.Tilt Reverse     | No / Yes                            |                   |
|                 | 5.Temperature Unit | ° C / ° F                           |                   |
|                 | 6.LED Refresh Rate | 600Hz                               |                   |
|                 |                    | 1200Hz                              |                   |
|                 |                    | 2000Hz                              |                   |
|                 |                    | 4000Hz                              |                   |
|                 |                    | 6000Hz                              |                   |
| 15000Hz         |                    |                                     |                   |
| 3. MANUAL       | 1.Tilt             | 000 - 255                           |                   |
|                 | 2.Zoom             | 000 - 255                           |                   |
|                 | 3.Dimmer           | 000 - 255                           |                   |
|                 | 4.Main Red         | 000 - 255                           |                   |
|                 | 5.Main Green       | 000 - 255                           |                   |
|                 | 6.Main Blue        | 000 - 255                           |                   |
|                 | 7.Main White       | 000 - 255                           |                   |
|                 | 8.Line Red         | 000 - 255                           |                   |
|                 | 9.Line Green       | 000 - 255                           |                   |
|                 | 10.Line Blue       | 000 - 255                           |                   |
|                 | 11.Line CW         | 000 - 255                           |                   |
|                 | 12.Line WW         | 000 - 255                           |                   |
|                 | 4. FIXTURE TEST    | 1.All Test                          | RUN...            |
| 2.Motor Test    |                    | RUN...                              |                   |
| 3.LED Test      |                    | RUN...                              |                   |
| 5. FIXTURE INFO | 1.Fixture Use Hour |                                     |                   |
|                 | 2.LED Use Hour     | Total LED Hour                      |                   |
|                 |                    | LED On Hour                         |                   |
|                 |                    | LED Hours Reset                     |                   |
|                 | 3.Temperature      |                                     |                   |
|                 | 4.RDM UID          | xxxxxx                              |                   |
|                 | 5.Error Logs       | Fixture Errors                      | LED Fan Error     |
|                 |                    | Reset Error Log<br>(Passcode = 011) | Temperature Error |
|                 |                    |                                     | No / Yes          |
| 6. RESET        | All Reset          | No                                  |                   |
|                 |                    | Yes                                 |                   |

## 4.DMX Channels

### 20CH

| channel | The channel value | basic function                           |
|---------|-------------------|------------------------------------------|
| 1       | 000-255           | Y coarse adjustment (Y mode direction)   |
| 2       | 000-255           | Y fine-tuning overall (Y mode amplitude) |
| 3       | 000-255           | Y-speed (Y-mode speed)                   |
| 4       | 000-255           | Y mode (Y effect amplitude)              |
| 5       | 000-255           | CTC                                      |
| 6       | 000-255           | Color macro                              |
| 7       | 000-255           | pattern                                  |
| 8       | 000-255           | LED built-in effect                      |
| 9       | 000-255           | LED built-in effect speed                |
| 10      | 000-255           | LED built-in effect drag time            |
| 11      | 000-255           | LED background colour                    |
| 12      | 000-255           | LED background tone light                |
| 13      | 000-255           | aiming                                   |
| 14      | 000-255           | stroboflash                              |
| 15      | 000-255           | Amplify the whole                        |
| 16      | 000-255           | function                                 |
| 17      | 000-255           | Red (effect-based color selection)       |
| 18      | 000-255           | Green (effect-based color selection)     |
| 19      | 000-255           | Blue (effect-color selection)            |
| 20      | 000-255           | White (effect-based color selection)     |

### 53CH

| channel | The channel value | basic function                       |
|---------|-------------------|--------------------------------------|
| 1       | 000-255           | Y1 coarse tuning (Y mode direction)  |
| 2       | 000-255           | Y1 fine-tuning                       |
| 3       | 000-255           | Y2 coarse tone (Y of mode amplitude) |
| 4       | 000-255           | Y2 fine-tuning                       |
| 5       | 000-255           | Y3 coarse tone                       |
| 6       | 000-255           | Y3 fine-tuning                       |
| 7       | 000-255           | Y4 thick tone                        |

|    |         |                                      |
|----|---------|--------------------------------------|
| 8  | 000-255 | Y4 fine-tuning                       |
| 9  | 000-255 | Y5 thick tone                        |
| 10 | 000-255 | Y5 fine-tuning                       |
| 11 | 000-255 | Y6 thick tone                        |
| 12 | 000-255 | Y6 fine-tuning                       |
| 13 | 000-255 | Y7 thick tone                        |
| 14 | 000-255 | Y7 fine-tuning                       |
| 15 | 000-255 | Y8 thick tone                        |
| 16 | 000-255 | Y8 fine-tuning                       |
| 17 | 000-255 | Y9 thick tone                        |
| 18 | 000-255 | Y9 fine-tuning                       |
| 19 | 000-255 | Y10 thick tone                       |
| 20 | 000-255 | Y10 fine-tuning                      |
| 21 | 000-255 | Y11 coarse tone                      |
| 22 | 000-255 | Y11 fine-tuning                      |
| 23 | 000-255 | Y12 coarse tone                      |
| 24 | 000-255 | Y12 fine-tuning                      |
| 25 | 000-255 | Y-speed (Y-mode speed)               |
| 26 | 000-255 | Y pattern                            |
| 27 | 000-255 | CTC                                  |
| 28 | 000-255 | Colour macro                         |
| 29 | 000-255 | pattern                              |
| 30 | 000-255 | LED built-in effect                  |
| 31 | 000-255 | LED built-in effect speed            |
| 32 | 000-255 | LED built-in effect drag time        |
| 33 | 000-255 | LED background colour                |
| 34 | 000-255 | LED background tone light thick tone |
| 35 | 000-255 | aiming                               |
| 36 | 000-255 | Strobe flash                         |
| 37 | 000-255 | Amplification 1                      |
| 38 | 000-255 | Amplification 2                      |
| 39 | 000-255 | Amplification 3                      |
| 40 | 000-255 | Amplification 4                      |
| 41 | 000-255 | Amplification 5                      |
| 42 | 000-255 | Amplification 6                      |
| 43 | 000-255 | Amplification 7                      |
| 44 | 000-255 | Amplification 8                      |
| 45 | 000-255 | Amplification 9                      |
| 46 | 000-255 | Amplification 10                     |
| 47 | 000-255 | Amplification 11                     |
| 48 | 000-255 | Amplification 12                     |
| 49 | 000-255 | function                             |
| 50 | 000-255 | red                                  |
| 51 | 000-255 | green                                |

|    |         |       |
|----|---------|-------|
| 52 | 000-255 | blue  |
| 53 | 000-255 | white |

## 169ACH

| channel | The channel value | basic function                        |
|---------|-------------------|---------------------------------------|
| 1       | 000-255           | function                              |
| 2       | 000-255           | Y-speed (Y-mode speed)                |
| 3       | 000-255           | Y pattern                             |
| 4       | 000-255           | CTC                                   |
| 5       | 000-255           | Color macro                           |
| 6       | 000-255           | pattern                               |
| 7       | 000-255           | LED built-in effect                   |
| 8       | 000-255           | LED built-in effect speed             |
| 9       | 000-255           | LED built-in effect drag time         |
| 10      | 000-255           | LED background colour                 |
| 11      | 000-255           | LED background tone light thick tone  |
| 12      | 000-255           | LED background tone light fine-tuning |
| 13      | 000-255           | Strobe flash                          |
| 14      | 000-255           | Y1 coarse tuning (Y mode direction)   |
| 15      | 000-255           | Y1 fine-tuning                        |
| 16      | 000-255           | Amplification 1                       |
| 17      | 000-255           | Tuning 1 rough adjustment             |
| 18      | 000-255           | Tuning 1 fine-tuning                  |
| 19      | 000-255           | Red 1 thick tone                      |
| 20      | 000-255           | Red 1 fine-tuning                     |
| 21      | 000-255           | Green 1 thick tone                    |
| 22      | 000-255           | Green 1 fine-tuning                   |
| 23      | 000-255           | Blue 1 thick tone                     |
| 24      | 000-255           | Blue 1 fine-tuning                    |
| 25      | 000-255           | White 1 thick tone                    |
| 26      | 000-255           | White 1 fine-tuning                   |
| 27      | 000-255           | Y2 coarse tone (Y effect amplitude)   |
| 28      | 000-255           | Y2 fine-tuning                        |
| 29      | 000-255           | Amplification 2                       |
| 30      | 000-255           | Tuning 2 rough adjustment             |
| 31      | 000-255           | Tuning 2 fine-tuning                  |
| 32      | 000-255           | Red 2 thick tone                      |
| 33      | 000-255           | Red 2 fine-tuning                     |
| 34      | 000-255           | Green 2 thick tone                    |
| 35      | 000-255           | Green 2 fine-tuning                   |
| 36      | 000-255           | Blue 2 thick tone                     |
| 37      | 000-255           | Blue 2 fine-tuning                    |

|    |         |                      |
|----|---------|----------------------|
| 38 | 000-255 | White 2 thick tone   |
| 39 | 000-255 | White 2 fine-tuning  |
| 40 | 000-255 | Y3 coarse tone       |
| 41 | 000-255 | Y3 fine-tuning       |
| 42 | 000-255 | Amplification 3      |
| 43 | 000-255 | Tuning 3 thick tone  |
| 44 | 000-255 | Tuning 3 fine-tuning |
| 45 | 000-255 | Red 3 thick tone     |
| 46 | 000-255 | Red 3 fine-tuning    |
| 47 | 000-255 | Green 3 thick tone   |
| 48 | 000-255 | Green 3 fine-tuning  |
| 49 | 000-255 | Blue 3 thick tone    |
| 50 | 000-255 | Blue 3 fine-tuning   |
| 51 | 000-255 | White 3 thick tone   |
| 52 | 000-255 | White 3 fine-tuning  |
| 53 | 000-255 | Y4 thick tone        |
| 54 | 000-255 | Y4 fine-tuning       |
| 55 | 000-255 | Amplification 4      |
| 56 | 000-255 | Tuning 4 thick tone  |
| 57 | 000-255 | Tuning 4 fine-tuning |
| 58 | 000-255 | Red 4 thick tone     |
| 59 | 000-255 | Red 4 fine-tuning    |
| 60 | 000-255 | Green 4 thick tone   |
| 61 | 000-255 | Green 4 fine-tuning  |
| 62 | 000-255 | Blue 4 thick tone    |
| 63 | 000-255 | Blue 4 fine-tuning   |
| 64 | 000-255 | White 4 thick tone   |
| 65 | 000-255 | White 4 fine-tuning  |
| 66 | 000-255 | Y5 thick tone        |
| 67 | 000-255 | Y5 fine-tuning       |
| 68 | 000-255 | Amplification 5      |
| 69 | 000-255 | Tuning 5 thick tone  |
| 70 | 000-255 | Tuning 5 fine-tuning |
| 71 | 000-255 | Red 5 thick tone     |
| 72 | 000-255 | Red 5 fine-tuning    |
| 73 | 000-255 | Green 5 thick tone   |
| 74 | 000-255 | Green 5 fine-tuning  |
| 75 | 000-255 | Blue 5 thick tone    |
| 76 | 000-255 | Blue 5 fine-tuning   |
| 77 | 000-255 | White 5 thick tone   |
| 78 | 000-255 | White 5 fine-tuning  |
| 79 | 000-255 | Y6 thick tone        |
| 80 | 000-255 | Y6 fine-tuning       |
| 81 | 000-255 | Amplification 6      |

|     |         |                      |
|-----|---------|----------------------|
| 82  | 000-255 | Dim 6 thick tone     |
| 83  | 000-255 | Tuning 6 fine-tuning |
| 84  | 000-255 | Red 6 thick tone     |
| 85  | 000-255 | Red 6 fine-tuned     |
| 86  | 000-255 | Green 6 thick tone   |
| 87  | 000-255 | Green 6 fine-tuning  |
| 88  | 000-255 | Blue 6 thick tone    |
| 89  | 000-255 | Blue 6 fine-tuning   |
| 90  | 000-255 | White 6 thick tone   |
| 91  | 000-255 | White 6 fine-tuning  |
| 92  | 000-255 | Y7 thick tone        |
| 93  | 000-255 | Y7 fine-tuning       |
| 94  | 000-255 | Amplification 7      |
| 95  | 000-255 | Tuning 7 thick tone  |
| 96  | 000-255 | Tuning 7 fine-tuning |
| 97  | 000-255 | Red 7 thick tone     |
| 98  | 000-255 | Red 7 fine-tuning    |
| 99  | 000-255 | Green 7 thick tone   |
| 100 | 000-255 | Green 7 fine-tuning  |
| 101 | 000-255 | Blue 7 thick tone    |
| 102 | 000-255 | Blue 7 fine-tuning   |
| 103 | 000-255 | White 7 thick tone   |
| 104 | 000-255 | White 7 fine-tuning  |
| 105 | 000-255 | Y8 thick tone        |
| 106 | 000-255 | Y8 fine-tuning       |
| 107 | 000-255 | Amplification 8      |
| 108 | 000-255 | Dim 8 thick tone     |
| 109 | 000-255 | Tuning 8 fine-tuning |
| 110 | 000-255 | Red 8 thick tone     |
| 111 | 000-255 | Red 8 fine-tuning    |
| 112 | 000-255 | Green 8 thick tone   |
| 113 | 000-255 | Green 8 fine-tuning  |
| 114 | 000-255 | Blue 8 thick tone    |
| 115 | 000-255 | Blue 8 fine-tuning   |
| 116 | 000-255 | White 8 thick tone   |
| 117 | 000-255 | White 8 fine-tuning  |
| 118 | 000-255 | Y9 thick tone        |
| 119 | 000-255 | Y9 fine-tuning       |
| 120 | 000-255 | Amplification 9      |
| 121 | 000-255 | Tune 9 thick tone    |
| 122 | 000-255 | Tuning 9 fine-tuning |
| 123 | 000-255 | Red 9 thick tone     |
| 124 | 000-255 | Red 9 fine-tuning    |
| 125 | 000-255 | Green 9 thick tone   |

|     |         |                       |
|-----|---------|-----------------------|
| 126 | 000-255 | Green 9 fine-tuning   |
| 127 | 000-255 | Blue 9 thick tone     |
| 128 | 000-255 | Blue 9 fine-tuning    |
| 129 | 000-255 | White 9 thick tone    |
| 130 | 000-255 | White 9 fine-tuning   |
| 131 | 000-255 | Y10 thick tone        |
| 132 | 000-255 | Y10 fine-tuning       |
| 133 | 000-255 | Amplification 10      |
| 134 | 000-255 | Tuning 10 thick tone  |
| 135 | 000-255 | Tuning 10 fine-tuning |
| 136 | 000-255 | Red 10 thick tone     |
| 137 | 000-255 | Red 10 fine-tuned     |
| 138 | 000-255 | Green 10 thick tone   |
| 139 | 000-255 | Green 10 fine-tuning  |
| 140 | 000-255 | Blue 10 thick tone    |
| 141 | 000-255 | Blue 10 fine-tuned    |
| 142 | 000-255 | White 10 thick tone   |
| 143 | 000-255 | White 10 fine-tuned   |
| 144 | 000-255 | Y11 coarse tone       |
| 145 | 000-255 | Y11 fine-tuning       |
| 146 | 000-255 | Amplification 11      |
| 147 | 000-255 | Tuning 11 thick tone  |
| 148 | 000-255 | Tuning 11 fine-tuning |
| 149 | 000-255 | Red 11 thick tone     |
| 150 | 000-255 | Red 11 fine-tuning    |
| 151 | 000-255 | Green 11 thick tone   |
| 152 | 000-255 | Green 11 fine-tuning  |
| 153 | 000-255 | Blue 11 thick tone    |
| 154 | 000-255 | Blue 11 fine-tuning   |
| 155 | 000-255 | White 11 thick tone   |
| 156 | 000-255 | White 11 fine-tuning  |
| 157 | 000-255 | Y12 coarse tone       |
| 158 | 000-255 | Y12 fine-tuning       |
| 159 | 000-255 | Amplification 12      |
| 160 | 000-255 | Tuning 12 thick tone  |
| 161 | 000-255 | Tuning 12 fine-tuning |
| 162 | 000-255 | Red 12 thick tone     |
| 163 | 000-255 | Red 12 fine-tuned     |
| 164 | 000-255 | Green 12 thick tone   |
| 165 | 000-255 | Green 12 fine-tuning  |
| 166 | 000-255 | Blue 12 thick tone    |
| 167 | 000-255 | Blue 12 fine-tuned    |
| 168 | 000-255 | White 12 thick tone   |
| 169 | 000-255 | White 12 fine-tuning  |

## 169B CH

| channel | The channel value | basic function            |
|---------|-------------------|---------------------------|
| 1       | 000-255           | Y1 coarse tone            |
| 2       | 000-255           | Y1 fine-tuning            |
| 3       | 000-255           | Amplification 1           |
| 4       | 000-255           | Tuning 1 rough adjustment |
| 5       | 000-255           | Tuning 1 fine-tuning      |
| 6       | 000-255           | Flash 1                   |
| 7       | 000-255           | Red 1 thick tone          |
| 8       | 000-255           | Red 1 fine-tuning         |
| 9       | 000-255           | Green 1 thick tone        |
| 10      | 000-255           | Green 1 fine-tuning       |
| 11      | 000-255           | Blue 1 thick tone         |
| 12      | 000-255           | Blue 1 fine-tuning        |
| 13      | 000-255           | White 1 thick tone        |
| 14      | 000-255           | White 1 fine-tuning       |
| 15      | 000-255           | Y2 coarse tone            |
| 16      | 000-255           | Y2 fine-tuning            |
| 17      | 000-255           | Amplification 2           |
| 18      | 000-255           | Tuning 2 rough adjustment |
| 19      | 000-255           | Tuning 2 fine-tuning      |
| 20      | 000-255           | Flash 2                   |
| 21      | 000-255           | Red 2 thick tone          |
| 22      | 000-255           | Red 2 fine-tuning         |
| 23      | 000-255           | Green 2 thick tone        |
| 24      | 000-255           | Green 2 fine-tuning       |
| 25      | 000-255           | Blue 2 thick tone         |
| 26      | 000-255           | Blue 2 fine-tuning        |
| 27      | 000-255           | White 2 thick tone        |
| 28      | 000-255           | White 2 fine-tuning       |
| 29      | 000-255           | Y3 coarse tone            |
| 30      | 000-255           | Y3 fine-tuning            |
| 31      | 000-255           | Amplification 3           |
| 32      | 000-255           | Tuning 3 thick tone       |
| 33      | 000-255           | Tuning 3 fine-tuning      |
| 34      | 000-255           | Flash 3                   |
| 35      | 000-255           | Red 3 thick tone          |
| 36      | 000-255           | Red 3 fine-tuning         |
| 37      | 000-255           | Green 3 thick tone        |

|    |         |                      |
|----|---------|----------------------|
| 38 | 000-255 | Green 3 fine-tuning  |
| 39 | 000-255 | Blue 3 thick tone    |
| 40 | 000-255 | Blue 3 fine-tuning   |
| 41 | 000-255 | White 3 thick tone   |
| 42 | 000-255 | White 3 fine-tuning  |
| 43 | 000-255 | Y4 thick tone        |
| 44 | 000-255 | Y4 fine-tuning       |
| 45 | 000-255 | Amplification 4      |
| 46 | 000-255 | Tuning 4 thick tone  |
| 47 | 000-255 | Tuning 4 fine-tuning |
| 48 | 000-255 | Flash 4              |
| 49 | 000-255 | Red 4 thick tone     |
| 50 | 000-255 | Red 4 fine-tuning    |
| 51 | 000-255 | Green 4 thick tone   |
| 52 | 000-255 | Green 4 fine-tuning  |
| 53 | 000-255 | Blue 4 thick tone    |
| 54 | 000-255 | Blue 4 fine-tuning   |
| 55 | 000-255 | White 4 thick tone   |
| 56 | 000-255 | White 4 fine-tuning  |
| 57 | 000-255 | Y5 thick tone        |
| 58 | 000-255 | Y5 fine-tuning       |
| 59 | 000-255 | Amplification 5      |
| 60 | 000-255 | Tuning 5 thick tone  |
| 61 | 000-255 | Tuning 5 fine-tuning |
| 62 | 000-255 | Flash 5              |
| 63 | 000-255 | Red 5 thick tone     |
| 64 | 000-255 | Red 5 fine-tuning    |
| 65 | 000-255 | Green 5 thick tone   |
| 66 | 000-255 | Green 5 fine-tuning  |
| 67 | 000-255 | Blue 5 thick tone    |
| 68 | 000-255 | Blue 5 fine-tuning   |
| 69 | 000-255 | White 5 thick tone   |
| 70 | 000-255 | White 5 fine-tuning  |
| 71 | 000-255 | Y6 thick tone        |
| 72 | 000-255 | Y6 fine-tuning       |
| 73 | 000-255 | Amplification 6      |
| 74 | 000-255 | Dim 6 thick tone     |
| 75 | 000-255 | Tuning 6 fine-tuning |
| 76 | 000-255 | Flash 6              |
| 77 | 000-255 | Red 6 thick tone     |
| 78 | 000-255 | Red 6 fine-tuned     |
| 79 | 000-255 | Green 6 thick tone   |
| 80 | 000-255 | Green 6 fine-tuning  |
| 81 | 000-255 | Blue 6 thick tone    |

|     |         |                      |
|-----|---------|----------------------|
| 82  | 000-255 | Blue 6 fine-tuning   |
| 83  | 000-255 | White 6 thick tone   |
| 84  | 000-255 | White 6 fine-tuning  |
| 85  | 000-255 | Y7 thick tone        |
| 86  | 000-255 | Y7 fine-tuning       |
| 87  | 000-255 | Amplification 7      |
| 88  | 000-255 | Tuning 7 thick tone  |
| 89  | 000-255 | Tuning 7 fine-tuning |
| 90  | 000-255 | Flash 7              |
| 91  | 000-255 | Red 7 thick tone     |
| 92  | 000-255 | Red 7 fine-tuning    |
| 93  | 000-255 | Green 7 thick tone   |
| 94  | 000-255 | Green 7 fine-tuning  |
| 95  | 000-255 | Blue 7 thick tone    |
| 96  | 000-255 | Blue 7 fine-tuning   |
| 97  | 000-255 | White 7 thick tone   |
| 98  | 000-255 | White 7 fine-tuning  |
| 99  | 000-255 | Y8 thick tone        |
| 100 | 000-255 | Y8 fine-tuning       |
| 101 | 000-255 | Amplification 8      |
| 102 | 000-255 | Dim 8 thick tone     |
| 103 | 000-255 | Tuning 8 fine-tuning |
| 104 | 000-255 | Flash 8              |
| 105 | 000-255 | Red 8 thick tone     |
| 106 | 000-255 | Red 8 fine-tuning    |
| 107 | 000-255 | Green 8 thick tone   |
| 108 | 000-255 | Green 8 fine-tuning  |
| 109 | 000-255 | Blue 8 thick tone    |
| 110 | 000-255 | Blue 8 fine-tuning   |
| 111 | 000-255 | White 8 thick tone   |
| 112 | 000-255 | White 8 fine-tuning  |
| 113 | 000-255 | Y9 thick tone        |
| 114 | 000-255 | Y9 fine-tuning       |
| 115 | 000-255 | Amplification 9      |
| 116 | 000-255 | Tune 9 thick tone    |
| 117 | 000-255 | Tuning 9 fine-tuning |
| 118 | 000-255 | Flash 9              |
| 119 | 000-255 | Red 9 thick tone     |
| 120 | 000-255 | Red 9 fine-tuning    |
| 121 | 000-255 | Green 9 thick tone   |
| 122 | 000-255 | Green 9 fine-tuning  |
| 123 | 000-255 | Blue 9 thick tone    |
| 124 | 000-255 | Blue 9 fine-tuning   |
| 125 | 000-255 | White 9 thick tone   |

|     |         |                       |
|-----|---------|-----------------------|
| 126 | 000-255 | White 9 fine-tuning   |
| 127 | 000-255 | Y10 thick tone        |
| 128 | 000-255 | Y10 fine-tuning       |
| 129 | 000-255 | Amplification 10      |
| 130 | 000-255 | Tuning 10 thick tone  |
| 131 | 000-255 | Tuning 10 fine-tuning |
| 132 | 000-255 | Flash 10              |
| 133 | 000-255 | Red 10 thick tone     |
| 134 | 000-255 | Red 10 fine-tuned     |
| 135 | 000-255 | Green 10 thick tone   |
| 136 | 000-255 | Green 10 fine-tuning  |
| 137 | 000-255 | Blue 10 thick tone    |
| 138 | 000-255 | Blue 10 fine-tuned    |
| 139 | 000-255 | White 10 thick tone   |
| 140 | 000-255 | White 10 fine-tuned   |
| 141 | 000-255 | Y11 coarse tone       |
| 142 | 000-255 | Y11 fine-tuning       |
| 143 | 000-255 | Amplification 11      |
| 144 | 000-255 | Tuning 11 thick tone  |
| 145 | 000-255 | Tuning 11 fine-tuning |
| 146 | 000-255 | Flash 11              |
| 147 | 000-255 | Red 11 thick tone     |
| 148 | 000-255 | Red 11 fine-tuning    |
| 149 | 000-255 | Green 11 thick tone   |
| 150 | 000-255 | Green 11 fine-tuning  |
| 151 | 000-255 | Blue 11 thick tone    |
| 152 | 000-255 | Blue 11 fine-tuning   |
| 153 | 000-255 | White 11 thick tone   |
| 154 | 000-255 | White 11 fine-tuning  |
| 155 | 000-255 | Y12 coarse tone       |
| 156 | 000-255 | Y12 fine-tuning       |
| 157 | 000-255 | Amplification 12      |
| 158 | 000-255 | Tuning 12 thick tone  |
| 159 | 000-255 | Tuning 12 fine-tuning |
| 160 | 000-255 | Flash 12              |
| 161 | 000-255 | Red 12 thick tone     |
| 162 | 000-255 | Red 12 fine-tuned     |
| 163 | 000-255 | Green 12 thick tone   |
| 164 | 000-255 | Green 12 fine-tuning  |
| 165 | 000-255 | Blue 12 thick tone    |
| 166 | 000-255 | Blue 12 fine-tuned    |
| 167 | 000-255 | White 12 thick tone   |
| 168 | 000-255 | White 12 fine-tuning  |
| 169 | 000-255 | function              |

## 101 CH

| channel | The channel value | basic function                       |
|---------|-------------------|--------------------------------------|
| 1       | 000-255           | Y1 coarse tuning (Y mode direction)  |
| 2       | 000-255           | Y1 fine-tuning                       |
| 3       | 000-255           | Y2 coarse tone (Y of mode amplitude) |
| 4       | 000-255           | Y2 fine-tuning                       |
| 5       | 000-255           | Y3 coarse tone                       |
| 6       | 000-255           | Y3 fine-tuning                       |
| 7       | 000-255           | Y4 thick tone                        |
| 8       | 000-255           | Y4 fine-tuning                       |
| 9       | 000-255           | Y5 thick tone                        |
| 10      | 000-255           | Y5 fine-tuning                       |
| 11      | 000-255           | Y6 thick tone                        |
| 12      | 000-255           | Y6 fine-tuning                       |
| 13      | 000-255           | Y7 thick tone                        |
| 14      | 000-255           | Y7 fine-tuning                       |
| 15      | 000-255           | Y8 thick tone                        |
| 16      | 000-255           | Y8 fine-tuning                       |
| 17      | 000-255           | Y9 thick tone                        |
| 18      | 000-255           | Y9 fine-tuning                       |
| 19      | 000-255           | Y10 thick tone                       |
| 20      | 000-255           | Y10 fine-tuning                      |
| 21      | 000-255           | Y11 coarse tone                      |
| 22      | 000-255           | Y11 fine-tuning                      |
| 23      | 000-255           | Y12 coarse tone                      |
| 24      | 000-255           | Y12 fine-tuning                      |
| 25      | 000-255           | Y speed (Y effect speed)             |
| 26      | 000-255           | Y pattern                            |
| 27      | 000-255           | CTC                                  |
| 28      | 000-255           | Colour macro                         |
| 29      | 000-255           | pattern                              |
| 30      | 000-255           | LED built-in effect                  |
| 31      | 000-255           | LED built-in effect speed            |
| 32      | 000-255           | LED built-in effect drag time        |
| 33      | 000-255           | LED background colour                |
| 34      | 000-255           | LED background tone light thick tone |
| 35      | 000-255           | aiming                               |
| 36      | 000-255           | Strobe flash                         |
| 37      | 000-255           | Amplification 1                      |

|    |         |                  |
|----|---------|------------------|
| 38 | 000-255 | Amplification 2  |
| 39 | 000-255 | Amplification 3  |
| 40 | 000-255 | Amplification 4  |
| 41 | 000-255 | Amplification 5  |
| 42 | 000-255 | Amplification 6  |
| 43 | 000-255 | Amplification 7  |
| 44 | 000-255 | Amplification 8  |
| 45 | 000-255 | Amplification 9  |
| 46 | 000-255 | Amplification 10 |
| 47 | 000-255 | Amplification 11 |
| 48 | 000-255 | Amplification 12 |
| 49 | 000-255 | function         |
| 50 | 000-255 | red              |
| 51 | 000-255 | green            |
| 52 | 000-255 | blue             |
| 53 | 000-255 | white            |
| 54 | 000-255 | Red 1            |
| 55 | 000-255 | Green 1          |
| 56 | 000-255 | Blue 1           |
| 57 | 000-255 | White 1          |
| 58 | 000-255 | Red 2            |
| 59 | 000-255 | Green 2          |
| 60 | 000-255 | Blue 2           |
| 61 | 000-255 | White 2          |
| 62 | 000-255 | Red 3            |
| 63 | 000-255 | Green 3          |
| 64 | 000-255 | Blue 3           |
| 65 | 000-255 | White 3          |
| 66 | 000-255 | Red 4            |
| 67 | 000-255 | Green 4          |
| 68 | 000-255 | Blue 4           |
| 69 | 000-255 | White 4          |
| 70 | 000-255 | Red 5            |
| 71 | 000-255 | Green 5          |
| 72 | 000-255 | Blue 5           |
| 73 | 000-255 | White 5          |
| 74 | 000-255 | Red 6            |
| 75 | 000-255 | Green 6          |
| 76 | 000-255 | Blue 6           |
| 77 | 000-255 | White 6          |
| 78 | 000-255 | Red 7            |
| 79 | 000-255 | Green 7          |
| 80 | 000-255 | Blue 7           |
| 81 | 000-255 | White 7          |

|     |         |          |
|-----|---------|----------|
| 82  | 000-255 | Red 8    |
| 83  | 000-255 | Green 8  |
| 84  | 000-255 | Blue 8   |
| 85  | 000-255 | White 8  |
| 86  | 000-255 | Red 9    |
| 87  | 000-255 | Green 9  |
| 88  | 000-255 | Blue 9   |
| 89  | 000-255 | White 9  |
| 90  | 000-255 | Red 10   |
| 91  | 000-255 | Green 10 |
| 92  | 000-255 | Blue 10  |
| 93  | 000-255 | White 10 |
| 94  | 000-255 | Red 11   |
| 95  | 000-255 | Green 11 |
| 96  | 000-255 | Blue 11  |
| 97  | 000-255 | White 11 |
| 98  | 000-255 | Red 12   |
| 99  | 000-255 | Green 12 |
| 100 | 000-255 | Blue 12  |
| 101 | 000-255 | White 12 |

## 155 CH

| channel | The channel value | basic function                       |
|---------|-------------------|--------------------------------------|
| 1       | 000-255           | Y1 coarse tuning (Y mode direction)  |
| 2       | 000-255           | Y1 fine-tuning                       |
| 3       | 000-255           | Y2 coarse tone (Y of mode amplitude) |
| 4       | 000-255           | Y2 fine-tuning                       |
| 5       | 000-255           | Y3 coarse tone                       |
| 6       | 000-255           | Y3 fine-tuning                       |
| 7       | 000-255           | Y4 thick tone                        |
| 8       | 000-255           | Y4 fine-tuning                       |
| 9       | 000-255           | Y5 thick tone                        |
| 10      | 000-255           | Y5 fine-tuning                       |
| 11      | 000-255           | Y6 thick tone                        |
| 12      | 000-255           | Y6 fine-tuning                       |
| 13      | 000-255           | Y7 thick tone                        |
| 14      | 000-255           | Y7 fine-tuning                       |
| 15      | 000-255           | Y8 thick tone                        |
| 16      | 000-255           | Y8 fine-tuning                       |

|    |         |                                       |
|----|---------|---------------------------------------|
| 17 | 000-255 | Y9 thick tone                         |
| 18 | 000-255 | Y9 fine-tuning                        |
| 19 | 000-255 | Y10 thick tone                        |
| 20 | 000-255 | Y10 fine-tuning                       |
| 21 | 000-255 | Y11 coarse tone                       |
| 22 | 000-255 | Y11 fine-tuning                       |
| 23 | 000-255 | Y12 coarse tone                       |
| 24 | 000-255 | Y12 fine-tuning                       |
| 25 | 000-255 | Y-speed (Y-mode speed)                |
| 26 | 000-255 | Y pattern                             |
| 27 | 000-255 | CTC                                   |
| 28 | 000-255 | Colour macro                          |
| 29 | 000-255 | pattern                               |
| 30 | 000-255 | LED built-in effect                   |
| 31 | 000-255 | LED built-in effect speed             |
| 32 | 000-255 | LED built-in effect drag time         |
| 33 | 000-255 | LED background colour                 |
| 34 | 000-255 | LED background tone light thick tone  |
| 35 | 000-255 | LED background tone light fine-tuning |
| 36 | 000-255 | Tuning thick adjustment               |
| 37 | 000-255 | Tuning fine-tuning                    |
| 38 | 000-255 | Strobe flash                          |
| 39 | 000-255 | Amplification 1                       |
| 40 | 000-255 | Amplification 2                       |
| 41 | 000-255 | Amplification 3                       |
| 42 | 000-255 | Amplification 4                       |
| 43 | 000-255 | Amplification 5                       |
| 44 | 000-255 | Amplification 6                       |
| 45 | 000-255 | Amplification 7                       |
| 46 | 000-255 | Amplification 8                       |
| 47 | 000-255 | Amplification 9                       |
| 48 | 000-255 | Amplification 10                      |
| 49 | 000-255 | Amplification 11                      |
| 50 | 000-255 | Amplification 12                      |
| 51 | 000-255 | function                              |
| 52 | 000-255 | Red thick tone                        |
| 53 | 000-255 | Red fine tuning                       |
| 54 | 000-255 | Green thick tone                      |
| 55 | 000-255 | Green fine-tuning                     |
| 56 | 000-255 | Blue thick tone                       |
| 57 | 000-255 | Blue fine-tuning                      |
| 58 | 000-255 | White thick tone                      |
| 59 | 000-255 | White fine tuning                     |
| 60 | 000-255 | Red 1 thick tone                      |

|     |         |                     |
|-----|---------|---------------------|
| 61  | 000-255 | Red 1 fine-tuning   |
| 62  | 000-255 | Green 1 thick tone  |
| 63  | 000-255 | Green 1 fine-tuning |
| 64  | 000-255 | Blue 1 thick tone   |
| 65  | 000-255 | Blue 1 fine-tuning  |
| 66  | 000-255 | White 1 thick tone  |
| 67  | 000-255 | White 1 fine-tuning |
| 68  | 000-255 | Red 2 thick tone    |
| 69  | 000-255 | Red 2 fine-tuning   |
| 70  | 000-255 | Green 2 thick tone  |
| 71  | 000-255 | Green 2 fine-tuning |
| 72  | 000-255 | Blue 2 thick tone   |
| 73  | 000-255 | Blue 2 fine-tuning  |
| 74  | 000-255 | White 2 thick tone  |
| 75  | 000-255 | White 2 fine-tuning |
| 76  | 000-255 | Red 3 thick tone    |
| 77  | 000-255 | Red 3 fine-tuning   |
| 78  | 000-255 | Green 3 thick tone  |
| 79  | 000-255 | Green 3 fine-tuning |
| 80  | 000-255 | Blue 3 thick tone   |
| 81  | 000-255 | Blue 3 fine-tuning  |
| 82  | 000-255 | White 3 thick tone  |
| 83  | 000-255 | White 3 fine-tuning |
| 84  | 000-255 | Red 4 thick tone    |
| 85  | 000-255 | Red 4 fine-tuning   |
| 86  | 000-255 | Green 4 thick tone  |
| 87  | 000-255 | Green 4 fine-tuning |
| 88  | 000-255 | Blue 4 thick tone   |
| 89  | 000-255 | Blue 4 fine-tuning  |
| 90  | 000-255 | White 4 thick tone  |
| 91  | 000-255 | White 4 fine-tuning |
| 92  | 000-255 | Red 5 thick tone    |
| 93  | 000-255 | Red 5 fine-tuning   |
| 94  | 000-255 | Green 5 thick tone  |
| 95  | 000-255 | Green 5 fine-tuning |
| 96  | 000-255 | Blue 5 thick tone   |
| 97  | 000-255 | Blue 5 fine-tuning  |
| 98  | 000-255 | White 5 thick tone  |
| 99  | 000-255 | White 5 fine-tuning |
| 100 | 000-255 | Red 6 thick tone    |
| 101 | 000-255 | Red 6 fine-tuned    |
| 102 | 000-255 | Green 6 thick tone  |
| 103 | 000-255 | Green 6 fine-tuning |
| 104 | 000-255 | Blue 6 thick tone   |

|     |         |                      |
|-----|---------|----------------------|
| 105 | 000-255 | Blue 6 fine-tuning   |
| 106 | 000-255 | White 6 thick tone   |
| 107 | 000-255 | White 6 fine-tuning  |
| 108 | 000-255 | Red 7 thick tone     |
| 109 | 000-255 | Red 7 fine-tuning    |
| 110 | 000-255 | Green 7 thick tone   |
| 111 | 000-255 | Green 7 fine-tuning  |
| 112 | 000-255 | Blue 7 thick tone    |
| 113 | 000-255 | Blue 7 fine-tuning   |
| 114 | 000-255 | White 7 thick tone   |
| 115 | 000-255 | White 7 fine-tuning  |
| 116 | 000-255 | Red 8 thick tone     |
| 117 | 000-255 | Red 8 fine-tuning    |
| 118 | 000-255 | Green 8 thick tone   |
| 119 | 000-255 | Green 8 fine-tuning  |
| 120 | 000-255 | Blue 8 thick tone    |
| 121 | 000-255 | Blue 8 fine-tuning   |
| 122 | 000-255 | White 8 thick tone   |
| 123 | 000-255 | White 8 fine-tuning  |
| 124 | 000-255 | Red 9 thick tone     |
| 125 | 000-255 | Red 9 fine-tuning    |
| 126 | 000-255 | Green 9 thick tone   |
| 127 | 000-255 | Green 9 fine-tuning  |
| 128 | 000-255 | Blue 9 thick tone    |
| 129 | 000-255 | Blue 9 fine-tuning   |
| 130 | 000-255 | White 9 thick tone   |
| 131 | 000-255 | White 9 fine-tuning  |
| 132 | 000-255 | Red 10 thick tone    |
| 133 | 000-255 | Red 10 fine-tuned    |
| 134 | 000-255 | Green 10 thick tone  |
| 135 | 000-255 | Green 10 fine-tuning |
| 136 | 000-255 | Blue 10 thick tone   |
| 137 | 000-255 | Blue 10 fine-tuned   |
| 138 | 000-255 | White 10 thick tone  |
| 139 | 000-255 | White 10 fine-tuned  |
| 140 | 000-255 | Red 11 thick tone    |
| 141 | 000-255 | Red 11 fine-tuning   |
| 142 | 000-255 | Green 11 thick tone  |
| 143 | 000-255 | Green 11 fine-tuning |
| 144 | 000-255 | Blue 11 thick tone   |
| 145 | 000-255 | Blue 11 fine-tuning  |
| 146 | 000-255 | White 11 thick tone  |
| 147 | 000-255 | White 11 fine-tuning |
| 148 | 000-255 | Red 12 thick tone    |

|     |         |                      |
|-----|---------|----------------------|
| 149 | 000-255 | Red 12 fine-tuned    |
| 150 | 000-255 | Green 12 thick tone  |
| 151 | 000-255 | Green 12 fine-tuning |
| 152 | 000-255 | Blue 12 thick tone   |
| 153 | 000-255 | Blue 12 fine-tuned   |
| 154 | 000-255 | White 12 thick tone  |
| 155 | 000-255 | White 12 fine-tuning |

## 179 CH

| channel | The channel value | basic function                       |
|---------|-------------------|--------------------------------------|
| 1       | 000-255           | Y1 coarse tuning (Y mode direction)  |
| 2       | 000-255           | Y1 fine-tuning                       |
| 3       | 000-255           | Y2 coarse tone (Y of mode amplitude) |
| 4       | 000-255           | Y2 fine-tuning                       |
| 5       | 000-255           | Y3 coarse tone                       |
| 6       | 000-255           | Y3 fine-tuning                       |
| 7       | 000-255           | Y4 thick tone                        |
| 8       | 000-255           | Y4 fine-tuning                       |
| 9       | 000-255           | Y5 thick tone                        |
| 10      | 000-255           | Y5 fine-tuning                       |
| 11      | 000-255           | Y6 thick tone                        |
| 12      | 000-255           | Y6 fine-tuning                       |
| 13      | 000-255           | Y7 thick tone                        |
| 14      | 000-255           | Y7 fine-tuning                       |
| 15      | 000-255           | Y8 thick tone                        |
| 16      | 000-255           | Y8 fine-tuning                       |
| 17      | 000-255           | Y9 thick tone                        |
| 18      | 000-255           | Y9 fine-tuning                       |
| 19      | 000-255           | Y10 thick tone                       |
| 20      | 000-255           | Y10 fine-tuning                      |
| 21      | 000-255           | Y11 coarse tone                      |
| 22      | 000-255           | Y11 fine-tuning                      |
| 23      | 000-255           | Y12 coarse tone                      |
| 24      | 000-255           | Y12 fine-tuning                      |
| 25      | 000-255           | Y-speed (Y-mode speed)               |
| 26      | 000-255           | Y pattern                            |

|    |         |                                       |
|----|---------|---------------------------------------|
| 27 | 000-255 | CTC                                   |
| 28 | 000-255 | Colour macro                          |
| 29 | 000-255 | pattern                               |
| 30 | 000-255 | LED built-in effect                   |
| 31 | 000-255 | LED built-in effect speed             |
| 32 | 000-255 | LED built-in effect drag time         |
| 33 | 000-255 | LED background colour                 |
| 34 | 000-255 | LED background tone light thick tone  |
| 35 | 000-255 | LED background tone light fine-tuning |
| 36 | 000-255 | Tuning thick adjustment               |
| 37 | 000-255 | Tuning fine-tuning                    |
| 38 | 000-255 | Strobe flash                          |
| 39 | 000-255 | Amplification 1                       |
| 40 | 000-255 | Amplification 2                       |
| 41 | 000-255 | Amplification 3                       |
| 42 | 000-255 | Amplification 4                       |
| 43 | 000-255 | Amplification 5                       |
| 44 | 000-255 | Amplification 6                       |
| 45 | 000-255 | Amplification 7                       |
| 46 | 000-255 | Amplification 8                       |
| 47 | 000-255 | Amplification 9                       |
| 48 | 000-255 | Amplification 10                      |
| 49 | 000-255 | Amplification 11                      |
| 50 | 000-255 | Amplification 12                      |
| 51 | 000-255 | function                              |
| 52 | 000-255 | Red thick tone                        |
| 53 | 000-255 | Red fine tuning                       |
| 54 | 000-255 | Green thick tone                      |
| 55 | 000-255 | Green fine-tuning                     |
| 56 | 000-255 | Blue thick tone                       |
| 57 | 000-255 | Blue fine-tuning                      |
| 58 | 000-255 | White thick tone                      |
| 59 | 000-255 | White fine tuning                     |
| 60 | 000-255 | Tuning 1 rough adjustment             |
| 61 | 000-255 | Tuning 1 fine-tuning                  |
| 62 | 000-255 | Red 1 thick tone                      |
| 63 | 000-255 | Red 1 fine-tuning                     |
| 64 | 000-255 | Green 1 thick tone                    |
| 65 | 000-255 | Green 1 fine-tuning                   |
| 66 | 000-255 | Blue 1 thick tone                     |
| 67 | 000-255 | Blue 1 fine-tuning                    |
| 68 | 000-255 | White 1 thick tone                    |
| 69 | 000-255 | White 1 fine-tuning                   |
| 70 | 000-255 | Tuning 2 rough adjustment             |

|     |         |                      |
|-----|---------|----------------------|
| 71  | 000-255 | Tuning 2 fine-tuning |
| 72  | 000-255 | Red 2 thick tone     |
| 73  | 000-255 | Red 2 fine-tuning    |
| 74  | 000-255 | Green 2 thick tone   |
| 75  | 000-255 | Green 2 fine-tuning  |
| 76  | 000-255 | Blue 2 thick tone    |
| 77  | 000-255 | Blue 2 fine-tuning   |
| 78  | 000-255 | White 2 thick tone   |
| 79  | 000-255 | White 2 fine-tuning  |
| 80  | 000-255 | Tuning 3 thick tone  |
| 81  | 000-255 | Tuning 3 fine-tuning |
| 82  | 000-255 | Red 3 thick tone     |
| 83  | 000-255 | Red 3 fine-tuning    |
| 84  | 000-255 | Green 3 thick tone   |
| 85  | 000-255 | Green 3 fine-tuning  |
| 86  | 000-255 | Blue 3 thick tone    |
| 87  | 000-255 | Blue 3 fine-tuning   |
| 88  | 000-255 | White 3 thick tone   |
| 89  | 000-255 | White 3 fine-tuning  |
| 90  | 000-255 | Tuning 4 thick tone  |
| 91  | 000-255 | Tuning 4 fine-tuning |
| 92  | 000-255 | Red 4 thick tone     |
| 93  | 000-255 | Red 4 fine-tuning    |
| 94  | 000-255 | Green 4 thick tone   |
| 95  | 000-255 | Green 4 fine-tuning  |
| 96  | 000-255 | Blue 4 thick tone    |
| 97  | 000-255 | Blue 4 fine-tuning   |
| 98  | 000-255 | White 4 thick tone   |
| 99  | 000-255 | White 4 fine-tuning  |
| 100 | 000-255 | Tuning 5 thick tone  |
| 101 | 000-255 | Tuning 5 fine-tuning |
| 102 | 000-255 | Red 5 thick tone     |
| 103 | 000-255 | Red 5 fine-tuning    |
| 104 | 000-255 | Green 5 thick tone   |
| 105 | 000-255 | Green 5 fine-tuning  |
| 106 | 000-255 | Blue 5 thick tone    |
| 107 | 000-255 | Blue 5 fine-tuning   |
| 108 | 000-255 | White 5 thick tone   |
| 109 | 000-255 | White 5 fine-tuning  |
| 110 | 000-255 | Dim 6 thick tone     |
| 111 | 000-255 | Tuning 6 fine-tuning |
| 112 | 000-255 | Red 6 thick tone     |
| 113 | 000-255 | Red 6 fine-tuned     |
| 114 | 000-255 | Green 6 thick tone   |

|     |         |                       |
|-----|---------|-----------------------|
| 115 | 000-255 | Green 6 fine-tuning   |
| 116 | 000-255 | Blue 6 thick tone     |
| 117 | 000-255 | Blue 6 fine-tuning    |
| 118 | 000-255 | White 6 thick tone    |
| 119 | 000-255 | White 6 fine-tuning   |
| 120 | 000-255 | Tuning 7 thick tone   |
| 121 | 000-255 | Tuning 7 fine-tuning  |
| 122 | 000-255 | Red 7 thick tone      |
| 123 | 000-255 | Red 7 fine-tuning     |
| 124 | 000-255 | Green 7 thick tone    |
| 125 | 000-255 | Green 7 fine-tuning   |
| 126 | 000-255 | Blue 7 thick tone     |
| 127 | 000-255 | Blue 7 fine-tuning    |
| 128 | 000-255 | White 7 thick tone    |
| 129 | 000-255 | White 7 fine-tuning   |
| 130 | 000-255 | Dim 8 thick tone      |
| 131 | 000-255 | Tuning 8 fine-tuning  |
| 132 | 000-255 | Red 8 thick tone      |
| 133 | 000-255 | Red 8 fine-tuning     |
| 134 | 000-255 | Green 8 thick tone    |
| 135 | 000-255 | Green 8 fine-tuning   |
| 136 | 000-255 | Blue 8 thick tone     |
| 137 | 000-255 | Blue 8 fine-tuning    |
| 138 | 000-255 | White 8 thick tone    |
| 139 | 000-255 | White 8 fine-tuning   |
| 140 | 000-255 | Tuning 9 thick tone   |
| 141 | 000-255 | Tuning 9 fine-tuning  |
| 142 | 000-255 | Red 9 thick tone      |
| 143 | 000-255 | Red 9 fine-tuning     |
| 144 | 000-255 | Green 9 thick tone    |
| 145 | 000-255 | Green 9 fine-tuning   |
| 146 | 000-255 | Blue 9 thick tone     |
| 147 | 000-255 | Blue 9 fine-tuning    |
| 148 | 000-255 | White 9 thick tone    |
| 149 | 000-255 | White 9 fine-tuning   |
| 150 | 000-255 | Tuning 10 thick tone  |
| 151 | 000-255 | Tuning 10 fine-tuning |
| 152 | 000-255 | Red 10 thick tone     |
| 153 | 000-255 | Red 10 fine-tuned     |
| 154 | 000-255 | Green 10 thick tone   |
| 155 | 000-255 | Green 10 fine-tuning  |
| 156 | 000-255 | Blue 10 thick tone    |
| 157 | 000-255 | Blue 10 fine-tuned    |
| 158 | 000-255 | White 10 thick tone   |

|     |         |                       |
|-----|---------|-----------------------|
| 159 | 000-255 | White 10 fine-tuned   |
| 160 | 000-255 | Tuning 11 thick tone  |
| 161 | 000-255 | Tuning 11 fine-tuning |
| 162 | 000-255 | Red 11 thick tone     |
| 163 | 000-255 | Red 11 fine-tuning    |
| 164 | 000-255 | Green 11 thick tone   |
| 165 | 000-255 | Green 11 fine-tuning  |
| 166 | 000-255 | Blue 11 thick tone    |
| 167 | 000-255 | Blue 11 fine-tuning   |
| 168 | 000-255 | White 11 thick tone   |
| 169 | 000-255 | White 11 fine-tuning  |
| 170 | 000-255 | Tuning 12 thick tone  |
| 171 | 000-255 | Tuning 12 fine-tuning |
| 172 | 000-255 | Red 12 thick tone     |
| 173 | 000-255 | Red 12 fine-tuned     |
| 174 | 000-255 | Green 12 thick tone   |
| 175 | 000-255 | Green 12 fine-tuning  |
| 176 | 000-255 | Blue 12 thick tone    |
| 177 | 000-255 | Blue 12 fine-tuned    |
| 178 | 000-255 | White 12 thick tone   |
| 179 | 000-255 | White 12 fine-tuning  |

## 299 CH

| channel | The channel value | basic function                       |
|---------|-------------------|--------------------------------------|
| 1       | 000-255           | Y1 coarse tuning (Y mode direction)  |
| 2       | 000-255           | Y1 fine-tuning                       |
| 3       | 000-255           | Y2 coarse tone (Y of mode amplitude) |
| 4       | 000-255           | Y2 fine-tuning                       |
| 5       | 000-255           | Y3 coarse tone                       |
| 6       | 000-255           | Y3 fine-tuning                       |
| 7       | 000-255           | Y4 thick tone                        |
| 8       | 000-255           | Y4 fine-tuning                       |
| 9       | 000-255           | Y5 thick tone                        |
| 10      | 000-255           | Y5 fine-tuning                       |
| 11      | 000-255           | Y6 thick tone                        |
| 12      | 000-255           | Y6 fine-tuning                       |
| 13      | 000-255           | Y7 thick tone                        |

|    |         |                                       |
|----|---------|---------------------------------------|
| 14 | 000-255 | Y7 fine-tuning                        |
| 15 | 000-255 | Y8 thick tone                         |
| 16 | 000-255 | Y8 fine-tuning                        |
| 17 | 000-255 | Y9 thick tone                         |
| 18 | 000-255 | Y9 fine-tuning                        |
| 19 | 000-255 | Y10 thick tone                        |
| 20 | 000-255 | Y10 fine-tuning                       |
| 21 | 000-255 | Y11 coarse tone                       |
| 22 | 000-255 | Y11 fine-tuning                       |
| 23 | 000-255 | Y12 coarse tone                       |
| 24 | 000-255 | Y12 fine-tuning                       |
| 25 | 000-255 | Y-speed (Y-mode speed)                |
| 26 | 000-255 | Y pattern                             |
| 27 | 000-255 | CTC                                   |
| 28 | 000-255 | Color macro                           |
| 29 | 000-255 | pattern                               |
| 30 | 000-255 | LED built-in effect                   |
| 31 | 000-255 | LED built-in effect speed             |
| 32 | 000-255 | LED built-in effect drag time         |
| 33 | 000-255 | LED background colour                 |
| 34 | 000-255 | LED background tone light thick tone  |
| 35 | 000-255 | LED background tone light fine-tuning |
| 36 | 000-255 | Tuning rough adjustment               |
| 37 | 000-255 | Tuning fine-tuning                    |
| 38 | 000-255 | stroboflash                           |
| 39 | 000-255 | Amplification 1                       |
| 40 | 000-255 | Amplification 2                       |
| 41 | 000-255 | Amplification 3                       |
| 42 | 000-255 | Amplification 4                       |
| 43 | 000-255 | Amplification 5                       |
| 44 | 000-255 | Amplification 6                       |
| 45 | 000-255 | Amplification 7                       |
| 46 | 000-255 | Amplification 8                       |
| 47 | 000-255 | Amplification 9                       |
| 48 | 000-255 | Amplification 10                      |
| 49 | 000-255 | Amplification 11                      |
| 50 | 000-255 | Amplification 12                      |
| 51 | 000-255 | function                              |
| 52 | 000-255 | Red thick tone                        |
| 53 | 000-255 | Red fine tuning                       |
| 54 | 000-255 | Green thick tone                      |
| 55 | 000-255 | Green fine-tuning                     |
| 56 | 000-255 | Blue thick tone                       |
| 57 | 000-255 | Blue fine-tuning                      |

|     |         |                           |
|-----|---------|---------------------------|
| 58  | 000-255 | White thick tone          |
| 59  | 000-255 | White fine tuning         |
| 60  | 000-255 | Tuning 1 rough adjustment |
| 61  | 000-255 | Tuning 1 fine-tuning      |
| 62  | 000-255 | Red 1 thick tone          |
| 63  | 000-255 | Red 1 fine-tuning         |
| 64  | 000-255 | Green 1 thick tone        |
| 65  | 000-255 | Green 1 fine-tuning       |
| 66  | 000-255 | Blue 1 thick tone         |
| 67  | 000-255 | Blue 1 fine-tuning        |
| 68  | 000-255 | White 1 thick tone        |
| 69  | 000-255 | White 1 fine-tuning       |
| 70  | 000-255 | Tuning 2 rough adjustment |
| 71  | 000-255 | Tuning 2 fine-tuning      |
| 72  | 000-255 | Red 2 thick tone          |
| 73  | 000-255 | Red 2 fine-tuning         |
| 74  | 000-255 | Green 2 thick tone        |
| 75  | 000-255 | Green 2 fine-tuning       |
| 76  | 000-255 | Blue 2 thick tone         |
| 77  | 000-255 | Blue 2 fine-tuning        |
| 78  | 000-255 | White 2 thick tone        |
| 79  | 000-255 | White 2 fine-tuning       |
| 80  | 000-255 | Tuning 3 rough adjustment |
| 81  | 000-255 | Tuning 3 fine-tuning      |
| 82  | 000-255 | Red 3 thick tone          |
| 83  | 000-255 | Red 3 fine-tuning         |
| 84  | 000-255 | Green 3 thick tone        |
| 85  | 000-255 | Green 3 fine-tuning       |
| 86  | 000-255 | Blue 3 thick tone         |
| 87  | 000-255 | Blue 3 fine-tuning        |
| 88  | 000-255 | White 3 thick tone        |
| 89  | 000-255 | White 3 fine-tuning       |
| 90  | 000-255 | Tuning 4 rough adjustment |
| 91  | 000-255 | Tuning 4 fine-tuning      |
| 92  | 000-255 | Red 4 thick tone          |
| 93  | 000-255 | Red 4 fine-tuning         |
| 94  | 000-255 | Green 4 thick tone        |
| 95  | 000-255 | Green 4 fine-tuning       |
| 96  | 000-255 | Blue 4 thick tone         |
| 97  | 000-255 | Blue 4 fine-tuning        |
| 98  | 000-255 | White 4 thick tone        |
| 99  | 000-255 | White 4 fine-tuning       |
| 100 | 000-255 | Tuning 5 rough adjustment |
| 101 | 000-255 | Tuning 5 fine-tuning      |

|     |         |                           |
|-----|---------|---------------------------|
| 102 | 000-255 | Red 5 thick tone          |
| 103 | 000-255 | Red 5 fine-tuning         |
| 104 | 000-255 | Green 5 thick tone        |
| 105 | 000-255 | Green 5 fine-tuning       |
| 106 | 000-255 | Blue 5 thick tone         |
| 107 | 000-255 | Blue 5 fine-tuning        |
| 108 | 000-255 | White 5 thick tone        |
| 109 | 000-255 | White 5 fine-tuning       |
| 110 | 000-255 | Tuning 6 rough adjustment |
| 111 | 000-255 | Tuning 6 fine-tuning      |
| 112 | 000-255 | Red 6 thick tone          |
| 113 | 000-255 | Red 6 fine-tuned          |
| 114 | 000-255 | Green 6 thick tone        |
| 115 | 000-255 | Green 6 fine-tuning       |
| 116 | 000-255 | Blue 6 thick tone         |
| 117 | 000-255 | Blue 6 fine-tuning        |
| 118 | 000-255 | White 6 thick tone        |
| 119 | 000-255 | White 6 fine-tuning       |
| 120 | 000-255 | Tuning 7 rough adjustment |
| 121 | 000-255 | Tuning 7 fine-tuning      |
| 122 | 000-255 | Red 7 thick tone          |
| 123 | 000-255 | Red 7 fine-tuning         |
| 124 | 000-255 | Green 7 thick tone        |
| 125 | 000-255 | Green 7 fine-tuning       |
| 126 | 000-255 | Blue 7 thick tone         |
| 127 | 000-255 | Blue 7 fine-tuning        |
| 128 | 000-255 | White 7 thick tone        |
| 129 | 000-255 | White 7 fine-tuning       |
| 130 | 000-255 | Tuning 8 rough adjustment |
| 131 | 000-255 | Tuning 8 fine-tuning      |
| 132 | 000-255 | Red 8 thick tone          |
| 133 | 000-255 | Red 8 fine-tuning         |
| 134 | 000-255 | Green 8 thick tone        |
| 135 | 000-255 | Green 8 fine-tuning       |
| 136 | 000-255 | Blue 8 thick tone         |
| 137 | 000-255 | Blue 8 fine-tuning        |
| 138 | 000-255 | White 8 thick tone        |
| 139 | 000-255 | White 8 fine-tuning       |
| 140 | 000-255 | Tuning 9 rough adjustment |
| 141 | 000-255 | Tuning 9 fine-tuning      |
| 142 | 000-255 | Red 9 thick tone          |
| 143 | 000-255 | Red 9 fine-tuning         |
| 144 | 000-255 | Green 9 thick tone        |
| 145 | 000-255 | Green 9 fine-tuning       |

|     |         |                            |
|-----|---------|----------------------------|
| 146 | 000-255 | Blue 9 thick tone          |
| 147 | 000-255 | Blue 9 fine-tuning         |
| 148 | 000-255 | White 9 thick tone         |
| 149 | 000-255 | White 9 fine-tuning        |
| 150 | 000-255 | Tuning 10 rough adjustment |
| 151 | 000-255 | Tuning 10 fine-tuning      |
| 152 | 000-255 | Red 10 thick tone          |
| 153 | 000-255 | Red 10 fine-tuned          |
| 154 | 000-255 | Green 10 thick tone        |
| 155 | 000-255 | Green 10 fine-tuning       |
| 156 | 000-255 | Blue 10 thick tone         |
| 157 | 000-255 | Blue 10 fine-tuned         |
| 158 | 000-255 | White 10 thick tone        |
| 159 | 000-255 | White 10 fine-tuned        |
| 160 | 000-255 | Tuning 11 rough adjustment |
| 161 | 000-255 | Tuning 11 fine-tuning      |
| 162 | 000-255 | Red 11 thick tone          |
| 163 | 000-255 | Red 11 fine-tuning         |
| 164 | 000-255 | Green 11 thick tone        |
| 165 | 000-255 | Green 11 fine-tuning       |
| 166 | 000-255 | Blue 11 thick tone         |
| 167 | 000-255 | Blue 11 fine-tuning        |
| 168 | 000-255 | White 11 thick tone        |
| 169 | 000-255 | White 11 fine-tuning       |
| 170 | 000-255 | Tuning 12 rough adjustment |
| 171 | 000-255 | Tuning 12 fine-tuning      |
| 172 | 000-255 | Red 12 thick tone          |
| 173 | 000-255 | Red 12 fine-tuned          |
| 174 | 000-255 | Green 12 thick tone        |
| 175 | 000-255 | Green 12 fine-tuning       |
| 176 | 000-255 | Blue 12 thick tone         |
| 177 | 000-255 | Blue 12 fine-tuned         |
| 178 | 000-255 | White 12 thick tone        |
| 179 | 000-255 | White 12 fine-tuning       |
| 180 | 000-255 | Fill Light Red 1           |
| 181 | 000-255 | Fill Light Green 1         |
| 182 | 000-255 | Fill Light Blue 1          |
| 183 | 000-255 | Fill Light Warm White 1    |
| 184 | 000-255 | Fill Light Cold White 1    |
|     |         | ---                        |
| 295 | 000-255 | Fill Light Red 24          |
| 296 | 000-255 | Fill Light Green 24        |
| 297 | 000-255 | Fill Light Blue 24         |
| 298 | 000-255 | Fill Light Warm White 24   |

## 5.Dimension

