

DMX Address Chart

This chart lists the DMX dipswitch setting for DMX address 1 through 511. Follow the instructions below to configure fixture dipswitches with you desired DMX address.

DMX Address Quick Reference Chart

| DMX DIPSWITCH SET | | DipSwitch Position | | | | | | | | | | | | | | | | | | |
|-------------------|----|--------------------|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0=OFF | | #9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| 1=ON | | #8 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | | |
| X=OFF or ON | | #7 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | | |
| | | #6 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | | |
| #1 | #2 | #3 | #4 | #5 | | | | | | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 32 | 64 | 96 | 128 | 160 | 192 | 224 | 256 | 288 | 320 | 352 | 384 | 416 | 448 | 480 | |
| 1 | 0 | 0 | 0 | 0 | 1 | 33 | 65 | 97 | 129 | 161 | 193 | 225 | 287 | 289 | 321 | 353 | 385 | 417 | 449 | 481 |
| 0 | 1 | 0 | 0 | 0 | 2 | 34 | 66 | 98 | 130 | 162 | 194 | 226 | 288 | 290 | 322 | 354 | 386 | 418 | 450 | 482 |
| 1 | 1 | 0 | 0 | 0 | 3 | 35 | 67 | 99 | 131 | 163 | 195 | 227 | 289 | 291 | 323 | 355 | 387 | 419 | 451 | 483 |
| 0 | 0 | 1 | 0 | 0 | 4 | 36 | 68 | 100 | 132 | 164 | 196 | 228 | 290 | 292 | 324 | 356 | 388 | 420 | 452 | 484 |
| 1 | 0 | 1 | 0 | 0 | 5 | 37 | 69 | 101 | 133 | 165 | 197 | 229 | 291 | 293 | 325 | 357 | 389 | 421 | 453 | 485 |
| 0 | 1 | 1 | 0 | 0 | 6 | 38 | 70 | 102 | 134 | 166 | 198 | 230 | 292 | 294 | 326 | 358 | 390 | 422 | 454 | 486 |
| 1 | 1 | 1 | 0 | 0 | 7 | 39 | 71 | 103 | 135 | 167 | 199 | 231 | 293 | 295 | 327 | 359 | 391 | 423 | 455 | 487 |
| 0 | 0 | 0 | 1 | 0 | 8 | 40 | 72 | 104 | 136 | 168 | 200 | 232 | 294 | 296 | 328 | 360 | 392 | 424 | 456 | 488 |
| 1 | 0 | 0 | 1 | 0 | 9 | 41 | 73 | 105 | 137 | 169 | 201 | 233 | 295 | 297 | 329 | 361 | 393 | 425 | 457 | 489 |
| 0 | 1 | 0 | 1 | 0 | 10 | 42 | 74 | 106 | 138 | 170 | 202 | 234 | 296 | 298 | 330 | 362 | 394 | 426 | 458 | 490 |
| 1 | 1 | 0 | 1 | 0 | 11 | 43 | 75 | 107 | 139 | 171 | 203 | 235 | 297 | 299 | 331 | 363 | 395 | 427 | 459 | 491 |
| 0 | 0 | 1 | 1 | 0 | 12 | 44 | 76 | 108 | 140 | 172 | 204 | 236 | 298 | 300 | 332 | 364 | 396 | 428 | 460 | 492 |
| 1 | 0 | 1 | 1 | 0 | 13 | 45 | 77 | 109 | 141 | 173 | 205 | 237 | 299 | 301 | 333 | 365 | 397 | 429 | 461 | 493 |
| 0 | 1 | 1 | 1 | 0 | 14 | 46 | 78 | 110 | 142 | 174 | 206 | 238 | 300 | 302 | 334 | 366 | 398 | 430 | 462 | 494 |
| 1 | 1 | 1 | 1 | 0 | 15 | 47 | 79 | 111 | 143 | 175 | 207 | 239 | 301 | 303 | 335 | 367 | 399 | 431 | 463 | 495 |
| 0 | 0 | 0 | 0 | 1 | 16 | 48 | 80 | 112 | 144 | 176 | 208 | 240 | 302 | 304 | 336 | 368 | 400 | 432 | 464 | 496 |
| 1 | 0 | 0 | 0 | 1 | 17 | 49 | 81 | 113 | 145 | 177 | 209 | 241 | 303 | 305 | 337 | 369 | 401 | 433 | 465 | 497 |
| 0 | 1 | 0 | 0 | 1 | 18 | 50 | 82 | 114 | 146 | 178 | 210 | 242 | 304 | 306 | 338 | 370 | 402 | 434 | 466 | 498 |
| 1 | 1 | 0 | 0 | 1 | 19 | 51 | 83 | 115 | 147 | 179 | 211 | 243 | 305 | 307 | 339 | 371 | 403 | 435 | 467 | 499 |
| 0 | 0 | 1 | 0 | 1 | 20 | 52 | 84 | 116 | 148 | 180 | 212 | 244 | 306 | 308 | 340 | 372 | 404 | 436 | 468 | 500 |
| 1 | 0 | 1 | 0 | 1 | 21 | 53 | 85 | 117 | 149 | 181 | 213 | 245 | 307 | 309 | 341 | 373 | 405 | 437 | 469 | 501 |
| 0 | 1 | 1 | 0 | 1 | 22 | 54 | 86 | 118 | 150 | 182 | 214 | 246 | 308 | 310 | 342 | 374 | 406 | 438 | 470 | 502 |
| 1 | 1 | 1 | 0 | 1 | 23 | 55 | 87 | 119 | 151 | 183 | 215 | 247 | 309 | 311 | 343 | 375 | 407 | 439 | 471 | 503 |
| 0 | 0 | 0 | 1 | 1 | 24 | 56 | 88 | 120 | 152 | 184 | 216 | 248 | 310 | 312 | 344 | 376 | 408 | 440 | 472 | 504 |
| 1 | 0 | 0 | 1 | 1 | 25 | 57 | 89 | 121 | 153 | 185 | 217 | 249 | 311 | 313 | 345 | 377 | 409 | 441 | 473 | 505 |
| 0 | 1 | 0 | 1 | 1 | 26 | 58 | 90 | 122 | 154 | 186 | 218 | 250 | 312 | 314 | 346 | 378 | 410 | 442 | 474 | 506 |
| 1 | 1 | 0 | 1 | 1 | 27 | 59 | 91 | 123 | 155 | 187 | 219 | 251 | 313 | 315 | 347 | 379 | 411 | 443 | 475 | 507 |
| 0 | 0 | 1 | 1 | 1 | 28 | 60 | 92 | 124 | 156 | 188 | 220 | 252 | 314 | 316 | 348 | 380 | 412 | 444 | 476 | 508 |
| 1 | 0 | 1 | 1 | 1 | 29 | 61 | 93 | 125 | 157 | 189 | 221 | 253 | 315 | 317 | 349 | 381 | 413 | 445 | 477 | 509 |
| 0 | 1 | 1 | 1 | 1 | 30 | 62 | 94 | 126 | 158 | 190 | 222 | 254 | 316 | 318 | 350 | 382 | 414 | 446 | 478 | 510 |
| 1 | 1 | 1 | 1 | 1 | 31 | 63 | 95 | 127 | 159 | 191 | 223 | 255 | 317 | 319 | 351 | 383 | 415 | 447 | 479 | 511 |

DipSwitch Position

DMX Address

LASER SHOW SYSTEM



User Guide

General Instructions

Unpacking:

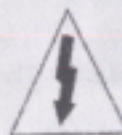
Thank you for purchasing this product. Please read user guide for safety and operations information before using the product. Keep this manual for future reference. This product can create perfect laser programs and effects since it has passed a series of strictly tests before delivery. Please check the attachments listed on the page after opening the carton. In the event of carton damage or attachment missing in transit, please contact your dealer or our after sales service department.

Attachments:

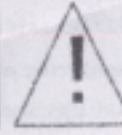
- | | |
|-----------------|------|
| 1. Laser Light: | 1PCS |
| 2. Power Cable: | 1PCS |
| 3. User Guide: | 1PCS |

Notice:

1. Do not exposure the human eye direct to laser beam.
2. Do not turn on and off the unit frequently.
3. Before using this unit make sure the power supply is ground.
4. This unit is intended for indoor use only and should be prevented form water, moisture and shake. The working temperature of this unit is 18~30°C, do not use this continuously over 4 hours, otherwise it shortens the lifetime of the unit.
5. Use cleaning tissue to remove the dust absorbed on the external lenses periodically to optimize light output.
6. Do not remove or break the warranty label, otherwise it void the warranty.
7. Always replace with the exact same type fuse, replacement with anything other than the specified fuse can cause fire or electric shock and damage your unit, and will void your manufactures warranty.



DANGER
LASER RADIATION AVOID EXPOSURE
TO BEAM CLASS 3B LASER PRODUCT



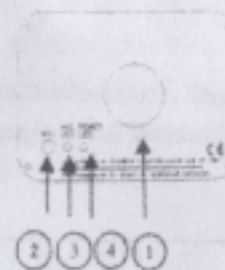
Technical Specification

1. Voltage: AC220V/ 110V, 50HZ/60HZ, Fuse: 2A/250V
2. Rated Power: 20W
3. Laser: 60mW@532nm green DPSS laser, 130mW@650nm red Laser
4. Working Modes: DMX, Sound Active, AUTO, Master-Slave
5. DMX Control Channel: T9160RGY/T9660RGY: 5 channels, T9160RGY: 6 channels
6. Graphics & Effects:
T9160RGY: RGY laser flower with the effects of blooming flower, zoom in/out, the short laser line makes hundreds of beautify flower effects, looks like fireworks in the ceremony.
T9560RGY: Multi-effects pattern RGY laser flower
T9660RGY: Multi-effects pattern RGY laser flower with grating tray
7. Interface: 3 pins XLR jack for DMX or Maser-Slave linking
8. Size: T9160/9560: L*W*H=100*300*200mm T9660RGY: L*W*H=230*170*90mm
9. Weight: T9160RGY: 3.2Kg T9560RGY: 3.8Kg T9660RGY: 3.0Kg

Features

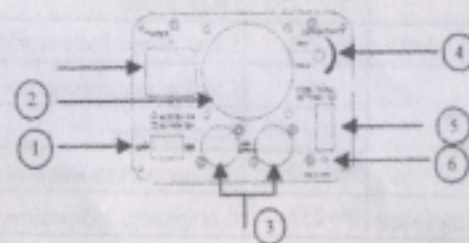
1. Various working modes
Includes four working modes as DMX, Sound Active, AUTO and Master-Slave Control for different applications.
2. DMX control
The unit has 6 channels functions to control system mode, laser beam running direction, running speed, twinkle speed and color setting in DMX mode. The unit has BLACK OUT function. The unit will shut OFF if no DMX512 signal.
3. Master-Slave function
The system allow link many units (as slave unit) together to doing synchro job without console in sound active or AUTO mode.
4. LED indicating and shut-off function
In sound active mode, the unit's panel has LED indication for sound active. The unit will shut off after 8 seconds when the music stops.
5. DPSS Laser
Use Diode-Pumped Solid State green laser, stable output and long working life.

Front/Rear Panel



Front Panel Figure

1. Laser Aperture
2. Sound Active Microphone
3. Power Indicator:Red
4. Sound Active Indicator:Blue. The LED will twinkle when a stimulated sound signal is received form the MIC



Rear Panel Figure

1. Power Jack
2. Cooling Fan
3. DMX or Linking Jack
4. Audio Sensitivity Knob
5. Dipswitches: Function Setting
6. DMX Signal Indicator: Green. The LED will twinkle when DMX or Master-slave linking signal is received

Function & Setting

Sound Active

The change of the laser pattern is controlled by sound, that is, the rhythm of the sound control the effect of the changing laser pattern. Turning the sensitivity knob in the clockwise direction to increase the fixture's sensitivity to sound, the knob in the counter clockwise direction to decrease. The laser diode will automatically turn off after 8 seconds when the music stops.

AUTO

Auto cycles the built-in programs without being controlled externally. It has no laser OFF.

DMX Control

The system only accepts the DMX512 signal of international standard to control the system mode, the laser beam ON/OFF, running direction, running speed and twinkle speed etc.

DMX Control Parameter Chart

| Channel | | Function | Value | Description |
|---------|-------|-------------------|---------|-------------------------------------|
| T9160 | T9560 | | | |
| CH1 | CH1 | Mode | 0~49 | Close, laser OFF |
| | | | 50~99 | Sound active mode |
| | | | 100~149 | AUTO mode |
| | | | 150~255 | DMX mode |
| | CH2 | Pattern selection | 0~255 | Laser flower pattern selection |
| CH2 | CH3 | Running direction | 0~99 | Clockwise direction running |
| | | | 100~199 | Stop running |
| | | | 200~255 | Counter clockwise direction running |
| CH3 | CH4 | Running speed | 0~255 | 0 is speedy, 255 is slow |
| CH4 | CH5 | Twinkle speed | 0~255 | 0 is speedy, 255 is slow |
| CH5 | CH6 | Color Selection | 0~99 | Red+Green (Yellow) |
| | | | 100~199 | Red |
| | | | 200~255 | Green |

When the CH1 is selected in DMX mode (DMX value is 150~255), you can use channel CH2, CH3 and CH4 to control laser beam, otherwise, CH2, CH3 and CH4 are invalid.

Function setting

J=OFF 1=ON X=OFF or ON

| DIPSWITCH CHART | | | | | | | | | | FUNCTION |
|------------------------------|----|----|----|----|----|----|----|----|-----|--------------|
| #1 | #2 | #3 | #4 | #5 | #6 | #7 | #8 | #9 | #10 | |
| X | X | X | X | X | X | X | X | 0 | 1 | SOUND ACTIVE |
| X | X | X | X | X | X | X | X | 1 | 1 | AUTO MODE |
| SET DIPSWITCHES FOR DMX MODE | | | | | | | | | 0 | DMX / SLAVE |

Function Chart

Uses dipswitches to assign a unit's function: DMX/slave, or sound active, or AUTO mode.

For the unit is DMX mode, set the DMX address using dipswitch. Each dipswitch represents a binary value. See the "Function chart".

Dipswitch #10 is use to set master or slave mode. Master modes have sound active and AUTO mode. Slave modes have DMX and Slave mode. The units automatically identify DMX or SLAVE mode by data receives. Dipswitch #9 use to is set sound active or AUTO mode in master mode.

DMX address calculation

For DMX mode, DMX address from #1 to 9# dipswitches must be set, the address is set from 1 to 511. Each dipswitch represents a binary value.

| Dipswitch | Value | Dipswitch | Value |
|-----------|-------|-----------|-----------------|
| #1 | 1 | #6 | 32 |
| #2 | 2 | #7 | 64 |
| #3 | 4 | #8 | 128 |
| #4 | 8 | #9 | 256 |
| #5 | 16 | #10 | DMX. Set to "0" |

One unit has 5 channels, so each unit must be assigns 5 channels at least. We may assign 8 channels for one unit, then DMX address = 8*N + 1, N=0, 1, 2, 3 Example,

One loop address=1, two loop address=9, three loop address=17, four loop address=25

| Loop | Address | Binary | Dipswitches |
|------|---------|----------|-------------|
| 1 | 1 | 10000000 | #1 |
| 2 | 9 | 10010000 | #1+#4 |
| 3 | 17 | 10001000 | #1+#5 |
| 4 | 25 | 10011000 | #1+#4+#5 |

The dipswitches setting for DMX address see the "DMX Address Quick Reference Chart".

Operation

Stand-Alone Operation (Sound Active, AUTO mode)

The mode allows a single unit to react to the beat of the music in the master mode.

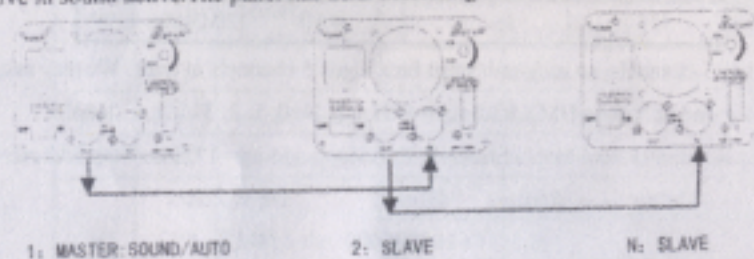
1. Install the units in a suitable position (laying or appending).
2. Set dipswitch to select Sound Active or AUTO mode.
3. Turn on the unit power. The unit begins reset, then the unit begins working.
4. The unit will react to the low frequencies of music via the internal microphone. Adjust

the audio sensitivity knob on the back of the unit to make the unit more or less sensitive in sound active. The panel has LED indicating for sound active.

Master-Slave Operation

This mode will allow you to link up to 32 units together without controller.

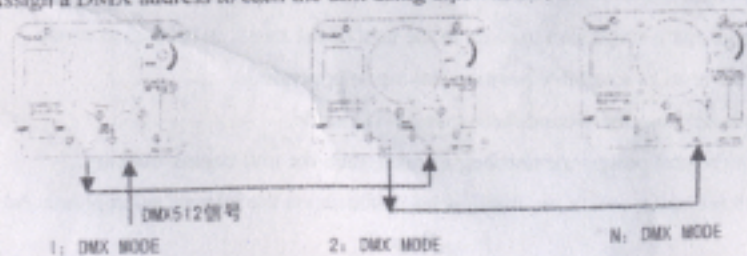
1. Install the units in a suitable position (laying or appending).
2. Choose a unit to function as Master mode, set dipswitch to select Sound Active or AUTO mode. The others must be set to Slave mode, set dipswitch to select Slave mode.
3. Use standard XLR microphone cable chain your units together via the XLR connector on the rear of the units. For longer cable runs we suggest a terminator at the last fixture.
4. Turn on the all units' power, the units begins reset, then the unit begins working. The slave units will react the same as the master unit.
5. The units will react to the low frequencies of music via the internal microphone. Adjust the audio sensitivity knob on the back of the master unit to make the unit more or less sensitive in sound active. The panel has LED indicating for sound active.



Universal DMX Operation (DMX mode)

This mode allows you to use universal DMX-512 console to operate.

1. Install the units in a suitable position (laying or appending).
2. Use standard XLR microphone cable chain your units together via the XLR connector on the rear of the units. For longer cable runs we suggest a terminator at the last fixture.
3. Assign a DMX address to each the unit using dipswitches, see the "DMX Address Quick



Reference Char"

4. Turn on the all units' power, the units begins reset, then the unit begins working.
5. Use DMX console to control your units.

Notes:

1. DMX console can not be used in Master-Slave operation (Sound Active or AUTO mode).
2. There should be only one master unit in Master-Slave operation.

Troubleshooting

1. If the power supply indicator doesn't light up and the laser doesn't work, please check the power supply and the input voltage.
2. In Stand-Alone operation, if the power supply indicator is light up and sound active indicator isn't light up, but the laser is shut off doesn't work.
 - A. Because sound is too small make for laser shut off in sound active, please increase the music volume or increase audio sensitivity with sensitivity knob, please check as below.
 - B. Please check if unit has been set up in slave mode, then set up in master mode.
3. In Master-Slave operation, slave unit don't function, please check as below.
 - A. Make sure to there's only one master in the chain, and the others are set in slave mode.
 - B. Make sure to control the unit without DMX console controlling.
 - C. Make sure to take a good quality power cable and connection.
4. In DMX mode operation, the laser is OFF and the DMX signal indicator is unlighted, please check as below.
 - A. Make sure to set up the DMX mode.
 - B. Make sure to have a good connection.
5. In DMX operation, the unit can't be controlled by the DMX console, but the DMX signal indicator is flashing, please make sure the DMX console and unit have the same channel.
6. If the unit is fail, please turn off the unit, then turn on again after 5 minutes.

After trying the above solution you still have a problem, please contact your dealer or our company for service.