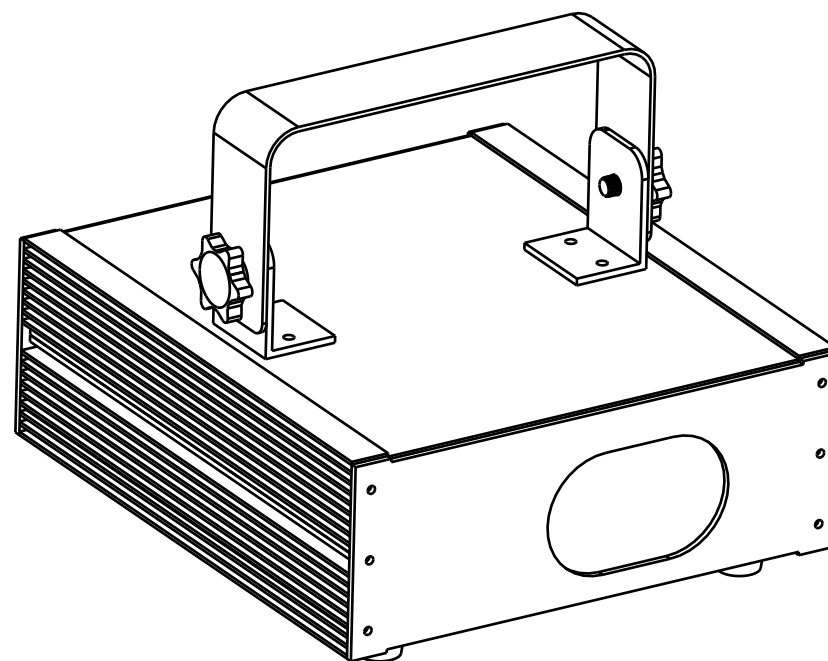


# INVOLIGHT

## User Instructions

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### NGL150RG

## General Instructions

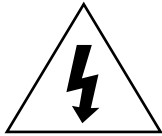
### Unpacking:

Thank you for purchasing the laser product by us. For the sake of better usage with operate this article, please carefully read and understand the instructions in this manual thoroughly before attempting to operate this unit. These instructions contain important safety information regarding the use and maintenance of this unit. Please keep this manual with the unit, for future reference. Every unit has been thoroughly tested and has been shipped in perfect operating condition carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged that may have occurred during shipping. If the carton appears to be damaged, carefully inspect you're your unit for any damage and be sure all equipment necessary to operate the system has arrived intact. In the event that damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Please do not return the unit to your dealer without first contacting customer support.

### Notice:

1. please insure the power supply good connect ground before operating, the in order to prevent gets an electric shock.
2. This system is applicable to only the indoors uses, and insure the watertightness depending the tide, quakeproof, its stable work. Making the environment temperature is 18~30°C, continue work time cannot over 4 hours, otherwise Shorten the service life of the laser machine.
3. The system uses over a long period of time, outing the light lens surface will adsorb the dust, lowering the exportation power of the laser machine, asking adoption to wipe the paper of lens sweeps.
4. Protect to fix the decals cannot tear, otherwise our company will be irresponsible to protect to fix.

5. please contact us when you have any problem,Non-company or authorize the authorize the personnel do not dismantle or change the parts of the system.
6. Please do not discard the shipping carton in the trash.please recycle when ever possible.



**CAUTION**  
LASER RADIATION AVOID EXPOSURE  
TO BEAM CLASS 3B LASER PRODUCT



### Technical Specification

- \* Voltage: AC 220V/50HZ/Fuse(2A) Rated power: 30W
- \* Laser: 532nm/40mW green laser diodes,650nm/60mW red laser diodes
- \* Controlling System: MCU
- \* Scanner system:setp motor
- \* 80 patterns,500 effects
- \* Play Modes: DMX, Sound Active, AUTO
- \* Operating Modes:DMX,Stand Alone(Sound Active, Auto),and Master/Slave(Sound active,Auto),Test Mode
- \* Interface: 3 pins XLR for DMX or Master-Slave linking
- \* SIZE:256X230X86mm
- \* Weight: 3.8Kg

### Caution!

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 shock and damage your unit, and will void your manufactures warranty.

### Fuse Replacement

disconnect the unit's main power supply.use a flat head screw drive to unscrew the fuse holder .when the fuse holder is exposed remove the old fuse and replace it with the same type of fuse.when replacing and checking

### DMX Address Quick Reference Chart

Dip Switch Position					DMX Address															
DMX DIP SWITCH SET 0=OFF 1=ON X=OFF OR ON	#9	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	
	#8	0	0	0	0	1	1	1	1	1	0	0	0	0	1	1	1	1	1	
	#7	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	
	#6	0	1	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	257	289	321	353	385	417	449	481
0	1	0	0	0	2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482
1	1	0	0	0	3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483
0	0	1	0	0	4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484
1	0	1	0	0	5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485
0	1	1	0	0	6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486
1	1	1	0	0	7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487
0	0	0	1	0	8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488
1	0	0	1	0	9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489
0	1	0	1	0	10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490
1	1	0	1	0	11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491
0	0	1	1	0	12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492
1	0	1	1	0	13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493
0	1	1	1	0	14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494
1	1	1	1	0	15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495
0	0	0	0	1	16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496
1	0	0	0	1	17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497
0	1	0	0	1	18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498
1	1	0	0	1	19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499
0	0	1	0	1	20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500
1	0	1	0	1	21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501
0	1	1	0	1	22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502
1	1	1	0	1	23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503
0	0	0	1	1	24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504
1	0	0	1	1	25	57	89	121	153	185	217	249	281	313	345	378	409	441	473	505
0	1	0	1	1	26	58	90	122	154	186	218	250	282	314	346	379	410	442	474	506
1	1	0	1	1	27	59	91	123	155	187	219	251	283	315	347	380	411	443	475	507
0	0	1	1	1	28	60	92	124	156	188	220	252	284	316	348	381	412	444	476	508
1	0	1	1	1	29	61	93	125	157	189	221	253	285	317	349	382	413	445	477	509
0	1	1	1	1	30	62	94	126	158	190	222	254	286	318	350	383	414	446	478	510
1	1	1	1	1	31	63	95	127	159	191	223	255	287	319	351	384	415	447	479	511

Dip Switch Position

DMX Address

**NOTE:**

1. System doesn't use DMX controller in Master-Slave Mode.
2. System may not set to two Master units in Master-Slave Mode.

**Attachments**

1.User Guide	1PCS
2.Handle	1PCS
3.DMX CABLE	1PCS
4.POWER CABLE	1PCS

**Troubleshooting**

1. If the power supply indicator does not light up and the laser does not work, please check if the power supply and the corresponding parts have the right input electric current.
2. If it is in stand-alone mode operation, the power supply indicator is light and the laser is not work, please check if the operation system is set up in Master/Slave mode.
3. If it is in Master/Slave mode, Slave mode is exceptional, please check as below:
  - A. Make sure to set up Master mode for just one unit. And the others are set in slave mode.
  - B. Make sure to control the unit with DMX controller.
  - C. Make sure to take a good quality power cord and connection.
4. If it is in DMX mode, the laser is uncontrolled by the DMX controller 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. If it is in DMX mode, the laser is uncontrolled by the DMX controller but the DMX signal indicator flash, please make sure the DMX controller and the laser have the same channel.
6. If the light direction is not on the way, please restart the power.

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

the fuse, be sure to check that the fuse has the metal ends completely exposed.

**Control & Function**

This unit uses dipswitches to assign a unit's function and DMX address in DMX MODE of function. Each dipswitch represents a binary value.

0=OFF 1=ON X=OFF or ON

DIPSWITCH CHART												FUNCTION
1	2	3	4	5	6	7	8	9	10	11	12	
X	X	X	X	X	X	X	X	X	0	0	0	SOUND ACTIVE
X	X	X	X	X	X	X	X	X	0	0	1	AUTO MODE
X	X	X	X	X	X	X	X	X	0	1	0	MASTER_SOUND
X	X	X	X	X	X	X	X	X	0	1	1	MASTER_AUTO
X	X	X	X	X	X	X	X	X	1	0	0	SLAVE
SET DMX ADDRESS									1	0	1	DMX MODE
X	X	X	X	X	X	X	X	X	1	1	0	TEST MODE

Function chart

Dipswitches #10, #11, and #12 is set system function, from #1 to #9 is set DMX512 address in DMX MODE.

**DMX ADDR Calculate:**

One unit has 8 channels; each unit assign 8 channels at least. We may assign 8 channels for one unit, then  $ADDR = 8 \times N + 1$   $N=0,1,2,3,\dots$

Example:	One loop ADDR=1,	Two loop ADDR=9,
	Three loop ADDR=17,	Four loop ADDR=25,
	LOOP	ADDR
	1	1
	2	9
	3	17
	4	25
		BINARY
		10000000
		10010000
		100010000
		100110000

## DMX control parameter

Channel	Function	Value	Description
CH1	MODE	0~10	CLOSED, LASEER AND SCANNER STOP WORKING
		11~120	DYNAMIC PATTERNS
		121~250	STATIC PATTERNS
		251~255	SOUND ACTIVE
CH2	PATTERN SELECTION	0~255	NUM N STATIC STATE/ DYNAMIC PATTERNS
CH3	POSITION-X	0~255	ADJUST POSITION-X
CH4	POSITION-Y	0~255	ADJUST POSITION-Y
CH5	SCAN SPEED	0~255	0 IS SPEEDY, 255 IS SLOW
CH6	DYNAMIC PATTERNS PLAY SPEED	0~255	0 IS SPEEDY, 255 IS SLOW
CH7	STATIC PATTERNS PATTERN SIZE	0~255	0 IS SMALL, 255 IS BIG
CH8	COLOR	0~100	GREEN + RED
		101~200	GREEN
		201~255	RED

### NOTE:

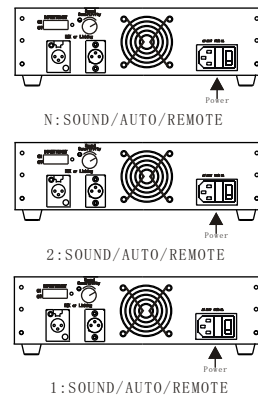
40 dynamic patterns and 40 static patterns, some static patterns can adjust size, All the dynamic patterns can not adjust size.

## Operation

### Stand-Alone Operation (Sound\_Active, Auto Mode):

This mode allows a single unit to run to the beat of the music, or the unit will auto change in Auto Mode.

1. Set dipswitches position to Sound\_Active or Auto Mode.
2. The unit will react to the low frequencies of music via the internal microphone in Sound\_Active mode, or the unit will auto change in Auto Mode.
3. Use the audio sensitivity knob on the back of the unit to make the unit more or less sen-

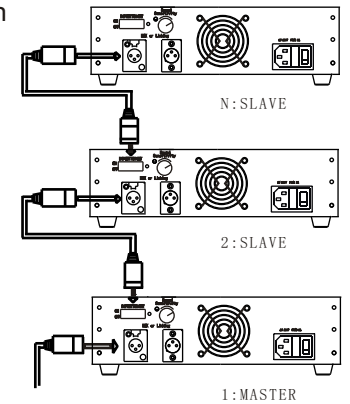


sitive in Sound\_Active.

### Master-Slave Operation (Master\_Sound, Master\_Auto):

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

1. 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.
2. Choose a unit to function as Master mode. Turn dipswitches to the Master Position on the unit. The unit must be first unit in line. Then simply chain the units together using XLR cable.
3. Turn switch to the Slave position on the slave units, and they will react the same as the Master.



### Universal DMX Control (DMX Mode):

This mode allows you to universal DMX-512 controller to control light's operation or effect.

1. To control your fixture in DMX Mode.
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 the unit by following the dipswitch chart.
4. Use DMX controller to control your units.

