Please carefully read and save these instructions before attempting to assemble, maintain, install, or operate this product. Observe all safety information to protect yourself and others. Failure to observe the instructions may result in property damage and/or personal injury. Please keep instructions for future reference.

Important Operating Instructions

12 INCH MITER SAW WITH LASER

Model: 8637

CALIFORNIA PROPOSITION 65

WARNING: You can create dust when you cut, sand, drill or grind materials such as wood, paint, metal, concrete, cement, or other masonry. This dust often contains chemicals known to cause cancer, birth defects, or other reproductive harm. Wear protective gear.

WARNING: This product or its power cord may contain chemicals, including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

CAUTION:

FOR YOUR OWN SAFETY READ INSTRUCTION MANUAL COMPLETELY AND CAREFULLY BEFORE OPERATING THIS MITER SAW.

WARNING!

Read and understand all instructions.
Failure to follow all instructions listed below may result in electrical shock, fire and/or serious personal injury.

SPECIFICATIONS

Motor: 120V/15A
Speed: 4100 RPM
Blade Diameter: 12 inch
Table Tilting Range: L-45˚ R-45˚
Saw Body Tilting Range:0-45˚

SAVE THESE INSTRUCTIONS

SAFETY INFORMATION

Always wear proper safety protection; safety goggles should be worn at all times. Dust mask, non-skid safety shoes, hardhat, or hearing protection should also be worn at appropriate times.

Do not operate in the presence of explosive materials, such as flammable liquids, gases, or dust.

Maintain tools with care. Keep blades sharp and clean. If the blade is broken or deformed, replace immediately.

Be careful not to damage the output spindle, flanges (especially the fitting surfaces) and the bolt. Check whether the saw blade is in good condition.

Use the special flanges provided for this tool only.

Secure the saw to a workbench or table before use to prevent unexpected saw movement.

Make sure that the work area is clear of debris before starting.

Before cutting, make sure that the work piece is free of nails, screws, or other foreign objects.

Make sure that the armature shaft is free from lock by the shaft-locking arm before you turn it on.

Make sure that the saw blade will not touch the rotary table when the saw blade is in its lowest position.

Never operate this tool with one hand. Secure work piece with the vise, never secure the work piece by hand.

Hold the handle firmly.

Never let your hands get close to the cutting line; do not touch the saw blade.

For warranty purchases, please keep your dated proof of purchase. File or attach to the manual for safekeeping.

Give the saw a test run before cutting. If the tool vibrates excessively or makes unusual noises, stop operating the saw immediately and correct the problem.

Before lowering the blade to the work piece, make sure it has reached maximum speed.

If anything appears to be wrong, turn the tool OFF and stop working immediately.

Before performing any maintenance or adjustments, make sure that the power is OFF and the saw blade has stopped completely.

Always remain alert, watch what you are doing, and use common sense when operating a power tool. Do not use when tired, or under the influence of drugs, alcohol, or medication.

Use only recommended accessories specific for the power tool.

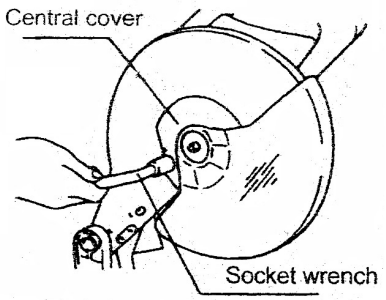
Do not abuse the cord. Never use the cord to carry the tool or pull the plug from an outlet. Keep the cord away from heat, oil, sharp edges, or moving parts. Replace damaged cords immediately.

KEEP THESE INSTRUCTIONS FOR FURTHER REFERENCE

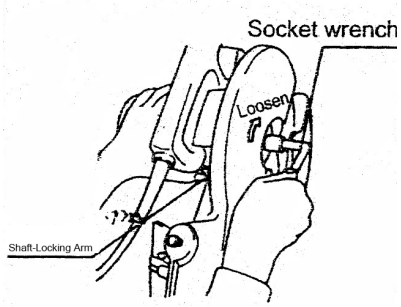
CHANGING THE SAW BLADE

Unplug the saw before performing any maintenance or changing the blade.

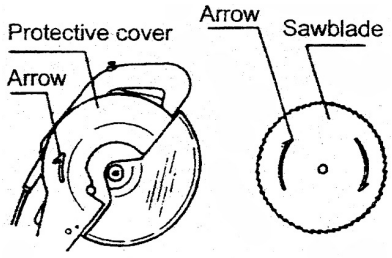
To remove the blade, loosen the bolt in the central cover by turning it counterclockwise, using the socket wrench provided. Then, raise the central cover and move it down from the original position.



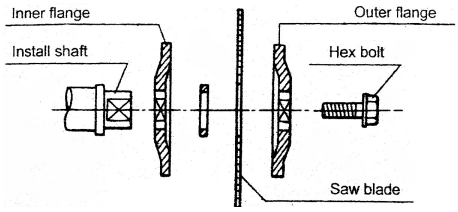
When removing the saw blade, first raise the handle to the highest position, press down the shaft-locking arm to lock the saw blade in place, and loosen the hex bolt by turning clockwise using the socket wrench. Then, remove the hex bolt, outer flange, and saw blade.

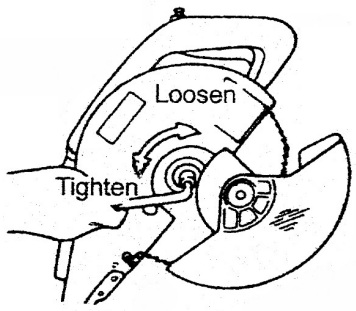


Install the new saw blade. Check that the teeth point in the direction of the arrow (see the protective cover).



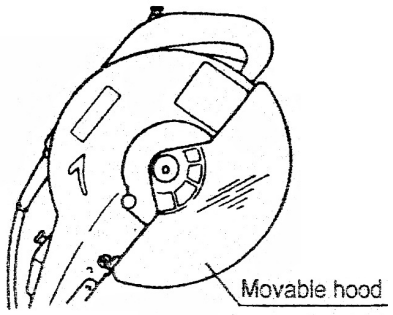
Install the outer flange and the hex bolt, then press down the shaft-locking arm, and tighten the hex bolt firmly by turning it counterclockwise using the socket wrench. Then secure the central cover back in place by adjusting the hex bolt. When removing the saw blade, lift up the movable hood and central cover, loosen the hex bolt with the socket wrench, remove the hex bolt, outer flange, and saw blade.





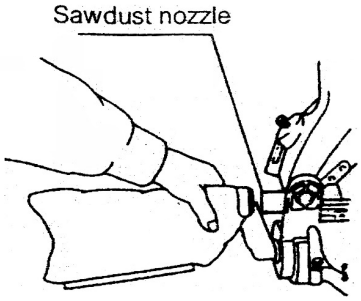
MOVEABLE HOOD

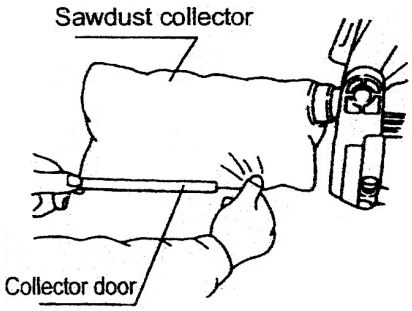
When sawing, the movable hood will be lifted up by the work piece. The movable hood will automatically be reset to its original position when the handle is raised after you finish cutting. Never abandon or remove the movable hood.



SAWDUST COLLECTOR

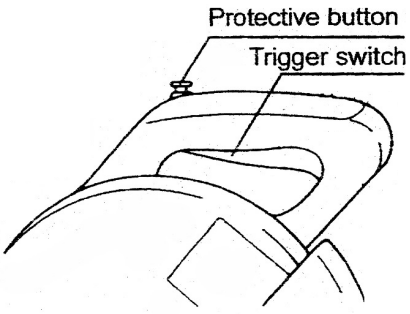
You can operate this machine more conveniently with the sawdust collector. Connect the adapter of the collector to the nozzle of the protective cover, and then fix the collector inlet to the adapter of the collector. When the sawdust collector is half full, take the collector off from the protective cover, open the collector door at the bottom, and clean out the sawdust.





OPERATING THE SWITCH

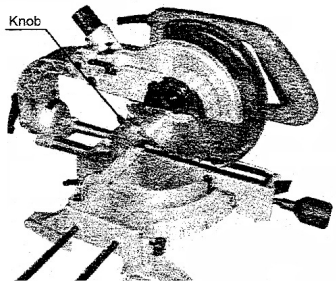
To prevent accidental starting, this tool is equipped with a protective switch. To start the tool, you should first press the protective switch and press down the trigger switch. When you release the trigger switch, the tool is switched off.



OPERATION

1. **Press Cut** (cut small work piece)

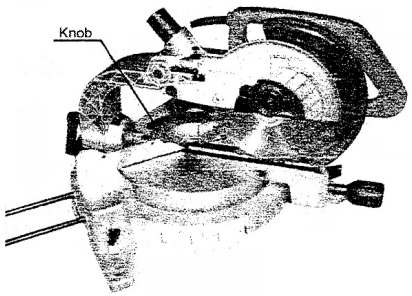
The work piece size within the scope: 4in. (H) x 13in. (W) can be cut in the following way.



Push the carriage to the end towards the cross bar, tighten the knob to fix the carriage. Use the vise to secure the work piece. Switch the machine on, wait until the saw blade reaches its maximum speed, and then press the handle downwards slowly. After you have finished cutting, turn the switch off and wait until the saw blade comes to a complete stop before raising the handle completely.

2. **Slip cut** (cut wide work pieces)

The work piece size within the scope: 4in. (H) x 8 1/2in. (W) can be cut in the following way.

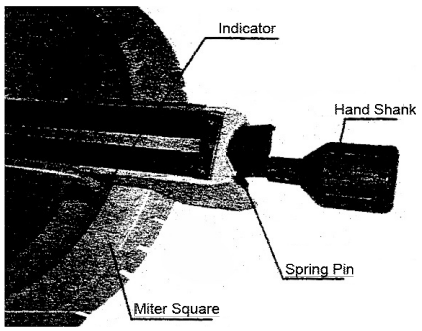


Release the knob in order to slip the carriage freely, completely pull the carriage towards the operator. Switch the machine on and wait until the saw blade reaches its maximum speed, then press the handle and push it to the cross bar in order to cut the work piece. Once you have finished cutting, turn the switch off and wait until the saw blade comes to a full stop, then raise the handle completely.

SET A BEVELED JOINT ANGLE

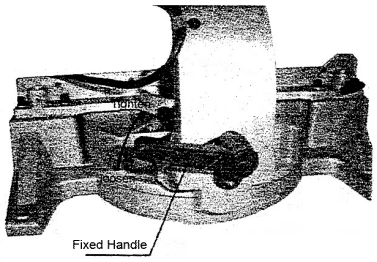
Loosen the hand shank by turning

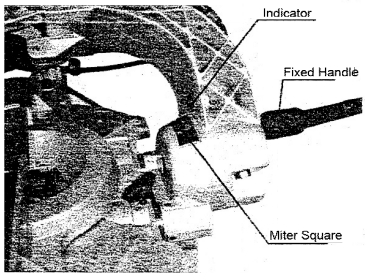
it counterclockwise. Press down the spring pin so that the rotary table is free to turn. When the desired angle on the base scale matches up with the arrow marked on the rotary table, turn the hand shank clockwise to tighten it.



SET A BEVELING ANGLE

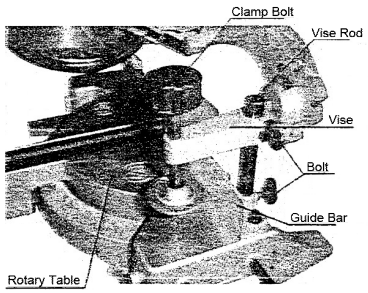
Only when the auxiliary stopper is fixed on the left side (as shown) can the saw blade be beveled to a 45 degree angle. To adjust a beveling angle, loosen the fixed handle, then incline the saw blade to the left until the indicator reaches the desired angle on the miter square. Tighten the fixed handle firmly.





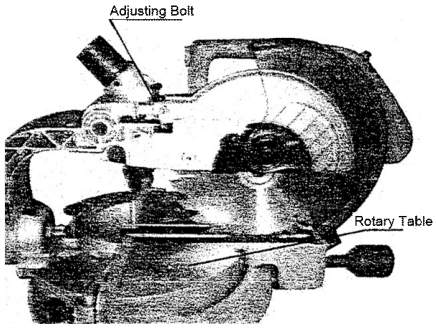
SECURE THE WORK PIECE

The vertical vise can be installed in hole of guide bar or the work piece supporter component (selective purchasing). Install the vise rod in the hole of the guide bar or work piece supporter component, then tighten the bolt. You should adjust the position of the vise arm according to the thickness and shape of the work piece and tighten the vise arm with the bolt. Lean the work piece against the guide bar and the rotary table and place the work piece on the desired cutting position then tighten the clamp bolt to secure the work piece.



KEEP THE MAXIMUM CUTTING CAPACITY

Before any adjusting, unplug the saw from the power source. This machine has been adjusted by the manufacturer to keep the maximum cutting capacity using an 8 inch saw blade. When the diameter of the saw blade becomes smaller because of grinding, please adjust the machine as follows: Lower the carriage to the cross bar, completely put down the handle to the lowest position. Make sure the blade is properly aligned. Unplug the cord and use your hand to spin the blade. The blade should spin smoothly without making contact with any other part of the saw. If there is contact, realign the blade before using the saw. With the socket wrench, turn the adjustable bolt to make the edge of the saw blade fit into place, ensuring that it falls slightly below the rotary table. Make sure that the saw is unplugged, then press the handle to the lowest position to ensure that the blade does not touch the table below. Then, if necessary, adjust the blade.

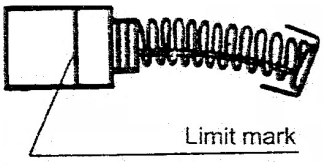


Note: Before installing the new saw blade, make sure it does not contact any part of the table below.

MAXIMUM CUTTING CAPACITY

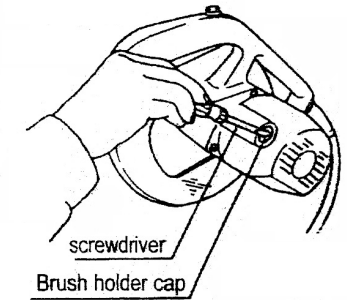
0	0	4 x 12 1/2 inch
0	45°	4 x 10 inch
45°	45°	2 x 8 1/2 inch
45°	0	2 x 12 1/2 inch

REPLACING THE CARBON BRUSHES



Check and remove the carbon brushes regularly. When the brushes wear down to the limit

mark, they should be replaced right away. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time.

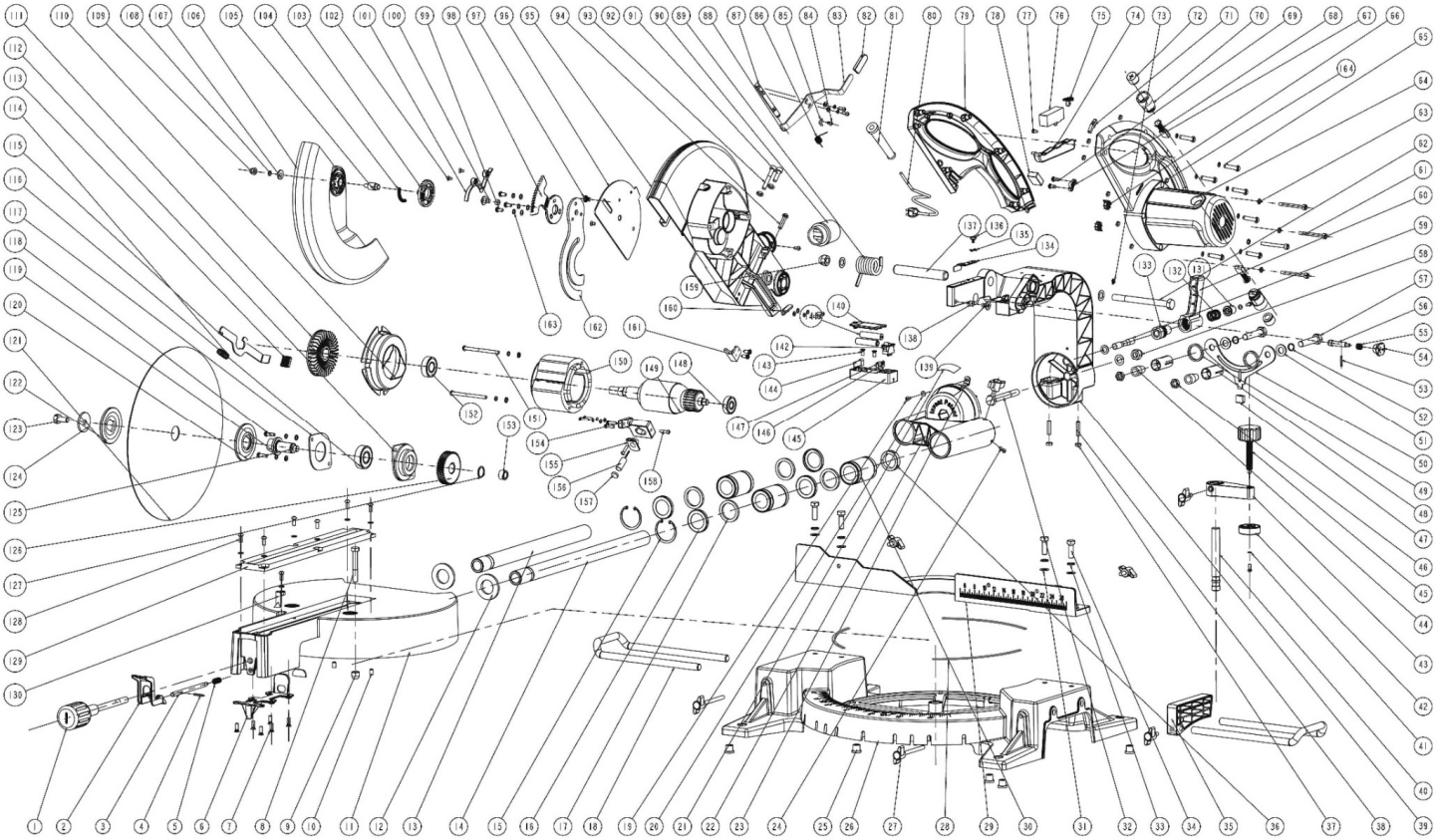


Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.

Limited Manufacturer Warranty

North American Tool Industries (NATI) makes every effort to ensure that this product meets high quality and durability standards. NATI warrants to the original retail consumer a 1-year limited warranty from the date the product was purchased at retail and each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations, or a lack of maintenance. NATI shall in no event be liable for death, injuries to persons or property, or for incidental, special or consequential damages arising from the use of our products. To receive service under warranty, the original manufacturer part must be returned for examination by an authorized service center. Shipping and handling charges may apply. If a defect is found, NATI will either repair or replace the product at its discretion.

Parts List 08637



Call 1-800-348-5004 for assistance or replacement parts

Please provide the following information:

- *Model number*
- *Part description and number as shown in parts list*
- *Serial number (if any)*

Address any correspondence to:

North American Tool Industries
84 Commercial Rd
Huntington, IN 46750

No.	Description	QTY
1	Indexing Handle	1
2	Indexing Spanner	1
3	Indexing Pin	1
4	Pin D3x20	1
5	Indexing Spring	1
6	Indexing Cover Plate	1
7	Sunk Head Screw M5x12	6
8	Hex Bolt M8x55	1
9	Nylon Lock Nut M8	1
10	Lock Screw M6x10	2
11	Worktable	1
12	Big Rubber Ring	2
13	Slide Bar	1
14	Long Slide Bar	2
15	Clip Spring D40	2
16	Dustproof Cover	4
17	Felt Ring	4
18	Shelf	2
19	Cross Screw M4x8	3
20	Washer	6
21	Rocker Graduation	1
22	Bracket	1
23	Rocker Needle	1
24	Cross Screw M4x10	5
25	Bolt	7
26	Rubber Bracket	5
27	Base	1
28	Cushion Plate	3
29	Fence	1
30	Linear Bearing	3

No.	Description	QTY
31	Washer D8	5
32	Hex Bolt M10x85	1
33	Spring Washer D8	4
34	Hex Bolt M8x25	4
35	Plastic Stop Fence	1
36	Braking Ring	1
37	Hex Bolt M6	5
38	Lock Screw M6x25	2
39	Rocker	2
40	Lever of Vise	1
41	Spring Washer D4	5
42	Press Plate	1
43	Vise Jaw	1
44	Heart	2
45	Indexing Handle	1
46	Hex Nut M10	2
47	Bracket of Slide Bar Support	1
48	Ring	2
49	Small Rubber Ring	2
50	Slide Bar Support	1
51	Flat Washer M10	3
52	Spring Washer M10	2
53	Spring Rivet D2.5x18	1
54	Lock Nut	1
55	Spring	1
56	Rivet	1
57	Hex Bolt M10x50	2
58	Nylon Lock Bolt	1
59	Lever of Bolt M8x35	1
60	Lock Handle	1

No.	Description	QTY
61	Hex Bolt M5x50	4
62	Hex Bolt M10x15	1
63	Flat Washer D5	18
64	Motor Enclosure	1
65	Cross Head Screw M4x25	6
66	Sensor	2
67	Cord Plate	1
68	Carbon Brush	2
69	Screw ST4.2x13C	2
70	Holder of Carbon Brush	2
71	Switch Actuating Spanner	1
72	Cover of Holder of Brush	2
73	Spring	1
74	Switch Handle	1
75	Stop Bolt	1
76	Switch	1
77	Screw ST3.5x9C	1
78	Capacitance	1
79	End Cover	1
80	Power Supply Cord	1
81	Cord Guard	1
82	Safety Assembly Button	1
83	Safety Assembly	1
84	Screw M4x6	1
85	Spring Washer	1
86	Spring	1
87	Shaft of Safety Assembly	1
88	Clip D6	1
89	Spring of the Rocker	1
90	Dust Bag Pipe	1

Call 1-800-348-5004 for assistance or replacement parts

Please provide the following information:

- *Model number*
- *Part description and number as shown in parts list*
- *Serial number (if any)*

Address any correspondence to:

North American Tool Industries
84 Commercial Rd
Huntington, IN 46750

No.	Description	QTY
91	Hex Bolt M6x20	1
92	Lock Screw M5x20	1
93	Hex Bolt M6x40	1
94	Screw M6x25	1
95	Safety Guard	1
96	Fixed Plate of Movable Safety Guard	1
97	Screw M6	1
98	Gear	1
99	Hex Bolt M5x10	3
100	Screw	2
101	Cover of Gear	1
102	Screw M4x5	3
103	Gear	1
104	Spring	1
105	Rivet	1
106	Movable Safety Guard	1
107	Washer	1
108	Spring Washer M6	1
109	Cap Nut M6	1
110	Wind Resisting	1
111	Fan	1
112	Gear Holder	1
113	Rotor Clip Spanner	1
114	Spring	1
115	Rotor Clip	1

No.	Description	QTY
116	Bearing ø17xø40x12	1
117	Cover of Bearing	1
118	Screw M5x16	2
119	Shelf	1
120	Inner Flange	1
121	Saw Blade	1
122	Outer Flange	1
123	Screw of Shaft	1
124	Shaft Washer	1
125	C-Type Flat Key	1
126	Bevel Gear	1
127	Spring ø17	1
128	Screw M5x12	7
129	Kerf Board	1
130	Needle	1
131	Push Handle	1
132	Spring	1
133	Lock Nut Assembly	1
134	Stopper Plate	1
135	Wave-Type Washer	1
136	Screw M4	1
137	Column Pipe	1
138	Slide Bar Ring	1
139	Screw	1
140	Cover of Battery Box	1

No.	Description	QTY
141	No. 7 Battery	2
142	Laser Switch	1
143	Screw ST4.2x10	2
144	Touching Part 1	1
145	Battery	1
146	Touching Part 2	1
147	Touching Part 3	1
148	Bearing ø10xø30x9	1
149	Rotor Assembly	1
150	Stator Assembly	1
151	Screw M5x70	2
152	Bearing ø15xø35x11	1
153	Oil Bearing	1
154	Zine Holder of Laser	1
155	Bushing of Laser Head	1
156	Laser Head	1
157	Cover of Laser Head	1
158	Screw M4x16	6
159	Cap NutM10	1
160	Positioning Plate	1
161	Plastic Plate	1
162	Slide Slot of Gear	1
163	Spring Washer D5	7
164	Hex Screw M4	1