

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



# PLUNGE CUT ROUTER

**Model: 7381**

### 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.

### Technical specifications

**Rated power:** 7.8AMP

**Voltage:** 120V

**Frequency:** 60Hz

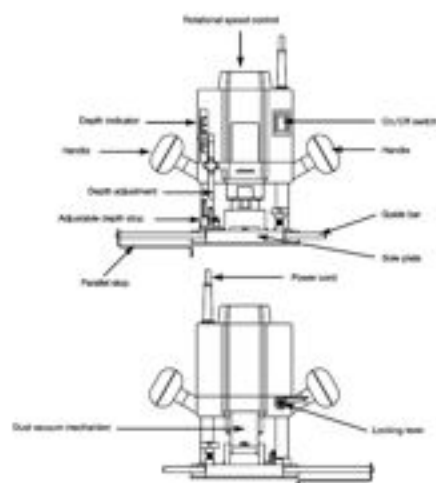
**Variable speed:** 16000-32000rpm

**Dust-sealed switch**

**Chuck:** 1/4" & 5/16"

**Max. working depth:** 2"

### Overview



The wood router may be used to cut wood and wood-like material.

Metal and plastic cannot be processed with this device. In handheld operation, the wood router may be used only with milling cutters that are pointed down. Diagonal and overhead work is not recommended. Please ask your retail specialist when intending to use this router in combination with a router table. Other applications are excluded.

### Safety Information

**Attention!** Please read all safety information! Non-compliance with the following safety information can cause electric shock, fire, and/or serious injuries. The term "power tool", used in all following safety information, includes power tools powered with voltage from a power network (power tools with power cord) or battery-powered power tools (power tools without power cord).

**A)** Retain all safety information and instructions for future use.

**B)** This device is not intended to be used by persons (including children) lacking experience or knowledge unless they are supervised by a person responsible for their safety or have received instructions on the use of the device. Children must be supervised to ensure that they do not play with this device.

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

**C)** Store these operating instructions so that they are available to any user handling this device.

**D)** When lending the device, always also hand over this user manual to ensure safe operation. Instruct inexperienced persons according to this user manual.

### **1. General Safety Information for Power Tools – Work Space Safety**

**A)** Keep your workspace uncluttered and well illuminated. Clutter and work areas that are not illuminated could cause accidents.

**B)** Do not use power tools in potentially explosive surroundings, e.g. if flammable fluids, gases, or dusts are present. Power tools create sparks which could ignite the dust or gases.

**C)** Keep children and other persons away while working with the power tool. You could lose control of the device if distracted.

### **2. General Safety Information for Power Tools - Electrical Safety**

**A)** The power plug of this device must match the power outlet. Do not modify the power plug in any way. Never use an adaptor plug for grounded devices. Unmodified power plugs and matching power outlets decrease the risk of electric shock.

**B)** Avoid physical contact with

grounded surfaces, e.g. pipes, heaters, stoves, and refrigerators. Resting your body on grounded items has the potential to increase the risk of electric shock.

**C)** Keep power tools away from rain or wetness. Water entering into a power tool increases the risk of electric shock.

**D)** Use the cord only for its intended purpose. Never use the cord to carry or hang up the tool. Never pull on the cord to disconnect the power plug from the power outlet. Keep the cord away from heat, oil, sharp edges or moving parts. Damaged or knotted power cords increase the hazard of electric shock.

**E)** When using a power tool outdoors, please be sure to use an extension cord suitable for outdoor use. It decreases the risk of electric shock.

**F)** If operating a power tool in a wet environment cannot be avoided, please use a ground fault circuit interrupter to reduce the risk of electric shock.

### **3. General Safety Information for Power Tools - Personal Safety**

**A)** Please pay attention and watch what you are doing. Use common sense while working with a power tool. Never operate the power tool if you are tired or under the influence of drugs, alcohol or medication. A short moment of distraction while using the tool can lead to severe injuries.

**B)** Wear personal protective gear and always wear safety goggles. Wearing safety gear, e.g. breath mask, non-slip safety shoes, helmet or hearing protection, depending on the type of tool and utilization, will decrease the risk of injuries.

**C)** Ensure that the power tool is switched off prior to connecting it to the power supply and/or the battery or prior to picking it up or carrying it to avoid accidental start up of the tool. Carrying the tool with your finger on the switch or connecting it to the power network while it is switched on could cause injuries.

**D)** Remove keys and tools used for adjusting the power tool before switching the power tool on. A setting tool or key located in a moving part can cause personal injuries.

**E)** Avoid abnormal body position. Ensure a sturdy position and maintain your balance at all times. This will help maintain control of the tool in unexpected situations.

**F)** Wear suitable work clothes. Never wear loose clothing or jewelry. Keep hair, clothing, and gloves away from rotating parts. Loose clothing, jewelry or long hair can be caught up by movable parts and cause injury.

**G)** If the power tool is equipped with a vacuum or dust catcher, please be sure that such accessory is installed and used properly. Using a dust extraction system can reduce the risks caused by dust.

## 4. Handling and Care of the Power Tool

**A)** Do not overload the power tool. Use the recommended power tool for the work to be performed.

**B)** Do not use a power tool with a damaged main power switch. A power tool that cannot be controlled using the main power switch is dangerous and must be repaired.

**C)** Disconnect the power plug from the power outlet and/or remove the battery pack prior to adjusting the settings of the tool, changing accessories or putting the tool away. These safety measures will prevent an accidental startup of the power tool.

**D)** Store power tools that are not in use out of the reach of children. Persons not familiar with the tool or persons that did not read these instructions should not use the tool. Power tools are dangerous if they are operated by inexperienced persons.

**E)** Carefully maintain your power tool. Please check for jammed or faulty parts. Parts that are broken or damaged affect the performance of the tool. Please have damaged parts repaired prior to use. Insufficiently maintained power tools cause many accidents.

**F)** Always keep your milling cutters sharp and clean. Carefully maintained cutting tools with sharp edges do not block as easily and are easier to control.

**g)** Use power tools, accessories, attachments, etc. only according to these

instructions. Consider the work conditions and the work to be performed. The use of power tools for any application other than the one the tool was for could result in hazardous situations.

## 5. General Safety Information for Power Tools – Service

Please have your tool repaired by a qualified professional using original replacement parts. This will ensure the proper level of safety of your power tool.

### This kit includes:

- ◆ 17mm flat wrench
- ◆ Parallel stop with 2 guide bars, to include 2 mounting screws M5 and 2 washers
- ◆ Dust extraction mechanism, to include 2 mounting screws M5 (preinstalled)
- ◆ Template guide
- ◆ Chuck Ø 5/16" (preinstalled)
- ◆ Chuck Ø 1/4"
- ◆ Centering tip with wing nut and bar support
- ◆ Wooden box with 12 cutting bits
- ◆ 2 Handles
- ◆ 1 Set replacement carbon brushes
- ◆ 2 Nuts M5 (to install template guide without dust extraction system)

Safe operation of this tool is possible only if you read the operating instructions as well as all the safety information, and comply with all instructions contained therein. Prior to start-up operation, please be sure that the voltage of your power network complies with the

voltage listed on the data plate and that the device is equipped with the correct power plug.

### WARNING

Installation, rebuilding and maintenance work can be performed only after the tool has been disconnected from the power outlet.

### Inserting the Chucks/Changing tools

The wood router or its tool spindle is constructed for milling cutters with a shaft diameter of max. 8 mm. It is possible to use both Chucks to insert various tools with a shaft diameter of 8 or 6 mm into the spindle. This applies for shaft support. The other, cutting side of the tool (tool head), may have a larger diameter. When changing the chucks, please use the following STEPS:

- 1) Loosen the locking lever and extend the wood router to the maximum point.
- 2) Place the wood router on an even and non-slip surface.
- 3) Select the milling cutter suitable for your specific application as well as the matching chuck.
- 4) Push the locking knob and remove the clamping nut.
- 5) Insert the respective chuck into the spindle and slightly push against the spring toward the spindle. Hold the chuck in this position.
- 6) Use your other hand to retighten the clamping nut on the spindle thread.

7) Now insert the shaft of the milling cutter into the Chuck by at least 20 mm.

8) Push the locking knob and securely tighten the chuck using a flat wrench.

### Note:

The 5/16" chuck is preinstalled in the spindle upon delivery. All enclosed milling cutters have a shaft diameter of 5/16". The clear plastic casing of the dust extraction mechanism may be removed if it obstructs access when changing the chucks or the tool. Please remove both clamping screws located on the bottom of the sole plate. When changing tools with the same shaft diameter, the clamping nut must be loosened only slightly. The tools may then be replaced without completely removing the clamping screw.

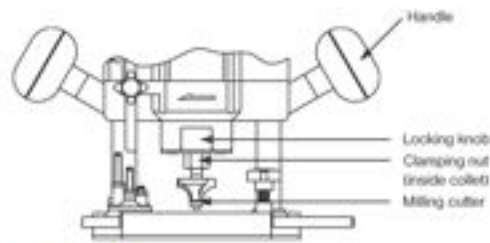
### Handles

Screw both handles into the two threaded holes located on the sides of the wood router (see following diagrams).

### Preparation

#### Inserting the Chucks/changing tools

The wood router or its tool spindle is constructed for milling cutters with a shaft diameter of max. 8 mm. It is possible to use both chucks to insert various tools with a shaft diameter of 8 or 6 mm into the spindle. This applies for shaft support. The other, cutting side of the tool (tool head), may have a larger diameter. When changing the chucks, please proceed as follows:



### WARNING

Milling cutters have sharp edges! Do not injure yourself! Insert only tools that are suitable for the maximum rotational speed of the wood router (please see data plate and technical specifications)!

- ▼ Insert only tools with a 1/4" diameter into the 1/4" chuck!
- ▼ Clean the chuck, clamping nut and tool shaft prior to inserting the tool!
- ▼ Prior to start-up operation, inspect the secure hold and free rotation of the milling cutter.
- ▼ Connecting a vacuum cleaner

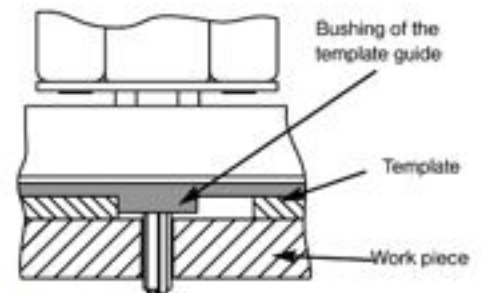
In order to optimize dust extraction from the work piece, it is possible to attach the wood router to a common vacuum or special dust extraction system using the dust extraction mechanism. The exterior diameter of the connection adapter is approx. 39 mm; the interior diameter is approx. 34 mm. Always use a dust extraction system in order to ensure a safe and clean working environment.

### Template guide

The round template guide made of metal serves to guide the router along the contours of a form or text template prepared by you. The bushing of the template guide (exterior

diameter 18 mm) must fit into the template. The contours of the template will be transferred to the work piece while cutting. Install the template guide as follows:

- A) Place the wood router on an even and non-slip surface.
- B) Insert the suitable tool (please be particularly careful of the cutting edge of the tool).
- C) Remove both clamping screws of the dust extraction mechanism located on the bottom of the sole plate.
- D) Apply the template guide with the bushing facing down.
- E) Affix the template guide by tightening both screws together with the dust extraction mechanism (as shown in the diagram).



### Note:

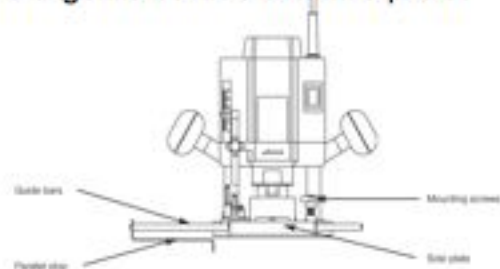
The template guide is designed exclusively for use with templates. It must always be removed during regular milling applications! Use the enclosed nuts M5 to install the template guide without dust extraction mechanism, if such should hinder the application

### WARNING

The diameter of the opening in the template guide (bushing) is 15 mm. Do not insert any tools with a tool head larger than 13 mm when using the template.

## Parallel stop

The parallel stop is used if a groove is to run parallel to the edge of a work piece. Attach the parallel stop to the guide bars. Push the guide bars into the openings on the side of the sole plate and adjust the desired distance between parallel stop and milling cutter. Use mounting screws to lock the guide bars to the sole plate.



## Centering tip

The centering tip is used to cut circular contours. Remove the parallel stop. Clamp the centering tip on a guide bar by tightening the wing nut. Push the guide bar into one of the openings on the side of the sole plate and adjust the desired radius between centering tip and milling cutter. Lock the guide bar to the sole plate using the mounting screws.

## Work instructions

### WARNING

The following basic safety measures must be taken when using this router in order to prevent electric shock, fire, and personal injuries.

- ❖ Use safety goggles. Use a dust mask. Wear hearing protection.

- ❖ Ensure that the work piece is properly secured and cannot be propelled away. Use a clamping device.

- ❖ Do not use milling cutters of a low quality or damaged milling cutters. Use only milling cutters with a shaft diameter of 6 or 8 mm that are suitable for the rotational speed of the wood router.

- ❖ Use only sharp milling cutters.

- ❖ Use only milling cutters that are suitable for treating wood or wood-like material.

- ❖ Ensure that all foreign objects are removed from the work piece in order to prevent damage to the cutting edge of the tool.

- ❖ Let the wood router reach the desired rotational speed before you start cutting. Do not attempt to start up the wood router if the cutting edge contacts the work piece.

- ❖ Avoid cutting with excessive feed rate. Even feed rate reduces risk of accidents and increases the service life of the router.

- ❖ To prevent rattle marks and to achieve optimum cutting results, the work piece should be cut counter-clockwise in case of outer routing and clockwise for inner routing.

- ❖ Use several passes when removing a lot of material or when using a milling cutter with a large diameter.

- ❖ Shut the device down immediately if it generates unusual noise or excessive vibrations.

- ❖ Put the wood router away after use only if the bit has stopped rotating.

- ❖ Disconnect power plug from power outlet prior to

performing work on the device, while taking breaks, and when the device is not in use.

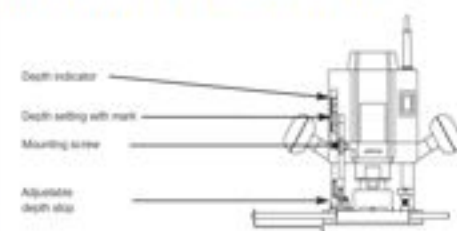
- ❖ Allow the milling cutter to come to a complete stop prior to removing clogged or cut material or the bit.

### WARNING

This wood router may be only used only for handling wood or wood-like material.

## Depth stop

Adjust the cutting depth by loosening the locking lever, push on the handles of the wood router until the desired depth has been reached and retighten the locking lever

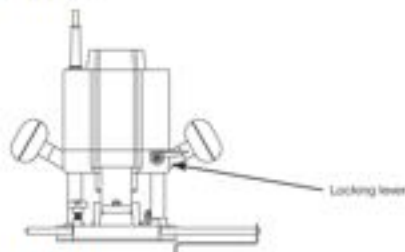


The adjustable depth stop allows you to set three depth stop positions. This will allow you to reuse the precise cutting depth that has been used before. Loosen the locking lever and turn the knob until the desired depth stop has been positioned underneath the stop for the depth adjustment. Ensure that it is locked in this position.

### Note:

The three depth settings of the adjustable depth stop must be readjusted each time the tool is changed,

since each tool is of a different length and will be inserted differently.



## WARNING

After use, set the wood router to its initial position by loosening the locking lever. The tool bits may not protrude from the sole plate without protection!

## Special Measures, Startup Operation Start-up operation

- A) Inspect the power tool, power cord, plug, and accessories for damage.
- B) Do not operate the device if you notice visible damages.
- C) Ensure that all required cutting or ancillary tools are installed correctly.
- D) Ensure that the device is switched off. Always set the On/Off switch into the "OFF" position, when starting the device.
- E) Prior to start-up operation, please be sure that the voltage of your power network complies with the voltage listed on the data plate and that the device is equipped with the correct power plug.
- F) Connect the power plug to a properly installed power outlet.

## WARNING

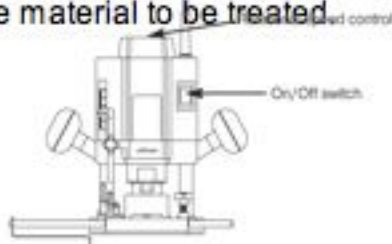
If the power plug or power cord is damaged, it must be repaired or replaced to prevent injury.

**Switch on:** Push On/Off switch. The wood router will be switched on for as long as the On/Off switch is pressed. The On/Off switch has no locking mechanism.

**Switch off:** Release On/Off switch.

## Adjusting the rotational speed

The desired rotational speed can be adjusted between 16,000 and 32,000 rpm<sup>-1</sup> by changing the position of the rotational speed control. The suitable rotational speed depends on the diameter of the milling cutter and the material to be treated.



## Maintenance: cleaning

Disconnect the power plug prior to performing any work on the tool. Clean the device using a damp cloth and some liquid soap. Never use cleaning agents or solvents since these could damage the device's plastic parts. Keep ventilation slots free of debris. Keep plunger guides clean and use a light-weight lubricant to lubricate them.

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## **Limited Manufacturer Warranty**

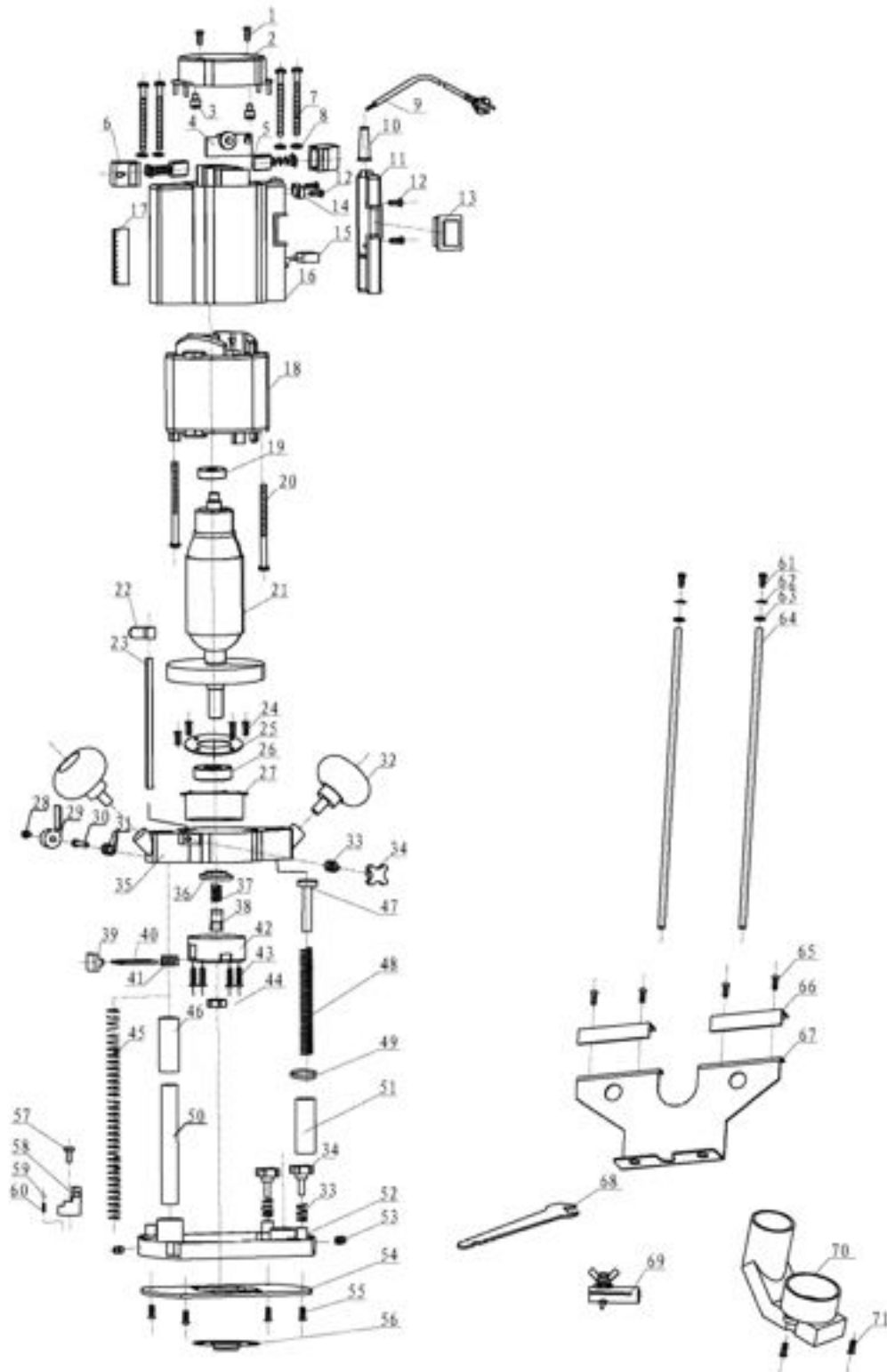
*North American Tool (NAT) Industries makes every effort to ensure that this product meets high quality and durability standards. NAT warrants to the original retail consumer a 1-year limited warranty from the date the product was purchased at retail and each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations, or a lack of maintenance. NAT 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, NAT will either repair or replace the product at its discretion.*

## **DO NOT RETURN TO STORE**

For Customer Service:

Email: [feedback@natitools.com](mailto:feedback@natitools.com) or Call 1-800-348-5004

### Parts List





## 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	Quantity
1	ST3.9x14 Screw	2
2	Bear Cover Of Body Housing	1
3	Rubber Cushion	2
4	Variable Speed Complete	1
5	Carbon Brush(Sets)	2
6	Brush Holder(Sets)	2
7	M4x90 Screw	4
8	φ4 Gasket	1
9	Cable	1
10	Protect Sleeve	1
11	Side Cover	1
12	ST3.9x16 Screw	4
13	Switch	1
14	Wire-holding Board	1
15	Capacitor	1
16	Body Housing	1
17	Depth Gauge	1
18	Stator	1
19	608 Bearing	1
20	ST3.9x55 Screw	2
21	Armature	1
22	Gauge Nob	1
23	Gauge Pole	1
24	M4x8 Screw	4
25	6003 Bearing Plange	1
26	6003 Bearing	1
27	Wind-stop Ring	1
28	M4x12 Screw	1
29	Lock Tight Handle	1
30	Screw	1
31	Twist Spring	1
32	Handle	2
33	Spring	3
34	Knob	3
35	Head Cover	1
36	Inner Screw Thread Flange	1

NO	Description	Quantity
37	Spring	1
38	Collect	1
39	Auto-lock Button	1
40	Auto-lock	1
41	Spring	1
42	Fixed Cap	1
43	M4x16 Screw	4
44	Collect Nut	1
45	Long Spring	1
46	Guide Sleeve	1
47	Fixed Pole	1
48	Short Spring	1
49	φ16 Ring	1
50	Long Guide Sleeve	1
51	Short Guide Sleeve	1
52	Base	1
53	M4x16 Screw	1
54	Plastic Base	2
55	M5x12 Screw	4
56	Sample Gauge	1
57	Screw	1
58	Depth Adjuster	1
59	Steel Ball	1
60	Spring	1
61	M5x12 Screw	2
62	φ5 Spring Gasket	2
63	φ5 Gasket	2
64	Guide Pole	2
65	M4x6 Screw	4
66	Glide Plastic Board	2
67	Guide Piece	4
68	Wrench	2
69	Clamp	1
70	Dust Collect Cover	1
71	M5x20 Screw	2