241-9902

Altocraft



18V Cordless Drill & Worklight Kit

Operator's Manual

SAVE THIS MANUAL

You will need this manual for safety instructions, operating procedures and warranty. Put it and the original sales receipt in a safe dry place for future reference.

IMPORTANT SAFETY INSTRUCTIONS

WARNING *When using electric tools, machines or equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.*



READ ALL INSTRUCTIONS BEFORE USING THIS TOOL

1. **KEEP THE WORK AREA CLEAN.** Clean areas prevent injuries.
2. **CONSIDER THE WORK AREA ENVIRONMENT.** Don't use power tools in damp, wet, or poorly lit locations. Don't expose your tool to the rain. Keep the work area well lit. Don't use tools in the presence of flammable gases or liquids.
3. **KEEP CHILDREN AWAY.** All children should be kept away from the work area. Don't let them handle machines, tools, or extension cords.
4. **STORE UNUSED EQUIPMENT.** Store equipment in a dry area to inhibit rust. Equipment also should be stored in a high location or locked up to keep out of the reach of children.
5. **DON'T FORCE THE DRILL.** It will do the job better and more safely at the rate for which it was intended.
6. **USE THE RIGHT TOOL.** Don't force a small tool or attachment to do the work of a larger industrial tool. Don't use a tool for a purpose for which it was not intended.
7. **DRESS PROPERLY.** Don't wear loose clothing or jewelry. They can get caught in the moving parts. Protective, non-electrically conductive gloves and non-skid footwear are recommended when working. Wear protective hair covering to contain long hair.
8. **USE EYE PROTECTION.** Use a full face mask if the work you're doing produces metal filings, dust or wood chips. Goggles are acceptable in other situations. Wear a clean dust mask if the work involves creating a lot of fine or coarse dust.
9. **DO NOT TOUCH THE BIT WITH HANDS AFTER DRILLING.** Drill bits can become extremely hot after the job is completed.
10. **SECURE WORK.** Use clamps or a vise to hold the work if possible. It's safer than using your hands and it frees both hands to operate the tool.
11. **DON'T OVERREACH.** Keep proper footing and balance at all times. Do not reach over or across machines which are running.
12. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. For safe performance, keep handles dry, clean and free from oil and grease.
13. **REMOVE ADJUSTING KEYS AND WRENCHES.** Although your cordless drill has a convenient keyless chuck, make it a habit to check that keys and adjusting wrenches are removed from any rotating tool before using.
14. **AVOID UNINTENTIONAL STARTING.** Don't carry the tool with a finger on the switch. Be sure the direction switch is in the NEUTRAL position when not in use or when changing bits.
15. **STAY ALERT.** Watch what you are doing & use common sense. Don't operate any tool when you are tired.
16. **CHECK FOR DAMAGED PARTS.** Before using the drill, any part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for the alignment of moving parts, binding of moving parts, breakage of parts, mountings, and other conditions that may affect its operation. Check the bits to make sure they are sharp and not chipped. Inspect screws and tighten any ones that are loose. Any part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in the instruction manual. Have defective switches replaced by an authorized service center. Don't use the tool if the switch does not turn on and off properly.
17. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces: pipes, radiators, ranges, and refrigerator enclosures. When drilling into walls, floors, or wherever "live" electrical wires may be encountered, try to ascertain whether there is a danger of shock. Even so, DO NOT TOUCH THE CHUCK OR ANY FRONT METAL PARTS OF THE DRILL. Hold the tool only by the plastic handle or the side grip to prevent electric shock in case you hit a live wire.
18. **REPLACEMENT PARTS.** When servicing, use only identical replacement parts.

PRECAUTIONS FOR BATTERY and CHARGER

CHARGE BATTERY AT LEAST 6 HOURS before initial use.

1. **CHARGE AT ROOM TEMPERATURE.** The temperature must be higher than 32°F and lower than 122°F.
2. **DO NOT CHARGE IF THE CHARGER'S CORD OR PLUG IS DAMAGED.** Charging with a damaged cord may result in a fire or electrical shock. If the charger is damaged in any way, have it repaired by a qualified serviceman.
3. **DO NOT CAUSE A SHORT IN THE BATTERY TERMIANLS.** Take care that metal such as paper clips, nails, the sides of a metal tool box do not cause a short in your battery. *Extremely* high temperatures and fire can result.
4. **DO NOT INCINERATE THE BATTERY**

This product has been carefully engineered and manufactured to give you dependable operation. Please read this manual thoroughly before operating your new product, as it contains the information you need to become familiar with its features and obtain the performance that will bring you continued use for many years.

WARNING! *The warnings, cautions, and instructions detailed in this manual cannot cover all possible conditions and situations that occur.*
USE COMMON SENSE AND CAUTION WHEN OPERATING THE TOOL.

SPECIFICATIONS

- Cordless Drill
- Cordless Spotlight with swivel head
- 1 battery
- 3 to 5 hour charger
- 2 double-ended screwdriver bits (stored in the clips on the drill handle), each with 1/4" slot and #2 Phillips tips

- Voltage: 18 volts DC
- No load speed: 0 - 600 RPM
- Reversible With Electric Brake
- Chuck: 3/8" Keyless
- Spotlight bulb: 10 watt with a spare bulb stored inside the head
- Charger: 3 to 5 Hour CUL & UL-Approved
- Battery: 18V Ni-Cd rechargeable
- Torque: 20 Clutch Settings (plus drill setting)

FUNCTION DESCRIPTION

Worklight
1. Swivel Head
2. Switch Trigger
3. Handle

Coreless Drill
1. 3/8” Keyless Chuck
2. Trigger Switch
3. Battery Pack
4. Battery Release Button
5. Screw Bit
6. Direction Lever(Forward /Stop /Reverse)
7. Torque Adjustment





OPERATING PROCEDURES

VARIABLE SPEED

You can vary the spindle rotation speed by modulating the finger pressure on the trigger. Light finger pressure causes the drill speed to be slow; heavier pressure will produce a higher drill speed.

ROTATION DIRECTION

Your drill is equipped with a 3-position forward/reverse switch through the housing above the trigger.

1. When the knob is pushed toward the right, the rotation is reversed (counter-clockwise).
2. When pushed in from the right to the left side, the rotation is forward (clockwise).
3. When in center position, it is locked in neutral and the trigger is blocked. Do not push the rotation direction knob until the chuck stops turning.

TORQUE REGULATOR

This is a 20 position dial situated just before the chuck.

- When the indicator reads 1, the torque is at a minimum before the clutch disengages the chuck from the drive.
- When the indicator is just past 19, the output is at maximum before it is disengaged. This is useful in driving screws into different types of material.
- More torque sets a screw deeper into material, less torque will prevent it from stripping. Larger screws require more torque than smaller screws. A little trial and error will show you which is the optimum setting for the situation.

- Release the trigger when a clicking sound indicates the chuck will not turn further.
- For drilling, always use the drill setting, indicated by the pictogram of a drill bit. At this setting, the drive will not disengage from the chuck.

KEYLESS CHUCK

- Center the rotation direction knob to prevent the motor from accidentally starting.
- Note there are two rings on the chuck. Turn the endmost knurled ring of the chuck clockwise by hand while, holding the second ring with the other hand (closer to the rear of the tool) to prevent the motor from turning; this closes the jaws of the chuck. Turning that same endmost knurled ring counter-clockwise opens the jaws.
- Open the jaws to accept the bit and then close the jaws so they clamp the bit tightly.

SPORTLIGHT

- To turn the light on, insert the battery pack and press the trigger switch ON.
- Press it again to turn the lamp OFF.

The entire spotlight head (the black portion of the light) rotates to angle the light from 0 to 60 degrees in a vertical plane.

- To change the spotlight head angle

  1. Hold the spotlight handgrip in one hand with the lens facing away from you.
  2. Grasp the head and bezel (the black portion of the light) with the other hand and twist it clockwise (behind) by 180 degrees.
  3. The lens will now be facing up at about 60 degrees.

- If the lightbulb burns out, a spare lightbulb is included, stored inside the spotlight head.
  1. Hold the head with the lens facing you.
  2. Unscrew the bezel/reflector/lens assembly by turning it counterclockwise.
  3. A spare lamp is located above and slightly to the left, behind the main lamp.
  4. Remove the burned-out light bulb from the spring that holds it and replace it with the spare.
  5. Replace the bezel/reflector/lens assembly by turning it clockwise.

BATTERY PACK and CHARGER

- **Battery must be fully charged for a minimum of 6 hours** before using the drill.
- Batteries will reach full performance after about five charge/discharge cycles.
- Always have the drill rotation switch in neutral/lock position when removing or inserting the battery to avoid unintentional starting.
- To remove the battery pack from the tool, press the lock spring buttons and pull out.
- To insert, simply push the battery pack in until the lock spring clicks.
- The battery charger consists of two parts:
  1. a combined transformer/120 volt plug with a low-voltage lead
  2. a charging stand
- Insert the transformer/plug into a 120V household current receptacle.
- The step of the battery pack has positive and negative terminal markings on it. Align these with the identical markings on the top of the charging stand and insert the battery pack into the base (The pack will not insert properly if reversed).
- The red light is the power indicator. When the charger is connected to the AC household current, the red light is on.
- The green light is the charge indicator. When the battery is properly inserted into the charger and charging, the green light is on.
- Normal charging time is 3 to 5 hours. The charger will charge the battery at the normal rate until the charging is complete. The current will then diminish and continue to provide a small trickle charge. The battery temperature will then cool to normal.
- When charging more than one battery pack in succession, allow 15 minutes between the charges.

OPERATING PROCEDURES

- The battery discharges slowly over time, even when not used, and may require recharging before you use the tool.
- After many charge/discharge cycles, your battery will lose its ability to hold a charge. It should then be replaced.

WARNING! *Never charge the battery until it is cooled down, charging the hot battery may cause the battery to explode.*

WARNING! *Dispose of batteries at an appropriate waste disposal facility. They contain cadmium, so do not throw the batteries away in common trash receptacles. CALL 1-866-915-8626 FOR ADVICE.*

MAINTENANCE

- Keep the tools clean using a soft, damp (not wet) cloth. Do not use solvents on the plastic parts.
- Lubrication is not necessary. After long use, have an authorized service center maintain and lubricate the tool.
- Should the drill chuck require replacement:

1. Remove the battery pack
2. Open the chuck jaws as widely as possible so you can access the chuck retaining screw.
3. Unscrew the chuck retaining screw with a philips screwdriver. Note that this is a left-hand-threaded screw and you must remove it by turning it clockwise.
4. Clamp the shorter arm of a large allen wrench in the chuck, aligning it with the jaws so they grip three of its six flat sides.
5. Place the drill on a flat surface, and support the chuck with a piece of wood about 8mm or 3/8” above the surface.
6. Strike the long arm of the wrench with a hammer so that the chuck turns counter-clockwise and unscrews from the spindle. This may require a fairly sharp blow.
7. Repeat the process in reverse to install a new chuck.

- To maintain the best performance of your rechargeable NiCd battery, prevent it from overheating, both from overcharging and during storage. Occasionally charge the battery for 6 hours. The battery may also benefit from a full discharge from time to time.

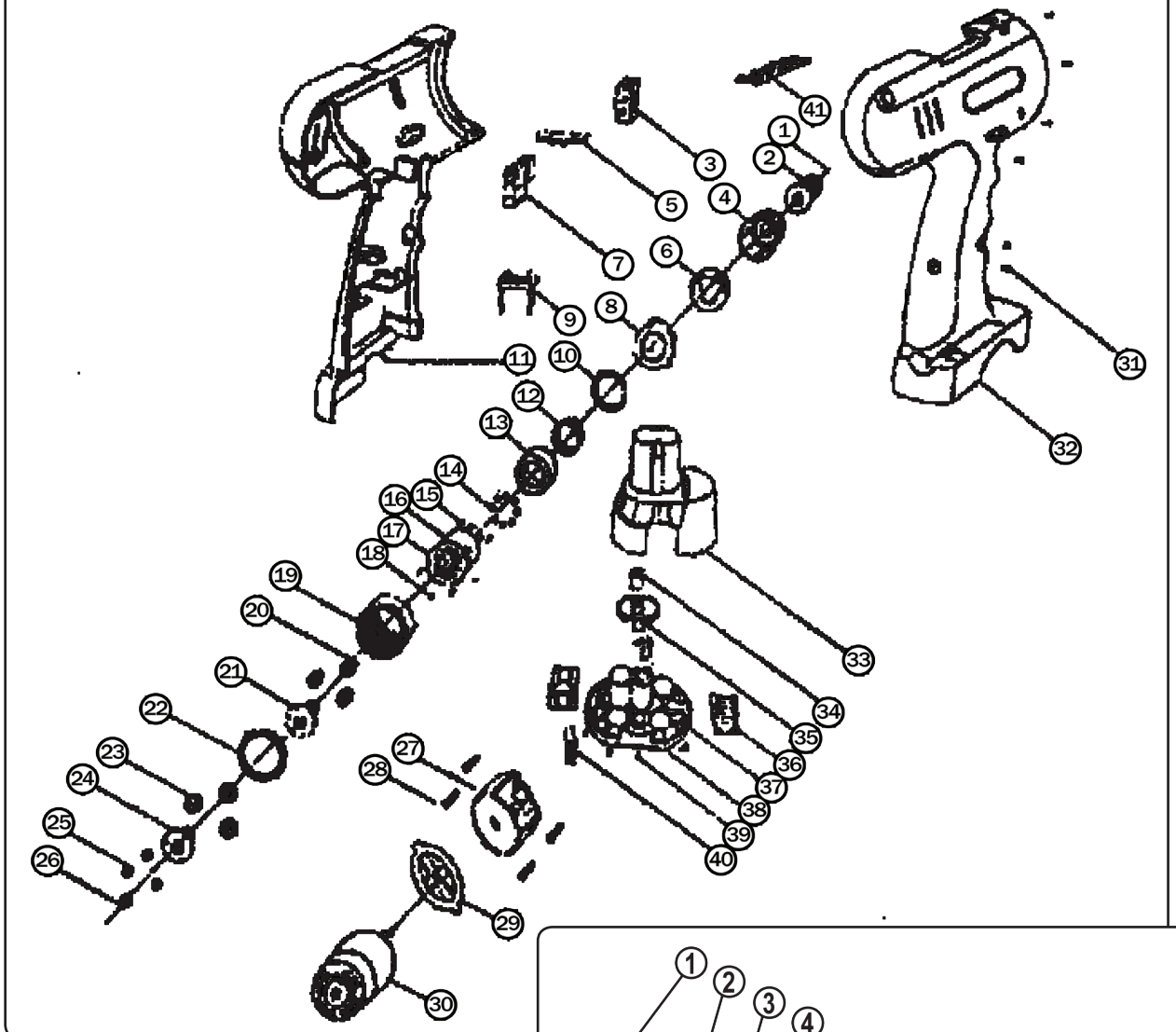
PARTS LIST

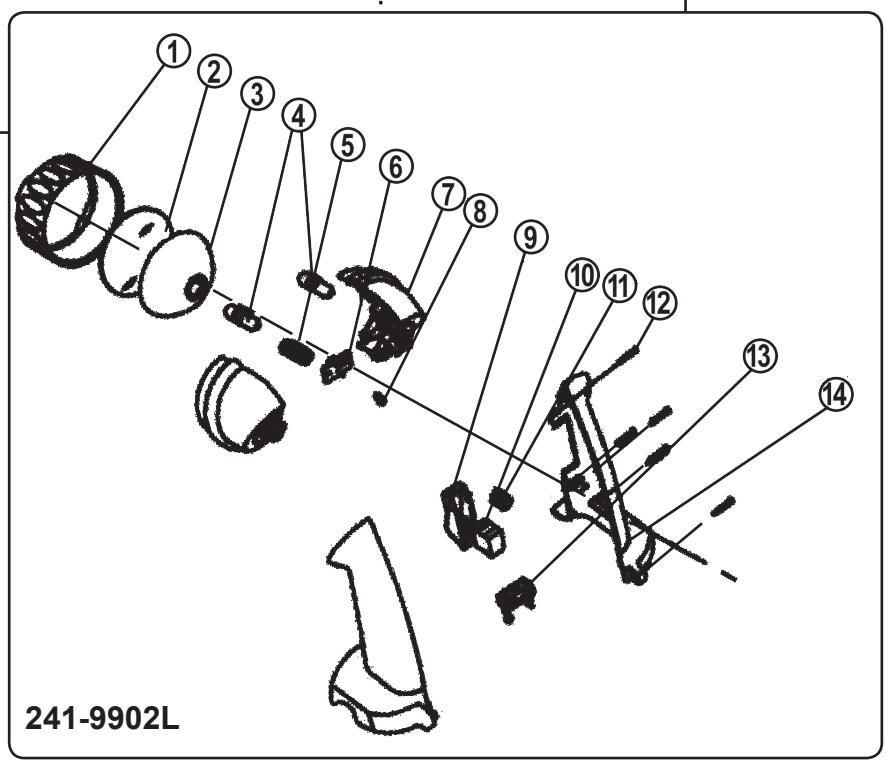
Please refer to the schematic drawing on page 8.

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
241-9902D-1	Chuck retaining screw	241-9902D-28	Screw
241-9902D-2	Chuck	241-9902D-29	Connection clip
241-9902D-3	Heat sink	241-9902D-30	D.C. motor
241-9902D-4	Torque setting ring	241-9902D-31	Screw
241-9902D-5	Forward/reverse button	241-9902D-32	Right case
241-9902D-6	Orientation block (up)	241-9902D-33	Battery pack upper case
241-9902D-7	Trigger switch	241-9902D-34	Contact
241-9902D-8	Orientation block (down)	241-9902D-35	S-type spacer
241-9902D-9	Battery clip	241-9902D-36	Battery release button
241-9902D-10	Spacer	241-9902D-37	Battery
241-9902D-11	Left case	241-9902D-38	Battery pack lower case
241-9902D-12	Spring	241-9902D-39	Screw
241-9902D-13	Bearing ring	241-9902D-40	Elastic clip
241-9902D-14	Bearing	241-9902D-41	Housing top plate
241-9902D-15	Screw	241-9902L-1	Lamp shade
241-9902D-16	Gear box	241-9902L-2	Lens
241-9902D-17	Connection clip	241-9902L-3	Lamp reflector
241-9902D-18	Screw	241-9902L-4	Bulb
241-9902D-19	Inside gear	241-9902L-5	Cathode spring
241-9902D-20	#3 gear center	241-9902L-6	Lamp bracket
241-9902D-21	#3 gear	241-9902L-7	Lamp enclosure
241-9902D-22	Inside gear	241-9902L-8	Anode spring
241-9902D-23	#2 gear center	241-9902L-9	ABS plectrum
241-9902D-24	#2 gear	241-9902L-10	Switch
241-9902D-25	#1 gear center	241-9902L-11	Spring
241-9902D-26	#1 gear	241-9902L-12	Screw
241-9902D-27	Gear box	241-9902L-13	Battery clip

SCHEMATIC DRAWING

241-9902D





241-9902L

WARNING *Repairs should be made by an authorized repair center.Do not open or disassemble this power tool. Contact Sharp-Group Enterperise Co., Ltd at 1-866-915-8626 for questions regarding this power tool.*