



# 32V DC

Electric Screwdrivers

## Operating Instructions

**For use with the following lever start models:**

ESL310-ESD; ESL310S-ESD; ESL311-ESD; ESL312-ESD; ESL323-ESD;  
ESL324-ESD; ESL327-ESD; ESL328-ESD; ESL329-ESD

**For use with the following push start models:**

ESL323P-ESD; ESL324P-ESD; ESL327P-ESD; ESL328P-ESD; ESL329P-ESD



# WARNING

## READ AND UNDERSTAND ALL INSTRUCTIONS

Disconnect the controller power cord from the receptacle before performing any maintenance on this tool. Do not attempt to repair this tool unless you are a qualified technician. When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury. Read all instructions before using the tool. Be sure to save this manual for future reference.

## IMPORTANT SAFETY INSTRUCTIONS

### 1. Work Area

- 1-1 Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
- 1-2 Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
- 1-3 Keep bystanders, and visitors away while operating a power tool. Distractions can cause the operator to lose control.

### 2. Electrical Safety

- 2-1 Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adaptor plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- 2-2 Avoid body contact with grounded parts such as pipes, metal structures or other electrical products. There is an increased risk of electrical shock if your body is grounded.
- 2-3 Don't expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electrical shock.
- 2-4 Don't abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet by the cord. Keep the cord away from heat, oil, sharp edges, and moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.
- 2-5 When operating a power tool outside, use an outdoor extension marked 'W-A' or 'W'. These cords are rated for outdoor use and reduce the risk of electric shock.

### 3. Personal Safety

- 3-1 Stay alert, watch what you are doing, and use common sense when operating a power tool. Do not use tools when tired or under the influence of drugs, alcohol, or medication. A momentary lack of attention while operating a power tool may result in serious personal injury.
- 3-2 Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep hair, clothing, and gloves away from moving parts. Loose clothing, jewelry, or long hair can be caught in moving parts.
- 3-3 Avoid accidental starting. Make sure the trigger switch is off before plugging the tool in. Carrying tools with the trigger held on or plugging in tools with the trigger switch on invites accidents.
- 3-4 Remove adjusting keys or wrenches before turning on the tool. A wrench or key that is left attached to a rotating part of the tool may result in personal injury.
- 3-5 Do not overreach. Keep a proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- 3-6 Use safety equipment. Always wear eye protection. Dust mask, non-slip safety shoes, hardhat, or hearing protection must be used for appropriate conditions.

## 4. Tool Use and Care

- 4-1 Use clamps or other practical means to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.
- 4-2 Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
- 4-3 Do not use the tool if the switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- 4-4 Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool. Such preventative safety measures reduce the risk of starting the tool accidentally.
- 4-5 Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.
- 4-6 Maintain tools with care. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
- 4-7 Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.

## 5. Service

- 5-1 Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
- 5-2 When servicing a tool, use only identical replacement parts. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.
- 5-3 Check for damaged parts. Before further use, any guard or part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage, and any other conditions that may affect the tools' operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by an authorized service center. Do not use tool if switch does not turn it on and off.

## NOTICE

The use of other than genuine Delta Regis Tools, Inc. replacement parts may result in decreased tool performance and increased maintenance, and may invalidate all warranties.

## 6. OPERATING CAUTIONS

- 6-1 When changing a screwdriver bit, make certain that the Forward/Reverse switch is in the 'OFF' position and the tool is unplugged.
- 6-2 Do not allow chemicals such as acetone, benzene, thinner, trichloroethylene ketone, or other similar chemicals to come in contact with the screwdriver housing as damage will result.
- 6-3 Do not drop or abuse the screwdriver.
- 6-4 Do not adjust the torque setting higher than 8 on the torque scale.
- 6-5 This tool is intended for a duty cycle of 0.8 seconds 'ON' and 3.2 seconds 'OFF'.
- 6-6 Do not tighten more than 800 tapping screws per hour (M3 x 5mm).
- 6-7 This screwdriver is not intended to drive wood screws.
- 6-8 Do not operate the Forward/Reverse switch while the motor is running.
- 6-9 Ensure that the controller power switch is off before connecting the screwdriver cable.
- 6-10 When not in use and when changing accessories, make certain that the tool is unplugged.
- 6-11 Whenever a tool is not being used, move the Forward/Reverse switch to the 'OFF' position and unplug the power cord.

## Specifications

Model	Torque			Speed (RPM)*		Weight (gr)	Length (mm)
	in-lb	Nm	kgf-cm	Hi (32V)	Lo (20V)		
ESL310-ESD	0.2 – 3.1	0.02 – 0.34	0.2 – 3.5	1000	600	270	205
ESL310S-ESD	0.2 – 3.1	0.02 – 0.34	0.2 – 3.5	500	350	270	205
ESL311-ESD	0.4 – 6.2	0.05 – 0.69	0.5 – 7	1000	600	270	205
ESL312-ESD	0.9 – 8.8	0.10 – 0.98	1 – 10	670	400	270	205
ESL323-ESD	1.5 – 10.6	0.17 – 1.2	1.7 – 12	1000	600	480	230
ESL324-ESD	3.0 – 14	0.34 – 1.58	3.5 - 16	1000	600	480	230
ESL327-ESD	6 - 21	0.69 - 2.37	6.9 - 24.2	750	450	600	260
ESL328-ESD	7 - 26.4	0.79 - 2.98	8.1 - 30.4	530	300	600	260
ESL329-ESD	14 - 42	1.6 - 4.7	17.3 - 47.9	530	300	700	269

Note:

- Specifications are applicable to push-start versions
- All models are intended for use with one of the following controllers: ECT300; ECT320; ECT345; ECT326\*; ECT326V\*

\* RPM indicated is free speed based on using ECT326/326V Controller

## Operating Instructions

### Getting Started

- Connect the cord to the driver and power supply. Take care to align the key and the pins on the connectors.
- Plug the power supply/controller into the appropriate power outlet.
- Turn on the power supply/controller by pressing the power switch. Select the HI or LO speed via the speed selection switch.

### Installing Driver Bits

- Retract the sleeve on the bit holder.
- Insert the desired ¼" hex power bit.
- Release sleeve.

### Recommended Grip

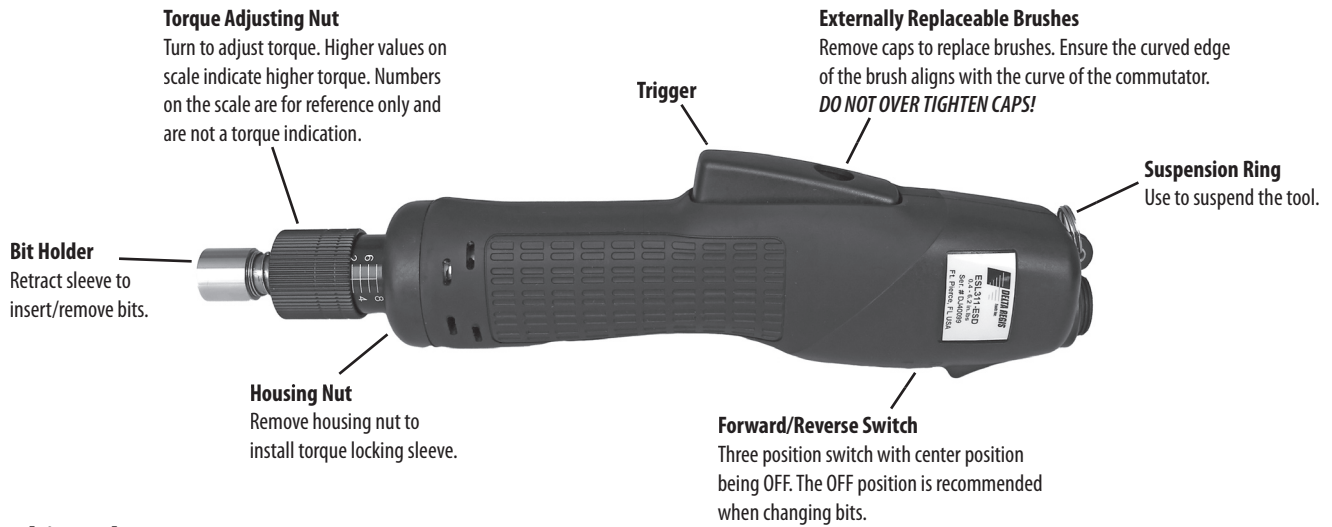
- It is recommended to grip the tool with the forefinger on the trigger. This orientation allows the thumb to control the forward/reverse switch. It also allows more contact between the operator's palm and the tool – this is especially important when operating at higher torques. The housing has been designed to conform to the operator's hand in this position.

### Driving the Fastener

- Squeeze the trigger and hold until the clutch reacts and the tool shuts down.
- If using a push-to-start model, apply adequate downwards force to start the tool and hold until the clutch reacts and the tool shuts down.
- The preset torque will not be reached if the trigger is released before the clutch activates.
- Ensure that enough downwards force is applied to prevent the screwdriver bit from camming out of the fastener.

### Calibrating the Driver

- Torque is set by turning the torque adjusting nut on the nose of the driver.
- Torque is increased as the nut covers increasingly higher numbers on the scale.
- The numbers on the scale are for reference only and are not an indication of actual torque.
- Drivers should be calibrated on a torque tester suited for measuring the torque of power drivers. There should be a rundown device that allows the driver to get up to speed and simulates the application's actual joint characteristics (ie. soft, medium, or hard joint).



## Locking the Torque

- Once the desired torque has been set, you can prevent tampering by securing it with an optional torque locking sleeve.

## Torque Drift

- Based on a new tool the torque output may decline after about one months usage. The decline will become minor and stabilized afterwards. To ensure required torque output, the user should check torque output periodically with a torque meter and adjust as required.

## Protect Your Investment

- You have a sophisticated tool for the installation of your hardware. Protect it by suspending it with a balancer and tool stand.
- Initiate a preventative maintenance plan. Contact our technical support staff for assistance.

## SERVICING

### Maintenance and Inspection

- Screwdrivers should be maintained in top running condition and used no more than 8 hours per day.
- It is recommended that the screwdriver be serviced and carbon brushes be changed every five to six months. Brushes should be replaced when 1/3 of length (2-3 mm depending on model) has worn. Life of the brushes depends on the operating frequency and torque output.
- To avoid motor overheating, do not drive more than 10-15 screws per minute.
- If the screwdriver is used more than 8 hours per day, service should be performed more frequently.

### CAUTION

- Genuine Delta Regis Tools replacement parts must always be used in order not to invalidate warranty.
- All repairs and maintenance of this tool must be performed by an authorized service center.
- Delta Regis Tools, Inc. is not responsible for modifications made to the tool by others.
- Repairs should be made only by authorized, trained personnel. Consult your nearest Delta Regis Tools authorized service center.
- It is the responsibility of the employer to inform all operators of the information in this manual.

**DO NOT ATTEMPT TO REPAIR THIS SCREWDRIVER**  
TO BE REPAIRED BY QUALIFIED, TRAINED PERSONNEL ONLY.

**CAUTION - SAVE THESE INSTRUCTIONS**  
**DO NOT DESTROY**