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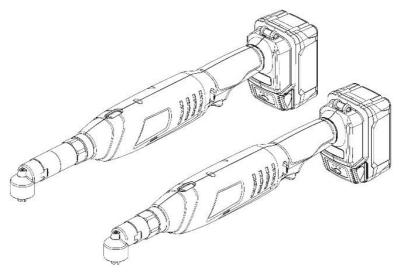
2100PTA-45 2100PTA-90 WIRELESS ANGLED POWER TOOL

PRODUCT INFORMATION MANUAL

THIS MANUAL CONTAINS IMPORTANT INFORMATION REGARDING SAFETY, OPERATION, MAINTENANCE AND STORAGE OF THIS PRODUCT.



DO NOT ATTEMPT TO OPERATE THE TOOL UNTIL YOU HAVE READ AND UNDERSTOOD ALL INSTRUCTIONS AND SAFETY RULES CONTAINED IN THIS MANUAL. FAILURE TO COMPLY MAY RESULT IN ACCIDENTS INVOLVING FIRE, ELECTRIC SHOCK, OR SERIOUS PERSONAL INJURY. SAVE THIS OWNER'S MANUAL FOR FUTURE REFERENCE AND REVIEW IT FREQUENTLY FOR SAFE OPERATION.



Original Instructions





INTENDED USE

This tool is intended for trained adult use only.

This right-angle wrench /right angle screwdriver is designed to remove and install threaded fasteners.

GENERAL SAFETY RULES

A WARNING

Read all safety warnings, instructions, illustrations, and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool"

in all the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE RECOGNIZE SAFETY SYMBOLS, WORDS AND LABELS

The safety instructions provided in this manual are not intended to cover all possible conditions and practices that may occur when operating, maintaining, and cleaning power tools.

Always use common sense and pay particular attention to all the **DANGER**, **WARNING**, **CAUTION** and **NOTE** statements of this manual.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



A WARNING





DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTE provides additional information that is useful for proper use and maintenance of this tool. If a NOTE is indicated, make sure it is fully understood.

WARNING LABEL IDENTIFICATION



Read Manuals Before Operating Product.

Wear Eye Protection.

Wear Hearing Protection.

Wear Dust Mask.

Power tools can vibrate in use.

Keep body stance balanced and firm. Do not overreach when operating this tool.

Recycling

Do not drop the battery and charger into trashcan.

CE marking is a certification mark that indicates conformity with health, safety, and environmental protection standards for products sold within the European

IMPORTANT SAFETY RULES

A DANGER

When using power tools, always prevent exposure and breathing of harmful dust and particles.

WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks and cement and other masonry products, and arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well-ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

WARNING: Handling the power cord on corded products may expose you to lead, a chemical known to cause cancer and birth defects or other reproductive harm. *Wash hands after handling*.

WORK AREA

A WARNING

Keep work area clean and well lit. Cluttered and dark areas invite accidents.

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.

Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

ELECTRICAL SAFETY

A WARNING

- a. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- b. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock
- c. Do not abuse the cord. Never use the cord for carrying, pulling, or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- d. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- e. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.
- f. **NOTE** The term "residual current device (RCD)" can be replaced by the term "ground fault circuit interrupter (GFCI)" or "earth leakage circuit breaker (ELCB)".

PERSONAL SAFETY

A WARNING

- a. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b. Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c. Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- d. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- g. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards.

h. Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.

TOOL USE AND CARE

A WARNING

- a. Use clamps or other practical way 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.
- b. **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.
- c. **Do not use tool if switch does not turn it on or off.** A tool that cannot be controlled with the switch is dangerous and must be repaired.
- d. Disconnect battery pack from tool or place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
- e. Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.
- f. Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.

Many accidents are caused by poorly maintained power tools.

- g. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- h. Use the power tool, accessories, and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
- i. Keep handles and grasping surfaces dry, clean, and free from oil and grease.

Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

- j. When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause sparks, burns, or a fire.
- k. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edge are less likely to bind and are easier to control.
- 1. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
- m. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may create a risk of injury when used on another tool.

BATTERY TOOL USE AND CARE

A WARNING

- a. **Ensure the switch is in the off position before inserting battery pack.** Inserting the battery pack into power tools that have the switch on invites accidents.
- b. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- c. Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- d. When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.

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- e. Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- f. **Do not use a battery pack or tool that is damaged or modified**. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- g. Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130 °C may cause explosion. NOTE The temperature "130 °C" can be replaced by the temperature "265 °F".
- h. Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

SERVICE

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel may result in a risk of injury.

When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of shock or injury.

SPECIFIC SAFETY RULES AND SYMBOLS

A CAUTION

Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring. Contact with 'live' wire will also make exposed metal parts of the tool 'live' and shock the operator.

Be aware that this tool is always in an operating condition, because it does not have to be plugged into an electrical outlet. Always set the trigger switch to the locked OFF position when installing or removing the battery pack or bits.

Do not use bits or sockets larger than those recommended. Large bits or drills may overload the wrench/driver and damage the motor and gears.

Do not use if chuck jaws or other parts are cracked or worn.

Never change direction of rotation until motor has completely stopped.

Never hold work in your hand, lap, or against other parts of your body when driving.

Do not use drill as a router or try to elongate or enlarge holes by twisting the drill bit. Drill bits may break and cause injury.

Keep hands away from rotating parts.

Keep drill bit clear of yourself and all objects while installing and removing bit.

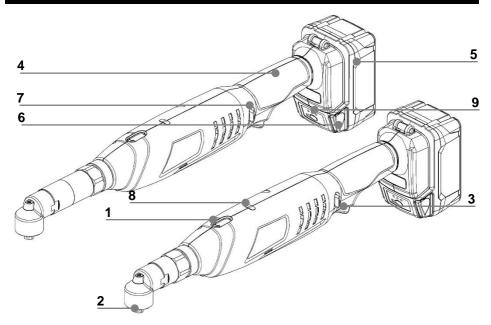
Some wood contains preservatives which can be toxic. Take extra care to prevent inhalation and skin contact when working with these materials. Request, and follow, all safety information available from your material supplier.

SYMBOLS

The label on your tool may include the following symbols. The symbols and their definitions are as follows:

| SYMBOL | NAME | EXPLANATION |
|--------------|---------------------------|---|
| V | Volts | Voltage (potential) |
| no | No Load Speed | No-load Rotational Speed |
| kg | Kilograms | Weight |
| d.c. | Direct Current | Type of Current |
| /min | Revolutions per Minute | Revolutions, Surface Speed, Strokes, etc. per Minute |
| rpm | Revolutions per Minute | Revolutions, Surface Speed, Strokes, etc. per Minute |

FUNCTIONAL DESCRIPTION



CONTROLS AND COMPONENTS:

- 1. Torque Adjust Cover
- 3. Trigger
- 5. Battery Pack
- 7. Forward/Reverse Lever
- 9. Battery Power Indicator
- 2. 3/8" Sq./1/2" Sq.
- 4. Handle
- 6. Release Button
- 8. Auto Shut OFF Indicator

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SPECIFICATIONS

| Model Number | Unit | 2100PTA-45 | |
|--|---|------------|--|
| Voltage | VDC | 20 | |
| Drive/Anvil | in. | 3/8" sq. | |
| Tightening Torque | Nm | 18-45 | |
| Programmable Speed | rpm | 210-300 | |
| Tool Weight (with battery 4.0Ah) | kg | 2.36 | |
| Noise value | $L_{pA}=69.8 \text{ dB}(A), K_{pA}=3.0 \text{ dB}(A)$ | | |
| Vibration value | $a_h = 5.31 \text{ m/s}^2$, K= 1.5 m/s ² | | |
| Model Number | Unit | 2100PTA-90 | |
| Voltage | V d.c. | 20 | |
| Drive/Anvil | in. | 1/2" sq. | |
| Tightening Torque | Nm | 40-90 | |
| Programmable Speed | rpm | 100 | |
| Tool Weight (with battery 4.0Ah) | kg | 2.76 | |
| Noise value | $L_{pA} = 69.8 \text{ dB}(A), K_{pA} = 3.0 \text{ dB}(A)$ | | |
| Vibration value $a_h = 5.31 \text{ m/s}^2, \text{ K} = 1.5 \text{ m/s}^2$ | | | |

▲ WARNING

- that the vibration emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used; and

- of the need to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

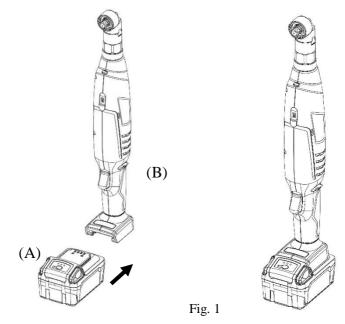
| Changer Medel Number | 2000PTC / | |
|---------------------------|-----------------------|--|
| Charger Model Number | 2000PTCEU | |
| Innut | 120 VAC ,50~60 Hz / | |
| Input | 100-240 VAC, 50-60 Hz | |
| Output | 21.0 VDC | |
| Output Amps | 3.0A | |
| Input Power | 85W | |
| Charger Weight | 0.88 lbs / 0.4kg | |
| Battery Pack Model Number | 2000PTB | |
| Туре | Li-ion | |
| Capacity | 4.0Ah | |

ASSEMBLY

INSTALLING OR REMOVING BATTERY PACK

TO INSTALL BATTERY PACK: Push battery pack (A) onto tool (B) until it locks in place (see Fig. 1).

TO REMOVE BATTERY PACK: Depress the two side release buttons on battery pack and pull battery pack (A) off of the tool (B) (see Fig.1).



TORQUE SETUP AND ADJUSTING

Note: The tool must be put into calibration mode to perform torque setup. See the TORQUE ADJUSTMENT section for details on this process.

1. Open the torque adjust cover (see Fig.2).

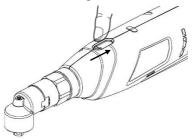
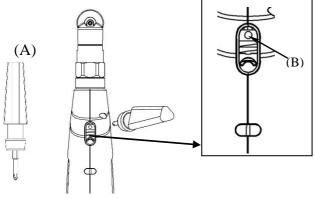


Fig.2

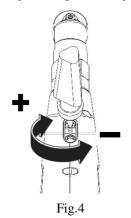
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2. Insert the provided screwdriver (A) into the hole (B) (see Fig.3).





3. Turn the screw plug to setup the torque (see Fig.4).



NOTE: Remove the battery from the tool before adjusting the torque setting to avoid touching the trigger and starting the tool. Use the provided screwdriver to avoid damage to the tool.

4. Use a torque tester to confirm the actual torque provided by the tool. Repeat steps 3 and 4 to adjust the torque as needed.

OPERATION

OVERVIEW

The 2100PTA Series Wireless Angled Power Tools are designed to work with the Global 400 and Global 400mp controller systems. These wireless tools are designed for industrial assembly use. The tool is completely dependent on the Global 400/400mp for directions and torque results reporting. Details on learning and programming the tool through the Global 400/400mp controllers may be found in the controller manual.

PARAMETER DEFINITION

Once learned into a controller, a parameter (see Fig. 5a) must be created and selected on the controller to enable the tool. Tool specific parameter settings include:

- **RPM** This setting controls the tool rundown speed in Rotations Per Minute. ٠ Refer to the Specifications section for the upper and lower limits.
- Min RTim This setting controls the Minimum Rundown Time in seconds for • a valid tightening. The range of values is 0 to 25.5.
- Max RTim This setting controls the Maximum Rundown Time in seconds • for a valid tightening. The range of values is 0 to 25.5.
- Min RTur This setting controls the Minimum number of Rundown Turns for • a valid tightening. The range of values is 0 to 511.9.
- Max RTur This setting controls the Maximum number of Rundown Turns ٠ for a valid tightening. The range of values is 0 to 511.9.

A timer may also be set on the controller TOOL > EDIT screen (Fig. 5b) to define the interval the tool enters a power down state following the last applied torque or trigger pull. The range is from 0 to 480 minutes. The sleep timer is disabled when set to 0.

| | Tool 2 | |
|--|------------------|-------------------------------|
| Type: Radio Info: Tool Version: Serial number: Last calibration: | X0.09 | |
| Cycles: Last PM at: Cycles before PM: Sleep Time (m): | 0 0 250000 | Set Now |
| FORGET CAL | | CANCEL |
| | FORGET CAL | FORGET CALIBRATE SAVE Fig. 5b |

TOOL OPERATION

Select a parameter for the tool from the controller. The tool will beep indicating it has been enabled. Once a fastening is completed, the tool will light an LED and beep then send OK/NOK result data to the controller. The Rundown Time and Rundown Turns must fall within the range specified by the parameter to be qualified as an OK result.

VARIABLE SPEED SWITCH

The variable speed switch provides a safety feature for user operation. To turn the tool on, squeeze the trigger switch (see Fig. 6). To turn the tool off, release the trigger switch.

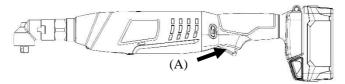


Fig.6

NOTE: The tool is equipped with a soft-starting feature. The switch will disable for about 0.8 seconds after a fastening operation. This prevents accidental retightening of already tightened screws.

FORWARD / REVERSE LEVER

A forward/reverse lever determines the direction of the tool and serves as a lock button.

To select forward rotation, RELEASE THE SWITCH (A) and push the forward/reverse lever (B) toward left side of the tool \blacktriangleleft (see Fig. 7).

To select reverse rotation, RELEASE THE SWITCH (A) and push the forward/reverse lever (B) toward right side of the tool \blacktriangleright (see Fig. 7).

The center position of the lever locks the tool in the off position.

NOTE: When changing the position of the lever, make sure the trigger is released.

NOTE: Move the lever to the center position when the tool is not in use.

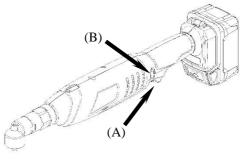
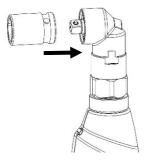


Fig. 7

INSTALLING THE SOCKET ONTO ANVIL

Align the socket retention hole with the spring pin on the anvil. Depress the spring pin. Slide the socket onto the anvil. The spring pin will release. Verify the socket is retained.





BATTERY POWER INDICATOR

Press the Battery Status button to show the battery pack's remaining capacity (see Fig. 9).

- 1. One light ON: 30% remaining capacity.
- 2. Two lights ON: 60% remaining capacity.
- 3. All lights ON: 100% remaining capacity.





AUTO SHUT OFF INDICATION

The green light flashes and the tool beeps when the tightening torque has reached the preset value.

The red light flashes and the tool beeps if the tightening torque is not reached or some other fault occurs.

In no load operation, the red light flashes and the tool beeps when the trigger is released.

NOTE: In Reverse direction, the red and green lights blink once per second.

TORQUE ADJUSTMENT

The tool must be put into calibration mode to perform the torque adjustment procedure. This can be done from the controller by pressing the "CALIBRATE" soft key on the TOOL > EDIT menu.

TYPICAL WORK SEQUENCE

- 1. Install the socket onto the anvil.
- 2. Select a parameter for the tool on the controller. The tool will beep when it is enabled and ready for use.
- 3. Place the socket onto the fastener on the workpiece.
- 4. Depress the trigger to start the action.
- 5. Hold the trigger until the tool shuts off indicating torque has been reached.
- 6. Release the trigger.

NOTE:

1. Before work you should check the torque of the tool with a torque tester to ensure the torque will not damage the fastener or workpiece.

TROUBLESHOOTING

Check the following before contacting technical support.

| Situation | LED Indicator | Troubleshooting | |
|---|---|---|--|
| Tools Gets Hot | RED Steady Green Blinking | Rest the Tool to Room Temperature | |
| Battery Pack Temperature is Too High | RED Blinking | Rest the Battery Pack to Room Temperature or Change Battery Pack. | |
| Battery Pack Temperature is Too Low | RED Blinking Green Steady | Rest the Battery Pack to Room Temperature or Change Battery Pack, | |
| Battery Pack Voltage is Too Low | RED Steady | Change Battery Pack and Charge the Used Pack | |
| Over Current Protection | RED & Green Blinking Alternatively | Abnormal Shutoff Release Trigger, then Re- tightening | |
| Fastening torque not reached #1 release trigger #2 over 5 seconds #3 over 10 seconds | #1 RED Bright & BuzzerAlarm Alternatively#2 RED Blinking#3 RED Bright & BuzzerAlarm Alternatively | Abnormal Shutoff Release Trigger, then Re- tightening | |
| Gear Box needs maintenance (reach 200,000 cycles) | Green Blinking for 3 Sec (If no use lasting 3 min, alert signal will blink again once pressing the trigger.) | Send to Service Centre to Maintenance | |
| Setting Torque Reached and Motor Shut-off Right Away | Green Bright Buzzer Alarm | Normal Shutoff | |

MAINTENANCE

A WARNING

Remove the battery pack from this tool before cleaning.

NOTE

This tool is lubricated before it leaves the factory. This lubrication should last for the life of the tool. No further lubrication is required.



This is a precision tool. Disassembly, assembly, and adjustment require exclusive jigs, testers, and trained technicians. Incorrect disassembly, reassembly, or adjustment can cause not only insufficient power but also

accidents. Ask for these services from an authorized service center. The manufacturer or supplier will not be held liable for any damages caused by factors found to be the cause of faulty use or repair by users or unauthorized service provider.

CLEANING

With the motor running, blow dirt and dust out of all air vents with dry air at least once a week. Wear safety glasses when performing this. Exterior plastic parts may be cleaned with a damp cloth and mild detergent. Do not use solvent to clean these parts.

ACCESSORIES

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.

Recommended accessories for use with your tool are available at extra cost from your local service center.

IMPORTANT: To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustments should be performed by certified service centers or other qualified service organizations, always using identical replacement parts.

PROTECTING THE ENVIRONMENT

Before disposing the product, check with your state Environmental Protection Agency to find out about special restrictions on the disposal of tool or return it to a certified service center for recycling.







For customer or technical support, call (847) 455-8677 Service address: 555 Kimberly Drive, Carol Stream, IL 60188 E-mail: <u>CustomerService@sttorque.com</u> www.srtorque.com