# LITHIUM SERIES® II Electric Torque Tool

# **Product Training Webinar**



Kunal Rana



#### LITHIUM SERIES II TOOL

#### Expanded Functionality

New **TorcSense**<sup>™</sup> Technology New Snug function Bluetooth® Wireless technology Advanced Bolting Functions: Turn Angle, Torque Check, Rotations

#### Greater Durability

New 36V DC Brushless Motor New Gearboxes – 20% stronger New Aluminum handle New Rear Cover Shock Guard

#### Improved Usability

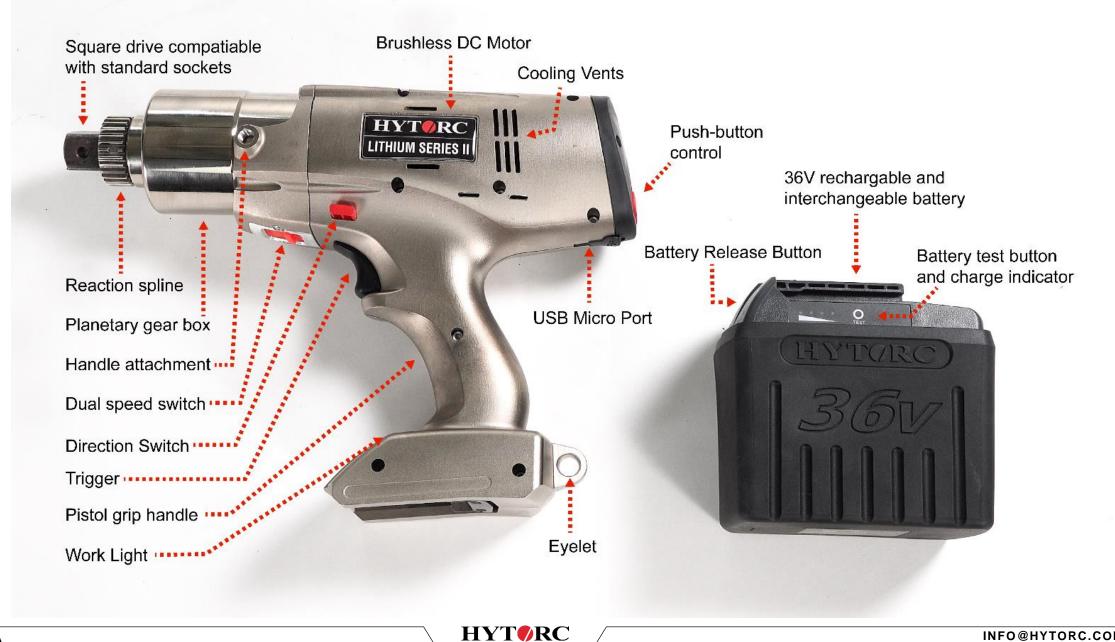
New Intuitive Menus & Icons New Customizable Menu Capability New High Resolution Display, New Side Handle







### LITHIUM SERIES II TOOL OVERVIEW



#### SIZES & MODELS

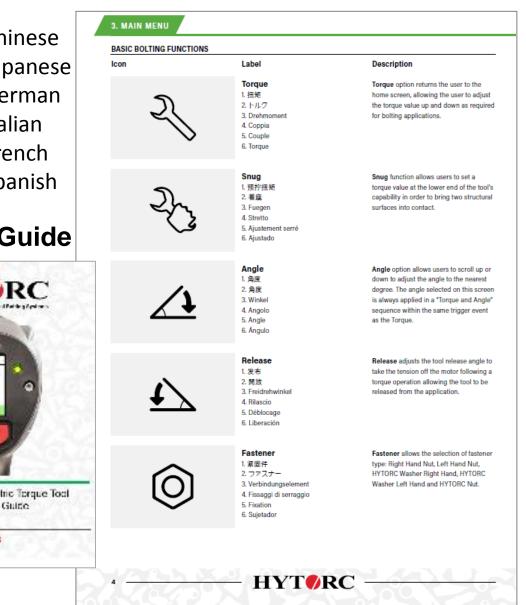
MODEL	SQ-DRIVE	Weight (Imperial)	Weight (Metric)	Torque Range (Imperial)	Torque Range (Metric)
LST-0700	3/4	11.7 lbs	5.3 kg	150-700 ft-lbs	203 - 949 Nm
LST-1200	3/4	12.0 lbs	5.4 kg	200-1200 ft-lbs	271 -1,627 Nm
LST-2000	1	16.6 lbs	7.5 kg	325-2,000 ft-lbs	440 - 2,711 Nm
LST-3000	1	17.7 lbs	8.0 kg	500-3,000 ft-lbs	677 - 4,067 Nm
LST-5000	1-1/2	22.4 lbs	10.2 kg	800-5,000 ft-lbs	1,085 - 6,779 Nm

- U are USB only, Bluetooth Disabled
- X are non ROHS compliant, sold in US and Canada

#### UNBOXING

- Tool
- Calibration
   Certificate
- Tool Handle
- Reaction Arm
- (2) 36V Batteries
- Charger
- USB Cable
- Basic Operations Manual
- Icon Reference
   Guide





#### GENERAL HANDLING & USAGE

#### **Inspect Tool and Calibration**

Check the certificate or label on the tool for the most recent calibration date

□ HYTORC recommends all tools be tested and recalibrated periodically. More frequent calibration may be appropriate depending on local practice, usage and conditions.

□ Customer/user is responsible for arranging testing and recalibration

□ Contact 800-FOR-HYTORC for assistance or further information

□ When not in use, store all tool components in the plastic storage case

□ Save all instructions and calibration reports in the storage case



**Check Calibration Date** 



Store Tool and instructions in case



INFO@HYTORC.COM

#### GENERAL HANDLING & USAGE

#### **Environmental Considerations**

The tool should not be exposed to moisture. Do not operate in rain, snow or extreme humidity.

 $\Box$  The operating temperature range of the tool is -4°F (-20°C) to 140°F (60°C)

- Keep cooling vents clear of dust and debris to maintain airflow and keep the motor and electronics within temperature limits. Do not subject the tool to extreme dust environments, or cover vents with your hand.
- The tool and electronic components are not certified or approved for explosive environments or areas containing combustible chemical materials



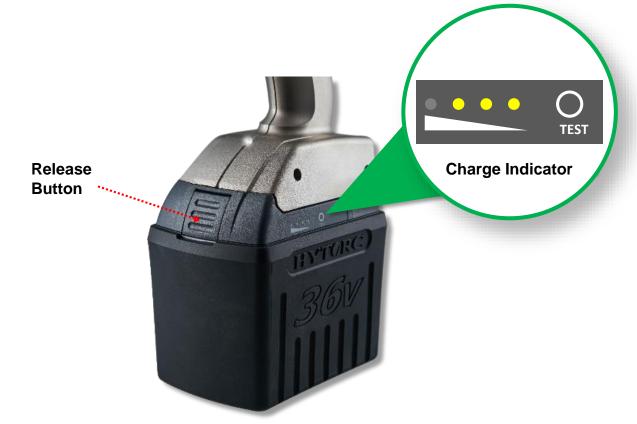
Follow local practices or standards for securing the tool from dropping. The eyelet fits most standard lanyards.



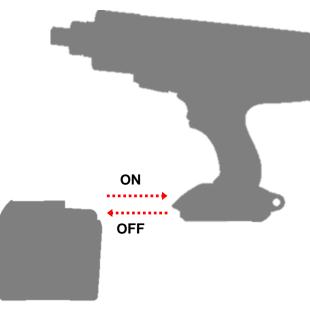
#### IESI, CHARGE & INSIALL BAITERY

HYT /RC

- □ Press TEST button on battery to display remaining charge
- □ Before charging battery verify local voltage supply to ensure capability with charger; this will typically be 110 or 220 Volts AC.
- Connect power cord to grounded outlet. If necessary, connect plug adapters for compatibility with local power outlets.



- Insert battery by sliding it onto the charger until it locks into place. The flashing green indicator light means the battery is charging.
- Battery will be fully charged within 90 minutes. The indicator light will stop flashing to indicate battery is fully charged.
- Remove battery by pressing release button and sliding it off the cradle. Slide battery onto bottom of the Tool until it firmly latches into place.





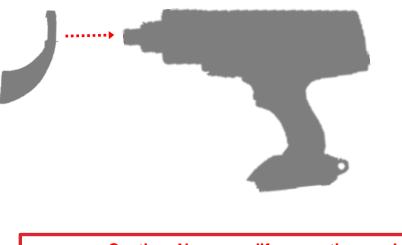
#### CONFIGURATIONS

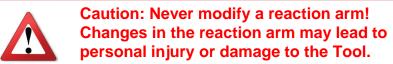


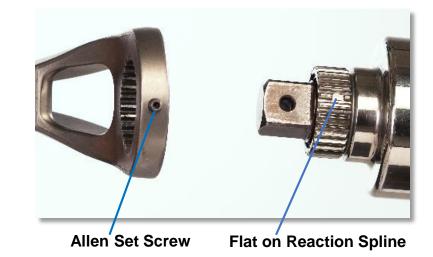


#### INSTALL REACTION ARM

- □ Reaction arm used only for conventional bolting applications.
- □ Slide the reaction arm over the drive spline while aligning the Allen Set Screw with the flat on the Reaction Spline.
- Tighten Allen Set Screw to firmly attach the reaction arm to the spline.
- □ Challenge the reaction arm to make sure it is firmly secured.









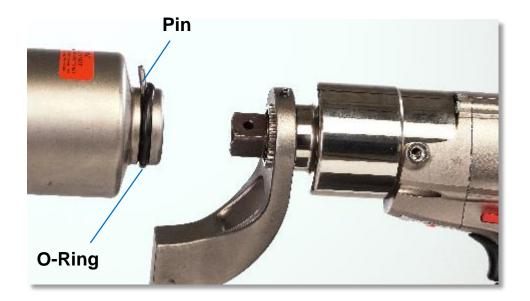
**Tighten Screw** 



#### INSTALL SOCKET

□ Align socket pin hole with hole in the square drive.

- □ Make sure the O-ring is installed on the socket insert the pin part way into the socket.
- □ Slide socket on square drive while aligning the pin hole in the socket with the hole in the square drive.
- Push the pin through socket and square drive and seat the pin flush against the socket.
- □ Slide O-ring in place to cover and hold pin in place.







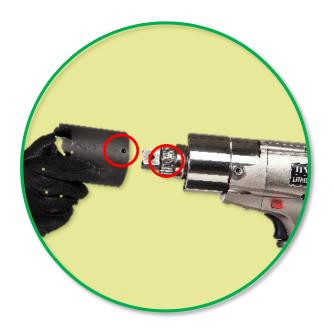
### INSTALL HYTORC WASHER DRIVER

- □ Slide washer driver over square drive and spline while aligning thumb screw with flat on the spline.
- □ Tighten thumb screw to secure Washer Driver.
- Test to make sure that washer driver is securely attached to the spline.



### INSTALL HYTORC NUT DRIVER

- □ Slide nut driver over the square drive and spline while aligning the Allen screw with the flat on the spline.
- Tighten the Allen screw to secure Nut Driver.
- Test to make sure that nut driver is securely attached to the spline.







### INSTALL SIDE HANDLE

HYT /RC

□ The side handle screws into the bearing housing on either the right or left side of the tool.

- Engage threads and rotate clockwise until the handle no longer rotates.
- □ Hand tighten only.

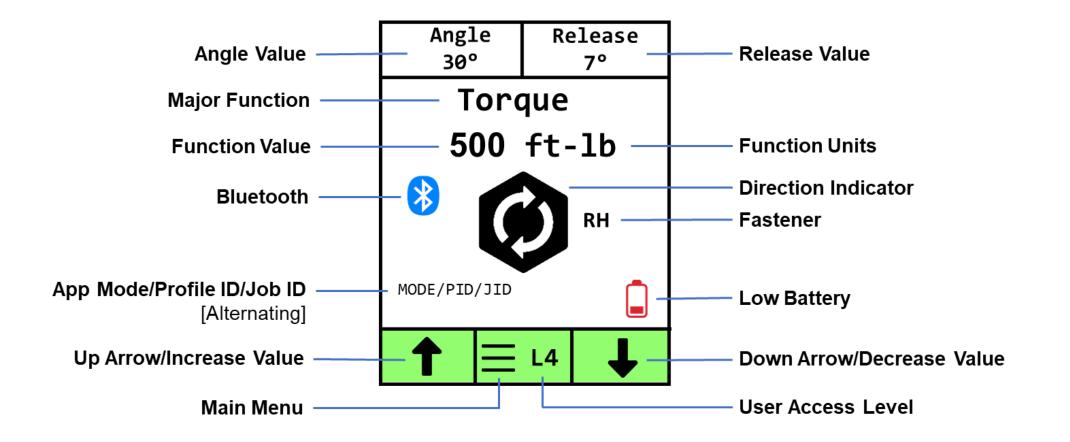


#### CONTROL SWITCHES

- □ Press any button to power on the Tool.
- □ Press the Trigger to Activate the Tool.
- □ Press the Direction Switch to reverse direction.
- □ Slide the Speed Switch to switch from low speed TORQUE to high speed RUN DOWN.

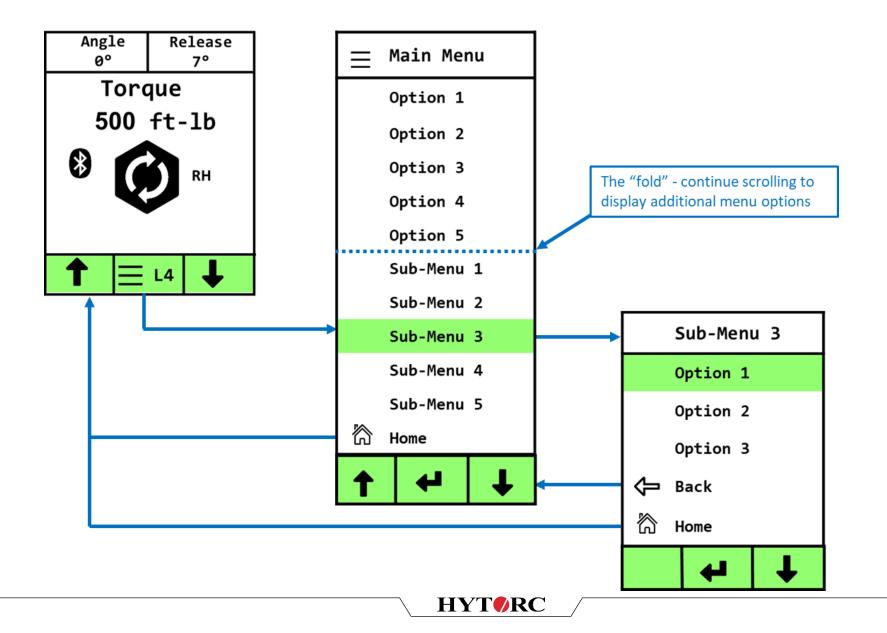


#### HOME SCREEN



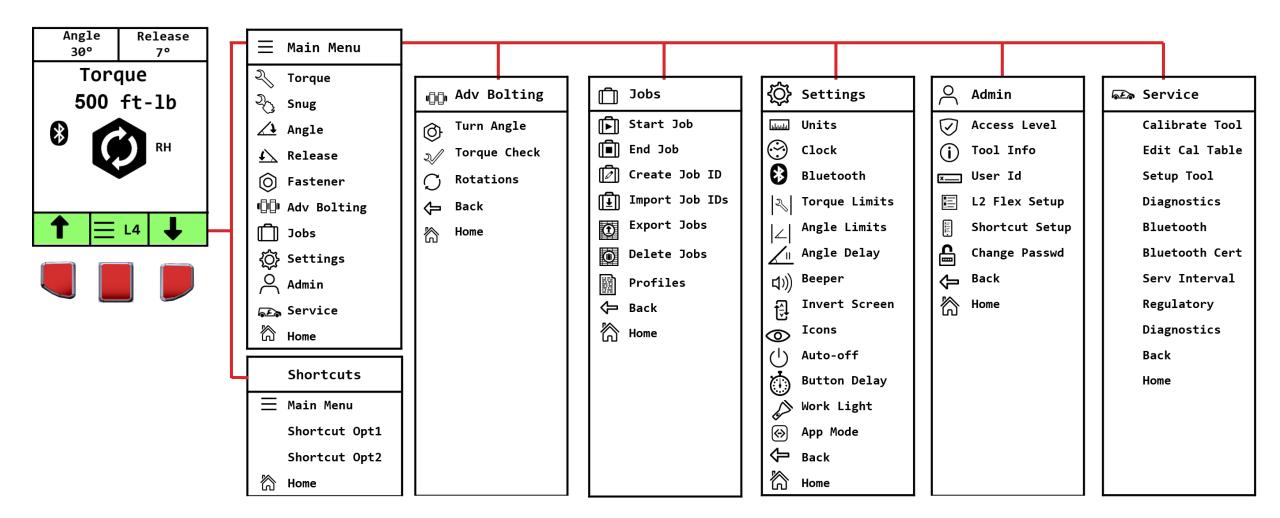


#### MENU NAVIGATION



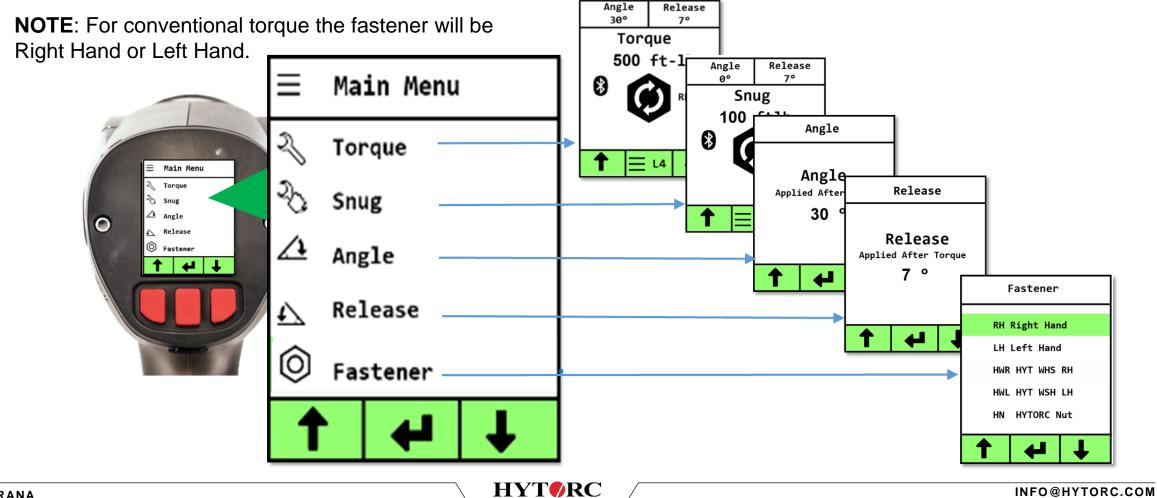
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#### USER INTERFACE



#### BASIC BOLLING

- □ Basic bolting options are located at the top of the Main Menu.
- □ Specify the desired Torque and Fastener type using the ↓ and ↑ buttons. Enter values for Angle and Release, if desired.



#### BASIC BOLING

- □ Press the Direction Switch to set Tool direction.
- □ Set Speed Switch to TORQUE or RUNDOWN.
- □ Secure the back nut, if necessary, to prevent from turning during torque operation.
- □ For conventional bolting, abut the reaction arm firmly against anchor point.
- Place socket over nut until firmly engaged. If using the HYTORC Washer or HYTORC Nut, make sure the driver properly engages the fastener.





#### BASIC BOLING

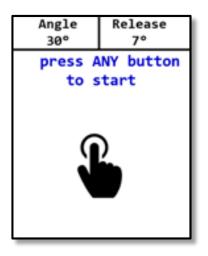
Pull and hold the trigger. A message instructs the user to press any button to start, to keep hands clear of reaction arm.

□ Once operator pushes a button the drive will begin to turn.

□ If ANGLE or RELEASE has been specified the tool will pause before finishing each operation.

Successful operation is indicated with beeper sound, if enabled, and green status light.

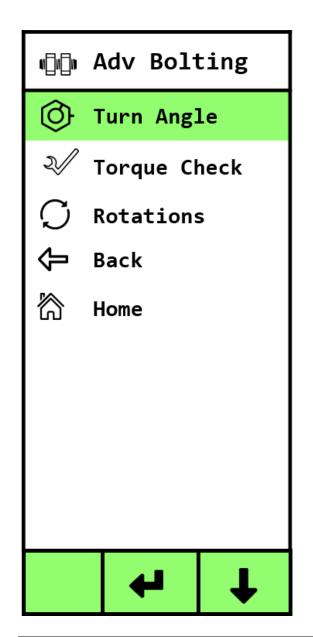
If no RELEASE has been set the Tool may lock onto the nut; set Direction Switch to loosen and jog trigger until Tool is free.



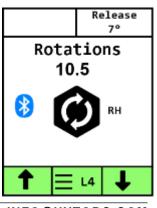




### ADVANCED BOLIING



- □ **Turn Angle:** used to complete Turn-Of-Nut procedures by turning a snug-tightened nut through specified angle.
- □ **Torque Check:** used to determine whether a previously tightened nut still meets specification.
  - Typically, the user sets Torque Check to 90% of the specification value, pulls the trigger and monitors the nut to detect any movement.
  - When job data is exported, the profile type for Torque Check is "TCK".
  - Available on 2000, 3000, and 5000 configurations
- □ **Rotations:** turns a fastener through a specific number of rotations.
  - Tool will turn nut and stop at the specified number of Rotations.
  - Continue holding trigger if applying angle or release.
  - The max number of the rotations is 99.9 rotations.



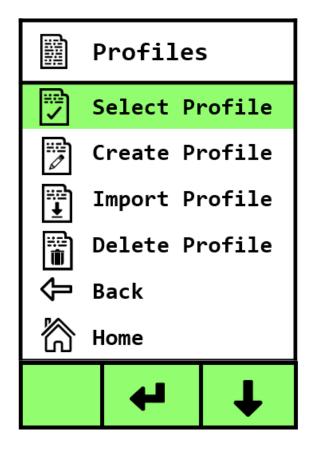


#### **JOR2**



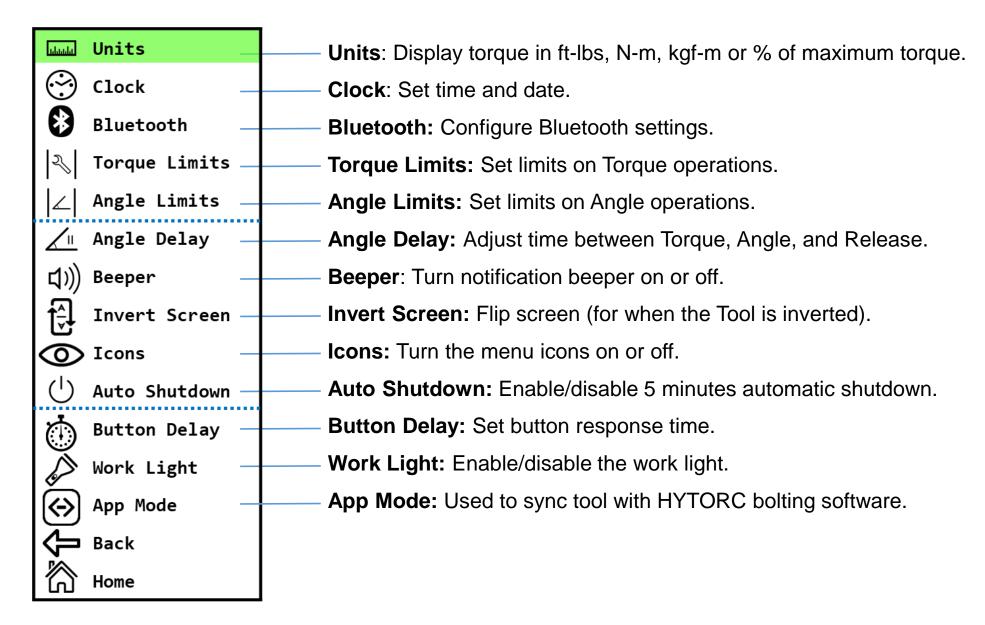
- ❑ The Jobs function allows the tool to record and document bolting results for a specific operation or sequence. The Job record includes a Job ID, the tool parameters and results for each bolting operation.
- Start Job: Select a Job ID and begin recording data under that ID. Select End Job to stop recording.
- □ Create Job ID: Create a Job ID of up to 8 alphanumeric characters.
- □ Import Job ID: Import Job IDs from a PC via USB or Bluetooth.
- **Export Jobs**: Send documentation to a PC via USB or Bluetooth.
- Delete Jobs: Allows the user to delete job data.

#### PROFILES

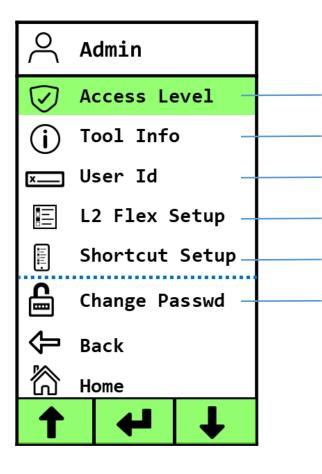


- A Profile is a saved set of tool parameters that can be easily recalled from memory. It includes a Profile ID (PID), a Profile Type (PTYPE), and the parameters required for the specific profile type.
- A profile can be entered directly with the 3-button interface via Create
   Profile. Enter the Profile ID by scrolling and selecting up to eight characters.
   Press the center button to complete the entry.
- □ Select one of the five **Profile Types** from the menu, then enter the desired parameters.
- Once saved, the profile can be recalled using the Select Profile option.
   When a profile is active the parameters are displayed on the screen along with the profile ID.
- □ The user can also import profiles from a PC via USB or Bluetooth.

#### SEIINGS



#### ADMIN



Access Level: Set Tool to one of four password-protected access levels.
Tool Info: View Tool information such as firmware version and cycle count.
User ID: User can enter their own unique ID for job documentation.
L2 Flex Setup: Admin can configure functions available to L2 Flex Users.
Shortcut Setup: Admin can create custom menu in place of the main menu.
Change Passwd: Admin can change password for all access levels.

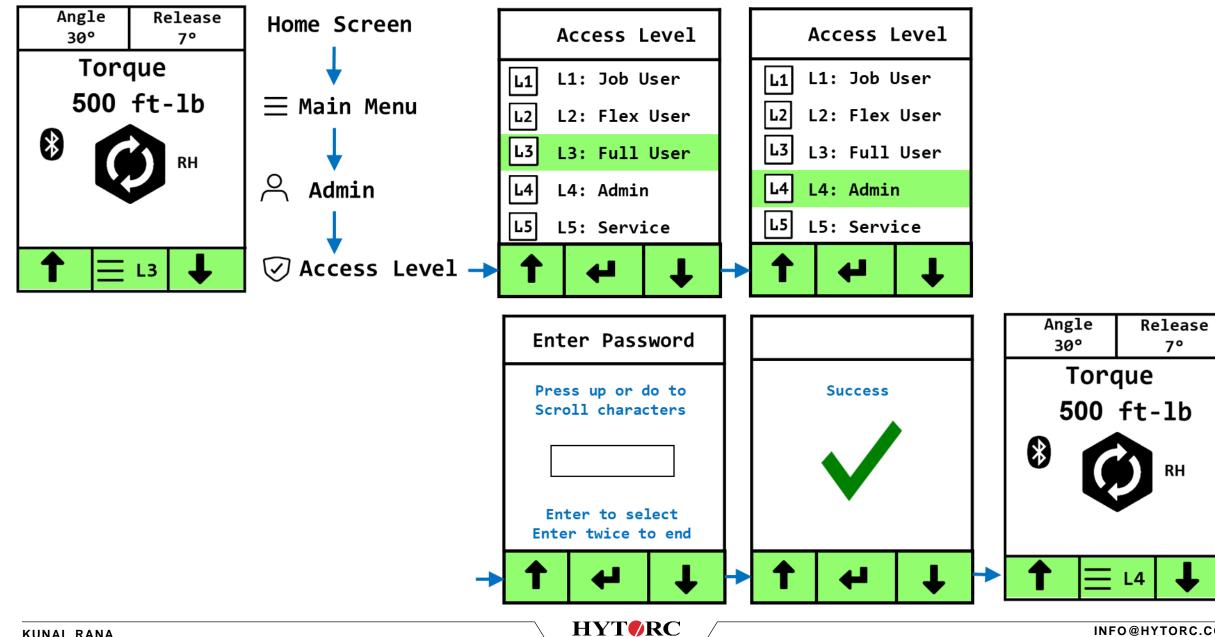
#### ACCESS LEVELS

Tool ships in Level 4

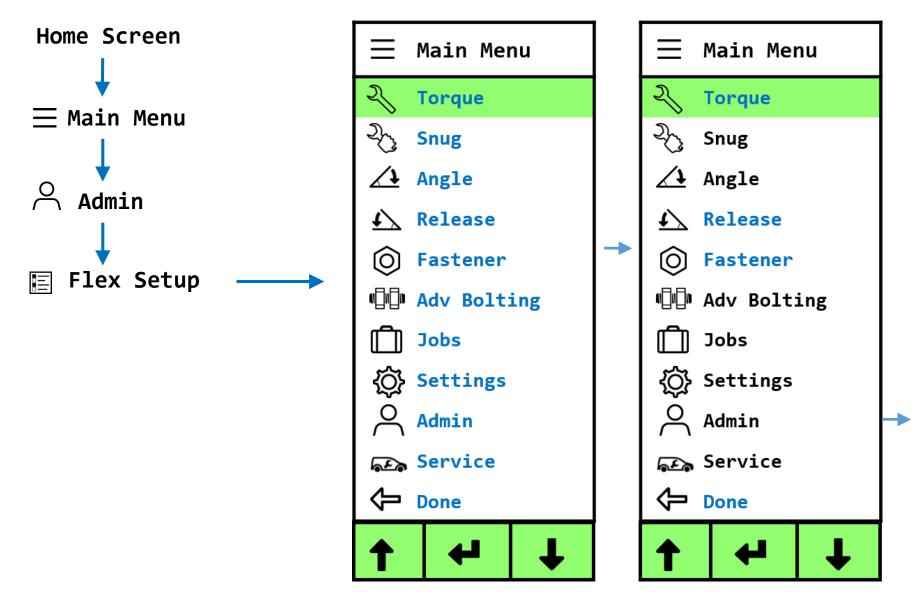
- Need password to access a higher level
- No password to access a lower level

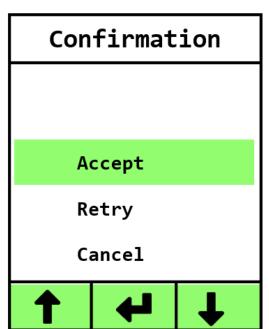
Level	User	Access
L5	Service	For HYTORC Service Only
L4	Admin	Full Access + PW+ Calibration
L3	Full	Full Access
L2	Flex	Customized Access
L1	Jobs	Only Defined Jobs Access

#### ACCESS LEVELS

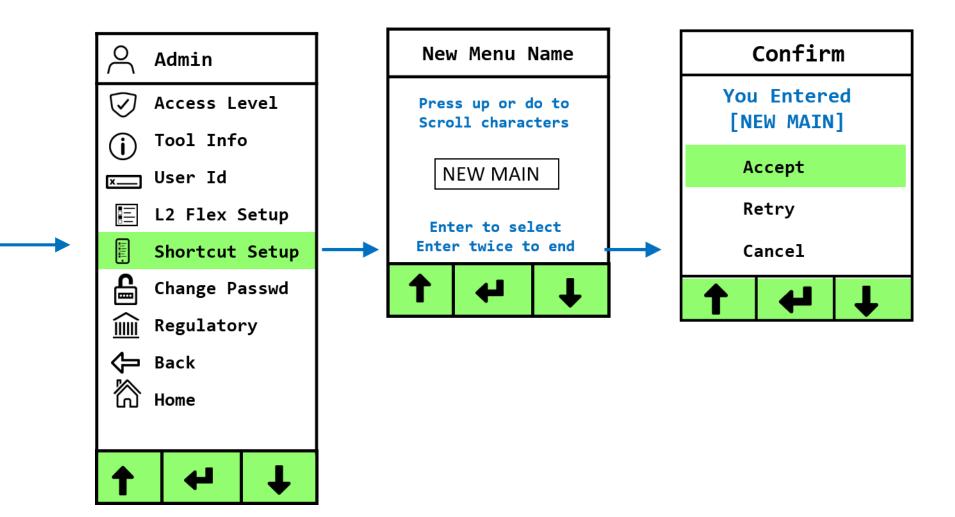


### FLEX SEIUP

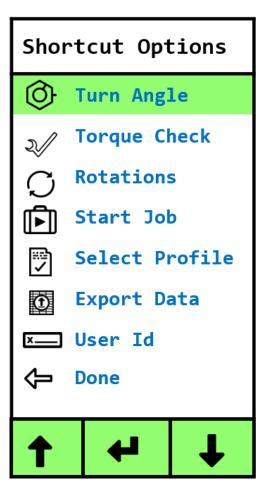


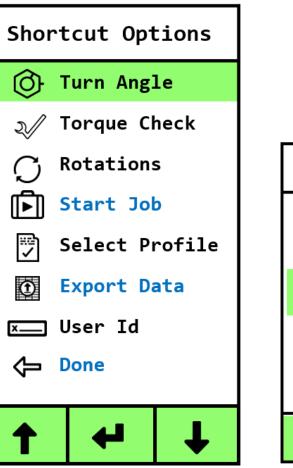


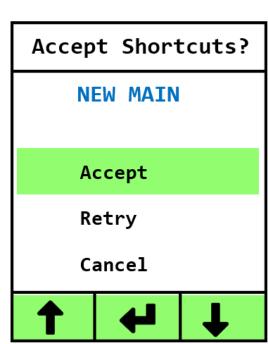
#### SHORICUI SEIUP



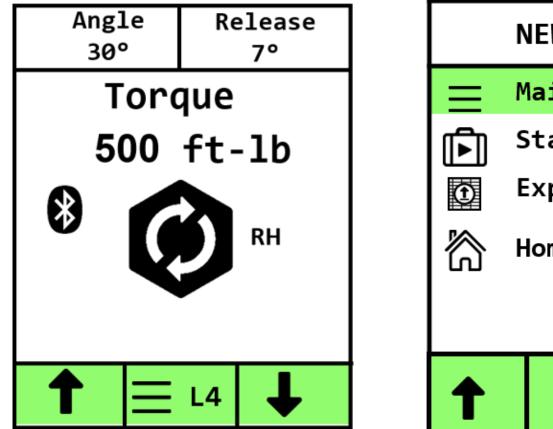
#### SHORICUI SEIUP

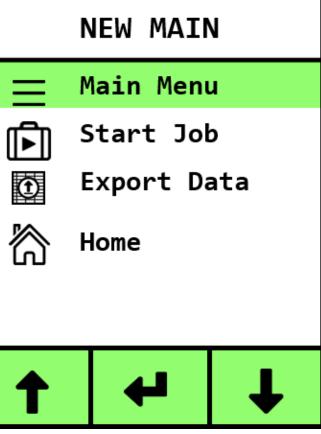






#### SHORICUI SEIUP





# BLUEIOOIH® WIRELESS IECHNOLOGY

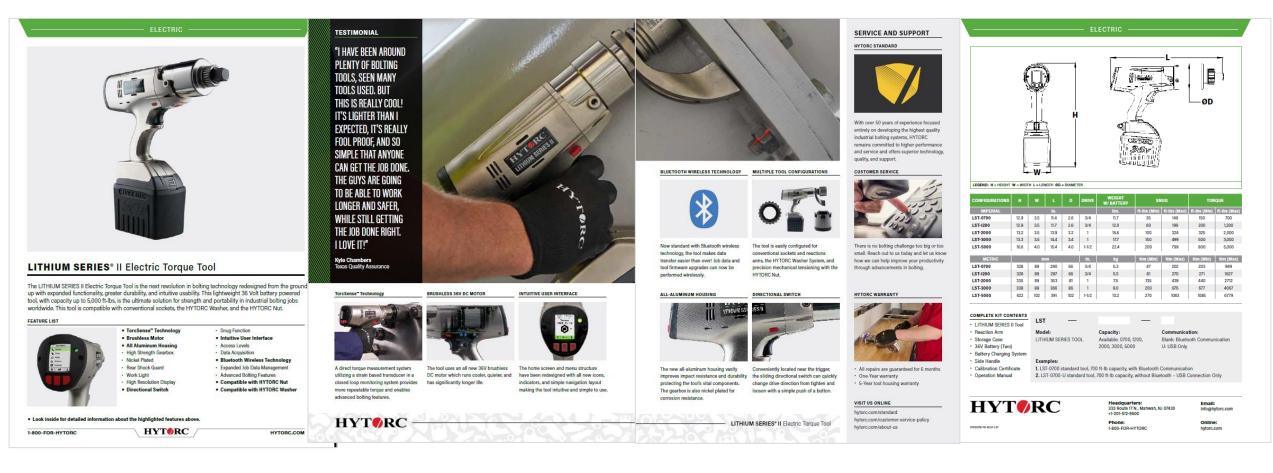


- Upgrade Firmware
- Transfer Data

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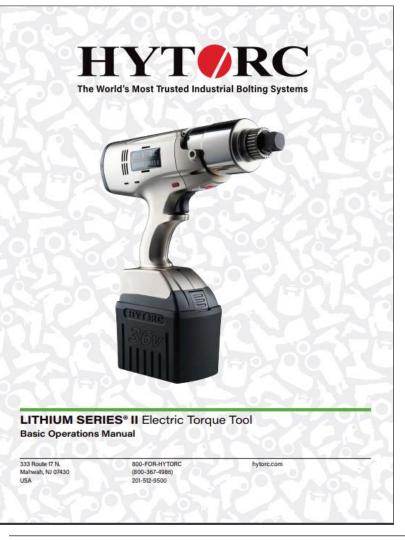


#### Four-Page Cut Sheet





#### **Manuals**







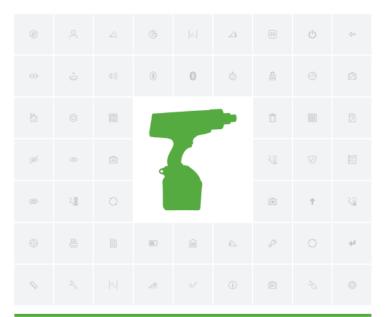
Version: 2.0

LITHIUM SERIES® II Electric Torque Tool User Interface Guide

Preliminary	April 2020	
333 Boute 17 N		800-FOR-HYTORC

333 Route 17 N.	800-FOR-HYTORC	hytorc.com
Mahwah, NJ 07430	(800-367-4986)	
USA	201-512-9500	





#### LITHIUM SERIES® II Electric Torque Tool Icon Reference Guide

333 Route 17 N.	800-FOR-HYTORC	hytorc.com	
Mahwah, NJ 07430	(800-367-4986)		
USA	201-512-9500		



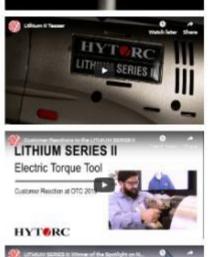
#### **Comparison Chart**

	Lithium Series II	Lithium Series I
Motor	Brushless, Longer Life, Quiet	Brushed
Gearbox	Torque Multiplier, 20% Stronger, Nickel Plated	Torque Multiplier
Housing	All Aluminum	Plastic with Aluminum Frame
Direction Control	Switch	Button
Display	High Density LCD, 4X Resolution	Standard Density LCD
Torque Measurement	TorcSense™ Technology	Current Controlled
Accuracy	± 5%	± 5%
Model Sizes	700, 1200, 2000, 3000, 5000	700, 1000, 2000, 3000
Worklight	Available	-
Communication	USB, Bluetooth Wireless Technology	USB
Side Handle	Standard Accessory	-
Menu Navigation	Intuitive Hierarchy	Multiple Menus
Advanced Bolting	Torque Check, Turn Angle, Rotations	Torque Check
Administrative	5 Access Levels, Security	2 Access Levels, Security
Shortcut	Customizable Menu	Limited to Buttons
Documentation	Data Transfer, Jobs, Profiles	Data Transfer
Snug Function	Available	-
Compliance	Global	Limited/Outdated



Videos





















HYT /RC



























LST Repair Calibr

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LST Repair Wirel ess Connection





LST\_Repair\_Confi guration\_

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LST Repair Wired Connection



LST Repair Handl

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#### **Battery Safety**



#### WARNING

1-800-FOR-HYTORC

HYTORC Lithium Ion batteries contain regulated and potentially hazardous material with risk of fire or injury if not handled properly. This document provides instructions for care and handling to ensure the safe usage, disposal and shipment.

#### LITHIUM-ION BATTERY CARE AND USE

- Charge Only in Specified Charger: Recharge the battery only with the HYTORC charger designed for the battery. Do not
  charge the battery with any other chargers. Do not alter the battery or force the battery to fit in other chargers.
- Avoid Explosive Environments: Do not charge or use the battery in explosive atmospheres, such as in the presence of flammable liquids, gases or dust, inserting or removing the battery from the charger in explosive environments may ignite dust or fumes.
- Do Not Service: Do not attempt to service, disassemble or open a battery for any reason.
- Do Not Drop, Impact or Crush: Do not drop, impact or crush the battery. A battery that has been dropped, impacted or crushed may be damaged internally even if no damage is visible and should be disposed of properly.
- Do Not Get Wet: Do not expose a battery or charger to liquid, moisture or high humidity where water can condense on the battery. Do not operate in rain or snow. Do not use any battery that has been wet. Properly dispose of any battery that has been wet.
- Avoid Corrosive Environments: Do not expose the battery to corrosive environments where terminals or components can corrode and potentially cause a short circuit.
- Do Not Use a Damaged Battery: Do not insert a battery into charger or tool if battery pack case is cracked or damaged
  in any way. Any damaged battery should be disposed of properly.
- Avoid Inhalation: If fluids are seen coming from the inside of the battery, avoid breathing vapors and properly
  dispose of battery.
- Avoid Contact: If fluids from inside the battery come in contact with the skin, flush the affected area with water. If the
  contents come into contact with the eyes, flush with water for 15 minutes and seek medical attention.
- Do Not Incinerate: Do not incinerate the battery pack or expose it to excessive heat, even if damaged or worn out. Toxic fumes, violent burning or even explosions may result.
- Avoid High Temperature Storage: Do not store batteries in excess of 122" F (50" C). Doing so will greatly shorten the life of the battery.
- Keep Terminals Clear of Metal Objects: Make sure that battery terminals are protected from direct contact with metallic objects or materials which can potentially cause a short circuit.

HYT RC

(Continued on following page.)

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#### Do not ship batteries if they can be disposed of or recycled locally. Defective, damaged or spent batteries should be disposed of or recycled properly at an authorized waste collection or battery recycling center.



DISPOSAL AND RECYCLING

 Dispose of Property: Lithium-Ion batteries should not be disposed of in the household (municipal) waste stream; they must be taken or shipped to an authorized electronic waste collection center or battery recycling center.
 Protect the Environment: HYTORC has partnered with Call2Recycle to ensure that batteries are responsibly recycled when they reach their end of life. Visit call2recycle.org or call 1-800-822-8837 to locate the battery recycling location closest to you.

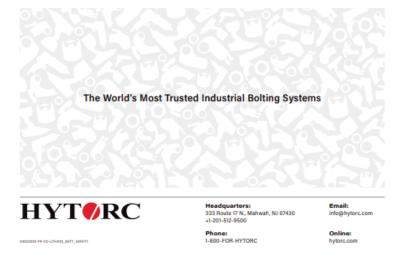
#### SHIPPING

HYT /RC

Do not ship batteries if they can be disposed of or recycled locally. Lithium-Ion batteries are regulated in most countries as hazardous materials for transportation. Should it become necessary to ship a battery, follow all relevant government regulations. Battery shipments may require specialized packaging, labeling and documentation to comply with government regulations.

— LITHIUM ION BATTERY SAFETY INSTRUCTIONS

- Contact Your Carrier: To ensure adherence to proper regulations contact your carrier for the exact details on how to safely pack and ship Lithium-Ion batteries.
- Protect the Battery: If it becomes necessary to pack a battery for shipment be sure to protect battery terminals so that
  they are not in contact with metal objects and protect the battery from moisture, shock and vibration.
- Ship to HYTORC: If a battery is returned to HYTORC for any reason, use UPS Ground and ship to: HYTORC, 100 Wesley Street, South Hackensack, NJ 07606.



# Thank you

HYT /RC

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