

# STC 40 Operation Instructions

(Rev 3.6 6/18/13)



RoHS



**Power Supply for E-DRIV LF, BF & NF-Series Brushless Electric Screwdrivers**



# STC40 Transformer

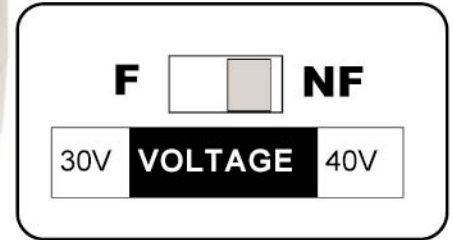
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## Power

Securely place the power cord into the back of the STC 40. Flip the switch on the back to turn on the unit: Light turns Green.

## Connecting Electric Screwdriver

Before connecting the electric screwdriver, make sure the little switch in the lower bottom right of the STC 40 is positioned in the proper setting (F or NF). See diagram. Only operate tool in proper "Mode" setting.



**Select F mode for operating**  
**LF-Series - 30 VDC**  
**BF-Series - 30 VDC**

**Select for NF or operating**  
**NF-Series - 40 VDC**

*Make sure the switch is correct position before operating. Either F or NF mode.  
 F mode is operating LF-Series screwdrivers  
 F mode is operating BF-Series screwdrivers  
 NF mode is operating NF-Series screwdrivers*

1. Attach cord of the electric screwdriver to the transformer. Make sure notch in plug lines up with the notch in the socket. Tighten knurled ground ring.
2. Verify proper "Mode" setting.
3. Turn driver on and check for proper rotation. FOR-clockwise, REV-counterclockwise.
4. To apply torque, squeeze the lever (For Push-to-Start models place light downward pressure on the nose of the driver). The driver will automatically stop when the preset torque has been reached.

## OCP (Over Current Protection)

The power will shut down automatically when the current exceeds 8A. The controller should be reset by turning off the power switch for one minute and turned back on. If the current is not over the limit, power will turn on.

There is another OCP in a secondary circuit. The power will be disappear for 5 seconds when the current is over 4A over 3 seconds or when current is over 6A over 0.5 seconds. The transformer recovers automatically. The transformer gives an alarm signal by blinking Green and Orange color on the LED lights along with beep buzzer sound.

Description		Over Current Protection	Over Heat Protection
Detection	Limit current	8A	90°C
	Time duration	immediately	immediately
Protection		Whole power shuts down permanently	Whole power shuts down permanently
Protection Signal	LED	no power	no power
	Buzzer	no power	no power
Recovery		Turn off the power switch and on after 1 minute	Turn the power switch off and on at lower wait for lower than 90°C

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## Over Heat Protection

The thermistor will shut down whole power supply if the unit over heats. The controller should be reset by turning off the power switch for one minute and turned back on. If the current is not over the limit, power will turn on.

## Ratcheting Clutch Alarm

An alarm and break system notifies you when the ratcheting clutch occurs with an electric screwdriver. If the tool ratchets continuously 5 or 6 times, the STC 40 will provide a buzzer alarm along with the red LED light Also it will stop the output power for 5 seconds as a secondary protection.

## Input voltage selection

For changing the input voltage, loosen two screws and assemble the cover as below.

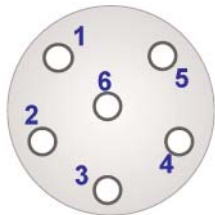
230VAC Selected



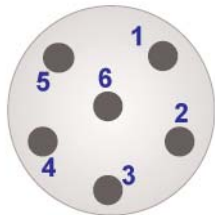
110VAC Selected



## Output Pin Connection



View of controller



View of cable side

- 1: DC(+)
- 2: Limit (Torque Up)
- 3: Ground
- 4: Start
- 5: DC (-)
- 6: Driver Lock or Remote Start

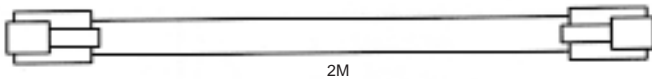


## Note!

Do not connect any other electric screwdriver that's not listed to be used with the transformer. It may cause electric shock, fire, damage to the tools or operator injury.

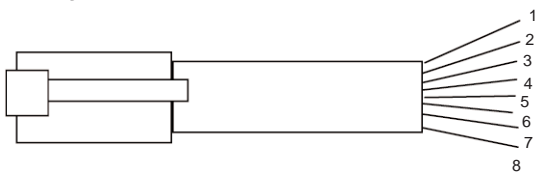
## Connector and Cables

Cable for connecting Scout to the STC40 (Item #14-7000007). The cable is a RJ-45(8 Pin) - RJ11(6Pin).



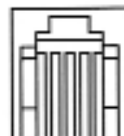
2M

Signal Cable (Item #14-PELZ911)



1.5M

RJ-45  
Modular Jack

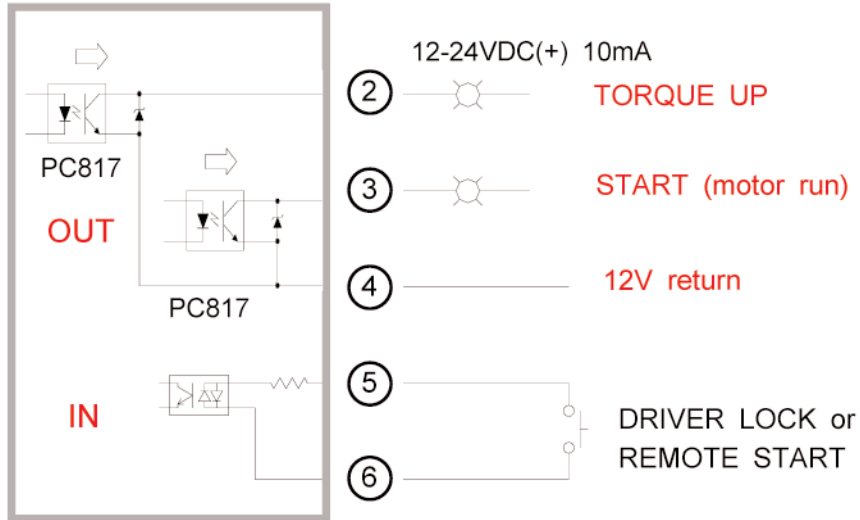


Pin No.	Color	Function
1	Solid Orange	Not Used
2	White/Orange	Stop
3	Blue	Start
4	White/Blue	DC(-)
5	Green	Driver Lock
6	White/Green	Driver Lock
7	Brown	N/A
8	White/Brown	Not Used

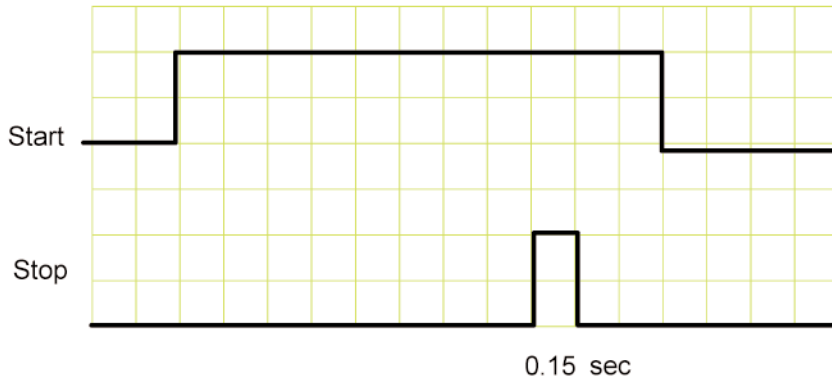
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## Interface for Start / Stop Signal



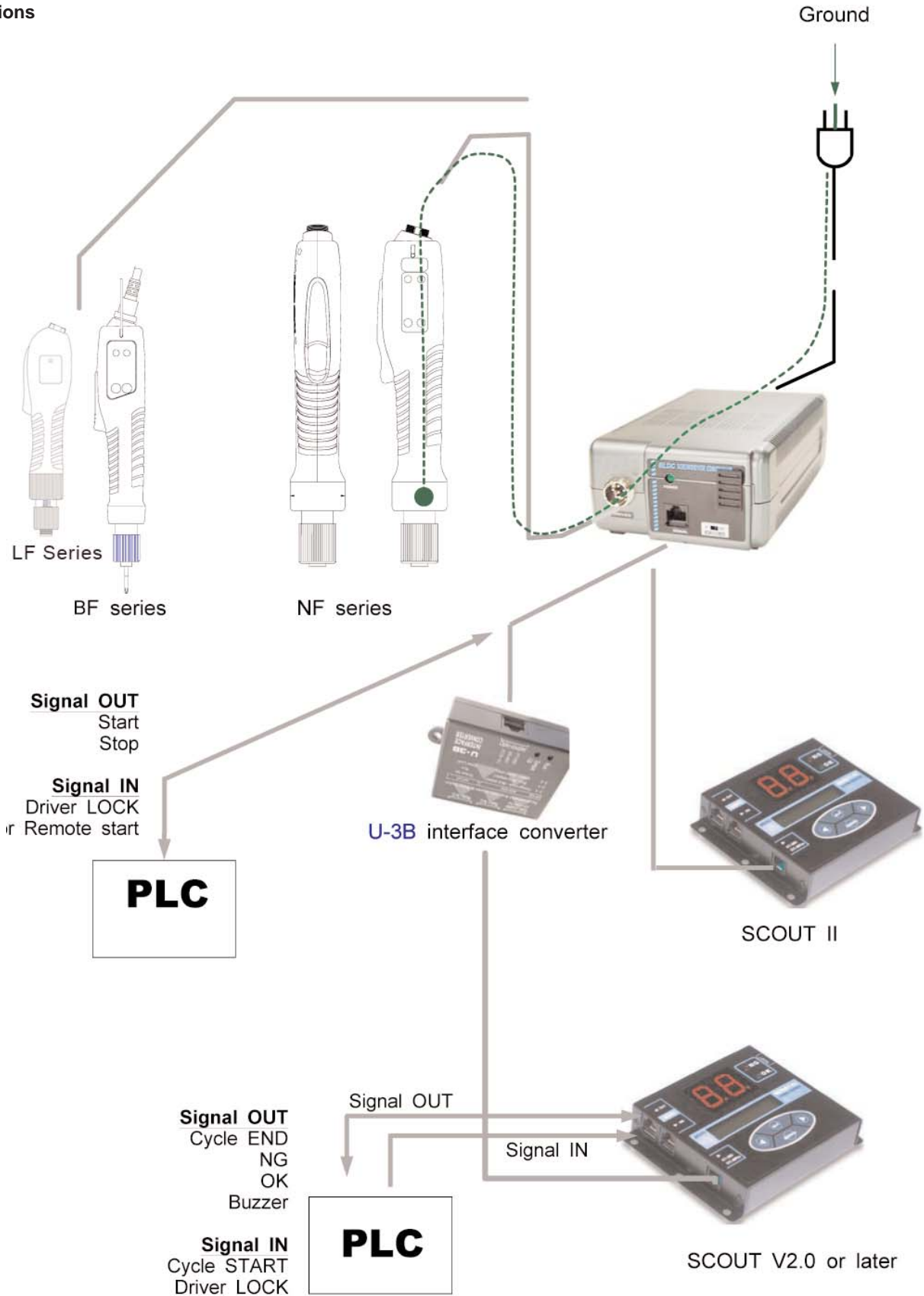
## Timing Chart



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## Connections



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## U-3B Interface Converter (Accessory)

The PLC interface converter provides three types of signals by converting the open collector signal from STC 30 Plus v4.3 & STC 40.

Model: U-3B

Item #145753

Size (WxDxH): 3" x 2 3/8" x 1"

Weight 3.6 oz



### Types of Signals:

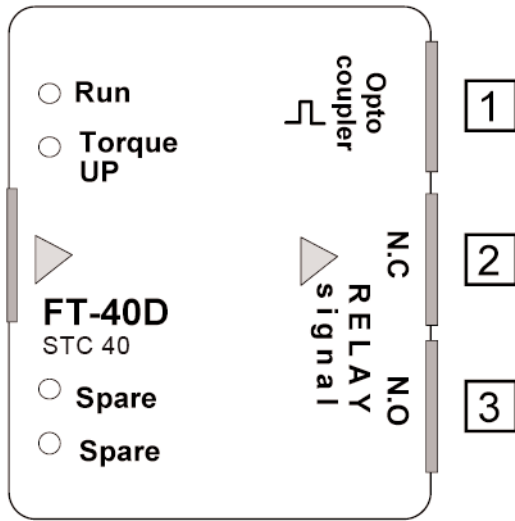
Open Collector by Opto-Coupler (Reversed)

Relay Contact (Normal Close)

Relay Contact (Normal Open)

Opto Coupler: 12-24V (10mA max)

Relay Contact: 30VDC 1a Max



Relay power off when not use



### 8PIN Configuration and Output

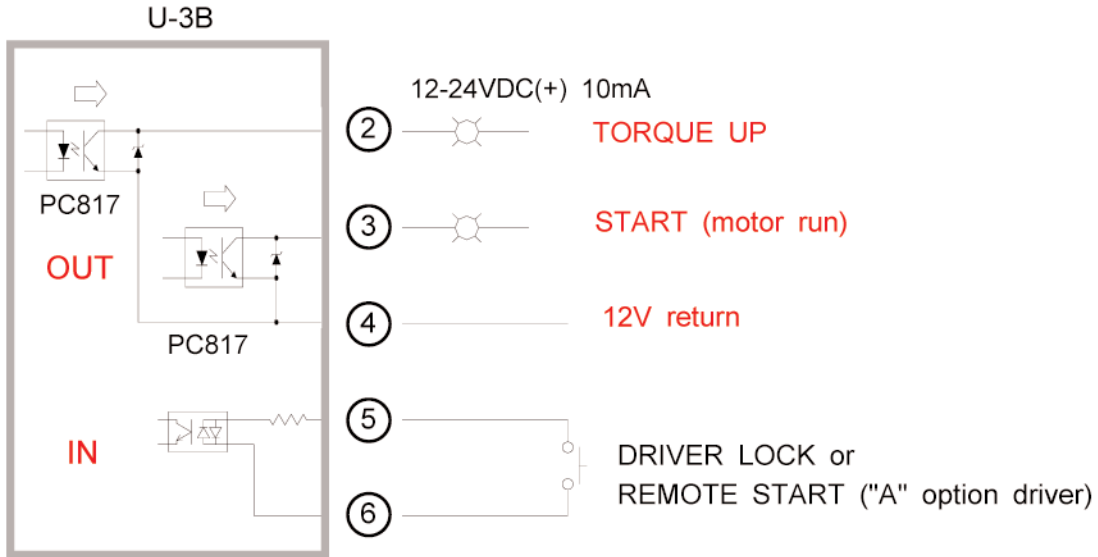
No	Color	Interface Signal	FT-40D STC 40	U-3B Interface converter I/O port		
				1	2	3
1	ORANGE	Spare				
2	ORANGE STRIPE	Torque Up				
3	BLUE	Motor Run				
4	BLUE STRIPE	Common for 2&3 wire				
5	GREEN	Motor Lock or Remote Start				
6	GREEN STRIPE					
7	BROWN	No use				
8	BROWN STRIPE	Spare				

# STC40 Transformer

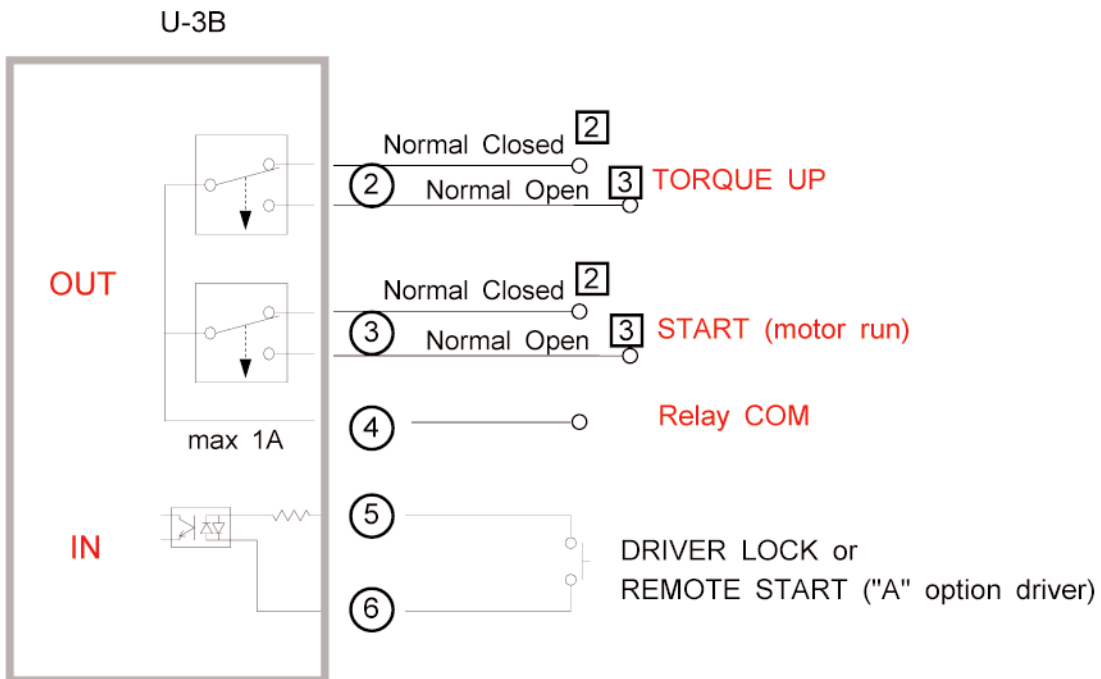
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## U-3B interface converter I/O details

### 1 Opto-coupler port



### 2 & 3 Relay N.C & N.O port



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## Mountz Calibration & Repair Services

Mountz Inc. features an experienced calibration and repair staff. Our trained technicians can calibrate and repair most any tool. Mountz provides rapid service with quality that you can trust as we offer three state-of-the-art calibration lab and repair facilities that can calibrate up to 20,000 lbf.ft.

With over 45 years of experience, Mountz's in-depth knowledge of torque is reflected in our tool's craftsmanship and our ability to provide solutions to both common and uncommon torque applications. We perform calibrations in accordance with ANSI/NCSL-Z540. Mountz is dedicated solely to the manufacturing, marketing and servicing of high quality torque tools.

Mountz is an ISO 9001 certified and ISO 17025 accredited company.

## Tool Service & Repair Capability

- Torque Wrench Calibration: Click Wrench, Dial Torque Wrench, Beam Wrench, Cam-Over & Break-Over Wrench
- Torque Screwdrivers: Dial, Micrometer, Preset & Adjustable
- Torque Analyzers/Sensors: All brands
- Electric Screwdrivers: All brands
- Air Tools: All brands  
Impact Wrenches, Drills, Pulse Tools, Grinders, Percussive Tools, Air Screwdrivers, Nutrunners, DC Controlled Nutrunners
- Torque Multipliers: All brands

## Mountz Torque Testers and Calibration Equipment

Torque tools go out of calibration with use. Calibrating a torque tool is a fine-tuning process of bringing the tool back within its tolerance. Torque testers can also be used for quick tools tests on the line or in the lab to determine whether torque tools are holding a given setting.

A regular torque tool calibration and re-calibration guarantees the operator repeatable accuracy and adherence to international standards. Torque testing also ensures torque equipment is operating to peak performance and can highlight potential tooling problems before they arise perhaps due to tool wear or broken components.

Controlling torque is essential for companies to ensure their product's quality, safety and reliability isn't compromised. The failure of a three-cent fastener that isn't properly tightened can lead to catastrophic or latent failures. Fasteners that are insufficiently torqued can vibrate loose and excessive torque can strip threaded fasteners. Using a quality torque tool has become increasingly important for many companies to ensure that proper torque is being applied and maintains gauge requirements associated with the ISO 9001 Quality Standard. Look for the Mountz hexagon logo - it's a stamp for quality tools, service and knowledge in the field of torque control.

## Mountz Service Locations

### Eastern Service Center

19051 Underwood Rd.  
Foley, AL 36535  
Phone: (251) 943-4125  
Fax: (251) 943-4979

### Western Service Center

1080 N.11th Street  
San Jose, CA 95112  
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Fax: (408) 292-2733

[www.mountztorque.com](http://www.mountztorque.com)  
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Download a "Service Form" and include a copy when you send the tools in to be serviced.

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