

STC30 Plus (v4.0) Transformer

Rev 2.0

Power

Securely place the power cord into the back of the STC30 Plus. 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 30 Plus (v4.0) is positioned in the proper setting (EF or K). See diagram. Only operate tool in proper "Mode" setting.

EF Mode

Low = Output is 20VDC
High = Output is 30VDC

Electric Drivers to use in EF Mode:

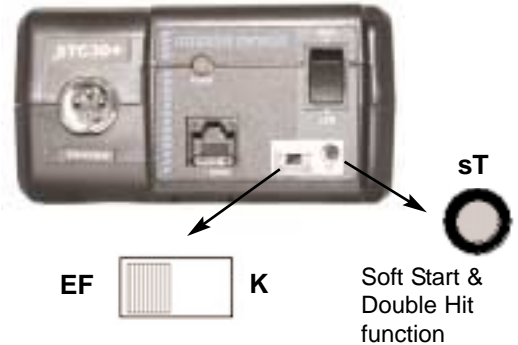
A4500- 5000
SS300-7000
CL2000-7000
EF150-180

K Mode

Low = Output is 30VDC
High = Output is 38VDC

Electric Drivers to use in K Mode:

K150-450



Make sure the switch is correct position before operating. Either EF or K mode.

Note: There are two models of the STC30 Plus v4.0
Item #145681 Operates: A-Series, CL-Series, EF-Series, K-Series
Item #145682 Operates: SS-Series

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. Select HIGH & LOW speed button. Select the appropriate speed for your application.
3. Turn driver on and check for proper rotation. FOR-clockwise, REV-counterclockwise.
4. To apply torque, squeeze the lever (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.

Soft Start Mode

Press the "sT" button in the lower bottom right. The power light will blink once and turn **Yellow**, which indicates that you are in Soft Start mode. There are 4 different time settings for the Soft Start mode which are (0.2, 0.3, 0.5 & 0.6 seconds). When you select this mode it starts at 0.2 seconds.

The unit has EEP ROM, which allows the settings for the soft start and double hit to be kept once an operator turns off unit and then back on. Example: If the transformer is set at the 0.6 seconds setting for the soft start mode and the unit is turned off, it will keep that setting when unit is turned on

Push "sT" Button	Function	LED Light
0	Standard	Green
1st	Soft Start 0.2 Seconds	Yellow Light Blink Once
2nd	Soft Start 0.3 Seconds	Yellow Light Blink Twice
3rd	Soft Start 0.5 Seconds	Yellow Light Blink Three times
4th	Soft Start 0.6 Seconds	Yellow Light Blink four times
5th	Double Hit Mode	Red

Quick Reminder

Green Light = Operating in Standard mode
Yellow Light = Operating in Soft Start mode
Red Light = Double Hit mode

Double Hit Mode

The Double Hit mode is for very soft joint applications. When an electric screwdriver runs down a fastener and the tool clutches off once the preset torque is achieved there can be some joint relaxation that can occur. The Double Hit mode has the electric screwdriver perform a second hit to stabilize the torque for joint relaxation.

Joint relaxation is caused by the surface of part(s) embedding or by "soft parts" such as gaskets, plastics or spongy material, which collapses under the clamping force created in a torque condition. For Hard Joint applications there is no need to use the Double Hit mode.

Press the "sT" button continuously until the power light turns **Red**.

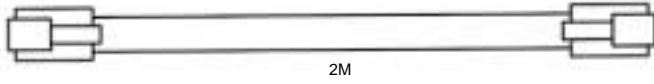
The clutch of the electric driver works twice at the set torque under the "Double Hit" mode. The Double Hit will increase the repeatability accuracy at the target torque by double checking.

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Connector and Cables (These cables are included with Scout Screw Counter)

Cable for connecting Scout to the STC30 Plus (Item #41-801120)



RJ-11
Modular Jack



Signal Cable (Item #41-801121)



Pin No.	Color	Function
1	Solid Orange	Stop
2	White/Orange	Start
3	Blue	DC(-)
4	White/Blue	Driver Lock
5	Green	Driver Lock
6	White/Green	N/A

OCP (Over Current Protection)

The power will shut down automatically when the current exceeds 12 - 13A. 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 1 second or when current is over 9A 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		Primary OCP	Secondary OCP	
Detection	Limit current	12 ~ 13A	Condition A 4A	Condition B 9A
	Time duration	X	1 sec.	0.5 sec.
Protection		Whole power shuts down permanently	Output power disappears for 5 sec.	
Protection Signal	LED	X	blinking Green — Orange — Off	blinking Orange — Off
	Buzzer	X	Normal frequent beep On/Off	Higher Frequent beep On/Off
Recovery		Turn off the power switch	Auto recovery after 5 sec.	

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.

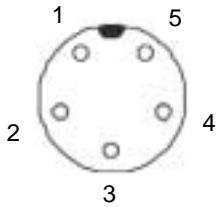
Ratcheting Clutch Alarm

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-30 Plus 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.

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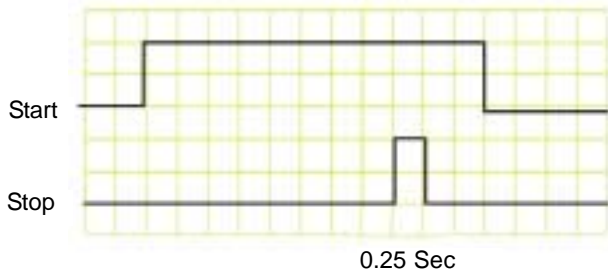
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Output Pin Connection



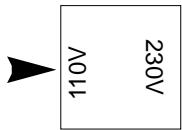
- 1: Motor (+)
- 2: Limit
- 3: Motor (-)
- 4: Drive
- 5: Ground

Timing chart for Start / Stop Signal

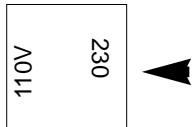


Input voltage selection

110VAC Selected



230VAC Selected



Interface for Start / Stop Signal & Driver Lock

