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TAC2 FM 2.4 GHz Wireless Click Wrench Charger
Operating Instructions

The Sturtevant Richmont TAC2 FM 2.4 GHz click wrench charger is designed and manufactured to provide a charger and base for the TAC2 tool.

Features

Secure latching mechanism to align charging contacts.
Multiple input power options.
Multiple mounting options.
Three Indication LEDs: Power, Status, and Fault

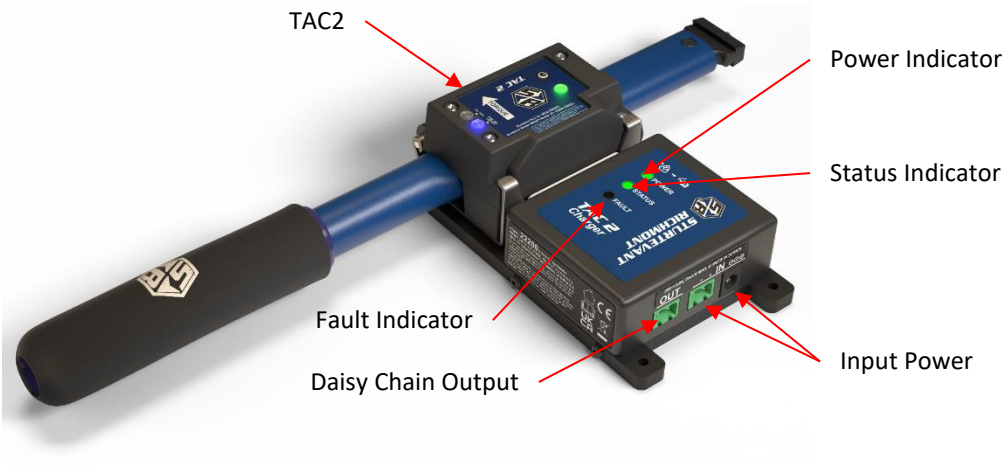

Figure 1 TAC2 Mounted In Charger

Environmental Conditions

This product is intended for indoor use.
Operating/Storage Temperature: 32°F to 113°F (0°C to 45°C)
Operating/Storage Maximum Relative Humidity: 95% non-condensing
Maximum Altitude: 2000 meters

Electrical Ratings

Input Voltage: 24 V ⎓ 2 A Max.
Charging Output Voltage: 0 to 2 V ⎓ 0.4 A
Daisy Chain Output Voltage: 24 V ⎓ 2 A Max.
Charger Type: NiMH, 1.2 VDC
Note: A maximum of 8 chargers may be daisy chained together from one power source. Input voltages other than 24 VDC will affect the number of chargers that can be daisy chained.

Important User Information

⚠ The user shall consult this documentation in all cases where this caution symbol ⚠ is marked. If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Safety

- ALWAYS wear safety glasses and all other required safety equipment when operating this tool.
- Never immerse the tool in liquids.

Power Options

The charger may be powered using one of the following options:

1. 24 VDC from the Global 400 or Global 400mp controller.
    a. The cable part number is SRT22209.
    b. The cable length is 6 meters.
    c. Terminate the stub end with the 2-position connector provided with the charger.
    d. The cable connects from the REMOTE port on the controller to the +/- IN on the charger.

    If a charger is powered from a Global 400 or Global 400mp, wet contacts cannot be used for the Global relay contacts.
2. 24 VDC from an AC/DC power adapter.
    a. The adapter part number is SRT22208.
    b. The cable length is 1.2 meters.
    c. The cable connects from 100-240 VAC, 50/60 Hz to the barrel connector on the charger.
3. 24 VDC from customer power supply.
    a. Terminate one end of a 2-conductor cable with the 2-position connector provided with the charger. The connector accepts 24 to 14 AWG (0.2 to 2.5 mm^2) conductors. 18 AWG (1 mm^2) is recommended.
        i. +24 VDC to position 1.
        ii. GND to position 2.
    b. An optional set of two strain relief covers is available as part number SRT826003.
    c. The cable connects from the 24 VDC power to the +/- IN on the charger.
4. 24 VDC from another TAC2 Charger.
    a. Terminate both ends of a 2-conductor cable with the 2-position connectors provided with the charger. The connector accepts 24 to 12 AWG (0.2 to 2.5 mm^2) conductors. 18 AWG (1 mm^2) is recommended.
        i. +24 VDC to position 1 on both connectors.
        ii. GND to position 2 on both connectors.
    b. An optional set of two strain relief covers is available as part number SRT826003.
    c. The cable connects from the OUT of one charger to the +/- IN on the next charger.
    d. Up to 6 chargers may be connected in series.

Note: Replacement 2-position connectors are available to order using part number SRT826002.

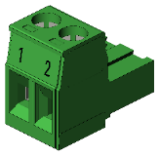

Figure 2 24 VDC Connector

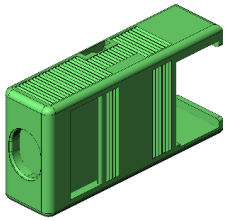

Figure 3 24 VDC Connector Strain Relief

Mounting Options

The charger may be mounted in either a vertical or horizontal orientation.



Figure 4 Vertical Mounting



Figure 5 Horizontal Mounting

The charger may be mounted using one of the following options:

1. Benchtop
    a. Use M6 or similar size fasteners to secure the unit to a benchtop or other horizontal surface using the three mounting holes.
    b. Standoffs are available to raise the charger off the benchtop surface by 1 inch. A set of three standoffs is part number SRT826000.
2. Wall
    a. Use M6 or similar size fasteners to secure the unit to a wall or other vertical surface using the three mounting holes.
    b. Standoffs are available to raise the charger off the wall surface by 1 inch. A set of three standoffs is part number SRT826000.
3. DIN Rail
    a. A spring clip adapter kit is available to secure the charger to a 35mm wide DIN rail.
    b. The kit is available as part number SRT826001.



Figure 6 Mounting Standoff

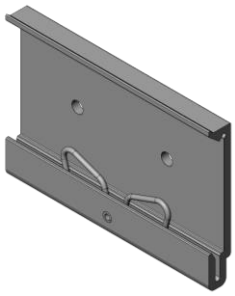

Figure 7 DIN Rail Mounting

Operation

After mounting the charger and connecting power, the POWER indication LED should be green. Insert the charging contact side of the TAC2 tool into the mounting clip, aligning the top housing under the arms of the retention system. Rotate the tool down onto the base until the rollers snap over the tool case.

The charger will evaluate the battery status. The STATUS indication LED should begin flashing green to indicate fast charging. When the charger determines charging is complete, the LED will change to solid green and the charger will transition to trickle charging to maintain the battery charge.

LED Indication

The various LED indications are shown in Table 1.

Table 1: LED Indication	
POWER LED Color	**Meaning**
Green	Power is supplied to the charger.
STATUS LED Color	
Yellow	Determining battery status.
Double Red-flash	Battery fault detected.
Red	Charging failed (a condition is preventing proper charging like battery voltage too low after 3 hours of fast charging).
Green-flash	Fast charging.
Green	Charge complete / trickle charging.
FAULT LED Color	
Red	Charger power supply overcurrent / output voltage short / overvoltage.

Troubleshooting

Table 2 provides some troubleshooting tips.

Table 2: Troubleshooting Tips		
Problem	**Possible Causes**	**Possible Solutions**
POWER LED does not light.	No power to charger.	Verify power is provided to one of the IN connectors.
		Check the power cable for damage.
		Check the polarity of the wiring.
		Verify the power source is active.
STATUS LED does not light when tool is inserted into charger.	No power to charger.	See above.
	Charging contacts are not aligned.	Remove the tool and reinsert into the retention system.
	Charger contacts are damaged.	Contact factory for support.
	Battery contacts are shorted.	Clean the battery contacts of any debris.
	Tool battery is damaged.	Contact factory for support.
Red STATUS LED.	Incomplete charging due to temperature.	Allow tool to acclimate to acceptable temperature range.
	There is an issue charging.	Contact factory for support.
	Tool battery is damaged.	Contact factory for support.
FAULT LED is on.	Output voltage short circuit.	Check the wiring on the OUT connector.
	Charger is damaged.	Contact factory for support.

Care and Maintenance

This charger should be cleaned with a soft cloth. Do not immerse the charger in liquid or use any solvent to clean the charger.

Additional Information

Additional information is available at ***www.srtorque.com***. You can also call customer service at 1-847-455-8677 or send e-mail to customerservice@srtorque.com.