



Warnings and Cautions


The safety notices and warnings for protection against loss of life (the users or service personnel) or for the protection against damage to property are highlighted in this document by the terms and pictograms defined here. The terms used in this document and marked on the equipment itself have the following significance:



WARNING, To Avoid Injury:

- Read and understand all the safety recommendations and all operating instructions before operating tools and controllers. Save these instructions for future reference.
- Train all operators in the safe and proper use of power tools. Operators should report any unsafe condition to their supervisor.
- Follow all safety recommendations in the manual that apply to the tools being used and the nature of the work being performed.
- Verify that all warning labels illustrated in this manual are readable. Replacement labels are available at no additional cost from STANLEY ASSEMBLY TECHNOLOGIES.



- Danger** Indicates that death or severe personal injury will result if proper precautions are not taken.
- Warning** Indicates that death or severe personal injury **may** result if proper precautions are not taken.
- Caution** Indicates that property damage may result if proper precautions are not taken.
-  Indicates an electrical hazard. This icon appears as a part of a Danger, Warning, or Caution notice.



Indicates that death or severe personal injury will result if proper precautions are not taken.



Indicates that death or severe personal injury **may** result if proper precautions are not taken.



Indicates that property damage may result if proper precautions are not taken.



Indicates an electrical hazard. This icon appears as a part of a Danger, Warning, or Caution notice.



WARNING, To Avoid Injury:

- Only allow suitably qualified personnel to install, program, or maintain this equipment and or system.
- These persons must be knowledgeable of any potential sources of danger and maintenance measures as set out in the Installation, Operations, and Maintenance manual.
- This product must be transported, stored, and installed as intended, and maintained and operated with care to ensure that the product functions correctly and safely.
- Persons responsible for system planning and design must be familiar with the safety concepts of automation equipment.



WARNING, ELECTRICAL HAZARD, To Avoid Injury:

- Install modules in dry, indoor, non-flammable, and non-explosive environments only.
- Do not use this product near water, for example near a washbowl, wet basement, or the like.
- This product should be located away from heat sources such as radiators or other devices that produce heat.
- This product should not be subjected to vibration or shock or in close contact with water or other liquids.
- To minimize electrical interference, place the module as far away from possible sources of electrical noise, such as arc welding equipment.

What's Included

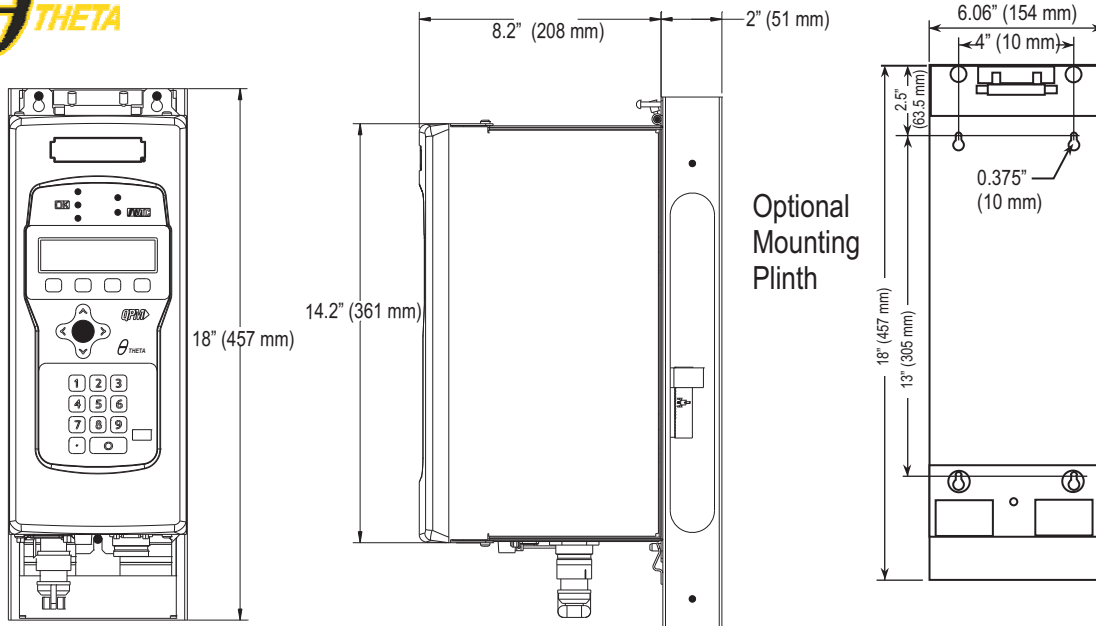


Part No.	Description
	Controller, Theta
21C104806	16 Pin Connector & Backshell
21Z100700	Document Pack,
	Power Cord From List Below
	Shipping Wt: 20 lb (9.1 kg)
	Controller Wt: 15 lb (6.7 kg)
Part No.	Power Cord Description
20C102002	US Power Cord 115V, 2m
21C103902	US Power Cord 230V, 2m (6-20R)
20C102102	Euro Power Cord 230V, 2m
20C102202	UK Power Cord 230V, 2m
20C103802	Twist Lock Power Cord 115V, 2m
20C103804	Twist Lock Power Cord 115V, 4m



Controller QC1001

Installation



When mounting plinths are placed next to each other the center to center distance between the mounting holes in different plinths is 2" (50.8 mm). When mounting plinths are placed one above another, the center to center distance between the mounting holes in different plinths is 6" (152.4 mm).



WARNING, INTEGRATED E-STOP CIRCUIT NOT PRESENT, To Avoid Injury:

When a Theta controller connects to a tool where a fault can result in personal injury or substantial damage to property, an E-stop circuit is required. An E-stop circuit must be created in the external power supply line.



WARNING, To Avoid Injury:

- Always wear eye and foot protection when installing equipment.
- Only use equipment and accessories specifically designed to operate with Stanley Assembly tools and use them only in the manner for which they are intended.
- Do not install worn, damaged, or modified equipment that may be unsuitable for safe use.
- Train all operators in the safe and proper use of power tools. Operators should report any unsafe condition.
- Store idle tools and accessories in a safe location accessible only by trained persons.
- Disconnect power source (air, electricity, etc.) from tool prior to making adjustments, changing accessories, or storing.
- Prior to operation, always check and test tools and accessories for damage, misalignment, binding or any other condition that may affect operation. Maintenance and repair should be performed by qualified personnel.
- Do not operate tools in or near explosive environments or in the presence of flammable liquids, gases, dust, rain or other wet conditions.
- Keep the work area clean, well lit and uncluttered.
- Keep unauthorized personnel out of the work area.

DC Electric Tools & Controllers:

! Install tools in dry, indoor, non-flammable, and non-explosive environments only – Humidity: 0 to 95% non-condensing and Temperature: 32 to 122 °F (0 to +50 °C).

! Installation, maintenance and programming should be performed by qualified personnel. Follow all manufacturer installation instructions and applicable regulatory electrical codes and safety codes.

! Tool and controller plugs must match the outlet. This equipment must be earth grounded. Never modify a plug in any way or use any adaptor plugs.

! Avoid body contact with electrically energized surfaces when holding a grounded tool.

! Prior to connecting a power source, always ensure the tool or controller is turned off.

! Limit controller access to trained and qualified personnel. Lock controller cabinets.



WARNING, ELECTRICAL HAZARD, To Avoid Injury:

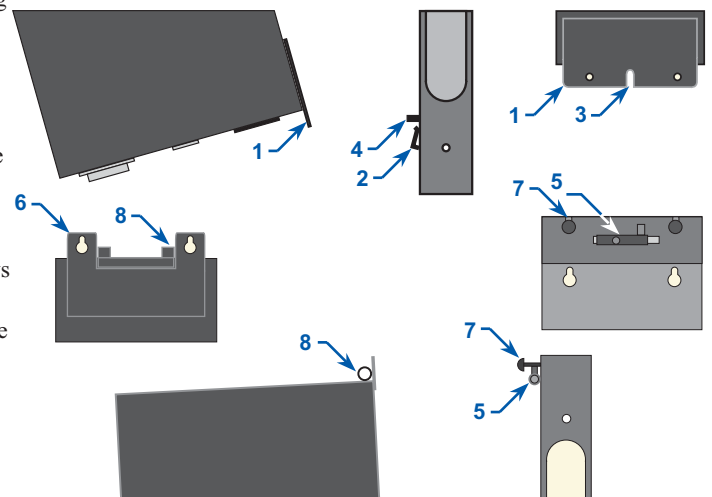
- Never use a tool with a damaged cable.
- Never abuse a cable, carry a tool by its cable, hang a tool by its cable, or pull on a cable to disconnect it from the tool or the controller.

1. Install the Theta Controller either directly to the wall or to an optional mounting plinth. See plinth instructions below.
2. Fasteners through four mounting holes to secure the controller or plinths to a wall or surface.
3. Connect the Theta Controller to a power source.
4. Connect the tool cable to the Theta controller and press the power switch on the controller.
5. The controller displays a language list at the first boot up. Press the up/down arrows to select a language, then press either OK from the interactive menu button or use the toggle button to save the selection. The controller next displays the run screen and is ready for programming and operation..

Plinths can be connected using 10-32 threaded holes on the bottom and left side and through holes on the top and right side. Make sure the bolts of the barrel-latches [5] on the plinth are retracted. Place the lower flange of the Theta controller [1] into the lip [2] on the plinth

Align the slot [3] in the flange with the lower mounting-pin [4] on the plinth while placing. Rotate the top of the controller back towards the plinth.

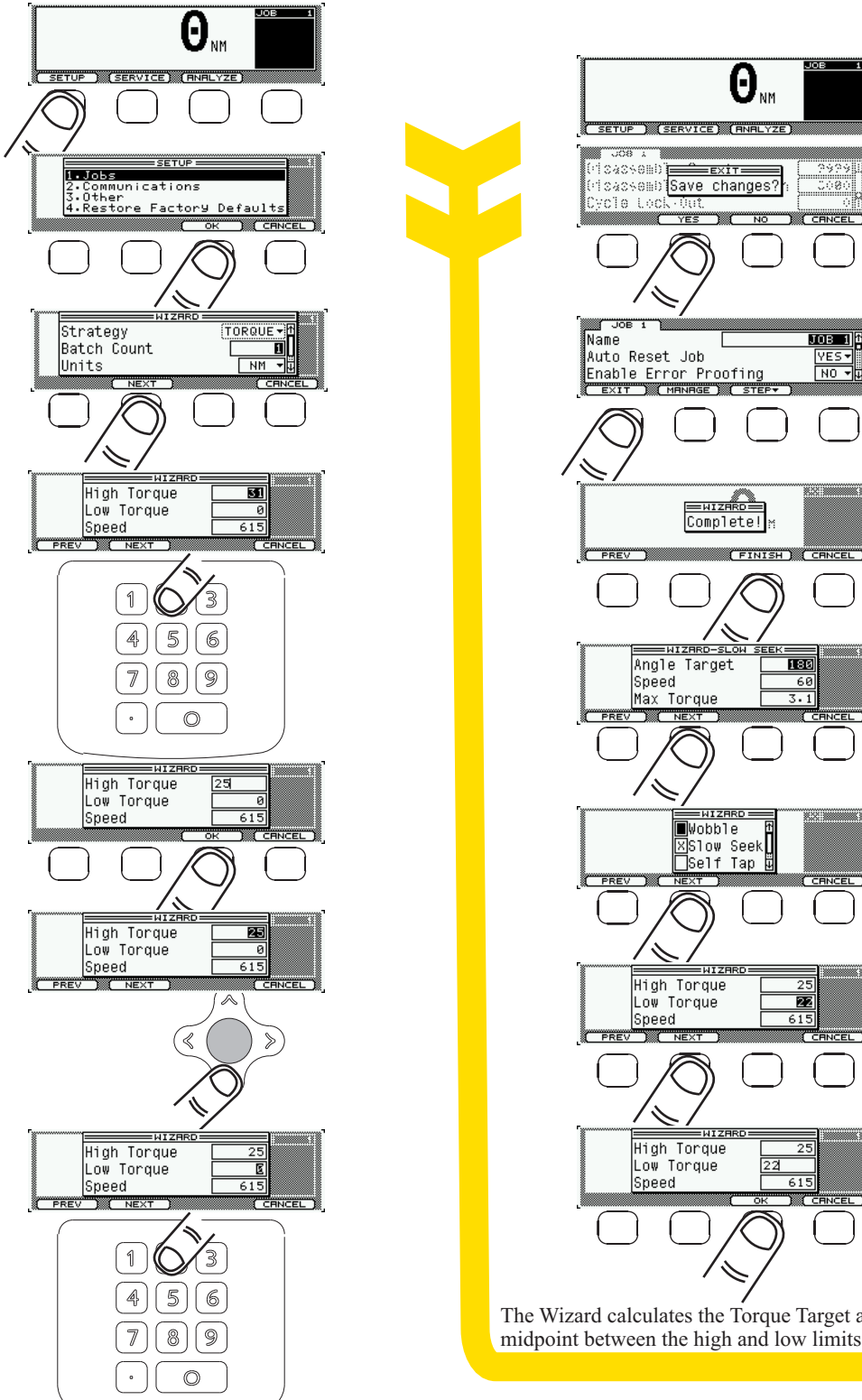
Place the openings on the upper flange of the controller [6] over the upper mounting pins [7] on the plinth. Release the bolts on the barrel-latches [5] making sure the bolts enter the two barrels [8] on the controller.



**WARNING, EXCESSIVE TORQUE CONDITION, To Avoid Injury:**

- ! Only trained and qualified personnel should program controllers.
- ! Never set control limits above the maximum rating of the tool.
- ! Setting control limits above the maximum rating of the tool can cause high reaction torque.
- ! Always test for proper tool operation after programming the controller.

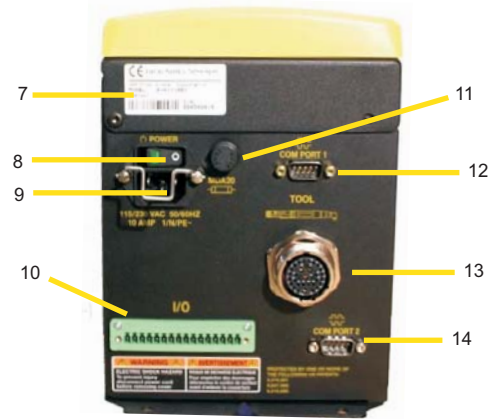
After completing the steps below, see Tool Operation to run the tool.



The Wizard calculates the Torque Target as the midpoint between the high and low limits.



Item	Functional Description
1	Red, Green, Yellow LED's for Limits Evaluation
2	Display
3	Function Keys with Active Label Above
4	Cursor Keys with Center Button to Expand Lists
5	Maintenance Due and ATC _(Patented) Active LED's
6	Numeric Keypad to Enter Numbers or Select Options
7	Controller Label and Serial Number
8	Power Switch
9	Power Input
10	24 VDC Input/Output Connector
11	20A Fuse
12	Serial Connector for Laptop
13	Tool Connector
14	Serial Network Connector



Green	Fastened correctly	The rundown meets all of the parameters for the rundown.
Yellow	Low torque	The rundown was rejected for not reaching low torque or angle.
Red	High torque	The rundown was rejected for exceeding high torque or angle.
All lights	Reverse	Engaging the start lever will loosen the fastener.

Tool Operation



WARNING, ROTATING SPINDLE, To Avoid Injury:

- Always wear eye and foot protection when operating and when in areas where power tools are being used.
- Keep all body parts and clothing away from the rotating end of the tool. Dress properly. Do not wear loose-fitted clothing or jewelry.



TORQUE REACTION FORCE, To Avoid Injury:

- Be alert and maintain good balance, footing, and posture at all times in anticipation of the tool's torque reaction. Do not over-extend or over-reach.
- Be prepared for the change in direction and or a higher reaction force when a tool is in reverse.
- The start lever should be positioned to avoid trapping the operator's hand between the tool and the work piece.

TOOL MAY NOT SHUT OFF, To Avoid Injury:

- If the tool does not shut off at the end of the tightening cycle, contact the person responsible for tool installation or repair. Note: When the tool does not shut off, a stall condition occurs. A stall condition can cause a higher than expected torque reaction impulse.
- Ensure tool is properly installed, adjusted and in good working order.
- Do not use the power tool if the switch does not turn it on and off.
- Apply the tool to the joint following all recommendations in this manual.
- Check to ensure the drive socket is fully seated and locked into position before connecting power to the tool.



WARNING, UNEXPECTED REACTION FORCES, To Avoid Injury:

- ! Be prepared – when a tool operates in reverse, the tool's torque reaction is opposite to the reaction produced when the tool operates in forward direction.
- ! The tool can have a higher initial reaction force when loosening a fastener.
- ! Always stop the tool before changing direction of spindle rotation.

Torque reaction devices absorb tool torque reaction forces. Always use reaction devices when reaction force could injure an operator. Some reaction devices may require modification to fit the application. Follow all appropriate installation instructions.



WARNING, PINCH POINT BETWEEN TORQUE REACTION BAR AND WORK PIECE, To Avoid Injury:

- Never place any body part between a reaction bar and the work piece.
- Before starting the tool, position the reaction bar firmly against a stationary rigid member that is opposite to the spindle rotation.

Prepare to resist the tool's torque reaction:

Start the tool by depressing the start lever or trigger.

Release start lever after the cycle is complete.

One of the three (green, yellow, and red) status lights on both the tool and controller will display.