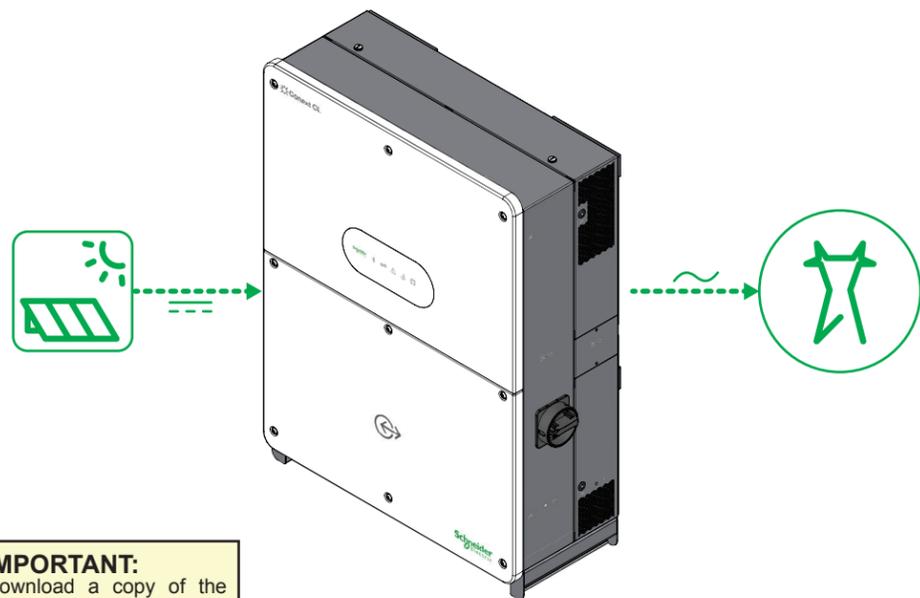


Quick Install Guide

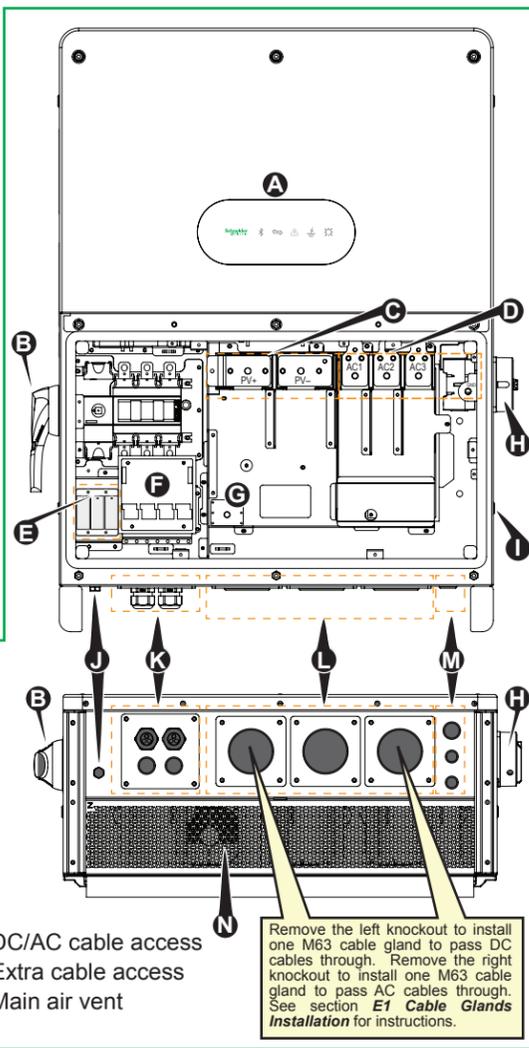
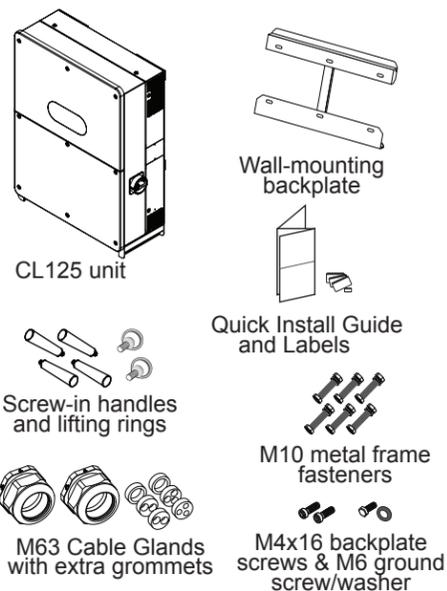


IMPORTANT: Download a copy of the **Owner's Guide** from the website to the smart device and/or laptop you are using at the commissioning site.

B Introduction

Conext CL125 (also referred to as CL125 PV Inverter) is a transformerless three-phase photovoltaic (PV) string inverter that is designed to be an integral part of any utility grid-connected PV Power System. The Conext CL125 is designed to convert DC power generated from the PV array into AC power that is compatible with utility grade AC power.

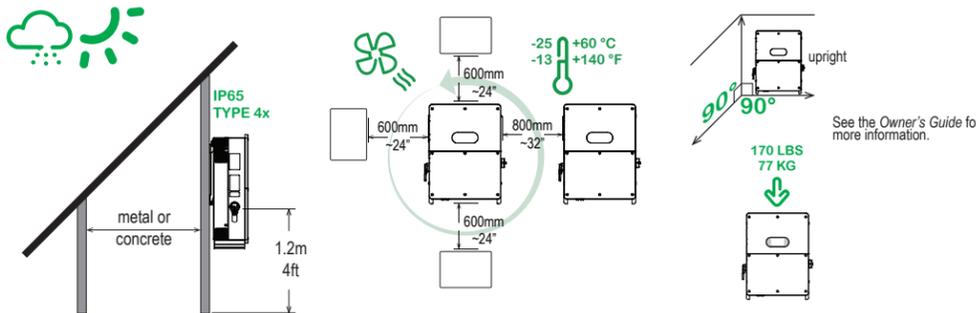
Features



- A LED panel
- B DC disconnect switch
- C DC (PV) input terminals [PV+, PV-]
- D AC output terminals [AC1, AC2, AC3, GND]
- E DC surge protection device (SPD)
- F Comm. circuit board with RS-485 ports
- G DC Ground/PE terminal
- H AC disconnect switch
- I Chassis Ground/PE terminal
- J Waterproof pressure vent
- K Communication cable access
- L DC/AC cable access
- M Extra cable access
- N Main air vent

Remove the left knockout to install one M63 cable gland to pass DC cables through. Remove the right knockout to install one M63 cable gland to pass AC cables through. See section **E1 Cable Glands Installation** for instructions.

C Mounting Considerations



Exclusion for Documentation
UNLESS SPECIFICALLY AGREED TO IN WRITING, SELLER (A) MAKES NO WARRANTY AS TO THE ACCURACY, SUFFICIENCY OR SUITABILITY OF ANY TECHNICAL OR OTHER INFORMATION PROVIDED IN ITS MANUALS OR OTHER DOCUMENTATION; (B) ASSUMES NO RESPONSIBILITY OR LIABILITY FOR LOSSES, DAMAGES, COSTS OR EXPENSES, WHETHER SPECIAL, DIRECT, INDIRECT, CONSEQUENTIAL OR INCIDENTAL, WHICH MIGHT ARISE OUT OF THE USE OF SUCH INFORMATION. THE USE OF ANY SUCH INFORMATION WILL BE ENTIRELY AT THE USER'S RISK; AND (C) REMINDS YOU THAT IF THIS MANUAL IS IN ANY LANGUAGE OTHER THAN ENGLISH, ALTHOUGH STEPS HAVE BEEN TAKEN TO MAINTAIN THE ACCURACY OF THE TRANSLATION, THE ACCURACY CANNOT BE GUARANTEED. APPROVED CONTENT IS CONTAINED WITH THE ENGLISH LANGUAGE VERSION WHICH IS POSTED AT [HTTP://SOLAR.SCHNEIDER-ELECTRIC.COM](http://solar.schneider-electric.com).

D Installation (Mounting)

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- This equipment must be installed only by qualified personnel and serviced only by authorized service personnel equipped with appropriate PPE and following safe electrical work practices.
- Before opening any doors or covers:
 - Consult system diagram to identify all power sources. This equipment is energized from multiple sources—the DC input and the AC grid.
 - When the PV array is exposed to light, it supplies a DC voltage to this equipment.
 - De-energize, lock out, and tag out all power sources. The DC disconnect is located on the left side of the unit. The AC disconnect switch is located on the right side of the unit.
 - Wait at least ten minutes for internal capacitors to discharge to safe voltages.; Wearing appropriate PPE, verify that all circuits are de-energized using a suitably rated meter.
- Never energize the inverter with the covers removed.
- Replace all devices and covers before turning on power to this equipment.
- The DC conductors of this photovoltaic system are ungrounded and may be energized.

Failure to follow these instructions will result in death or serious injury.

Check all the materials in the box (see Features) and make sure nothing is missing. The following materials and tools are not supplied but are required to complete the installation (mounting):

- Personal protective equipment (PPE)
- Screwdriver and drill set (powered and/or manual)
- Motorized hand trucks and/or portable crane system

NOTE:

- Obtain all necessary permits prior to starting the installation. Installations must meet all local codes and standards. Installation of this equipment should only be performed by skilled personnel such as qualified electricians and Certified Renewable Energy (RE) System installers.
- For full details on unit installation which includes metal frame installation, alternative lifting techniques, and multiple unit guidelines, see the full Owner's Guide available on the web at <http://solar.schneider-electric.com>.

⚠ CAUTION

HEAVY LOAD HAZARD

- Do not handle and lift the unit by yourself. Use two people to move, lift, and mount the unit.
- Always use proper lifting techniques during installation.
- When handling the inverter, install all four screw-in handles (supplied) to both sides of the inverter first and make sure they are seated correctly in their slots. Install lifting rings (supplied) to the top side of the inverter and make sure they are seated correctly in their slots.
- Use mechanical or motorized hand trucks and/or a portable crane system whenever possible to aid in proper handling.

Failure to follow these instructions can result in moderate or minor injury.

- Mark the metal frame
- Pre-drill and attach the metal frame fasteners
- Install the backplate to the metal frame
- Attach screw-in handles, lifting rings
- Mount
- Fasten backplate screws

NOTE: For torque specifications, go to the Appendix section under **G2 Torque Values**.

NOTE: For detailed mounting instructions see the *Owner's Guide*.

A Important Safety Information

This Guide is intended for any qualified personnel who need to install, operate, configure, and troubleshoot the Conext CL125. Certain configuration tasks should only be performed by qualified personnel in consultation with your local utility and/or an authorized dealer. Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. Qualified personnel have training, knowledge, and experience in:

- Installing electrical equipment and PV power systems (up to 1500 volts)
- Applying applicable installation codes
- Analyzing and reducing the hazards involved in performing electrical work
- Selecting and using Personal Protective Equipment (PPE)

IMPORTANT: No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

- Before using this product, read all instructions and cautionary markings on the unit and all appropriate sections of this manual.
- Use of accessories not recommended or sold by the manufacturer may result in a risk of fire, electric shock, or injury to persons.
- The manufacturer recommends that all wiring be done by a certified technician or electrician to ensure adherence to the local and national electrical codes applicable in your jurisdiction.
- To avoid a risk of fire and electric shock, make sure that existing wiring is in good condition and that wire is not undersized. Do not operate the equipment with damaged or substandard wiring.
- Do not operate the equipment if it has been damaged in any way.
- Do not disassemble the Conext CL125 except where noted for connecting wiring and cabling. See your warranty for instructions on obtaining service. Attempting to service the unit yourself may result in a risk of electrical shock or fire.
- To reduce the risk of electrical shock, disconnect all external power sources from the equipment before attempting installation, and any maintenance (including cleaning or working on any components connected to the equipment). Internal capacitors remain charged for 10 minutes after all power is disconnected.
- The equipment must be grounded. Use the protective grounding conductor provided with the AC input conductors.
- This product is designed for outdoor use and is rated IP65/Type 4x.
- To reduce the chance of short-circuits, always use insulated tools when installing or working with this equipment. Do not leave tools inside.
- Remove personal metal items such as rings, bracelets, necklaces, and watches when working with electrical equipment.
- Do not open nor disassemble the top half of the unit. There are no user-serviceable parts inside.

Read and Save These Instructions - Do NOT store inside the CL125 cabinet.
This guide contains important safety instructions for the Conext CL125 that must be followed during installation procedures. Read and keep this Quick Install Guide for future reference. Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of either symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER
DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING
WARNING indicates a hazardous situation which, if not avoided, can result in death or serious injury.

E Installation (Wiring)

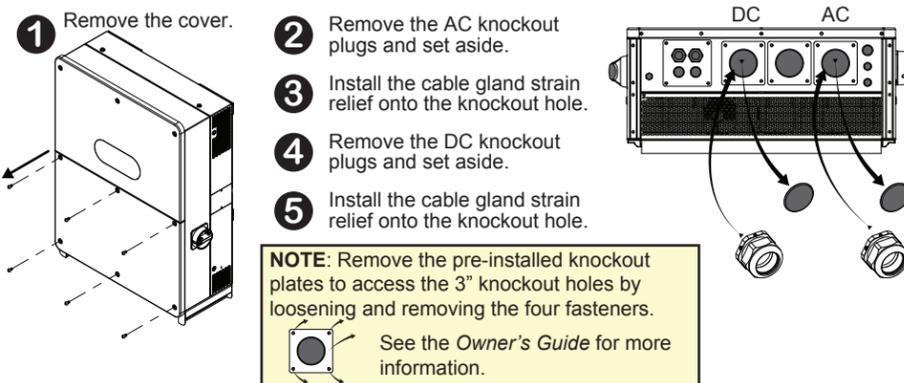
The following materials are required prior to wiring:

- M63 Cable Glands (two sets – one for AC and one for DC)

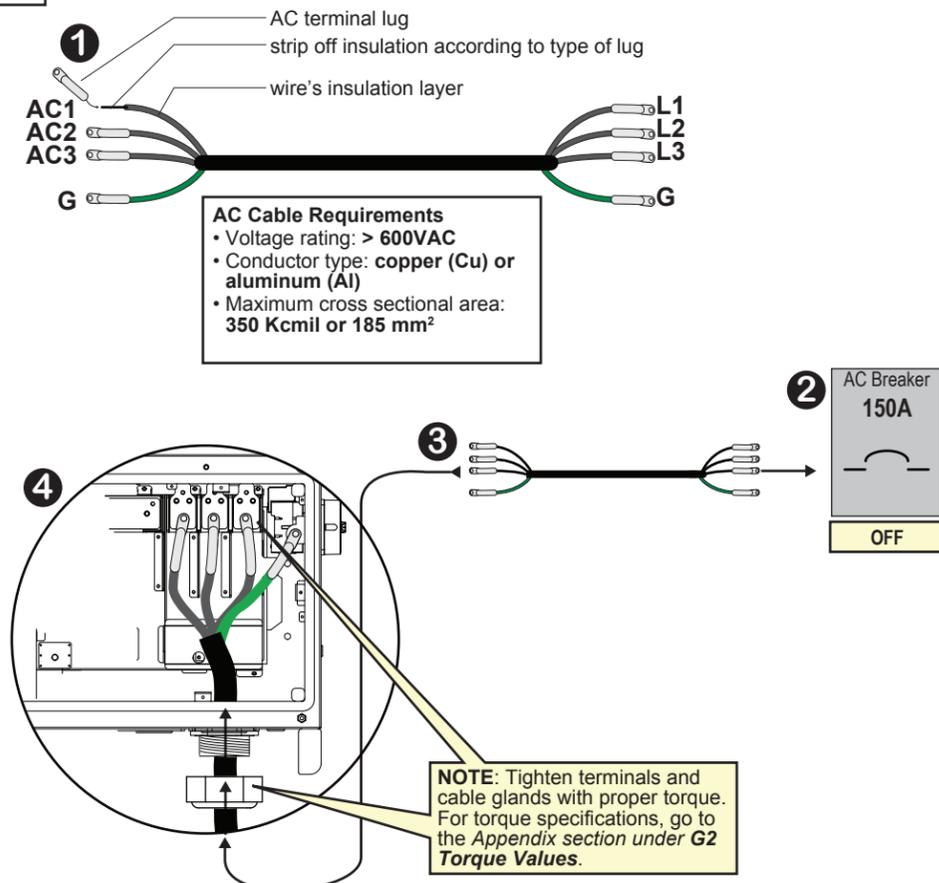
The following materials and tools are not supplied but are required to complete the installation (wiring):

- AC power cable (3-wire + GROUND - see *AC Cable Requirements*)
- DC power cables (red+, black-, ground - see *DC Cable Requirements*)
- Shielded RS-485 cable for Modbus/RS-485 device
- Wire stripper, suitable crimping tool, AC/DC terminal lugs
- Screwdriver and drill set (powered and/or manual)
- Calibrated and appropriately rated digital multimeter (to measure >1500VDC/600VAC)

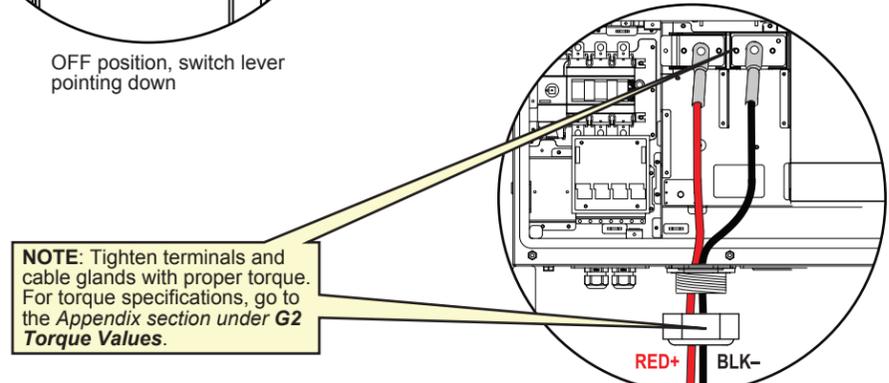
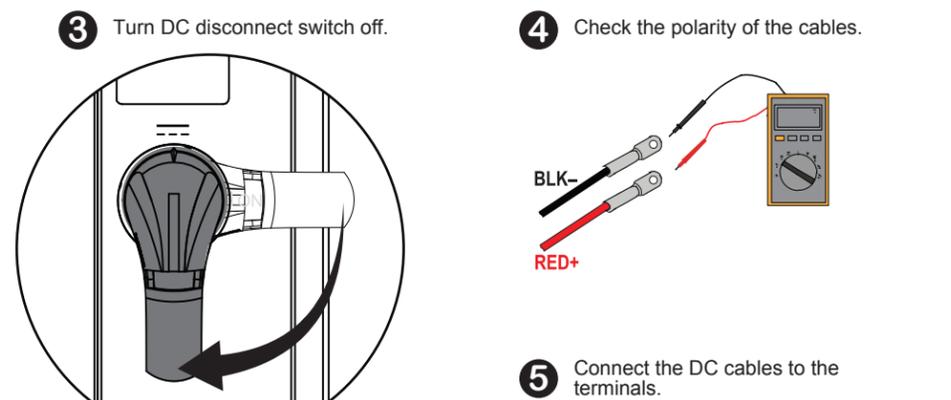
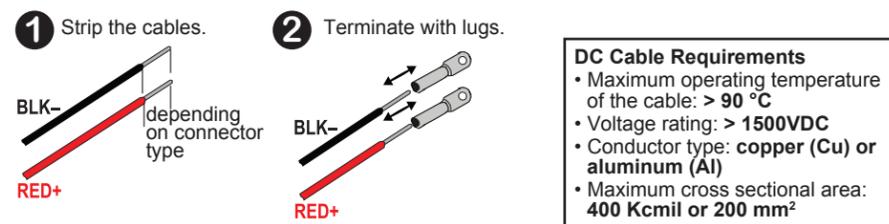
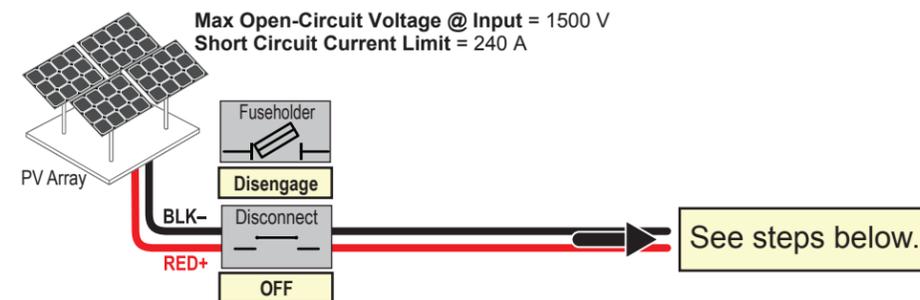
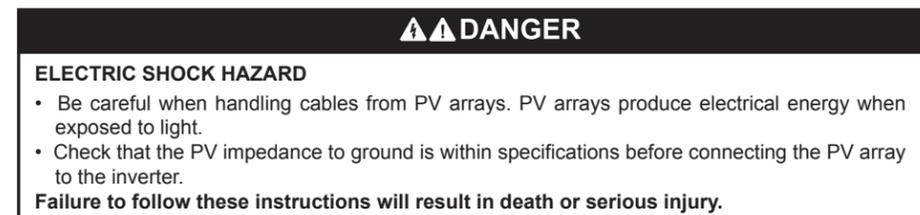
E1 Cable Glands Installation - for more information see the *Owner's Guide*



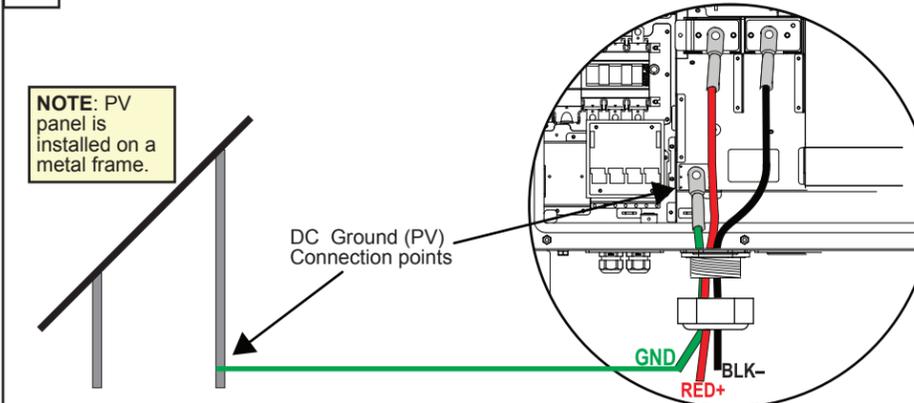
E2 AC Side Cable Connection - for more information see the *Owner's Guide*



E3 DC Side Cable Connection - for more information see the *Owner's Guide*

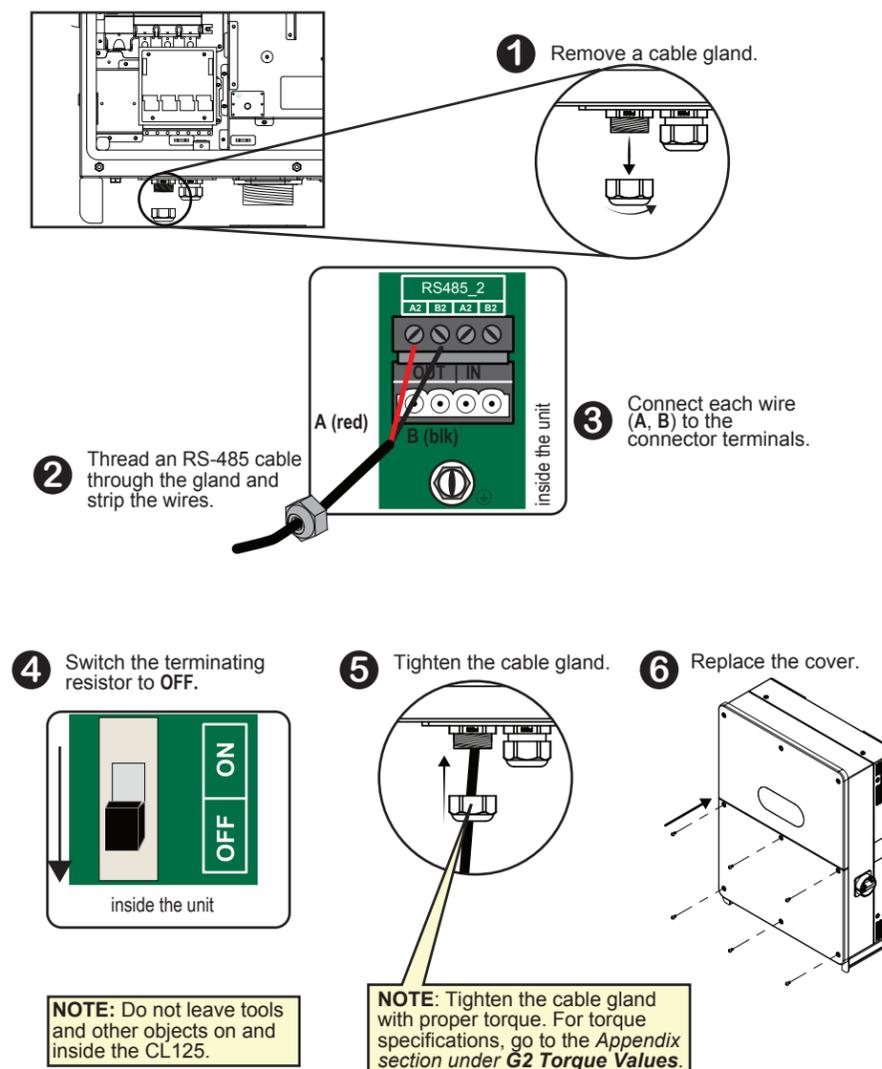


E4 DC Ground Connection - for more information see the *Owner's Guide*



E5 Communication Cable Connection - for more information see the *Owner's Guide*

For a single CL125 only. See the *Owner's Guide* for multiple CL125s.



F Commissioning

Inspection Before Commissioning

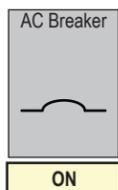


- CL125 accessible?
- CL125 stable and secure on the wall?
- Ventilation - CL125 free of obstructions?
- No tools left on and inside CL125?
- Cable connections tight and secure?
- AC and DC circuit breakers are connected to CL125?
- Unused terminals are sealed?
- Permanently affixed product rating and warning labels?
- iOS or Android tablet (smart device) present at commissioning site?
- eConfigure CL125 APP installed on smart device?
- Owner's Guide downloaded to smart device and/or laptop?

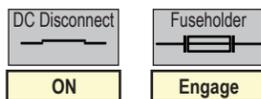
NOTE: Web access is required. Perform the downloads including the latest CL125 firmware package prior to going to the commissioning site.

Commissioning Steps

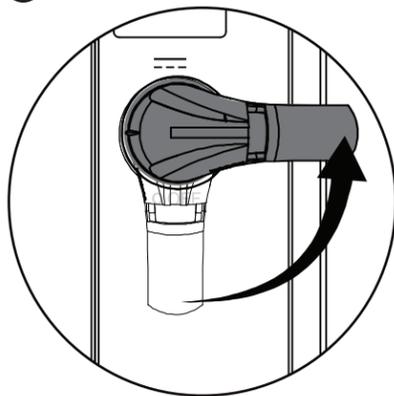
1 Close the AC circuit breaker from the AC combiner.



2 Close the DC disconnect (or engage the fuseholders) from the DC combiner.

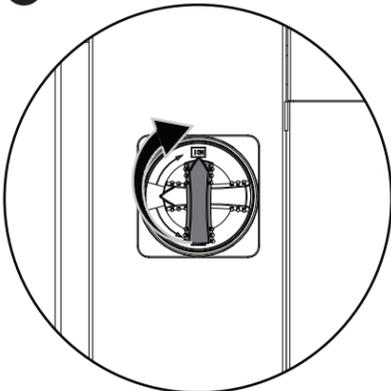


3 Close the DC disconnect switch on the CL125 inverter (ON position, switch lever pointing right).

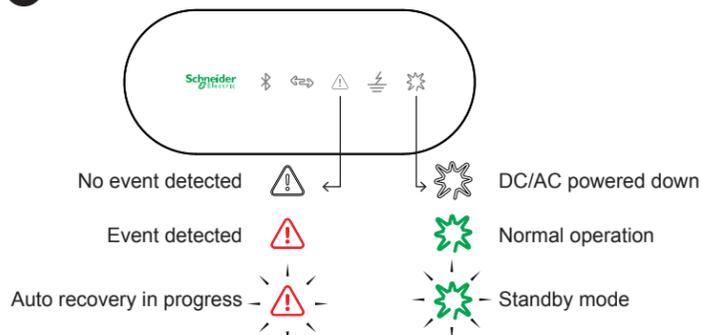


NOTE: If there is enough sunlight and the PV array initializes, then DC power should start energizing the CL125. The LED panel activates soon after.

4 Close the AC disconnect switch on the CL125 inverter (ON position, switch knob pointing up).



5 Observe the LED panel indicators on the CL125 inverter.



NOTE: For more information on LED Panel indicators, see "Commissioning Procedure" in the Owner's Guide.

6 Establish a bluetooth connection to a CL125 inverter with the smart device using the eConfigure CL125 APP.

NOTE: To run the Conext CL125 APP smart device app, you need:

- iOS 10 or above
- Android 5 or above
- Bluetooth 4.0

For more information on the eConfigure CL125 APP, see the Owner's Guide.

7 Perform a firmware upgrade, if necessary. Go to section G3 of the Appendix. If the upgrade was successful, the Bluetooth LED indicator from the LED panel turns ON.

8 Using the eConfigure CL125 APP perform device configurations, if necessary.

9 Using the eConfigure CL125 APP perform a Device Restart.

Contact Information

http://solar.schneider-electric.com
Please contact your local Schneider Electric Sales Representative or visit the Schneider Electric website at: http://solar.schneider-electric.com/tech-support/

G Appendix

G1 Lock Out Tag Out (LOTO)

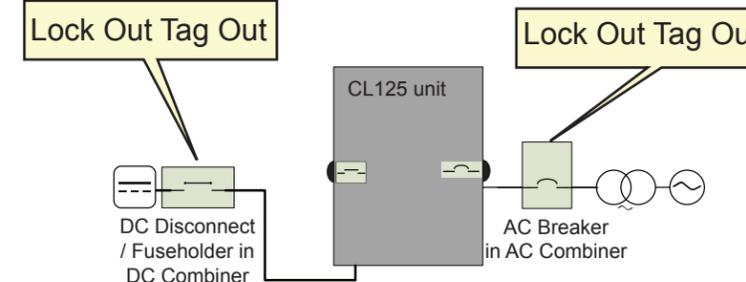
Lock-out refers to the practice of preventing de-energized circuits from being re-energized by putting locks on the disconnecting devices, holding them open. Tag-out refers to the practice of attaching a tag to the disconnect-device locks warning others not to operate the disconnect device and containing information relating to the lock-out, such as the person responsible, the reason, and the date and time. Combined these two practices are called the lock-out and tag-out (LOTO) procedure.

⚠️ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Never energize the inverter with the covers removed.
- Always use a properly rated voltage sensing device to confirm all circuits are de-energized.
- Replace all devices and covers before turning on power to this equipment.
- The DC conductors of this photovoltaic system are ungrounded and may be energized.
- Before removing covers identify the power source, de-energize, lock-out and tag-out, and wait at least ten minutes for circuits to discharge.

Failure to follow these instructions will result in death or serious injury.



1. Identify the AC Breaker downstream from the CL125 unit.
2. Open the AC breaker to cut off AC power.
3. Turn the CL125's AC disconnect switch to OFF position.
4. Lock out and tag out the AC Breaker.
5. Identify any disconnect device upstream from the CL125 unit.
6. Open the DC disconnect device (or disengage the fuseholder) that connects to the CL125 to cut off DC power.
7. Turn the CL125's DC disconnect switch to OFF position.
8. Lock out and tag out the DC disconnect device.
9. Wait at least ten minutes for the circuits in the CL125 to discharge.
10. Check that the inverter is in zero energy state before performing work.
11. Open the CL125 enclosure and commence service and maintenance activities.

G2 Torque Values

Torque (Nm)	(ft-lb)	Type	Description
9.0-9.6	6.6-7.1	cable gland	sealing nut for communication cables
28.8	21.2	cable gland	sealing nut for DC/AC cables
0.2	0.15	connector screw	RS-485 wire connector
0.8 ±0.1	0.6 ±0.1	fastener	transparent protection panel
4.3 ±0.2	4.3 ±0.2	fastener	lower enclosure panel
2.7-4.8	3.2 ±0.15	fastener	to secure the CL125 unit to the mounting backplate
35	25.8	fastener (metal)	metal frame-mounting backplate nut
35	25.8	fastener (wall)	wall-mounting backplate expansion
12-14	8.9-10.3	terminal bolt	DC terminals
12-14	8.9-10.3	terminal bolt	AC terminals
12-14	8.9-10.3	terminal bolt	PE (ground) terminal

G Appendix (continuation)

G3 Firmware Update

NOTE: To run a firmware update of the Conext CL125, you need:

A smart device	A Windows laptop/PC
• iOS 10 or above (iPhone 6 or newer model)	• Windows 7/10 (minimum)
• Android 5 or above	• internet access
• Bluetooth 4.1 LE	

NOTICE

USER LEVEL ACCESS

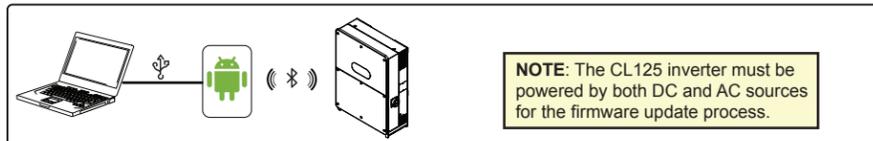
Contact a Schneider Electric representative to request or set up a Level 2 user access account. Many settings require Level 2 user access.

Failure to follow these instructions may affect production yield.

FIRMWARE UPDATE

- Charge the smart device to more than 50% to make sure that the smart device has sufficient battery for the firmware update.
- Do not switch off the smart device while updating the firmware.
- Stay near the inverter during the update process.
- Before going to the PV site to update the inverter, make sure that you have downloaded the latest firmware package to a laptop/PC and you have the latest eConfigure CL125 APP on your smart device.
- Bring the USB cable for your smart device to the PV site.

Failure to follow these instructions may affect inverter operation.



To update the firmware using a laptop/PC and an Android smart device:

1. From a laptop/PC, open a web browser and download the latest firmware package from the Conext CL125 product website.
2. Open and unzip the firmware package.
3. Connect the device to the laptop/PC using a USB cable.
4. Mount the Android smart device as a USB device.
5. Browse the Android smart device's file system and navigate to the **SE-CL125** directory.
6. Copy the contents of the unzipped firmware package from the laptop/PC to the **SE-CL125** directory on the Android smart device.
7. Switch to your Android smart device and tap on the eConfigure CL125 APP icon.
8. Log in using **admin** credentials.
9. Tap **More**.
10. Tap **Firmware Update**.
11. Search and select the **LCD_CL125_Vxx_Vxx_A_xx.sgu** (or **MDSP_CL125_Vxx_Vxx_A_xx.sgu**) firmware file, where **Vxx_Vxx_A_xx** may vary depending on the latest firmware.
12. Tap **Update**.

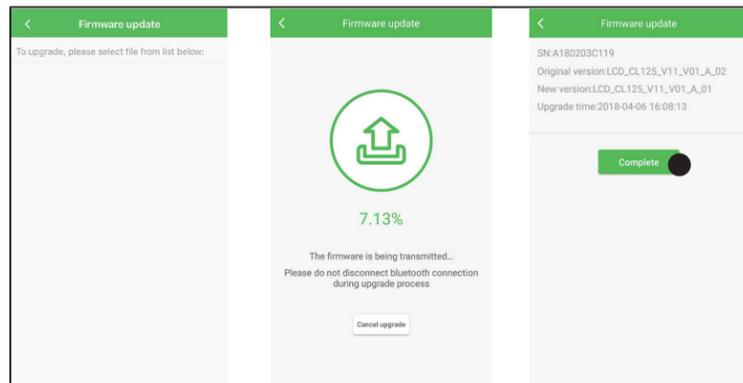
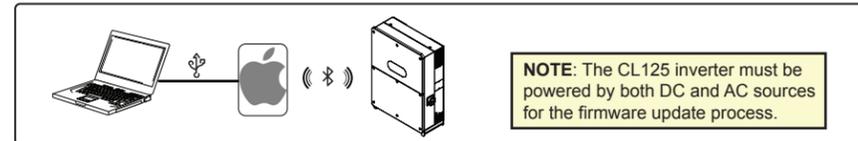


Figure 1: Firmware Update Screens

13. Observe the firmware update progress screen. You may tap the **Cancel upgrade** button to cancel the firmware update.
14. Tap **Complete** once the firmware update is finished.
15. Restart the Conext CL125 PV inverter by turning OFF both the AC and DC disconnect switches and then turning them ON.
16. Confirm that the firmware was updated from the eConfigure CL125 APP under **System Parameters > Firmware Version**.



To update the firmware using a laptop/PC and an iOS smart device:

1. Download and install the latest iTunes for Windows program from the Apple website. If you already have iTunes on your Windows laptop/PC, simply update to the latest iTunes for Windows version.
2. Open a web browser from the laptop/PC and download the latest firmware package from the Conext CL125 product website.
3. Open and unzip the firmware package and store the contents to a local folder.
4. Connect the iOS smart device to the laptop/PC using a USB cable.
5. Launch the **iTunes for Windows** program.
6. Click the **Phone** icon.

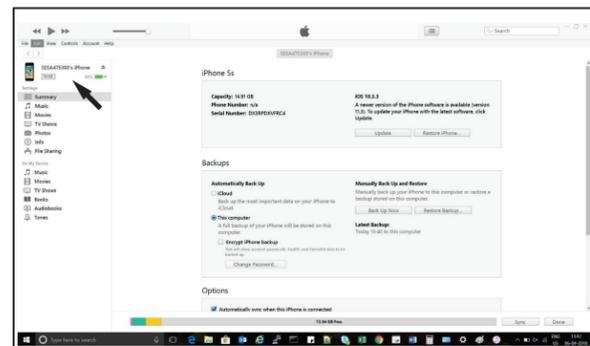


Figure 2: iTunes for Windows Example

7. Click the **File Sharing** option under **Settings**.

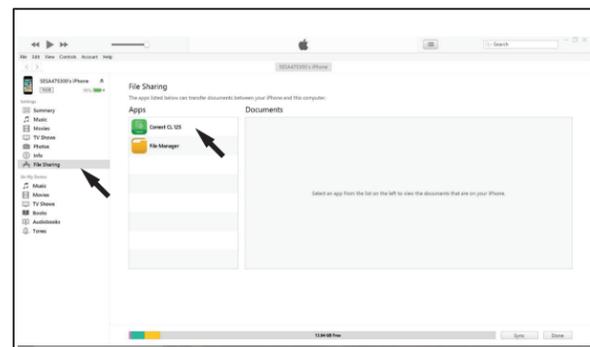
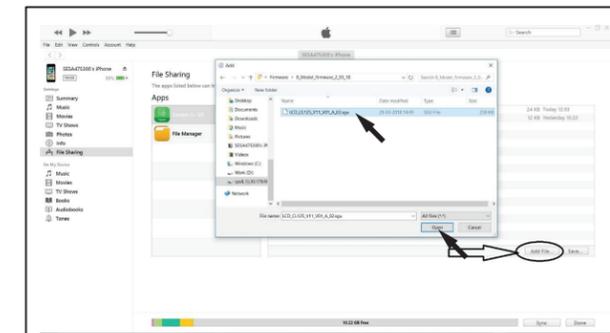


Figure 3: iTunes for Windows File Sharing

8. Click the Conext CL125 app under **File Sharing > Apps**.
9. Click the **Add File...** button in the Conext CL125 Documents section and navigate to the local folder where you have stored the unzipped firmware package files
10. Search and select the **LCD_CL125_Vxx_Vxx_A_xx.sgu** (or **MDSP_CL125_Vxx_Vxx_A_xx.sgu**) firmware file, where **Vxx_Vxx_A_xx** may vary depending on the latest firmware.
11. Click **Open** in file browser dialog box.



After clicking **Open**, the firmware file is loaded into the eConfigure CL125 APP.

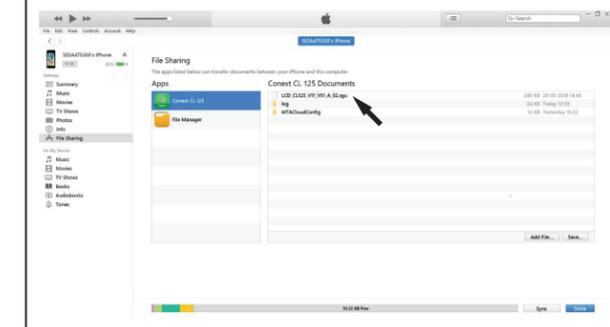


Figure 4: iTunes for Windows Add File

12. Switch to your iOS smart device and tap on the eConfigure CL125 APP icon.
13. Log in using **admin** credentials.
14. Tap **More**.
15. Tap **Firmware Update**.
16. Tap the **LCD_CL125_Vxx_Vxx_A_xx.sgu** (or **MDSP_CL125_Vxx_Vxx_A_xx.sgu**) firmware file, where **Vxx_Vxx_A_xx** may vary depending on the latest firmware.
17. Tap **Confirm** in the **Upgrade** information dialog.
18. Observe the firmware update progress screen. You may tap the **Cancel upgrade** button to cancel the firmware update.

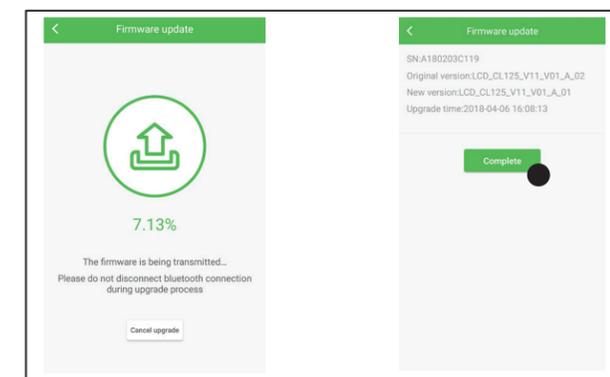


Figure 5: Firmware Update Screens

19. Tap **Complete** once the firmware update is finished.
20. Restart the Conext CL125 PV inverter by turning OFF both the AC and DC disconnect switches and then turning them ON.
21. Confirm that the firmware was updated from the eConfigure CL125 APP under **System Parameters > Firmware Version**.