

gateway communication manual taylor. solar systems

2024-026-R-0004-A6



This document gives an overview of taylor. compatible inverters, and the procedure on how to connect the inverter to the taylor.gateway.



Important The actions described in this manual should only be executed by trained professionals. Use this manual in combination with the inverter manual received with your inverter.

Table of contents

01	List of compatible inverters	2
02	Inverter to gateway connection	3
03.1	taylor.inverters instructions	4
03.2	Verifying correct operation of taylor.inverters	9
03.3	AEG inverters instructions	11
03.4	Fox ESS inverters instructions	12
03.5	Goodwe inverters instructions	18
03.6	Solis inverters instructions	2
04	List of data cables	2

O1 Compatible inverters

The inverters below are compatible with a taylor. system. View the references on how to connect them.

taylor. (produced by Fox ESS) (page 4-6)

taylor. H1 series

TAY-H1-3.0-E TAY-H1-3.7-E TAY-H1-4.6-E TAY-H1-5.0-E

TAY-H1-6.0-E

taylor. H1 (G2) series

TAY-H1-3.0-E-G2 TAY-H1-3.7-E-G2 TAY-H1-4.6-E-G2 TAY-H1-5.0-E-G2 TAY-H1-6.0-E-G2

taylor. H3 series

TAY-H3-5.0-E TAY-H3-6.0-E TAY-H3-8.0-E TAY-H3-10.0-E TAY-H3-12.0-E

taylor. H3 Pro series

TAY-H3-Pro-15.0 TAY-H3-Pro-20.0 TAY-H3-Pro-25.0 TAY-H3-Pro-30.0

taylor. P3-S series

TAY-H3-P3-5.0-SH TAY-H3-P3-6.0-SH TAY-H3-P3-8.0-SH TAY-H3-P3-9.9-SH TAY-H3-P3-10.0-SH TAY-H3-P3-15.0-SH TAY-H3-P3-15.0-SH

Other manufacturers

AEG (page 7)

AEG AS-IC02

AEG AS-ICO2-4000-2 AEG AS-ICO2-5000-2 AEG AS-ICO2-6000-2 AEG AS-ICO2-8000-2 AEG AS-ICO2-10000-2 AEG AS-ICO2-12000-2 AEG AS-ICO2-15000-2

AEG AS-IR02

AEG AS-IR02-700 AEG AS-IR02-1000 AEG AS-IR02-1500 AEG AS-IR02-2000 AEG AS-IR02-2500 AEG AS-IR02-3000

Fox ESS (page 8-11)

Fox ESS H1 series

Fox ESS H1-3.0-E Fox ESS H1-3.7-E Fox ESS H1-4.6-E Fox ESS H1-5.0-E Fox ESS H1-6.0-E

Fox ESS H1 (G2) series

Fox ESS H1-3.0-E-G2 Fox ESS H1-3.7-E-G2 Fox ESS H1-4.6-E-G2 Fox ESS H1-5.0-E-G2 Fox ESS H1-6.0-E-G2

Fox ESS H3 series

Fox ESS H3-5.0-E Fox ESS H3-6.0-E Fox ESS H3-8.0-E Fox ESS H3-10.0-E Fox ESS H3-12.0-E

Fox ESS H3 Pro series

Fox ESS H3-Pro-15.0 Fox ESS H3-Pro-20.0 Fox ESS H3-Pro-25.0 Fox ESS H3-Pro-30.0

Fox ESS S series - G2

Fox ESS SG2 S700-G2 Fox ESS SG2 S1000-G2 Fox ESS SG2 S1500-G2 Fox ESS SG2 S2000-G2 Fox ESS SG2 S2500-G2 Fox ESS SG2 S3000-G2 Fox ESS SG2 S3300-G2

Fox ESS T series - G3

Fox ESS TG3 T3-G3
Fox ESS TG3 T4-G3
Fox ESS TG3 T5-G3
Fox ESS TG3 T6-G3
Fox ESS TG3 T10-G3
Fox ESS TG3 T12-G3
Fox ESS TG3 T15-G3
Fox ESS TG3 T17-G3
Fox ESS TG3 T20-G3
Fox ESS TG3 T20-G3
Fox ESS TG3 T20-G3
Fox ESS TG3 T25-G3
Fox ESS TG3 T25-G3
Fox ESS TG3 T25-G3

Fox ESS P3-S Series

Fox ESS P3-5.0-SH Fox ESS P3-6.0-SH Fox ESS P3-8.0-SH Fox ESS P3-9.9-SH Fox ESS P3-10.0-SH Fox ESS P3-12.0-SH Fox ESS P3-15.0-SH

Goodwe (page 12-14)

Goodwe DNS D-NS

Goodwe DNS GW3000D-NS Goodwe DNS GW3600D-NS Goodwe DNS GW4200D-NS Goodwe DNS GW5000D-NS Goodwe DNS GW6000D-NS

Goodwe DNS T-DS

Goodwe DNS GW3000T-DS Goodwe DNS GW3600T-DS Goodwe DNS GW4200T-DS Goodwe DNS GW5000T-DS Goodwe DNS GW6000T-DS

Goodwe SDT G2 Plus Goodwe GW4000-SDT-20

Goodwe GW5000-SDT-20 Goodwe GW6000-SDT-20 Goodwe GW8000-SDT-20 Goodwe GW10K-SDT-20 Goodwe GW12K-SDT-20 Goodwe GW15K-SDT-20

Goodwe XS

Goodwe XS GW700-XS Goodwe XS GW1000-XS Goodwe XS GW1500-XS Goodwe XS GW2000-XS Goodwe XS GW2500-XS Goodwe XS GW3000-XS

Solis (page 15)

Solis Mini S5-GR1P(0.7-3.6)K-M

Solis S5-GR1P0.7K-M Solis S5-GR1P1K-M Solis S5-GR1P1.5K-M Solis S5-GR1P2.K-M Solis S5-GR1P2.5K-M Solis S5-GR1P3.K-M Solis S5-GR1P3.6K-M

Solis Mini S6-GR1P(0.7-3.6)K-M

Solis S6-GR1P 0.7K-M Solis S6-GR1P 1K-M Solis S6-GR1P 1.5K-M Solis S6-GR1P 2K-M Solis S6-GR1P 2.5K-M Solis S6-GR1P 3K-M Solis S6-GR1P 3.6K-M

Solis S5-EH1P(3.6-6)K-L

Solis S5-EH1P3.6K-L Solis S5-EH1P3K-L Solis S5-EH1P4.6K-L Solis S5-EH1P5K-L Solis S5-EH1P6K-L

Solis S5-GC(25-40)K

Solis S5-GC 25K Solis S5-GC 30K Solis S5-GC 33K Solis S5-GC 36K Solis S5-GC 40K

Solis S5-GR1P(2.5-6)K

Solis S5-GR1P 2.5K Solis S5-GR1P 3K Solis S5-GR1P 3.6K Solis S5-GR1P 4K Solis S5-GR1P 4.6K Solis S5-GR1P 5K Solis S5-GR1P 6K

Solis S5-GR3P(3-25)K Solis S5-GR3P3K

Solis S5-GR3P4K
Solis S5-GR3P5K
Solis S5-GR3P6K
Solis S5-GR3P8K
Solis S5-GR3P9K
Solis S5-GR3P10K
Solis S5-GR3P12K
Solis S5-GR3P12K
Solis S5-GR3P15K
Solis S5-GR3P15K
Solis S5-GR3P17K
Solis S5-GR3P17K

Solis S6-GR1P(2.5-6)K

Solis S6-GR1P 2.5K Solis S6-GR1P 3K Solis S6-GR1P 3.6K Solis S6-GR1P 4K Solis S6-GR1P 4.6K Solis S6-GR1P 5K Solis S6-GR1P 6K

Solis S6-GR1P(7-8)K2

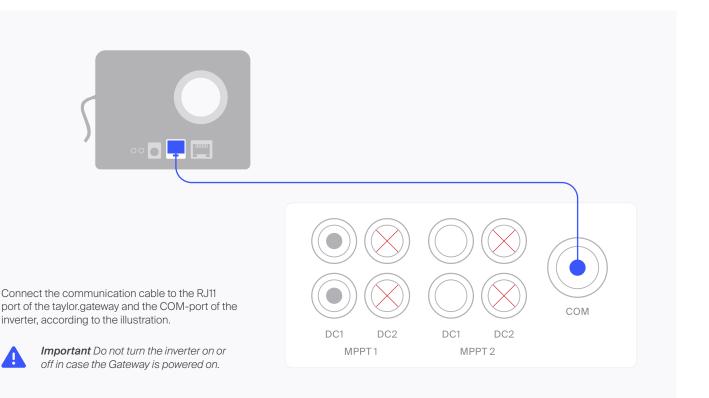
Solis S6-GR1P 7K2 Solis S6-GR1P 8K2

Solis 3P(3-20)K-4G

Solis 3P3K-4G Solis 3P4K-4G Solis 3P5K-4G Solis 3P6K-4G Solis 3P8K-4G Solis 3P9K-4G Solis 3P10K-4G Solis 3P15K-4G Solis 3P17K-4G Solis 3P17K-4G Solis 3P20K-4G

02 Inverter to gateway connection

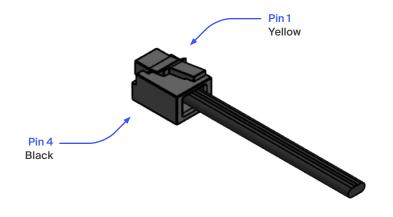
Between the gateway and the inverter a communication cable needs to be connected.



Gateway RJ11 connector

On one side, the cable is connected to the gateway using a RJ11 connector, the other side is connected to the inverter. The cable can be ordered, or assembled by the installer. If done by the installer himself/herself, make sure the RJ11 connector pin out is as depicted on the right, using the instructions below.

RJ11 PIN	Wire colour	Function
1	Yellow	N/A
2	Green	RS485-
3	Red	RS485+
4	Black	GND





Important Note that the pin out color code is different compared to standard RJ11 pin out.

taylor. P3-S series (produced by Fox ESS)

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-H3-ES

Instructions

01.

Connect the energy meter to connector (A):

- Pin 24 on energy meter > pin 1 on connector (A)
- Pin 25 on energy meter > pin 2 on connector (A)

02

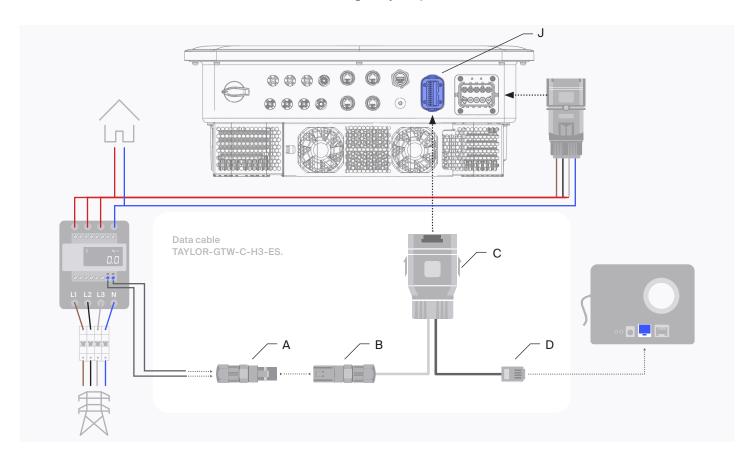
Make sure to not connect any other devices to pin 24 and 25 on the energy meter.

03

Connect connector (A) and connector (B) to complete the data cable.

04.

Connect connector (C) to port (J) of the inverter and the RJ11 connector (D) to the gateway data port.



taylor. H1 / H1 (G2) series (produced by Fox ESS)

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-H1-EC.

Data cable for installation with energy meter available. Part number: TAYLOR-GTW-C-H1-E

Instructions

01.

Connect the current transducer to connector (A):

- Current transducer red wire > pin 1 on connector (A)
- Current transducer black wire > pin 2 on connector (A)



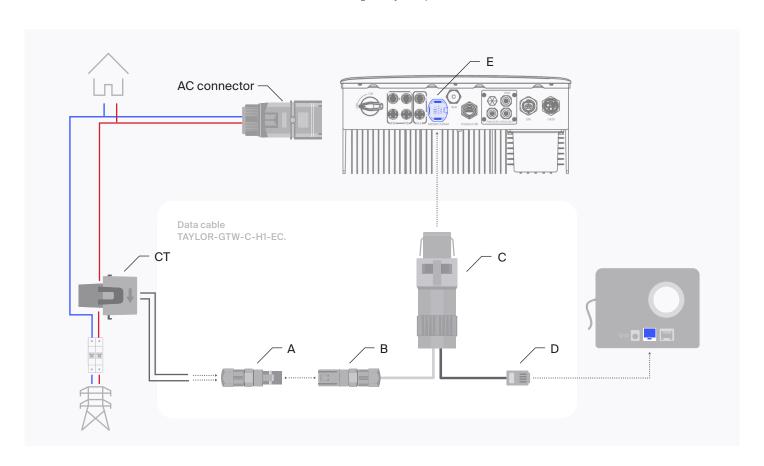
Important The current transducer should have the arrow pointing towards the grid, otherwise the import/export values will not be valid. Refer to inverter technical documentation.

02.

Connect connector (A) and connector (B) to complete the data cable.

03

Connect connector (C) to port (E) of the inverter and the RJ11 connector (D) to the gateway data port.



taylor. H1 / H1 (G2) series in a three phase system with Delta grid

(produced by Fox ESS)

Necessary items

A. Data cable

Part number TAYLOR-GTW-C-H1-E

B. Residual current circuit breaker

Residual current circuit breaker 4-pole 63A 300mA 400V DIF463300 (E.g. Gardy, Merlin Gerin)

C. 2 Pole circuit breaker

C60N C2 400V 2 Pole Circuit Breaker (E.g Eaton, Merlin Gerin)

Instructions

01.

Consult the schematic to install a single phase AC system to a smart meter.

02

Adjust the smart meter settings to Delta grid, do so by following the below sequence

- A) Press "set", change the code to $701\,$
- B) Navigate to CT using the set command
- C) Press the arrow command four times until "net" appears
- D) Set the net setting to n33 and confirm by pressing set again

03

Connect the energy meter to connector (A):

- Pin 24 on energy meter > pin 1 on connector (A)
- Pin 25 on energy meter > pin 2 on connector (A)

04.

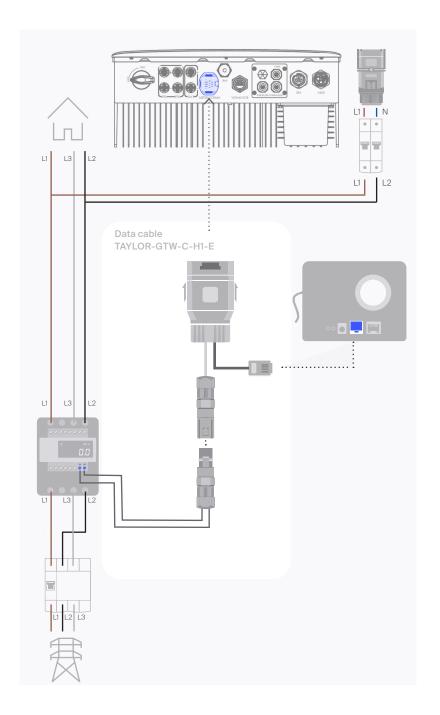
Connect connector (A) and connector (B) to complete the data cable

05.

Connect connector (C) to port (J) of the inverter and the RJ11 connector (D) to the gateway data port.

06.

When installing the inverter, confirm that the inverter settings Meter/CT are set to Meter_3p



taylor. H3 series (produced by Fox ESS)

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-H3-E.

Instructions

01.

Connect the energy meter to connector (A):

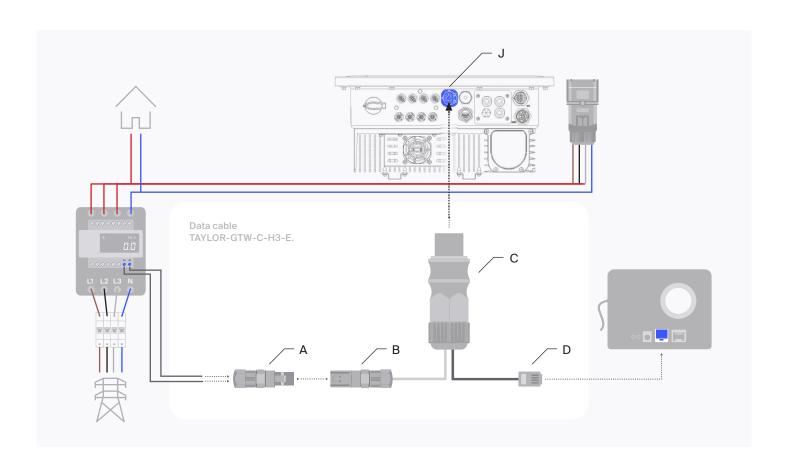
- Pin 24 on energy meter > pin 1 on connector (A)
- Pin 25 on energy meter > pin 2 on connector (A)

02

Connect connector (A) and connector (B) to complete the data cable.

03.

Connect connector (C) to port (J) of the inverter and the RJ11 connector (D) to the gateway data port.



taylor. H3 Pro series (produced by Fox ESS)

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-H3-EP.

Instructions

01

Connect the energy meter to connector (A):

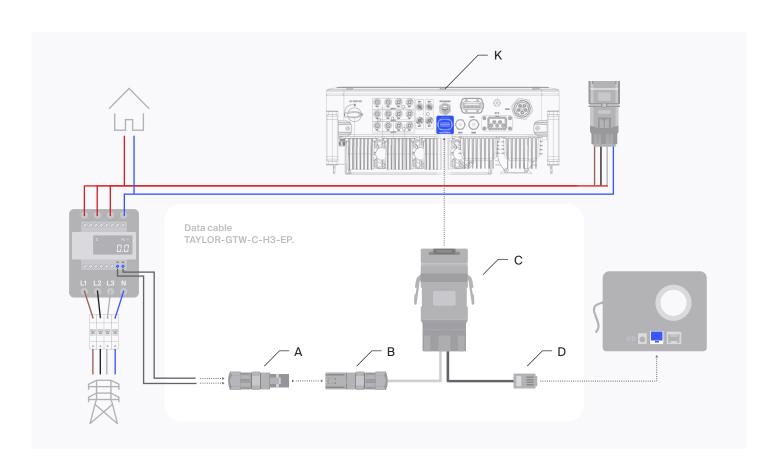
- Pin 24 on energy meter > pin 1 on connector (A)
- Pin 25 on energy meter > pin 2 on connector (A)

02

Connect connector (A) and connector (B) to complete the data cable.

03.

Connect connector (C) to port (K) of the inverter and the RJ11 connector (D) to the gateway data port.



03.2 Verifying correct operation of Taylor inverter

When setting up a hybrid solar inverter system, it is crucial to ensure that the current transformer (CT clamp) or external energy meter is correctly installed. The CT clamp or energy meter must measure the total energy consumption and the feed-in of the consumer and must therefore be placed directly after the main switch.

Verification method 1 - Self-test function of the inverter

01. 05.

Open the menu of the inverter Check if the correct setting is selected: a) When using a CT clamp \rightarrow CT

b) When using an energy meter → Energy meter

Go to Settings

06.

03. After the system has been connected for at least one minute,

Go to Feature choose the option Check in this menu

04.

02.

Go to Meter/CT

Result H1 with CT

There are three possible outcomes:

1. Connect OK

The system is correctly connected

2. Connect Err

the CT clamp is connected in the wrong direction and must be reversed

3. Unknown state

a) the connection between inverter and meter is incorrect or the battery is not properly connected

meter) does not correspond to the connected component

b) The self-test is carried out without selecting whether a CT clamp c) The self-test is carried out but the chosen option (CT or energy

Result inverter with energy meter

There are two possible outcomes:

1. Connect OK

the system is correctly connected

2. Unknown state

- a. The connection between inverter and meter is incorrect or the battery is not properly connected
- b. The self-test is carried out without selecting whether a CT clamp or energy meter is used $\,$
- c. The self-test is carried out but the chosen option (CT or energy meter) does not correspond to the connected component

Verification method 2 - Comparing inverter energy meter values with smart meter

01.

Compare the measurements

Δ

Check the recorded power on the inverter display.

For Taylor inverters: Menu --> System/Running --> Grid

R

At the same time, view the current consumption on the smart meter (if it has a display). Use the control button to switch to the correct screen and check whether it concerns import or export.

C.

Understand the import/export symbols of the inverter.

For Taylor inverters:

- I. Export to the grid: positive value "+"
- II. Import from the grid: negative value "-"

02.

Assess the difference

Δ

The measurements should largely match in terms of power (kW) or energy consumption (kWh). A small difference (within 5–10%) is acceptable due to delay, rounding, or internal processing.

B.

Both measurements must indicate the same energy flow direction: Import or Export (Import when there is no solar production and load is switched on).

03.

If the values differ significantly or show opposite directions (e.g., inverter shows export while smart meter shows import), the installation of the CT clamp or energy meter must be checked.

A.

Ensure that the CT clamp or energy meter is placed in the correct location

В.

Check whether the CT clamp is installed on the correct wire (usually the incoming phase wire) and pointing in the correct direction (according to the manufacturer's instructions; for Taylor inverters the arrow must point to the grid).

C.

Check whether the communication cable between CT clamp or energy meter is correctly connected to the inverter (refer to the manual).

03.3 AEG inverters instructions

AEG AS-IC02 & AS-IR02

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-03. Order separately from the gateway.

B. Communication Connector Delivered with the inverter.

Instructions

01.

Route the taylor data cable through the cable gland (A)

02.

Connect the data cable to part A, refer to the table:

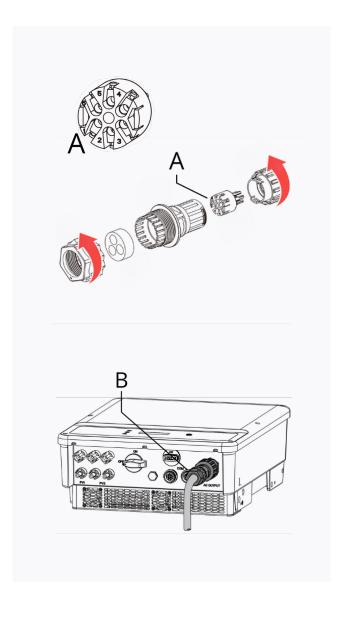
Wire	Wire colour	Connect to pin
	Yellow	Not connected
-	Green	1
+	Red	3
	Black	Not connected

03.

Assemble the connector.

04

Connect the data cable to the COM port (B).



Fox ESS P3-S series

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-H3-ES

Instructions

01.

Connect the energy meter to connector (A):

- Pin 24 on energy meter > pin 1 on connector (A)
- Pin 25 on energy meter > pin 2 on connector (A)

02

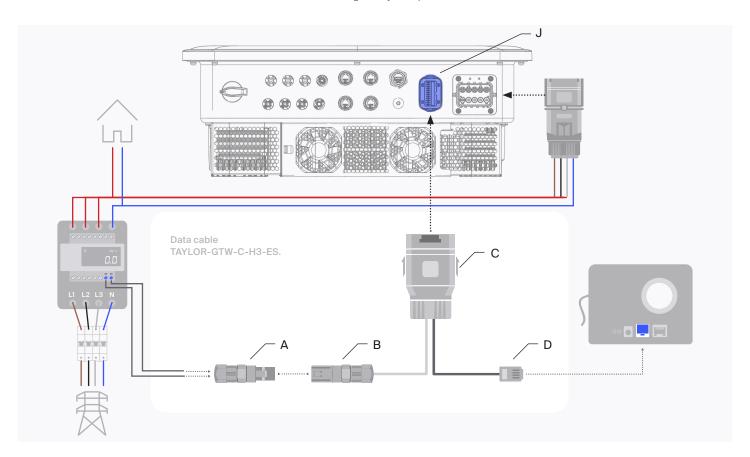
Make sure to not connect any other devices to pin 24 and 25 on the energy meter.

03

Connect connector (A) and connector (B) to complete the data cable.

04.

Connect connector (C) to port (J) of the inverter and the RJ11 connector (D) to the gateway data port.



Fox ESS H1 / H1 (G2) series

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-H1-EC. Order separately from the gateway.

Data cable for installation with energy meter available. Part number: TAYLOR-GTW-C-H1-E

Instructions

01.

Connect the current transducer to connector (A):

- Current transducer red wire > pin 1 on connector (A)
- Current transducer black wire > pin 2 on connector (A)



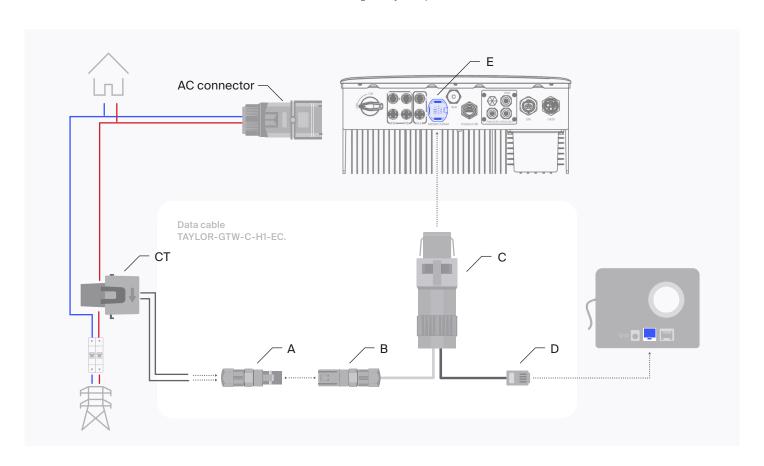
Important The current transducer should have the arrow pointing towards the grid, otherwise the import/export values will not be valid. Refer to inverter technical documentation.

02.

Connect connector (A) and connector (B) to complete the data cable.

03.

Connect connector (C) to port (E) of the inverter and the RJ11 connector (D) to the gateway data port.



Fox ESS H1 / H1 (G2) series in a three phase system with Delta grid

(produced by Fox ESS)

Necessary items

A. Data cable

Part number TAYLOR-GTW-C-H1-E

B. Residual current circuit breaker

Residual current circuit breaker 4-pole 63A 300mA 400V DIF463300 (E.g. Gardy, Merlin Gerin)

C. 2 Pole circuit breaker

C60N C2 400V 2 Pole Circuit Breaker (E.g Eaton, Merlin Gerin)

Instructions

01.

Consult the schematic to install a single phase AC system to a smart meter.

02.

Adjust the smart meter settings to Delta grid, do so by following the below sequence

- A) Press "set", change the code to $701\,$
- B) Navigate to CT using the set command
- C) Press the arrow command four times until "net" appears
- D) Set the net setting to n33 and confirm by pressing set again

03

Connect the energy meter to connector (A):

- Pin 24 on energy meter > pin 1 on connector (A)
- Pin 25 on energy meter > pin 2 on connector (A)

04.

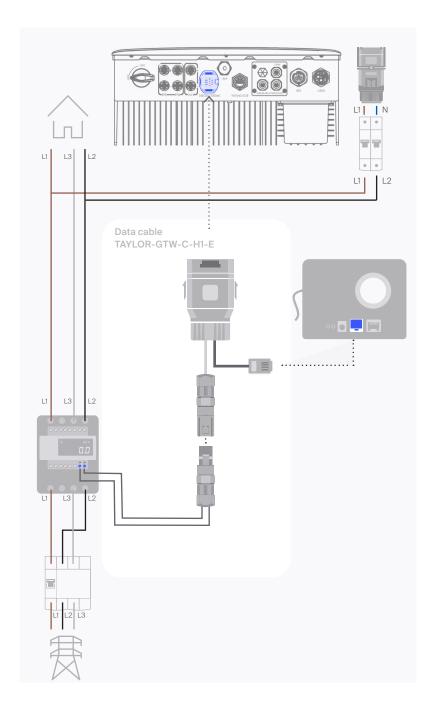
Connect connector (A) and connector (B) to complete the data cable

05.

Connect connector (C) to port (J) of the inverter and the RJ11 connector (D) to the gateway data port.

06.

When installing the inverter, confirm that the inverter settings Meter/CT are set to Meter_3p



Fox ESS H3 series

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-H3-E. Order separately from the gateway.

Instructions

01.

Connect the energy meter to connector (A):

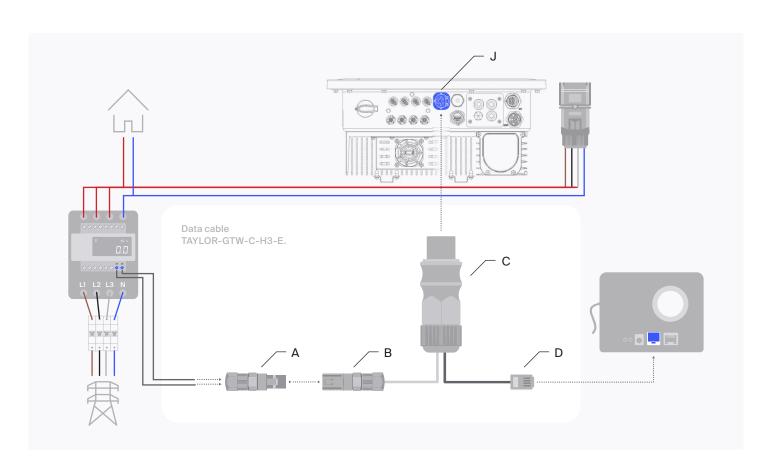
- Pin 24 on energy meter > pin 1 on connector (A)
- Pin 25 on energy meter > pin 2 on connector (A)

02

Connect connector (A) and connector (B) to complete the data cable.

03.

Connect connector (C) to port (J) of the inverter and the RJ11 connector (D) to the gateway data port.



Fox ESS H3 Pro series

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-H3-EP. Order separately from the gateway.

Instructions

01

Connect the energy meter to connector (A):

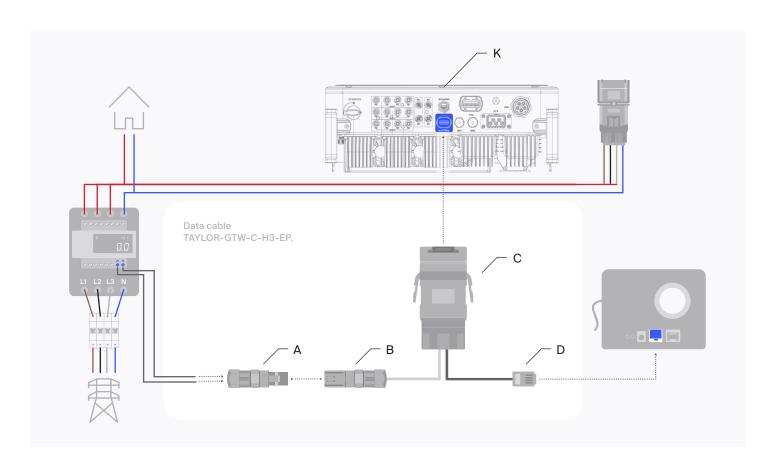
- Pin 24 on energy meter > pin 1 on connector (A)
- Pin 25 on energy meter > pin 2 on connector (A)

02

Connect connector (A) and connector (B) to complete the data cable.

03.

Connect connector (C) to port (K) of the inverter and the RJ11 connector (D) to the gateway data port.



Fox ESS S series - G2

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-F-S-G2. Order separately from the gateway.

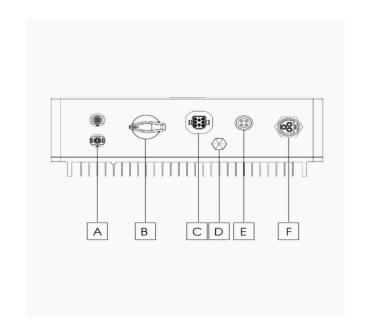
Instructions

01.

Connect the plug to connection (C).



Important Make sure the firmware of the inverter is updated to version 1.24/0.14/A32 or higher. Please contact taylor.support for help with firmware updates.



Fox ESS T series - G3

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-F-T-G3-0. Order separately from the gateway.

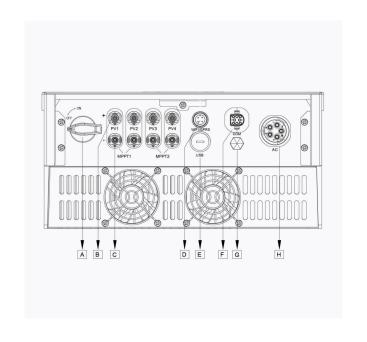
Instructions

01.

Connect the plug to connection (F).



Important Make sure the firmware of the inverter is updated to version <u>1.19/1.00/1.14</u> or higher. Please contact taylor.support for help with firmware updates.



03.5 Goodwe inverters instructions

Goodwe DNS

DNS G3 is not compatible yet

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-03. Order separately from the gateway.

Instructions

01.

Demount the RS485 board from the inverter.

02

Pull the cable through the screwcap & RS485 board.

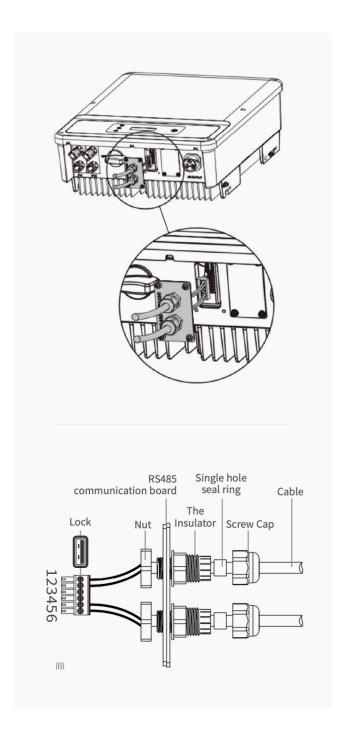
03.

Connect it onto the lock - using the table below.

Wire	Wire colour	Connect to pin
	Yellow	Not connected
-	Green	2
+	Red	1
	Black	Not connected

04.

Mount the RS485 board back as depicted on the right.



03.5 Goodwe inverters instructions

Goodwe SDT G2 Plus

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-03. Order separately from the gateway.

B. Communication Connector Delivered with the inverter.

Instructions

01.

Route the taylor data cable through the cable gland (A)

02.

Connect the data cable to part A, refer to the table:

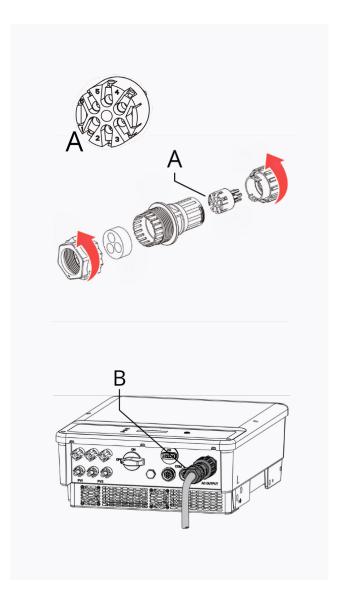
Wire	Wire colour	Connect to pin
	Yellow	Not connected
-	Green	1
+	Red	3
	Black	Not connected

03.

Assemble the connector.

04

Connect the data cable to the COM port (B).



03.5 Goodwe inverters instructions

Goodwe XS

Necessary items

A. Data cable

Part number: TAYLOR-GTW-C-03. Order separately from the gateway.

B. RS-485 Connector Delivered with the inverter.

Instructions

01.

Disassemble the connector (A)(B).

02.

Remove the resistor (C).

03

Route the taylor data cable through the cable gland (A)

04

Connect the data cable to part B, refer to the table:

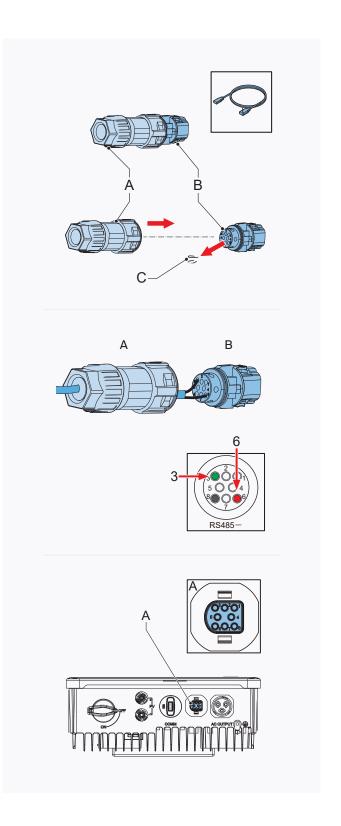
Wire	Wire colour	Connect to pin
	Yellow	Not connected
-	Green	3
+	Red	6
	Black	Not connected

05.

Assemble the connector.

06

Connect the plug to connection (A).



03.6 Solis inverters instructions

Solis

Necessary items

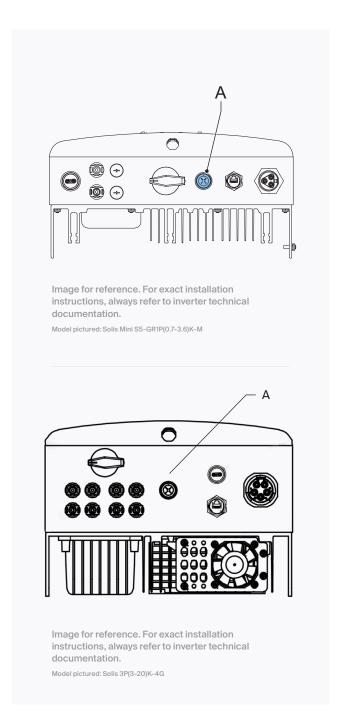
A. Data cable

Part number: TAYLOR-GTW-C-SL-02. Order separately from the gateway.

Instructions

01.

Connect the plug to connection (A).



O4 List of data cables

name	IPN
Data cable for taylor. (waterproof) gateway	TAYLOR-GTW-C-WP-03
Data cable for taylor.gateway	TAYLOR-GTW-C-03
Fox ESS data cable for taylor.gateway - H1 / H1 (G2)	TAYLOR-GTW-C-H1-EC
Fox ESS data cable for taylor.gateway - H3	TAYLOR-GTW-C-H3-E
Fox ESS data cable for taylor.gateway - H3 Pro	TAYLOR-GTW-C-H3-EP*
Fox ESS data cable for taylor.gateway - S-G2	TAYLOR-GTW-C-F-S-G2
Fox ESS data cable for taylor.gateway - T-G3-0	TAYLOR-GTW-C-F-T-G3-0
Fox ESS data cable for taylor gateway – H1/H1(G2) in combination with Energy meter	TAYLOR-GTW-C-H1-E
Fox ESS data cable for taylor gateway - P3-S	TAYLOR-GTW-C-H3-ES
GoodWe data cable for taylor.gateway - SDT series	TAYLOR-GTW-C-G-00
Solis data cable for taylor.gateway	TAYLOR-GTW-C-SL-02
Any other inverter	please contact your taylor. sales representative

^{*} pending future release

taylor.

taylor. technologies B.V.

VAT: NL861599640B01 CoC: 80237193

www.taylor.solar info@taylor.solar NL +31 (0)85 888 0605 DE +49 800 0007120 FR +33 801 27 14 55

Torenallee 32–14 5617 BD Eindhoven The Netherlands

gateway communication manual 2024-026-R-0004-A6



