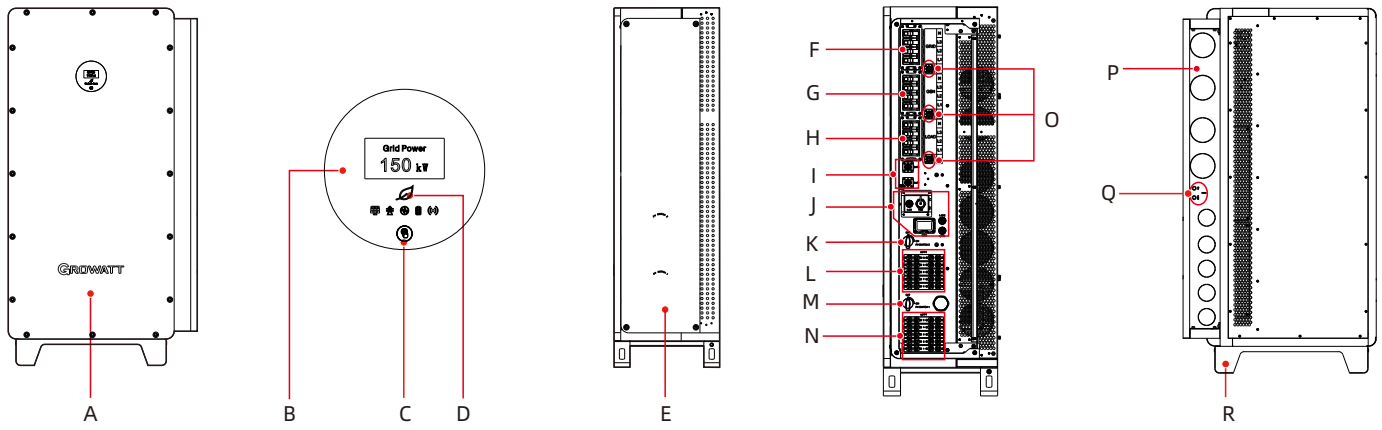
1. Overview



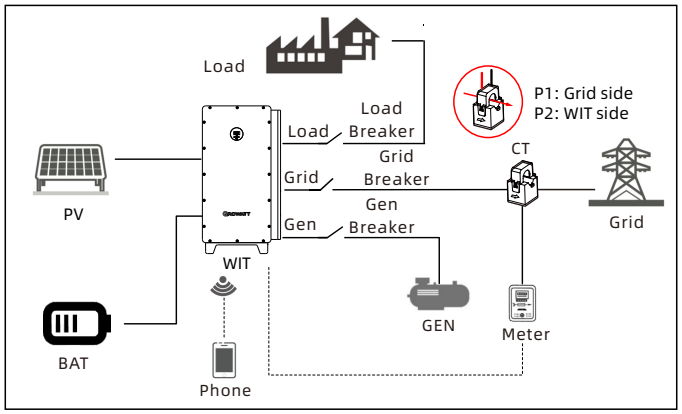
(A) Front panel	(B) OLED display screen	(C) Screen switch button	(D) System indicator	(E) Junction box cover
(F) GRID terminal	(G) GEN terminal	(H) LOAD terminal	(I) BAT terminal	
(J) Network communication terminal		(K) PV switch 2	(L) PV terminal	(M) PV switch 1
(N) PV terminal	(O) AC ground terminal	(P) Cable management board	(P) Communication port (WiFi&4G)	(R) Base

⚠ Note:

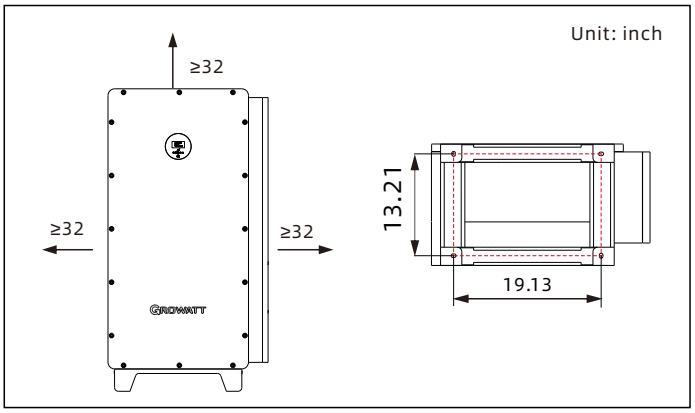
1. The content of this document is continually reviewed and amended, where necessary. Growatt reserves the right to make changes to the material at any time and without notice. Unless otherwise agreed, this document is for quick installation guidance only. All information and suggestions in this document do not constitute a warranty of any kind, express or implied. Growatt reserves all rights for final explanation.
2. This document is for quick installation guidance only. For details, please refer to the User Manual.
3. Machine damage caused by failure to follow the instructions is not covered under any warranty.

2. Installation

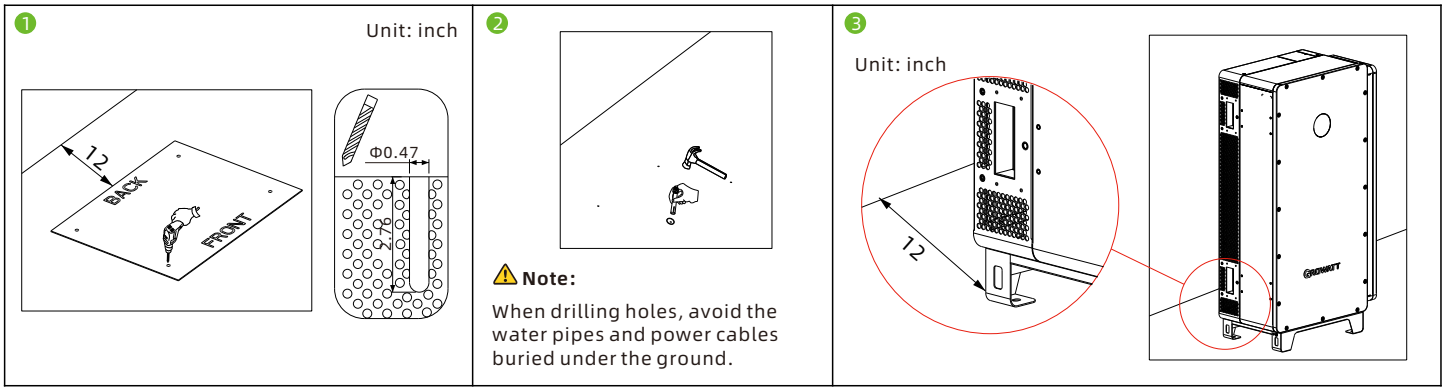
2.1 System overview



2.2 Installation requirements



2.3 Floor-mounted installation



⚠ Note:

When drilling holes, avoid the water pipes and power cables buried under the ground.

⚠Note:

1. When determining the installation position of the inverter, please consider the position of the batteries and the distribution panel.
2. The export limitation function requires the installation of an energy meter and current transformers.

3. Electrical connection

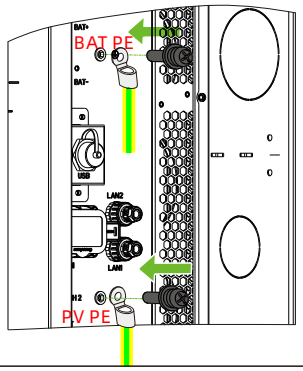
Please prepare the cables listed below before electrical connections.

No.	Cable	Type	Recommended specifications
1	Grounding cable	A multiple-core copper cable (yellow and green)	1AWG
2	Grid cable	A multi-core copper cable	1/0AWG-3/0AWG
3	Load cable	A multi-core copper cable	2AWG-2/0AWG
4	GEN cable	A multi-core copper cable	1/0AWG-3/0AWG
5	PV input cable	Photovoltaic cable	10AWG
6	Battery power supply cable	A single-core copper cable (red and black)	1/0 AWG
7	Other communication cable	Standard network cable-568B	/

⚠Note:

1. Make sure all switches are OFF before connecting the cables. For personal safety, do not operate when power-on.
2. If the diameter of the cable does not match the terminal, please contact our after-sales personnel.
3. The current carrying capacity of cables should comply with locally applicable regulations.
4. The cables used shall have a rating of not less than 194°F.
5. Remove the junction box cover first before the electrical connection.

3.1 Grounding cable connection

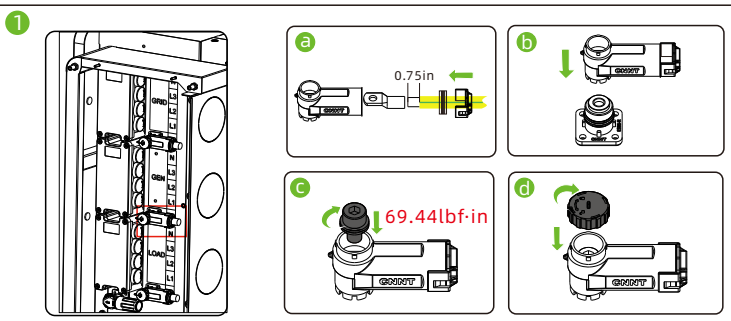


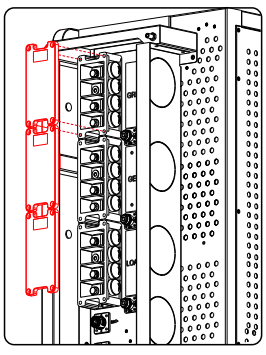
⚠Note:

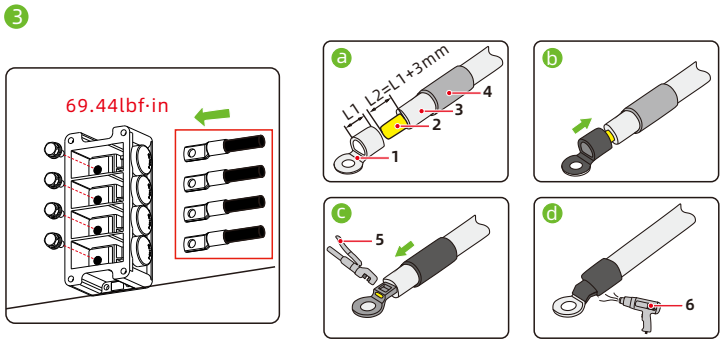
Ensure that the ground point on the enclosure base has been reliably connected to the on-site ground busbar.

3.2 AC cable connection

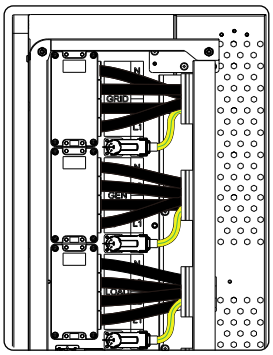
1. Slide the rear cover and waterproof sealing ring onto the cable in sequence. After crimping the terminals, secure them as shown in the diagram, and finally tighten the top cover and tail cover.
2. Unscrew the AC terminal protective cover.
3. Securely fasten the AC cable to the terminal using the recommended torque.
4. After wiring is completed, securely fasten the AC terminal protective cover.







(1) OT terminal (2) Core wire (3) Cable (4) Heat shrink tubing
(5) Hydraulic pilers (6) Heat gun



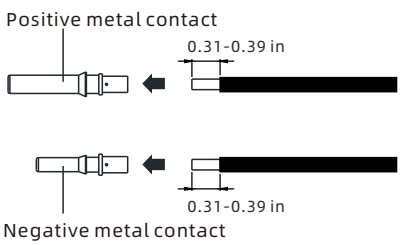
⚠Note:

Once the cable connections are complete, check if the cable feed-through pipes and cables are secured in place, and finally lock the terminal protective cover.

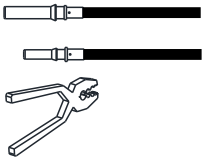
3.3 PV terminal assembly

1. Assemble the PV terminals.

❶ Unit: inch

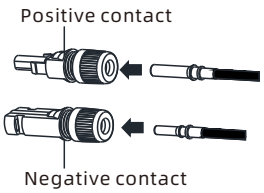


❷



Ensure that the cable cannot be pulled out from the terminal after crimping.

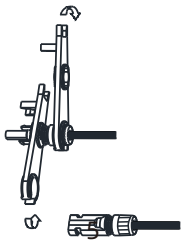
❸



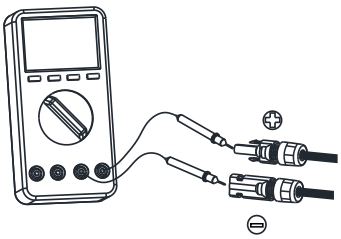
Pull the PV cables back to check that they are connected securely.

❹

Ensure secure connection by tightening the locking nut.



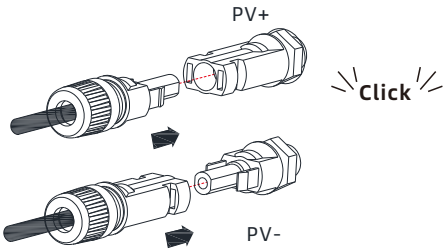
❺



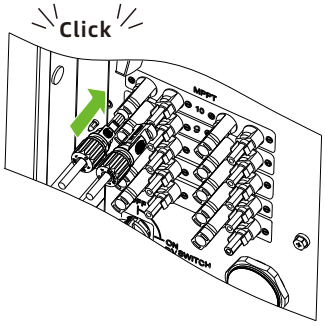
Make sure the cable polarity is correct.

2. Connect the PV input cables.

❶



❷

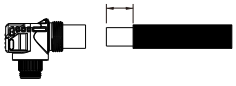


⚠Note:

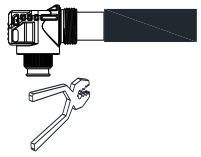
1. Before installing the PV terminals, please confirm that the PV input voltage and current do not exceed the MPPT limits.
2. When installing the PV terminals, identify the positive and negative terminals and connect them to the inverter respectively following the color convention.
3. A "click" sound will be heard when the terminal is connected. Please gently pull the PV cable back to make sure it is securely connected.

3.4 Battery power cable connection

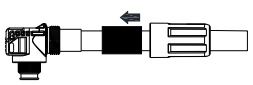
❶ Unit:inch



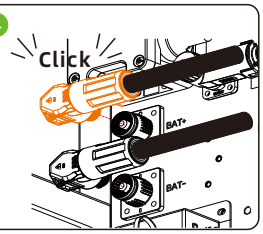
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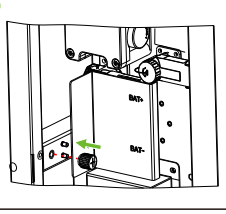
❸



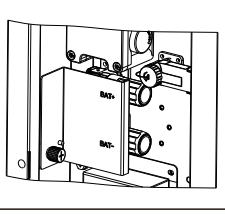
❹



❺



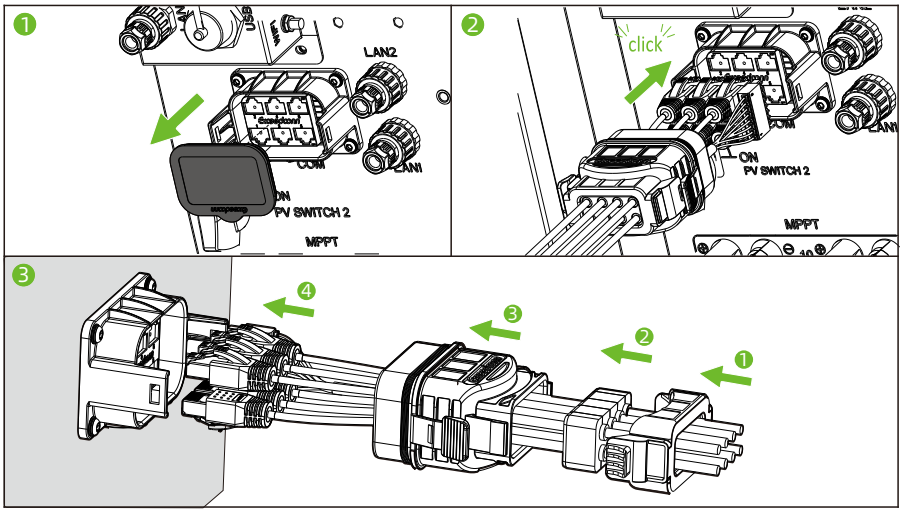
❻



⚠Note:

1. Before installing the battery terminals, please ensure that the battery input voltage and current are within the acceptable range.
2. When installing battery terminals, identify the positive and negative terminals and connect them to the inverter according to the color convention.
3. When connecting the terminals, ensure that you hear a "click" sound. Please gently pull back the battery cables to ensure a secure connection.

3.5 Communication cable installation



Follow the installation steps:

1. Remove the waterproof cover from the network communication port.
2. Insert a network cable into the port and tighten the protective cover.
3. Ensure that the connection is correct and secured, the sealing rubber ring is properly seated into the gland.

Rj45 communication port

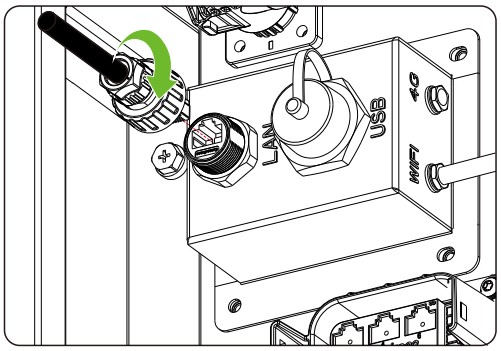
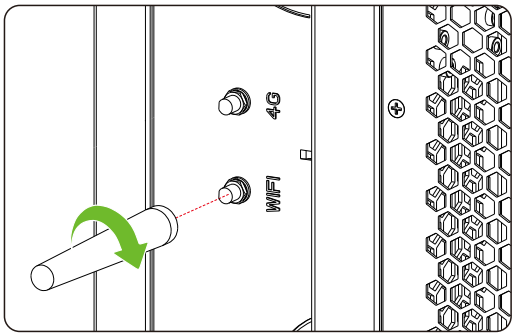
RJ45 Communication port description								
Pin	**1 (BMS)**	**Function**	**2 (RS485_IN)**	**Function**	**3 (RS485_OUT)**	**Function**	**4 (DI)**	**Function**
1	BAT RS485_B	Communication of battery	RS485_1B	\	RS485_1B	\	DRM1/5	DRMS/RCR/DI function
2	BAT RS485_A		GND.S	\	GND.S	\	DRM2/6	
3	BAT1 DI_1		\	\	\	\	DRM3/7	
4	BAT1 CAN_H		RS485_ 1B	Shinebus/SEM/EMS /WiLan-X2 Pro	RS485_ 1B	Shinebus/SEM/EMS /WiLan-X2 Pro	DRM4/8	
5	BAT1 CAN_L		RS485_ 1A		RS485_ 1A		REF	
6	BAT1 DI_2		\	\	\	\	COM	
7	BAT1 WAKE-		RS485_ 3B	Shinebus/SEM /EMS/Meter 2	RS485_ 3B	Shinebus/SEM /EMS/Meter 2	\	
8	BAT1 WAKE+		RS485_ 3A		RS485_ 3A		\	

Pin	**5 (PARA-IN)**	**Function**	**6 (PARA-OUT)**	**Function**
1	\	Parallel input	\	Parallel output
2	\		\	
3	\		\	
4	\		\	
5	\		\	
6	\		\	
7	\		\	
8	\		\	

Side 8Pin port descripition

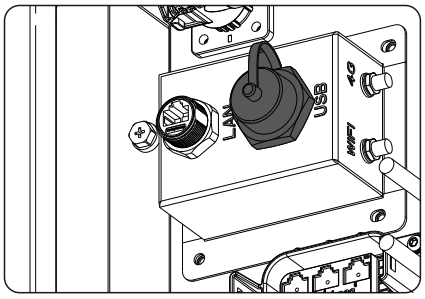
Side 8Pinport description		
Pin	**Description**	**Function**
1	EPRO.WIT	Emergency Stop
2	GND.S	
3	DG_START+	GEN Wake up
4	DG_START-	
5	RS485_2A	Meter
6	RS485_2B	
7	USB_RLY	Collector Switch
8	GND.S	

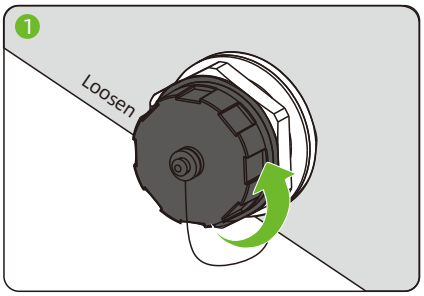
3.6 Antenna installation

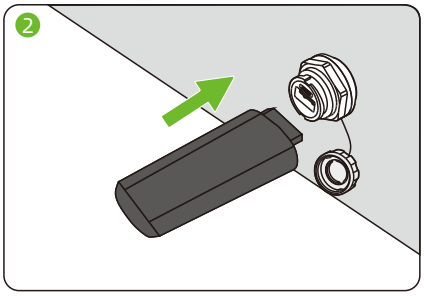
LAN&WiFi&4G	1 	2 

Please follow the steps below:
1. Remove the antenna dust cap or the protective cover from the network port.
2. Install the antenna as shown in the diagram.
3. Connect the antenna to the inverter correctly and tighten it.
4. The inverter can establish communication via WiFi&LAN (Standard) or WiFi&4G.

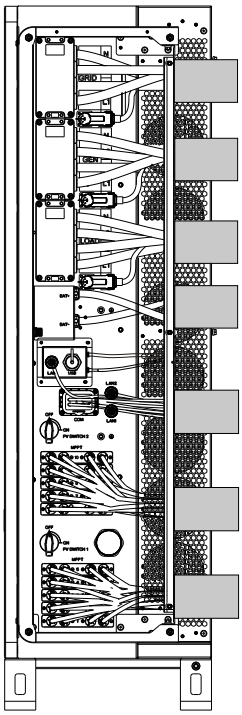
3.7 USB flash disk installation



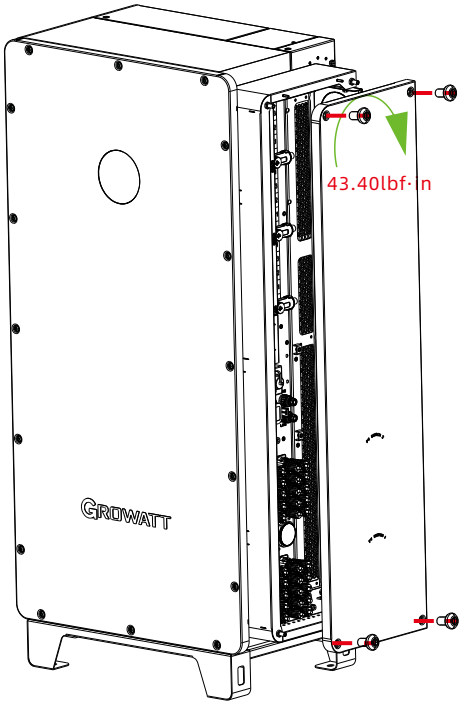
1 

2 

3.8 Junction box cover installation

1 

As shown in the figure, pass all the cables through the corresponding holes on the cable management board.

2 

Secure the junction box cover to the WIT with four screws at the recommended torque.

4. Post-installation check

Number	Checking item	Number	Checking item
1	The inverter is installed correctly and reliably.	2	Ground cables are connected securely.
3	All switches are in the OFF position.	4	All cables are connected correctly and securely.
5	The junction box cover is secured.	6	All the unused connectors are sealed.
7	Put away the unused accessories.	8	The installation position is clean and tidy.

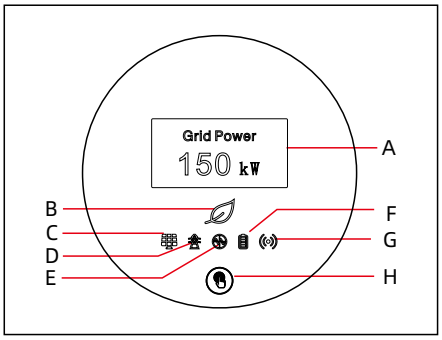
5. Powering on/off the inverter

⚠Note:

Before power-on, please make sure all the voltage and current are within the specified range. Otherwise it will cause damage to the inverter.
Perform the following steps to power on the system:
1. Make sure that the Max. short-circuit current of the string does not exceed the PCS specification value, then turn on the PV switch.
2. Turn on the breaker between the grid and the inverter.
3. Turn on the breaker between the battery and the inverter, then turn on the switch on the battery.
4. The system will be powered on automatically when all the requirements are met.

To shut down the system, you need to send a shutdown command on the APP or website. Wait until the system is completely powered off, then turn off the switches in reverse order.

6. Description of the display panel



Indicator	Function	Indicator	Function
A	OLED display screen	E	Off-grid indicator
B	System indicator	F	Battery connection indicator
C	PV indicator	G	Communication indicator
D	On-grid indicator	H	Screen switch button

7. Service and contact

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