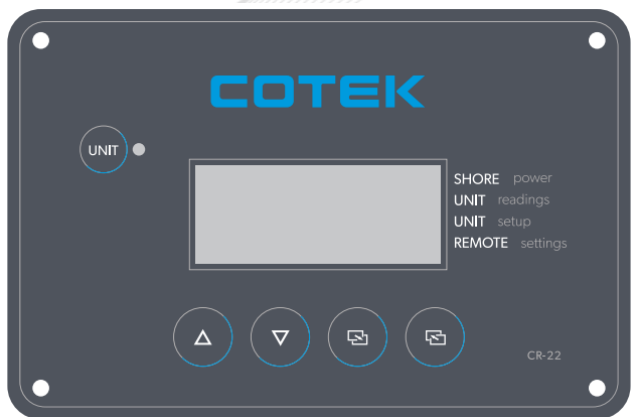


COTEK



CR Series User's Manual

CR-22 Remote Control

1.0 Overview

CR-22 is a remote control designed for connecting to SC inverter/charger.

The package is including:

- (1) CR-22
- (2) 7.5m Cable (RJ11 & RJ45)
- (3) Quick Guide

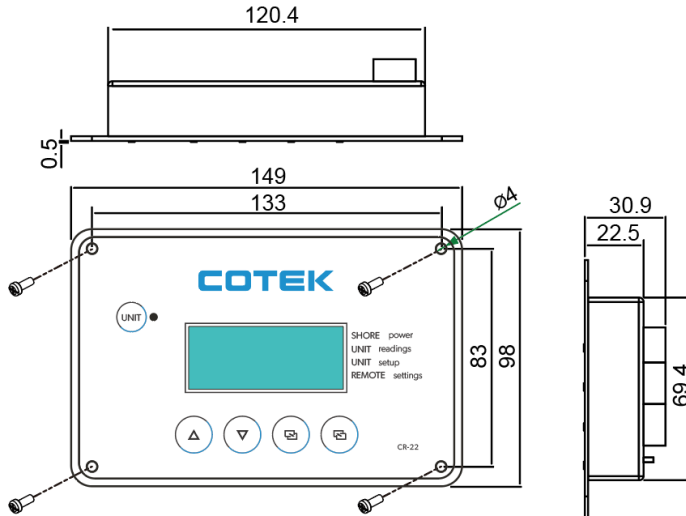


Fig. 1 (Unit: mm)

The CR-22 is equipped with the following features :

1.1 LED Indicator

The LED provides the inverter/charger statuses in a straight forward way.

1.2 LCD Display:

LCD Display - The LCD display is a 16 x 4 line alphanumeric display used for setting up the inverter/charger operation , as well as viewing current status or fault messages.

1.3 ON/OFF Push button

To turn on/off UNIT quickly.

1.4 Buttons

Click buttons allows you to select a menu item or to save a setting, once it is displayed on the LCD screen.



WARNING: Turning the unit OFF does not mean to disconnect the batteries or AC Power Source. Therefore the “AC output load” is still active.



WARNING: Only use the remote control cable supplied, using different cables could cause permanent damage to the SC inverter unit

1.5 SC Connector port

Connect the CR-22 & SC with cable(RJ11).

1.6 LFP & SPT series Connector port

Connect the CR-22 & LFP & SPT series with cable(RJ45).

1.7 Terminating resistor (default : OFF=O)

For the last connected, please slide the slide switch to the on position for the terminating resistor to be activated.

2.0 Installation

2.1 Installation Guidelines

- Please determine the remote cable route throughout the home or vehicle/boat, both to and from the inverter before connecting any wires.
- Always check for existing electrical, plumbing, or other areas of potential damage before drilling or cutting into walls to mount the remote.
- Make sure all wires have a smooth bend radius and do not become kinked.
- Please ensure the conductors passing through walls, bulkheads, or other structural members are protected. This minimizes insulation damage such as chafing, which can be caused by vibration or constant rubbing when installing this remote in a boat, RV, or truck.

2.2 Installation Overview

The remote is required in order to connect the inverter/charger. Each inverter/charger must be connected directly to the remote using the supplied RJ11 communication cables.

The remote must be located close to the inverter/chargers within 7.5 meters and acts as the system control panel.

2.3 Mounting the Inverter

- Select an appropriate location to install the remote.
- Mount the remote base to the wall using the 4 screws provided.

Please refer to Fig. 1

2.4 Connecting the RJ-11 Cable

Please use RJ-11 cable supplied with remote to connect to SC series.

See below indication.

Note: CR-22 cannot be connected to two or more inverters at the same time.

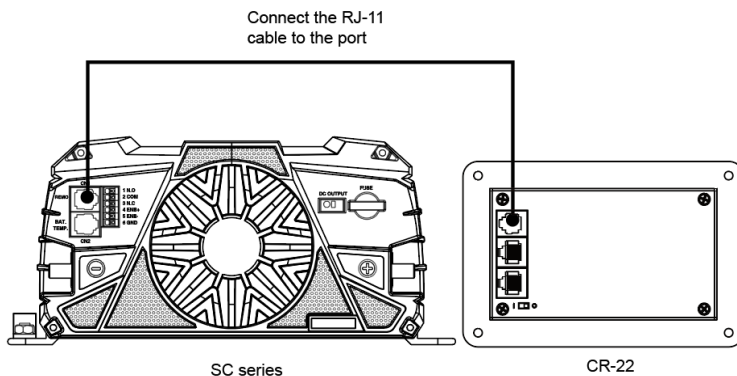


Fig. 2

2.5 Connecting the RJ-45 Cable

Please use RJ-45 cable supplied with remote to connect to LFP/SPT series.

See below indication.

Note: CR-22 cannot be connected to two or more inverters at the same time.

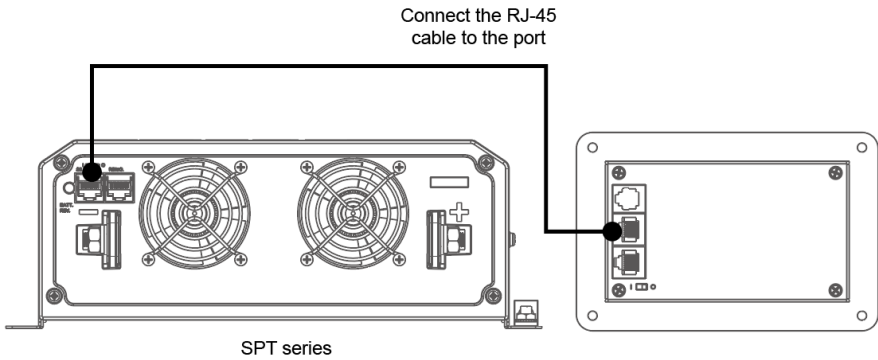


Fig. 3

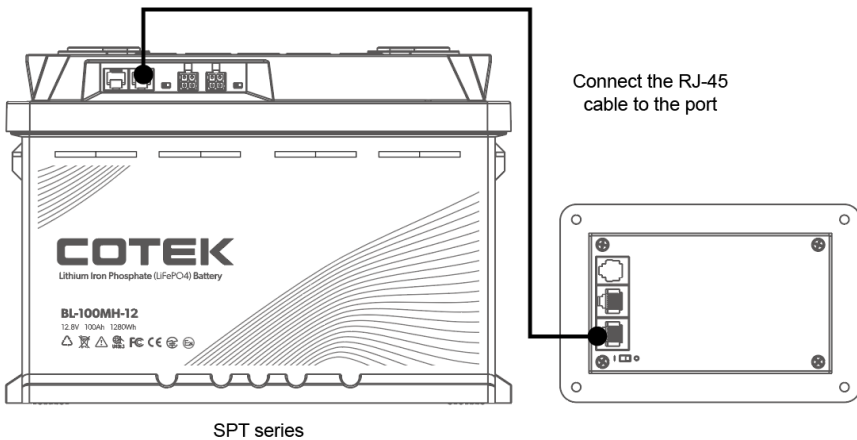
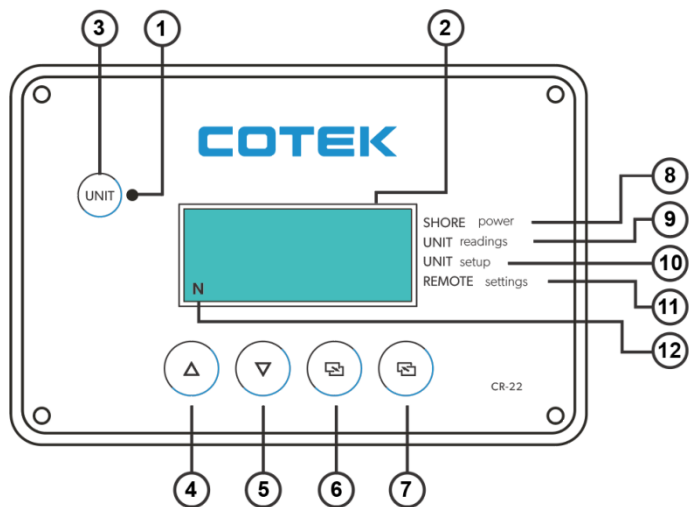


Fig. 4

3.0 Introduction

3.1 Front Panel



3.2 Rear Panel

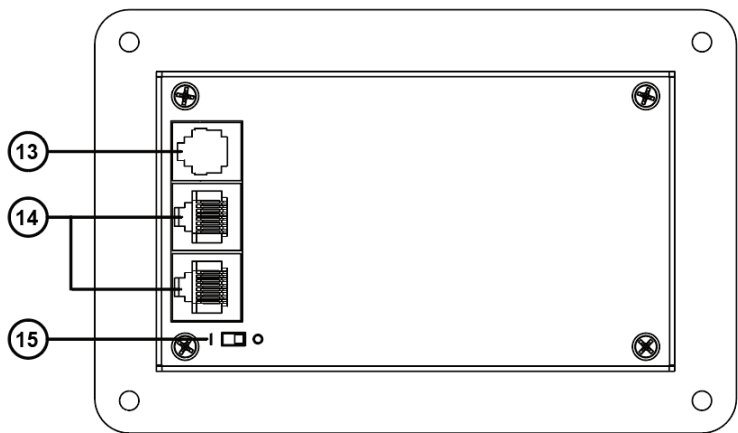


Fig. 5

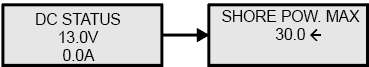
1	LED Indicators - There is a LED indicator on the front panel that light solid to indicate the INV ON/OFF.
2	LCD Display - The LCD display is used for setting up the system operation, as well as viewing current operating status and fault conditions.
3	UNIT ON/OFF Button - When user pressed it, then CR-22 and unit boot up.
4	Up Button – move up in the menu tree.
5	Down Button – move down in the menu tree.
6	Enter Button – Go to the next page.
7	Back Button – Go to previous page.
8	SHORE power - Set Grid input max current.(see 4.1)
9	UNIT readings - This item show DC 、Temperature 、Grid INPUT and INV OUT, FAULT condition. (see 4.2)
10	UNIT setup - Setting inverter parameter. (see 4.3)
11	REMOTE settings - Setting CR-22 parameter. (see 4.4)
12	Night mode
13	SC Connector port
14	LFP & SPT series Connector port
15	Terminating resistor (default : OFF=O) - For the last connected, please slide the slide switch to the on position for the terminating resistor to be activated.

4.0 CR-22 Menu Maps

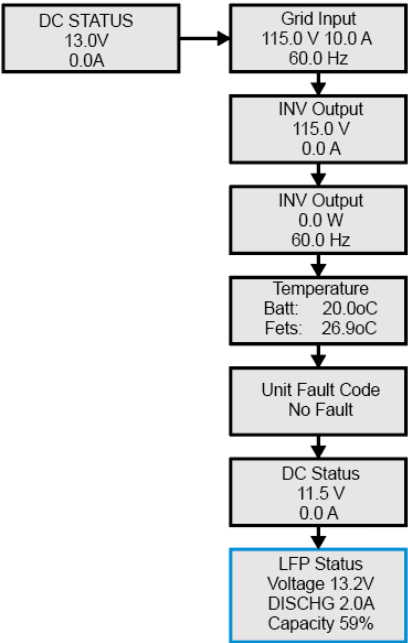
4.1 Connect with SC

4.1.1 SHORE power.

Select SHORE power and press Enter Button as below frame.

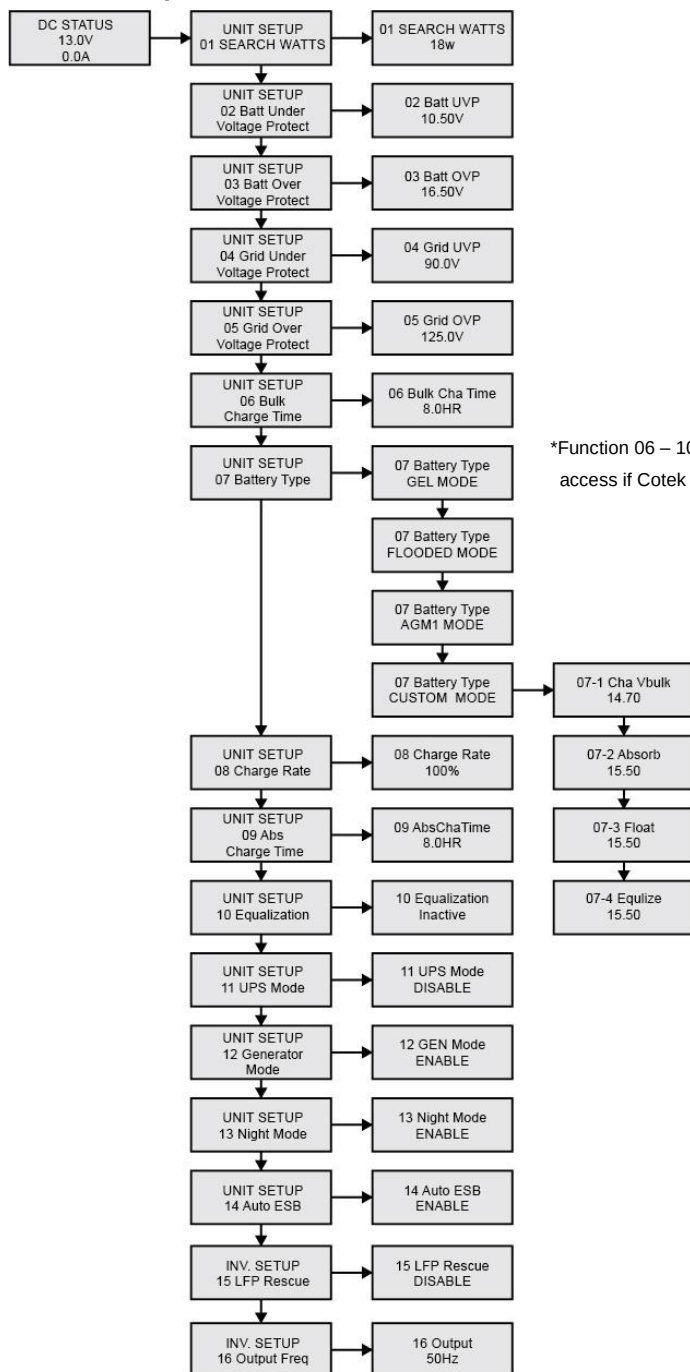


4.1.2 UNIT readings.



* If SC is not connected, UNIT readings will only show LFP status.

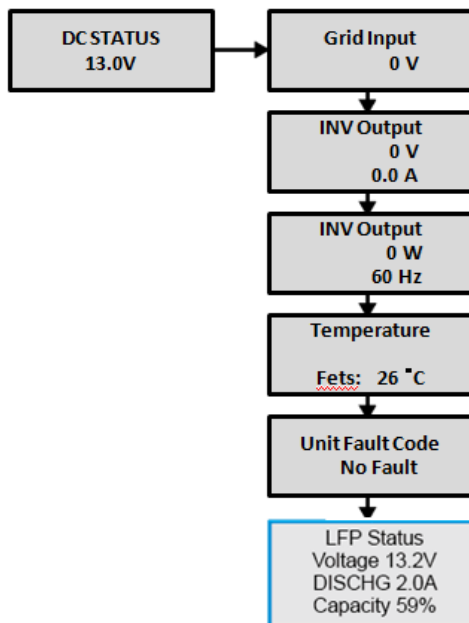
4.1.3 UNIT setup.



*Function 06 – 10 will not be able to access if Cotek LFP is connected

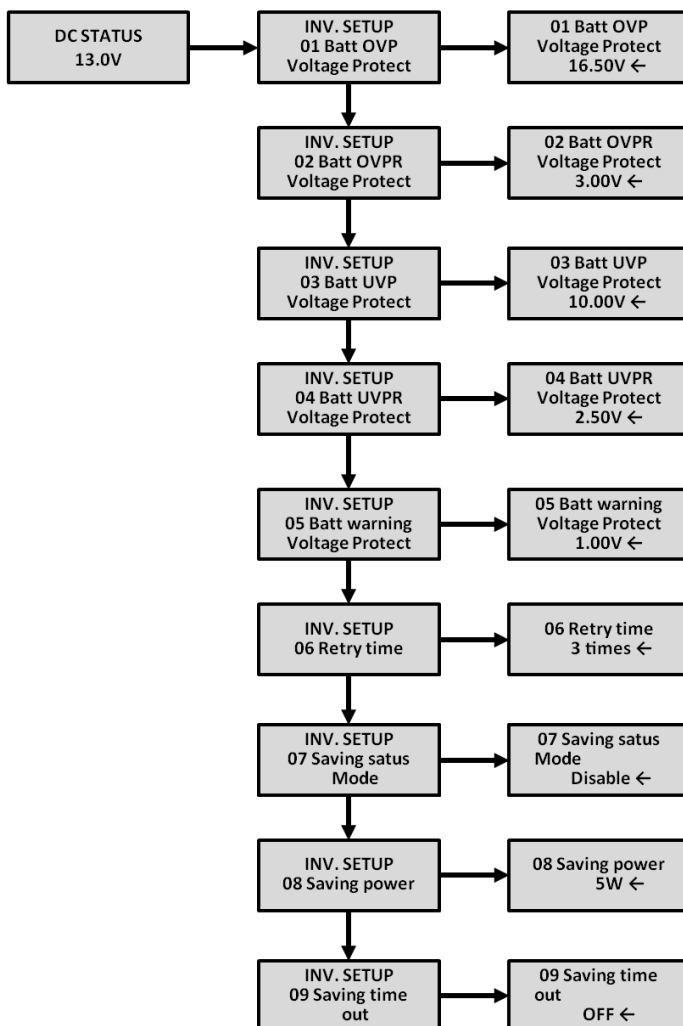
4.2 Connect with SPT

4.2.1 UNIT readings.

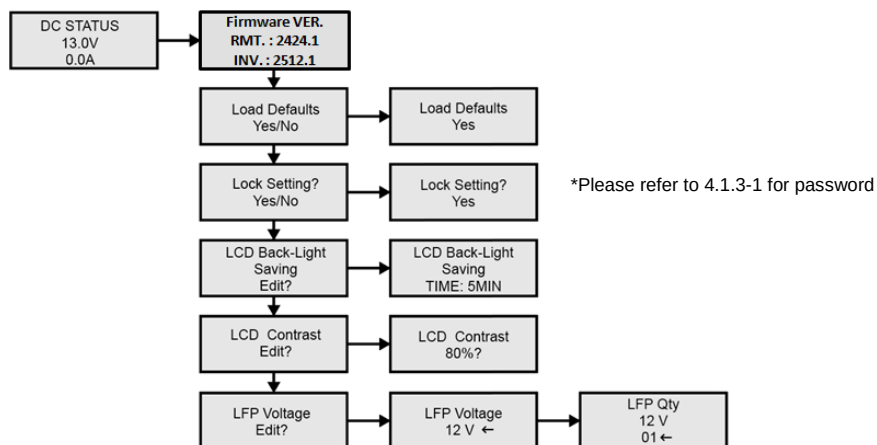


* If SPT is not connected, UNIT readings will only show LFP status.

4.2.3 UNIT setup.



4.3 REMOTE setting.



4.3.1 Lock Setting

1. Enter Lock Setting page

Lock Setting
Yes / No

2. After choosing Yes, return to the main screen. REMOTE setting & UNIT setup will be locked.

Lock Setting
Yes ←

3. To unlock REMOTE setting & UNIT setup, please enter password"1224".

PIN:

4. Press the Enter button then use Up button to select 0~9, Down button to move to the next password digit, Enter 1224 followed by Enter button.

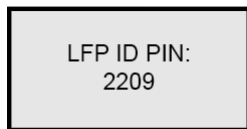
PIN:
1224

4.4 COTEK LFP ID Setting

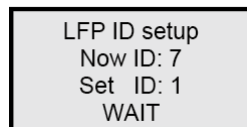
1. long-press the Up and Back buttons to enter the following screen



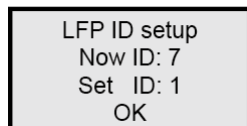
2. Press the Enter button to enter the password. Use the Up button to select numbers 0-9, and the Down button to move to the next password digit. Default password "2209," the display will show as follows.



3. After entering the password and press the Enter button, you will enter the following screen. Use the Up and Down buttons for ID selection. IDs 1 to 16 are available for selection.



4. After making the selection, press the Enter button. The display will show the word "OK," as shown in the following image, indicating that the setting is successful.



Note: Only one battery can be selected for configuration at a time. It is not possible to configure two or more batteries (including two).

5.0 System Status Messages

5.1 UNIT LED indicator

	UNIT ON/OFF
Solid Green	Normal
Solid Red	Error
Solid Orange	LFP Low Capacity & SC Inverter Shut down / Charger Ok LFP ID Err & LFP Qty Err

6.0 Auto-setting

Once the CR-22 detects SC inverter and Cotech LFP battery, CR-22 will automatically set the charging Parameter

Battery Type: CUSTOM MODE

Bulk = 14.3V

Absorption = 14.0V

Float = 13.8V

Equalization = 13.8V

Charger rate: 100%

Bulk Cha Time: 20.0HR

Abs Cha Time: 10.0HR

Equalization = Disable

7.0 Battery low capacity warning

7.1 Under CR-22 and battery situation

7-1-1 When the battery capacity drops to 7%, the status LED on CR-22 will turn orange, indicating LFP 7% with a flashing pattern

LFP Status	
LFP 7%	
DISCHG	85.5A
Capacity	7%

7-1-2 When the battery capacity reaches 5%, LFP 5% will flash, and the CR-22 status will initiate a shutdown within 20 seconds



7-1-3 Once the battery is recharged to 6% capacity, the CR-22 can be switched on. The LED will turn orange, and LFP 6% will flash

LFP Status	
LFP 6%	
CHG	47.9A
Capacity	6%

7-1-4 Once the battery is charged back to 8% capacity, the CR-22 will return to its normal status

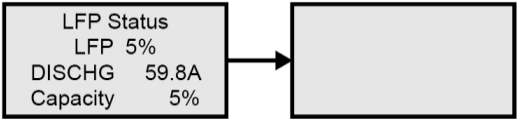
LFP Status	
Voltage	13.0V
CHG	47.1A
Capacity	8%

7-2 Under CR-22 ,SC series and battery status

7-2-1 When the battery capacity reaches 7%, the status LED on CR-22 will turn orange and display LFP 7% with a flashing pattern. The SC output will shut down

LFP Status	
LFP 7%	
DISCHG	0.0A
Capacity	7%

7-2-2 Upon reaching 5% capacity, LFP 5% will flash, and the CR-22 status will initiate a shutdown within 20 seconds



7-1-3 Once the battery is recharged to 10% capacity, both CR-22 and SC will return to their normal status

LFP Status	
Voltage	13.0V
CHG	47.1A
Capacity	10%

8.0 Troubleshooting

LFP ID Err	Please refer to UM 4.6 COTEK LFP ID Setting and check the ID setting for each battery
LFP Qty Err	Please refer to UM 4.4 REMOTE setting, and navigate to "LFP Voltage Edit" to configure the voltage and the number of batteries