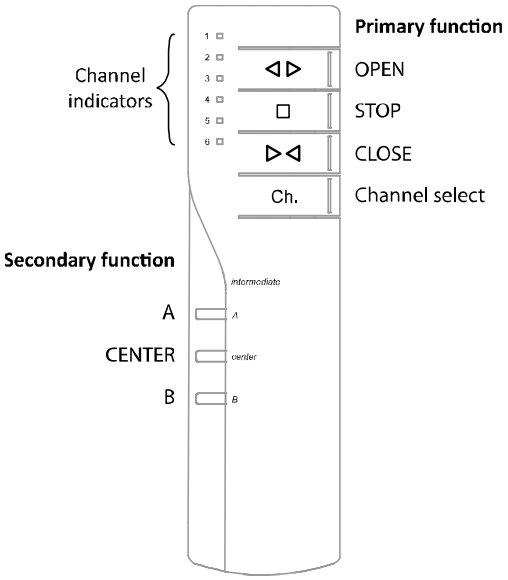
Remote RF transmitter handset C222

The C222 is a useful tool that can be used for operating or calibrating Sunpery motorization systems. It has 6 separate channels which can be operated individually or as a group and is compatible with all RF-enabled Sunpery motors.



Explaining motor types

For the purpose of using this device to its full capabilities, it is important to distinguish between the different types of actuators that it may control. These actuators are primarily motors which can be classified as either *encoded* or *non-encoded*.

Encoded motors have limits that are calibrated and operate electronically, otherwise known as electronic limit motors. These motors add convenience by eliminating the need to physically adjust any limit mechanisms, and are thus considered to be more user-friendly.

Non-encoded motors typically require that the travel limits be physically adjusted on the motor itself, otherwise known as mechanical limit motors. This often adds hassle during the installation process but is otherwise reliable. More advanced features that are present on encoded motors are typically unavailable.

Sunpery produces both encoded and non-encoded motors, and they will all work with the C222 remote handset. Due to the different features of these motors, operating procedures can diverge and will be noted where applicable.

Standard operations

Once a motor has been commissioned (and calibrated if applicable) by the remote handset:

OPEN will run the motor until it reaches the open limit

STOP will stop the motor if it is running

CLOSE will run the motor until it reaches the close limit

The channel select button will cycle through channels 1 to 6 as displayed by the channel indicator LEDs; pressing this button after channel 6 will enter ALL CHANNEL mode where all LEDs will light up and any motor learned to any channel on the handset will respond (if they are within range); pressing this button again after ALL CHANNEL mode will revert back to channel 1 and the cycle repeats

A will run an encoded motor to its FIRST INTERMEDIATE, which is set at 25% by default

CENTER will run an encoded motor to its SECOND INTERMEDIATE, which is set at 50% by default

B will run an encoded motor to its THIRD INTERMEDIATE, which is set at 75% by default

To commission a new channel

1. Ensure the receiving motor has been powered down for at least 1 minute
2. Select the desired channel on the remote by pressing the channel select button and cycling through channels 1 to 6 as indicated by the channel indicator LEDs
3. With channel selected, power on the receiving motor
4. Within 90 seconds of motor power on, press and hold the OPEN and CLOSE buttons simultaneously – the corresponding channel LED will enter a slow blink sequence, this shows the transmitter is sending out the intended signal
5. The motor will jog after 3 to 5 seconds to confirm channel has been commissioned
6. Test by pressing the OPEN or CLOSE button to see if motor responds

To reverse motor travel direction

For non-encoded motors:

1. Confirm current travel direction is wrong by using the OPEN and CLOSE buttons
2. Power off motor for 1 minute, then power on again
3. Within 90 seconds of motor power on, press and hold the A and B buttons simultaneously – corresponding channel LED will enter a slow blink sequence
4. The motor will jog after 3 to 5 seconds to confirm direction has been reversed
5. Test running directions by using the OPEN and CLOSE buttons to move the motor

For encoded motors:

1. Confirm current travel direction is wrong by using the OPEN and CLOSE buttons
2. Power off motor for 1 minute, then power on again
3. Within 90 seconds of motor power on, press and hold the A and B buttons simultaneously – corresponding channel LED will enter a slow blink sequence
4. The motor will jog after 3 to 5 seconds to confirm it has entered CONFIG MODE
5. Once in CONFIG MODE, while still within 90 seconds from motor power on, press and hold the OPEN and CLOSE buttons simultaneously – corresponding channel LED will enter a slow blink sequence
6. The motor will jog after 3 to 5 seconds to confirm direction has been reversed
7. Press and hold the STOP button, after 3 to 5 seconds the motor will jog to confirm that is has exited CONFIG MODE
8. Test running directions by using the OPEN and CLOSE buttons to move the motor

To set limits

THIS APPLIES TO ENCODED MOTORS ONLY

1. Make sure the correct channel is selected on the handset
2. Press and hold the A and B buttons simultaneously – corresponding channel LED will enter a slow blink sequence
3. The motor will jog after 3 to 5 seconds to confirm it has entered CONFIG MODE – once in CONFIG MODE, motor will move only with a maintained button press on either the OPEN or CLOSE button
4. Run the motor by holding the OPEN or CLOSE button, release when intended limit position is reached
5. To set current position as UPPER LIMIT (open position), press and hold the CENTER and A buttons simultaneously –

corresponding channel LED will enter a slow blink sequence
6. The motor will jog after 3 to 5 seconds to confirm limit has been saved
7. Repeat steps #5 and #6 for setting the LOWER LIMIT (closed position), with the exception that the CENTER and B buttons are used instead
8. Press and hold the STOP button, after 3 to 5 seconds the motor will jog to confirm that it has exited CONFIG MODE
9. Test limits by using the OPEN and CLOSE buttons and seeing if the motor stops at the correct position on both ends

Note:

It does not matter in which order the limits are set (i.e. upper followed by lower, or lower followed by upper). Also, either limit can be readjusted at any time in the future without the need to reset the other limit. Simply adjust the intended limit and exit.

To set intermediate stops

THIS APPLIES TO ENCODED MOTORS ONLY

By default, the buttons A, CENTER, and B will move the motor to, respectively, 25%, 50%, and 75% encoder positions. The following steps are used to customize these positions.

1. Make sure the correct channel is selected on the handset
2. Press and hold the A and B buttons simultaneously – corresponding channel LED will enter a slow blink sequence
3. The motor will jog after 3 to 5 seconds to confirm it has entered CONFIG MODE – once in CONFIG MODE, motor will move only with a maintained button press on either the OPEN or CLOSE button
4. Run the motor by holding the OPEN or CLOSE button, release when intended intermediate position is reached
5. To set current position as FIRST INTERMEDIATE, press and hold the A button
6. The motor will jog after 3 to 5 seconds to confirm position has been saved
7. Repeat steps #5 and #6 for setting the other intermediate positions, with the exception that the CENTER and B buttons are used to set the SECOND INTERMEDIATE and THIRD INTERMEDIATE respectively
8. Press and hold the STOP button, after 3 to 5 seconds the motor will jog to confirm that it has exited CONFIG MODE
9. Test intermediate stops by using the A, CENTER, and B buttons and seeing if the motor stops at the correct positions

Note:

Similarly to setting limits, it does not matter in which order the intermediate stops are set, or even if they are set at all (which will remain at default). Each intermediate position can be readjusted at any time without the need to reset the others. Simply adjust the intended intermediate stop and exit.

To delete current channel from motor memory

1. Make sure the correct channel is selected on the handset
2. Press and hold the STOP and OPEN buttons simultaneously – corresponding channel LED will enter a slow blink sequence
3. The motor will jog after 3 to 5 seconds to confirm current channel has been deleted
4. Test by making sure the motor no longer responds to any commands from the present channel

To delete all channels from motor memory

1. Make sure the correct channel is selected on the handset
2. Press and hold the STOP and CLOSE buttons simultaneously – corresponding channel LED will enter a slow blink sequence
3. The motor will jog after 3 to 5 seconds to confirm all channels have been deleted
4. Test by making sure the motor no longer responds to any commands

Company: **Sunpery(Nanjing) Co., Ltd**
Name: **RF Remote Transmitter**
Model Number: **C222-9120**
FCC ID: VXC-C222

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment。