



samlexpower®

**Remote
Control**

NTX-RC

**Owner's
Manual**

Please read this
manual BEFORE
installing your
remote control

SECTION 1 | Introduction

1.1 DESCRIPTION

NTX-RC is a wired Remote Control used with selected models of NTX Series of Inverters to switch on and switch off the Inverter from a remote location. It also displays operational parameters using LCD display as follows:

- Numerical value of input voltage seen at the DC input terminals
- Bar graph to depict output power level
- Flashing fault messages: "Input Fault" and "Output Fault"

Applicable Models of NTX Inverters

NTX-RC Remote Control is designed to work with the following models of the NTX Series:

- NTX-1000-12
- NTX-1500-12
- NTX-2000-12
- NTX-3000-12

SECTION 2 | Layout

2.1 LAYOUT

The layout is given at Fig 2.1 below.

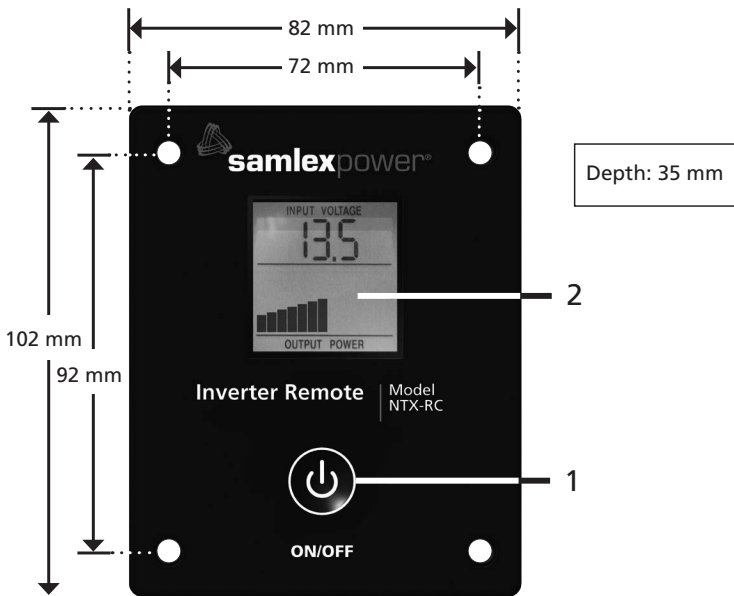


Fig. 2.1 Layout

1. ON/OFF Push Button. Used to switch on and switch off the Inverter.



CAUTION!

For switching ON and switching OFF of the Inverter (NTX-1000-12/ NTX-1500-12 / NTX-2000-12/ NTX-3000-12), the ON/OFF Switch on the Inverter should be in OFF condition.

If the ON/OFF Switch on the Inverter is left in ON position when using the Remote Control, the following will be observed on pressing the ON/OFF Button on the Remote Control (1 in Fig 2.1) for switching ON and Switching OFF the Inverter:

- Press ON/OFF Button (1 in Fig 2.1) to switch ON the Inverter: The Remote Control will display the status of operation of the Inverter

SECTION 3 | Display

- Press ON/OFF Button (1 in Fig 2.1) to Switch OFF the Inverter: The LCD Display (2 in Fig 2.1) will switch OFF. However, the Inverter will not switch OFF and the batteries will continue to drain due to the following energy consumption:
 - (i) Due to the “no load draw” of the inverter if no load is present or due to the DC side current draw if AC load is present
 - (ii) Due to the power drawn by the fans (the fans in the Inverter run continuously as long as the inverter is in ON condition)

2. LCD display

3. (Not shown. Located at the back of the Remote). 8P8C (8 Position, 8 Conductor) Modular Connector Receptacle (also known as RJ-45 Receptacle) used for connecting the Remote Control to the Inverter with the help of 10', Cat 5, 8 conductor cable.

3.1 DISPLAY

A backlit LCD display is used to display operational parameters and fault conditions. Details of information displayed are shown at Fig 3.1 below:

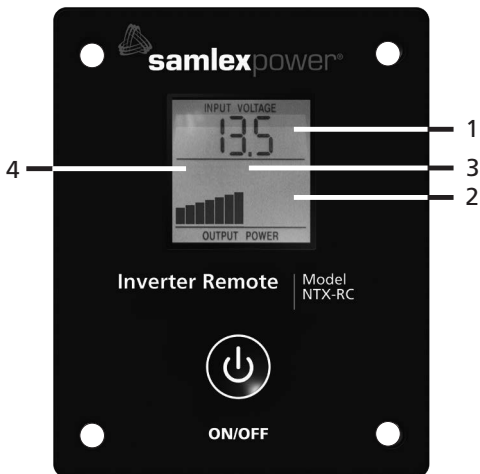


Fig. 3.1 Details of LCD Screen

The backlighting has 2 intensities of brightness – dim and bright:

- When the inverter is supplying no power (is in no load condition) or lower power below the minimum power display threshold of 50W to 100W, the bar graph will NOT be displayed. Also, the back-light will be dim
- When the power supplied is more than the minimum power display threshold of 50W to 100W, the 1st bar will appear and the back-light will brighten. More number of bars will be displayed proportional to power output level.

SECTION 3 | Display

INPUT VOLTAGE (1)

Input voltage is displayed using 3-digit, 7-segment numerals with 1 decimal:

- Displays 88.8 momentarily during booting process when the remote is switched ON. After completion of booting, the actual value will be displayed.
- Please note that the displayed voltage will be lower than the voltage at the battery terminals by the amount of voltage drop in the DC side input wires.

OUTPUT POWER (2)

Output power is displayed by a bar graph consisting of 14 gradually increasing bars for depicting increasing output power level.

- All the 14 bars will be displayed momentarily during booting process when the remote is switched on. After completion of booting process, the actual power level will be displayed by the appropriate number of bars
- When the inverter is supplying no power (is in no load condition) or lower power below the minimum power display threshold of 100W to 200W depending on which model, bar graph will not be displayed. Also, the back-light will be dim
- When the power supplied is more than the minimum power display threshold of 100W to 200W depending on which model, the 1st bar will appear and the back-light will brighten. More number of bars will be displayed proportional to power output level.

INPUT FAULT (3)



NOTE: This message will be displayed momentarily (will be steady) during the boot process when the remote is switched ON. The message will flash during the actual output fault condition

This message flashes when the inverter has shut down due to the following (Please read the inverter manual for causes and remedies):

- DC input voltage at the terminals of the inverter is low: 10.5 +/- 0.3V VDC or lower
- DC input voltage at the inverter terminals is high: 16.3 +/- 0.3V VDC or higher
- Over temperature

OUTPUT FAULT (4)



NOTE: This message will be displayed momentarily (will be steady) during the boot process when the remote is switched ON. The message will flash during the actual output fault condition.

This message flashes when the inverter shuts down due to over load or short circuit on the AC output side (Please read the inverter manual for causes and remedies):

SECTION 3 | Display

Display when GFCI has tripped due to leakage on the Load Side (output side)

The AC output power of the inverter is fed through a Duplex NEMA5-20 outlet with GFCI protection for NTX-1000-12, NTX-1500-12, NTX-2000-12 only, not for NTX-3000-12.

A GFCI has a relay operated mechanical switch that mechanically switches off the Load Side (output side) of the GFCI from its Line Side (input side) in case of a ground fault / leakage. It compares the current sent to the load side and returned back from the load side. If the returned current is less by more than 5 to 7 mA (this loss of returned current will be due to ground fault / leakage on the load side), the switch trips and disconnects the AC load from the AC source. When the GFCI has tripped due to ground fault / leakage, it can be reset by pressing the reset button.

For the reset button to operate and reset the GFCI, AC power is required to be present on the Line Side (input side) of the GFCI. If AC power is not available on the Line Side (input side) of the GFCI, the GFCI will not reset. When the GFCI trips due to leakage on the Load Side, the following symptoms will be seen:

On the GFCI

- The Green LED light on the GFCI will be switched off

On the Inverter

- Green LED on the front panel of the inverter will continue to remain lit
- Internally, the inverter will still be working normally and the rated AC output voltage will be available on the internal Line Side of the GFCI, but not on the external Load Side of the FGCI due to tripped relay in the GFCI.

On the LCD Display

- Power bar graph is switched off
- Backlight is dimmed
- Only the DC input voltage is displayed

When the output side of the GFCI outlet of the inverter trips due to ground fault / leakage on the load side, the inverter will still be operating normally and AC power will still be available on the Line Side (input side) of the GFCI (but not on the output side of the GFCI). **Thus, "OUTPUT FAULT" message will NOT be displayed when the GFCI has tripped due to ground fault / leakage on the Load Side.** Use the "Reset" button on the GFCI to reset the mechanical switch to the ON position after removing the cause of the ground fault.

For NTX-3000-12, built in leakage protection circuit. Due to ground fault / leakage on the Load Side, inverter will shut down, Red LED light and "OUTPUT FAULT" message will be displayed on the remote control.

SECTION 4 | Operation

The Remote Control is provided with 5 meter / 16 ft. length of Cat 5, Straight, Networking Cable with 8P8C (8 Position, 8 Conductor) Modular Plugs (RJ-45) on either ends . Plug one end of the cable to the receptacle on the Remote Control (3). Locate the 8P8C (8 Position, 8 Conductor) Modular Receptacle (RJ-45) on the inverter and securely insert the other end of the plug on the Remote Control cable. For switching on and switching off the Inverter using this Remote Control, the Main ON / OFF Switch on the Inverter should be in the OFF condition.



CAUTION! If the ON / OFF Switch on the Inverter is left in ON position, the Inverter cannot be switched off using this Remote Control. The Remote Control will, however, continue to display the status of operation.

Please see under "Section 3 - Display" for display information.

SECTION 5 | Specifications

| MODEL NO. | NTX-RC |
|--|---|
| APPLICABLE MODELS OF INVERTERS | NTX-1000-12, NTX-1500-12, NTX-2000-12, NTX-3000-12 |
| RECEPTACLE FOR CONNECTING CABLE | 8P8C (8 Position, 8 Conductor) Modular Receptacle (RJ-45) |
| CONNECTING CABLE TYPE | 8 Conductor, Cat 5 Networking Cable |
| CONNECTING CABLE TERMINALS | 8P8C (8 Position, 8 Conductor) Modular Plug (RJ-45) |
| TYPE OF CONNECTION | Straight |
| CONNECTING CABLE, LENGTH | 5 meters / 16' |
| DIMENSIONS (WITHOUT CABLE), MM (L x W x H) | 102 x 82 x 35 |
| DIMENSIONS (WITHOUT CABLE), IN (L x W x H) | 4.0 x 3.2 x 1.4 |
| WEIGHT (WITHOUT CABLE), KG | 0.056 |
| WEIGHT (WITHOUT CABLE), LB | 0.12 |

NOTE: Specifications are subject to change without notice.