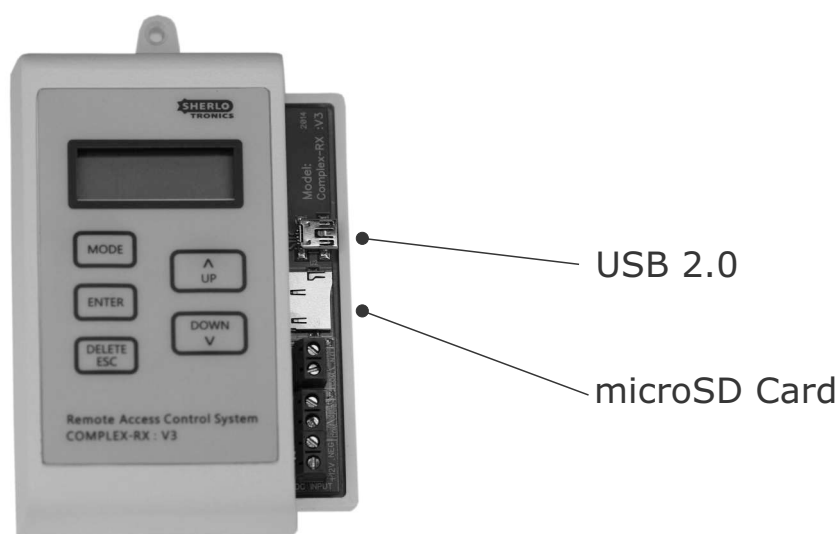


# Installation manual

## Complex Gate Receiver

Model: COMPLEX\_RX\_V3

2 Channel receiver, 8000 remotes total capacity, real time clock,  
2000 Events internal, microSD card, USB 2.0,  
New Feature:- Baring & Un-barring of remotes.



**SHERLO**  
TRONICS



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Thank you for purchasing our latest model Complex gate access control receiver.  
We hope your installation experiences many years of trouble free remote control.

This device is covered by a 2 year manufactures warranty. If you have any electrical trouble with the device, please send it in to our technical department and it will get attended to the problem within 48 Hours.

Please carefully follow the installation manual to install the unit and get familiar with its operating functions.

Please note that the new model unit is backward compatible to the older ver 2 unit. This means that you can unplug the 25LC1024 eEprom memory IC from the older model and plug it into this new VER3 model and your remotes will still operate.

The software application that is supplied in this package will only work with this new VER 3 model and will not work on the older model.

We trust that you will find it straight forward enough to program and setup.  
If you have any questions or technical advice please phone our technical division on 011 462-5101.

## Description of Functions and Features

1. The **Complex-Rx\_VER3** unit can Store up to 4000, Sherlotronics Code-hopping remotes per relay, that is a total of 8000 into its memory. The memory starts from UNIT 1 to 500. Each UNIT can be programmed with up to 8 users. The Users are letters starting from A to H. The Table below shows how the units memory mapping works.
2. The Complex-RX\_V3 can save up to 2000 time & date stamped Events to its internal memory. Each event that is saved will show the Remote no; Time; Day; and Month.
3. The unit is password protected for accessing functions such as learning in or deleting remotes, setting the time & date, changing the password, or installing a backup to the system.
4. The unit can be connected to a PC via a standard USB 2.0 port to down-load its events, install a backup file, set independent timers, and create a Data base to register each remote control to a residents personalised details.
5. The Computer application Software is available on line at:- [ww.sherlotronics.co.za](http://www.sherlotronics.co.za)
6. A standard microSD card will allow you to backup the units entire memory which includes the remote that were learnt in and the previous 2000 event log, as well as Install a previously saved backup file to a new Complex-Rx\_V3 unit.

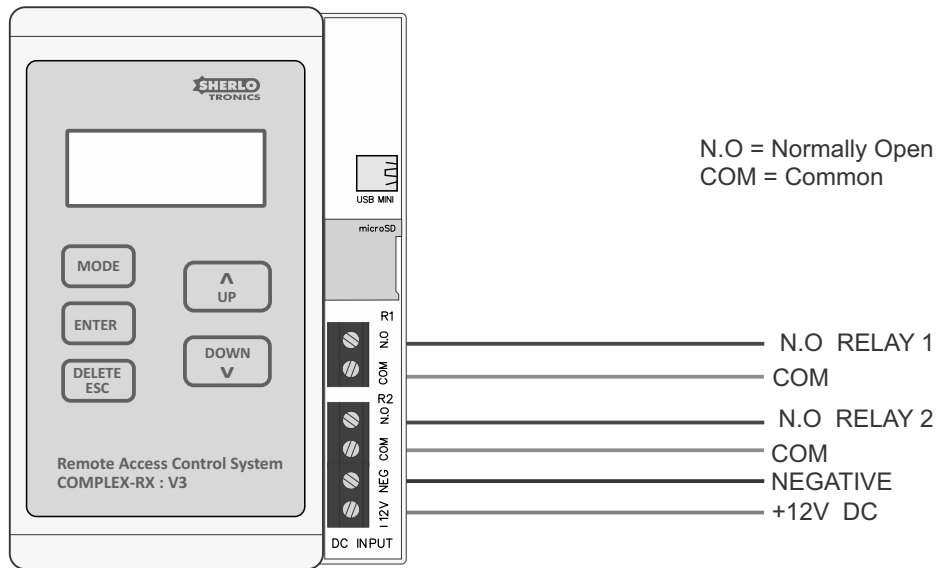
Memory mapping table:

Unit	User 1	User 2	User 3	User 4	User 5	User 6	User 7	User 8
1	A	B	C	D	E	F	G	H
2	A	B	C	D	E	F	G	H
↓								
500	A	B	C	D	E	F	G	H

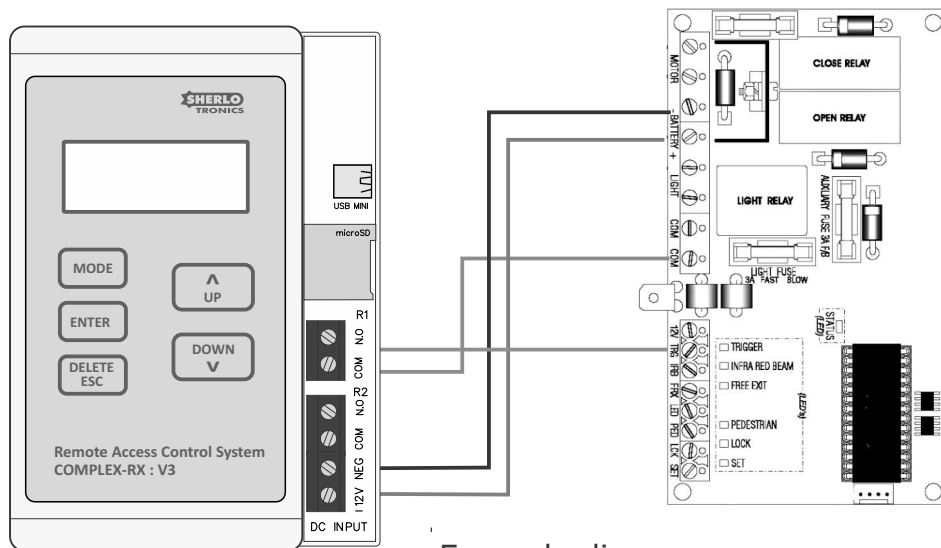
## Specifications

Encryption.....	Keeloq, Code-Hopping
Frequency.....	403.55Mhz
Range : Line of site.....	100m
Voltage range.....	10 - 14 Volt DC
Current drain.....	80mA, 12VDC
Relay output's.....	1 to 10 sec momentary
Temperature.....	-7° C ~ +65° C
Dimensions.....	115 x 82 x 31mm
PCB revision .....	Ver 3:7
Release date:.....	Feb 2014

# Wiring Diagram



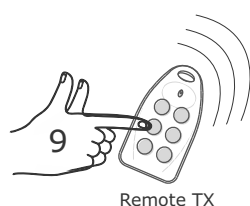
This diagram serves as an example of a typical gate motor wiring setup. Please refer to motors manufactures installation manual for a more detailed wiring diagram.



Example diagram

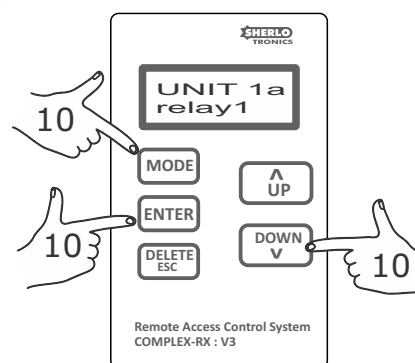
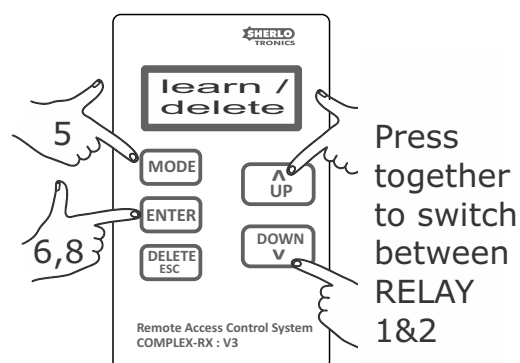
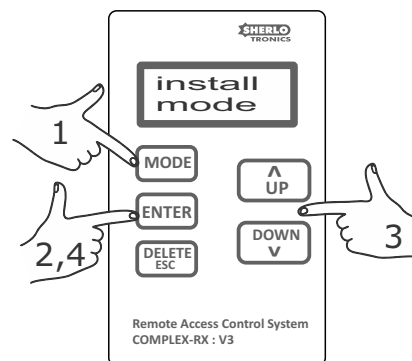
## Learning in Remotes

1. Press the MODE Button until the screen displays **INSTALL MODE**
2. Press ENTER. The unit will prompt you for a password.
3. Using the UP/DOWN keys enter the PASSWORD  
The default is 1;2;3;4.
4. Press ENTER for each digit.
5. Press the MODE key to find **LEARN / DELETE**
6. Press ENTER. The display will read :  
**UNIT 1A / RELAY 1**
7. Scroll UP / DOWN to a UNIT no you wish to program. To switch between RELAY 1 & 2 press the UP & DOWN keys quickly together.
8. Press the ENTER button if you wish to program the remote TX into the unit. The unit will display, **Press now.**
9. Activate the remote TX. The unit will display, **Press again.** Once the remote TX is learnt in a \*star will display on the bottom right hand of the screen.



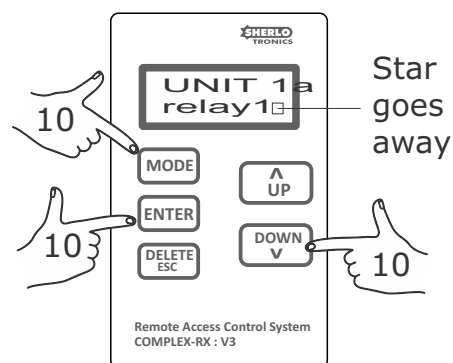
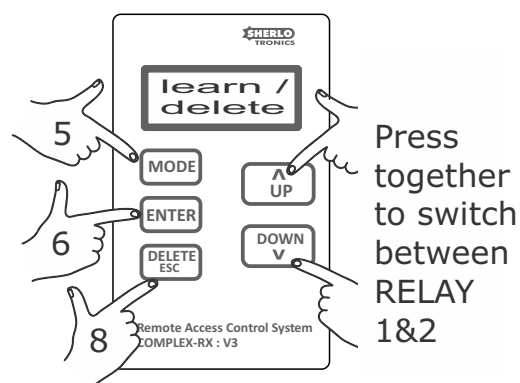
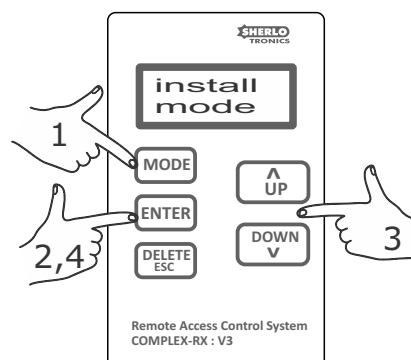
UNIT 1a  
relay1 \*

10. To EXIT out of the **LEARN/DETEETE** mode press the MODE button. Then press the Down button till EXIT MODE displays. Then press ENTER.



## Deleting Remotes

1. Press the MODE Button until the screen displays **INSTALL MODE**
2. Press ENTER. The unit will prompt you for a password.
3. Using the UP/DOWN keys enter the PASSWORD  
The default is 1;2;3;4.
4. Press ENTER for each digit.
5. Press the MODE key to find **LEARN / DELETE**
6. Press ENTER. The display will read :  
**UNIT 1A / RELAY 1**
7. Scroll UP / DOWN to a UNIT no you wish to Delete. To switch between RELAY 1 & 2 press the UP & DOWN keys together.
8. Press and HOLD the DELETE key if you wish to Delete the remote TX from the unit. The unit will say DELETING REMOTE, after 3 seconds The \*star will no longer be on the bottom right side of the screen.
9. To EXIT out of the **LEARN/DELETE** mode press the MODE button. Then press the Down button till EXIT MODE displays. Then press ENTER.



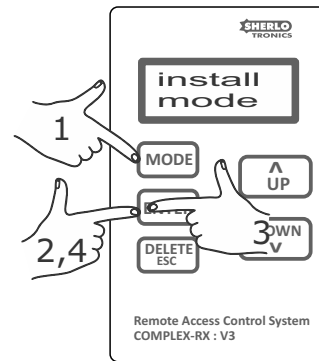
## Deleting All Remotes / Defaulting

Please note: This process is permanent and if followed out all working remotes will be deleted.

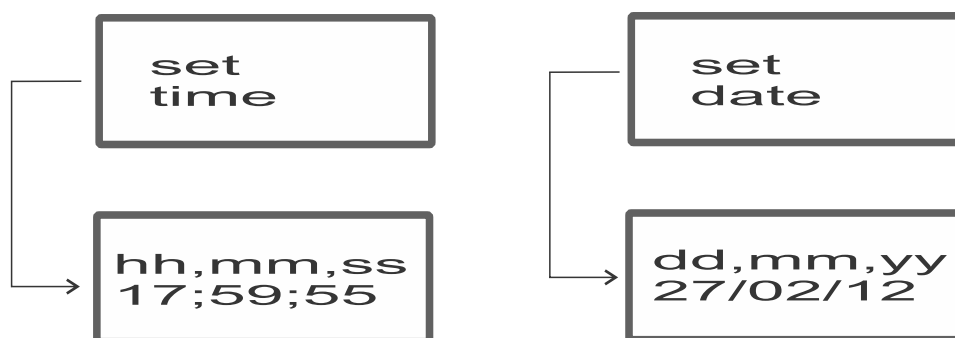
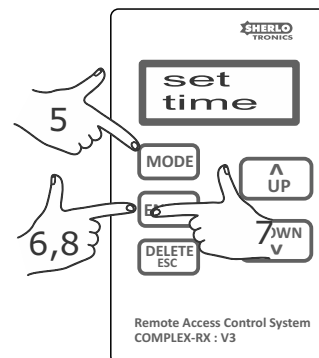
1. Remove power from the unit and then, press and HOLD in the MODE/ENTER/DELETE buttons.
2. Whilst holding in all three buttons power up the unit.  
The unit will start to Default its memory.

## Setting the Time & Date

1. Press the MODE Button until the screen displays **INSTALL MODE**
2. Press ENTER. The unit will prompt you for a password.
3. Using the UP/DOWN keys enter the PASSWORD  
The default is 1;2;3;4.
4. Press ENTER for each digit.

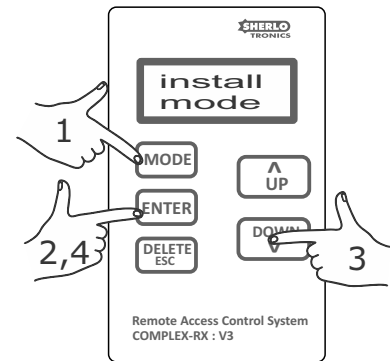


5. Press the MODE key to find **SET TIME** or **SET DATE**
6. Press ENTER.
7. Scroll UP / DOWN to a set the required digit
8. Press ENTER for each setting.
9. To EXIT out of the **SET TIME** or **SET DATE** mode press the MODE button. Then press the Down button till **EXIT MODE** displays. Then press ENTER.

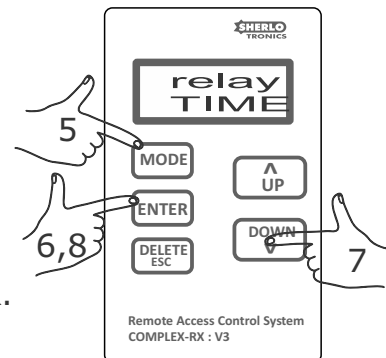


## Setting the Relay time

1. Press the MODE Button until the screen displays **INSTALL MODE**
2. Press ENTER. The unit will prompt you for a password.
3. Using the UP/DOWN keys enter the PASSWORD  
The default is **1;2;3;4.**
4. Press ENTER for each digit.



5. Press the UP/DOWN key to find **RELAY TIME**
6. Press ENTER.
7. Scroll UP / DOWN to a set the required digit
8. Press ENTER to save the setting.
9. To EXIT out of the **RELAY TIME** mode press the MODE button. Then press the Down button till **EXIT MODE** displays. Then press ENTER.



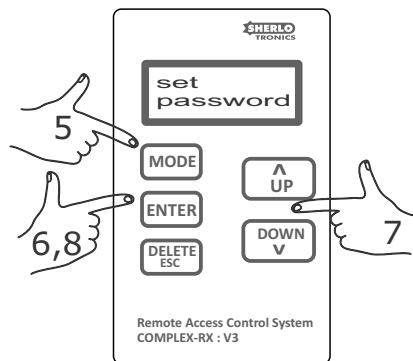
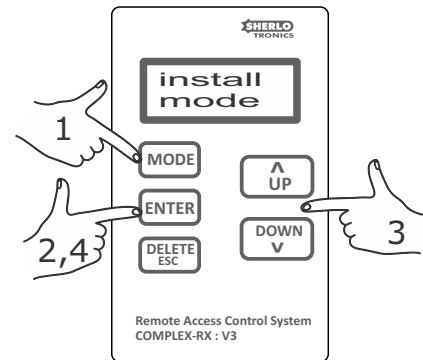
### Note:

Both relays are globally programmed to switch between 1 - 10 Seconds. Some gate motors require a longer or shorter trigger input, so the relay settings may be programmed accordingly to motor you are connecting this unit. The Complex Rx\_V3 is factory set to 1.0 Second.



## Changing the password

1. Press the MODE Button until the screen displays **INSTALL MODE**
2. Press ENTER. The unit will prompt you for a password.
3. Using the UP/DOWN keys enter the PASSWORD  
The default is 1;2;3;4.
4. Press ENTER for each digit.
5. Press the MODE key to find **SET PASSWORD**
6. Press ENTER.
7. Scroll UP / DOWN to a set the digit
8. Press ENTER to save the setting
9. To EXIT out of the **SET PASSWORD** mode press the MODE button. Then press the Down button till **EXIT MODE** displays. Then press ENTER.



## Defaulting the password

1. Press the Delete and UP Button together while powering up the unit
2. The LCD will Flash PASSWORD RESET
3. The default password will be 1;2;3;4

## Defaulting the Event Log

1. Press the Delete and MODE Button together while powering up the unit
2. The LCD will Flash EVENT RESET
3. The unit will have no Events stored on its internal eProm memory

## View the Event Log

1. Press the MODE Button once. The screen displays **VIEW EVENTS**
2. Press ENTER. The unit will display the time / date it received an activation.
3. Press the DOWN key to view the UNIT/ USER and the RELAY that was triggered.
4. Continue with step 3 pressing the DOWN key to view each event one at a time.
5. To EXIT out of the **VIEW EVENTS** mode press the MODE button till the display show the current time & date screen.

### Note:

The unit will auto Exit out of this mode if no key is pressed after 30 seconds.

## Saving to the microSD card

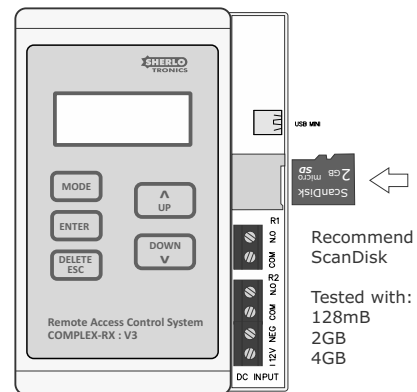
A microSD card must first be formatted to a FAT32 File system.

Carefully plug the card into the card holder. The display will ready **SD Card inserted.**

To make a backup to the microSD card follow the steps below:

Press the MODE button twice or till the display says **SAVE TO SD CARD.** Press ENTER. The display will say, **Busy Writing.** This takes approx 40s to complete.

You may now remove the card. The display will say, **SD Card Ejected.**

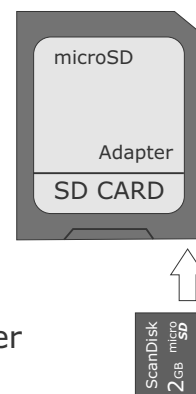


Once you have inserted microSD card into a pc, with either a SD Card adaptor or USB multi adaptor open the file. There should be (3) two folders called: **EVENTS.txt ; BACKUP.txt** and **2000.txt**

We recommend that you look at saving these three files in a folder or safe place for future use. Please do not alter the file names or information within the files in any way or this will corrupt the backup.

Note:

The unit will auto Exit out of this mode if no key is pressed after 30 seconds.



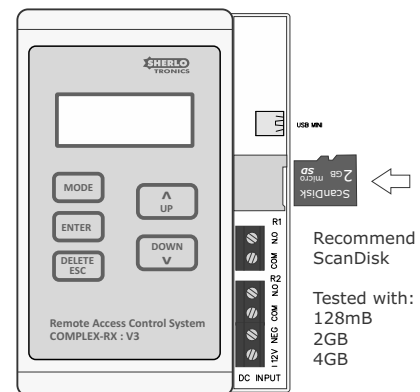
## Installing the Remotes backup file.

If you need to install a new unit due to a product been struck by lightning or if an electrical malfunction occurred, please follow this guide in successfully install all the remotes back into the replacement unit.

Insert a microSD card into your pc, and make sure it is formatted as a FAT32 file system. Now copy just the backup file you saved and make sure it is still called : **BACKUP.txt**

Now insert the microSD card into the units onboard card holder and follow the steps below:

1. Press the MODE Button until the screen displays **INSTALL MODE**
2. Press ENTER. The unit will prompt you for a password.
3. Using the UP/DOWN keys enter the PASSWORD  
The default is **1;2;3;4.**
4. Press ENTER for each digit.
5. Press the UP/DOWN key to find **INSTALL BACKUP**
6. Press ENTER.
7. The unit will say: BUSY STORING. This takes 1 minute to complete.
8. To EXIT out of the **INSTALL BACKUP** mode press the Down button till **EXIT MODE** displays. Then press ENTER.

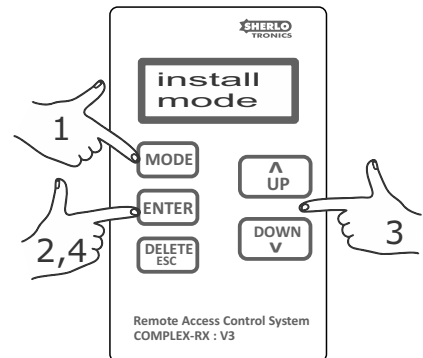


Please note:

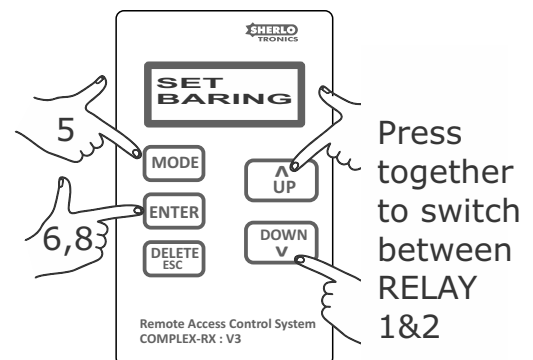
The unit will not have any history of the events that were logged on the previous. We do not cater for Installing old events back into a unit. Any new events will be stored on the new units eProm as they occur.

## Set Baring

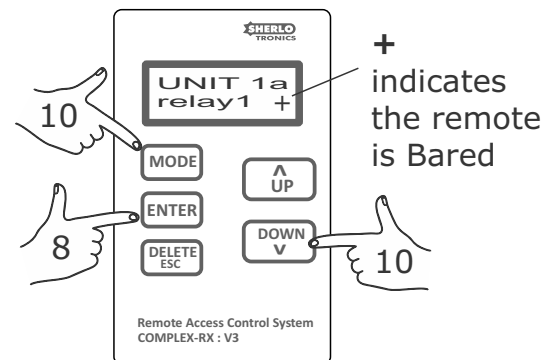
1. Press the MODE Button until the screen displays **INSTALL MODE**
2. Press ENTER. The unit will prompt you for a password.
3. Using the UP/DOWN keys enter the PASSWORD  
The default is 1;2;3;4.
4. Press ENTER for each digit.



5. Press the MODE key to find :- **SET BARING**
6. Press ENTER. The display will read :  
**UNIT 1A / RELAY 1**
7. Scroll UP / DOWN to a UNIT no you wish to Bar. To switch between RELAY 1 & 2 press the UP & DOWN keys together.



8. Press and HOLD the **ENTER** key if you wish to Bar the remote TX from working on the unit.  
The unit will say BARING, after 3 seconds a **+** sign will display on the bottom right side of the screen.
9. To EXIT out of the **BARING** mode press the MODE button.
10. Then press the Down button till EXIT MODE displays.  
Then press ENTER.

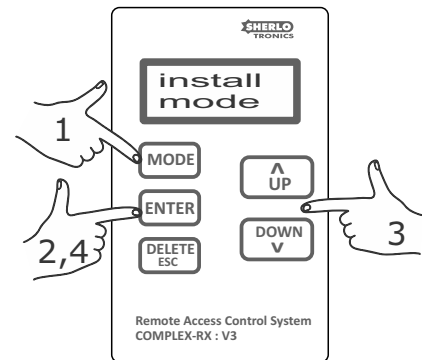


Please note:

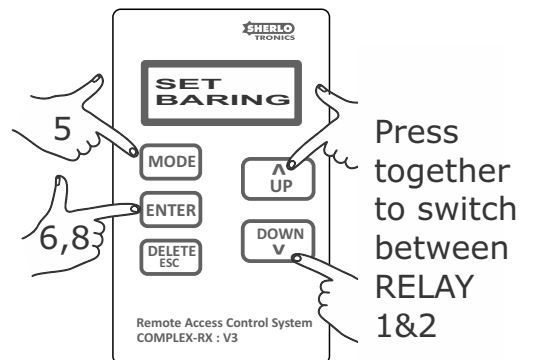
If you release the Enter key for a short time the remote TX will not be bared.

## Un Barring

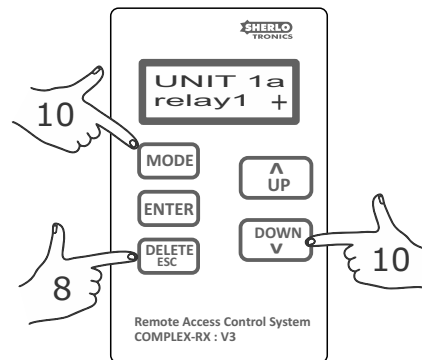
1. Press the MODE Button until the screen displays **INSTALL MODE**
2. Press ENTER. The unit will prompt you for a password.
3. Using the UP/DOWN keys enter the PASSWORD  
The default is 1;2;3;4.
4. Press ENTER for each digit.



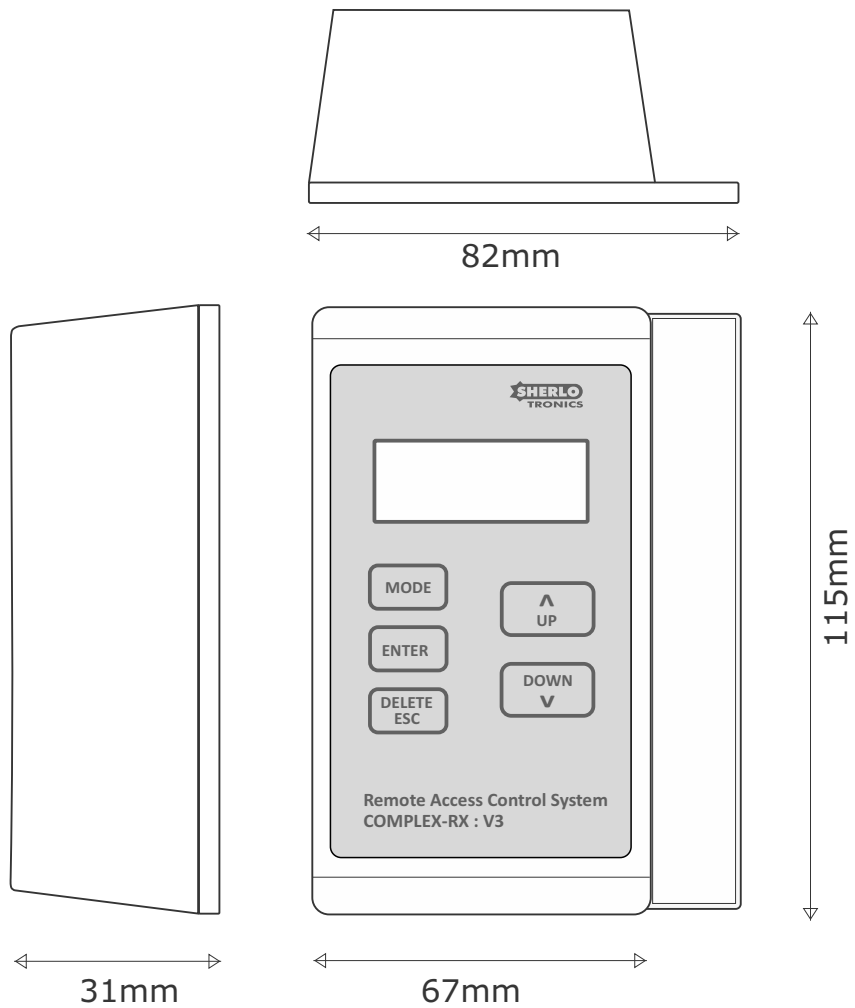
5. Press the MODE key to find :- **SET BARING**
6. Press ENTER. The display will read :  
**UNIT 1A / RELAY 1**
7. Scroll UP / DOWN to a UNIT no you wish to Bar. To switch between RELAY 1 & 2 press the UP & DOWN keys together.



8. Press and HOLD the **DELETE / ESC** key if you wish to Bar the remote TX from working on the unit.  
The unit will say BARING, after 3 seconds a **+** sign will dissapear on the bottom right side of the screen.
9. To EXIT out of the **BARING** mode press the MODE button.
10. Then press the Down button till EXIT MODE displays. Then press ENTER.



## Product Dimensions



Software revisions :

**COMPLEX-RX\_V3 Revision V3 PCB**

- V3.01 .....First Release
- V3.02.....Relay Time values modified
- V3.03.....SD Card Time / Date stamping added
- V3.04.....Test Key code added
- V3.05.....SD card detection
- V3.06.....Implemented the BOOT loader
- V3.07.....Change RX to simple Serial learn
- V3.08.....Updated SPI write routine to 8 Byte
- V3.09.....Revised sync counter saving routine
- V3.10.....Updated Deleting / Learning time password reset
- V3.11.....Revised year stamp on SD card

PCB Revision V3.7

- V3.12.....Baring & Unbarring feature implemented

**Approvals:**

This products complies with the following approvals for use in Residential, commercial and Light Industrial Environment and Complies with the essential protection requirements of the R&TTE Directive 1999/EC on the approximation of the laws of the Member states relating to electromagnetic compatibility and radio spectrum.

Certifications:

- ETSI EN300 220-V2.4.1
- ETSI EN301-489-3 V1.4.1
- ETSI EN301-489-1 V1.9.2
- IEC 60950-1:2005 + A1:2009



## Warranty Policy

The goods supplied by Sherlotronics shall be subject to the provisions of sections 55 to 57 of the Consumer Protection Act (68/2008) except where the provisions of the warranty contained in the Sherlotronics documentation are more favourable to the purchaser. Subject to the warranty contained in the Sherlotronics product documentation, if applicable, Sherlotronics products are warranted for a period of **(24 Months)** after delivery. However, it is expressly noted that batteries carry a **(6 Month)** warranty due to the nature of these products being such that they are subject to possible misuse. For equipment not of Sherlotronics manufacture the warranty as supplied by the original manufacturer will apply if such warranty is more favourable to the purchaser than the relevant provisions of the Consumer Protection Act (68/2008). Such warranty is valid only once full payment has been received for such goods.

Any warranty may be voidable on any equipment which:

- i) Has not been installed in accordance with the installation instructions provided.
- ii) Has been subject to misuse or which has been used for any purpose other than that designed for by the manufacturers.
- iii) Has damage caused as a result of handling during transit, atmospheric conditions (including lightning), corrosion of metal parts, water damage, leaking batteries, insect infestation, power surges or other forces outside of the control of Sherlotronics.
- iv) Has been repaired by a person NOT previously authorised by Sherlotronics.
- v) Has been repaired with components not previously tested, passed or authorised by Sherlotronics.

We will not be liable under this contract for any loss or damage caused by us or our employees or agents in circumstances where:

- i) There has been a failure to install the product in accordance with the installation instructions provided by Sherlotronics , or
- ii) a failure to abide by the safety instructions provided by Sherlotronics , or
- iii) there is no breach of a legal duty of care owed to you by us or by any of our employees or agents
- iv) such loss or damage is not a reasonably foreseeable result of any such breach, and any increase in loss or damage resulting from breach by you of any term of this contract.