



**MASER** *We Think 'Customer.' The Rest Follows*

MASER ELECTRONICS (P) LTD. *An UL Registered 9001:2015 Company*

---

# MASER VHFO V2 ULTRASONIC RODENT REPELLENT

---

User Manual



Maser Electronics Pvt. Ltd., Mumbai.

✉ [support@maserindia.com](mailto:support@maserindia.com)

🌐 [www.maserindia.com](http://www.maserindia.com)

☎ 022 4111 0000 (100 Lines)

- The VHFO Digital V2 Model supports the following protocols on RS-485
  - a. CRMS which is our proprietary protocol.
  - b. Modbus.
- By default when the system is switched ON it operates on CRMS protocol.
- There are two modes of operation AUTO Mode and MANUAL Mode.
- By default the system runs on Auto Mode with factory preset setting (kindly refer below table)
- In this mode the Wave speed and Wave density parameters will change automatically.

<b>*Parameter Name</b>	<b>Factory Preset Value</b>
Wave Speed ( PPM- Pulses Per Minute )	115
Wave Density	80
Band A Time (20 KHz to 50 KHz)	1 Min
Band B Time (30 KHz to 60 KHz)	2 Mins
Band C Time (27 KHz to 57 KHz)	3 Mins
Band D Time (24 KHz to 61 KHz)	2 Mins
Password	9999

- 
- In Manual Mode the above mentioned parameters will not change automatically and the user will have to do the same manually.
  - However in the Auto and Manual modes the frequency bands will change automatically after the time for which they have been configured.
  - Once the console is powered up the system will be in operation and all the twenty four transducers (Looped Connection) or twenty transducers (Dedicated Connection) connected to the console will start receiving the signal transmission from the console.



# PANEL KEYPAD OPERATIONS

---



## Transducer Testing

---

1. Press  to choose '**TEST SETUP**'.
2. Press  again to choose 'Audible Test' parameter.
3. Press  two times to go back to the main Menu.

## Password Entry To Access Main Setup

---

1. Press  then  to enter '**MAIN SETUP**'.
2. Press  to enter Machine Password.
3. Enter Machine Password as mentioned above in the table by doing the following.
  - 3.1. Use  then  to change the correct digit (9999).
  - 3.2. Press  .
  - 3.3. Repeat the above 2 steps for all the 4 digits of password.
4. Press  to access the main setup.



# Parameter Setup

---

## Mode of Operation – Manual Mode

First change the mode of operation to Manual Mode. Steps are as follows.

1. Press .

1.1. Enter Machine Password as mentioned above in the **“Password Entry to Access Setup”**

1.2. Press  then  to choose the Parameter Setup.

1.3. Press  to set mode of operation.

1.4. Press  then  to select Manual Mode.

1.5. Press  then  to choose the parameter like Wave Speed, Band Density & Band Timings.

1.5.a. Press  to enter the values for respective parameters.

1.5.b. Press  or  for changing the values.

1.5.c. Press  then  for changing the values of other parameters.

1.5.d. Repeat the above 3 steps for changing the values of all parameters.

2. Press  to go back main menu.



3. Go to step 1.5 if you wish to change another parameter else after 30 seconds controller will start displaying all the configured parameters.

## Restore Factory Settings

---

1. Press .
2. Enter Machine Password as mentioned above in the **“Password Entry to Access Setup”**.
3. Press  three times to choose ‘System Setup’ parameter.
4. Press  then  5 times to choose ‘Factory Reset’ parameter.
5. Press  two times for factory Reset and after Factory Reset controller will start displaying all the default parameters.

## CRMS Mode

---

1. Press .
2. Enter Machine Password as mentioned above in the **“Password Entry to Access Setup”**.
3. Press  two times to choose ‘System Setup’ parameter.



4. Press  then  to choose RS-485 Mode.
5. Press  to choose CRMS Mode.
6. Press  again System will configure to CRMS Mode.
7. Press  three times to go back main menu.

## CRMS Mode Settings

---

1. Press  .
2. Enter Machine Password as mentioned above in the **“Password Entry to Access Setup”**.
3. Press  two times to choose ‘System Setup’ parameter.
4. Press  then  to choose RS-485 Mode if your system is in MODBUS Mode.
5. Press  then  to choose CRMS Mode.
6. Press  again System will configure to CRMS Mode.
7. Press  then  to select CRMS ID (MID).
8. Press  then  or  to configure MID (0-255).



9. Press  and System will configure to CRMS Mode with respective MID.
10. Press  three times to go back to main menu.

## Modbus Mode

---

1. Press  .
2. Enter Machine Password as mentioned above in the **“Password Entry to Access Setup”**.
3. Press  two times to choose ‘System Setup’ parameter.
4. Press  then  to choose RS-485 Mode.
5. Press  then  to choose MODBUS Mode.
6. Press  again system will configure to MODBUS Mode.
7. Press  three times to go back to main menu.



## MODBUS Mode Settings

---

1. Press .
2. Enter Machine Password as mentioned above in the **“Password Entry to Access Setup”**.
3. Press  three times to choose ‘MODBUS Setup’.
4. Press  to Set Baud.
  - 4.1. Press  then  or  to choose baud rate i.e. 1200bps to 115200bps
  - 4.2. Press  to go back to the ‘MODBUS Setup’.
5. Press  to choose ‘Parity Bits’.
  - 5.1. Press  then  or  to choose Parity Bits i.e. Even, Odd and No Parity.
  - 5.2. Press  to go back to the ‘MODBUS Setup’.
6. Press  two times to choose ‘Stop Bits’.
  - 6.1. Press  then  or  to choose Stop Bits i.e. 1 or 2.
  - 6.2. Press  to go back to the ‘MODBUS Setup’.



7. Press  three times to choose 'MODBUS ID'.

7.1. Press  then  or  to configure MODBUS ID.

7.2. Press  to go back to the 'MODBUS Setup' or press  three times to go back to the Main Menu.

