MASER

MASER ELECTRONICS (P) LTD.

We Think 'Customer'. The Rest Follows

An UL Registered 9001:2015 Company

MASER TORRANT-V2 ULTRASONIC RODENT REPELLENT

User and Installation Manual

- The **TorranT** 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.

*Parameter Name	Factory Preset Value
Wave Speed (PPM- Pulses Per Minute)	130
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 (26 KHz to 57 KHz)	3 Mins
Band D Time (24 KHz to 61 KHz)	2 Mins
Band E Time (32 KHz to 62 KHz)	1 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 twenty transducers (Dedicated Connection) connected to the console will start receiving the signal transmission from the console.

PANEL KEYPAD OPERATIONS

Password Entry to Access Setup

1. Press [MENU] .

2. Enter Machine Password as mentioned above in the table by doing the following.

3. Use [►] or [◄] to change the correct digit (9999).

4. Press [MENU] to access the setup.

Transducer Testing

1. Press [MENU] .

2. Enter Machine Password as mentioned above in the table

3. Press [MENU] then [►] to choose 'Test Setup'.

4. Press [MENU] to choose 'Audible Test' parameter.

5. Again press [MENU] then [►] or [◄] to check a Transducers in Audible Mode.

6. Use [ESC] then [►] to choose 'Fixed Frequency Test' ie.20KHz to 62KHz.

   parameter.

7. Press [MENU] then [►] or [◄] to choose desired frequency value.

8.   Press [ESC] two times to go back to the main Menu and after 30 seconds controller will start displaying all the configured parameters.

Parameter Setup

Mode of Operation – Manual Mode

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

1.   Press [MENU].

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

     1.2.   Press [MENU] then [►] two times to choose the Parameter Setup.

     1.3.   Press [MENU] to set mode of operation.

     1.4.   Press [MENU] then [►] to select Manual Mode.

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

        1.5.a.   Press [MENU] to enter the values for respective parameters.

        1.5.b.   Press [►] or [◄] for changing the values.

1.5.c. Press (ESC) then (➤) for changing the values of other parameters.

2. Press (ESC) 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 (MENU).

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 (MENU) then (➤) 6 times to choose 'Factory Reset 'parameter.

5. Press (MENU) two times for Factory Reset and after Factory Reset Controller will start displaying all the default parameters

CRMS Mode

1. Press [MENU] .

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 [MENU] then [➤] to choose RS-485 Mode.

5. Press [MENU] to choose CRMS Mode.

6. Press [MENU] again system will configure to CRMS Mode.

7. Press [ESC] two times to go back main menu.

CRMS Mode Settings

1. Press [MENU] .

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 [MENU] then [►] to choose RS-485 Mode. If your system is in MODBUS Mode.

5.   Press [MENU] then [◄] to choose CRMS Mode.

6.   Press [MENU] again system will configure to CRMS Mode.

7.   Press [ESC] then [◄] to select CRMS ID (MID).

8.   Press [MENU] then [►] to configure MID (0-255).

9.   Press [MENU] and System will configure to CRMS with respective MID.

10. Press [ESC] two times to go back to main menu.

Modbus Mode

1.   Press [MENU] .

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 [MENU] then [►] to choose RS-485 Mode.

5. Press [MENU] then [▶] to choose MODBUS Mode.

6. Press [MENU] again system will configure to MODBUS Mode.

7. Press [ESC] two times to go back to main menu.

MODBUS Mode Settings

1. Press [MENU].

2. Enter Machine Password as mentioned above in the **"Password Entry to Access Setup"**.

3. Press [▶] four times to choose 'MODBUS Setup'.

4. Press [MENU] Set Baud Rate.

    4.1. Press [MENU] then [▶] or [◀] to choose baud rate ie.1200bps to 115200bps

    4.2. Press [ESC] to go back to the 'MODBUS Setup'.

5. Press [▶] to choose 'Parity Bits'.

5.1. Press [MENU] then [▶] or [◀] to choose Parity Bits i.e. Even, Odd and No Parity.

5.2. Press [ESC] to go back to the 'MODBUS Setup'.

6. Press [▶] two times to choose 'Stop Bits'.

6.1. Press [MENU] then [▶] or [◀] to choose Stop Bits i.e. 1 or 2.

6.2. Press [ESC] to go back to the 'MODBUS Setup'.

7. Press [▶] three times to choose 'MODBUS ID'.

7.1. Press [MENU] then [▶] or [◀] to configure MODBUS ID.

7.2. Press [ESC] to go back to the 'MODBUS Setup' or press [ESC] two times to go back to the Main Menu.