

# MASER VHFO DIGITAL LP **24-V2 ULTRASONIC** RODENT REPELLENT

User and Installation Manual











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- The VHFO Digital LP 24- 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 ) | 125                  |
| 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                 |

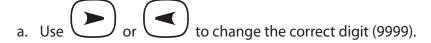
- In Manual Mode the above mentioned parameters will not change automatically and the user will have to do the same manually.
- However in the Auto and Manual modes the frequency bands will change automatically after the time for which they have been configured.
- Once the console is powered up the system 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

## **Password Entry to Access Setup**



- 2. Press MENU to enter Machine Password.
- 3. Enter Machine Password as mentioned above in the table by doing the following.





- c. Repeat the above 2 steps for all the 4 digits of password.
- 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.



- 6. Use then to choose 'Fixed Frequency Test' ie.20KHz to 62KHz.
  parameter.
- 7. Press MENU then or to choose desired frequency value.
- 8. Press 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 then two times to choose the Parameter Setup.
  - 1.3. Press MENU 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 (MENU) 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.
- 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 MENU
- 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 two times for Factory Reset and after Factory Reset Controller will start displaying all the default parameters

#### **CRMS Mode**



- 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 again system will configure to CRMS Mode.
- 7. Press two times to go back main menu.

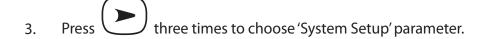
#### **CRMS Mode Settings**

1. Press MENU.

- 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 to choose RS-485 Mode. If your system is in MODBUS Mode.
- 5. Press MENU then to choose CRMS Mode.
- 6. Press again system will configure to CRMS Mode.
- 7. Press then to select CRMS ID (MID).
- 8. Press MENU then to configure MID (0-255).
- 9. Press and System will configure to CRMS with respective MID.
- 10. Press two times to go back to main menu.

#### **Modbus Mode**

- 1. Press MENU.
- Enter Machine Password as mentioned above in the "Password Entry to Access Setup".





- 5. Press MENU then to choose MODBUS Mode
- 6. Press again system will configure to MODBUS Mode.
- 7. Press two times to go back to main menu.

# **MODBUS Mode Settings**

- 1. Press MENU
- 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 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 MENU 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 two times to go back to the Main Menu.