

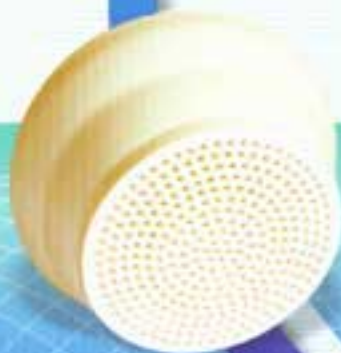


MASER

TORRANT
USFG
Microprocessor

The
power
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USER and INSTALLATION MANUAL



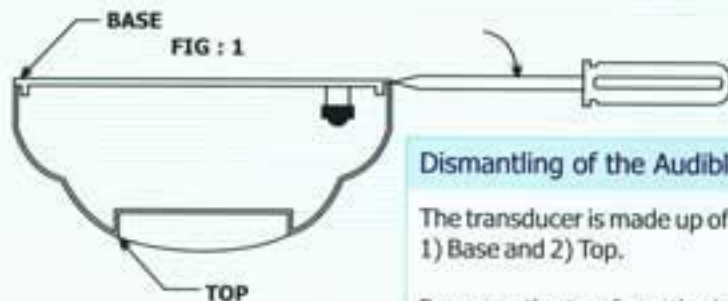
ULTRASONIC FREQUENCY GENERATOR - TORRANT
ADVANCED RODENT CONTROL MANAGEMENT FROM MASER
THE ULTIMATE SOLUTION FOR YOUR DOWNTIME PROBLEMS

INTERFACING CONNECTIONS BETWEEN MASER TORRANT USFG CONTROLLER AND TRANSDUCERS

Procedure for Installing Maser Torrant USFG:

- Select an open area in the electrical room or the AHU room and fix the rack with the brackets and mount the controller on it. Adequate ventilation for the Torrant USFG controller is a must.
- Provide a 5 A electrical plug point within 1 meter from the rack. Check for proper earthing before connecting Torrant controller. Also check for proper A.C voltage i.e. 220/230 V.
- Select the problematic area i.e. main room / false ceiling / false flooring to be covered.
- A single transducer will cover an area of 500 sq feet irrespective of the area that it is installed i.e. Above False Ceiling, Below False Ceiling or Below False Flooring.
- The transducers have to be fixed at a height of 10 to 12 feet from the ground level, in the main room, and the distance between the transducers should be at least 15 feet.
- Install the transducers as per the markings on your floor plan.
- The transducer comprises of 2 parts, Pry open the bottom lid of the transducer to connect the cables with the help of screws provided. The bottom lid of the transducer is to be fixed to the wall/ceiling/flooring and the top part of the transducer is to be press fitted to the bottom lid.
- Refer the schematic diagram shown in figure A for installation of the system.
 - The transducers in the main room / ceiling should face a wall or an obstructing surface and not open areas such as open doors, windows etc so that maximum bouncing effect is attained.
 - Every transducer will have an independent cable, terminating at the rear side of Torrant USFG controller to be connected to the connectors.
 - Only 20 transducers can be connected to one Torrant USFG controller and the cables need to be encased in a PVC/ GI conduit pipe. Make sure every conduit pipe contains only 20 transducer cables. **NO LOOPING IS PERMITTED AS EACH TRANSDUCER HAS AN INDEPENDENT DRIVER. DO NOT CONNECT MORE THAN ONE TRANSDUCER PER PORT.**
 - As far as possible use only bends and not elbows to ensure smooth laying / pulling of transducer cables.
 - Ferruling to be done at the transducer end and the Torrant USFG controller end and the same to be marked on the floor plan. Continuity test to be done for all cable wires.
- No transducer wiring should be done for a distance of more than 200 meters from the controller.
- All conduiting to be done aesthetically.

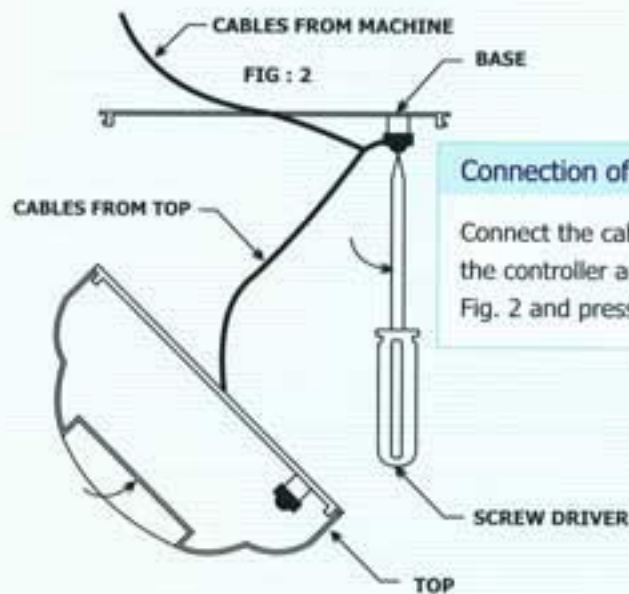
PROCEDURE FOR REPLACEMENT OF AN AUDIBLE TRANSDUCER



Dismantling of the Audible Transducer

The transducer is made up of two parts
1) Base and 2) Top.

Pry open the top from the base with the help of a screw driver as shown in Fig 1. Disconnect the cables from the base and separate the top from the base.



Connection of a New Top

Connect the cables of the new top to the cables from the controller and screw them in position as shown in Fig. 2 and press fit the top to the base.



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USER and INSTALLATION MANUAL

USER MANUAL FOR MASER TORRANT USFG MICROPROCESSOR

This manual will describe how to operate MASER TORRANT Ultrasonic Rodent Repellent.

Fig 1 below shows the layout of the LCD panel and the KEYPAD.

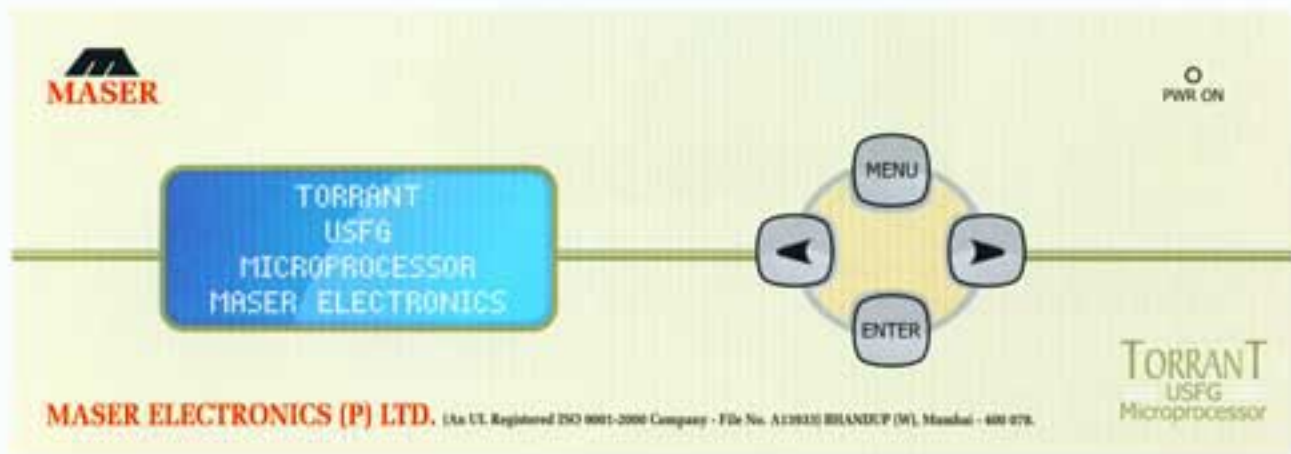


FIG 1

The keypad has the following 4 keys



Switch 'ON' TORRANT USFG. The 'PWR ON' LED will light up and the LCD will flash a message as shown in fig 2 for 8 secs after which it will start displaying the factory set parameters (refer table 1 for Factory Preset Parameter Values).

If you do not conduct any activity on the panel switch within 30 secs then the LCD will go back to the power saving mode and the back light will go off till you press any key again.



FIG 2

The USFG has the following modes

- Boot Up Mode or Default Mode.
- User Mode.

■ **Boot Up Mode / Default Mode**

This is the default mode of MASER Torrant USFG when it is switched ON.

*Parameter Name	Factory Preset Value
Wave Speed (PPM- Pulses Per Minute)	130
Wave Density	100
Band A Time (20 Khz to 50 Khz)	5 Mins
Band B Time (30 Khz to 60 Khz)	5 Mins
Band C Time (26 Khz to 57 Khz)	5 Mins
Password	12345
Machine ID	0

Table 1

* Refer literature for definition of the parameters.

Once the console is powered up the system will be in operation and all the twenty transducers connected to the console will start receiving the signal transmission from the console.


■ User Mode:-

This mode will enable the user to change factory preset settings of the parameters during real time.

Table 2 below shows the range of values for the parameters.


*Parameter Name	Minimum Value	Maximum Value
Wave Speed (PPM- Pulses Per Minute)	60	130
Wave Density	80	100
Band A Time (20 Khz to 50 Khz)	1 Minute	10 Minutes
Band B Time (30 Khz to 60 Khz)	1 Minute	10 Minutes
Band C Time (26 Khz to 57 Khz)	1 Minute	10 Minutes
Password	Any 5 Digit Number	
Machine ID	Any number between 000 to 255	

CHANGE PARAMETERS



1. Press 


2. Enter Machine Password by following the steps mentioned below



2.1 Press Back  or Next  to choose the digit.


2.2 Press Enter 

2.3 Repeat the above 2 steps for all the 5 digits of the password.

3. Press Back  or Next  to choose the parameter you want to change.







4. Press Enter  to select the parameter.

5. Press Back  or Next  to choose a value of the parameter.








6. Press Enter  to save.

7. Go to step 3 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.
3. Press Back  or Next  to choose 'Factory Settings' parameter
4. Press Enter 
5. Press Next 
6. Press Enter  - After 30 seconds controller will start displaying all the configured parameters

FREQUENCY TEST

1. Press 
2. Enter Machine Password as mentioned above.
3. Press Back  or Next  to choose 'Frequency Test' parameter.
4. Press Enter 
5. Press Back  or Next  to choose the desired frequency you wish to test.
The choices available are 20 Khz, 30 Khz, 40 Khz, 50 Khz and 60 Khz .
6. Press Enter  - After 30 seconds controller will start displaying all the configured parameters.

TRANSDUCER TESTING

1. Press 
2. Enter Machine Password as mentioned above.
3. Press Back  or Next  to choose 'Transducer Testing' parameter.
4. Press Enter 
5. Press Back  or Next  to choose the transducer you wish to test.
The selected transducer will start emitting a sound in the audible range until the  key is pressed.
6. Press Enter  - After 30 seconds controller will start displaying all the configured parameters.

TORRANT USFG BACK PANEL

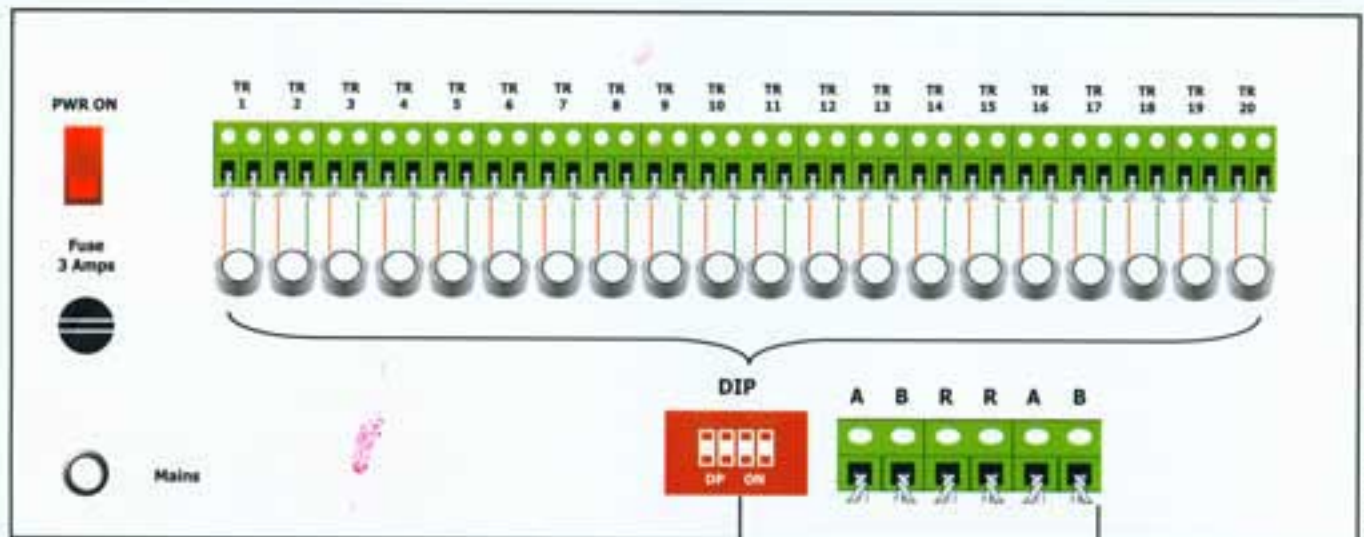


FIG A

Data Transfer ports for transmitting data to Maser CRMS Converter.

Refer Software Installation Manual for further details.