

Broadcast Digital AM PLL Exciter Mod: TMW62D

Digital AM PLL Exciter controlled by microcontroller



The TMW62D Digital PLL exciter covers the entire AM Broadcast Band in the range of 530 ~ 1800 KHz with step size of 1 KHz. It can deliver 60 Watt P.E.P. at 50 Ohm Load (15 Watt CW @ 100% modulation)

The LCD screen of TMW62D displays operating Frequency , Lock state , RF Power Forward and Reflected , Heatsink temperature , Audio Modulation Level (%) and also displays Alarm reasons of any kind of malfunction.

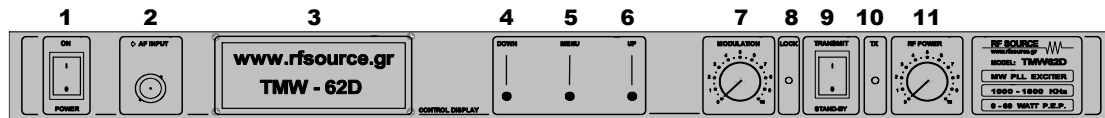
The TMW62D has protections from high VSWR, Over output Power , Over Temperature , Unlocked Frequency , Over modulation Power Supply malfunction . When an Alarm gets activated, the controller restarts the Exciter operation three times. If this procedure fails to solve the malfunction, the exciter goes to STBY mode. The TMW62D needs 110 or 220 VAC to operate and its weight is 3,9Kg max.

SPECIFICATIONS :

Frequency Band :	0,53 ~ 1,8 MHz
Output Resistance :	50 Ohm
Output RF Power :	0 ~ 60 Watt P.E.P.
Carrier :	0 ~ 15 Watt C.W.
Frequency Step size :	1,00 KHz
Harmonics :	< -45 db
Spurious :	< -65 db
Modulation Type :	AM - DSB
Supply Voltage :	100 ~ 240 Volt AC
Supply Consumption :	< 110 Watt
AF Input Resistance :	10 KOhm
AF Input level :	> 300 mV p - p
AF response :	10 Hz ~ 10 KHz -3 db
Warranty :	2 Years

- Ultra thin 19" Rack Mounted 1U High
- LCD screen 2 X 16 character numerically and analog bar display
- Digital readouts
- Digital controlled by microcontroller on screen messages
- 0 ~ 60 Watt P.E.P. OUTPUT AF level >300 mV p - p
- 0 ~ 15 Watt Carrier 15 Watt C.W.
- High Efficiency Switching Power Supply Low RF noise

TRANSMITTING – RECEIVING SYSTEMS



- 1 Power On – OFF switch
- 2 AF Input connector BNC
- 3 2 X 16 character LCD backlight Display
- 4 DOWN Control Button
- 5 MENU Button
- 6 UP Control Button
- 7 Modulation control knob
- 8 LOCK Frequency LED
- 9 Transmit – Stand-by switch
- 10 Transmit LED
- 11 RF Output level control knob

1. Preliminary Instructions

• General foreword

The equipment in object is to considering for uses, installation and maintenance from “trained” or “qualified” staff, they conscious of the risks connected to operate on electronic and electrical circuits electrical. The “trained” definition means staff with technical knowledge about the use of the equipment and with responsibility regarding the own safety and the other not qualified staff safety place under his directed surveillance in case of works on the equipment. The “qualified” definition means staff with instruction and experience about the use of the equipment and with responsibility regarding the own safety and the other not qualified staff safety place under his directed surveillance in case of works on the equipment.

WARNING: The machine can be equipped with an ON/OFF switch which could not remove completely voltages inside the machine. It is necessary to have disconnected the feeding cord, or to have switched off the control panel, before to execute technical operations, making sure himself that the safety connection to ground is connected. The technical interventions that expect the equipment inspection with circuits under voltage must be carry out from trained and qualified staff in presence of a second trained person that it is ready to intervene removing voltage in case of need.

RF Source-Greece doesn't assume responsibility for injury or damage resulting from improper procedures or practices by untrained/unqualified personnel in the handling of this unit.

WARNING: The equipment is not water resistant and an infiltration could seriously compromise its correct operation. In order to prevent fires or electric shocks, do not expose the equipment to rain, infiltrations or humidity. Please observe all local codes and fire protection standards during installation and use of this unit.

WARNING: The equipment has to its inside exposed parts to risk of electric shock, always disconnect power before opening covers or removing any part of this unit. Fissures and holes are supplied for the ventilation in order to assure a reliable efficacy of the product that for protect itself from excessive heating, these fissures do not have to be obstructed or to be covered. The fissures doesn't be obstructed in no case. The product must not be incorporated in a rack, unless it is supplied with a suitable ventilation or that the manufacturer's instructions are been followed.

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Quick guide for use



1) Welcome screen after Power ON.



2) Push the MENU button once to go to the frequency selection screen. You can select the operating frequency using the UP – DOWN buttons (1 KHz step size). This screen also shows the operating mode and the Lock Frequency state.



3) Push the MENU button again to go to the modulation selection screen. You can select the operating modulation AM or DSB using the UP – DOWN buttons.



4) Push the MENU button again. This screen shows the operating frequency, the Forward “F” RF Power and the Reflected “R” RF Power. You can also change the operating frequency using the UP – DOWN buttons.



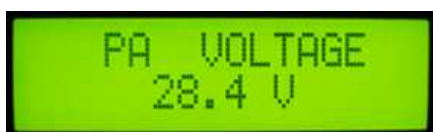
5) Push the MENU Button again. This screen shows only the Forward RF Power numerically and also with analog bars.



6) Push the MENU Button again. This screen shows only the Reflected RF Power numerically and also with analog bars.



7) Push the MENU Button again. This screen shows the PA's heatsink temperature.



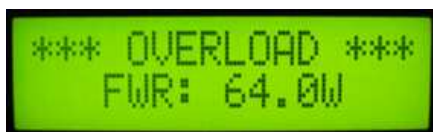
8) Push the MENU Button again. This screen shows the PA's supply voltage.



9) Push the MENU Button again. This screen shows the modulation level numerically and also with analog bars.



This screen appears only when HI SWR Alarm gets activated (Reflected RF Power > 6.0 Watts). The RF output shuts down.



This screen appears only when Overload - Over modulation Alarm gets activated (Forward RF Power >64.0 Watts). The RF output shuts down.



This screen appears only when Power supply unit Alarm gets activated (VCC <=25 V or >=31 V). The RF output shuts down.

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