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SAU125

250W SOLID STATE UHF TV AMPLIFIER

P/N A.002526.01.04

OPERATIONAL MANUAL

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1. INSTALLATION AND SET-UP

The SAU125 250W Solid State UHF TV Amplifier is composed of a 3U drawer which can be mounted on a 19" standard rack.

1.1 Mounting Procedure

- Insert the drawer in its place on the rack and fix it with four rack screws.
- Connect the 220V (110V), 50/60Hz supply to the power plug located on the rear panel (Fig. 7.1, ref. 1).
- Connect the RF Input connector located on the rear panel (Fig. 7.1 ref. 2) to the RF cable coming from 5W RF Amplifier (exciter).
- Connect the RF OUT connector located on the rear panel (Fig. 7.1 ref. 3) to the successive High Power RF Amplifier input, or the antenna system.

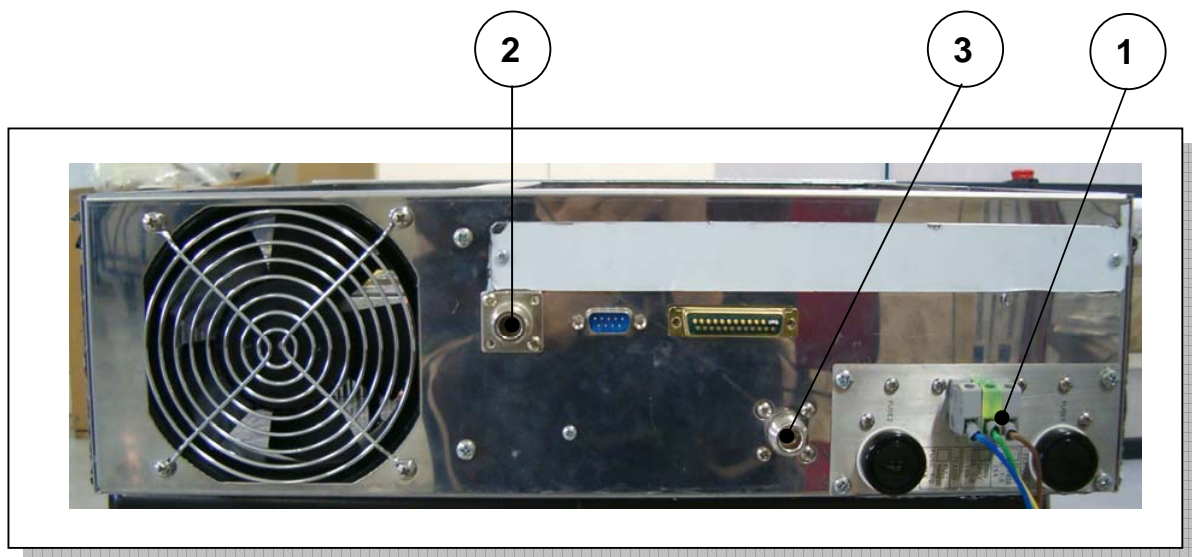


FIG. 1.1-1 - SAU125 UHF TV AMPLIFIER – REAR PANEL

1.2 Set-up Procedure

In this paragraph are described the tests and alignments to be performed on the SAU125. For this purpose, the following instruments are necessary:

- Spectrum analyzer, 0.1 to 1000 MHz with tracking generator TEK 2712 or equivalent.
- 30dB –300W attenuator, BIRD 300A FFN 30 or equivalent.

Should any malfunction be detected, refer to chapter 6 for the specific troubleshooting procedures.

1.2.1 Initial Tests

Once the procedure described in paragraph 7.1 has been carried out, perform the following operations:

- a) Perform set-up as shown in Fig. 3.2 and turn-on the SAU125 by moving the ON/OFF switch of the front panel (Fig. 4.1 ref. 1) to ON position and verify that the display goes ON (Fig. 4.1 ref. 6).
- b) Preset the spectrum analyzer to the frequency band in accordance to the selected TV channel.
- c) Check that the SAU125 GAIN is ≥ 13 dB. (Small signal)
- d) Turn OFF the equipment, and remove the measurement set-up.

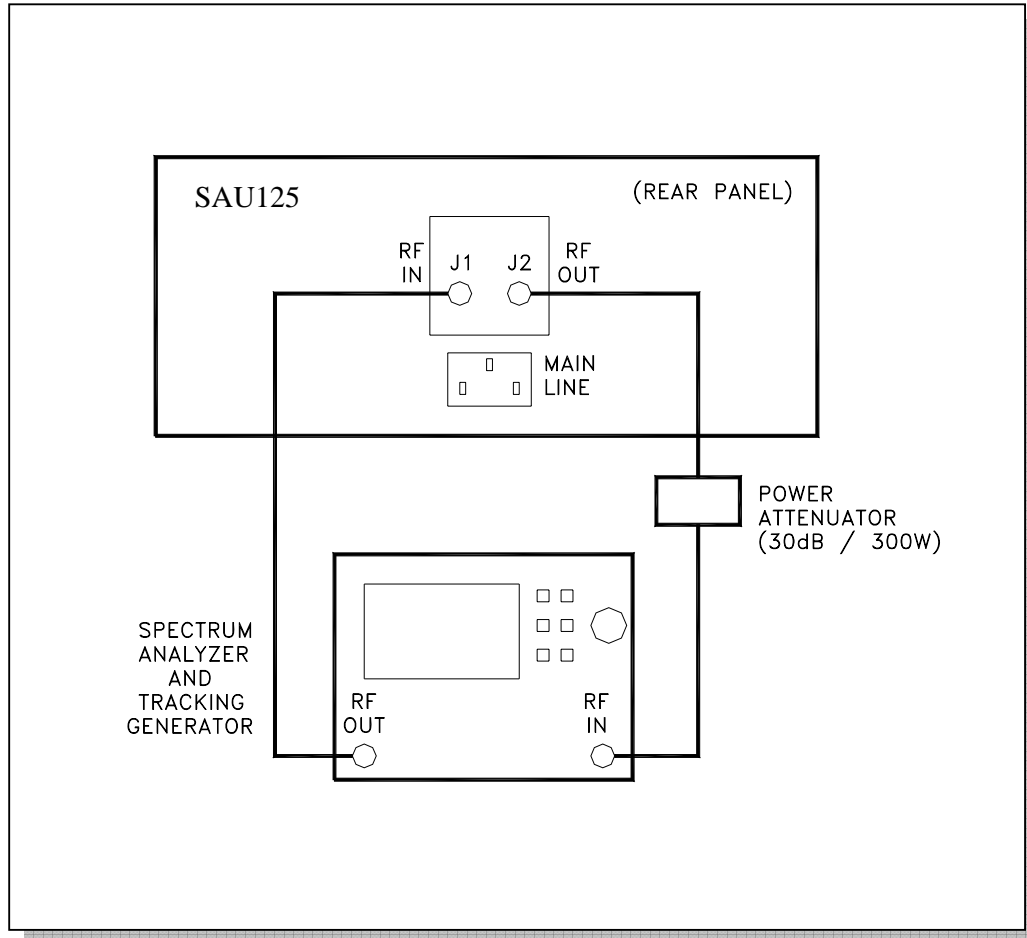


FIG. 1.2.1-1 INITIAL TEST SET-UP

2. OPERATION

This chapter contains the description of the Controls and Indicators of the front and rear panels of the SAU125 250W UHF TV Amplifier and their instruction for use.

2.1 Front Panel

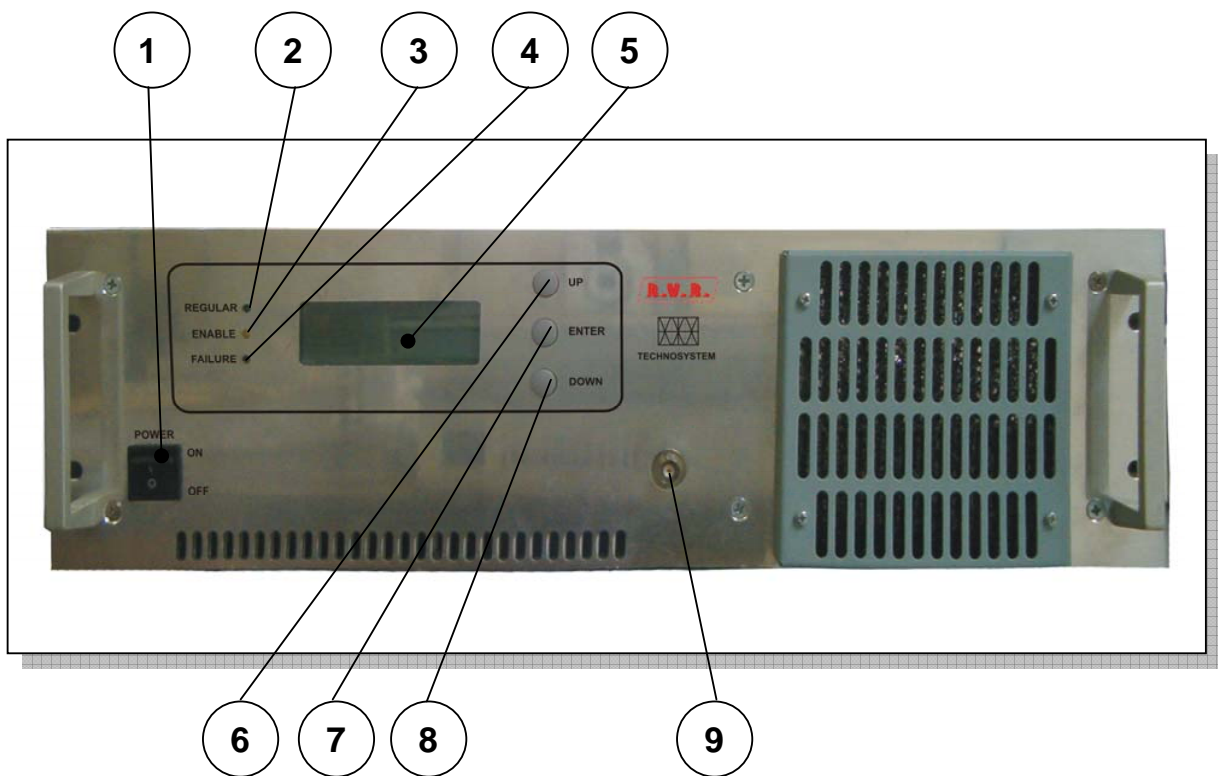
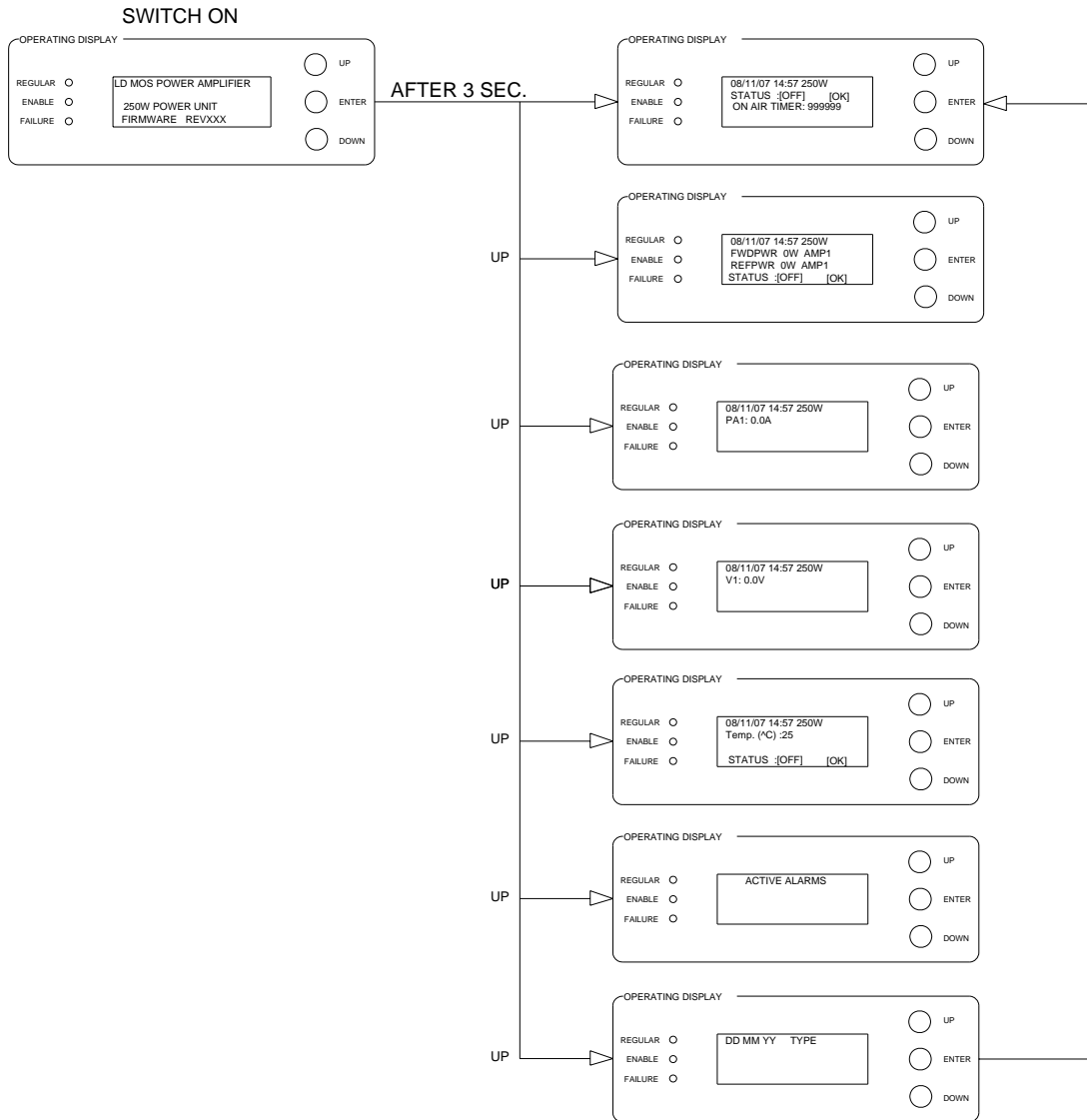


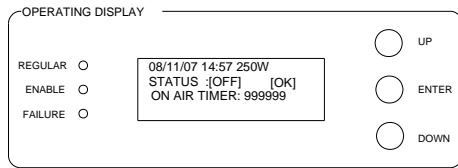
FIG. 2.1-1 SAU125 – FRONT PANEL CONTROLS & DISPLAYS

CONTROLS & DISPLAYS	DESCRIPTION	FIG. 2-1
SWITCH ON/OFF	Two position switch when in ON enables the a.c. voltage to P.S. input.	Ref. 1
REGULAR (Green Led)	Regular LED	Ref. 2
ENABLE (Yellow Led)	Enable Contact	Ref. 3
FAILURE (Red Led)	General Failure	Ref. 4
DISPLAY	Seven segment display for the display of the measured parameters and Error codes	Ref. 6
UP	Push button for the selection of the parameter to be measured and displayed	Ref. 6
ENTER	Push button for the selection of the parameter to be measured and displayed	Ref. 7
DOWN	Push button for the selection of the parameter to be measured and displayed	Ref. 8

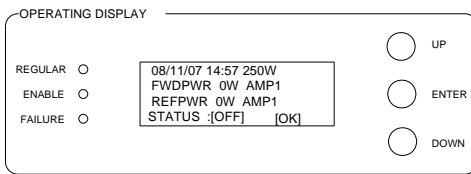
2.1.1 SAU125 DISPLAY MENU



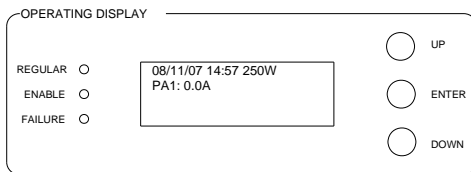
**FIG. 2.1.1-1 SAU125 250W UHF AMPLIFIER
OPERATION DISPLAY**



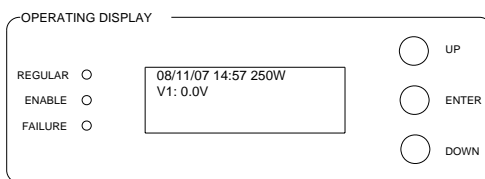
The upper part of the display shows always the date, the hour and the direct power. The status line shows the condition of the amplifier “OFF” or “ON” and “OK” or “NOT” for the indication of enable. Last line shows the time of operation.



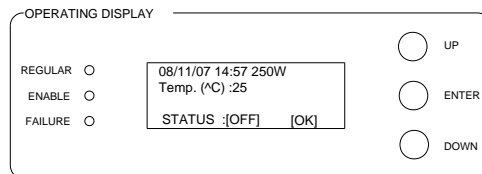
Second line for direct power of the indicated amplifier. Third line for reflected power.



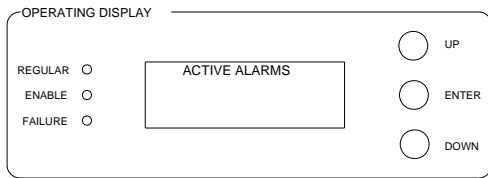
Second line for the control of the current of the RF pallet.



Second line shows the voltage of the P.S.



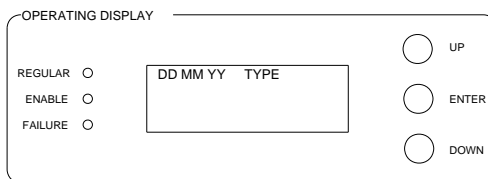
Second line we have the indication of the temperature of the heat sink.



3 Alarms in 1 minute will cause blocking of the machine.

This display shows the different active alarms.

Reset active alarms, press UP and DOWN for 5 sec.



This display shows the data logger alarms

DD= Day MM= Mounth YY= Year

Reset alarms, press UP, DOWN and ENTER

For 5 sec.

2.2 REAR PANEL

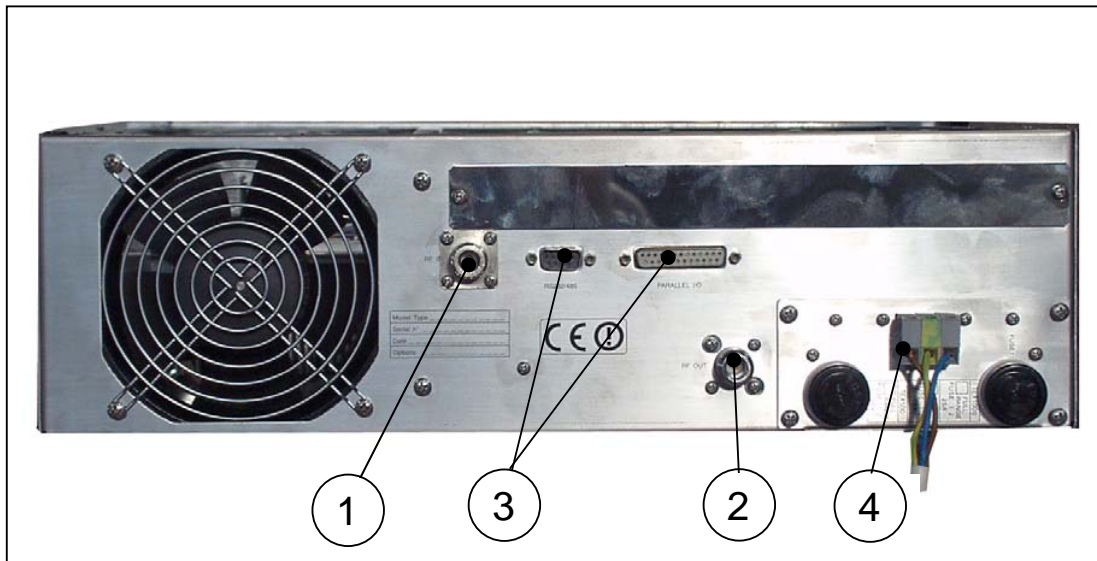


FIG. 2.2-1 SAU125 – REAR PANEL CONTROLS & DISPLAYS

CONTROLS	DESCRIPTION	FIG. 4.1
RF IN	N Type connector used for connection of RF input signal	Ref. 1
RF OUT	N Type connector used for connection of RF output signal	Ref. 2
CONNECTOR INTERFACE	Parallel I/O Vac Line and RS232/422 connectors	Ref. 3
POWER INLET, FUSE	Connector for 110/220V 60/50Hz main supply line input and main supply fuse	Ref. 4