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PRESENTATION

The **ATLAS 1000FM** is the modern and rational expression of an exceptionally reliable FM BROADCAST apparatus. It summarizes 38 years of experience in telecommunications.

ATLAS 1000FM is the tangible product of a vision: to create a cost-effective device with no compromises. It is compact, lightweight and has a remote LCD which reduces the ventilation noise (ventilation is necessary to cool the power state). It is completely controlled by a powerful microprocessor which oversees all functions in real time, and much more.

The **ATLAS 1000FM** philosophy is based on a continuous request of well made FM BROADCAST power devices but still cost-effective. To this aim, we have reduced costs where this would not tackle the excellent performance. We saved on the container, we removed the power supplier as internet offers a multitude of options including “Surplus” ones at lower prices compared to the ones we normally use (EATON Switching).

After having conducted studies and considerations we have come to a logical conclusion: 5.1 Kg of technology and power encapsulated in an essential container of notably compact dimensions (200 X 95 X 315 mm) **!**

A wide DISPLAY visualizes all general functions, Out Power, Reflected Power, Temperature and alarm states. It also reminds about the need to perform controls and checks in order to avoid any possible mistakes and errors.

ATLAS 1000FM is complete and ready for operation. This means that you will do anything tobe able to transmit. All you have to do is to apply the correct voltage (usually from 44 to 48.5 volts). The display comes with a cable length of 2 m. We provide custom cables of varying lengths (10m) on request. This special feature allows you to "MAKE REMOTE" the device without taking up useful space. It also allows to reduce the noise of ventilation.... All for easy use in buildings that require low noise!

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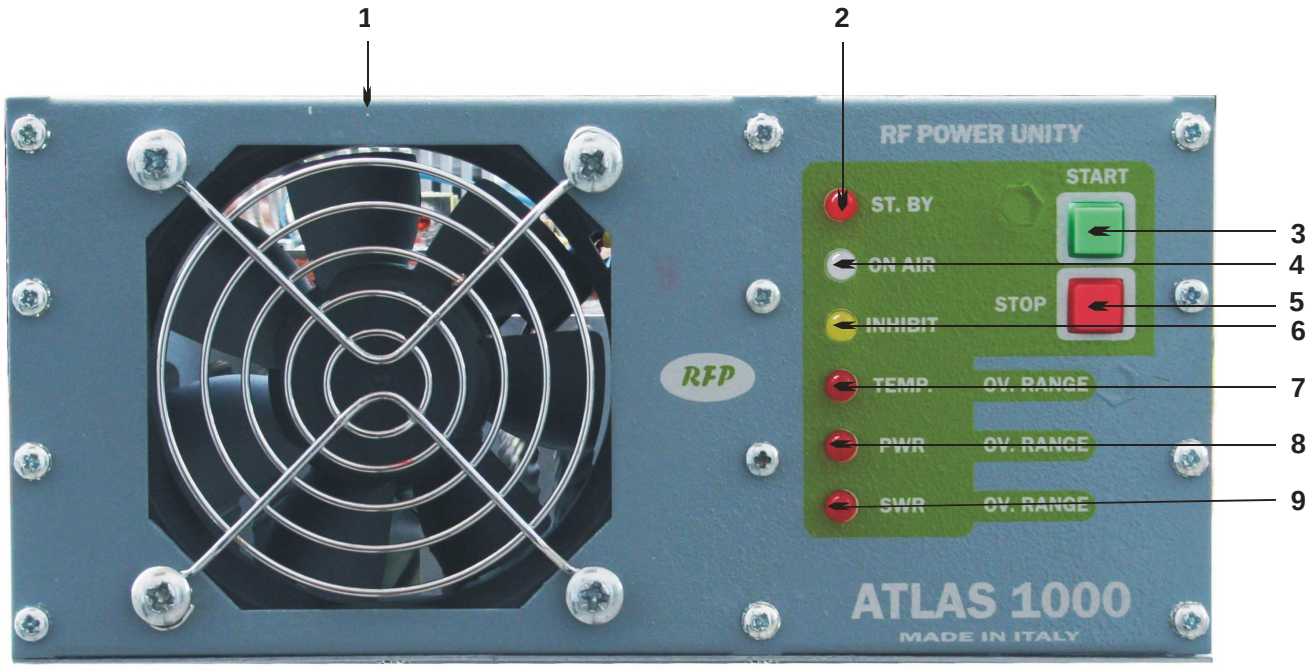
FRONT PANEL VIEW



1	INPUT VENTILATION	
2	LED TO STAND BY	**ST.BY**
3	START BUTTON	**START**
4	LED SIGNAL TRANSMISSION ON AIR	**ON AIR**
5	STOP BUTTON	**STOP**
6	SIGNAL TO INHIBIT LED	**INHIBIT**
7	OVER TEMPERATURE LED INDICATOR	**TEMP**
8	OVER POWER OUT LED INDICATOR	**PWR**
9	OVER SWR OUT LED INDICATOR	**SWR**

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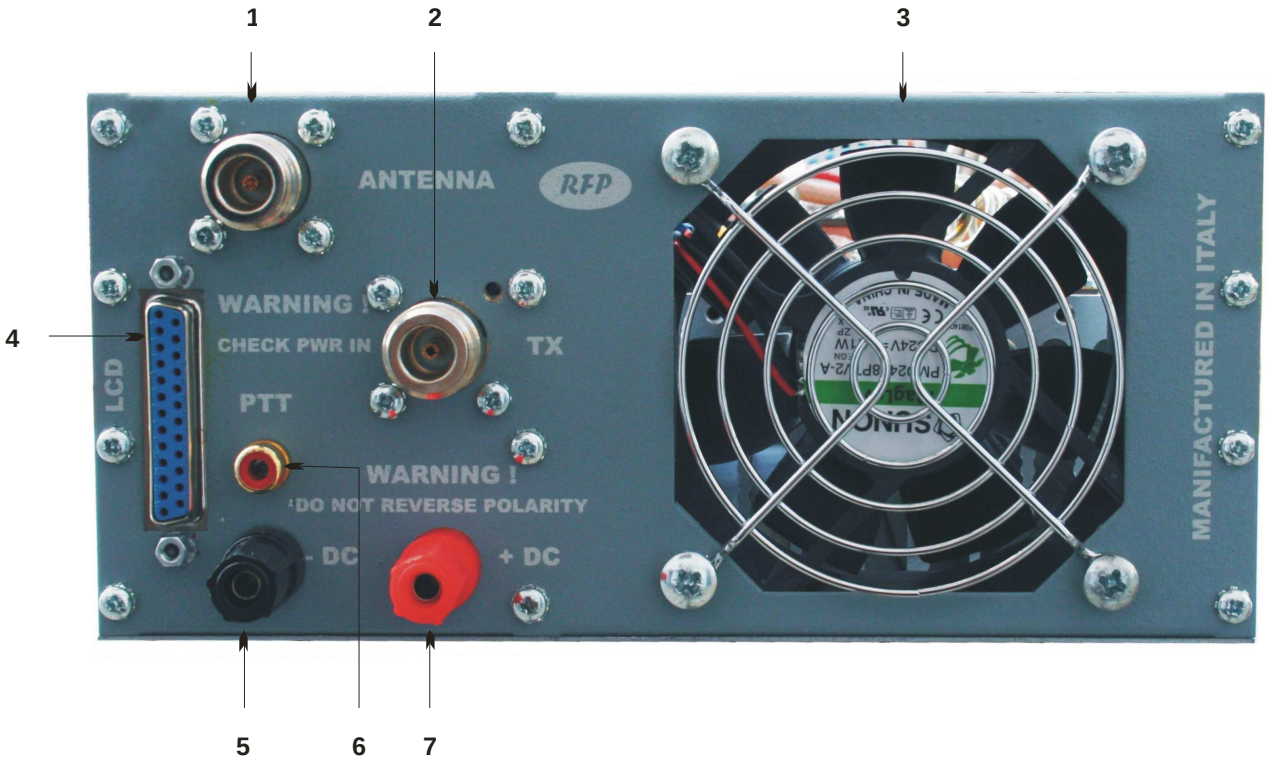
VIEW PANEL CONNECTIONS



1	ANTENNA CONNECTOR (N TYPE)	**ANTENNA**
2	TRANSMITTER CONNECTOR (N TYPE)	**TX**
3	HOT AIR OUT	
4	LCD CONNECTOR	**LCD**
5	NEGATIVE SUPPLY	**- DC**
6	REMOTE CONNECTOR	**PTT**
7	POSITIVE SUPPLY	**+ DC**

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PRELIMINARY OPERATIONS

1) **Connect the cable to the Display and to the Device**

2) **Connect the antenna connector to the connector at the rear**

3) **Connect the transmitter connector to the connector at the rear**

4) **Connect the clamps (red+, black-) to the DC power supply tension**

5) **Connect the "PTT" to the "RCA" connector or short circuit for continuous operation**

6) Give **ATLAS 1000FM** power

At this point, the device will perform an Autotest, (you will see flashing LEDs). After this, a message will appear on the screen "Have you checked the Driver?" (this is to avoid pilot power from not being adequate, it also avoids useless ruptures by overdrive). If you have checked, you will proceed by pressing the START button. After this an new message will appear "Did you check the Antenna?". If this has also been performed, you will be able to press START again and start operating.

With LED ON AIR, 3 conditions are signalled: it will be green in reception, it will be flashing in Zero piloting transmission and it will be yellow when you are going beyond about 50W output.

With LED on PWR you have surpassed the pre-set factory threshold (depending on the model), in overdrie you will be able to see flash in the presence of "MODULATION PEAKS"

With LED on TEMP the MOSFET temperature will have surpassed the factory threshold setting and the ATLAS 1000 will automatically be disabled until optimal temperature is reached.

The SWR LED shows that the antenna, or any other element that is connected to the output connector, is not perfectly adapted. This function has 2 STEPs. The first is that of reducing the output power on automatic by using the 'BIAS' (this is done to avoid damage to the MOSFET or to the LOW PASS FILTER and capacitor filter). In case the threshold goes beyond the factory setting (normally to –10dB from the maximal nominal power) the ATLAS 1000 will stop and the INHIBIT LED will turn on. The device will refresh automatically on release of the PPT. These protections are programmed for a maximum of 5 events, after which the **ATLAS 1000FM** will be completely blocked until the DC power supply will be present. To RESET the system you only need to remove power supply and reapply it.

ATLAS 1000 FM

GENERAL FEATURES

		OPTIONS	
OPERATING RANGE	87.5 – 108 MHz	40 – 60 MHz	
POWER OUT	1 KW (± 0.5 dB)	500 W	
POWER IN	4 – 5 w	INPUT ATTENUATOR 3-6 dB	
DC POWER SUPPLY	46 – 48.5 Volt max	220 Vac	
RATED CURRENT	26 – 28 A		
HAMONIC PRODUCT	≤ 65 dB	≤ 95 dB	
OPERATING TEMPERATURE	0 – 45°C	0 – 55°C	
INTERVENTION PWR OUT	1 KW (± 05 dB)		
INTERVENTION SWR	100 W (± 1dB)		
INTERVENTION TEMPERATURE MOSFET	80°C (± 5°)		
DIMENSION	200 X 95 X 315 mm		
WEIGHT	5,1 Kg		

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ATLAS 1000 FM

BLOCK DIAGRAM

PREPARING

ATLAS 1000 FM

ELECTRIC DIAGRAM

PREPARING