

**PROFESSIONAL
TERRESTICAL FM-FM
PTFF 2000**



Grundig SAT Systems

PROFESSIONAL

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GENERAL

Scope of delivery

- 1 modulator box PTF 2000
- 1 user manual
- 1 technical evaluation

Technical data



This product conforms with the requirements of the 73/23/EC and 89/336/EC guidelines of the European Council. The standards EN 50083-2, EN 50083-2/A1, EN 50083-1, and EN 60065 required for the CE certification are kept to.

FM input:

Frequency range:	87.5 ... 108 MHz
Level range:	10 ... 95 dB μ V
Frequency spacing:	25 kHz
Impedance:	75 Ω

FM output:

Frequency range:	87,5 ... 108 MHz
Output level:	typ. 98 dB μ V
Frequency spacing:	50 kHz
Impedance:	75 Ω

Connectors:

FM input:	1 IEC socket, female
FM output (modulator):	1 IEC socket, female
10-pin connector:	for all supply voltages and the I ² C bus

The 4x FM modulator box PTFF 2000

This modulator box is a programmable, microprocessor-controlled 4x FM (FM-FM) converter.

The boxes are controlled via the GRUNDIG Professional Headend station's PSU 8 and PSU 12.

The FM modulator box comprises four FM → FM modulators which convert four FM radio signals into four other FM output frequencies.

The modulator box has one selective FM input and one RF output.

The technical data of the four modulators are equal.

The four modulators are indicated as A, B, C or D in the display.

The input signal is splitted and distributed to the four modulators. The four converted (modulated) radio signals are unified via a combiner and then passed on via the RF output socket to the RF collector of the the Headend station. At the factory, the output levels of the four modulators are set to the same value.

The common output level (A/B/C/D) of the modulator box can be adjusted (max. – 20 dB) by means of the mechanical level controls on the output selector of the Headend station.

After switching the headend station on, the software version of the control unit is briefly shown in the 2-line LC display.

About 5 minutes after the last key is pressed, the display is automatically switched off, or the software version of the control unit is displayed.

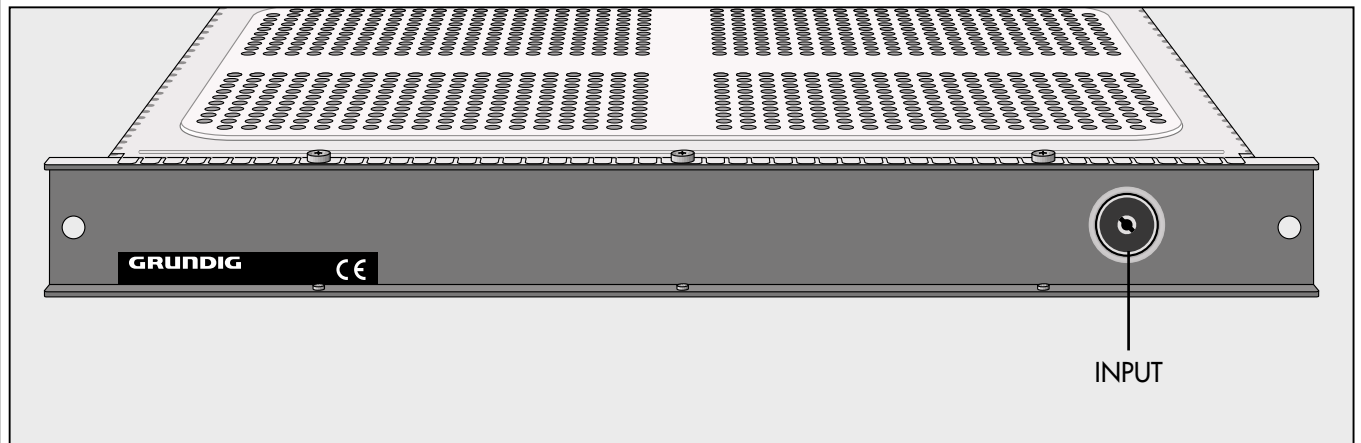
Note:

If desired, the software version of the control unit can also manually be called up and displayed as follows:

Press and hold down any two buttons on the control unit at the same time until the following occurs:

- The display turns dark. After several seconds, the software version, e.g. **V.19**, appears.

INSTALLATION



Installing the modulator box into the Headend station and connecting it

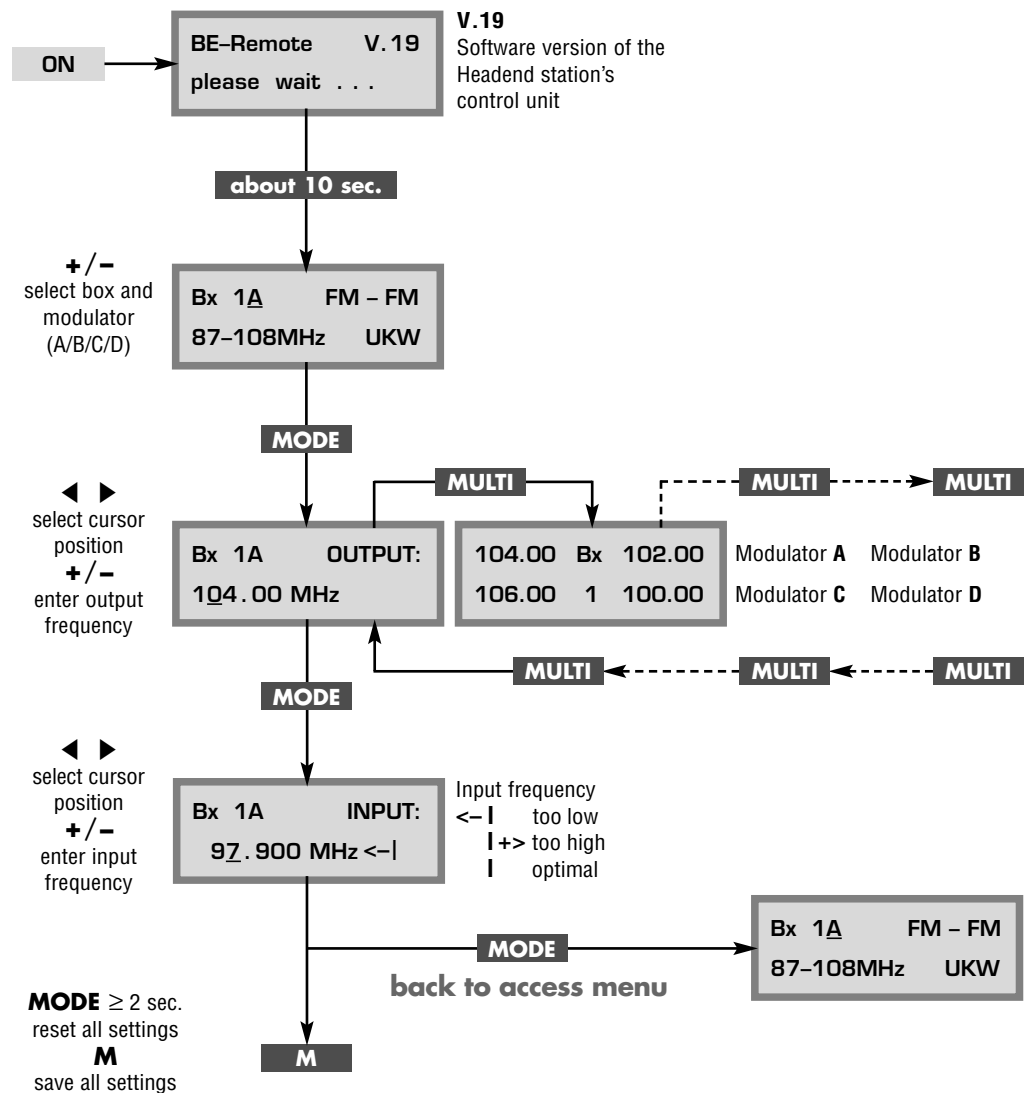
Caution:

Before fitting a new transmodulator box or replacing an existing one, it is absolutely necessary to disconnect the mains plug from the Headend station.

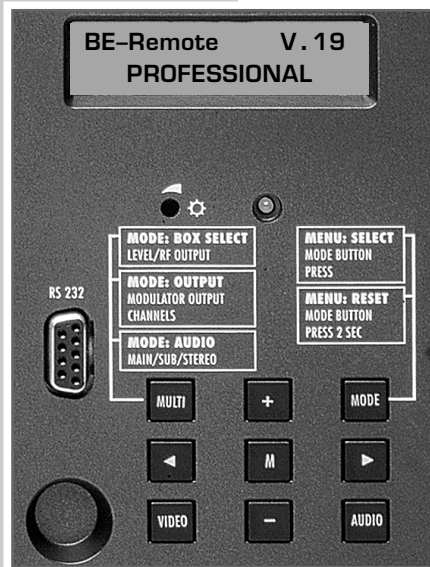
- 1** Undo the fixing screws of the mounting frame, then fit the cassette into a free slot and refit the fixing screws.
- 2** Plug the RF input cable into the RF input socket **INPUT** (see Figure).
- 3** Reconnect the Headend station to the mains supply.
 - The modulator box is now connected with all necessary supply voltages and data lines and ready for use.

To go back to the access menu without saving the settings made, press the **MODE** key longer than 2 seconds.

Press the **M** key to save all settings and to return to the access menu.



Setting up the modulator box



Setting up of the modulator box is exclusively effected via the keys of the Headend station's control unit.

The user is guided via the 2-line display of the control unit.

1 Using the **MODE** key you can select the following menu items:

- Modulator box number and modulator (A, B, C or D)
- Output frequency
- Input frequency

Selecting the modulator box number and the modulator (A, B, C or D)

1 The access menu appears in the control unit's display, for example »Bx 1A FM – FM«.

2 Use the **+** or **-** key to select the modulator box number and the desired modulator (A, B, C or D).

Output frequency

1 Press the **MODE** key. »OUTPUT:« appears in the display.

Note:

For your orientation, the set up output frequencies of the 4 modulators A, B, C and D can be displayed at the same time by pressing the **MULTI** key several times.

2 Use the **◀** or **▶** key to move the cursor to the desired position, and then the **+** or **-** key to enter the output frequency.

Important:

A minimum spacing of 300 Hz must be kept between the entered output frequencies.

If this minimum spacing is not kept, the respective frequency indications will flash (even if different modulator boxes are concerned).

If the output channel (frequency) overview of other boxes (for example analog TV boxes) is called up, »FM« appears for all plug-in locations which are fitted with the PTFF 2000 modulator box.

Bx 1A FM – FM
87-108 MHz UKW

Bx 1A OUTPUT:
100.00 MHz

Box 1A OUTPUT:
104.00 MHz

Bx 1A INPUT:
97.900 MHz <-|

Input frequency

- 1 Press the **MODE** key. »INPUT:« appears in the display.
- 2 Use the ◀ or ▶ key to move the cursor to the desired position, and then the + or - key to enter the input frequency.

Meaning of symbols:

<-| too high input frequency
| +> too low input frequency
| optimal input frequency

Saving all settings

Attention:

If you wish to restore the old settings, press the **MODE** key until the access menu, for example »Bx 1A FM - FM«, reappears in the display. Then use the + or - key to select a different modulator box (e.g. »Bx 3«).
- The initial settings then are restored.

Bx 1A FM - FM
87-108 MHz UKW

- 1 Press the **M** key to save all new settings.
- The access menu reappears in the display, e.g. »Bx 1A FM - FM«.

