USER'S MANUAL

SATELLITE RECEIVER & CABLE TESTER

RP-050

PROMAX

- 0 MI1040 -

SAFETY NOTES

Read the instruction manual before using the equipment, mainly "SAFETY RULES" paragraph.

The symbol  ***on the equipment means "SEE USER'S MANUAL". In this manual may also appear as a Caution or Warning symbol.***
Warning and Caution statements may appear in this manual to avoid injury hazard or damage to this product or other property.

TABLE OF CONTENTS

English

SATELLITE RECEIVER & CABLE TESTER

RP-050

1 GENERAL INFORMATION

1.1 Description

The **RP-050** is a handy, versatile and easy to use signal generator with which satellite receivers and coaxial cables of buildings can be checked.

1.2 Specifications

RECEIVER TEST MODE

Frequency	
Video carriers (FM)	
IF L Band	1050 MHz, 1575 MHz and 2100 MHz
UHF Band	525 MHz
Accuracy	1 %
Level Low mode	90 dBµV ± 4 dB
High mode	105 dBµV ± 4 dB
Audio subcarriers	7.02 MHz ± 0.2 MHz
Modulation (FM)	
Audio	Approx. 1 kHz
Video	2 black, 1 white bars
Voltage and 22 kHz indication	13 V green LED illuminated 13 V + 22 kHz green LED flashes 18 V red LED illuminated 18 V + 22 kHz red LED flashes

English

Connector	F female (input/output)
Power supply	13 - 18 V / 120 mA (by means of RF cable or external DC supply)
Equipment consumption	3 W

Environmental operating conditions

Altitude:	up to 2000 m
Temperature range:	from 5° C to 40° C
Maximum relative humidity:	80% (up to 31° C), decreasing lineally up to 50% at 40° C.

Mechanical features

Dimensions	77 mm W x 85 mm H x 28 mm D
Weight	150 g

INCLUDED ACCESSORIES

AL-013	External DC adapter
AD-060	F/m - BNC/m adapter

OPTIONAL ACCESSORIES

CC-030	F/m - F/m coaxial cable
AD-058	F/m - F/f quick adapter
AL-032	230 V UK mains adapter

2 SAFETY RULES

* Use this equipment **connected only to devices or systems with their common at ground potential**.

* This equipment can be used in **CATEGORY I installations** and **Pollution Degree 2 environments**.

* Use this instrument under the **specified environmental conditions**.

* Follow the **cleaning instructions** described in the Maintenance Paragraph.

English

3 OPERATING INSTRUCTION

3.1 Description of the controls and elements

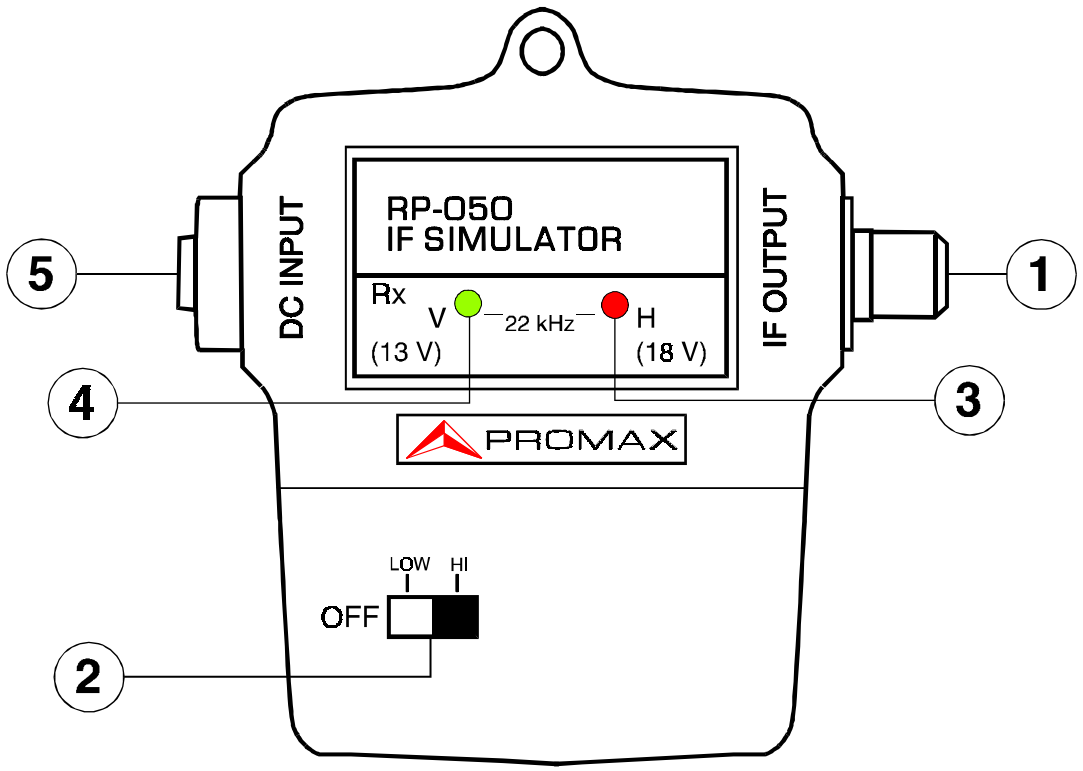

Figure 1.- Front view

[1] IF OUTPUT Output connector

Frequency pilots output. On receiver Test mode this jack will be connected with the IF input jack (SAT-antenna input) of the SAT-Receiver.

[2] OFF - LOW - HIGH Power / attenuation mode switch

With this switch, different attenuation modes of the **RP-050** can be selected:

OFF	Power off
LOW	Output level 90 dBµV
HIGH	Output level 105 dBµV

English

[3] H (18 V) Red LED for 18 V

This LED will be illuminated, if on the coaxial line is present a 18 V supply voltage. If in addition, a 22 kHz switching signal is superimposed on the 18 V supply voltage, this LED will flash.

[4] V (13 V) Green LED for 13 V

This LED will be illuminated, if on the coaxial line is present a 13 V supply voltage. If in addition, a 22 kHz switching signal is superimposed on the 13 V supply voltage, this LED will flash.

[5] DC INPUT DC power supply adapter jack

Jack to connect external DC power supply (13-18 V / 120 mA).

3.2 Operating Instructions

3.2.1 Using combined with a TV level meter

The **RP-050** has been specially designed for using joint to **PROMAX**'s TV level meters, which are able to tune the Satellite band like **PROLINK-4/4C *Premium***, **PROLINK-3/3C *Premium*** or **MC-377+**[1]**.**

[1] MC-377+ including the OP-377-63 option.

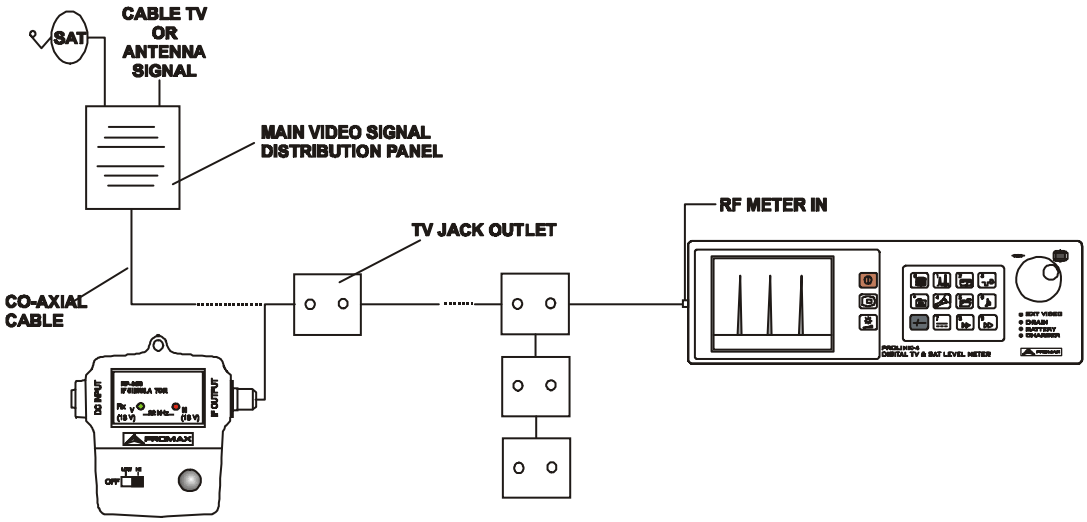

Figure 2.- Checking a TV SAT - UHF installation.

1.- Separate the installation section that is desired to check from the general panel or from one of the jack outlets of the TV signal distribution network.

2.- Connect the **RP-050** OUTPUT [1] connector to one of the ends from section under test, and use the TV level meter (RF input) on the other.

3.- Select on **RP-050**, depending on the presence of amplifiers in the line, an output level (LOW) or (HIGH) by means of the attenuation selector switch [2].

4.- Turns on the level meter, to select the representation of the spectrum in the whole band (*Full Span*) and fix as maximum a 110 dB reference level.

5.- Verify on the TV level meter screen the presence of the three pilot frequencies generated by the **RP-050** as well as the received signal level to evaluate the attenuation value from line.

6.- Tune on the level meter a pilot IF frequency (1050 MHz, 1575 MHz or 2100 MHz) on L band. On the level meter screen on TV mode, there must be visible a picture with two black and one white bar (See **IMPORTANT REMARK**).

English

If, in addition, the level meter sound is tuned to 7.02 MHz (± 0.2 MHz), a tone of approximately 1 kHz will be audible in the TV level meter.

Consequently, the correct equalisation of the selected installation section will be able to be verified.

IMPORTANT REMARK:

Video carriers generated by **RP-050** are **FM**-modulated, therefore the picture withs bars transmitted at **UHF** band (525 MHz) **WILL NOT BE VISUALIZED** on TV receiver nor TV level meter since in Terrestrial band these equipments only demodulate **AM** signals.
It is possible to verify the pilot signal level using the SPECTRUM analyser mode on a TV level meter.

REMARK: The activation of the altennuator [2] aside from affecting the video carriers output level could cause a small offset on the tuned frequencies (<1%). In order to compensate this frequency offset you are recommended to tune the TV level meter again whenever the selector switch [2] changes between the LOW and HIGH position.

3.2.2 SAT-receiver test

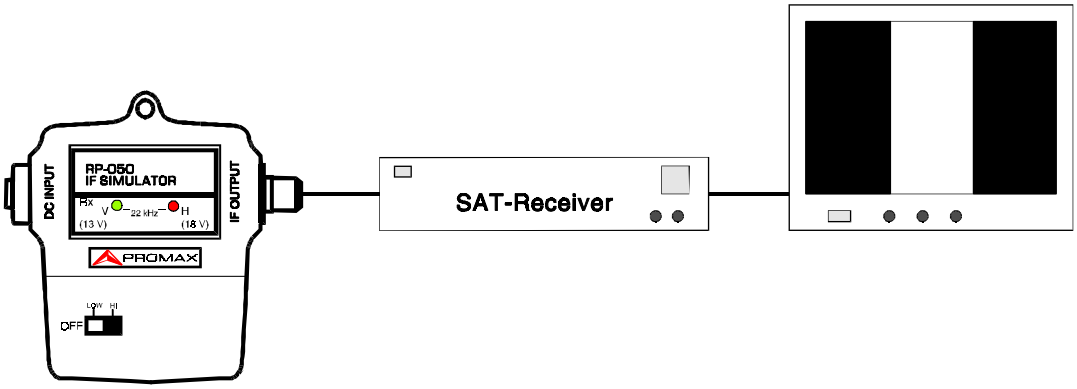

Figure 3.- SAT-receiver test

1.- Connect jack [1] RECEIVER to the **RP-050** with the IF - input jack (SAT-antenna input) of the SAT-receiver to be tested.

2.- Connect SAT-receiver and television set (SCART-socket or RF-connector).

3.- Switch on SAT-receiver and television set, in case of connection via SCART-socket, switch television set to the AV-channel.

4.- In case of connection via RF-connector, tune SAT-receiver to television set (with the help of the internal receiver pattern).

5.- Switch on **RP-050**, slide attenuation selector switch [2] to LOW mode or HIGH mode.

6.- Tune on the SAT-receiver one pilot IF frequency (1050 MHz, 1575 MHz or 2100 MHz) on L band. On the television set, there must be visible a picture with two black and one white bar.

If, in addition, the SAT-receiver is tuned in the audio stage to 7.02 MHz (± 0.2 MHz), a tone of approximately 1 kHz will be audible in the TV set.

Consequently, the video and audio stage of the SAT-receiver can be checked.

English

4 MAINTENANCE

The method of maintenance to be carried out by the user consists of cleaning the cover. All other operations should be carried out by authorised agents or by personnel qualified in the service of instruments.

4.1 Cleaning recommendations

CAUTION

Do not use scented hydrocarbons or chlorides solvents. Such products may attack the materials used in the construction of the cover.

The cover should be cleaned by means of a light solution of detergent and water applied with a soft cloth.

Dry thoroughly before using the system again.

English


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