

## ***USER'S MANUAL***

99 Washington Street  
Melrose, MA 02176

800.517.8431

TestEquipmentDepot.com


***OPTICAL TO RF ADAPTOR***

# **CV-100**



## **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.*

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# OPTICAL TO RF ADAPTOR

## CV-100

### 1 GENERAL INFORMATION

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#### 1.1 Description

The **CV-100** is an optical to **RF** signal adaptor that allows **TV** Analysers and Satellite with optical links. This adaptor covers the full **RF** band for **FI** satellite, terrestrial and **CATV**. It includes a DC power output to provide power to the optical **LNB** of the satellite antenna. It also has a 20 dB **RF** attenuator selectable. It is an ideal complement to the installer that already has a field meter, as the **TV EXPLORER**, allowing use in fibre optic installations without needing other instruments

#### 1.2 Specifications



##### OPTICAL INPUT:

Wavelength range:	1100 to 1600 nm.
Input power range:	from +7 dBm to - 30 dBm.
Optical Return Loss:	>40 dB.
Optical connector:	FC-PC (standard, others on demand).
Fiber Core/Cladding:	9 /125 $\mu$ m.

##### RF Output / Input DC:

Bandwidth:	from 5 to 2500 MHz.
Max. output signal:	120 dB $\mu$ V.
RF connector:	BNC.
CTB, CSO:	$\leq$ 65 dBc.

<b>Attenuator 20 dB</b>	Selectable.
<b>Alimentation</b>	
<b>Voltage</b>	12 to 14 V DC.
<b>Max Power</b>	580 mA.
<b>Max. Voltage</b>	14 V (Overvoltage protection).
<b>DC OUTPUT:</b>	F connector for optical LNB supply. By passed from RF output /DC Input (500 mA max).

#### **Environmental operating conditions**

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

#### **Mechanical features**
















<b>Dimensions</b>	77 mm W x 85 mm H x 28 mm D.
<b>Weight</b>	150 g.

## 2 SAFETY RULES

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- \* **The safety could not be assured if the instructions for use are not closely followed.**
- \* Use this equipment only on systems or devices with the measurement connected to negative ground potential or isolated from the network.
- \* Observe all specified ratings both of supply and measurement.
- \* Use this instrument under the **specified environmental conditions**.
- \* Remember that voltages higher than **70 V DC** or **33 V AC rms** are dangerous.
- \* The user is not authorised to manipulate inside the instrument:  
  
Any change on the equipment should be carried out by qualified personnel.
- \* Use for the signal inputs / outputs, specially when working with high levels, **appropriate low radiation cables**.
- \* Follow the **cleaning instructions** described in the Maintenance Paragraph.

\* Symbols related with safety:

	DIRECT CURRENT		ON (Supply)
	ALTERNATING CURRENT		OFF (Supply)
	DIRECT AND ALTERNATING		DOUBLE INSULATION (Class II protection)
	GROUND TERMINAL		CAUTION (Risk of electric shock)
	PROTECTIVE CONDUCTOR		CAUTION REFER TO MANUAL
	FRAME TERMINAL		FUSE
	EQUIPOTENTIALITY		EQUIPMENT OR COMPONENT TO BE RECYCLED
			

## 3 OPERATING INSTRUCTION

### 3.1 Description of the controls and elements

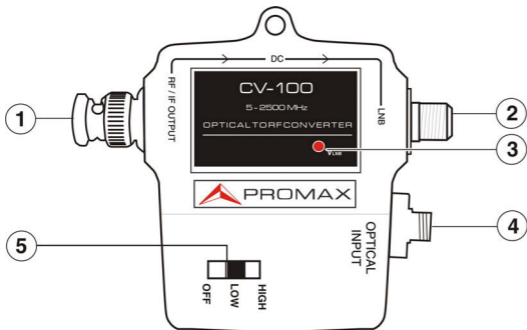


Figure 1.- Front view

- 1.- RF Output / Power Input.
- 2.- LNB Power Output.
- 3.- ON / OFF LED Instrument Indicator.
- 4.- Optical Fibre Input
- 5.- ON / OFF Switch
  - HIGH:** No Attenuator (ATT=0 dB).
  - LOW:** Attenuator (ATT=20 dB).
  - OFF:** Instrument stopped.



## 3.2 Connecting with the FIELD METER.



Figure 2.-

### 3.3 Practical applications.

- a) Connection between **SATELLITE** signal over **FIBRE OPTIC** to **FIELD METER** through **CV-100** adaptor.



Figure 3.-

- b) Connection between **DIGITAL TERRESTRIAL** signal over **FIBRE OPTIC** to **FIELD METER** through **CV-100** adaptor.



Figure 4.-



## 4 MAINTENANCE

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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.

### 4.2 Not replaceable fuses by user.

**F001: FUS 2.5 A T 125 V**

