

- Charging the IM99

When "Low Batt" appears in the display during operation the batteries are in need of charging.

An overnight charge is normally sufficient to last for 5 hours of continuous use or longer if used intermittent. If the unit is switched on with the charger connected the display will show "Charging".

- Optional Extras

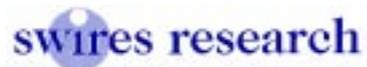
- Car charging lead

For charging the instrument while mobile.

- Ever-Ready carrying case

To protect the instrument and screen.

- Spare Special download Interface Lead.



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Operators Manual For Installers Meter - IM99 Master

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- **Programming the Slave Presets**

These are the stages to programming the Slave units:

Connect the two charging sockets using the special lead provided with each Master unit.

1. Switch the Slave unit into receive mode
2. Switch the Master unit into transmit mode

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Hold the "Down" key then press the "On" key. Continue to hold **both** keys until "Rx" appears on the screen. Release both keys.

2. Switch the Master unit into transmit mode

Hold down the "OPTION" key and press the "On" key. Continue to hold **both** keys until "TX" appears in the screen. Release both keys and the unit will start transmitting. The progress of the transmission can be seen on both the Master & Slave's screens. "Finished" appears in the display of both units. This will take about 1 minute.

Unplug the units and to ensure the transfer has been successful scan through the frequencies stored in the Slave unit.



Special interface lead -plugged between Charge sockets.

• Programming The Master Frequencies

The Master unit comes with a channel plan on an 8MHz grid,downloaded to memory starting at 56MHz. (ie. Presets increment in 8MHz steps).
The frequency of ANY preset can be adjusted by the user within the frequency range of 45 to 860 MHz (in 0.25MHz steps).

Changing the frequency of presets

1. Switch on the IM99 -M instrument.
2. Select the preset to be changed.
3. Press the OPTION key ONCE.
4. Select the new frequency using the UP/DOWN keys.
5. Press the STORE key ONCE, then the OPTION key ONCE.

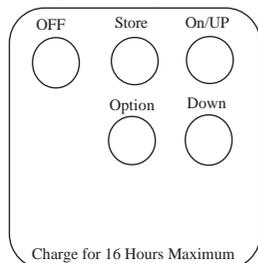
Your new frequency should now be stored on your selected preset.

If you are required to test only 3 frequencies on a cable network - LOW, MEDIUM & HIGH for example, retune the first three presets (0,1,2).

• Select Maximum Amount of Preset channels

Hold the STORE key & press ON. Use the UP/DOWN keys to select the amount of presets you want to use. (1 to 99 are valid)
Switch OFF. Next time you switch ON the IM99 the preset channels will be restricted to the amount selected .(ie if you only want LOW,MIDDLE and HIGH select 3 presets etc.)

• Keypad Layout



• Introduction

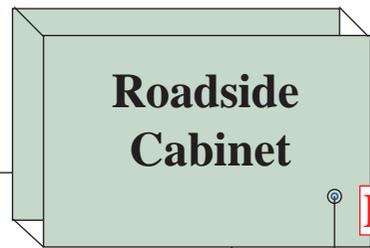
Thank you for purchasing the Installer Meter type IM 99 Master unit.
The sole difference between Master & Slave instruments is that the user can set the preset frequencies on the Master unit but the Slave unit frequencies or channels need to be programmed from a Master unit. This is intended to stop unauthorised people from detuning presets or channels.
The Master unit downloads the selected channels or frequencies to the Slave unit in one easy operation. With the two charging sockets connected together using the special lead provided with each Master unit purchased.

This gives the supervisor or senior engineer control over what and how many presets are used. Also the Slave unit only needs to be returned to the factory at calibration time. The 'retune' of its presets is done using the Master unit.

The range of frequencies the meter covers is 45 to 860 MHz. There are 99 presets (1 -99) available for use. Charging is via the jack type socket at the base of the instrument. An overnight charge is all that is normally required unless the batteries are totally expelled,when a full 16 hours charge will be required.

An optional 'in car' fuse protected charging lead is available at a nominal cost.

Outside the subscriber's house



Point A.

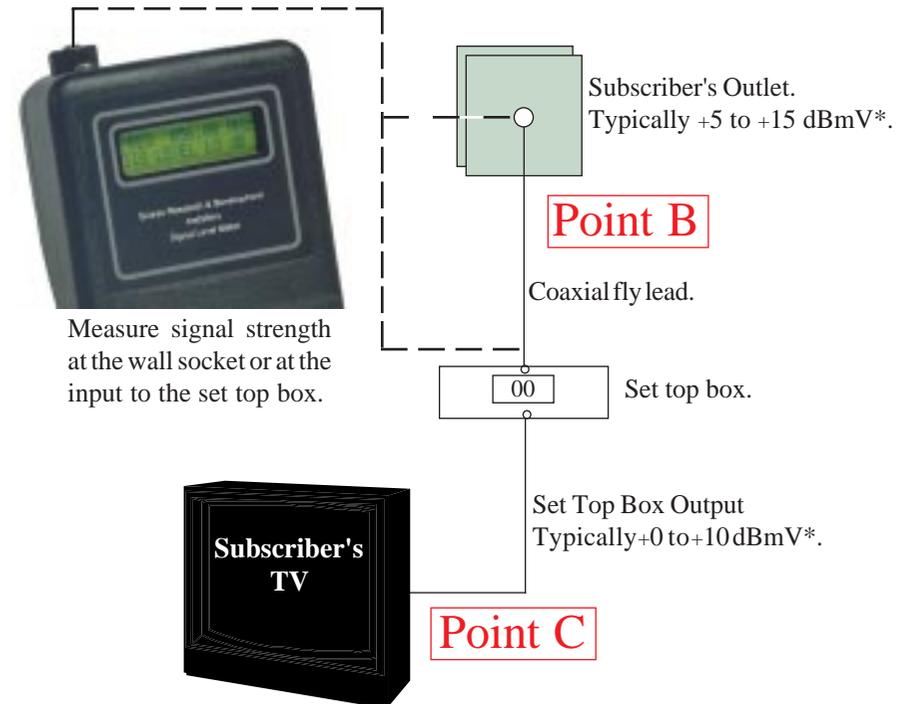
Connect a fly lead between the multi-way tap and the IM99.

Switch on the meter using the top right hand button. The top line shows the frequency that is being measured, and the bottom line shows the signal level in dBmV's. Each press of the right hand button selects the next programmed frequency.

A signal level of +22dBmV* or higher is not uncommon. Levels higher than +22dBmV are indicated as 'HI' in the display. 'LO' in the display indicates that there is no signal present at the multi-way tap or is below -15dBmV.

* Indicated levels are only for guidance. Clarify these with the cable operator's supervisor.

Inside the subscriber's house



Switch off the meter with the left hand button and move to point 'B'.

Point B.

Measure the signal strength at the subscriber's outlet plate - use the same flylead that you will use to connect to the set top box.

Signal levels will be lower than at point 'A' - Levels will probably be between +5* and +15* dBmV. Toggle around the preset frequencies using either right hand button on the meter looking at the reading each time. They should be approximately the same, but there could be slight variations.

Point C.

Only the output frequency from the set top box can be taken at this point. It is usually 711 MHz or 752 MHz - Your supervisor will know which frequency it is. If your IM99 has this frequency programmed in - It should read between 0 and +10dBmV*.