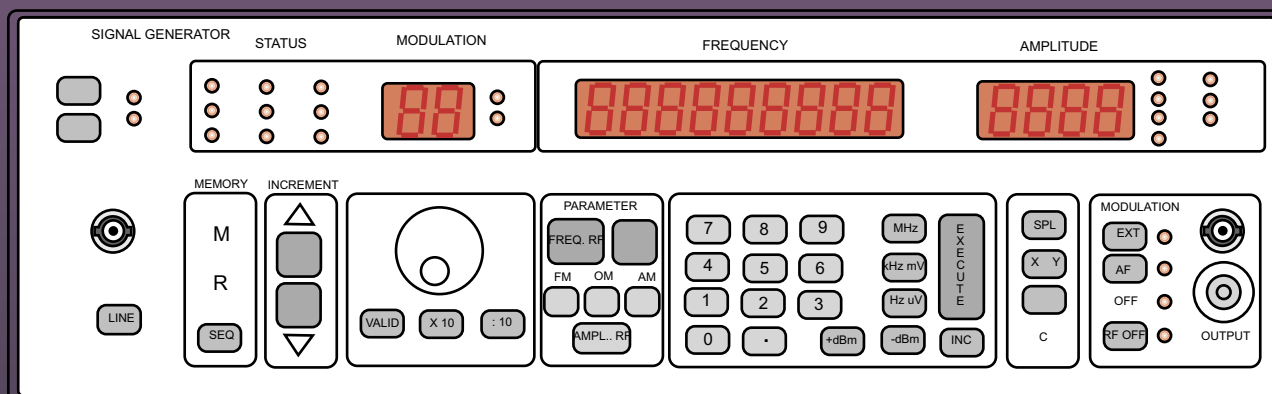


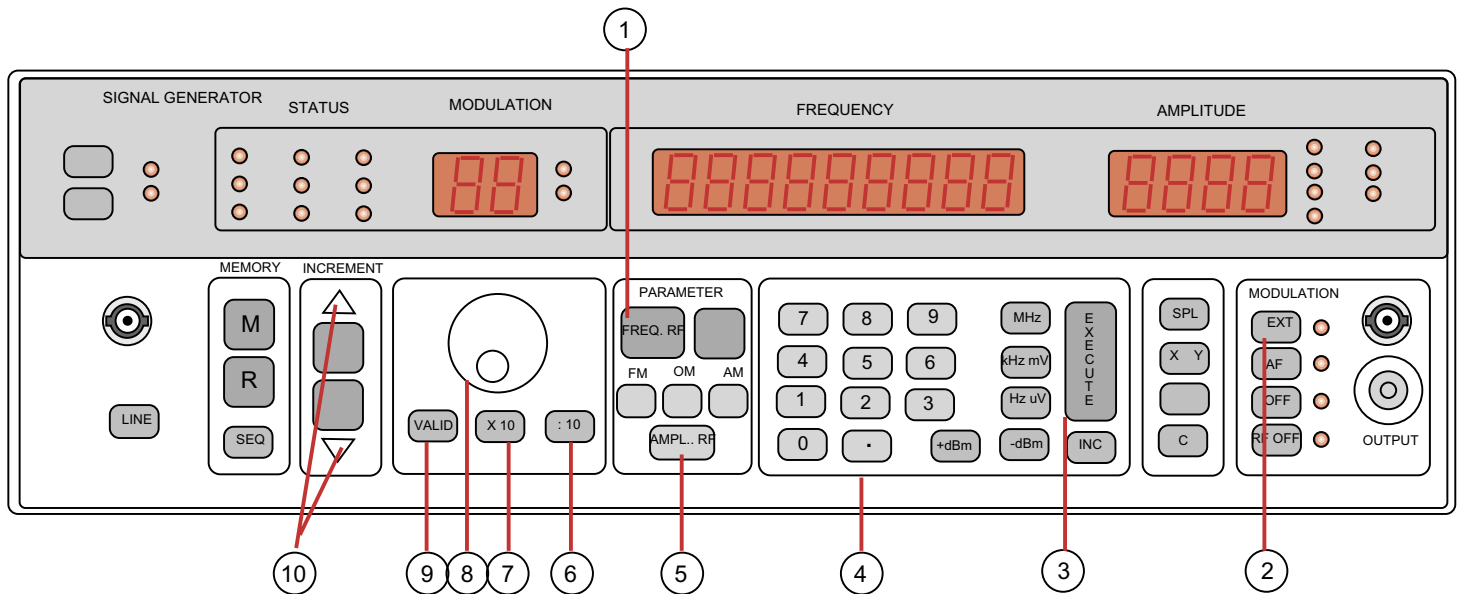
Self Help Guides



Marconi-Ardnet Model 742B Signal Generator

Produced by John Wilmot

MARCONI-ARDNET 742B RF SIGNAL GENERATOR



QUICK REFERENCE GUIDE

This guide lists the most important operations for basic laboratory use.

Front panel keys are shown like this: AMPLITUDE ⑤

This symbol means enter a value using the numeric key pad: ④

This symbol means the rotary 'Tuning' control: ⑧

This can be set to control the frequency, output power, modulation depth, etc. but it only operates when the LED by the VALID ⑨ key is lit. If the LED is not lit, press VALID ⑨ again.

To set the RF output frequency:

FREQ. RF ① ④ MHz or kHz EXECUTE ③ or:
FREQ. RF VALID ⑨ ⑧

When using the rotary tuning control, the X10 ⑦ or /10 ⑥ keys can be used to adjust the tuning rate.

To set the RF output power (-130 dBm to +13 dBm):

AMPL. RF ⑤ ④ -dBm or +dBm EXECUTE ③ or:
AMPL. RF ⑤ VALID ⑨ ⑧

To select the source of modulation

In the MODULATION controls section, press:

OFF for no modulation.

INT for modulation using the built-in AF modulation source (100 Hz - 12.8 kHz).

EXT for modulation using an external source. Feed the external AF signal into the *LF 600* input. Do not use the EXT key unless DC-coupled modulation is required.

To set the frequency of the the built-in AF modulation source 100 Hz -12.8 kHz.

AF kHz EXECUTE ③ or:

AF VALID ⑨ ⑧

To calibrate an external modulation source:

(You must set this accurately if using an external source of modulation otherwise the AM percentage and the FM frequency deviation displayed on the 742B will not be accurate)

Observe the two LEDs marked *EXT CAL.* (with the ⑩ symbols). Set the amplitude of the external AF generator to approx. 1.5V peak-to-peak then adjust the amplitude slowly and carefully until both LEDs are on or are just on the point of changing over.

Note: when using AM with an external modulation source, the yellow 'Overload' LED may light.

To set the AM modulation depth

AM % EXECUTE ③ or:

AM VALID ⑨ ⑧

The maximum RF output power setting should be +7 dBm when using AM because the Peak Envelope Power (PEP) is up to 6dB more than the carrier power when the AM modulation depth approaches 100% and not all of these signal generators can exceed +13 dBm PEP.

To set the FM frequency deviation

FM kHz EXECUTE ③ or:

FM VALID ⑧