

Select the necessary impedance and capacitive values for the cartridge you are using by moving the appropriate switch(s) to the ON position (to the left) in accordance with the "on" values of the table below.

1	=	730 pF
2	=	250 pF
3	=	150 pF
4	=	100 pF
5	=	1,000 Ohm
6	=	100 Ohm
7	=	47.5 Ohm
8	=	22.1 Ohm

Remember that in all cases the capacitive load realized will be that for which your Threshold model is set plus the capacitance inherent in the signal cables connecting the turntable to the preamplifier. This capacitance is generally in the range of 100 pF and an exact figure may be found in the specification sheet for the turntable or interconnects you are using.

Refer to the instruction sheet accompanying your cartridge to determine its loading requirements. Select the load value nearest that recommended. In large measure the value you select can ultimately be the result of personal preference.

Note: There are a number of high output moving magnet designs rated for use into 47,000 ohms. It is our experience that they will generally perform much better into some lower impedance, typically 1,000 ohms, and we encourage you to try this setting. Also with regard to all moving coil cartridges, we encourage you to try the higher capacitance values.

In most cases it is only necessary to set one impedance and one capacitance switch "on" for any given cartridge. Nevertheless, if you have an unusual cartridge or wish to get involved in some experimentation, additional impedance and capacitance values may be obtained by moving multiple switches as outlined below:

To Calculate Resistance

Load impedance = one over the sum of one over each individual value of every "on" impedance switch.

$$R = 1 / (1/R1 + 1/R2 + 1/R3 + 1/R4)$$

For example, for 47.5 Ohm and 22.1:

$$R = 1 / (1/47.5 + 1/22.1) \text{ Ohms}$$

$$R = 1 / (.0211 + .0452) \text{ Ohms}$$

$$R = 1 / (.0663) \text{ Ohms}$$

$$R = 15.07 \text{ Ohms}$$

To Calculate Capacitance

Capacitive loading = 50 pF plus: the sum of the individual value less 50 pF for every "on" capacitance switch.

Output Connection

The Threshold FET ten/e cartridge gain preamplifier provides a "flat" line level, unbalanced output signal at an impedance of 100 Ohms in series with 10 uF. This value allows the use of quality cable in fairly extended lengths for connection to the following component without the introduction of detrimental signal effects.

The FET ten/e preamplifier also provides a balanced output specifically designed for use with an ancillary component that accepts balanced input signals. The standard RCA output connectors on the rear of the preamplifier are supplemented by a pair of XLR male locking sockets which provide balanced output characteristic.

The Threshold FET ten/e cartridge gain preamplifier's function is to take the output of a magnetic cartridge, provide accurate RIAA de-emphasis and provide a "flat" output signal at line level. While this output characteristic is equivalent to that of a normal preamplifier it should be remembered that the FET ten/e cartridge gain preamplifier provides NO facilities for signal level control of any sort. It was designed to interface an amplifier through the high level inputs of an associated preamplifier for the necessary signal control functions.