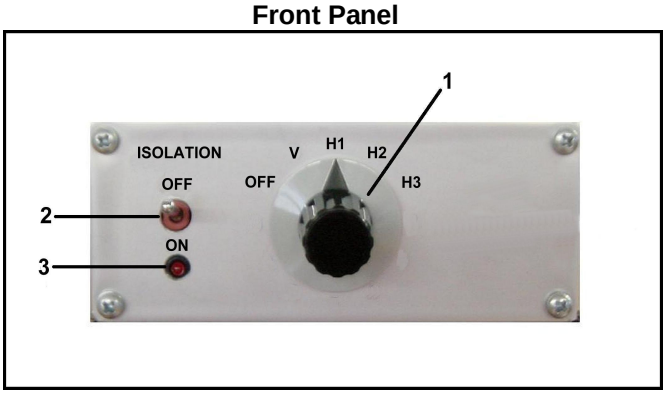
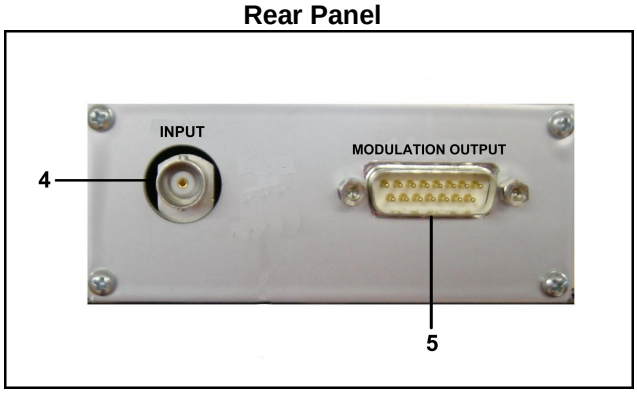
TS-Modulation Input-Box Operation Instructions

The modulation-box allows an excitation signal to be applied to the TS-Isolation System so that the system may be used as a shaker in any direction. Connect the modulation-box to the rear of the TS Isolation system using a D-Sub 15M/F cable. No separate power supply is required. Different excitation directions can be selected by the Mode Switch.

Front Panel



Rear Panel



1 Direction mode select switch
2 Isolation switch
3 Isolation indicator
4 Input BNC socket
5 Modulation signal output socket

Operation

The TS isolation system must first of all be switched on and the isolation enabled on the front panel. Subsequently the isolation can be switched on and off, if required, using the isolation switch (3) on the modulation-box.

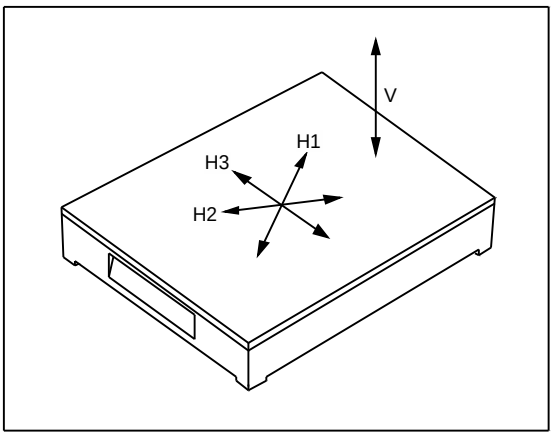
For use as a shaker a sine wave will normally be required. This must be supplied via an external signal generator. Connect the signal to the INPUT BNC socket (4).
(max. amplitude 3Vpp)

Four excitation directions are selectable using the Direction Mode Select switch (1):

Note: as the frequency of the excitation is scanned the VELOCITY will remain approxi-mately constant over the range 1-100Hz. Beyond this frequency some resonances are likely to appear, depending on the load. For control purposes an external accelerometer should be used.

V is vertical, **H1, H2** and **H3** are horizontal excitations in the directions shown in fig.1

Fig.1



PIN LAYOUT FOR THE D-SUB CONNECTOR:

1	empty
2	RXD
3	TXD
4	-6V (100? in series)
5	GND
6	Modulation input S2
7	Modulation input S4
8	Modulation input S6
9	+6V (100? in series)
10	external disable
11	external enabled indicator
12	empty
13	Modulation input S1
14	Modulation input S3
15	Modulation input S5

MODULATION SIGNAL COMBINATIONS

Modulation signal V_{in}, maximum amplitude 3 volts.

For vertical excitation	V:	$S1 = S2 = S3 = S4 = S5 = S6 = V_{in}$	
For horizontal excitation	H1:	$S1 = S2 = V_{in}$	$S3 = S4 = - V_{in}$
For horizontal excitation	H2	$S3 = S4 = V_{in}$	$S5 = S6 = - V_{in}$
For horizontal excitation	H3:	$S5 = S6 = V_{in}$	$S1 = S2 = - V_{in}$