High impedance preamplifier input suitable for
piezoceramic transducer like the Reson type TC4033 or eq.
See also www.RESON.com
Input impedance >1G and < 10pF
Gain : 0 to 30dB / Bandwidth : 10Hz to 1MHz −6dB
Relativ input noise : <3uVrms @ 0dBgain
Relativ input noise : <2uVrms @ 20dBgain
Noise measure bandwidth : 500Hz to 8KHz
Cable lenght recommended max : 20 meter

10mAmp Loop for hydrophones with buildin
current loop preamplifier like the etec 602 type.
This is a two−wire low impedance transmission line
carrying both the power supply for the preamplifier
and the hydrophone returnsignal on the same two wires.
There are no drawback with this configuration
compared to conventional amplifier technology.
Distance max : 100meter cable RG58 style or eq.
See also www.etec.dk

Balanced input with buildin 48Volt phantom power supply.
Designed for connection of standard studiomicrophones
with 3pole XLR connectors. It will drive the
DPA microphones serie 4000 studio microphones
as well as the their 8011 hydrophone for P48.
These inputs may also be used singlesided :
XLR pin1: GND=0V
XLR pin2: Positive input
XLR pin3: Negative input
See also www.DPAmicrophones.com

Input amplifier and Gain selector used to switch
between the tree different input amplifiers. Gain is
privided here only with the preamplifier selection
Bandwidth : 10Hz to 1MHz (700KHz @ 30dB gain)

Input SeaWave filter 1.st order 6dB/octave
10 Hz filter is 2.st order 12dB/octave

Liniar input amplifier offering
extra gain 10Hz to 1MHz

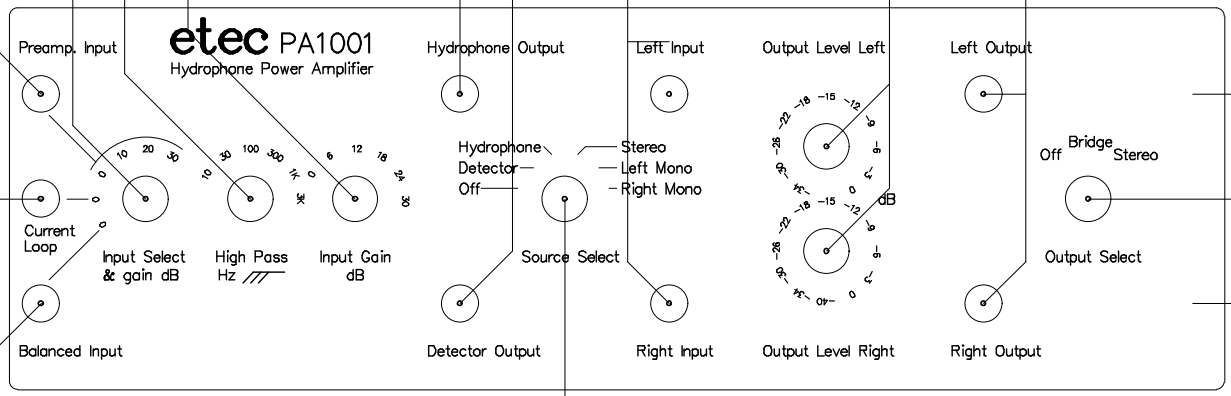
Hydrophone Output signal presenting input selection. Used for recordings.

Detector Output signal same as the hydrophone signal
but led through an envelope detector for audible
detection of sonar signals in the frequency range
from 20KHz to 700KHz. Used for recordings.

Left and Right Line Inputs for external
connection to the output power amplifiers.
Used for playback to the loudspeaker(s)

Output Level Left and Right for controlling
the level for the output power amplifiers.

Left and Right Line Outputs presenting
whatever selected on the inputs.
Used for recordings.



Left channel power output terminals for the
connection of an underwater loudspeaker
like the Reson TC2130 or eq.
Nominel load impedance : 100 ohm or max. 10r
Output power level is +/− 24Volt peak in the S
position OR +/− 48Volt peak in the BRIDGE pos
With the BRIDGE configuration the load must be
connected to the left and right RED terminals
thus forming a balanced floating output.
Cable screen may be connected to any of the
terminals which are 0Volt reference and chassis
and center of the batteries.

The Output Selector switches between normal
two channel Stereo and the Bridge configuration
OFF position mutes the output but do not
switch off the power to the amplifier.

Right channel power output terminals.
Same specification as the Left channel output.
The power outputs may also drive a set of
conventional loudspeakers at 4 or 8 ohm.

In Stereo position the outputs are in phase
In Bridge position the Right output is inverted
Power bandwidth is 10Hz to 500KHz
Current consumption is appr. 0.1Amp stand by
when switched on but without signal through.
ON/OFF switch on the right side of box
REMEMBER to switch off when not in use.

General information regarding BATTERIES :
4 pcs Panasonic type LC−R123R4PG or eq. / 12Volt 3.4Ah
Size : H x W x L = 60 x 67 x 134mm
External charger : 60Volt 0.2Amp. / Chargetime : 24 Hours max.
Disconnect batteries when not in use for periods longer than 4 weeks
Keep cool when not in use. Recycle when worn out.

Source selector to switch between internal and external signal sources
The output from this point is led on to the Line output terminals for recordings
and to the output level controls and thus to the power amplifiers.
It is not a legal situation to input select a hydrophone placed in the same medi
as an underwater loudspeaker and turn up the volume.
This will cause oscillation at a very high frequency.

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Operators guide to the etec PA1001 hydrophone power amplifier