

Gain control in 10dB steps
 The high frequency response depends on gain setting.
 At gain=0dB to +20dB > 1MHz
 At gain=+30dB -> 600KHz
 At gain=+40dB -> 200KHz
 At gain=+50dB -> 50KHz

Low frequency filter to take off seawaves
 Frequencies noted are at -3dB.
 Filterslopes are 6dB / octave

Power On/Off switch and Battery Test.
 In position ON the amplifier is operating and will consume +/-20mAmp from the batteries or from the external supply
 In position TEST the current consumption is increased to 80mAmp in order to test the condition of the batteries.
 The RED lamp indicates for the positive (left) battery
 The GREEN lamp indicates for the negative (right) battery.
 If any lamp turns off during TEST the battery must be replaced or recharged.
 Do NOT forget to switch back from TEST or it will drain your batteries quickly
 Battery test is not possible when the external power supply is connected.
 The external supply cannot charge the batteries. Use a separate battery charger.

NOTES on batteries in general :

Rechargeable batteries of type LR61 / 9Volt NiMH can be used. They contain appr. 150mA-hours
 They will last appr. 8 hours with this amplifier.

Dry Cell batteries of type LR61 / 9Volt must be used if you want longer operation time. They contain appr. 800mA-hours. They will last appr. 40 hours with this amplifier. Dry Cell batteries cannot be recharged.

Batteries type LR61 are also called type PP3

Hydrophone output delivers the full frequency bandwidth of the connected hydrophone. Used for real time high speed recordings. Maximum output level is 5Vpeak.

External power supply is for long time service of this amplifier It will save the batteries as long as the supply voltage is higher than +/- 9Volt. External supply cable is supplied with the unit. Red banana plug is +12V, Black is 0V, Blue is -12V.

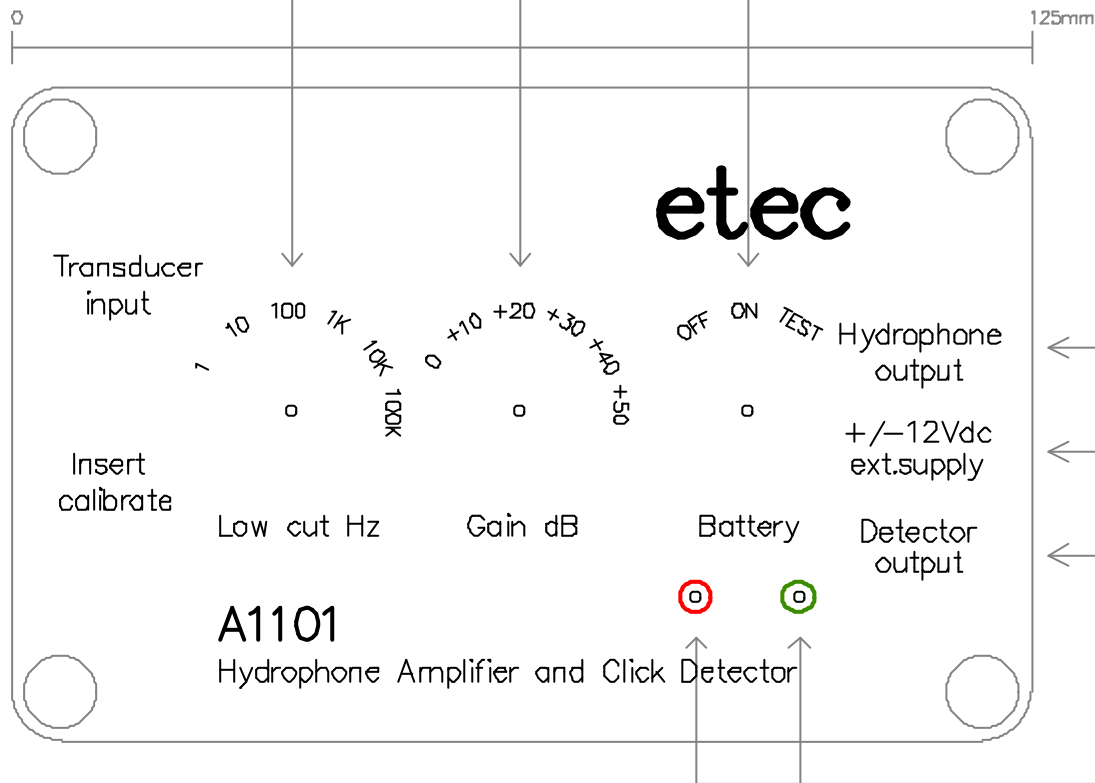
The "Click" detector output represents the amplitude modulated part of the hydrophone sensor signal in the frequency range from 20KHz up to 600KHz. The detected signal is known as the envelope information which is audible for the human ear. The signal level is 6dB lower than the hydrophone output.

Both outputs will be able to drive appr.50 meters of cable.

Do NOT forget to switch OFF the unit after use. Store batteries in a cool place when not in use

Input for Piezo ceramic transducer with a capacitance of 1 to 10 nF like the RESON type TC4033
 Maximum input signal . 3Vrms / 1Hz to 1MHz
 The relative input noise is less than 1.5 microVolt at 1KHz at Gain=20dB
 Input impedance : 1Gohm // 10pF

Insert calibrate is for testing the the amplifier with the transducer connected to its input.
 With a calibration signal of 1Vrms the signal on the hydrophone output must be -30dB plus the gain setting. Maximum calibration signal is 10Vrms



Do NOT forget to switch OFF the unit when not in service.
 Store the batteries in a cool place when not in use
 etec-001212 file : 001101m.pcb

In the battery TEST condition the indicators are :
 The RED lamp indicates for the positive (left) battery
 The GREEN lamp indicates for the negative (right) battery.
 In normal operation both lamps will flash whenever the output signal hits 0dBm = 1.1Vpeak

User instructions and Technical data