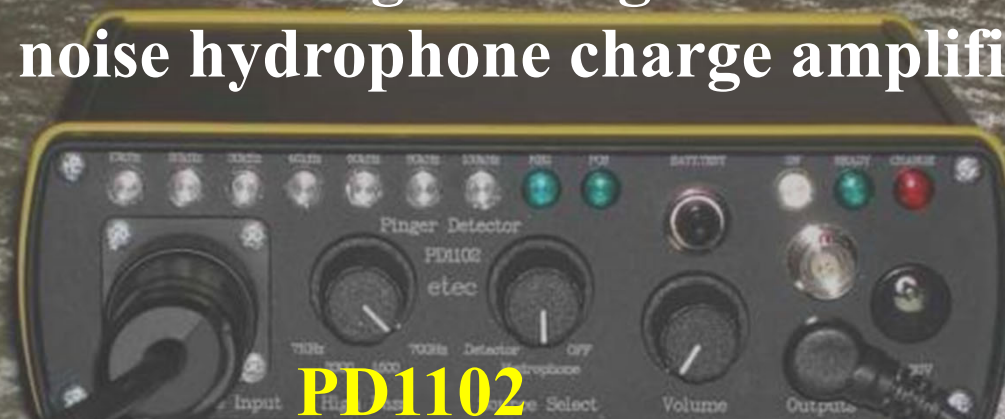




etec.dk

**electronic technical engineering & construction
ultra low noise hydrophone charge amplifiers**



Pinger Detector Amplifier

**The ultimate Underwater Listening Amplifier
and Acoustic Alarm Detector**

Also called Pinger Detector or Click Detector

**For detection of Pingers and Sonars
and other high frequency non audibles**

system overview

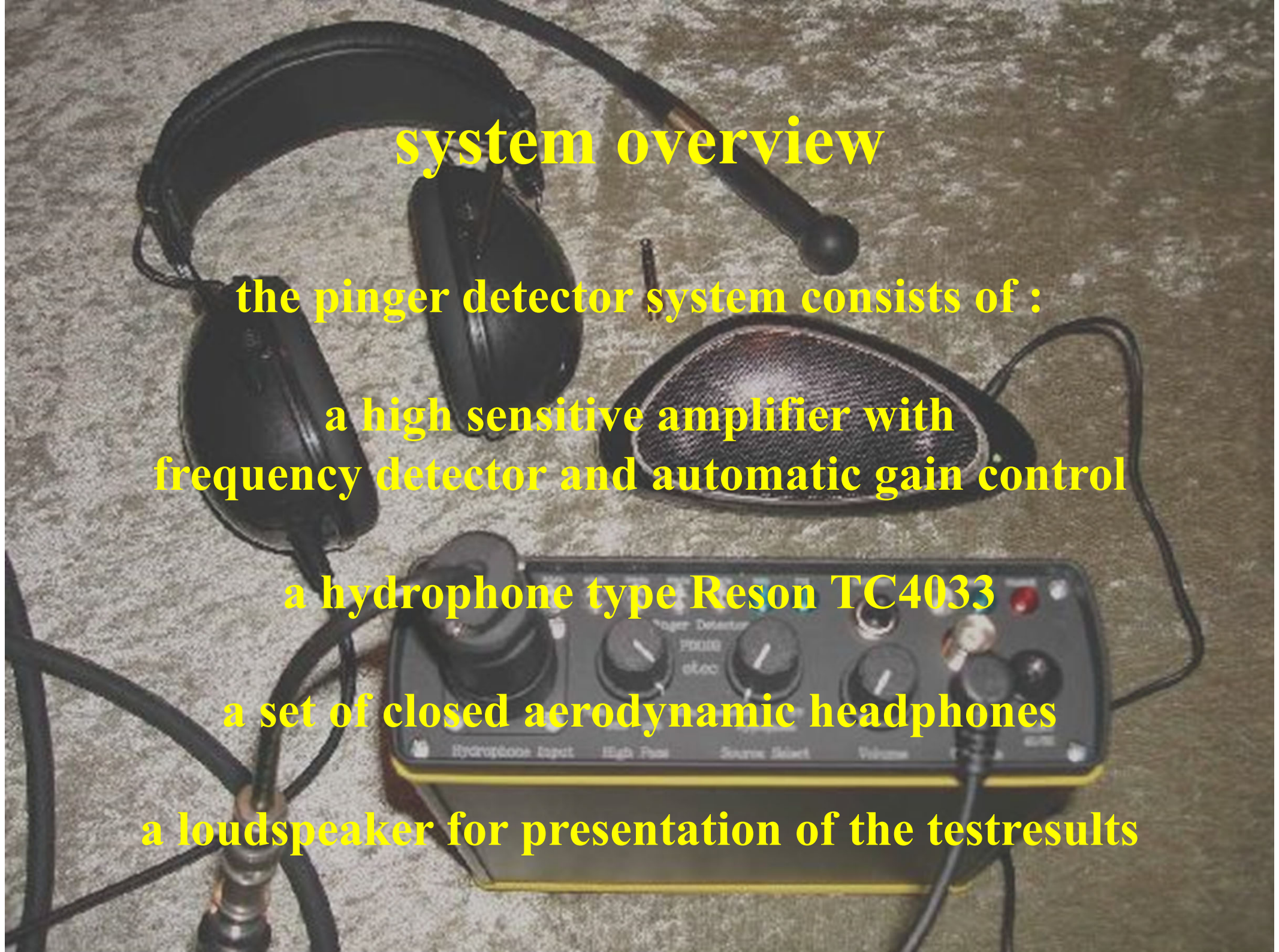
the pinger detector system consists of :

a high sensitive amplifier with
frequency detector and automatic gain control

a hydrophone type Reson TC4033

a set of closed aerodynamic headphones

a loudspeaker for presentation of the test results



easy use and operation

Detector amplifier ready for use

Carry the shoulderbag around your neck

Headphones on your head.

Loudspeaker in your hand or in your pocket

Hydrophone in the water and you are ready to go



easy handling and storage

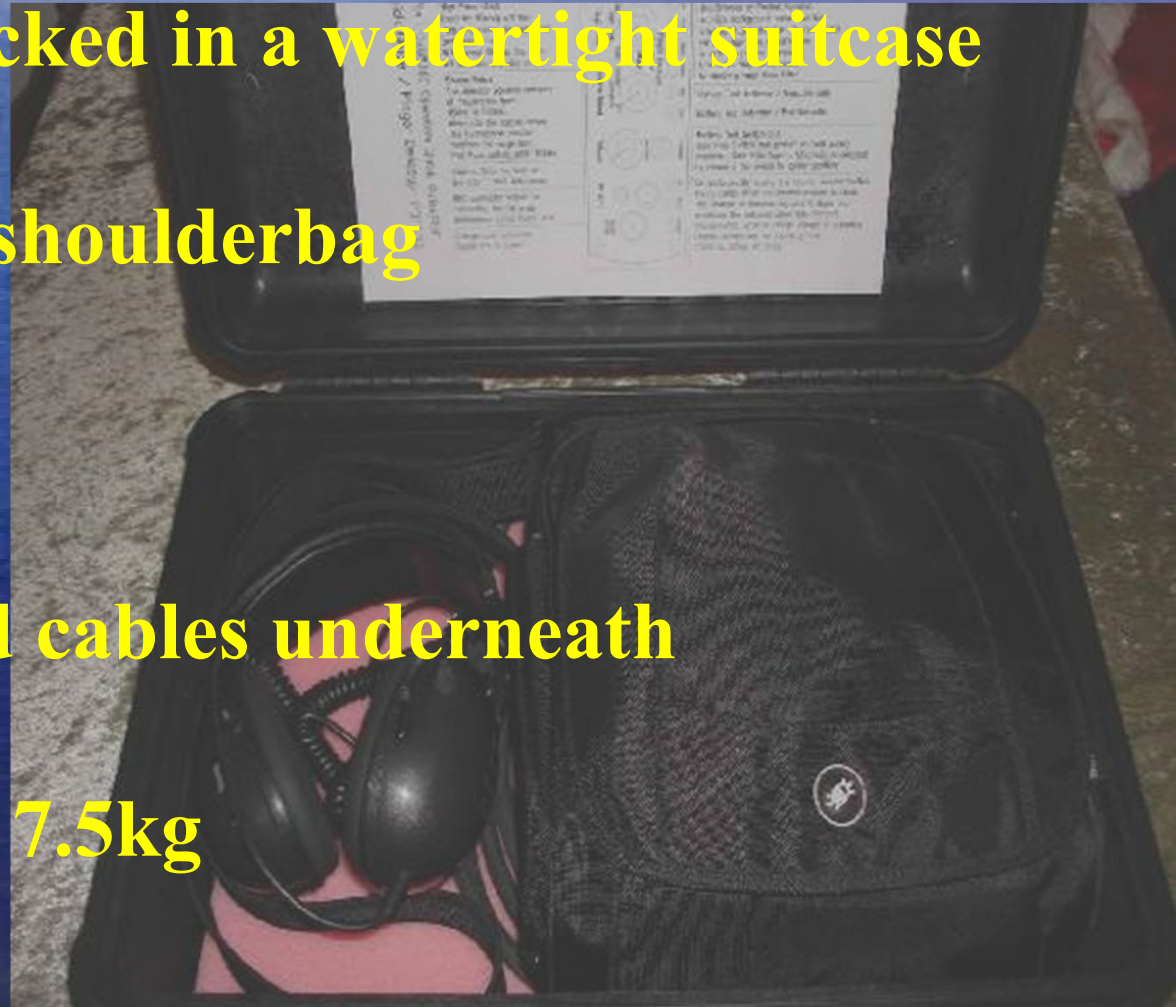
Complete system packed in a watertight suitcase

The Amplifier in its shoulderbag

A set of headphones

The hydrophone and cables underneath

Total weight is apprx. 7.5kg



controls and features

This unit will monitor the frequency range from 700Hz to 160kHz

Includes frequency converter for monitoring sounds above the audible range

This unit may also be used as a conventional underwater listening amplifier

It has a build in Automatic Gain Control for optimum signal strength

High Pass Filters for attenuation of Seawaves and Engine noise

Gain hold function for suppression of background noise and transients

**Switchable monitoring between full range hydrophone signal
and frequency conversion**

**Low Noise Charge Input Amplifier
will handle all passive piezoelectric transducers**

technical data

Extremely high signal gain of 80dB maximum

**Switchable High Pass Filter Settings :
700Hz, 1500Hz, 3300Hz, 7000Hz**

Output for headphones with standard 3.5mm mini jack.

Audible frequency range 20 to 20kHz with volume control

**Full range hydrophone signal output with BNC connector
and fixed signal level for measuring purpose**

special feature

**a unique feature with this instrument is to
monitor pingers directly from the inspection vessel**

**The effective low frequency filters
in conjunction with the Automatic Gain Control
may under moderate weather conditions
offer the unique possibility of monitoring pingers
even with the engines slow running
and/or the vessel in slow drift**

sensitivity considerations

**In general this amplifier has been developed
in order to monitor pingers at a very long distance**

**Analog pinger frequency 8 ... 12 kHz up to 400meters
Digital pinger frequency 10 ... 120 kHz up to 200meters**

**The build in frequency detector will detect
various frequencies at a distance up to 50meters**

**The maximum detection range is greatly influenced by
the wether conditions and the general back ground noise**

**By operating the low frequency seawave filters
and the automatic gain control function the user can
obtain good sesitivity even in rough weather**

