

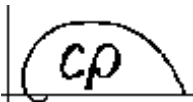
THE SC-8

Signal Conditioning Preamplifier Box



DESCRIPTION

The SC-8 Signal Conditioning Box is used to amplify and filter electric and magnetic telluric signals prior to entering the GDP receiver system. Use of this device is recommended to provide low-noise amplification, radio-noise filtering, and limiting of low-frequency tellurics for MT/AMT surveys. The SC-8 can also be used as a radio signal filter for CSAMT and IP surveys.



Zonge Engineering and Research Organization, Inc.

Specialists in Electrical Geophysics

• *Field Surveys* • *Geophysical Consulting* • *Instrumentation Sales and Lease* •

SPECIFICATIONS FOR THE SC-8 SIGNAL CONDITIONER

Electrical

Analog channels: 8
Gain settings: x1, x8, x32, x128
High pass filters for low-frequency tellurics:
1. 0.1, 0.01, 0.001 Hz
Low pass filters:
Seven-pole Bessel 10 kHz filter to limit radio frequency noise
10 Hz for extra filtering for MT low range
Saturation detector: ± 4.5 volts
Batteries: ± 12 V, 7 amp-hr
Noise: less than 50 nV / $\sqrt{\text{Hz}}$ at 1 Hz

Mechanical

Analog input:
5-way Pomona connectors, 8 pairs red and black
BNC inputs for channels 6, 7, 8 for capacitor (AC) coupling
Analog output:
26-pin connector, same as input connector on the GDP receivers
Analog common for input:
5-way black Pomona connector
LCD, 8-character:
Gain setting for each channel
High pass filter setting
10 Hz low pass filter in/out
Analog meter on/off
Time schedule information display
Analog meter:
 ± 5 volt analog output and battery level monitor

LED:

\pm saturation indicator, red – positive, green – negative

Switches:

Power on/off on side panel
Manual / Time Schedule operation
Filter / Gain selection

Analog meter function:

\pm battery voltage monitor
Analog signal monitor for each channel

Filter / Gain switch functions:

Filter position:

Selects the high pass filter setting
Sets the 10 Hz low-pass filter in/out
Turn analog meter on/off

Gain position:

Set the gain for each channel
Turn channels 4, 5, 6, 7, or 8 on/off

24 V battery charge port:

4-pin, on side panel
This port also serves as an external battery connection

Serial input port:

10-pin, for time schedule input

Remote reference operation:

Output can drive cable up to 1000m

Specifications subject to change without notice

© Copyright 1998, Zonge Engineering & Research Organization, Inc.



Zonge Engineering and Research Organization, Inc.

Offices:

Arizona, Alaska, Nevada, Colorado and Minnesota

Headquarters:

3322 E. Ft. Lowell Road, Tucson, AZ 85716, USA (800) 523-9913

Tel: (520) 327-5501 Email: zonge@zonge.com

Fax: (520) 325-1588 Web: <http://www.zonge.com>