

SENSOTEC, INC.
2080 Arlingate Lane
Columbus, Ohio 43228
Phone (614) 850-5000
Facsimile (614) 850-11 11
Toll Free (800) 848-6564

SA-PH DESCRIPTION, SPECIFICATIONS, WIRING AND OPERATING INSTRUCTIONS

GENERAL DESCRIPTION

The SA-PH is a two-channel peak detector. The unit accepts a single ended voltage signal in the range of -5 to +5 volts and outputs the peak value in volts or scaled to 4-20 mA. The output is held until either a greater peak is detected, the circuit.-is reset by going to the track mode, or the holding capacitor drains off below the threshold.

The circuit consists of an input buffer, capacitor driver, holding capacitor and low leakage buffer, threshold detector, and output stage.

The SA-PH is compatible with the SA system power supply and mother board power bus. All connections necessary for field installation are made through the solderless tubular connector at the rear of the instrument. All controls needed for set-up and calibration are available on the front panel.

SPECIFICATIONS

The SA-PH will detect peaks in the range of 0 to +5 volts referred to input with overrange to +10 volts. The input can withstand +/- 30 volt with respect to the circuit common (\emptyset volts) without damage. The input pre-filter limits the rise time to 0.5 ms to prevent false triggering on transients. The adjustment range of the "ZERO" is +/-1 volt referred to input; "GAIN" is +/-20%; threshold "SET" is 0 to 3 volts referred to input Zero and gain stability are better than .01%/second.

The "TRACK" signal input is optically isolated from the signal electronics to about 100 volts. Five volts at 1.6 mA minimum across these terminals will put the unit in the "TRACK" mode. No input defaults to "PEAK".

WIRING INSTRUCTIONS

Power should be OFF while wiring the unit. Refer to Drawing No. 001-0108-00 for SA-PH rear connector wiring. This diagram shows the connections for input, output, and external reset. The input and output commons (Ov) are internally connected to circuit ground. The circuit ground is isolated from line or case ground. This prevents ground loops if the customer's scanner or readout input is grounded. If the customer's input is not grounded, then one of the output commons should be connected *line ground for best shielding and noise rejection. Several SA-PH inputs may be driven in parallel from the same signal source. The external reset is optically isolated from the rest of the circuit, so it may be driven from another instrument without fear of grou loops.

FRONT PANEL CONTROLS

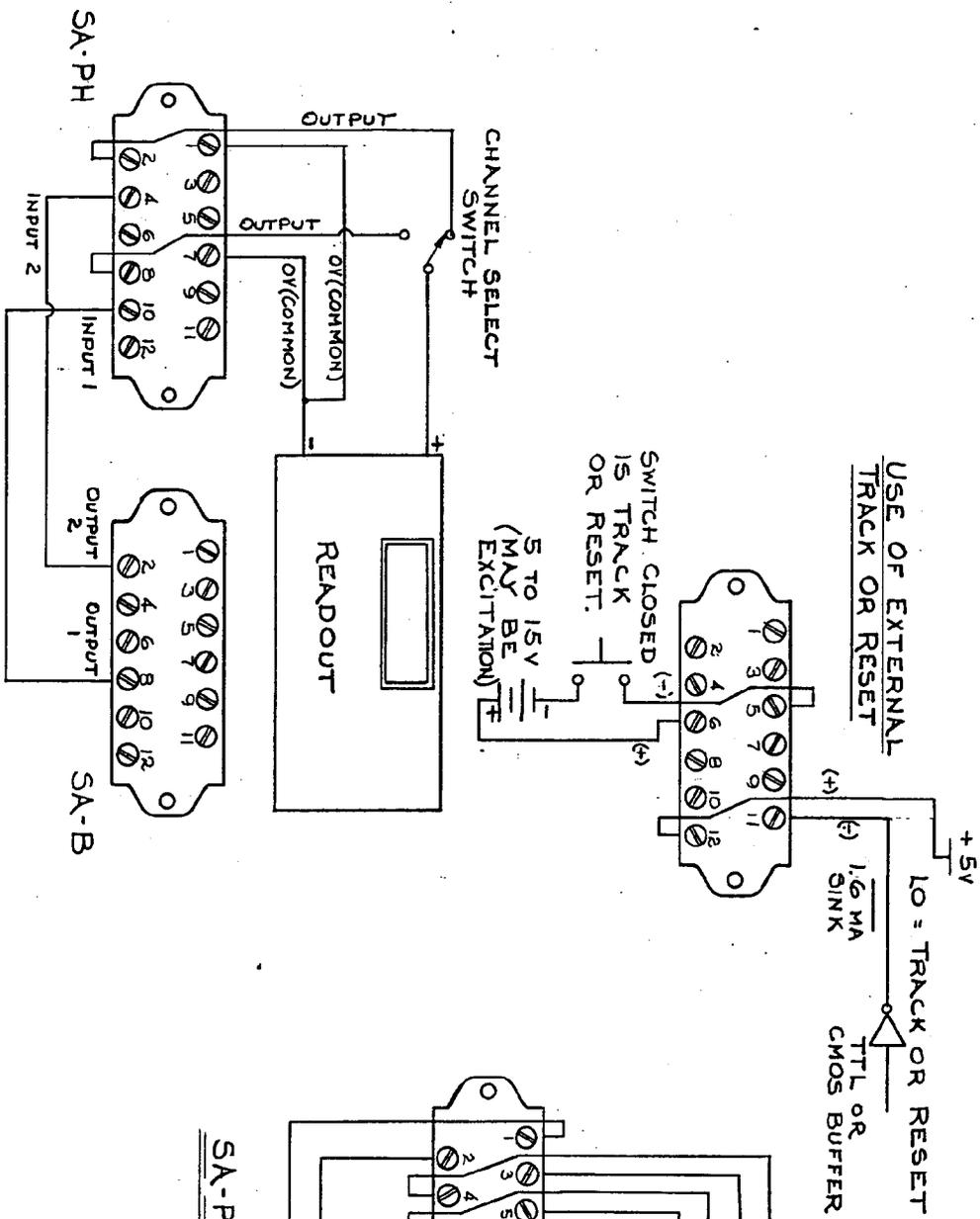
The "ZERO" adjusts the zero offset of the amplifier. The "GAIN" adjusts the slope of the input-to-output transfer function. The "SET" adjusts the threshold below which a peak will not be detected.

When the unit is in the "SET" position of the selector switch, the threshold setting is read on the output. "PK" stands for peak mode; "TRK" stands for track mode.

FIELD SET-UP

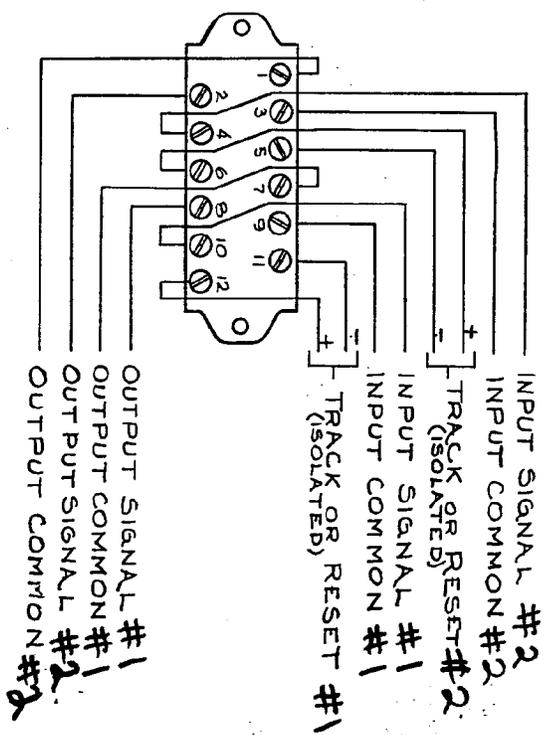
1. Allow unit to warm up about ten minutes.
2. Set input to 0 volts.
3. Turn switch to track, "TRK".
4. Adjust ZERO control for 0 volts or 4 mA output.

5. Set input to full scale (5 volts).
6. Adjust GAIN for 5 volt or 20 mA output.
7. Turn switch to "SET".
8. Adjust SET for the desired peaking threshold.
9. Turn switch to "PK" and run.



INTERCONNECTION OF
SA-B TO SA-PH, OV IS
MADE INTERNALLY.

SA-PH PIN DESIGNATIONS



0-8000
1000
1000
1000
1000

REV.	DESCRIPTION	APPROVED
SCALE	DATE	RELEASE
2	1-9-79 RLR	APPROVED
SENSOTEC INC. 1400 HOLLY AVE. COLUMBUS, OHIO 43212		
USED ON	MATERIAL SPEC.	
SA-PH	SA-PH	
CONNECTOR	CONNECTOR	
WIRING	WIRING	
FINISH	DOCUMENT NUMBER	
OF	017	
SHEET	0108-0010	

