

ISOLATION AMPLIFIER ELECTROL OPTION A67

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INSTRUCTION MANUAL

This IMPL is to be used with Electrol model: Option A67
 (Isolation Amplifier)

WARRANTY

Electrol controls are warranted by ELECTROL CO., INC. to the original user against defects in workmanship or materials under normal use (rental excluded) for one (1) year after purchase.

Any part which is determined to be defective in material or workmanship must be returned to ELECTROL headquarters, or an authorized service center, as ELECTROL designates, shipping costs prepaid. Contact factory for RMA (Return Material Authorization) number. The control will be repaired or replaced at ELECTROL'S option. Expenses incurred by buyer in repairing or replacing any defective product will not be allowed except where authorized in writing and signed by an officer of the company.

INTRODUCTION

What is an isolation amplifier? An isolation product consists of an input and output stage that are isolated from one another. Its primary function is to pass precise analog signals without degradation between the two stages. This is achieved even though the input and output may be referenced to different ground systems separated by high voltage or extreme noise.

The Electrol Option A67 Isolation Amplifier can accommodate a wide range of input voltages and current signals (0-13 VDC, 0-25 VDC, 0-120 VDC, 0-550 VDC, 1-5 MA, 4-20 MA, 10-5 MA) .The built in dipswitch allows anyone of these inputs with a simple switch selection.

The isolation amplifier is supplied with multi-turn ZERO and GAIN trim pots which are used to scale the input and output to desired levels.

SPECIFICATIONS AND RATINGS

Power Supply -Low Voltage is supply from main control.
Input Voltage - 0-13 VDC, 0-25 VDC, 0-120 VDC, 0-550 VDC.
Input Current - 1-5 MA DC, 4-20 MA DC, 10-50 MA DC.
Range of "Zero" Trim Pot:!: 1.6V from set point.
Range of "Gain " Trim Pot:!: 2. 5V from set point.
Linearity +/- .05%
Temperature 0-50°C

INSTALLATION

A) Mounting

The A67 is mounted above the D-Trol main board using two insulated threaded spacers. The 24 position header on the bottom of the A67 PCB will mate with the socket on the main board.

If your control does not have the insulated threaded spacers, remove the existing hardware fastening the 1/2 X 1/2 hold down block, and install the insulated threaded spacers with threaded rod. Mount the A67 PCB with two (2) 6-32 X 3/8 screws. Insert header and socket carefully to avoid damage.

OUTPUT WIRING

Without Auto/Man selector switch:

Position SW102 selector switch in the "on" position. The signal output from the A67 will feed directly into the D-trol main board without additional wiring.

With Auto/Man selector switch:

Position SW102 selector switch in the "off" position. The signal output can now be wired from A67 TB102, Term 1, through a Auto/Man selector and the return feed into the D-trol main board TB101, Term 7. The "MAN" speed pot connections will be wired to the D-trol main board TB101, Terms 6 & 8 with the slider of the pot to the MAN/AUTO selector.

OUTPUT VOLTAGE CALIBRATION

1. Turn "GAIN" pot full clockwise.
2. Apply minimum input signal.
3. Adjust "ZERO" pot to obtain desired output.
4. Increase input signal to maximum.
5. Adjust "GAIN" pot to obtain desired output.
6. Repeat steps 2, 3, 4, and 5 if necessary for accuracy.

B) WIRING

Input Terminals - TB101 -1- Positive.
-2- Negative.

A signal voltage of current from transducer, tachometer, microprocessor, and other equipment output can be connected to the input terminals (TB101) in the correct polarity. Terminal -1- Positive
-2- Negative

Current input signal: Select the proper current input desired by closing or opening the correct dipswitch sections:

1-5 MA	Section 4 ON 1, 2, 3, AND 5 OFF
4-20 MA	Sections 4 AND 5 ON 1, 2, 3, AND 6 OFF
10-50 MA	Sections 4, 5, AND 6 ON 1, 2, AND 3 OFF

Voltage input signal: Select the proper voltage desired by closing or opening the correct dip switch sections:

0-13 VDC	Sections 1, 2, and 3 ON 4, 5, and 6 OFF
0-25 VDC	Sections 1 and 2 ON 3, 4, 5, and 6 OFF
0-120 VDC	Section 1 ON 2, 3, 4, 5, and 6 OFF
0-550 VDC	Sections 1, 2, 3, 4, 5, and 6