
MODEL 500DR

RELAY CARD

DESCRIPTION

The IED Model 500DR Relay Card is one of the plug-in components of the IED Model 500ACS Announcement Control System. Its primary function is to provide contact closures under computer control. Zone assignments are made the same as for the 500D. When audio is detected for a zone, the corresponding relay is activated.

The 500DR is designed to plug into the Model 500M/ME Mainframe using 2 card edge connectors. The 80 pin upper connector, which is mounted on the mainframe mother board, connects the 500DR to the microprocessor bus and the DC power supplies. The 60 pin lower connector is mounted on the Model 500GT Zone Output Terminal Board which mounts on the rear of the mainframe. The compression-type screw terminal connectors, which allow the 500DR relay contacts to be connected to their loads, are mounted on the 500GT.

Each 500DR card has 8 relays. The relays have Form C, SPDT contacts. There are three contact options which are selected at the factory. They are 1) Form C with the Common grounded (standard), 2) SPST, normally open, floating, and 3) SPST normally closed, floating.

There are 8 green LED's on each 500DR card which indicate relay activation. They are mounted on the front edge and are visible when the card is in place. 500DR relays are assigned as additional zones. When an announcement or message is being made, the relays for any assigned 500DR zones will be energized, and their LEDs will be lit.

Card address selection is accomplished by use of a seven position (14 pin) array located near the 60 pin lower card edge connector. An additive binary (powers of 2) code is used. Each position is numbered on the printed circuit board with its value. The 500D and 500DR cards are grouped for addressing. The 500D addresses are numbered from 0 to the number of 500Ds - 1. The 500DRs are numbered starting where the 500Ds leave off. The card address is the sum of the values of all positions in which jumpers have been placed. With this arrangement there are 128 possible addresses (0 through 127).

Figure 1, illustrates the basic circuit of the 500DR card. External connections to the relays are made through screw terminals on the 500GT Zone Output Terminal Board on the rear of the 500M/ME Mainframe. The 500DR card plugs into the 500GT and connections between the 500DR and 500GT are made through card edge connectors.



SPECIFICATIONS

RELAY CONFIGURATIONS

OPTION	CONTACT TYPE	CONTACT CONNECTIONS
1	FORM C	C = GND, NC = +, NO = -
2	SPST, NO, FLOATING	+, -
3	SPST, NC, FLOATING	+, -

Note: All relays are configured as Option 1 unless ordered otherwise.

POWER

- 1. Power Consumption. 5 W, ±5%
- 2. Power Supplies Required by Card +5 VDC

MECHANICAL

- 1. Size (maximum overall dimensions)
 - Height. 9.31"
 - Width 1.125"
 - Depth 12.5"
- 2. Weight 0.75 lb

ENVIRONMENTAL

- 1. Operating Temperature Range (+32 °F - +131 °F) 0 °C - 55 °C
- 2. Storage Temperature Range (-40 °F - +158 °F) -40 °C - 70 °C

CONNECTORS

- 1. Address Selection Shunt AMP 531220-2

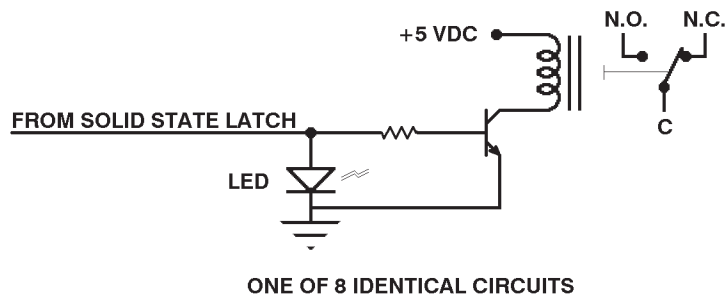


Figure 1 - 500DR functional diagram

*Innovative Electronic Designs, Inc. • 9701 Taylorsville Road • Louisville, Kentucky 40299 • USA
 Phone: (502) 267-7436 • Fax: (502) 267-9070 • Internet: <http://www.iedaudio.com>*

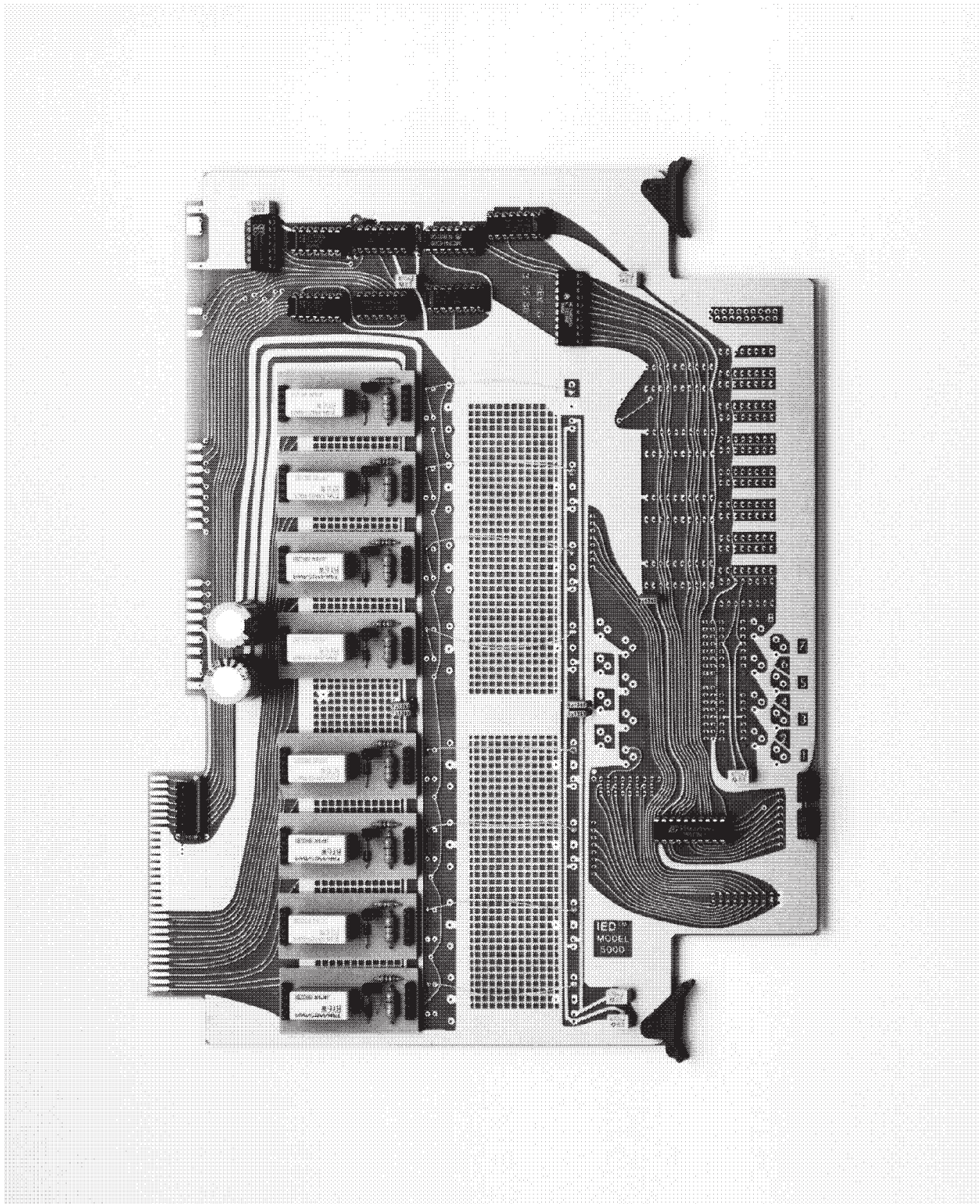


Figure 2 - 500DR Relay Card



This page left blank intentionally

*Innovative Electronic Designs, Inc. • 9701 Taylorsville Road • Louisville, Kentucky 40299 • USA
Phone: (502) 267-7436 • Fax: (502) 267-9070 • Internet: <http://www.iedaudio.com>*