



Installation and Operation
50 Pin Telco A/B Switch
Models K-AB-T50, K-AB-T50-R

GENERAL DESCRIPTION

Dataprobe models K-AB-T50 (standalone) and K-AB-T50-R (rack card) provide switching of a Common 50 pin Telco circuit, between two Circuits, A and B. Switching is controlled manually via the front panel toggle switch, or using an externally supplied control signal.

The Connection to the Common circuit is provided using a Male 50 pin Telco connector. The A and B connections are Female 50 pin Telcos. LED indicators display the current position of the switch.

The K-AB-T50 models are capable of switching either all 50 leads, or provide straps to common pins 25 and/or 50 for grounding applications. The switches also provide an additional relay poll brought out for status or feedback requirements.

The K-AB-T50 is designed to switch dedicated analog lines and digital communication circuits.

The standalone unit is packaged in a plastic enclosure and is provided with a UL approved wall mounted transformer. The rack card is designed to be used in conjunction with Card Nest model K-AB-R-12, which can hold up to 6 of the K-AB-T50 cards and provides power to the cards.

OPERATION

The switch is capable of switching in the following manners:

- 1) **Contact Closure**
Switch to B on Contacts Close, Switch to A on Contacts Open.
- 2) **EIA (RS-232) or TTL High**
Switch to B on Control lead High, Switch to A on Control lead Low.
- 3) **EIA (RS-232) or TTL Low**
Switch to B on Control lead Low, Switch to A on Control lead High.

Connection to these control leads is made using the 9 pin D Subminiature connector on the rear of the standalone units and the 50 pin Control connector on the Rack Nest.

REF: K1\KAB-T50_V970902X.DOC

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In addition to lead switching, the unit has a front panel three position manual toggle switch. The toggle selects either Position A, Position B or Automatic (external lead) control. In the A or B position, the external control is locked out.

The Switch provides status indication with A and B LEDs on the front panel. Status information is also provided with an extra set of Form C relay contacts. These contacts are available on the DB9 connector on the standalone units or on the 50 pin Status Connector of the Rack Nest.

CONFIGURATION

Refer to Figure 1 Component Location.

External Control Signal

Selection of the type of external Control signal used is made using jumper groups E1 and E2.

* = Factory Default

Control Signal	E1	E2
Contact Closure	Jumper Out	Jumper in CONTACT *
RS-232 High or Low	Jumper Out	Jumper in EIA/TTL
TTL High or Low	Jumper In	Jumper in EIA/TTL

Pin 25 and 50 Switched or Tied

Telco pins 25 and 50 can either be switched or tied together for grounding applications. Selection is made using jumper groups JP1, JP2, JP3, JP4.

Pin 25 Switched JP1 and JP2 Jumpers Out *

Pin 25 Tied JP1 and JP2 Jumpers In

Pin 50 Switched JP3 and JP4 Jumpers Out *

Pin 50 Tied JP3 and JP4 Jumpers In

INSTALLATION

Connection of the Common, Port A and Port B Telco connections are made on the rear of the Switch. The Common port provides a Male Telco and the A and B ports are Female.

On Standalone units, connect the External control leads using the 9 pin D Subminiature connector, rear panel. On rack models, connect the external control leads through the 50 pin CONTROL connector on the rear of the chassis.

The following pins are used on the standalone and rack models.

K-AB-T50, Standalone. 9 pin D Subminiature Female, Rear Panel.

Pin #	Designation
1	EIA (RS-232) / TTL High
2	Ground
3	EIA (RS-232) / TTL Low
4	Contact (To Ground)
5	Not Used
6	Status Relay: Normally Open (B)
7	Status Relay: Common
8	Status Relay: Normally Closed (A)
9	Not Used

K-AB-T50-R Rack Card. Uses Card Nest Telco CONTROL and STATUS Connectors.

K-AB-R-12 Card Nest. Holds up to six K-AB-T50 cards in card positions 1, 3, 5, 7, 9, and 11 (each card requires two slots in the nest)

Control

Card Position :	1	3	5	7	9	11
Contact (To Ground)	1	5	9	13	17	21
Signal Ground	26	30	34	38	42	46
EIA High	2	6	10	14	18	22
EIA Low	27	31	35	39	43	47

Status

Card Position :	1	3	5	7	9	11
Status Relay: COM	1	5	9	13	17	21
Status Relay: N/C	26	30	34	38	42	46
Status Relay: N/O	2	6	10	14	18	22
Not Used	27	31	35	39	43	47

SPECIFICATIONS

Switch Interface

50 pin Telco (Champ) connectors Common = Male, A and B Ports = Female.
48 / 50 leads switched, Strap Selectable.

Indicators

Two Red LEDs indicate Switch status A or B. LED's are driven by relays .

Relays

Standard Coil relays. Power off condition relaxes relays to Position A.
Gold clad Relay contacts rated for low level signals & up to 2A @ 30 VDC.

Stand Alone Enclosure

Height....2.75" Width.....8.00"
Depth.....6.25" Weight....1.20 lbs

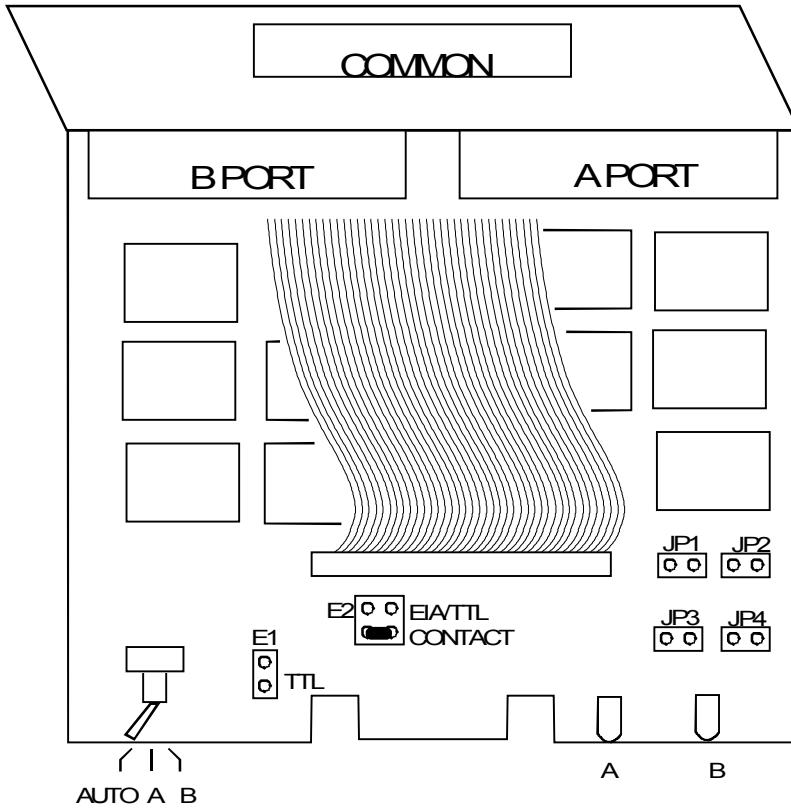
Power Source; UL Approved Wall Mounted Power Supply. 115VAC 60 Hz External Control and Status Interface; 9 pin D Subminiature, Female

Rack Mounted Card Nest

Standard 19" equipment Cabinet Mount, 8.75" high. Model K-AB-R-12 Accepts up to 6 K-AB-T50-R cards. Includes power supply for 115VAC 60Hz. External Relay Controls and Status Contacts Via Two 50 Pin Telco Connectors, Female

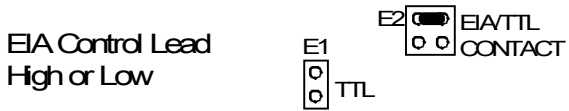
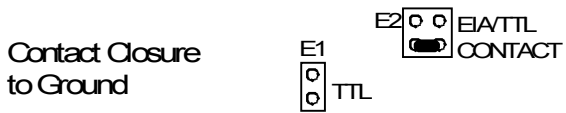
Control Circuits

EIA RS-232/V.35, Internal or External: Standard EIA RS-232C Receiver
LOW = -30 VDC to +1.75 VDC HIGH = +1.75 VDC to +30 VDC Maximum Input \pm 30 VDC
TTL, External: LOW = 0.8 VDC HIGH = 2.0 VDC Maximum Input +5.5 VDC



— Pin 25 Jumper:
Out = Switched
— Pin 50 In = Tied

Configuration Jumper Settings



TECHNICAL SUPPORT, RETURNS and WARRANTY

Dataprobe Technical Support is available 8:30AM to 5:30PM ET to assist you in the installation and operation of this product. To obtain Technical Support call our Tech Support Hotline at 201- 967-8788, or Email us at tech@dataprobe.com. Please have the following information available when you call:

- Model of Product
- Serial Number
- Data of Purchase
- Name of Seller (if other than Dataprobe)

If you purchased this product through an **Authorized Dataprobe Reseller**, you should contact them first, as they may have information about the application that can more quickly answer your questions.

WARRANTY

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in material and workmanship for a period of One Year from the date of initial purchase. If the product should prove defective within that period, Seller will repair or replace the product, at its sole discretion.

Service under this Warranty is obtained by shipping the product (with all charges prepaid) to the address below. Seller will pay return shipping charges. Call Dataprobe Technical Service at (201) 967-8788 to receive a Return Materials Authorization (RMA) Number prior to sending any equipment back for repair. Include all cables, power supplies and proof of purchase with shipment.

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Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from jurisdictions to jurisdiction.

WARNING: The individual user should take care to determine prior to use whether this device is suitable, adequate or safe for the use intended. Since individual applications are subject to great variation, the manufacturer makes no representation or warranty as to the suitability of fitness for any specific application.

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