



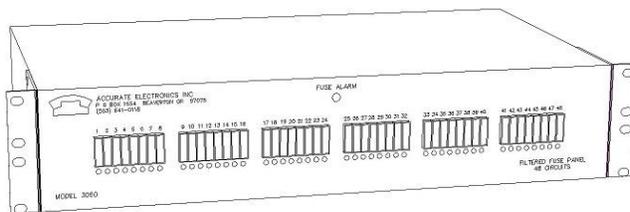
ACCURATE ELECTRONICS INC

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Practice Section 10306000 Rev A

FILTERED FUSE PANEL MODEL 10306000



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1. GENERAL

1.01 This practice provides application, specification, circuit and mechanical description, maintenance, installation, and warranty information relating to Accurate Electronics' Filtered Fuse Panel, Model 10306000.

1.02 The two power filters each consist of an L - C network designed to attenuate voice and carrier frequency signals and power supply ripple that is present on the office DC supply power leads. The power filters can be operated independently from separate DC inputs at terminals A (TB1-5) and B (TB1-7) or by shorting terminals TB1-6,7, from a single DC input at terminal A. The power filters can also be operated in tandem from a single DC input at terminal A by moving the shorting link from terminals TB1-6,7 to terminals TB1-7,8.

1.03 The outputs of the power filters appear at terminals TB3-1 and TB3-3. Diodes are used to combine the outputs of both filters at terminal TB3-2, providing a filtered output with standby protection when two separate DC inputs are used.

1.04 The 48 fuse circuits are arranged in groups of eight which can be connected to the power filter output at terminals TB3-1 and TB3-3, and to the diode combined filter output at terminal TB3-2, as required for a given application. Fuse groups can also be connected to terminal A (TB1-5) or B (TB1-7) for distribution of unfiltered DC power. The panel is equipped with holders for GMT indicating fuses.

1.05 The fuse alarm assembly consists of an indicator LED, a DPDT relay, and six input diodes which provide isolation between individual fuse groups. Failure of any fuse in the panel lights the LED and operates the relay. The LED provides a local visual alarm and the relay provides dry contacts to activate external office audible and visual alarms. A switch (with locking tab) is used to select the proper alarm operating voltage: -24VDC or -48VDC.

2. APPLICATION

2.01 The Model 10306000 Filtered Fuse Panel includes two power filters, distribution facilities for up to 48 external loads and a fuse alarm assembly. The panel may be used for either -24VDC or -48VDC power and may be arranged for various power filtering and distribution requirements.

3. SPECIFICATIONS

3.01 Electrical

| | |
|---|---|
| Number of Circuits: | 48 |
| Input Voltage Range: | - 21 VDC to - 56 VDC, switch selectable |
| Input Current: | 30 A (MAX) |
| Load Current: | |
| - 15 Amps MAX from each filter section | |
| - 15 Amps MAX from diode combined filter outputs | |
| - 3 Amp MAX from individual fuse circuit | |
| Filter DC Resistance: | 0.03 ohm |
| Ripple Attenuation: | See FIGURE 3. |
| TB-1: copper lugs used at TB-1: | 1,4,5,7 |
| conductor size | #14 to #16 AWG |
| #10/32 stud used at TB-1 | 2,3,6,8 |
| (1) one link provided for strapping option A (GND strapping) and (1) one link provided for strapping options B or C (INPUT strapping) | |
| TB-2: screw terminal block | |
| #3 / 48 captive wire clamping screws | |
| 5 Amps, 150 V | |
| # 18 - # 22 AWG | |



TB-4 AND TB-5:

- screw terminal blocks
- # 3 / 48 captive wire clamping screws
- # 18 - #22 AWG

1.) Input Strapping Options:

- a.) no link B or C. A and B inputs.
- b.) link B only (TB-1: 6,7), single supply @ A input.
- c.) link C only (TB-1: 7,8), tandem filter, A input only.

2.) Ground Strapping Options:

- a.) no link A: frame ground isolated from supply ground (BATT RTN).
- b.) link A (TB-1: 2,3), frame ground connected to supply ground (BATT RTN).

3.) Individual circuits may be fused up to 3A MAX.

Total current thru each filter section is 15A MAX.

3.02 Environmental

- Operating Temperature: 0 - 55° C
- Humidity: up to 95% R.H. / no condensation

3.03 Physical

- Dimensions: 17.300"W x 1.750"H x 11.250"D
43.942cmW x 4.459cmH x 28.589cmD

Mounting Width:

- 19" racks: 18.31"W x 1.75"H (46.507 cmW x 3.175 cmH)
(1.25 EIA Spacing)
- 23" racks: 22.34"W x 1.75"H (56.744 cmW x 3.175 cmH)
(1.25 EIA Spacing)

Mounting Depth:

flush, 1.75" and 5.25"
reversible/adjustable ears

Finish: black anodized / white lettering

Weight: 4.0 lbs. / 1.36 kg.

Mounting Hardware: (4) 12/24 x 3/4 phillips,
(4) #12 hex nuts, (8) #12 flat washers

4. CIRCUIT DESCRIPTION

4.01 See FIGURE 1.

5. MECHANICAL OUTLINE

5.01 See FIGURE 2.

6. INSTALLATION

6.01 Four (4) 12/24 x 3/4 phillips screws, four (4) #12 hex nuts and four (4) #12 flat washer are furnished with each shelf to mount it firmly to the relay rack.

6.02 Mounts on standard 19 or 23 inch equipment relay racks with three adjustable mounting depths (flush, 1.75" and 5.25").

6.03 External wiring connects at rear of panel. Screw type terminals are provided for fuse distribution and office alarm circuits. Input terminals for office battery supply, ground return, and frame ground will accept wire sizes from 6 to 14 AWG.

6.04 Optional strapping and alternate wiring arrangements must be completed prior to installation.

7. TESTING AND TROUBLESHOOTING

7.01 The shelf should be thoroughly physically inspected before mounting, however, to ensure that there are no bent or broken connector pins or other visible defects. If trouble is encountered in an operational shelf, ensure that all modules are seated properly and operating correctly and that all wiring is correct. If a shelf is suspected of being defective, a new one should be substituted and the tested conducted again. If the substitute operates correctly, the original should be considered defective and returned to Accurate Electronics for repair or replacement as directed below. We strongly recommend that no internal (component-level) testing or repairs be attempted on Accurate Electronics' equipment. Unauthorized testing or repairs may void its warranty. Note: If equipment must be marked defective or bad, we recommend that it be done on a piece of tape or on a removable stick-on label.

TECHNICAL ASSISTANCE

7.02 Contact Accurate Electronics, Inc. 503.641.0118, FAX: 503.646.3903; Mail: PO Box 1654, Beaverton OR 97075-1654.

RETURN PROCEDURE (FOR REPAIR)

7.03 To return equipment for repair, first contact Accurate Electronics, Inc. Enclose an explanation of the malfunction, your company's name and address, the name of a person to contact for further information, and the purchase order number for the transaction. Accurate Electronics will inspect, repair, and retest the equipment so that it meets its original performance specifications and then ship the equipment back to you. If the equipment is in warranty, no invoice will be issued.

8. MAINTENANCE

8.01 No preventive maintenance is required. General care is recommended.

9. WARRANTY

9.01 All Accurate Electronics Inc. products carry a full FIVE (5) YEAR warranty on materials and workmanship. See WARRANTY in front of catalog.

9.02 If a situation arises that is not covered in the checklist, contact Accurate Customer Service as follows (telephone number are given below):

Contact Accurate Electronic Customer Service

9.03 If a product is diagnosed a defective, follow the replacement procedure in paragraph 9.04 when a critical service outage exists (e.g., when a system of a critical circuit is down and no spares are available). If the situation is not critical, follow the repair and return procedure in paragraph 9.05.

Replacement

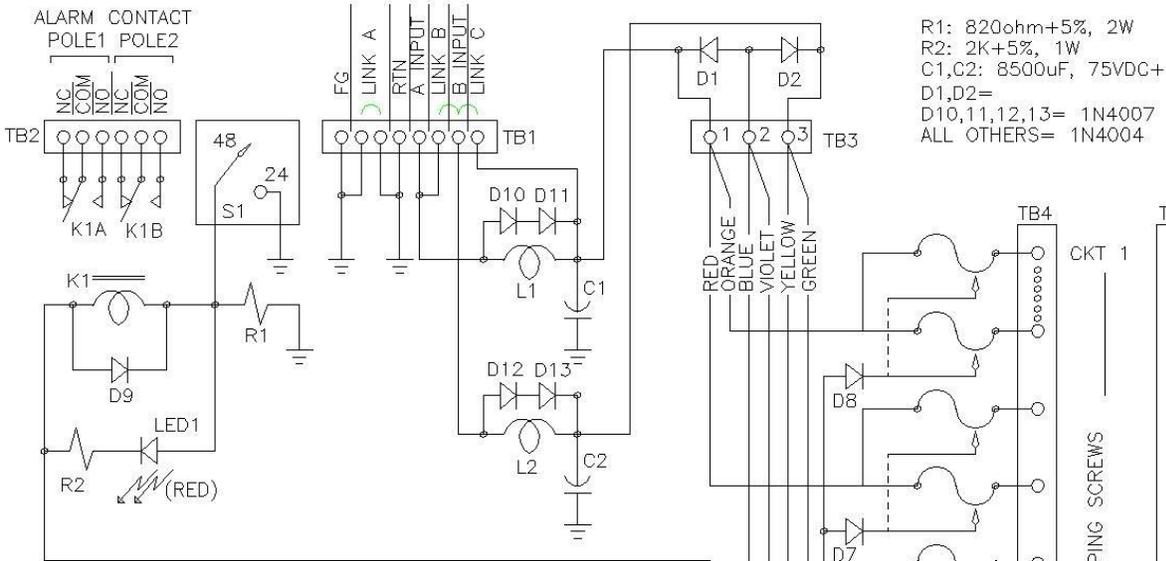
9.04 To obtain a replacement, notify Accurate Electronics. Be sure to provide all relevant information, including the part number that indicates the issue of the product in question. Upon notification, we shall ship a replacement product to you. If the product in question is in warranty, the replacement will be shipped at no charge. Pack the defective product in the replacement product's carton, sign the packing slip included with the replacement, and enclose it with the defective product (this is your return authorization). Affix the preaddressed label provided with the replacement product to the carton being returned, and ship the module prepaid to Accurate Electronics.

Repair and Return

9.05 Return the defective product, shipment prepaid, to Accurate Electronics Inc. :

ACCURATE ELECTRONICS INC.
ATTN: REPAIR AND RETURN
8687 SW HALL BLVD. #100
BEAVERTON, OREGON 97008 USA

FIGURE 1. Circuit Description.



NOTES:

TB-1: copper lugs used at TB-1: 1,4,5,7
conductor size: #14 to #16 AWG
#10/32 stud used at TB-1 2,3,6,8
(1) one link provided for strapping option A (GND strapping) and (1) one link provided for strapping options B or C (INPUT strapping)

- 1.) Input Strapping Options.
 - a.) no link B or C. A and B inputs.
 - b.) link B only (TB-1: 6,7), single supply @ A input.
 - c.) link C only (TB-1: 7,8), tandem filter, A input only.
- 2.) Ground Strapping Options.
 - a.) no link A: frame ground isolated from supply ground (BATT RTN).
 - b.) link A (TB-1: 2,3): frame ground connected to supply ground (BATT RTN).
- 3.) K1 shown in de-energized position.
K1A, K1B: 1A MAX, 125V AC/DC MAX
30W / 60 VA (resistive)
- 4.) S1 shown in 48 VDC position.
- 5.) Individual circuits may be fused up to 3A MAX.
Total current thru each filter section is 15A MAX.
- 6.) Panel shown with fuses divided equally between three filtered outputs. The fuse distribution may be reassigned in groups of eight (8) by changing the fuse harness connections at TB-3.

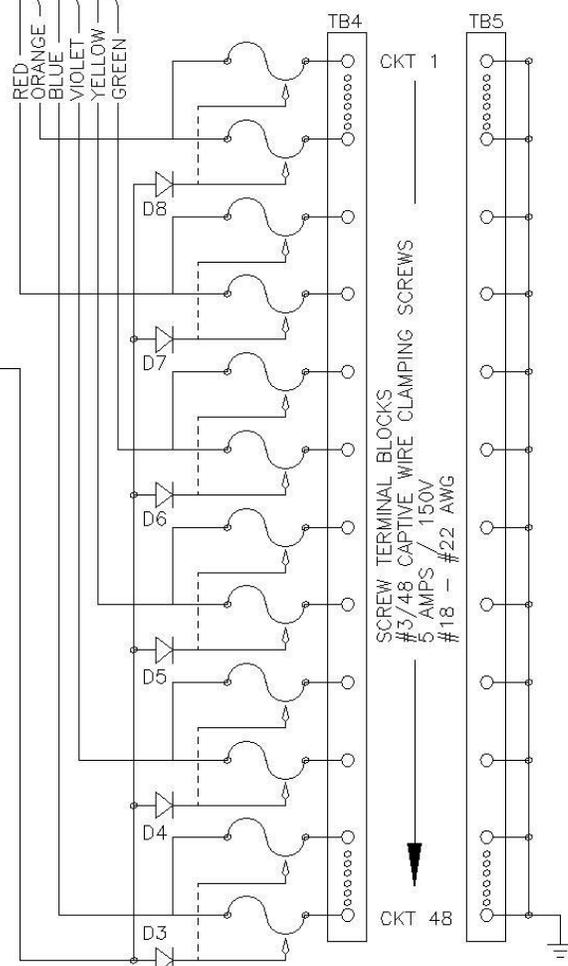


FIGURE 3. Attenuation Characteristics.

