compecicilisutwics ACCURATE ELECTRONICS INC

## HORIZONTAL MOUNTING SHELF MODEL 109060



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## 1. GENERAL

This practice provides application, specification, circuit and mechanical description, maintenance, installation, and warranty information relating to Accurate Electronics' Horizontal Mounting Shelf, Model 109060.

## 2. APPLICATION

2.01 Provides mounting and cable connections for two Type-10 Modules.

## 3. SPECIFICATIONS

### 3.01 Electrical

Physical Number of Positions:
two (2)
Edge Connector: bifurcated gold-plated contact Input / Output Wire-wrap terminals:

56 pins at the rear of the edge connector protected by a removable, clear plastic barrier

Table 1. 109060 Model Variations.

| MODEL | DESCRIPTION |
| :---: | :---: |
| 109060BLNK | Horizontal Mounting Shelf, 2 position, Type-10, Wire Wrap w/3 position terminal block. |
| 109060 | Horizontal Mounting Shelf, 2 position, Type-10, w/ 3 position terminal block, wired for (2) Model 2010 with (1) F (1) M Telco Connector. |
| 10906001 | Horizontal Mounting Shelf, 2 position, Type-10, w/ 3 position terminal block, wired for (2) Model 4445A with (1) M Telco Connector. |
| 1090600101 | Horizontal Mounting Shelf, 2 position, Type-10, <br> (1) Model 4001C w/117VAC/48VDC Power Supply. |
| 1090600102 | Horizontal Mounting Shelf, 2 position, Type-10, <br> (2) Type-10 Power Supplies w/Molex Connectors, 117VAC pigtail each, 3 position terminal block for DC power output. |
| 10906002 | Horizontal Mounting Shelf, 2 position, Type-10, FXS Remote End, American Electric Power. |
| 1090600002 | Horizontal Mounting Shelf, 2 position, Type-10, <br> (1) Model 4012, (1) Model $2010 \mathrm{w} / 3$ position terminal block. |
| 1090600300 | Horizontal Mounting Shelf, 2 position, Type-10, <br> (2) Model 4445A w/117VAC/-24VDC Power Supply. |
| 1090600003 | Horizontal Mounting Shelf, 2 position, Type-10, <br> (2) Model 4012, (2)F Connector w/3 position terminal block. |
| 1090600400 | Horizontal Mounting Shelf, 2 position, Type-10, <br> (1) Model 6047JAM7 with 15 position terminal block, 117VAC/-48VDC Power Supply. |
| 1090600500 | Horizontal Mounting Shelf, 2 position, Type-10, <br> (1)Type-10 Power Supply w/Molex Connector/117VAC Pigtail. |
| 1090600624 | Horizontal Mounting Shelf, 2 position, Type-10, Wire Wrap with 117VAC/-24VDC Power Supply. |
| 1090600648 | Horizontal Mounting Shelf, 2 position, Type-10, Wire Wrap with 117VAC/-48VDC Power Supply. |
| 1090600724 | Horizontal Mounting Shelf, 2 position, Type-10, <br> (2) Model 4012, (2)F Connector, w/-24VDC Power Supply. |
| 1090600748 | Horizontal Mounting Shelf, 2 position, Type-10, <br> (2) Model 4012, (2)F Connector, w/-48VDC Power Supply. |

[^0]WWW.ACCURATE.ORG PO BOX 1654 97075-1654 8687 SW HALL BLVD 97008 BEAVERTON OR USA 503.641.0118 FAX 503.646.3903

| 3.02 Environmental |  |
| :---: | :---: |
| Operating Temperature: | $0-55^{\circ} \mathrm{C}$ |
| Humidity: | up to 95\% R.H. / no condensation |
| 3.03 Physical |  |
| Panel Dimensions: | 17.300"W x 1.750''H x 7.200'D |
|  | $43.942 \mathrm{cmW} \times 4.445 \mathrm{cmH} \times 18.288 \mathrm{cmD}$ |
| Mounting Depths: | flush, 1.75", 3.50 " (flush, $4.445 \mathrm{~cm}, 8.890 \mathrm{~cm}$ ) |
| Mounting Width: |  |
| 19" racks: | 18.31 "W x 1.25’H (46.507 cmW x 3.175 cmH ) |
|  | (1.25" EIA spacing) |
| 23 " racks: | 22.34 "W x 1.25 " H ( 56.744 cmW c 3.175 cmH ) |
|  | (1.25" EIA spacing) |
| Mounting Hardware: | (4) $12 / 24 \times 3 / 4$ phillips, |
|  | (4) \#12 hex nuts, (4) \#12 flat washers |
| Weight: | 1.0 lbs . / 0.45 kg . |
| Finish: | black anodized / white lettering |

## 4. CIRCUIT DESCRIPTION

4.01 A three (3) position barrier block is mounted on the rear panel of the shelf unit: -V (power), ground (GND) and frame ground (FG) are provided.
4.02 The $-V$ terminal is wired to Pin 35 of the edge connector at both shelf positions 1 and 2.
4.03 The ground (GND) terminal is wired to Pin 17 of the edge connector at both shelf positions 1 and 2.

## 5. MECHANICAL OUTLINE

### 5.01 See FIGURE 2.

## 6. INSTALLATION

6.01 Four (4) $12 / 24 \times 3 / 4$ 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 Reversible and adjustable mounting ears allow for the shelf to be mounted in either 19 " or 23 " wide relay racks. The mounting ears also allow for the unit to be mounted in the flush, or 1.75 and 3.50 forward positions. Please see FIGURE 2.

## 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. :

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ACCURATE ELECTRONICS INC. ATTN: REPAIR AND RETURN 8687 SW HALL BLVD. \#100 BEAVERTON, OREGON 97008 USA
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[^1]
## FIGURE 2. Mechanical Outline - Model 109060.



Table 1. Model 109060 Variations - DETAIL

| MODEL \# | DATE | REV | DESCRIPTION | NOTES |
| :---: | :---: | :---: | :---: | :---: |
| 109060BLNK | 10 Jan 10 | 0 | 0 Horizontal Mounting Shelf, 2 Position, Type-10, Wire Wrap w/3 Position Terminal block. | - No power supply. <br> - Customer wired to (2) 56 Pin wire wrap edge connectors. <br> - 3 position terminal block wired to pins 17 (GND) and 35 (-BATT) of each edge connector and to Frame Ground (FG). |
| 109060 | 9 Sept 97 | 0 | Horizontal Mounting Shelf, 2 Position, Type$10 \mathrm{w} / 3$ Position TERMINAL BLOCK, wired for (2) Model 2010 with (1)F (1)M Telco Connector. | - No power supply. <br> - Unit is wired for (2) Model 2010 Notch Filters with (1) Male connector for Input and (1) Female connector for Output. <br> - 3 position terminal block wired to pins 18 (GND) and 36 (+12VDC) of each edge connector and to Frame Ground (FG). |
| 10906001 | 14 Nov 05 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, w/3 Position TERMINAL BLOCK, wired for (2) Model 4445A with (1) M Telco Connector. | - No power supply. <br> - Unit is wired for (2) Model 4445A Splitter / Concentrator configured as 9 Port Splitter / Concentrator with (1) Male connector. <br> - 3 position terminal block wired to pins 17 (GND) and 35 (-BATT) of each edge connector and to Frame Ground (FG). |
| 1090600101 | 11 July 07 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, (1) Model 4001C w/117VAC/48VDC Power Supply. | - 117VAC/-48VDC Power Supply wired to pins 17 (GND) and 35 (-48V) of each edge connector. 12 Position TERMINAL BLOCK at Position 1 wired for Model 4001C Line Amp. <br> - Position 2 has wire wrap edge connector for customer wiring. |
| 1090600102 | 16 Mar 10 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, (2) Type-10 Power Supplies w/Molex Connectors, 117VAC pigtail each, 3 Position TERMINAL BLOCK for DC power output. | - (2) Molex receptacles with 117VAC pigtails each for mounting (2) Type-10 power supplies. <br> - 3 position TERMINAL BLOCK for diode "ORed" DC power output. |
| 10906002 | 12 Nov 08 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, FXS Remote End, American Electric Power. | - 117VAC/-48VDC Power Supply. <br> - Position 1 is wired for Type-10 Ring Generator. <br> - Position 2 is wired for modified Model 6123A. <br> - Configuration specific to American Electric Power (Model 8087). |
| 1090600002 | 17 July 07 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, (1) Model 4012, (1) Model 2010 w/3 Position TERMINAL BLOCK. | - No power supply. Unit is wired for Model 4012 4W6W Bridge and Model 2010 Notch Filter. Customer must wire inputs/outputs to wire wrap edge connectors. 3 Position TERMINAL BLOCK wired to ? |
| 1090600300 | 30 June 09 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, (2) Model 4445A w/117VAC/-24VDC Power Supply. | - 117VAC/-24VDC Power Supply wired to pins 17 (GND) and 35 (-24VDC). <br> - Each position is pre-wired for a 4445A Data Bridge to a 20 position terminal block. |
| 1090600003 | 16 Mar 10 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, (2) Model 4012, (2)F Connector w/3 Position TERMINAL BLOCK. | - No power supply. <br> - Each position is wired for (1) Model 4012. (2) Female telco connector, (1) connector per bridge. 3 position TERMINAL BLOCK wired to pins 17 (GND) and 35 (-BATT) of each edge connector and to Frame Ground (FG). |
| 1090600400 | 4 Aug 09 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, (1) Model 6047JAM7 with 15 Position TERMINAL BLOCK, 117VAC/-48VDC Power Supply. | - $117 \mathrm{VAC} /-48 \mathrm{VDC}$ Power Supply wired to pins 17 (GND) and 35 ( -48 V ) of each edge connector. 15 Position TERMINAL BLOCK at Position 1 wired for Model 6047JAM7 TCM. Position 2 has wire wrap edge connector for customer wiring. |
| 1090600500 | 15 Feb 10 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, (1)Type-10 Power Supply w/Molex Connector/117VAC Pigtail. | - Position 2 is wired with Molex receptacle/117VAC pigtail for Type-10 Power Supply. <br> - Pins 17 and 35 of Position 1 is wired to pins 17 and 35 of Position 2. <br> - Position 1 has wire wrap edge connector for customer wiring. |
| 1090600624 | 5 May 10 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, Wire Wrap with 117VAC/-24VDC Power Supply. | - 117VAC/-24VDC Power Supply wired to pins 17 (GND) and 35 (-24V) of each edge connector. Customer wired to (2) 56 Pin wire wrap edge connectors. |
| 1090600648 | 5 May 10 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, Wire Wrap with 117VAC/-48VDC Power Supply. | - 117VAC/-48VDC Power Supply wired to pins 17 (GND) and 35 (-48V) of each edge connector. Customer wired to (2) 56 Pin wire wrap edge connectors. |
| 1090600724 | 16 Oct 12 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, (2) Model 4012, (2)F Connector, w/24VDC Power Supply. | - 117VAC/-24VDC Power Supply wired to pins 17 (GND) and 35 (-24V) of each edge connector. <br> - Each position is wired for (1) Model 4012. <br> - (2) Female telco connector, (1) connector per bridge. <br> - 3 position TERMINAL BLOCK wired for 117VAC input with Frame Ground. |
| 1090600748 | 16 Oct 12 | 0 | Horizontal Mounting Shelf, 2 Position, Type10, (2) Model 4012, (2)F Connector, w/48VDC Power Supply. | - 117VAC/-48VDC Power Supply wired to pins 17 (GND) and 35 (-48V) of each edge connector. <br> - Each position is wired for (1) Model 4012. <br> - (2) Female telco connector, (1) connector per bridge. <br> - 3 position TERMINAL BLOCK wired for 117VAC input with Frame Ground. |

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