PO BOX 1654 97075-1654 8687 SW HALL BLVD 97008 BEAVERTON OR USA 503.641.0118 FAX 503.646.3903

# Practice Section 10306500 Rev A

# MAIN BATTERY DISCONNECT PANEL

WWW.ACCURATE.ORG

# CIRCUIT BREAKER 125 VDC, 250A, 3RU

# MODEL 10306500





# **Contents:**

Section 1.	General	1
Section 2.	Application	1
Section 3.	Specifications	1
Section 4.	<b>Circuit Description</b>	2
Section 5.	Mechanical Outline	2
Section 6.	Installation	2
Section 7.	<b>Testing and Troubleshooting</b>	2
	Maintenance	2
Section 9.	Warranty	2

## 1. GENERAL

Figure 2. Mechanical Outline

**1.01** This practice provides application, specification, circuit and mechanical description, maintenance, installation, and warranty information relating to Accurate Electronics' Main Battery Disconnect Panel, Model 10306500.

1.02 The Main Battery Disconnect Panel is designed for a variety of voltage levels and configurations. The panel was designed to accept one (1) double-pole GJ style circuit breaker in a flexible set up designated by the end user

which allows for large power feed distribution of up to 250 Amps Other circuit breakers are available. The GJ circuit breaker is UL-listed (UL 489) andare available in the 2-pole models with a choice of fast, medium or slow response times allowing to match accurately the load conditions.

**1.03** The panel is available for use in 19" relay racks.

**1.04** The GJ circuit breakers control and protect commercial and industrial lighting, transformers, and power supplies. The breakers have precise time delays and are able to interrupt high inductive or other current loads of up to 250 amperes.

1.05 On overloads exceeding dba % of rating the time delay is bypassed, operating the breaker instantly, allowing for the interrupt of currents of as much as 25,000 Amps at 65 VDC.

1.06 GJ units are insensitive to changes in ambient or enclosure temperatures and thus can be loaded to the rated capacities. Nuisance tripping of the units are eliminated.

**1.07** The GJ units are also offered with auxiliary switch for signaling, or with back-connected series trip, relay or shunt options, in addition to the standard series-trip configuration.

# 2. APPLICATION

**2.01** The panel is configured for one double-pole GJ circuit breaker.

# 3. SPECIFICATIONS

#### 3.01 Electrical

Panel:

Max Input Current: 250A

Number of Circuit Breakers: one double-pole GJ unit

Number of Primary Power Connectors: ????

#### Circuit Breaker:

Model numbers: Double-pole: GJ2
Current Rating: 250 amperes
MAX Voltages: 250 VDC

Interrupting Capacities:

DC 2-pole - 10,000 A at 125/250 VDC

### Terminal Types:

front connected, pressure wire terminals accepting copper or aluminum wires in sizes

from 6 - 250 MCM

3



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

Multi-pole breakers (2-pole) incorporate true common trip construction. When an overload condition occurs on any pole, the mechanism of that pole actuates an internal tripper bar which is connected to and operates all poles simultaneously. Thus an overload condition on any pole causes all poles to trip.

**Trip Free** - will trip open or overload, even when forcibly held on. This prevents operator from damaging the circuit by holding the handle in the ON position.

**Trip Indication** - the operation handle moves forcibly and positively to the OFF position on overload.

**Ambient Operation** - operates normally in temperatures between  $-40^{\circ}$  C and  $+80^{\circ}$  C.

Insulation Resistance - not less than 100 megaohms at 500 VDC.

**Dielectric Strength** - withstands 1500 volts, 600Hz for 60 seconds or 1800VAC for 1 second between all electrically isolated terminals.

**Endurance** - designed for mechanical life in excess of 50,000 operations.

Short Circuit Interrupting Capacity - 1000 amperes at 125 VAC.

**Handle and Body Material** - the handle and upper body material is polycarbonate and the lower body is PET.

**Shock** - withstands 100G without tripping while carrying full rated current per MIL-STD-202, Method 213, Test Condition I.

**Vibration** - withstands 10G without tripping while carrying full rated current per MIL-STD-202, Method 204, Test Condition A.

#### 3.02 Environmental

Operating Temperature:  $0 - 65^{\circ} \text{ C}$ 

Humidity: up to 95% R.H. / no condensation

3.03 Physical

Panel Dimensions: 19" racks: 17.300"W x 5.220"H x 2.750"D

43.942cm W x 13.259cm H x 6.985cm D

Mounting Depths: flush

Mounting Width: 19" racks

18.31"W x 5.22"H (46.507 cmW x 13.26 cmH)

Weight: 7.000 lbs / 3.175 kg.
Finish: black anodized / white lettering
Mounting Hardware: (4) 12/24 x 3/4 flat phillips

(4) #12 hex nuts, (4) #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)  $12/24 \times 34$  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

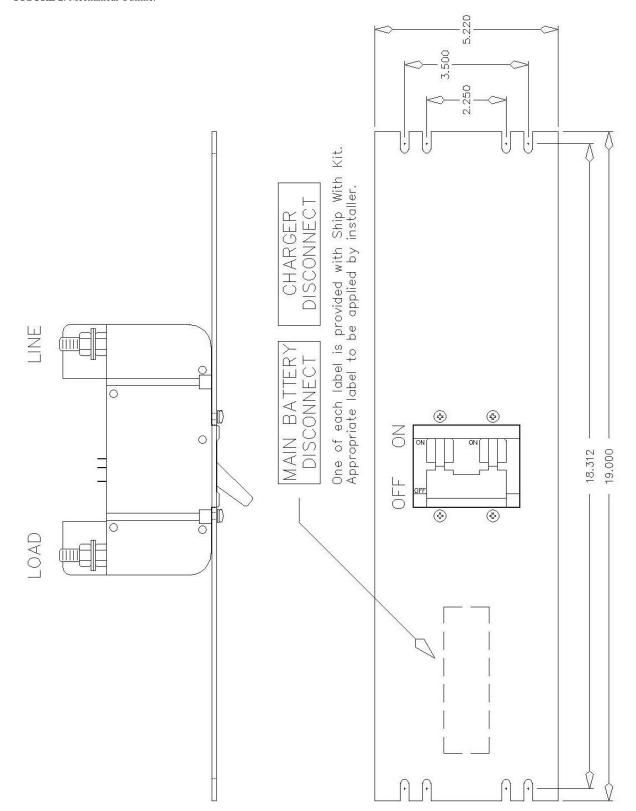
**9.04** To obtain a replacement, notify Accurate Electronics. Be sure to provide all relevant information, including the part number that indicates the issue of the product in question. Upon notification, we shall ship a replacement product to you. If the product in question is in warranty, the replacement 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. :

ACCURATE ELECTRONICS INC. ATTN: REPAIR AND RETURN 8687 SW HALL BLVD. #100 BEAVERTON, OREGON 97008 USA WWW.ACCURATE.ORG PO BOX 1654 97075-1654 8687 SW HALL BLVD 97008 BEAVERTON OR USA 503.641.0118 FAX 503.646.3903

FIGURE 2. Mechanical Outline.





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

This page intentionally left blank.