# OPERATION & MAINTENANCE MANUAL

*For*

## 30kW Ruggedized Tactical Load Bank


*Submitted To*

# Department of Defense

*Prepared By*

Fidelity Technologies Corp. (Manufacturer)
2501 Kutztown Rd.
Reading, PA, USA 19605-2961
Telephone: 610-929-3330

**Original Release Date: July 26, 2013**

# OVERVIEW – APPLICATIONS & FEATURES

## 30kW Ruggedized Tactical Load Bank Applications:

- Evaluates Generator and Power Source Efficiency
- Prevents Wet-Stacking (Unburned Fuel in Exhaust)
- Optimized for Compatibility with PDISE
- Specifically Designed for Rugged Military Applications and to Endure Harsh Environmental Conditions

## 30kW Ruggedized Tactical Load Bank Features

- Equipment Protection & Safety:
  - Temperature Sensor
  - Airflow Sensor
  - Over-current Fuses
  - Grounding
- Designed for Military Environment (MIL- STD -810 and MIL-STD -705):
  - Sand and Dust
  - Corrosion
  - Fungus
  - Shock
  - Vibration
  - Military Connectors
- Resistive Load
  - 3-Phase, 208VAC Load steps: 1kW, 2kW, 2kW, 5kW, 10kW, 10kW
  - (Ref.) 1-Phase, 120VAC Load steps: .33kW, .66kW, .66kW, 1.66kW, 3.33kW, 3.33kW
  - (Ref.) 1-Phase, 240VAC Load steps: .66kW, 1.33kW, 1.33kW, 3.33kW, 6.66kW, 6.66kW
- Input Power: 208VAC, 3-Phase
- Provided with a Class D military style connector cable (Interface cable assembly)
- Operating Temperature: -25C to 55C (-13F to 131F)
- Storage Temperature: -25C to 71C (-13F to 160F)
- CARC Finish (Olive Drab)
- Weight - Load Bank: Approximately 68 lbs
- Weight - Interface Cable: Approximately 27 lbs
- Supplied with lift handles on top of unit, pull-out handle and wheels for easy movement
- Dimensions: 27”L x 14”W x 17”H

## LIST OF EFFECTIVE PAGES

**Dates of issue for original and changed pages are:**

**Original: 0 July 26, 2013**

**TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 24, CONSISTING OF THE FOLLOWING:**

| Page No. | Change No. | Page No. | Change No. | Page No. | Change No. |
|---|---|---|---|---|---|
| Cover/Back (Overview) | 0 | 1-1 – 1-6 | 0 | Back (Blank Page) | 0 |
| a – b | 0 | 2-1 – 2-8 | 0 | | |
| i--ii | 0 | 3-1 – 3-3 | 0 | | |

# Version History

| Date | Version # | Author | Revision Description |
|---|---|---|---|
| 2013-July-26 | 0 (Original) | Jim Eiland | Original Release |
| | | | |
| | | | |

# Hazard Awareness Notice

Abide by all warnings within this manual. Electrical voltage within this system can cause death. All personnel involved in operation or maintenance of electronic equipment must be thoroughly familiar with the electronic equipment safety precautions contained in Electronic Installation and Maintenance Book 0967-LP-000-0100, Section 3 and NSTM Electronics, Chapter 4, 89086-HD-STM-999, Section 2. In addition, attention is directed to the Accident Prevention Manual, OPNAVINST 5101.2 Series. Report all hazards. If at any time you detect a hazard, it is your responsibility to report the hazard through your chain-of-command to ensure that it is corrected. This action ensures that this hazard is investigated, publicized, or corrected, as required.

## GENERAL WARNING

The 30kW Ruggedized Tactical Load Bank is designed for testing, servicing, and applying supplemental loads to 208v, 60 Hz power sources. The load bank has the potential of delivering a lethal electrical shock and should only be used by trained and qualified personnel knowledgeable in the use and safety of high voltage equipment, following instructions in this technical manual. The load bank should only be serviced at the Depot level. An extreme amount of heat is generated while in use; therefore do not come in contact with the exhaust (air exit) side of the load bank unit or place it near any combustible/flammable substance. The load bank resistors are energized when the Load Power rate switches are on; therefore do not come in contact with them or insert any objects in the vents of the unit. Do not block the air flow. Position the load bank so that there not an external air flow pushing against the resistor side of the load bank. Air must enter the fan side of the load bank.

# Warnings, Cautions, and Notes within the Manual

**WARNING**

**Definition:** An operating procedure, practice, or condition, etc., that may result in injury or death, if not carefully observed or followed.

**CAUTION**

**Definition:** An operating procedure, practice, or condition, etc., that may result in damage to equipment, if not carefully observed or followed.

Abide by all cautions within this manual.

**NOTE**

**Definition:** An operating procedure, practice, or condition, etc., that is essential to emphasize.

# Foreword/Preface

This technical manual provides safety aspects, as well as operation and maintenance instructions for the Ruggedized Tactical Load Bank. The 30kW Ruggedized Tactical Load Bank is light-weight, portable, and compatible for use in all services (Army, Navy, Marines, and Air Force).

# Operator Technical Level and Prerequisites

The "**Operator**" must read and understand safety concerns and user instructions presented in this manual. Operators must have completed training for using and setting up standard electrical equipment such as generators, power supplies, etc. In addition, operators must be familiar with using standard electrical test meters.

# Table of Contents

# List of Figures



# List of Tables

# 1. General Description of Ruggedized Tactical Load Bank

## 1.1 Ruggedized Tactical Load Bank Applications

The Ruggedized Tactical Load Bank is lightweight and portable. It is designed as a standalone unit to be used for field testing and applying supplemental loads to 208 VAC, 3-Phase, 60 Hz generators and other power supply systems. It can be used for verifying repairs to power supply systems and checking cables after they have been replaced or repaired.


**Figure 1-1: Ruggedized Tactical Load Bank – Front View**

## 1.2 Ruggedized Tactical Load Bank Environmental Parameters

The system environmental parameters are listed below:

- Operating Temperature: -25C to 55C (-13F to 131F)
- Storage Temperature: -25C to 71C (-13F to 160F)

## 1.3 Functionality and Application

The Ruggedized Tactical Load Bank is rated at 30kW full load with all six load steps switched ON. This gives a 0-30kW range with all steps operating continuously in 1kW steps.

- Evaluates Generator and Power Source Efficiency
- Prevents Wet-Stacking of generator motors (Unburned Fuel in Exhaust)
- Optimized for Compatibility with PDISE
- Specifically Designed for Rugged Military Applications and to Endure Harsh Environmental Conditions (MIL- STD -810 and MIL-STD -705)

## 1.4 Ruggedized Tactical Load Bank Main System Components

Ruggedized Tactical Load Bank major subsystems are depicted in the following figure.

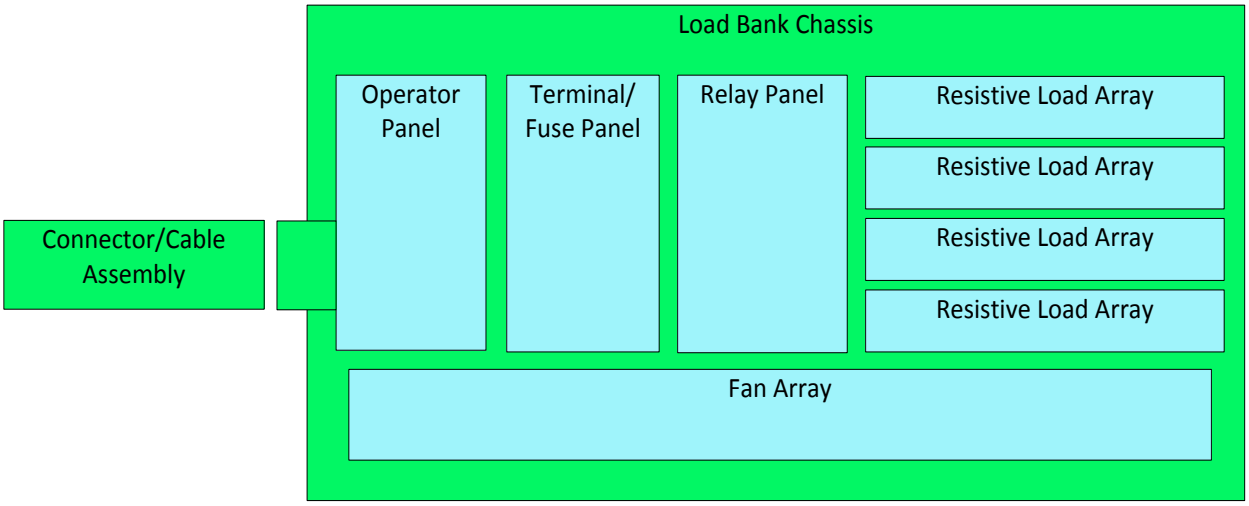



**Figure 1-2: Ruggedized Tactical Load Bank Main Subsystem Components**

## 1.5 Ruggedized Tactical Load Bank Operator Controls & Indicators

The following figure identifies the load bank operator controls, meters, indicators, external connections, and air flow direction.

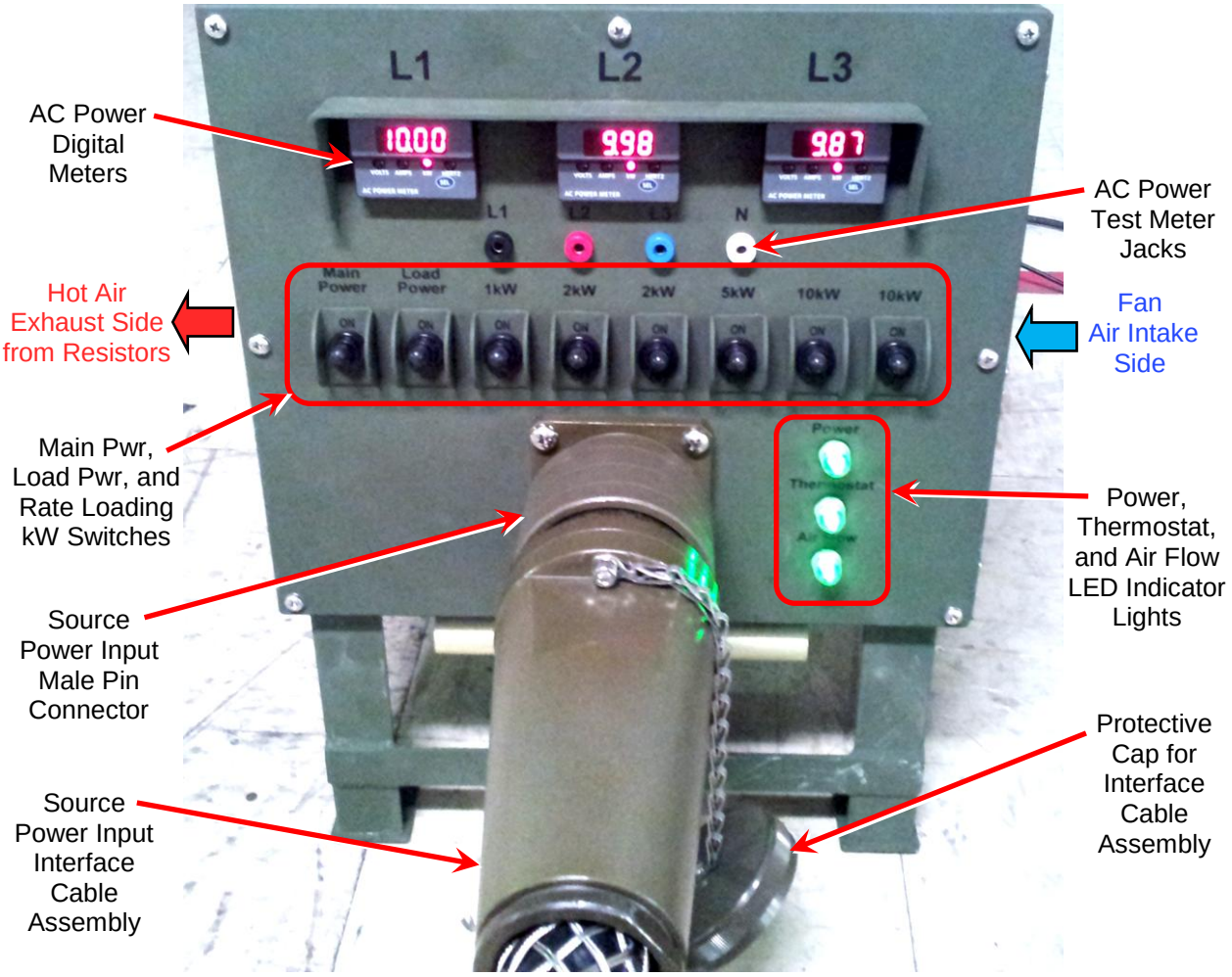



**Figure 1-3: Controls, Meters, Indicators, External Connections, and Air Flow**

### 1.5.1 Description of Meters, Switches, and Indicators

**Digital Meter Functions:**


**Figure 1-4: Digital AC Power Meter**

SEL - Selector button provides two modes of operation: a fixed reading of any of the four parameters, or a continuous cycling through all four measurements.

VOLTS - Voltmeter is used to measure the line to neutral voltage of the power supply. The meter reading should represent a nominal voltage of approximately 120VAC. A 150 volt or higher reading indicates a line and neutral cable are switched on the power unit or in the cable.

AMPS - Ammeter is provided to measure the load used by the load bank.

kW - Kilowatt meter is used to measure the loading applied to the source power unit.

HERTZ - A 55-65 Hertz meter is used to measure the line frequency of the source power unit. (It should read approximately 60 Hertz.)

**Main Power, Load Power, and Rate Loading kW Toggle Switches:**

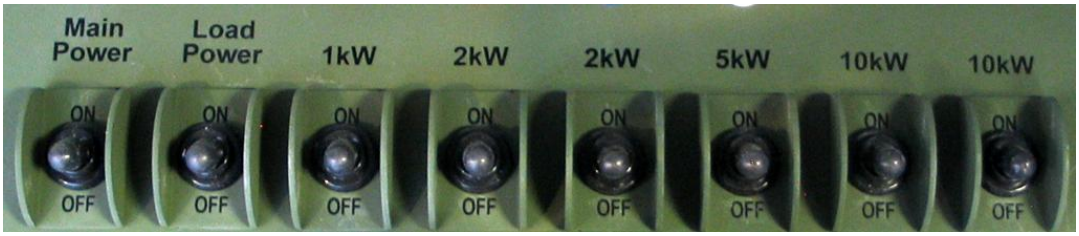



**Figure 1-5: Main Power, Load Power, and Rate Loading kW Switches**

MAIN POWER - Toggle switch used to feed power from source, through to load bank.

LOAD POWER - Toggle switch used to feed power from source to load bank resistor coils.

RATE kW SWITCHES - Toggle switches used to select the desired rate on the load bank. The rate switch combinations can result in any balanced load of 1kW up to 30kW, in 1 kW increments. (For example, 1kW + 10kw + 10kw = 21kw.)

**Power, Thermostat, and Air Flow LED Indicator Lights:**


**Figure 1-6: Power, Thermostat, and Air Flow Indicator Lights**

POWER - When Main Power switch is ON, **Power** LED indicator light is lit under normal conditions to indicate power is ON.

THERMOSTAT - When operating in a normal condition, **Thermostat** LED is lit. If it is not lit, there is an overheat problem.

AIR FLOW - When airflow through the load bank is adequate, **Air Flow** LED is lit. If it is not lit, there is a problem with air flow and the air sensor switch shuts down the load bank resistors. If the **Air Flow** indicator is not lit, the **Thermostat** indicator light will also not be lit.

### 1.5.2 External Equipment Connections

The following figure shows external equipment connections to the load bank front panel.

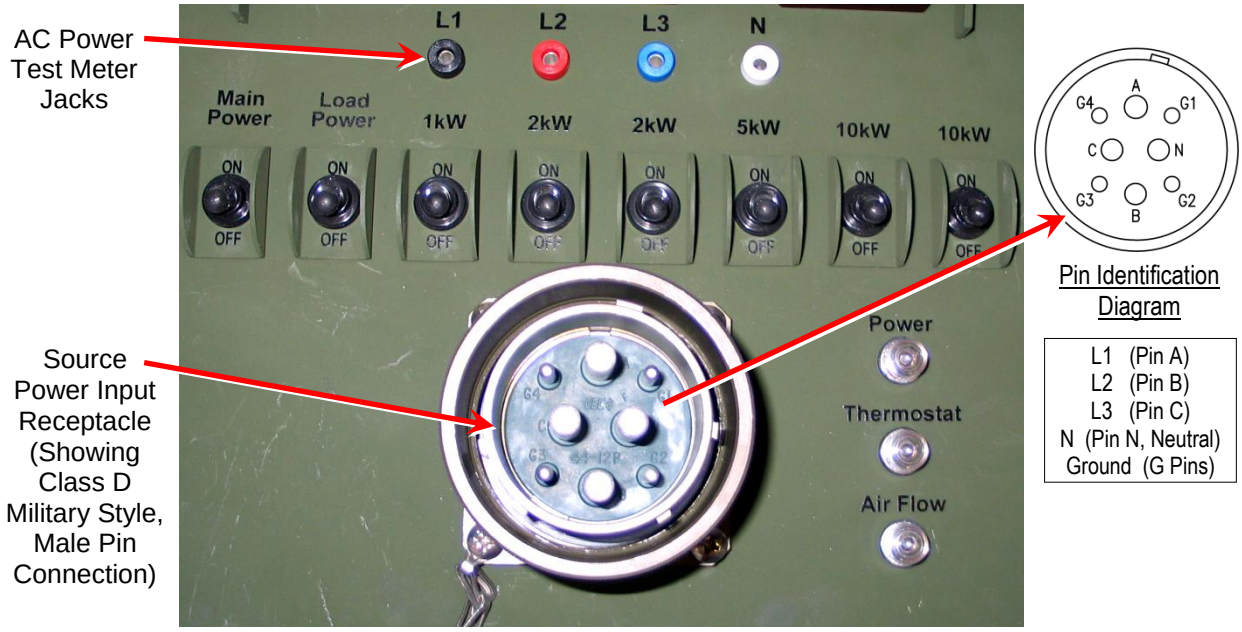



**Figure 1-7: Load Bank External Equipment Connections**

**TEST METER JACKS** - There is an external meter test jack for each cable pin (see diagram above).

**SOURCE POWER INPUT RECEPTACLE** - The power interface cable, from the source power equipment, is plugged into the load bank through this Class D military style male connector receptacle.

## 1.6 Ruggedized Tactical Load Bank Schematic Diagram

The following schematic diagram is provided for reference and shows component interfaces.

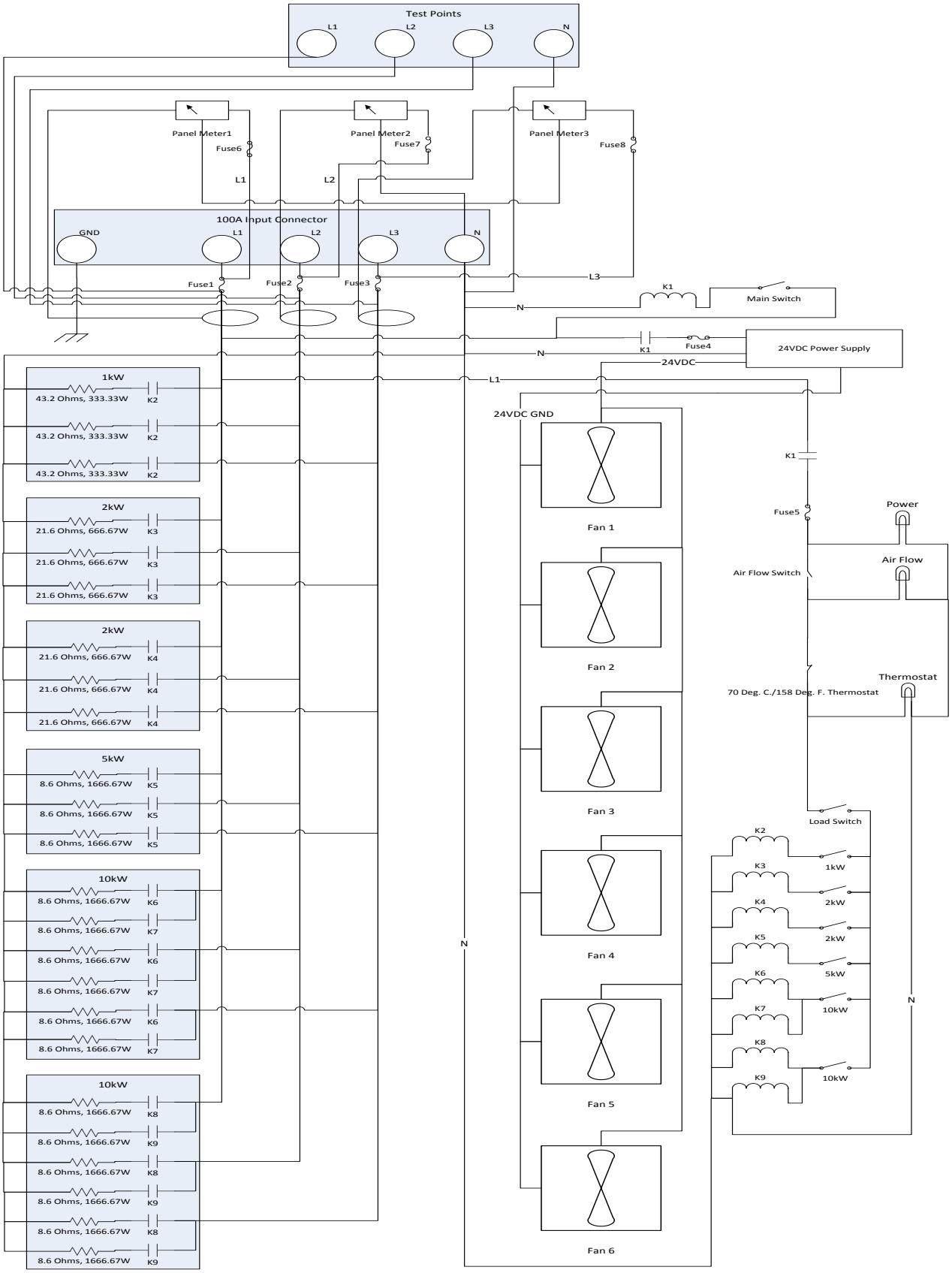



**Figure 1-8: Load Bank Schematic Diagram**

# 2. Ruggedized Tactical Load Bank Operation Procedures

These procedures assume the load bank unit is suitable for operation as described in the following subsections. Perform a general visual inspection of the load bank unit and interface cable for obvious damage or adverse condition before beginning operation. If inspection determines that there is damage, or it is unsafe for operation, do not use the load bank.

**WARNING**

This equipment is capable of delivering a lethal electrical shock if not used properly. Always ensure the power source is off and grounded before connecting to the load bank. The load bank resistors (heating elements) become very hot during operation and exhaust air may cause burns. Resistors can cause a fire if unit is placed near combustible materials, flammable gases, or fluids. Protect load bank from moisture.

**CAUTION**

Do not switch off main power until unit cools. Allow source power supply to remain ON for the load bank fans to continue running during the cool-down stage.

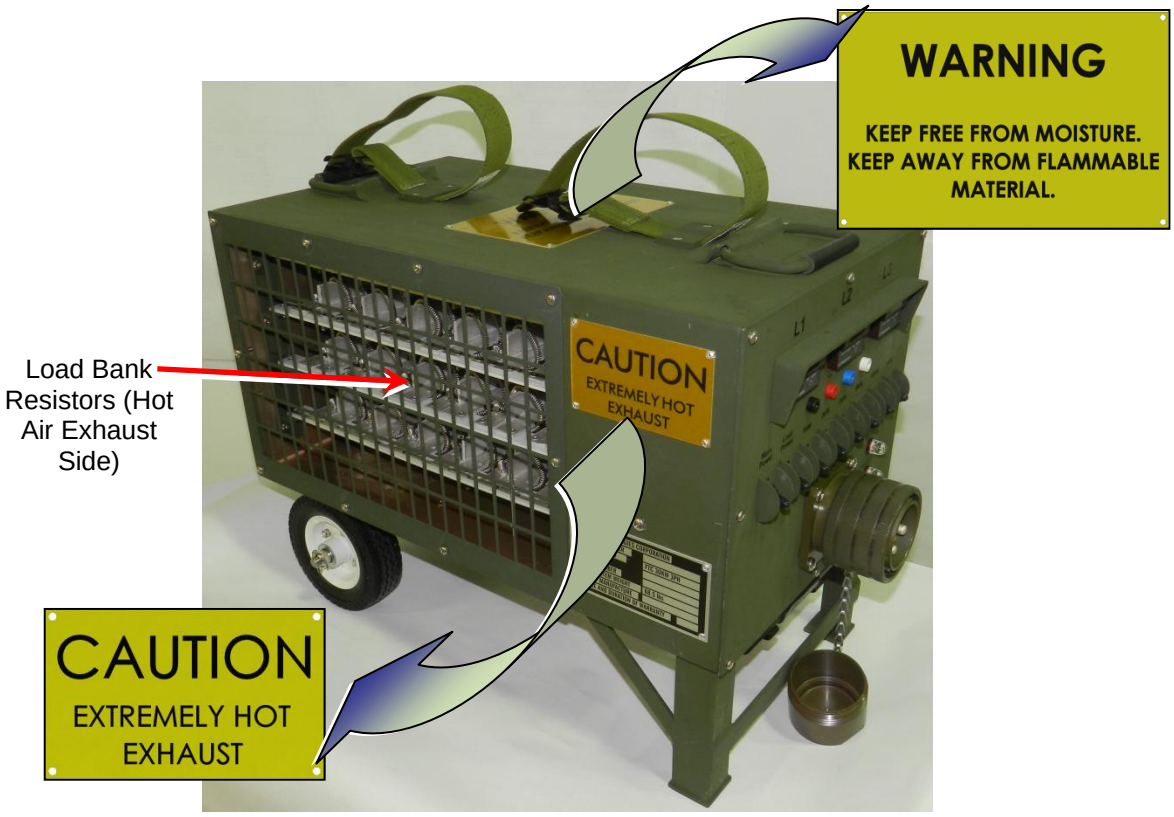



**Figure 2-1: Ruggedized Tactical Load Bank Warning/Caution Labels**

**NOTE**

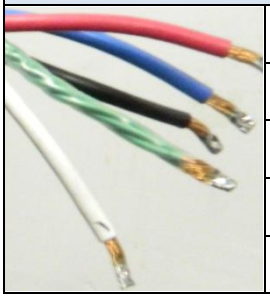
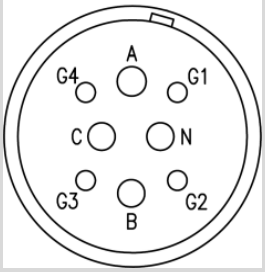
Normally, a 10kW generator set is the smallest unit that can be used with the split-lug connectors that work with the large interface cable.

## 2.1 General Load Bank Setup and Operating Environment

Place the load bank in a secured, covered location, free from obstructions to its airflow and with adequate ventilation such that the operating temperature will not build up significantly during use. The load bank should be housed so that rain, snow, or other weather produced sources of wind-blown moisture will not enter the unit. The immediate environment shall be free of debris, flammable substances, and sources of moisture.

## 2.2 Cable Connector Pins and Lug (Pigtail) Identification for Interface Cable Assembly

**Table 2-1: Cable Connector Pins and Lug (Pigtail) Identification**

| | | | |
|---|---|---|---|
|  | Black | L1 (Pin A) |   |
| | Red | L2 (Pin B) | |
| | Blue | L3 (Pin C) | |
| | White | N (Pin N, Neutral) | |
| | Green | Ground (G Pins) | |

## 2.3 Operation of Digital Meters


**Figure 2-2: Digital Meter (Volts Displayed)**

1. Upon application of ac power, the digital meters first perform a self-test routine and then continuously display ac volts with the VOLTS LED annunciator illuminated. The display remains in the VOLTS mode as long as the front panel digital meter's '**SEL**' button is not touched.
2. In the VOLTS reading mode, momentarily touching the '**SEL**' button three times in succession (approximately one second apart) cycles the display to AMPS, kW, and ends at HERTZ.
3. Momentarily touching '**SEL**' a fourth time returns the display back to the VOLTS reading mode.
4. Holding the '**SEL**' button down for three (3) seconds places the unit in a continuous auto-cycling mode and the display repetitively scrolls through all four measurements, with each measurement displayed for three (3) seconds.

## 2.4 LED Indicator Light Conditions During Operation

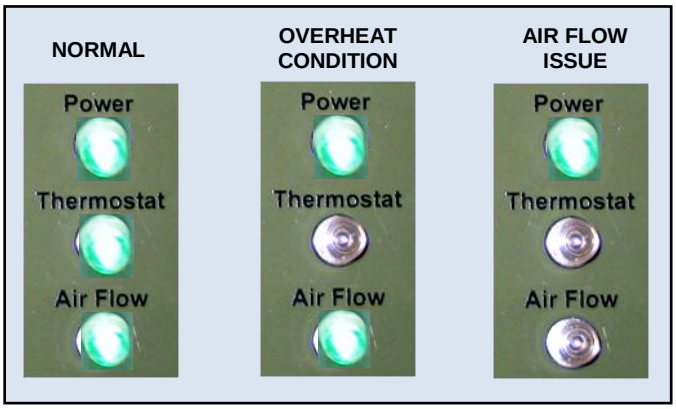



**Figure 2-3: Power, Thermostat, and Air Flow LEDs**

**Power** LED**:** should light for normal conditions with the "MAIN" switch in the "ON" position.

**Thermostat** LED: An over temperature condition would cause the Thermostat LED to turn off and shuts down resistive kW loads, but allows cooling fans to stay operational.

**Air Flow** LED: An obstruction to airflow at the fan intake side of the load bank would cause the Air Flow LED to turn off and shut down the load bank unit resistors via an internal air flow switch. Normally, when the Airflow light is not lit, the Thermostat LED light is also not lit.

## 2.5 Operation to Place a Supplemental Load on a Generator

Placing a supplemental load on a generator can prevent it from wet stacking (spewing unburned fuel out the exhaust) and will help the generator set maintain optimum performance if the use loading is low.

### 2.5.1 Setup for Placing a Supplemental Load on a 208-VAC, 3-Phase Generator

1. Place the load bank in an area free from fuel, oil, or any other flammable/combustible substance, within interface cable reach of the generator requiring a supplemental load.
2. The load bank should be positioned so that any strong wind or air currents will flow with the air flow of the load bank (in through the fans and out through the other side where the heating elements are positioned).

**WARNING**

Dangerous, lethal power that can cause injury or death is conducted by the source power supply. For safety, ensure that the source power supply unit requiring an additional load remains off during the interface cable connection process.

3. Stretch out the supplied interface cable to the power source and connect the female power plug from the interface cable into the load bank male receptacle.

4. With the source power still off, first attach the **N** (white cable lug) from the interface cable to the source power supply neutral terminal and then the ground (green cable lug) to the ground point of the power source.
5. With the source power still off, connect the **L1** (black cable lug), **L2** (red cable lug), and **L3** (blue cable lug) on the supplied interface cable assembly to the respective terminals on the 208VAC three phase circuit.
6. Ensure all load bank toggle switches are in the OFF position.
7. Turn on the source power unit/output to allow power through the interface cable.

### 2.5.2 Check Load Bank Indicator Lights and Meters when Power is Connected

1. Toggle ON the load bank **Main Power** switch. (The fans should start up and the airflow should be passing through the exhaust side of the load bank unit.)
2. Check that the **Power** indicator LED is lit.
3. Check that the **Thermostat** and **Air Flow** indicator LEDs are lit.
4. Observe the three digital meters. (**VOLTS** should read a nominal voltage of 120VAC on "L1," "L2," and "L3" phase.)
5. If the operator determines the voltage is too high or too low, turn off the generator being loaded, troubleshoot and repair the high/low voltage power supply problem, before reusing the load bank.
6. **AMPS** should read 0 AC Amps (indicates a no-load condition).
7. **kW** should read 0 (indicates a no-load condition).
8. **WATTS** should read approximately 60 Hertz.

### 2.5.3 Applying a Supplemental Load to the Generator

If the above steps passed inspection, perform the following:

1. Toggle ON the **Load Power** switch.
2. Add the desired load by toggling ON a combination of the **kW** rate toggle switches to apply the desired kW loading to the source power.
3. Check to see that the voltage and frequency does not drop beyond acceptable limits under load. (Make adjustments to the kW loading as necessary to achieve maximum beneficial loading of the source power generator by activating or deactivating the kW toggle switches.)

### 2.5.4 Shutdown Procedure for Supplemental Loading of Generator

1. Before source power generator is shut down, return the **Load Power** toggle switch and the individual **kW** toggle switches to the OFF position.
2. Keep the source power generator running, which allows the load bank to cool down, while keeping the **Main Power** toggle switch ON. (The fans will continue cooling the resisters as long as the **Main Power** toggle **s**witch is ON and receiving power from the source generator.) It takes about a minute for the load bank to cool down. Check by placing your hand about two feet from the air exit grill to see if the unit has cooled down.

3. Turn **Main Power** toggle switch OFF after load bank cools down.
4. Turn OFF power source generator that was using the load bank for a supplemental load.
5. Disconnect the large power cable plug from the load bank and remove connector lugs from the source power generator.

## 2.6 Operation for Testing 208VAC Three Phase Source Power

The Ruggedized Tactical Load Bank can be used for verifying repairs to 208 VAC, 3-Phase, 60 Hz generators and other power supply systems, and for checking cables after they have been replaced or repaired. Testing, for 208 VAC, 3-Phase, 60 Hz generators and other power supply systems is covered in the following subsections.

### 2.6.1 Load Bank Setup for Testing a 208VAC, 3-Phase Power Source

1. Place the load bank in an area free from fuel, oil, or any other flammable/combustible substance, within interface cable reach of the power source being tested.
2. The load bank should be positioned so that any strong wind or air currents will flow with the air flow of the load bank (in through the fans and out through the other side where the heating elements are positioned).

**WARNING**

Dangerous, lethal power that can cause injury or death is conducted by the source power supply. For safety, ensure that the source power supply unit requiring testing remains off during the interface cable connection process.

3. Stretch out the supplied interface cable to the power source and connect the female power plug from the interface cable into the load bank male receptacle.
4. With the source power still off, first attach the **N** (white cable lug) from the interface cable to the source power supply terminal and then the ground (green cable lug) to the ground point of the power source.
5. With the source power still off, connect the **L1** (black cable lug), **L2** (red cable lug), and **L3** (blue cable lug) on the supplied interface cable assembly to the respective terminals on the 208VAC three phase circuit.
6. Ensure all load bank toggle switches are in the OFF position.
7. Turn on the source power unit/output to allow power through the interface cable.

### 2.6.2 Check Load Bank Indicator Lights and Meters when Power is Connected

1. Toggle ON the load bank **Main Power** switch. (The fans should start up and the airflow should be passing through the exhaust side of the load bank unit.)
2. Check that the **Power** indicator LED is lit.
3. Check that the **Thermostat** and **Air Flow** indicator LEDs are lit.
4. Observe the three digital meters. (**VOLTS** should read a nominal voltage of 120VAC on "L1," "L2," and "L3" phase.)

5. If the operator determines the voltage is too high or too low, turn off the power supply being tested, troubleshoot and repair the high/low voltage power supply problem, before reusing the load bank.
6. **AMPS** should read 0 AC Amps (indicates a no-load condition).
7. **kW** should read 0 (indicates a no-load condition).
8. **WATTS** should read approximately 60 Hertz.

### 2.6.3 Applying a Test Load to the Source Power Unit

If the above steps passed inspection, perform the following:

1. Toggle ON the **Load Power** switch.
2. Add the desired test load by toggling ON a combination of the **kW** rate toggle switches to apply the desired kW loading to the power source being tested.
3. Check to see that the voltage and frequency does not drop beyond acceptable limits under load.

### 2.6.4 Shutdown Procedure for Testing Power Source

1. Before source power is shut down, return the **Load Power** toggle switch and the individual **kW** toggle switches to the OFF position.
2. Keep the source power generator running, which allows the load bank to cool down, while keeping the **Main Power** toggle switch ON. (The fans will continue cooling the resisters as long as the **Main Power** toggle **s**witch is ON and receiving source power.) It takes about a minute for the load bank to cool down. Check by placing your hand about two feet from the air exit grill to see if the unit has cooled down.
3. Turn **Main Power** toggle switch OFF after load bank cools down.
4. Turn OFF power source that was being tested.
5. Disconnect the large power cable plug from the load bank and remove connector lugs from the source power unit.

## 2.7 Portability/Transport and Storage

**CAUTION**

Never move the load bank without first disconnecting the large interface cable from the input connector on the front panel of the load bank. Place protective caps over the pin connector and interface cable plug during transport and when load bank is not in use.

- The Ruggedized Tactical Load Bank is equipped with wheels and pull-out handle for easy one-man movement.
- Two handles on the top of the unit are provided for lifting.
- There is a strap on the top of the unit for securing the interface cable during movement/transport and storage.

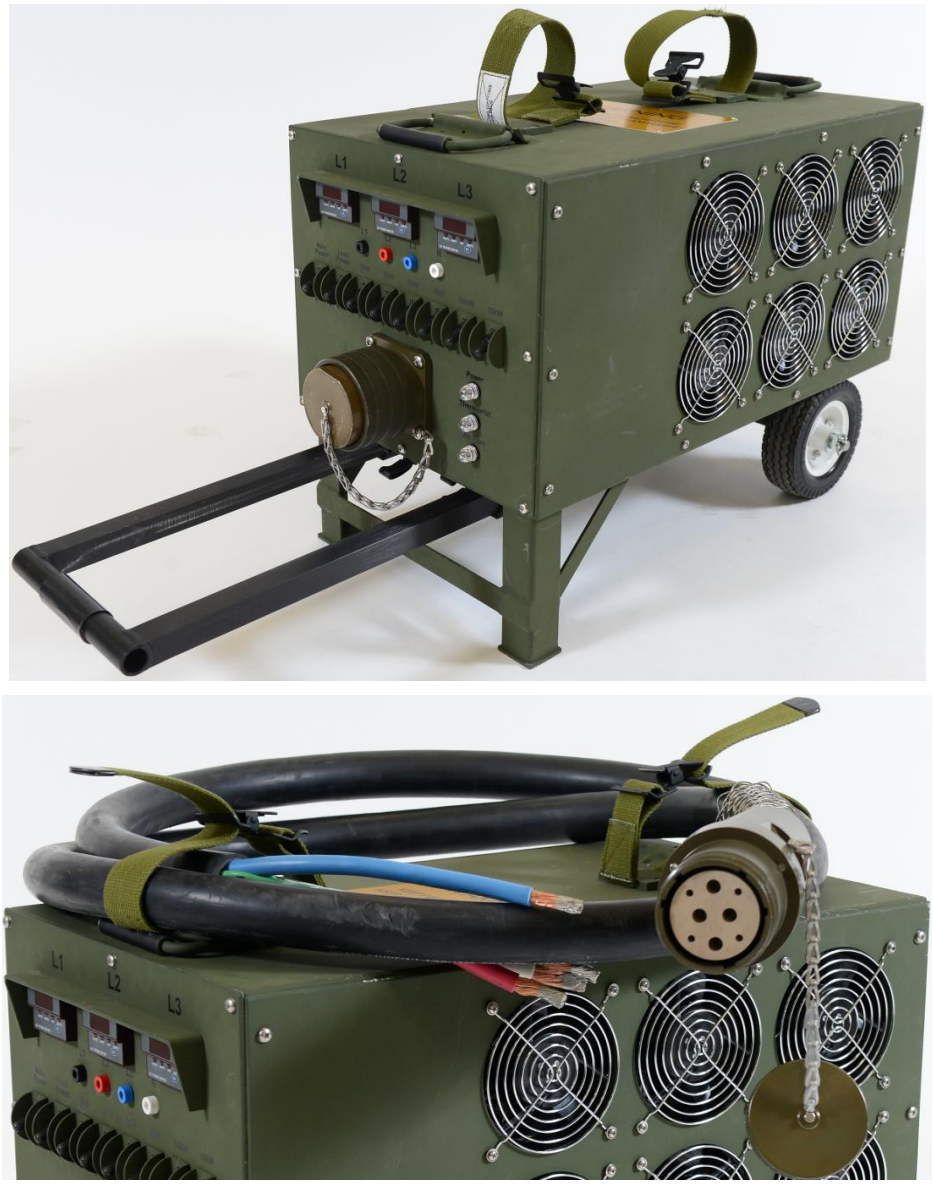



**Figure 2-4: Lifting Handles, Pull-out Handle, and Interface Cable Tie-down Straps**

## 2.8 Optional Military Style 50-Foot Cable for 100 Amp

Contact Fidelity Technologies Corporation for the optional M-100Amp, 50-foot military style cable shown below.

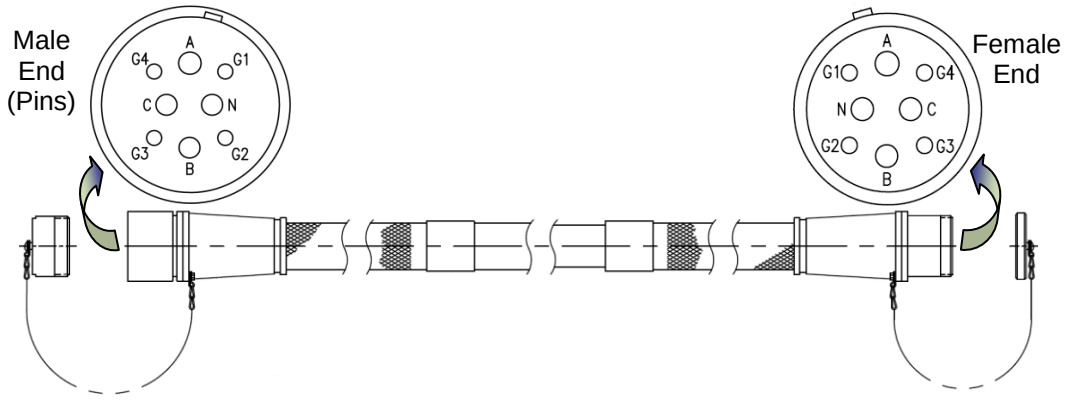



**Figure 2-5: Optional Military Style M-100Amp, 50-Foot Cable Assembly**

# 3. Maintenance

## 3.1 Operator Maintenance Level

Operators carry out 'O-Level' maintenance, which is primarily preventive maintenance tasks and includes cleaning equipment and calling in a higher level of maintenance when there is a problem or fault.

### 3.1.1 Preventive/Routine Operator Maintenance

**Table 3-1: Preventive/Routine Maintenance Schedule**

| Item | Basic Preventive Maintenance | | | |
|---|---|---|---|---|
| | Daily | Weekly | Monthly | Quarterly |
| Perform general visual inspection of unit for damage or adverse condition. | Visual Insp. Before Use | | | |
| Inspect large interface cable and connector (condition of cable and pin connector). | Visual Insp. Before Use | | | |
| Check control switches & indicator light functions. | During Use | | | |
| Check that all fans are operational. | During Use | | | |
| Clean, vacuum, and blow out dust/debris from air passages. | | If Required | At least monthly | |
| Verify meter gauge readings against test meter readings. | | | | At least quarterly and as required if suspicion of inaccurate readings. |

### 3.1.2 General Troubleshooting and Corrective Maintenance

**Table 3-2: Troubleshooting and Corrective Maintenance Steps**

| Problem/Fault | Resolution/Repair/Replacement |
|---|---|
| Load Bank does not indicate power is applied after power source is connected and turned on. (Main Power toggle switch is ON, but Power indicator Light is not lit.) | • If the Power indicator light is not lit, Ensure the **Main Power** switch is toggled ON and that power source is supplying power. Connect another known good source power unit to see if the Power indicator light turns on.<br>• Determine if the power indicator light is functioning properly. (If the digital meters are working properly, the Power indicator light is faulty.)<br>• If the Power indicator light is lit, but one or more digital meters do not indicate power, check to see if the source power cabling and power connections are in the correct configuration, secure, and cabling is not damaged.<br>• Check to verify large connector socket pins are not damaged or missing.<br>• If the load bank is not functioning properly, replace the unit and send the faulty load bank back to Depot maintenance for repair. |

| Table 3-2: Troubleshooting and Corrective Maintenance Steps | |
|---|---|
| **Problem/Fault** | **Resolution/Repair/Replacement** |
| Thermostat indicator light is not lit. | • If the Air Flow indicator light is also off, determine if one or more fans are not operating or airflow is otherwise not adequate.<br>• Check to determine if the power source is overloading the load bank (meter readings are excessive).<br>• If the load bank is not functioning properly, replace the unit and send the faulty load bank back to Depot maintenance for repair. |
| Air Flow indicator light is not lit | • Determine if Air flow indicator light is faulty. If Thermostat indicator light is lit, the Air Flow indicator light is probably faulty (normally, if the Air Flow light is not lit, the Thermostat light is also not lit).<br>• Check to see if one or more fans are not operating or airflow is otherwise not adequate.<br>• If the load bank is not functioning properly, replace the unit and send the faulty load bank back to Depot maintenance for repair. |
| Load Bank remains hot for a long period of time after shutdown. | • Ensure **Main Power** toggle switch is ON during cool-down. (Source power keeps the fans active for removing heat.)<br>• Ensure source power is connected and switched ON during cool-down. (This provides power to the load bank for fan operation.)<br>• Check to see if air flow is adequate. If not, check fan operation, and/or remove obstructions, if necessary. If the fans are not functioning properly, replace the unit and send the faulty load bank back to Depot maintenance for repair. |
| kW Load Power does not change or does not adjust to various switching configurations. | • Verify that digital meters are displaying proper information by using an external test meter for comparison at the appropriate test jack position on the front control panel (see figure below).<br>• Determine if **Load Power** or individual **kW** toggle switches feel normal when moving back and forth from OFF to ON. If switch is faulty, replace the load bank unit and send the faulty load bank back to Depot maintenance for repair.<br>• Check to see if the source power cabling and power connections are in the correct configuration, secure, and cabling is not damaged.<br>• Check to verify large connector socket pins are not damaged or missing.<br>• If the load bank is not functioning properly, replace the unit and send the faulty load bank back to Depot maintenance for repair. |
| A digital meter on the panel is showing readings out of normal range. (It is suspected of not functioning properly.) | • Take readings by using an external meter at the appropriate jack port location (see figure below).<br>If there is still an abnormal reading, the external power supply is probably not sending out power within the normal range.<br>(If the digital meter is faulty, the load bank can still be used to complete the test/loading procedure, using the external meter jacks, if the external meter readings are within normal range.)<br>• If the load bank digital meter is not functioning properly, replace the unit and send the faulty load bank back to Depot maintenance for repair. |

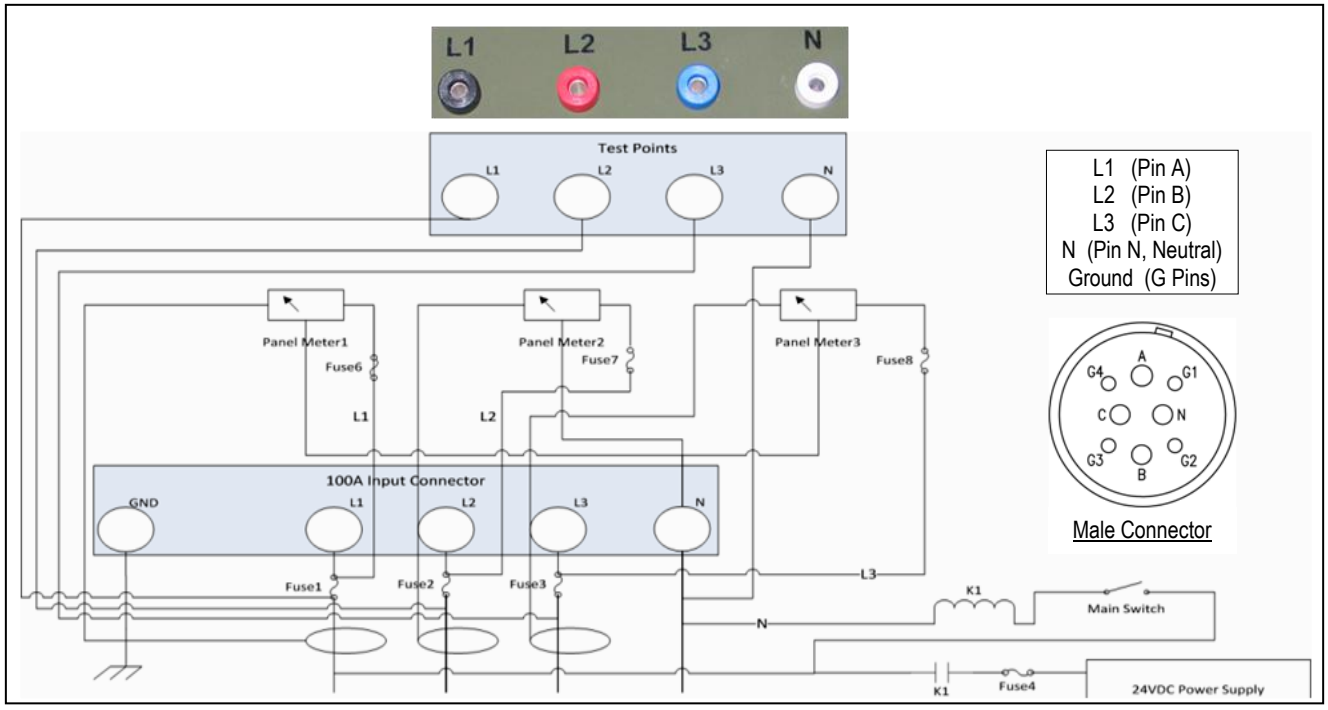



**Figure 3-1: Test Points for External Meter Readings and Schematic Diagram**

## 3.2 Depot Level Maintenance

### 3.2.1 'D' Depot Level Maintenance Procedures

Load Bank components that require 'D' level maintenance are sent back to the Manufacturer (Fidelity Technologies Corp.) for 'D' level repair. In addition, O-Level' can request assistance to resolve an issue from "D" level maintenance. Providing a detailed description of any issues or problems will speed up any corrective actions necessary in order to return the load bank back to your unit.

### 3.2.2 Procedure to Request Depot Level Maintenance

Contact Fidelity Technologies Corporation, M&A Division for Depot-Level Maintenance requests (Address and Telephone below).

FIDELITY TECHNOLOGIES CORPORATION

Fidelity Technologies Corp. - M&A (Manufacturer)
2501 Kutztown Rd.
Reading, PA, USA 19605-2961
Telephone: 610-929-3330