

**LOADTEC – WO#: 420184  
ID#: 420171550t**

**DATE: 07/28/2022**

**MODEL: OSW4v-1500.1-480V33-0600-10**

**RATING - Kilowatt: 1500KW**

**Voltage: 480V ,3Ø, 3W, 60Hz.**

**P.F.: 1.0**

**CUSTOMER - Name: H.O. Penn Machinery Co., Inc.**

**Reference: Fox News - 1211 Avenue of the Americas**

**ID: PO# ELI MD TS 536420-0**

**LOAD BANKS WITH THE DIGITAL SOLUTION**

**525 Commerce Circle, Mesquite, NV 89027**

**Tel: 1-702-643-8750**

**Fax: 1-702-643-8751**

**1-800-LOADTEC**

**1-888-LOADTEC**

**1-800-562-3832**

**1-888-562-3832**

**sales@loadtec.com**

**www.loadtec.com**

**THE FOLLOWING INFORMATION AND DATA IS SPECIFIC TO THE PROJECT REQUIREMENTS. THIS INFORMATION AND DATA IS PROVIDED AS A SUBMITTAL FOR COMPLIANCE REVIEW. THIS INFORMATION IS ACCURATE FOR PROJECT AND SITE LAYOUT USE. IT NOT INTENDED FOR CONTRACTOR INSTALLATION BECAUSE THERE MAY BE CHANGES INITIATED BY THE REVIEWING ENTITY THAT WILL AFFECT THE FINAL INSTALLATION DETAILS.**

**UPON RECEIPT OF THE SUBMITTAL REVIEW AND COMMENTS, LOADTEC WILL DEVELOP AND ISSUE CONSTRUCTION AND DRAWING DETAILS FOR USE BY THE INSTALLATION CONTRACTOR.**

**PLEASE CONTACT LOADTEC SALES OR ENGINEERING DEPT FOR ANY CLARIFICATIONS, ADDITIONAL INFORMATION OR DETAILS THAT ARE NOT EXPLICITLY PROVIDED IN THIS SUBMITTAL INFORMATION**

**DO NOT USE THIS INFORMATION FOR INSTALLATION.**

**BASIC UNIT**

<b>MODEL:</b>	<b>OSW4v-1500.1-480V33-0600-10</b>
<b>RATING:</b>	1500 KW @ 480 V, 3Ø, 3W, 60 Hz, 1.0 P.F.
<b>RESOLUTION:</b>	10 KW nominal load step adjustment from 0-100% of unit rating.
<b>TOLERANCE:</b>	0 -+5% overall tolerance, +/- 2% phase-to-phase balance
<b>DUTY CYCLE:</b>	Continuous
<b>APPLICATION:</b>	The unit has the capability of loading power sources at varying power ratings.
<b>CONFIGURATION:</b>	The Load Bank consists of two (2) separate items: 1) An outdoor weatherproof load enclosure containing the load resistors, power control devices, and cooling fan. 2) A Wall mounted Operator Interface Panel
<b>ENCLOSURE:</b>	<b>Load:</b> Outdoor Weatherproof Vertical Exhaust, Nema 3R, with bolt down provisions for permanent mounting; captive fork lifting provisions and lifting eyes for handling during installation. The enclosure is fabricated of galvanized steel that is primed and painted as described below. The top exhaust is protect with articulated cover doors automatically operated by a linear actuator controlled and power from the Digital Controller. <b>Control:</b> (1)Nema 3R?12 Wall Mounted Enclosure
<b>PHYSICAL:</b>	<b>Load Enclosure:</b> 96"H x 48.5"W x 86"D, 2500 LBS <b>Control Enclosure:</b> 20"H x 16"W x 8"D, 35 LBS
<b>PAINT:</b>	Environmentally friendly waterborne enamel <b>Preparation:</b> SSPC Surface Preparation Standards # SP1 <b>Primer:</b> Acrylic direct-to metal (DTM) primer (high solids); MIL-P-28577B and TT-P-1975 <b>Finish:</b> Premium High Performance UV Resistant Acrylic Enamel <b>Color:</b> ASA 61 Lt. Gray
<b>AMBIENT:</b>	<b>Temperature.:</b> -20 F./-30 C. to +120 F./+50 C. <b>Humidity:</b> up to 100 % <b>Altitude:</b> 4000 Ft / 1200 M
<b>LOAD RESISTOR:</b>	The Loadtec RESISTAR is designed specifically for high density applications. The resistor is continuously supported to eliminate possible shorting contact with surrounding resistors. Load resistors are mounted in trays that are independently mounted so each is removable without affecting any other tray. The RESISTAR has an industry exclusive 3 year limited warranty.
<b>COOLING:</b>	Forced air cooled by a TEFC motor with a direct drive airfoil propeller.
<b>CONTROL POWER:</b>	<b>Cooling Motor:</b> (2)7.5HP, 460V, 3Ø, 60Hz., derived from an external facility power source or internally derived from the connected test power source. (field configurable) <b>Control:</b> 24 VAC, 1Ø, 60 Hz., derived from the fan power 3Ø source via a control power transformer.
<b>CONTROL POWER:</b>	<b>External</b>
	<b>Processor:</b> 24 VDC from engine starting battery.
<b>CONTROL:</b>	<b>Processor Control / Metering System</b>
	<b>Features:</b> <ul style="list-style-type: none"> <li>* The control system provides integrated control and metering for the load bank</li> <li>* Serial interface to Control Panel(s) using conventional Category 5 data cable connection.</li> <li>* Up to (4)Control Panels can be connected on a single unit with a simple "daisy chain" wiring.</li> <li>* Remote Control Panel(s) install with up to 1,000ft of control cabling without external control power required for the control panel.</li> <li>* Control Module installed in the load enclosure and the OIP installed in the control panel are both upgradeable with firmware flash capability.</li> <li>* Additional serial RS232, RS422 and RS485 ports are available for optional Modbus and optional Windows DLL external control interfaces.</li> <li>* Ethernet port for optional TCP/IP interface functions.</li> </ul>
<b>Operation:</b>	<ul style="list-style-type: none"> <li>* The control system is accessed at the Operator Interface Panel (OIP) installed in the Control Panel</li> <li>* The control system provides the following programmable functions: <ul style="list-style-type: none"> <li>◆ Manual Load Step Control</li> <li>◆ Automatic Loading Operation</li> <li>◆ Regenerative Absorption Operation</li> </ul> </li> </ul>

- ◆ Base Load Control for enhanced transfer and block load response.
- ◆ Automatic Exercise Operation (Internal Clock)
- ◆ Exercise Monitoring and Alarm Circuitry
- ◆ Automatic Load Sequencing (External Exercise Clock)
- ◆ Transfer Switch position monitoring for operational logic coordination
- Metering:** \* The control system provides metering values on the Operator Interface Panel.
- \* All values are true RMS
- \* The metering values available for selected display:
  - ◆ Voltage each  $\emptyset$ - $\emptyset$ , +/-1.0%
  - ◆ Voltage Average, +/-1.0%
  - ◆ Current each  $\emptyset$ , +/-1.0%
  - ◆ Current Average +/-1.0%
  - ◆ Frequency: 45-65 Hz, +/-0.2%
  - ◆ Kilowatts Average, +/-1.0%

- Aux. Contacts:** \* (4) Addressable "C" Form Auxiliary contact signals are provided. Standard Signals:.
- \* Generator Start – for Automatic Exercise Operation
  - \* Exercise Failure – for Automatic Exercise Operation
  - \* Normal Operation
  - \* Common Failure

- Operator Interface:** \* Wall mounted Panel.
- \* The features of the system is accessed by the Operator Interface Panel.
  - \* Serial interface to Control Panel(s) using conventional Category 5 data cable connection.
  - \* Up to (4)Control Panels can be connected on a single unit with a simple "daisy chain" wiring.
  - \* The panel consists of the following components:
    - ◆ LCD Graphics Display Screen
    - ◆ Control Keypad
    - ◆ Audible Input Signal
    - ◆ LED General Operational Indicators
    - ◆ Lamp & Graphical Display Test
  - \* The LCD Display provides:
    - ◆ Soft Key Legend
    - ◆ Metering display
    - ◆ Operational Mode
    - ◆ Operational status and alarm condition details

#### PROTECTIVE SYSTEM

**Cooling:** A temperature & air flow sensors monitors cooling and disconnects the unit on failure.

**Voltage:** Voltage monitoring circuits monitor for connected sources and alarms and disconnects on faults.

**Cooling Motors:** Thermal overload relays with thermal magnetic circuit breaker for protection and disconnect.

**FUSES:** Fuse protection is provided for each individual load section and control circuit.

**POWER CONTROL:** The load is controlled by contactors that are applied for continuous and cycling operation.

**MANUALS:** (2) As built drawing manuals are provided at time of shipment.

**WARRANTY:** Tier 1 Standard Limited Warranty

**NOTE #1:** The load bank circuit breaker is not included in this proposal. The load bank circuit breaker must be installed at the generator switchgear or generator junction box to protect both the load bank and cabling. A circuit breaker in the load bank will not meet code requirements for connection cable protection.

#### OPTION #1: CURRENT TRANSFORMERS

**Current Transformer:** (2) Current transformer for installation at generator for the Automatic Loading function. The CT's are only required if the Automatic Loading function is implemented as a Load Bank function. These CT's are installed in the generator junction box or switchgear and need to sense the entire generator load including the Load Bank. Also, any CT with 5A secondary can be used as long as it is rated at least the full load amperage rating of the generator or larger.

# PROGRAMMABLE LOAD BANK CONTROLLER

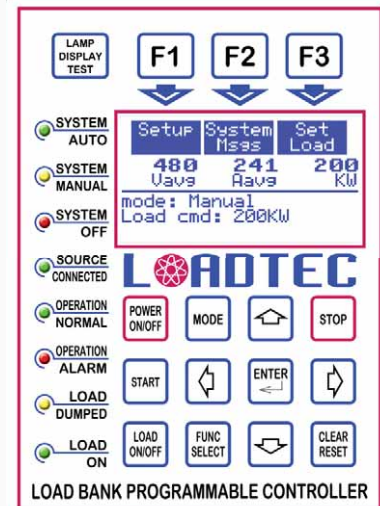
## DIGITAL CONTROLLER TO MEET THE MOST DEMANDING PROJECT SPECIFICATION

### ▶ PROGRAMMABLE FOR SITE REQUIREMENTS

- ▶ **AUTOMATIC EXERCISE OPERATION:** Real time clock unattended exercise
- ▶ **AUTOMATIC LOADING OPERATION:** maintain a minimum load
- ▶ **BASE LOADING OPERATION:** load the generator before transfer
- ▶ **REGENERATIVE ABSORPTION OPERATION:** absorb regenerative power
- ▶ **MANUAL LOADING OPERATION:** Operator controls to manually load the source
- ▶ **METERING:** Monitor the electrical values and the source loading level

### ▶ DIGITAL COMMUNICATION INTERFACES

- ▶ **INTERCONNECTIONS:** Simple CAT5 cable interface to modules
- ▶ **MULTIPLE CONTROL PANELS†:** up to (4) panels by RS422 connection
- ▶ **EXTERNAL CONTROL†:** Mod-Bus® & other control protocol communications available
- ▶ **TCP/IP INTERFACE†:** Connect to a LAN or WAN and communicate from anywhere



### ▶ AUTOMATIC EXERCISE OPERATION:

- ▶ THE AUTOMATIC EXERCISE FUNCTIONS PROVIDES THE CAPABILITY TO SCHEDULE AN UNATTENDED EXERCISE & LOADING OF THE SOURCE. THE FOLLOWING PARAMETERS ARE PROGRAMMABLE:
  - ▶ ENABLE / DISABLE
  - ▶ TIME OF DAY
  - ▶ DAY INTERVAL/DAY OF WEEK
  - ▶ TEST SEQUENCE: (8) stage
  - ▶ FAILURE TO COMPLETE EXERCISE ALARM
  - ▶ Under/Over VOLT & FREQ. LEVELS TO ALARM

### ▶ BASE LOADING OPERATION:

- ▶ THE BASE LOADING FUNCTION PROVIDES THE CAPABILITY TO PROGRAM THE LOADING OF THE GENRATOR AT STARTING AND BEFORE THE CONNECTION TO THE FACILITY LOADS. THIS PROVIDES ENGINE TURBO BOOST & ALTERNATOR FIELD BOOST TO IMPROVE GENERATOR CONNECTION STABILITY TO MOTOR LOAD AND NON-LINEAR LOADS. THE FOLLOWING PARAMETERS ARE PROGRAMMABLE:
  - ▶ ENABLE / DISABLE
  - ▶ VOLTAGE PERCENTAGE INITIATION
  - ▶ AMOUNT OF LOAD
  - ▶ TIME LOAD IS APPLIED IN SECONDS

### ▶ MANUAL LOADING OPERATION

- ▶ THE MANUAL OPERATION ALLOWS THE OPERATOR TO DIRECTLY APPLY DESIRED LOAD TO THE SOURCE.
  - ▶ SELECT LOAD VALUE
  - ▶ LOAD ON/OFF

### ▶ AUTOMATIC LOADING OPERATION:

- ▶ THE AUTOMATIC LOADING FUNCTION PROVIDES THE CAPABILITY TO PROGRAM A MINIMUM LOADING OF THE SOURCE. THIS REDUCES INEFFICIENT OR UNSTABLE OPERATION OF THE SOURCE. THE FOLLOWING PARAMETERS ARE PROGRAMMABLE:
  - ▶ ENABLE / DISABLE
  - ▶ SOURCE RATING
  - ▶ PERCENTAGE OF LOAD TO MAINTAIN
  - ▶ CURRENT TRANSFORMER SIZE
  - ▶ DELAY PROFILES: INITIAL, LOAD, UNLOAD
  - ▶ LOADING RESOLUTION

### ▶ REGENERATIVE ABSORPTION OPERATION:

- ▶ THE REGENERATIVE ABSORPTION FUNCTION PROVIDES THE CAPABILITY TO ABSORB LOAD REGENERATION FROM SOURCES SUCH AS ELEVATORS TO PREVENT GENERATOR OVERSPEED. THE FOLLOWING PARAMETERS ARE PROGRAMMABLE:
  - ▶ ENABLE / DISABLE
  - ▶ PERCENTAGE OF REGENERATION

### ▶ METERING:

- ▶ METERING IS PROVIDED TO MONITOR THE LOAD BANK AND SOURCE ELECTRICAL VALUES.
  - ▶ General: VM,AM,FM
  - ▶ Load Bank: KW
  - ▶ Source: KW

### ▶ GENERAL:

- ▶ LCD GRAPHIC OPERATOR DISPLAY
- ▶ LED'S FOR BASIC SYSTEM STATUS
- ▶ REAL TIME CLOCK
- ▶ NON-VOLATILE MEMORY: STORES SYSTEM

† Designates Optional Equipment or Feature

Representative:

Load Technology, Inc.  
4225 Production Ct.  
Las Vegas, NV 89115  
[www.loadtec.com](http://www.loadtec.com)

Tel: 800-LOADTEC  
: 702-643-8750  
Fax: 888-LOADTEC  
: 702-643-8751  
[sales@loadtec.com](mailto:sales@loadtec.com)

## **SITE**

- The Load Bank is designed for outdoor or indoor installation on a suitable concrete pad or supporting structure.
- **Outdoor**
  - This is the preferred method of installation.
  - Air exhaust is hot and serious considerations must be given to surrounding equipment and conditions. The Load Bank exhaust should be a minimum of twenty (20) feet from any object. The exhaust should not be directed to any other equipment's air intakes such as air conditioners or ventilating equipment; never be directed to flammable surfaces or areas with flammable storage; or areas that are routinely occupied or used as walkways.
  - When installing on roofs, consideration must be given for shielding of the roof surface. A modified louver assembly can be supplied for this type of application to direct the exhaust flow upwards.
  - Air intake(s) should be a minimum distance of six (6) feet from any walls, barriers, or restricting objects.
  - Consideration must be given to other heat rejecting equipment being directed at the intake or site area that would exceed the ambient limits.
  - The air exhaust should not be directed toward prevailing winds. The Load Bank should be positioned so the prevailing winds are directed to the air intake or sides of the unit.
- **Indoor**
  - Air exhaust is hot and serious considerations must be given to indoor installation.
  - Indoor installation requires special considerations to provide adequate cooling air and a means to duct or dissipate the heat rejected by the Load Bank.
  - Specific calculations for the Load Bank's heat rejection affect on the room's ambient must be made to assure the room's ventilating system can maintain the Load Bank's makeup air within ambient limits.
  - The cooling system of the Load Bank has a limited ability to overcome static pressure restrictions placed on it by intake and exhaust ductwork. Ductwork should be designed to the least amount of total static pressure and must not exceed of the maximum allowed for the specific unit being installed.
  - When intake ductwork is not used, static pressure concerns still exist. When the Load Bank's makeup air is derived directly from the room, the room may have a negative static pressure that is created by other air moving equipment such as engine cooling fans and room ventilating systems. These other systems may create a condition of negative static pressure that the Load Bank cooling fan may not be able to overcome thus causing cooling problems.
- Install the Load Bank on the prepared structure or pad in accordance with previously outlined criterion.

## **CONNECTION**

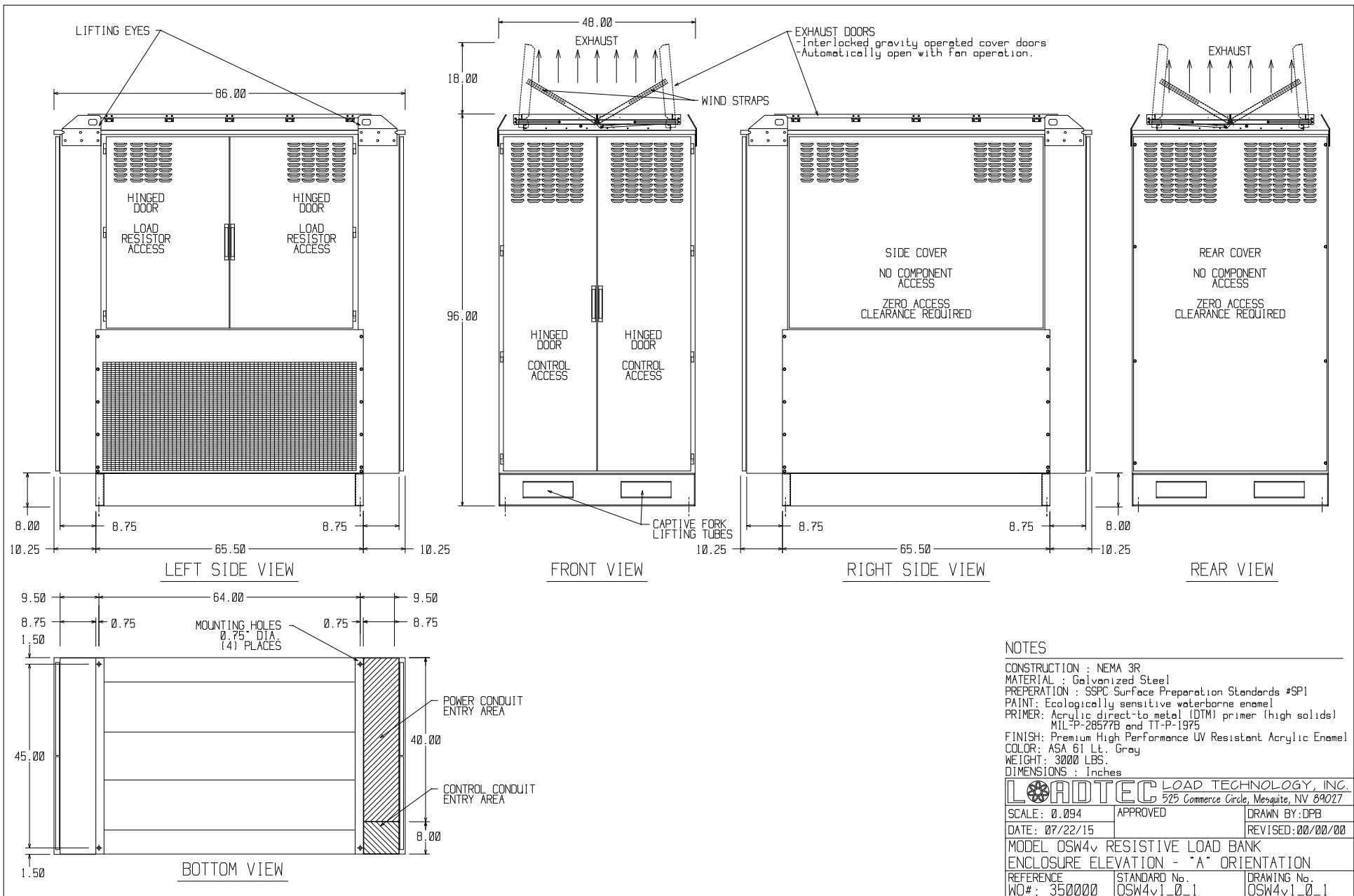
- The Load Bank electrical connection requirements are detailed by the drawing manual provided.
- The Load Bank will require two (2) basic connections: Power and Control
- Connect the required power conductors from the power source(s) to the Load Bank Main Bus connection points as detailed by the supplied drawings for the specific unit. All connections must take in consideration National Electrical Code and any local code requirements concerning, but not limited to, cable sizing, wiring methods, and over current protection.
- Particular attention must be made in properly grounding the Load Bank per National Electrical Code and any local codes.

### **WARNING**

#### **FOR OPERATOR SAFETY**

The Load Bank **MUST BE ELECTRICALLY GROUNDED** in accordance with the National Electrical Code & any local codes.

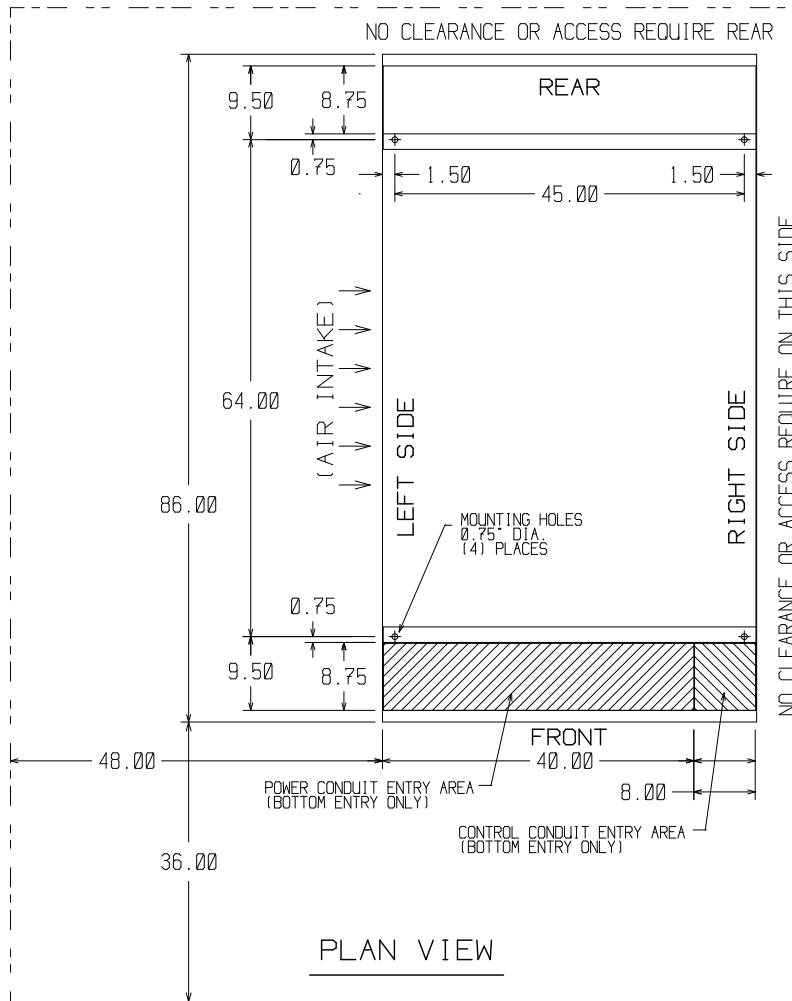
- Connect the required pilot conductors from the Load Bank to the Control panel connection points as detailed by the supplied drawings for the specific unit. All connections must be made in accordance with the National Electrical Code and any local code requirements concerning, but not limited to, cable sizing, wiring methods, and over current protection.
- Connect the required pilot conductors from the Control panel connection points to any required external monitoring or control points as detailed by the supplied drawings for the specific unit. All connections must be made in accordance with the National Electrical Code and any local codes.



**NOTES**

CONSTRUCTION : NEMA 3R  
 MATERIAL : Galvanized Steel  
 PREPARATION : SSPC Surface Preparation Standards #SP1  
 PAINT: Ecologically sensitive waterborne enamel  
 PRIMER: Acrylic direct-to metal (DTM) primer (high solids)  
 MIL-P-28577B and TT-P-1975  
 FINISH: Premium High Performance UV Resistant Acrylic Enamel  
 COLOR: ASA 61 Lt. Gray  
 WEIGHT: 3000 LBS.  
 DIMENSIONS : Inches

<b>LOADTEC</b> LOAD TECHNOLOGY, INC. 525 Commerce Circle, Mesquite, NV 89027		
SCALE: 0.094	APPROVED	DRAWN BY:DPB
DATE: 07/22/15		REVISED:00/00/00
MODEL OSW4v RESISTIVE LOAD BANK		
ENCLOSURE ELEVATION - "A" ORIENTATION		
REFERENCE	STANDARD No.	DRAWING No.
WO#: 350000	OSW4v1_0_1	OSW4v1_0_1

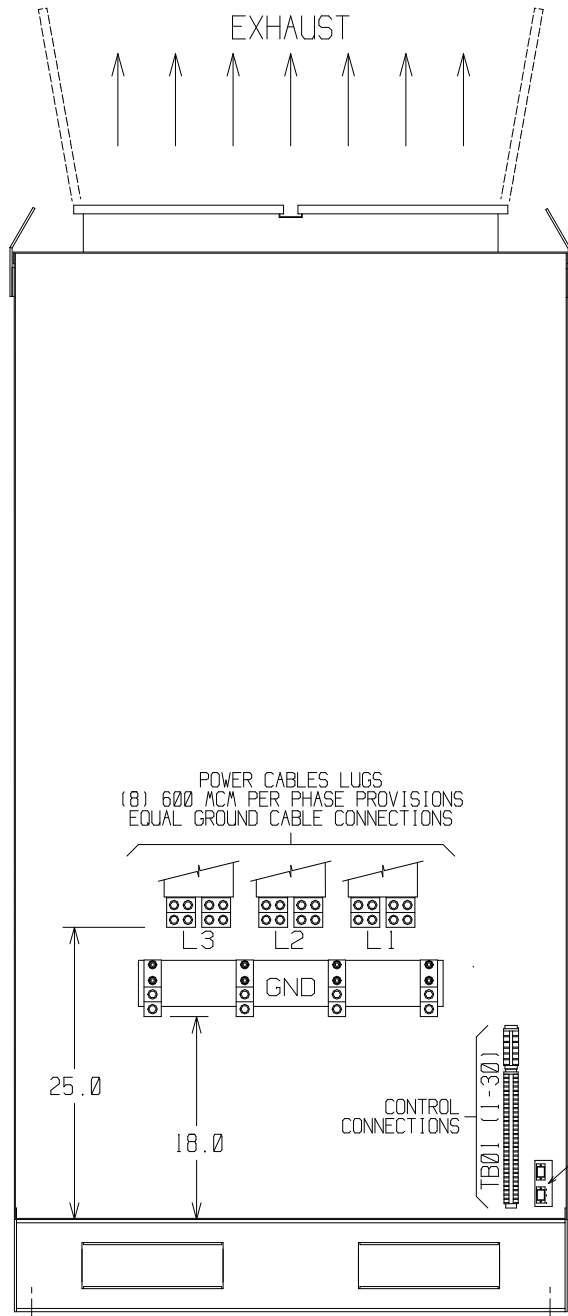


MINIMUM FUNCTIONAL CLEARANCES

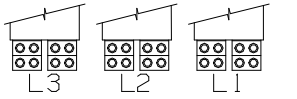
(NOTE: CODE REQUIRED CLEARANCE  
MAY BE GREATER DUE TO SITE CONDITIONS  
SUCH AS ADJACENT EQUIPMENT)

NOTES

DIMENSIONS : Inches		
<b>LOADTEC</b> LOAD TECHNOLOGY, INC. 525 Commerce Circle, Mesquite, NV 89027		
SCALE: 0.125	APPROVED	DRAWN BY: DPB
DATE: 09/15/14		REVISED: 00/00/00
MODEL OSW4v RESISTIVE LOAD BANK: "A" Conf 1g		
PLAN VIEW w/CLEARANCES: 1300-2000KW		
REFERENCE WO#: 140000	STANDARD No. OSW4v1a-1d	DRAWING No. 140000-01

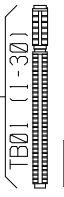


POWER CABLES LUGS  
 (8) 600 MCM PER PHASE PROVISIONS  
 EQUAL GROUND CABLE CONNECTIONS



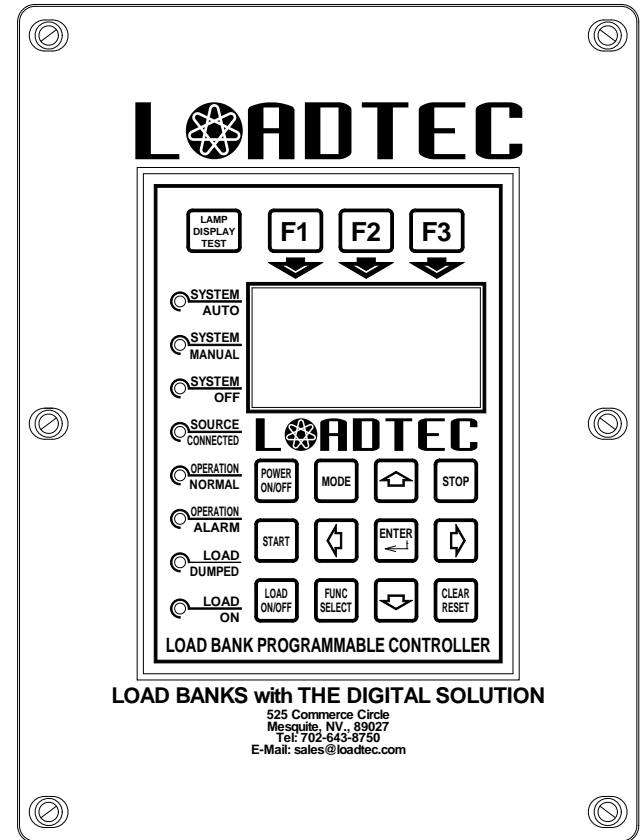
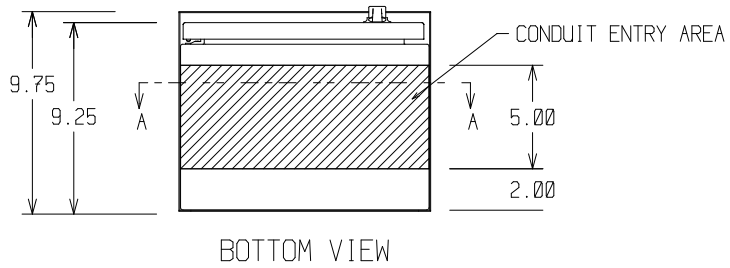
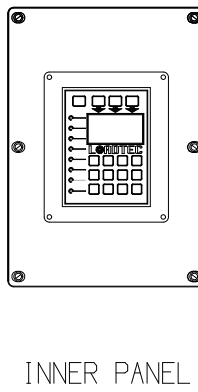
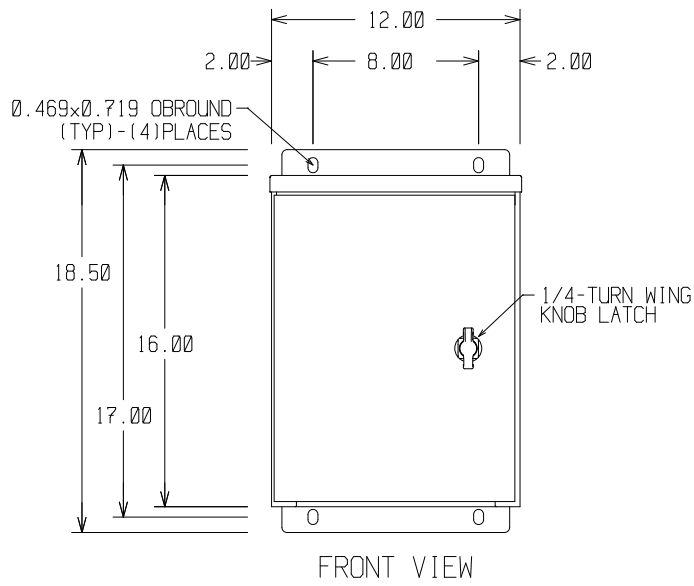
25.0  
 18.0

CONTROL CONNECTIONS



DIGITAL CONNECTIONS  
 CAT5 RJ45

FRONT VIEW  
 EXTERNAL CONNECTION LUGS  
 & TERMINAL BLOCK



NAMEPLATE DETAIL

NOTES

CONSTRUCTION : NEMA 3R. WALL MOUNTED  
 WEIGHT : 35 LBS.  
 DIMENSIONS : INCHES

**LOADTEC** LOAD TECHNOLOGY, INC.  
 525 Commerce Circle, Mesquite, NV 89027  
 DATE: 09/27/2021 DWG ID#: CNTRL\_OS\_ENCL-N3R\_PDC\_SCE16x12x8

# LOAD ENCLOSURE

-OIP-  
CONTROL  
PANEL

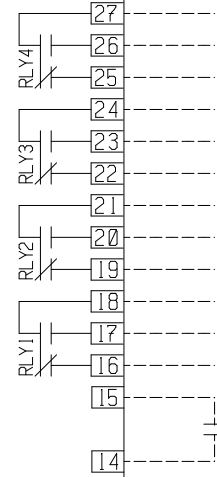
SELF POWERED  
FROM CONTROL  
INTERFACE UP  
TO 250' FROM  
LOAD BANK  
ENCLOSURE

RJ45  
MODULAR  
CONNECTOR  
CJ1

RJ45  
MODULAR  
CONNECTOR  
CJ1 CJ2

AUTOMATIC LOADING / REGEN. INTERFACE  
TO UTILIZE THE AUTOMATIC LOADING &  
REGENERATIVE FEATURES OF THE CONTROL  
SYSTEM. CURRENT TRANSFORMERS THAT ARE  
RATED AT THE FULL LOAD CURRENT OF  
THE GENERATOR MUST BE INSTALLED AT  
THE GENERATOR TO SENSE ALL LOAD  
CONNECTED TO THE GENERATOR INCLUDING  
THE LOAD BANK LOAD.

EXTERNAL SIGNAL  
AUXILIARY CONTACTS  
10A, 120VAC MAX. LOAD



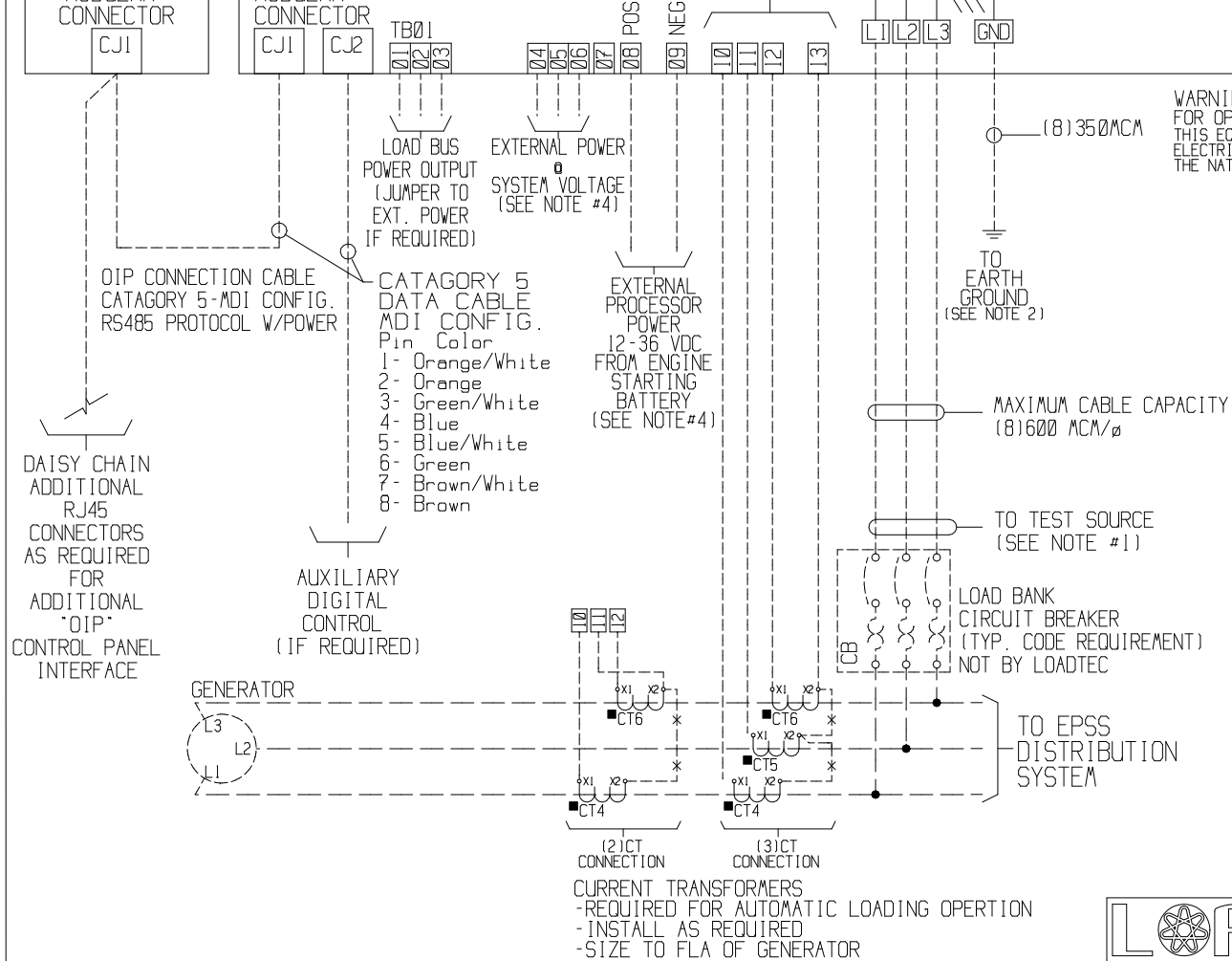
EXTERNAL OUTPUT  
OPERATING NORMALLY

EXTERNAL OUTPUT  
COMMON FAULT

EXTERNAL OUTPUT  
FAILURE TO COMPLETE EXERCISE

EXTERNAL OUTPUT  
GENERATOR START (REQUIRED FOR AUTO  
EXERCISE OPERATION)

LOAD BANK DUMP  
EXTERNAL CNTRL UTILITY LOSS SIGNAL  
(SEE NOTE #3) NOT BY LOADTEC



WARNING  
FOR OPERATOR SAFETY  
THIS EQUIPMENT MUST BE  
ELECTRICALLY GROUNDED PER  
THE NATIONAL ELECTRICAL CODE

### NOTES

- #1 CONNECT THE LOAD BANK TO A SUITABLE OVER CURRENT DEVICE BEFORE CONNECTION TO THE TEST SOURCE. THE OVER CURRENT DEVICE AND INTERCONNECTING CONDUCTORS MUST BE SIZED AND INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ANY LOCAL CODES.
  - #2 THE EQUIPMENT MUST BE ELECTRICALLY GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ANY LOCAL CODES.
  - #3 LOAD BANK DUMP CONTROL INTERFACE PROVIDES EXTERNAL CONTROL TO DISCONNECT THE LOAD BANK IF NORMAL (UTILITY) POWER FAILS DURING AN EXERCISE PERIOD. THE CONTROL IS USUALLY PROVIDED BY THE AUTOMATIC TRANSFER SWITCH SIGNAL CONTACT(S). THE TRANSFER SWITCH CONTACT(S) SHOULD OPEN DURING NORMAL (UTILITY) POWER LOSS AND REMAIN OPEN AS LONG AS THE TRANSFER SWITCH IS IN THE EMERGENCY (GENERATOR) POSITION.
  - #4 AN EXTERNAL CONTROL POWER SOURCE IS REQUIRED TO IMPLEMENT ALL OF THE CONTROL FUNCTIONS OF THE SYSTEM. THE CONTROL POWER SOURCE CAN BE DERIVED FROM A FACILITY 3Ø SOURCE OR THE ENGINE STARTING BATTERIES. ONLY ONE OF THE SOURCES ARE REQUIRED. IF A 3Ø SOURCE IS NOT CONNECTED TO A FACILITY NORMAL POWER SOURCE, BUT IS JUMPERED TO THE TEST SOURCE OUTPUT POWER TERMINAL BLOCK CONNECTIONS. THE ENGINE STARTING BATTERY CONNECTION IS REQUIRED.
- DASHED LINES INDICATE WIRING AND/OR DEVICES NOT SUPPLIED BY LOADTEC

DAISY CHAIN  
ADDITIONAL  
RJ45  
CONNECTORS  
AS REQUIRED  
FOR  
ADDITIONAL  
"OIP"  
CONTROL PANEL  
INTERFACE

AUXILIARY  
DIGITAL  
CONTROL  
(IF REQUIRED)

OIP CONNECTION CABLE  
CATAGORY 5-MDI CONFIG.  
RS485 PROTOCOL W/POWER

CATAGORY 5  
DATA CABLE  
MDI CONFIG.  
Pin Color  
1- Orange/White  
2- Orange  
3- Green/White  
4- Blue  
5- Blue/White  
6- Green  
7- Brown/White  
8- Brown



## LIMITED WARRANTY

W.O.#: **420184**

ID: warranty\_wo\_03202017

525 COMMERCE CIRCLE; MESQUITE, NV 89027

TEL: (702) 643-8750 FAX: (702) 643-8751

[www.loadtec.com](http://www.loadtec.com) [sales@loadtec.com](mailto:sales@loadtec.com)

### **TIER #1: Standard Limited Warranty**

LOADTEC, Load Technology Inc., warrants that its products are free from defects in material and/or workmanship under normal use and service. Its liability under this Warranty Tier shall be limited to twelve (12) months from date of shipment for products and/or components except as noted:

(3) Year Term Items (included in Standard level)

- \* The "RESISTAR" Load Resistor assemblies as manufactured by Loadtec. These assemblies have the Warranty term extended to a total of thirty-six (36) months from the date of shipment. The "RESISTAR" Load Resistor assemblies warranty is limited to the failure of the alloy wire, its termination, and workmanship of the assembly. Physical damage or breakage is not covered. All other terms of the Tier #1 Warranty apply.
- \* The digital electronic control assemblies that are manufactured by Loadtec. These components and assemblies have the Warranty term extended to total of thirty-six (36) months from the date of shipment. All other terms of the Standard Warranty apply.

The warranty liability is limited to repair, refurbishing, or replacement; at LOADTEC's sole discretion, at the factory or authorized service station. The products and/or components shall be returned with transportation costs prepaid. Returned products and/or components that are determined defective and within the warranty period will be repaired or replaced, and returned F.O.B. factory or repair station, freight charges collect. Authorization to return must be obtained prior to receipt at the factory by contacting Loadtec Service Department. The delivery of any unauthorized returned Products shall be refused.

This warranty does not cover incidental and consequential damages, nor does this warranty cover defects caused by abuse, improper use, improper installation, improper connection, lack of reasonable maintenance, modifications, shipping damage, or accident. This Standard Warranty Tier does not include any labor charges, service charges, or any liability except repair or replacement of the products and/or components as previously described and governed by the General Conditions section.

### **TIER #1a: 2 Years without Labor Limited Warranty**

LOADTEC, Load Technology Inc., offers this Tier #1a Warranty as an option to the Tier #1, Standard Warranty as previously described. The terms of the Tier #1 Standard apply plus the addition of one year (12 months) to the basic 12 month term for a total of (24) months from date of shipment. This Tier 1a Limited Warranty does not include any labor charges, service charges, or any liability except repair or replacement of the products and/or components as previously described and governed by the General Conditions section.

### **TIER #1b: 1 Year with Labor Limited Warranty**

LOADTEC, Load Technology Inc., offers this Tier #1b Warranty as an option to the Tier #1, Standard Warranty as previously described. The terms of the Tier #1 Standard apply plus the addition of labor costs to accomplish repair. The labor cost may be provided in the form of a technician dispatched from the factory or a locally dispatched independent service company's personnel. If the damage is deemed not repairable on the site, the Warranty will cover removal and transportation cost to the factory and return to the site. The remedy shall be the sole discretion of Loadtec. The Warranty Holder shall make available to the Service Department of Load Technology, the person at the site who has working knowledge of the equipment and has reported the claim. This person will be required to provide details of the claim with preliminary data and readings to evaluate the validity of the claim. If it is found later that the supplied data is not accurate, and the claim is not covered by this Warranty, the entity making the claim will be charged and held responsible for costs incurred that will include, but not limited to: labor, transportation, lodging, and material costs. This Warranty option is governed by the General Condition section of this document.

### **TIER #2: 2 Years with Labor Limited Warranty**

LOADTEC, Load Technology Inc., offers this Tier #2 Warranty as an option to the Tier #1, Standard Warranty as previously described. The terms of the Tier #1 Standard apply plus the addition of labor costs to accomplish repair. The term of the Tier #2 warranty is two (2) years from the date of shipment from the factory. The labor cost may be provided in the form of a technician dispatched from the factory or a locally dispatched independent service company's personnel. If the damage is deemed not repairable on the site, the Warranty will cover removal and transportation cost to the factory and return to the site. The remedy shall be the sole discretion of Loadtec. The Warranty holder shall make available to the Service Department of Load Technology, the person at the site who has working knowledge of the equipment and has reported the claim. This person will be required to provide details of the claim with preliminary data and readings to evaluate the validity of the claim. If it is found later that the supplied data is not accurate, and the claim is not covered by this Warranty, the entity making the claim will be charged and held responsible for costs incurred that will include, but not limited to: labor, transportation, lodging, and material costs. This Warranty option is governed by the General Condition section of this document.

### **TIER #3: 3 Years with Labor Limited Warranty**

LOADTEC, Load Technology Inc., offers this Tier #3 Limited Warranty as an option to the Tier #1, Standard Limited Warranty as previously described. The terms of the Tier #1 Standard Limited Warranty apply plus the addition of labor costs. The terms of the Tier #3 Limited Warranty are the same as the Tier #2 Limited Warranty with the only exception being the term being three (3) years from the date of shipment from the factory.

### **TIER #4: 4 Years with Labor Limited Warranty**

LOADTEC, Load Technology Inc., offers this Tier #4 Limited Warranty as an option to the Tier #1, Standard Limited Warranty as previously described. The terms of the Tier #1 Standard Limited Warranty apply plus the addition of labor costs. The terms of the Tier #3 Limited Warranty are the same as the Tier #2 Limited Warranty with the only exception being the term being four (4) years from the date of shipment from the factory.

### **TIER #5: 5 Years with Labor Limited Warranty**

LOADTEC, Load Technology Inc., offers this Tier #5 Limited Warranty as an option to the Tier #1, Standard Limited Warranty as previously described. The terms of the Tier #1 Standard Limited Warranty apply plus the addition of labor costs. The terms of the Tier #5 Limited Warranty are the same as the Tier #2 Limited Warranty with the only exception being the term being five (5) years from the date of shipment from the factory.

### **GENERAL CONDITIONS:**

- \* No Warranty Tier covers incidental and/or consequential damages, nor does it cover failures caused by: abuse, improper use, improper installation, improper connection, lack of reasonable maintenance, unauthorized modifications or repairs, shipping damage, accident (including collision with another object), road hazard damage, acts of terrorism or civil disturbance or riot, theft, vandalism, pests, or acts of god (such as, but not limited to: floods, hurricanes, tornadoes, earthquakes, or fire).
- \* Products that are resold after original installation or commissioning and ownership is transferred are not covered under this Warranty.
- \* Consumable components of the products (fuses, light bulbs, tires, trailer brakes, and other components that contain a "wear life") are not included in this Warranty and are specifically excluded from warranty coverage. Trailer components (wheels & tires) susceptible to road hazard damage after shipment from the factory are not covered under this warranty during any time period after shipment from factory.

\* Tier 1 Warranty applies to all products of Load Technology as governed by the General Conditions section of this document.

\* Tier 2, 3, 4, 5 Warranties are not available for all products provided by Load Technology, Inc. Certain products may have certain components, structures or assemblies specifically excluded due to the lack of available extended support by their manufacturer or supplier. Any such limitations will be indicated on the specific product's purchase documents.

\* Tier 2, 3, 4, 5 Warranties are offered on an optional basis and are at an additional cost and are not included in base equipment offering unless specifically listed in writing in the purchase documents.

\* Tier 2, 3, 4, 5 Warranties are only available for products installed and/or used in the continental United States. This condition is not waived if quoted or sold and the unit is installed/or used outside the continental United States. The remedy for such an occurrence is the refunding of the Warranty purchase price to the Purchaser.

\* Tier 2, 3, 4, 5 Warranty must be purchased within 90 days of the product shipping from the Factory. The Tier 2,3,4,5 Warranties are invalid if purchased after a warrantable occurrence but within the 90 day shipping period. The remedy for such occurrence is the refunding of the Warranty purchase price to the Purchaser.

\* Tier 1, 2, 3, 4, 5 All claims must be presented to Load Technology in a timely manner. A reasonable amount of time must be allowed to remedy any claims. All claims must be presented to Load Technology for evaluation and remedy BEFORE any repairs are initiated. Any repairs undertaken without authorization are not covered under this Warranty and any claim for payment will be rejected.

\* This warranty is in lieu of any other Warranties; expressed or implied, and this Warranty is the sole remedy for claims related to the good(s).