

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Description

The Powerex medical system package is designed to provide medical breathing air for hospital and medical institutes. This system meets NFPA 99 requirements for Level 1 breathing air.

OILLESS OPT/OPS COMPRESSOR

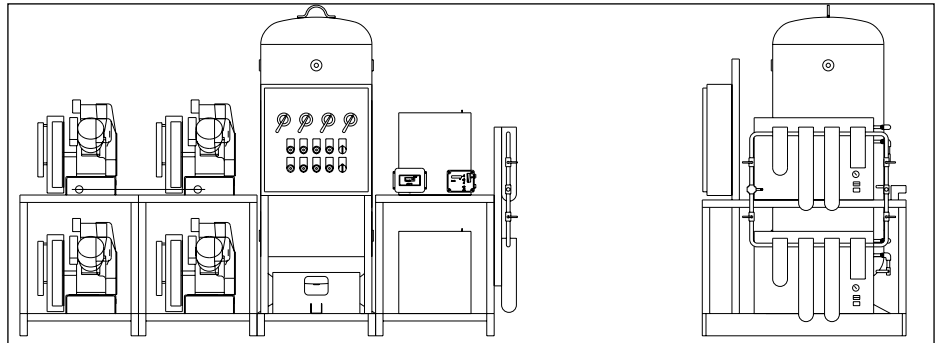
The Powerex oilless reciprocating air compressor has advanced compressor technology through the development of a completely oilless compressor. The Powerex reciprocating compressor is provided in duplex, triplex or quadplex configurations with head unloaders to provide start, stop or continuous operation. Composite piston technology and continuously lubricating bearings provide oil-free air reliability for years to come.

RECEIVER TANK

The ASME, National Board registered air receiver is provided in sizes from 120 to 240 gallons. Each receiver is rated at 200 PSIG working pressure. Receivers are provided with sight glass and moisture drain (manual or automatic).

CONTROL PANEL

The NEMA 12 control panel is provided in duplex, triplex or quadplex configurations and meets NFPA 99 requirements for medical air. Primary voltage is protected by fusing or circuit breaker. Control transformer power is 110 volts and protected by secondary fusing. Pressure control switches signal the compressors on and off cycle and signal lag compressor(s) to come on if air demand increases. A lag, lag pressure switch or transducer signals a light and audible alarm warning of a low pressure condition which is factory set at 40 PSIG. An acknowledge button is provided for start condition and maintenance. The adjustable timer alternator cycles each compressor so equal run time is maintained. This alternator is factory set to alternate the compressors every 10 minutes. The exterior of the control panel is accessible through the door. The panel disconnects on/off/auto switches run lights, power on lights, run hourmeters, lag pressure light, high



temperature light and overload reset. This control panel is UL listed.

DEW POINT MONITOR

The Powerex dew point monitor provides indication of dew point and temperature. It's microprocessor controlled with user programmable output range, alarm and calibration. The NEMA enclosure is protected by a polymer viewing cover.

CARBON MONOXIDE MONITOR/ALARM

The carbon monoxide monitor provides warning to the user of air-supplied respirators alarming and metering the presence of carbon monoxide. The monitor is provided in a NEMA 12 enclosure. In addition to audio/visual alarm, the meter displays the concentration of CO in the compressed air. The meter operates from a 110 VAC supply. Alarm points are set a 10PPM (low) and 20 PPM (high).

AIR COOLED AFTERCOOLER

Four models of beltguard aftercoolers sized to provide an approach of 20°F. Constructed of copper tubing and metal headers for a rugged construction.

AIR DRYER (REFRIGERATED OR DESICCANT)

The Powerex air drying system provides air at 38°F at 100 PSIG for refrigerated units and -40°F dew point for desiccant dryer systems. Each system is connected with bypass capability.

The refrigerated compressed air dryer(s) are noncycling, direct expansion type, using R-22 refrigerant,

CFC free. A hot gas bypass valve is provided to maintain 38°F evaporator temperature. The dryer is self-regulating for large load swings. Heat exchangers are made of copper tube construction and insulated.

The regenerative desiccant consists of two (dual) towers filled with desiccant. Each tower is switched on and off stream, alternating the air system stream and then being regenerated. Dry purge air pulls moisture from the desiccant and carries the moisture out of the air.

MEDICAL FILTER SYSTEM

The medical filter system consists of a duplex series of filters and pressure regulators. Air enters the system and is directed to either bank of filters controlled by ball valve. The first stage filter removes solids and liquid particles. The next stage of filters remove submicronic particles and aerosols. The third and final filter is carbon activated to remove unpleasant odors. Maximum operating temperature is 125°F and maximum pressure is 150 PSIG.

CONDENSATE DRAIN VALVE

A condensate drain valve must be installed on any tank. This valve removes liquid that collects during compressor operation.

Drain liquid from tank daily.

Safety Guidelines

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS.

Medical Package System

To help recognize this information, observe the following symbols.

DANGER *Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.*

WARNING *Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.*

CAUTION *Caution indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury.*

NOTICE *Notice indicates important information that, if not followed, may cause damage to equipment.*

Unpacking

RECEIVING THE UNIT


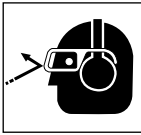
Immediately upon receipt of the oilless compressor, inspect for any damage which may have occurred during shipment.

The compressor nameplate should be checked to verify the correct model and voltage as ordered.

WARNING *Do not operate unit if damaged during shipping, handling or use. Damage may result in bursting and cause injury or property damage.*

General Safety Information

The following safety precautions must be observed at all times:

1. Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment. 
2. Follow all local electrical and safety codes, as well as in the United States, the National Electrical Codes (NEC) and Occupational Safety and Health Act (OSHA).
3. Only persons well acquainted with these rules of safe operation should be allowed to use the equipment.
4. Keep visitors away and NEVER allow children in the work area.
5. Wear safety glasses and use hearing protection when operating the unit. 
6. Do not stand on or use the unit as a handhold.
7. Before each use, inspect compressed air system and electrical components for signs of damage, deterioration, weakness or leakage. Repair or

replace defective items before using.


8. Check all fasteners at frequent intervals for proper tightness.

WARNING *Electrical equipment and controls can cause electrical arcs that will ignite a flammable gas or vapor. Never operate or repair in or near a flammable gas or vapor. Never store flammable liquids or gases in the vicinity of the compressor.* 

WARNING *An ASME code safety relief valve, with a setting no higher than the tank maximum allowable working pressure, MUST be installed in the air lines or in the tank. The ASME safety valve must have sufficient flow and pressure ratings to protect the pressurized components from bursting. The flow rating can be found in the parts manual.*

CAUTION *Do not operate with pressure switch or pilot valves set higher than the tank maximum allowable working pressure.*


9. Never attempt to adjust ASME safety valve. Keep safety valve free from paint and other accumulations.

DANGER *Never attempt to repair or modify a tank! Welding, drilling or any other modification will weaken the tank resulting in damage from rupture or explosion. Always replace worn, cracked or damaged tanks.* 

NOTICE *Drain liquid from tank daily.*

10. Tanks rust from moisture build-up, which weakens the tank. Make sure to drain tank regularly and inspect periodically for unsafe conditions such as rust formation and corrosion.
11. Fast moving air will stir up dust and debris which may be harmful. Release air slowly when draining moisture or depressurizing.

Installation

WARNING *Disconnect, tag and lock out power source then release all pressure from the system before attempting to install, service, relocate or perform any maintenance.* 

CAUTION *Do not lift or move unit without appropriately rated equipment. Be sure the unit is securely attached to lifting device used. Do not lift unit by holding onto tubes or coolers. Do not use unit to lift other attached equipment.*

WARNING *Installation of inlet/outlet air plumbing from the compressor flange and electrical connection must be in accordance with National Fire Protection Association (NFPA99) Code Compliance for Medical Gas Breathing Air (Level 1).*

INSTALLATION SITE

1. The oilless compressor must be located in a clean, well lit and well ventilated area.
2. The area should be free of excessive dust, toxic or flammable gases and moisture.
3. Never install the compressor where the surrounding temperature is higher than 105° F or where humidity is high.
4. Clearance must allow for safe, effective inspection and maintenance.

Minimum Clearances

Above	24"
Other sides	36"

VENTILATION

1. If the oilless compressor is located in a totally enclosed room, an exhaust fan with access to outside air must be installed.
2. Never restrict the cooling fan exhaust air. Maintain a minimum of 3 feet of clearance around entire unit.
3. Never locate the compressor where hot exhaust air from other heat generating units may be pulled into the unit.

WIRING

All electrical hook-ups must be performed by a qualified electrician. Installations must be in accordance with local and national electrical codes. Use solderless terminals to connect the electric power source.

PIPING

Refer to the general product manual.

1. Make sure the piping is lined up without being strained or twisted when assembling the piping for the compressor.
2. Appropriate expansion loops or bends should be installed at the

compressor to avoid stresses caused by changes in hot and cold conditions.

3. Piping supports should be anchored separately from the compressor to reduce noise and vibration.
4. Never use any piping smaller than the compressor connection.
5. Use flexible hose to connect the outlet of the compressor to the piping so that the vibration of the compressor does not transfer to the piping.

SAFETY VALVES

Tank mounted compressors are shipped from the factory with safety valves installed in the tank manifold. The flow capacity of the safety valve is equal to or greater than the capacity of the compressor.

1. The pressure setting of the safety valve must be no higher than the maximum working pressure of the tank.
2. Safety valves should be placed ahead of any possible blockage point in the system, i.e. shutoff valve.
3. Avoid connecting the safety valve with any tubing or piping.
4. Manually operate the safety valve every six months to avoid sticking or freezing.

Assembling Modular Medical System

MODULAR PLACEMENT

1. Unpack each module and discard all wood shipping materials.
2. Locate frame assembly fasteners provided in parts pack [includes: fasteners, filter(s), isolation pads and inlet flex line].
3. Place modules at location designated (see picture below for proper arrangement of modules). Provide sufficient clearance around unit for servicing (see minimum clearance section).
4. Install frame assembly fasteners to each frame joining the frames together.
5. Lift corners of each frame assembly and install isolation pads provided.

NOTE: Remove shipping brackets painted orange located at the base plate of each compressor module. This will allow spring isolators to free up reducing noise and vibration of the unit.

CONNECTING PIPING

1. Locate connection for piping at rear of unit for compressors module to receiver tank module.
 2. Remove plastic caps that protect piping against contamination.
 3. Connect flex joint to frame securely making sure flex line is not pinched or chinked.
 4. Follow steps 1 to 3 for flex line from dryer package to outlet of receiver tank.
- NOTE:** All piping is provided and sealed for this portion of installation.
5. Locate and attach intake inline air filter to outside source air or header. Flex line is provided when attaching intake of compressors to rigid piping.
 6. Connect outlet source from filter package located on dryer module to outlet source piping.

WARNING *Attach all inlet and outlet source piping in accordance with NFPA 99 for Medical Gas.*

ELECTRICAL WIRING OF MODULES

CAUTION *Provide electrical power in accordance to NEC and local codes. Connection of wiring should be performed by a qualified electrician.*

1. Connect wiring and flex conduit provided from each motor junction box to correct hole in bottom of control panel and starter.
2. Connect each temperature switch from the compressors to contacts located in control panel as marked for each temperature switch. Temperature switches shutdown the

compressor when temperature is above 400°F.

3. Connect wiring of unload solenoids to contacts located on control panel. The unload solenoid provides loadless starting of the compressors on off cycle.
4. Connect wiring from differential pressure switch at control panel. Differential switch wired to contacts in control panel provided for remote alarm.
5. Connect wiring from CO Monitor. A wire set is provided for power and the other for alarm. Wiring is marked for easy attachment.
6. Connect wiring from Dew Point Monitor. A wire set is provided for power and the other for alarm. Wiring is marked for easy attachment.
7. Dryer(s) need a separate properly protected power supply for each dryer. Standard voltage is 110 Volts. Other voltages are available. Check for voltage of dryer supplied and current rating provided on data plate of dryer.

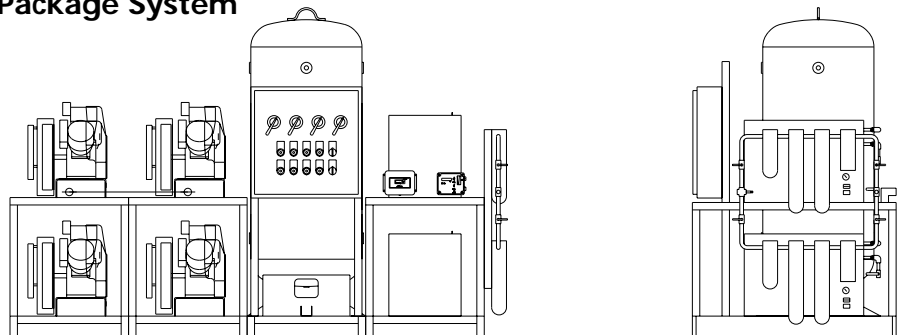
NOTE: Units provided with desiccant drying systems are wired directly to the control panel provided.

For questions concerning assembling and start-up, contact Powerex at 1-800-544-0350 for technical assistance.

Operation

Powerex package medical system operates at a maximum pressure of 100 PSIG. Compressor RPM's are established by Powerex based on horsepower and operating pressure.

MPD Medical Package System



Medical Package System

BEFORE START UP

1. Make sure all safety warnings, labels and instructions have been read and understood before continuing.
2. Remove any shipping materials, brackets, etc.
3. Confirm that the electric power source and ground have been firmly connected.
4. Be sure all pressure connections are tight.
5. Check to be certain all safety relief valves, etc., are correctly installed.
6. Check that all fuses, circuit breakers, etc., are the proper size.
7. Make sure the inlet filter is properly installed.
8. Confirm that the drain valve is closed.
9. Visually check the rotation of the compressor pump. If the rotation is

incorrect, have a qualified electrician correct the motor wiring.

START-UP AND OPERATION

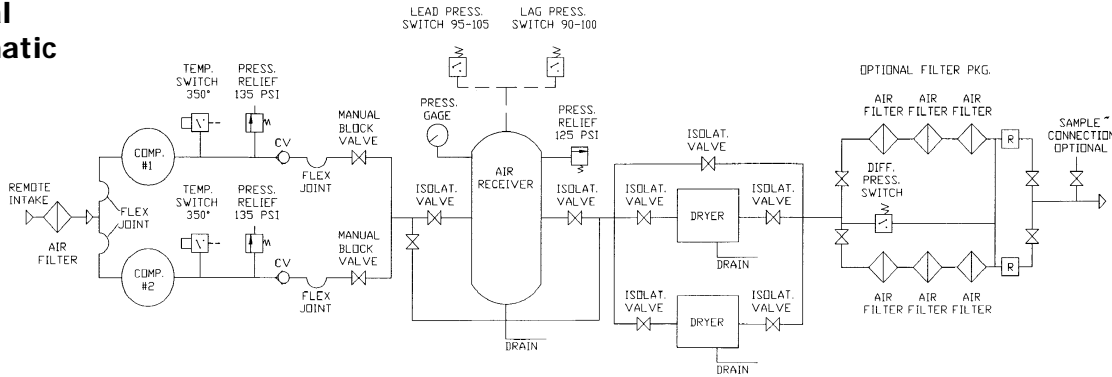
1. Follow all the procedures under "Before start-up" before attempting operation of the compressor.
2. Switch the electric source breaker on.
3. Both dryers should be plugged in and set at the on position.
4. Dewpoint & CO Monitors should be on and the sampling valves open. Calibrate Dewpoint and CO per enclosed manufacturer's instructions.
5. Ensure water lines are properly installed to water-cooled aftercoolers. Turn on water.

IMPORTANT: This is not a standard option. Check to see if water-

cooled aftercoolers were provided.

6. Compressor unit isolation valves are preset at the factory in the open position except for tank by-pass which must remain closed during normal operation.
7. Dryer and filter isolation valves: Valves should be open to one dryer and one filter bank.
8. Close valve leading to the Medical Air System from receiver on the compressor unit.
 - a. Turn both fusible/breaker disconnects to the on position. Low pressure alarm will sound. Silence the alarm by pushing alarm acknowledge button.
 - b. Jog each compressor in the manual position on the selector switch to check for rotation. (Clockwise if

Medical Air Schematic



Specifications

Medical Package Duplex – Model MPD

MODEL	HP	PHASE	SCFM @ 100 PSIG	SCFM @ 50 PSIG	RPM	VOLTAGE	FULL LOAD AMP/ MOTOR	GALLON TANK	DIMENSION LxWxH	SHIPPING WT. (Lbs.)
MPD0508	5(2)	3	33.4	36.2	870	208/230/460	17.4 / 16.5 / 8.2	120	64 x 65 x 76	1288
MPD0758	7.5(2)	3	52.2	55.1	840	208/230/460	23.4 / 22 / 11	120	64 x 65 x 76	1340
MPD1008	10(2)	3	70	76.3	1070	208/230/460	29 / 33 / 16.5	200	64 x 65 x 80	1510
MPD1508	15(2)	3	108.4	114.1	1250	208/230/460	51 / 48 / 24	200	64 x 65 x 80	1630

Medical Package Triplex – Model MPT

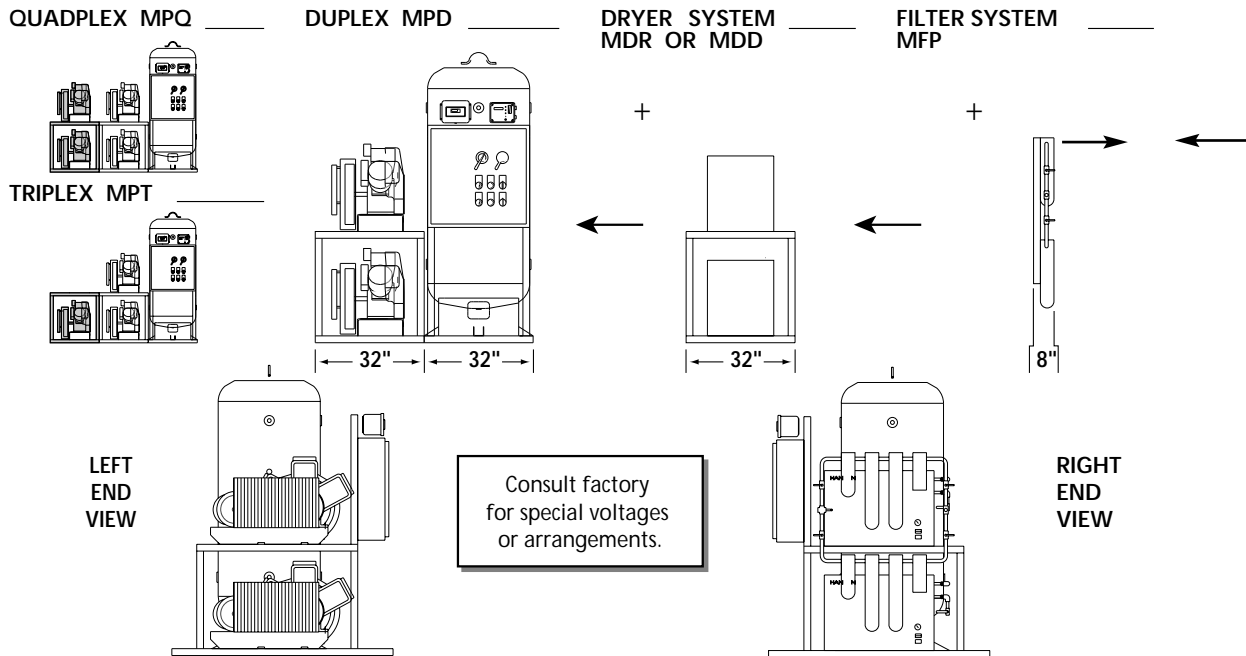
MODEL	HP	PHASE	SCFM @ 100 PSIG	SCFM @ 50 PSIG	RPM	VOLTAGE	FULL LOAD AMP/ MOTOR	GALLON TANK	DIMENSION LxWxH	SHIPPING WT. (Lbs.)
MPT0508	5(3)	3	50.1	54.7	870	208/230/460	17.4 / 16.5 / 8.2	200	96 x 65 x 80	1838
MPT0758	7.5(3)	3	78.8	83.9	840	208/230/460	23.4 / 22 / 11	200	96 x 65 x 80	1980
MPT1008	10(3)	3	105	111.5	1070	208/230/460	29 / 33 / 16.5	240	96 x 65 x 92	2160
MPT1508	15(3)	3	162.6	168	1250	208/230/460	51 / 48 / 24	240	96 x 65 x 92	2280

Medical Package Quadplex – Model MPQ

MODEL	HP	PHASE	SCFM @ 100 PSIG	SCFM @ 50 PSIG	RPM	VOLTAGE	FULL LOAD AMP/ MOTOR	GALLON TANK	DIMENSION LxWxH	SHIPPING WT. (Lbs.)
MPQ0508	5(4)	3	66.8	74.9	870	208/230/460	17.4 / 16.5 / 8.2	240	128 x 65 x 92	2388
MPQ0758	7.5(4)	3	104.4	120.2	840	208/230/460	23.4 / 22 / 11	240	128 x 65 x 92	2490
MPQ1008	10(4)	3	140	153	1070	208/230/460	29 / 33 / 16.5	240	128 x 65 x 92	2640
MPQ1508	15(4)	3	216.8	221	1250	208/230/460	51 / 48 / 24	240	128 x 65 x 92	2735

Medical Package System

- facing the black fan shroud and counterclockwise if facing the compressor flywheel.)
- c. Set both selector switches to the auto position. Compressors will both run until the lead pressure switch closes.
 - d. Open valve at the air receiver leading to Medical Air System.
 - e. Check for air leaks at the connections.
 9. Check that the compressor operates without excessive vibration, unusual noises or leaks.
 10. Check the discharge pressure. Also make sure the air pressure rises to the designated pressure setting by checking the discharge pressure gauge.
 11. Check the operation of the pressure switch or the pilot valve for continuous run units by opening the stop valve and confirming the compressor starts or reloads as pressure drops.



COMPRESSOR MAINTENANCE SCHEDULE

Item	Action needed	Operating Hours						Remarks
		500	2500	5000	10,000	15,000	20,000	
Tank	Drain moisture	Daily	2500					
Inlet air filter	Replace	●	▲	(Every 2,500 hrs or less)				
Blower fan	Clean			●	●	●	●	
Fan Duct	Clean			●	●	●	●	
Compressor Fins	Clean		●	(Every 2,500 hrs or less)				
Bearings	Replace				●	●	▲	
Compression rings	Replace				▲		▲	
Wrist pin bearing	Regrease				▲		▲	
Piston set	Replace						▲	
V-belt	Inspect, replace	*Note 3	●	▲	▲	▲	▲	
Safety valve	Confirm operation		●	(Every 2,500 hrs or less)				
Pressure gauge	Inspect		●	(Every 2,500 hrs or less)				
Air leaks	Inspect		●		●		●	
Filters	Replace		▲	▲	▲	▲	▲	(View delta pressure indication)
Moisture drains traps	Inspect	●		●		●		
Suction pressure (refrigerated)		●	●	●	●	●		
Heat exchanger		●	●	●	●	●		

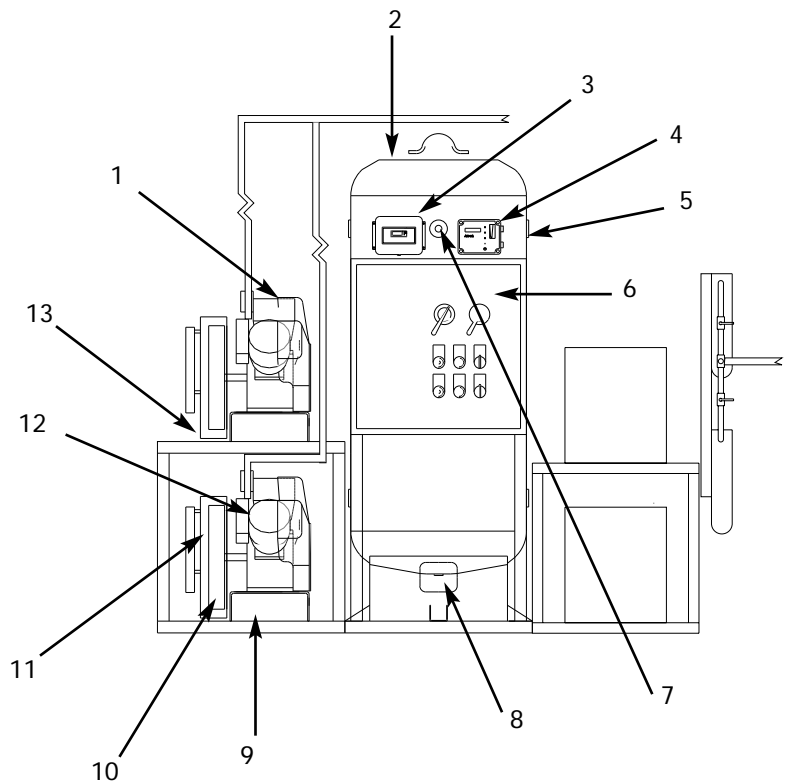
● Inspect ▲ Replace

1. Inspect and perform maintenance periodically according to maintenance schedule.
2. The maintenance schedule relates to the normal operating conditions. If the circumstances and load condition are adverse, shorten the cycle time and do maintenance accordingly.
3. * The tension of the V-belt should be adjusted during the initial stage and inspected every 1,500 hours afterwards. Proper belt tension for 3/4 to 3 HP units is 12 lbs./1.5" deflection; for 5 to 20 HP units, 16 lbs./1.5" deflection

Medical Package System

Compressor Parts List

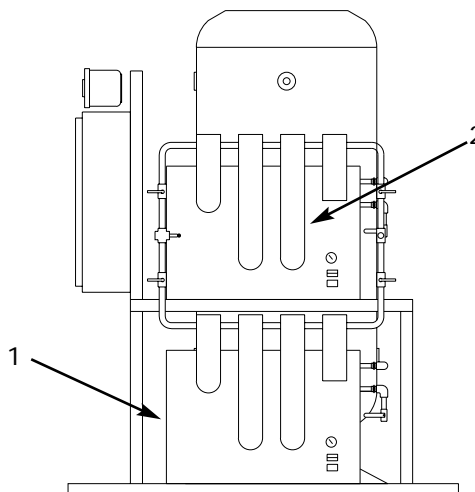
Ref. No.	Description	Part Number	Qty.
1	Compressor Pump:		
	5 HP	OPT050	1
	7-1/2 HP	OPT100	1
	10 HP	OPT100	1
	15 HP	OPT150	1
2	Corrosion Resistant Vertical Tank		
	120 Gal.	Consult factory for number	1
	200 Gal.	Consult factory for number	1
	240 Gal.	Consult factory for number	1
3	Dew Point Monitor/Probe		
	Refrigerated	ACO500100	1
	Dessicant	ACO500200	1
4	Carbon Monoxide Monitor/Sensor	ACO600100	1
5	Safety Relief Valve	Consult factory for number	1
6	Control Panel	Consult factory for parts and availability. Call 1-888-769-7979.	
7	Pressure Gauge	Consult factory for number	1
8	Auto Tank Drain		
	Electric	ACO100100	1
	Float	ACO100200	1
9	Isolation Mounts	Consult factory for parts and availability. Call 1-888-769-7979.	
10	Drive Belts		
	5 HP	BT009900AV	2
	7-1/2 HP	BT011200AV	2
	10 HP	BT009200AV	2
	15 HP	BT010200AV	2
11	Pulley (Motor)		
	5 HP	PU009743AV	1
	7-1/2 HP	PU009775AV	1
	10 HP	PU009716AV	1
	15 HP	PU009758AV	1
12	Motor		
	5 HP	MC022307AV	1
	7-1/2 HP	MC022370AV	1
	10 HP	MC022372AV	1
	15 HP	MC022376AV	1
13	Belt Guard Back		
	5 HP	BG019502AJ	1
	7-1/2 HP	BG218400AV	1
	10 HP	BG218400AV	1
	15 HP	BG218400AV	1
	Belt Guard Front		
	7-1/2 HP	BG218500AV	1
	10 HP	BG218500AV	1
	15 HP	BG218500AV	1



Dryer/Filter Parts List

Ref. No.	Description	Part Number
1	Refrigerated Dryer:	
	20 CFM	ACO200020
	25 CFM	ACO200025
	35 CFM	ACO300035
	45 CFM	ACO000045
	55 CFM	ACO200055
	60 CFM	ACO200060
	70 CFM	ACO200070
	100 CFM	ACO200100
	150 CFM	ACO200150
	200 CFM	ACO200200
2	Filter Packages:	
	1/2" -40 CFM	MFP-040-342
	1/2" -50 CFM	MFP-050-342
	3/4" -60 CFM	MFP-060-362
	1" -70 CFM	MFP-070-382
	1" -100 CFM	MFP-110-382
	1-1/4" -220 CFM	MFP-220-3A2

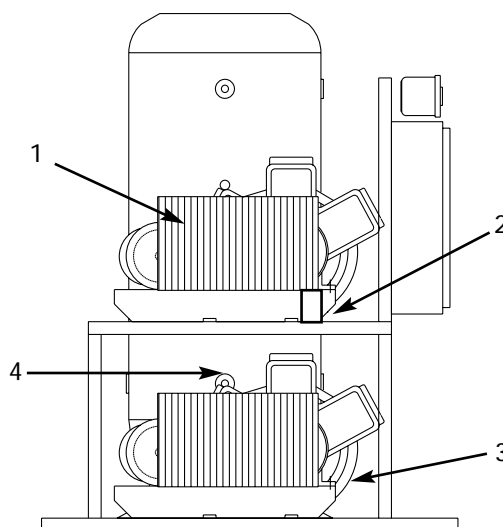
See Filter System Manual for details and replacement elements.



Aftercooler/Drain

Ref. No.	Description	Part Number
1	Aftercooler:	
	5 HP	ACO700015
	7-1/2 -10 HP	ACO700020
	15 HP	ACO700025
2	Drain Trap:	
	5 - 15 HP	Consult factory for number
3	Piping Braided Flex:	Consult factory for size and length.
	5 HP - 1/2 in.	
	7-1/2 HP - 1/2 in.	
	10 HP - 3/4 in.	
	15 HP - 3/4 in.	
4	Temperature Switches	
	400° N/O Switch	

Left-End View




Medical Package System

Electrical Wiring Information - 1

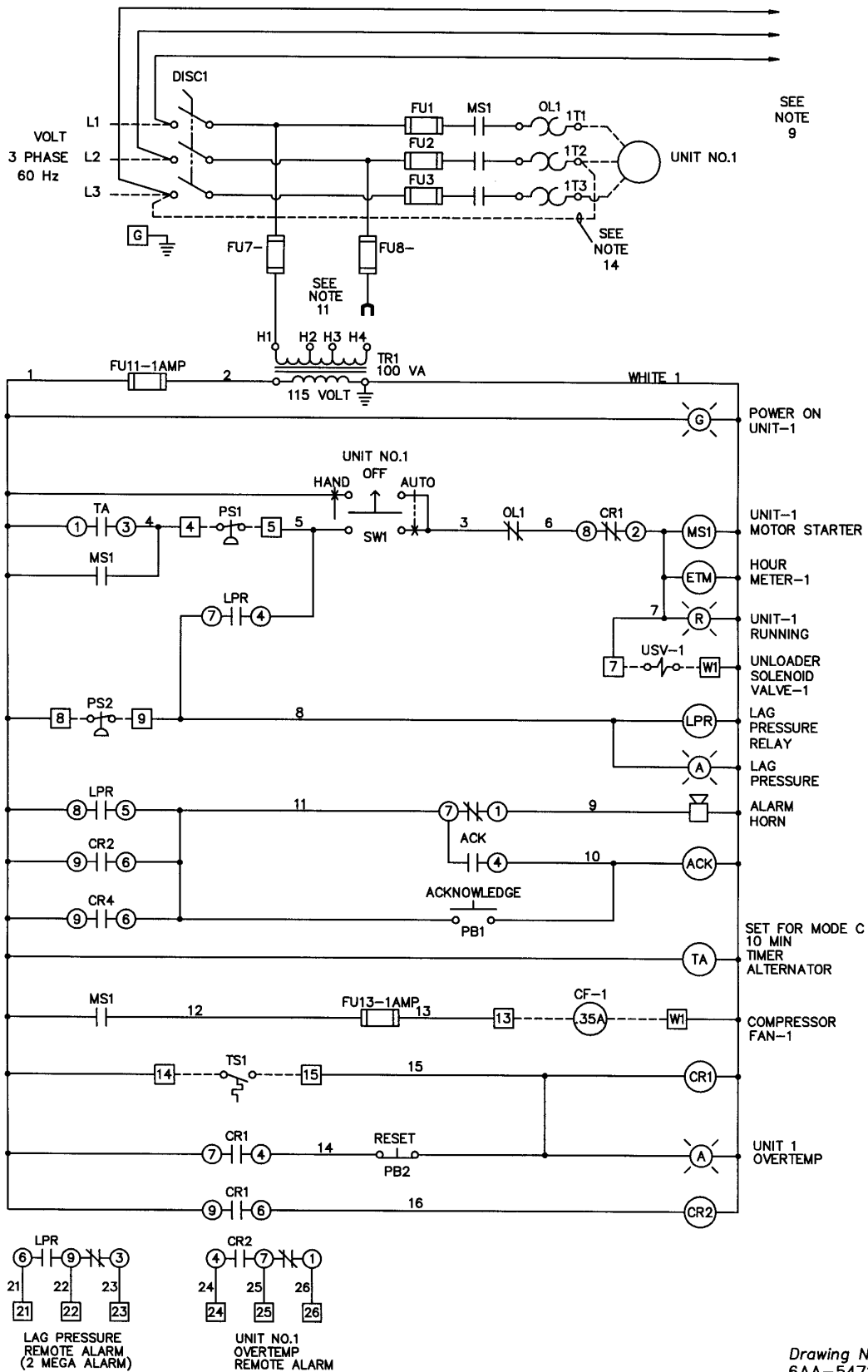
NOTES:

- 1.) PRESSURE SWITCH SETTINGS ARE AS FOLLOWS
 PS-1 CUT IN AT 80 P.S.I.G.
 CUT OUT AT 100 P.S.I.G.
 PS-2 CUT IN AT 55 P.S.I.G.
 CUT OUT AT 75 P.S.I.G.
- 2.) DRYER FUSES AND CONTROL
 CIRCUIT PROTECTION BUSS FNM TYPE
 DUAL ELEMENT FUSES, SUBSTITUTE ONLY
 EQUIVALENT TYPE DUAL ELEMENT FUSES.
- 3.) TRANSFORMER PRIMARY FUSES SHALL BE BUSS
 FNQR STYLE
- 4.) [] REMOTE FROM PANEL
- 5.) ALL CONTROL WIRE 14 GA
- 6.) TRANSFORMERS ARE SIZED FOR LOADS SHOWN ON
 DRAWING ONLY. DO NOT CONNECT ANY OTHER DEVICES.
- 7.) USE ONLY CLOSE ON RISE SENSORS
- 8.) THIS DRAWING IS FOR REPRESENTATION PURPOSES ONLY.
 CONSULT ACTUAL PANEL AS-BUILT DIAGRAM WHEN WORKING
 WITH ACTUAL PANEL.
- 9.) JUMPERS ARE FACTORY INSTALLED. IF 2 SEPARATE
 FEEDS ARE REQUIRED, REMOVE JUMPERS AND CONNECT ACCORDINGLY.
- 10.) HASP AND STAPLE PROVIDED ON OUTER DOOR OF ENCLOSURE FOR
 PADLOCK.
- 11.) TRANSFORMERS ARE FACTORY CONNECTED FOR EACH APPLICATION
 IF VOLTAGE IS DIFFERENT, RECONNECT AS FOLLOWS:
 FOR 208 VOLT, CONNECT TO H1 AND H2
 FOR 230 VOLT, CONNECT TO H1 AND H3
 FOR 480 VOLT, CONNECT TO H1 AND H4
- 12.) ACTUAL CONNECTION DIAGRAM MAY BE DIFFERENT THAN SHOWN HERE
 DUE TO CHANGES OR UPGRADES ON ACTUALLY USED COMPONENTS.
- 13.) READJUST OVERLOAD RELAY AND REPLACE FUSES AS INDICATED ON TABLE ABOVE
- 14.) FOR SINGLE PHASE APPLICATION, REMOVE THE FACTORY INSTALLED JUMPER LEAD (L3)
 BETWEEN DISC1 AND DISC2, CONNECT INCOMING SINGLE PHASE TO DISCONNECT SWITCH
 (DISC1) LUGS L1 AND L2, THEN INSTALL A 10 AWG BLACK JUMPER WIRE FROM T2 OF EACH
 STARTER TO L3 OF ITS RESPECTIVE DISCONNECT SWITCH.
 (SEE DASHED LINES IN ABOVE CIRCUIT)

PANEL DATA: SEE TABLE ON ACTUAL DRAWING	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="font-size: small;">WIRE TYPE</th> <th style="font-size: small;">SIZE</th> <th style="font-size: small;">COLOR</th> </tr> </thead> <tbody> <tr> <td>POWER</td> <td>AWG</td> <td>BLACK</td> </tr> <tr> <td>115V CONTROL</td> <td>14 AWG</td> <td>RED</td> </tr> <tr> <td>115V NEUTRAL</td> <td>14 AWG</td> <td>WHITE</td> </tr> <tr> <td>GROUND</td> <td>14 AWG</td> <td>GREEN</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	WIRE TYPE	SIZE	COLOR	POWER	AWG	BLACK	115V CONTROL	14 AWG	RED	115V NEUTRAL	14 AWG	WHITE	GROUND	14 AWG	GREEN				1 OF 1 Date: 8-20-96 Revision Dates: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.
WIRE TYPE	SIZE	COLOR																		
POWER	AWG	BLACK																		
115V CONTROL	14 AWG	RED																		
115V NEUTRAL	14 AWG	WHITE																		
GROUND	14 AWG	GREEN																		
																				
<h3>DUPLEX COMPRESSOR CONTROL PANEL</h3>																				
Power Requirements: SEE ABOVE HP SEE ABOVE F.L.A. SEE ABOVE Voltage <u> 3 </u> Phase <u> 60 </u> Hz																				
Drawn By: <i>JERRY JAGBY</i>	Designed By: R.W.F.	Checked By: As Built By: Checked By:																		
PART NO:	Job Number:	Drawing Number: 6AD-5471																		

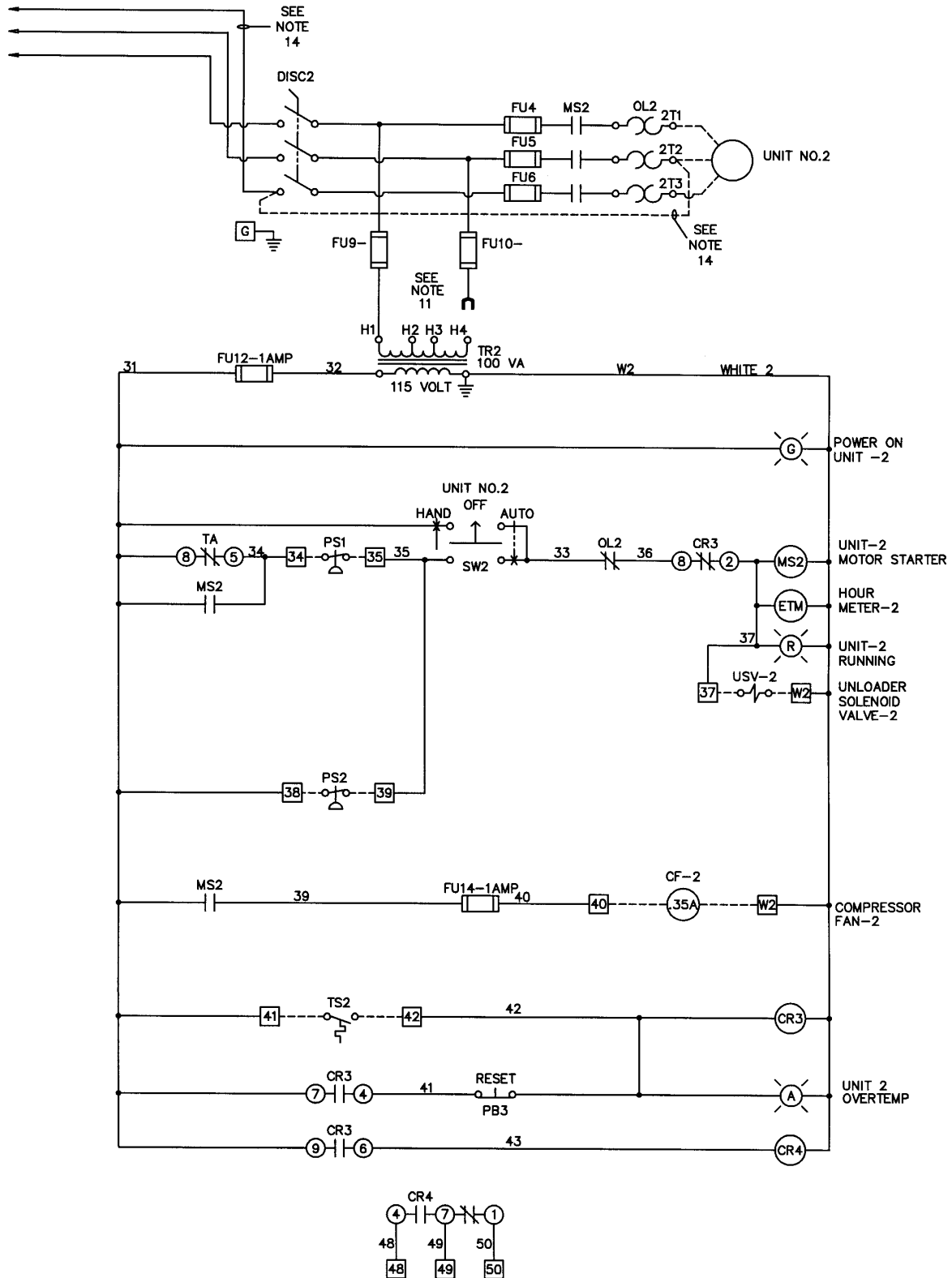
Medical Package System

Electrical Wiring Diagram - 3



Drawing Number:
6AA-5471

Electrical Wiring Diagram - 4



Drawing Number:
6AB-5471


Medical Package System

Electrical Wiring Information - 5

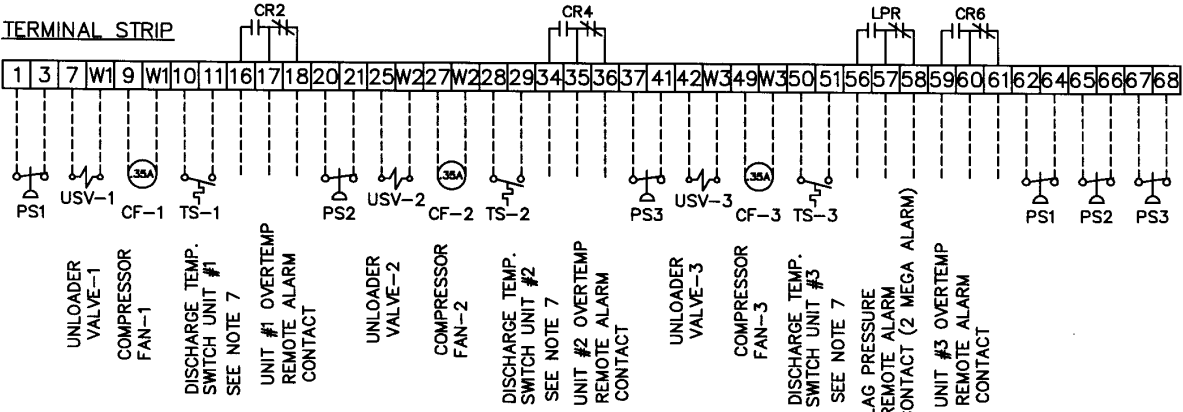
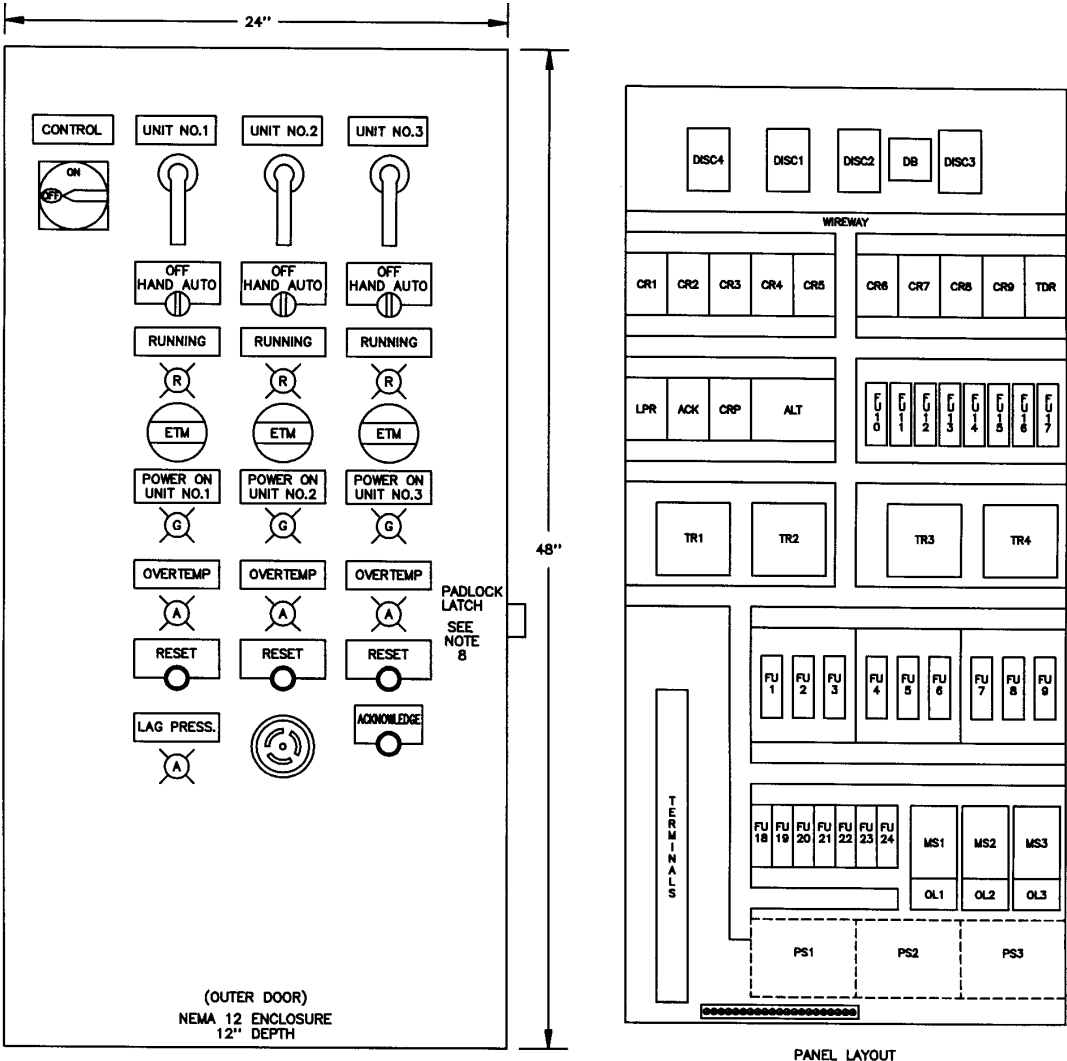
NOTES:

- 1.) PRESSURE SWITCH SETTINGS ARE AS FOLLOWS -

PS-1	PS-2	PS-3
CUT IN AT 80 P.S.I.G.	CUT IN AT 70 P.S.I.G.	CUT IN AT 55 P.S.I.G.
CUT OUT AT 100 P.S.I.G.	CUT OUT AT 90 P.S.I.G.	CUT OUT AT 70 P.S.I.G.
- 2.) DRYER FUSES AND CONTROL CIRCUIT PROTECTION BUSS FNM TYPE DUAL ELEMENT FUSES, SUBSTITUTE ONLY EQUIVALENT TYPE DUAL ELEMENT FUSES.
- 3.) TRANSFORMER PRIMARY FUSES SHALL BE BUSS FNQR STYLE.
- 4.) REMOTE FROM PANEL SHOWN AS -----
- 5.) ALL CONTROL WIRE 14 GA.
- 6.) TRANSFORMERS ARE SIZED FOR LOADS SHOWN ON DRAWING ONLY. DO NOT CONNECT ANY OTHER DEVICES.
- 7.) TEMP. SENSORS MUST BE "CLOSE ON RISE" TYPE ONLY
- 8.) HASP AND STAPLE PROVIDED ON OUTER DOOR OF ENCLOSURE FOR PADLOCK.
- 9.) TRANSFORMER ARE FACTORY CONNECTED FOR 460 VOLT APPLICATION IF VOLTAGE IS DIFFERENT, RECONNECT AS FOLLOWS:
 FOR 208 VOLT, CONNECT TO H1 AND H2
 FOR 230 VOLT, CONNECT TO H1 AND H3
 FOR 460 VOLT, CONNECT TO H1 AND H4
- 10.) THIS PANEL IS FACTORY ASSEMBLED FOR 460 VOLT 3 PHASE USE.
- 11.) THE FACTORY INSTALLED JUMPER BETWEEN TERMINALS 3 AND 4 ON THE TRIPLEX ALTERNATOR RELAY MUST BE REMOVED.

PANEL DATA: SEE TABLE ON DRAWING	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">WIRE TYPE</th> <th style="text-align: left;">SIZE</th> <th style="text-align: left;">COLOR</th> </tr> </thead> <tbody> <tr> <td>POWER</td> <td>AWG</td> <td>BLACK</td> </tr> <tr> <td>115V CONTROL</td> <td>14 AWG</td> <td>RED</td> </tr> <tr> <td>115V NEUTRAL</td> <td>14 AWG</td> <td>WHITE</td> </tr> <tr> <td>GROUND</td> <td>14 AWG</td> <td>GREEN</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	WIRE TYPE	SIZE	COLOR	POWER	AWG	BLACK	115V CONTROL	14 AWG	RED	115V NEUTRAL	14 AWG	WHITE	GROUND	14 AWG	GREEN							1 OF 1 Date: 8-20-96 Revision Dates: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.
WIRE TYPE	SIZE	COLOR																					
POWER	AWG	BLACK																					
115V CONTROL	14 AWG	RED																					
115V NEUTRAL	14 AWG	WHITE																					
GROUND	14 AWG	GREEN																					
																							
TRIPLEX COMPRESSOR CONTROL PANEL																							
Power Requirements: SEE ABOVE HP SEE ABOVE F.L.A. SEE ABOVE Voltage <u>3</u> Phase <u>60</u> Hz																							
Drawn By: <i>JERRY VAUGHN</i>	Designed By: R.W.F.	Checked By: As Built By:																					
Customer:	Job Number:	Drawing Number: 6AD-5472																					

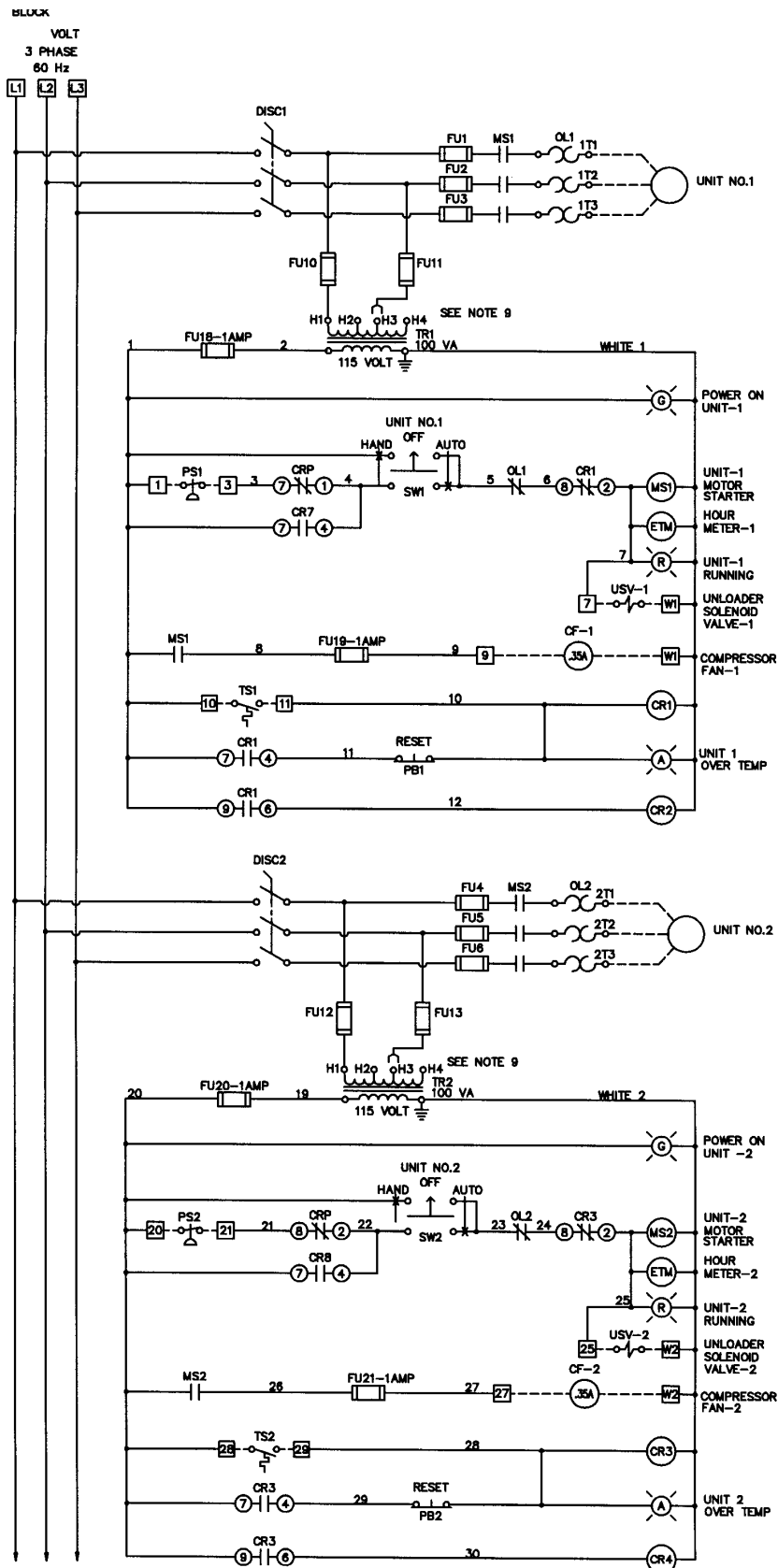
Electrical Wiring Diagram - 6



Drawing Number:
6AC-5472

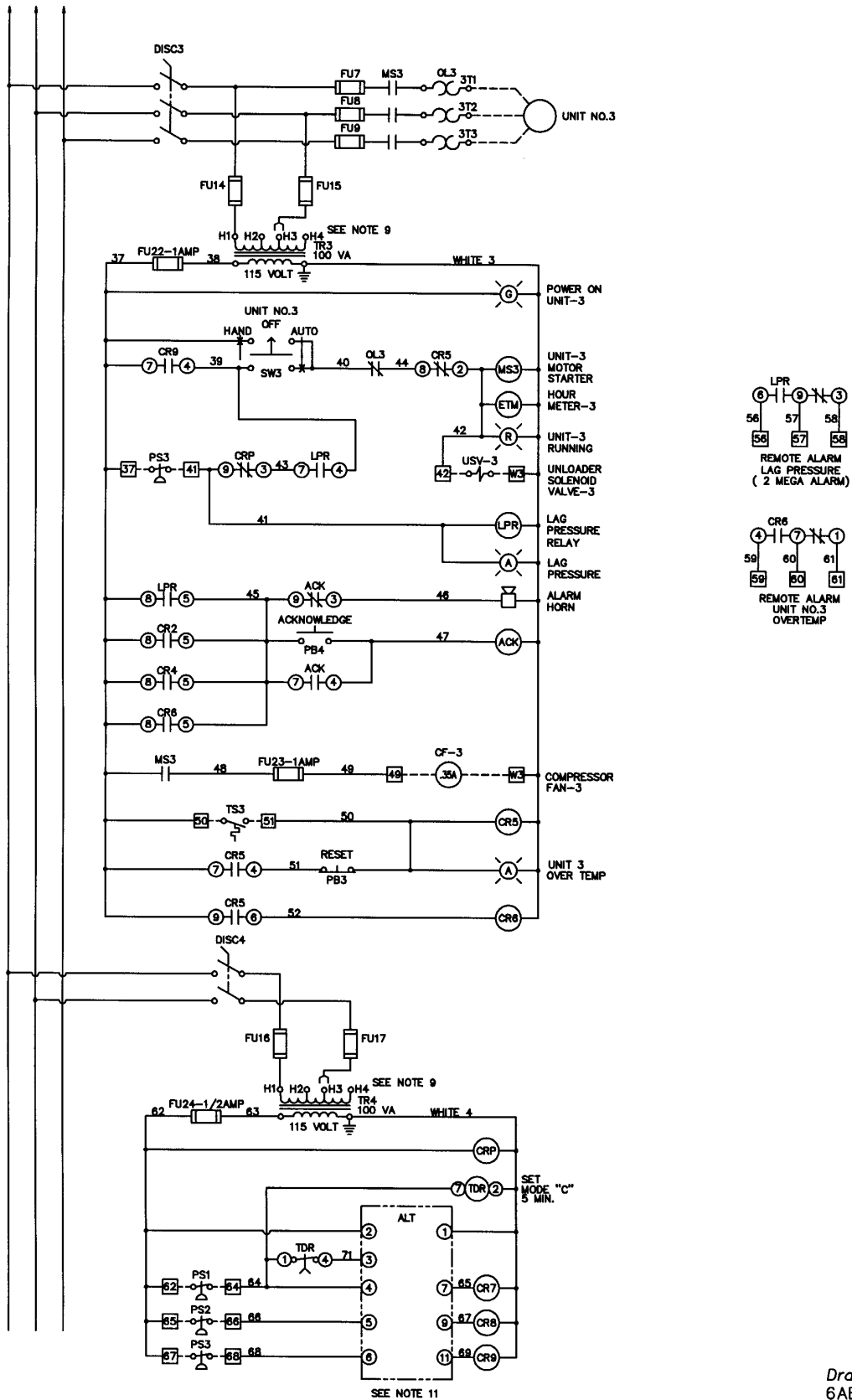
Medical Package System

Electrical Wiring Diagram - 7



Drawing Number:
6AA-5472

Electrical Wiring Diagram - 8



Drawing Number:
6AB-5472

Powerex Limited Warranty

Powerex 3 Year / 10,000 Hour Extended Parts Limited Warranty - Powerex warrants each Compressor Pump or Scroll Air-End against defects in material or workmanship from the date of purchase for a period of **Three years or 10,000 hours**, whichever may occur first. This warranty applies to the exchange of part(s) of the compressor pump or air-end found to be defective by an Authorized Powerex Service Center.

Powerex 1 Year / 5,000 Hour Inlet to Outlet Limited Warranty - Powerex warrants each Compressor Unit, System, Pump, or Air-End against defects in material or workmanship from the date of purchase for a period of **One Year or 5,000 Hours**, whichever may occur first. This warranty applies to the exchange of defective component part(s) and labor performed by an Authorized Powerex Service Center.

The above mentioned warranty applies to POWEREX manufactured units or systems only.

Items listed in the operator's manual under routine maintenance are not covered by this or any other warranty.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM THE DATE OF PURCHASE: AND TO THE EXTENT PERMITTED BY LAW, ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. THIS IS THE EXCLUSIVE REMEDY AND LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES IS EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW.

All claims pertaining to the merchandise in this schedule, with the exception of warranty claims, must be filed with POWEREX within 6 months of the invoice date, or they will not be honored. Prices, discounts and terms are subject to change without notice or as stipulated in specific product quotations. All agreements are contingent upon strikes, accidents, or other causes beyond our control. All shipments are carefully inspected and counted before leaving the factory. Please inspect carefully any receipt of merchandise noting any discrepancy or damage on the carrier's freight bill at the time of delivery. Discrepancies or damage which obviously occurred in transit are the carrier's responsibility and related claims should be made promptly directly to the carrier. Returned merchandise will not be accepted without prior written authorization by POWEREX and deductions from invoices for shortage or damage claims will not be allowed. **UNLESS OTHERWISE AGREED TO IN WRITING, THESE TERMS AND CONDITIONS WILL CONTROL IN ANY TRANSACTION WITH POWEREX** any different or conflicting terms as may appear on any order form now or later submitted by the buyer. All orders are subject to acceptance by POWEREX.