



User Operation & Maintenance Manual WB7.5D, WB20D, WB30D, WB50D, WB75D & WB120D

REFRIGERATION AIR DRYER UNIT.



READ THIS MANUAL CAREFULLY BEFORE CARRYING OUT ANY OPERATIONS ON THE COMPRESSOR UNIT. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH. KEEP THIS MANUAL IN A SAFE LOCATION FOR FUTURE REFERENCE.

1. Introduction

Thank you for purchasing this quality Refrigeration Air Dryer that Peerless Products has supplied you. All Peerless Products are constructed using the highest quality materials and components. They are designed to the highest possible standards, therefore offering our customers endless hours of optimum performance.

2. The Company

Peerless Products are a family owned business which has been in operation for over 60 Years, an Australian leader in the supply industrial air compressors and air related equipment based in Bendigo, Victoria.

We have a dealer network throughout Australia who are highly trained in our products along with our own teams located in each State that have high technical training on our complete range of industrial air compressors.

Peerless Products head office and manufacturing base is located in Bendigo (VIC).

3. Our Products

Peerless Products specialises in the design, engineering, manufacture, and marketing of Air Compressors equipment in these core categories:

- Manufacturing
- Automotive
- Farming & Agriculture
- Food processing
- Textile and Clothing
- Chemical industries
- Petrochemical industries
- Transportation
- Metal and Mining
- Electrical component manufactures
- Medicine and health
- Paper milling and printing
- and much more

3.1 Product Features

- High efficiency condenser & evaporator
- Low dew point
- High quality electronic auto drain
- Low in maintenance
- Long life span
- Great reliability

Table of contents

1.	Introduction	2
2.	Company	2
3.	Our Products	2
	3.1 Product Features	2
	3.2 Basic Specifications	4
4.	Safety Information	5
	4.1 Safety Information	5
	4.2 Recognise Safety Alert Symbols	5
	4.3 Operating	5
	4.4 Service & Mainte-	6
5.	Installation	7
	5.1 Receiving	7
	5.2 Unpacking	7
	5.3 Selecting a Location	7
	5.4 Positioning the Air Compressor	7
	5.5 Electrical Connection	8
	5.6 Commissioning	8
	5.6.1 Assembly & Installation	8
	5.6.2 Operation	8
	5.6.3 Operation	9
6.	Auto Drain 'Jorc' – Inspection & Testing	9
7.	Wiring Diagram	10
8.	Certificate of Warranty	12

TECHNICAL INFORMATION

DRYER MODEL		WB7.5D	WB20D	WB30D	WB50D	WB75D	WB120D
AIR FLOW	LPM	1000	2200	4000	6600	10500	14000
	CFM	35.5	77.7	88.3	233.2	371	500
POWER CONSUMPTION (W)		350	453	842	1170	1170	1900
AIR OUTLET & INLET THREAD DIAMETER		3/4"	3/4"	1"	1 1/2"	2"	DN50
WORKING PRESSURE		AIR PRESSURE MIN. 6 BAR – MAX. 10 BAR					
MAX INLET TEMP.		80°C					
WORKING AMBIENT TEMP.		45°C					
DEW POINT TEMP.		1.7°C – 5°C					
COMPRESSOR HP		1/2HP	3/4HP	3/4HP	1HP	1 1/2HP	-
DIMENSIONS (mm)	WIDTH	430	370	500	500	600	-
	LENGTH	352	550	520	520	550	-
	HEIGHT	445	704	809	809	958	-
GROSS WEIGHT (KG)		55	75	93	115	135	-

4. Safety Information

4.1 Safety Instructions

For your personal safety, and that of others working around you please read, understand, and follow thoroughly all safety instructions included in this manual and on the unit.

BEFORE removing any panels for maintenance disconnect the electrical power supply.

Review all applicable OSH (Occupational Safety & Health) regulations.

Learn how to operate the unit and use the controls properly.

Do not allow untrained personnel to operate the machine.

Ensure that the unit is maintained as per service manual instructions.

Do not allow any unauthorised modifications to the machine.

4.2 Recognise Safety Alert Symbols

The safety alert symbol precedes Warning and Caution notes throughout this manual. To prevent personal injury or damage to the machine these alerts must be strictly adhered to.

4.3 **Operating**



Warning

Alerts to potentially hazardous injury hazardous situation that if not avoided **CAN** result in death, serious injury



Caution

Alerts to a potentially hazardous situation that if not avoided **MAY** result in injury or equipment damage



Warning





Refrigerations air dryers are intended for indoor operation only; do not operate outside unless suitably protected by a weatherproof enclosure. This appliance is not suitable for installation in an area where a water jet could be used.



Caution

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

4.4 Service & Maintenance

	Caution	Installation of Refrigeration Air Dryer and service work should only be performed by fully trained & certified Electrical, Plumbing, & Technicians.
	Warning	ALL WIRING AND PLUMBING MUST CONFORM TO LOCAL AND NATIONAL CODES.
	Warning	<u>REFRIGERATION AIR DRYER MUST BE ISOLATED FROM ELECTRICAL SUPPLY BEFORE COMMENCING ANY SERVICE OR MAINTENANCE WORK.</u>
	Warning	HOT SURFACE. DO NOT TOUCH. WAIT FOR REFRIGERATION AIR DRYER TO COOL DOWN PRIOR TO ANY SERVICE WORK.

5. Installation

5.1 Receiving

Each unit is completely tested under operating conditions and thoroughly inspected before shipment. At time of shipment, the carrier accepts the unit and any claim for damage(s) must be made with the carrier. Upon receiving units from the delivering carrier, carefully inspect shipping crate for visible indication(s) of damage. If damage exists, have carrier note damage on bill of landing and file a claim with the carrier.

5.2 Unpacking

Carefully unpack the Peerless Refrigeration Air Dryer.

Inspect unit for concealed damage and if evident, notify delivering carrier and file a claim against the carrier.

5.3 Selecting a Location



Warning

Refrigeration air dryers are intended for indoor operation only; do not operate outside unless suitably protected by a weatherproof enclosure.

This appliance is not suitable for installation in an area where there is no ventilation, 1 meter clearance around refrigeration air dryer on all sides required for air flow and servicing.



Caution

The unit is only to be installed in locations where its use and maintenance is restricted to trained personnel.

- The Peerless Refrigeration Air Dryer should be in a well-ventilated, firm, level location, access to electrical supply point (within 1m) and with easy access for servicing.
- Consideration needs to be given to water drainage, both access and fall.
- Installation should only be performed by a qualified and competent technician.
- **Do not place machine in direct sunlight.**

5.4 Positioning the Refrigeration Air Dryer

- Place on a flat, stable level surface.
- Ensure the Refrigeration Air Dryer is secured to the ground using the mounting points.

5.5 Electrical Connection

- Check the nameplate on the Compressor for the electrical supply requirements and make sure that the supply voltage is the same.
- Check to make sure the electrical are in proper condition and there is a grounded lead.
- Do not operate on extension lead or use same powerpoint as compressor.

- The service of a licensed electrician may be required to ensure the installation is in accordance with the local codes and regulations.

5.6 Commissioning 5.6.1 Assembly & Installation

- When placing the Refrigeraiton Air Dryer in its fixed location place high density rubber matt under feet (8-15mm)
- 1.5 meter minimum clearance around (including above) the Refrigeration Air Dryer for air flow and servicing requirements.
- Install drainage hose to the auto drain outlet.
- Connect the airline to outlet of the Compressor (Regulate if using air tools). Can be beneficial to include a bypass valve for ease of servicing.
- Refrigeration Air Dryer must have filtration upstream to removea particles & oil from compressed air. Not doing so may void warranty.

5.6.2 Operation

- Before starting ensure that the power breaker is on
 - Turn on the illuminated switch
 - After roughly three minutes supply compressed air by operating the air compressor
- To shut off turn off the illuminated switch
- If you want to restart wait at least three minutes. Failure to do this may cause safety devices to trip due to over load.



Caution

Avoid frequent on/off operations.

The valve in the auto drain is design to shut off at a pressure higher than 0.15MPa. Until then some air will be emitted from the drain valve.

5.6.3 Switch Control Panel

- **Evaporator temperature gauge**, shows the pressure when the refrigerant gas is under low pressure condition. When normally loading, the pointer in the gauge points to the blue colour. The pressure will be slightly lower under empty loading; the pressure will be slightly higher under full loading. If the gauge pin is higher than the blue scope the refrigeration air dryer is over loading.
 - This may mean;
 1. The compressed air temperature from the air compressor is too high
 2. The air flow from the air compressor is too big
 3. The ambient temperature is too high
 4. The power voltage is below 198V (normal is 220V)
 5. The ventilation net is clogging or full of dust
- **Air pressure gauge**, shows the pressure for the compressed air near the air dryer outlet port.
- Operation LED
 - Green light is normal and running
 - Red light means power on
 - Yellow light means abnormal and needs to be inspected

6. Auto drain - Inspection & Testing (if fitted)

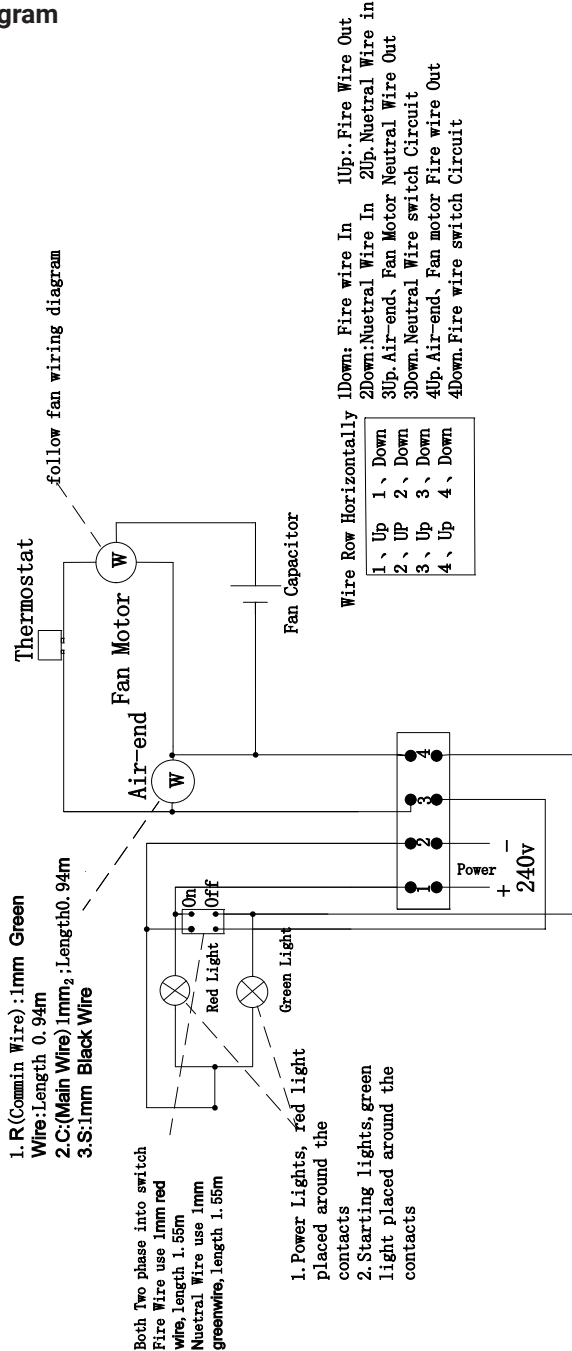
The compressor is fitted with an automatic drain solenoid valve with an electronic timer. This removes condensate from the air receiver. The default factory is a 5 second burst every 10 minutes however it is important to monitor moisture in your air receiver and alter the timer to suit your specific needs.



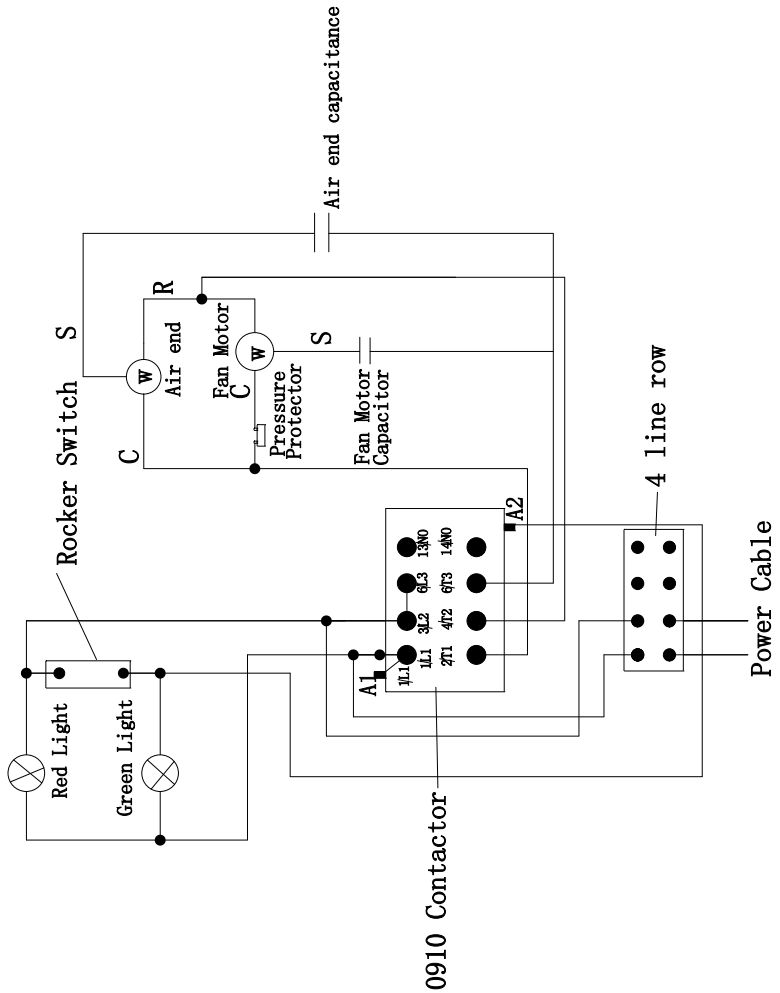
1. **Test Button:** Push to activate. If functioning OK, the Light will activate above the ON label and a burst of air will release, then stop.
2. **Left Dial:** Discharge Time (seconds) Length of time moisture is drain from the tank at each interval. *Factory Setting: 5 seconds*
3. **Right dial:** Interval Time (minutes) Discharge time interval while the compressor is running. *Factory Set: 10 minutes*
4. **On Light:** automatic drain is activated and should be dispensing air.
5. **Off Light:** automatic drain is powered, but is not dispensing air.

7. Wiring Diagram

7.5-10HP Wiring Diagram



15-20HP Wiring Diagram



8. Certificate of Warranty

It is the policy of Peerless Products to provide to its current customers, warranty for all equipment supplied and installation work performed within a specified period.

Parts and Equipment

Peerless Products provides a warranty period of twelve (12) months from the date of original invoice for all manufactured parts and the associated labour. Repair or replace of defective parts will be at the sole discretion of Peerless Products.

Changeover parts will be invoiced to the customer at the customers normal purchase cost and upon return of the warranty item and validation of the claim, the invoice will be credited.

Installations

Peerless Products provides a warranty period of twelve (12) months from the date of final invoice for workmanship after the completion of any installation work.

Labour

Peerless Products will not normally cover any labour costs associated with a warranty claim. Subject to the approval of the Divisional Sales Manager, Peerless Products may choose to reimburse the customer for some or all labour costs associated with a warranty claim. Any claim for labour costs must be authorized by Peerless Products prior to the work being undertaken.

Exclusions

Peerless Products will not accept any liability or cost associated with any consequential losses, or loss of profit or damage to property as a result of faulty product.

Warranty shall not apply:

- a) If in the opinion of Peerless Products, the equipment has been used in a situation the equipment has not been designed for;
- b) If in the opinion of Peerless Products, the equipment has been subject to abuse, negligence or accident;
- c) If connected to improper, inadequate or faulty power, water or drainage service or operated using incorrect, insufficient or contaminated lubricants, coolants, refrigerants or additives;
- d) Where the product is installed, maintained or operated otherwise than in accordance with the instructions supplied by Peerless Products;
- e) Where the product has been damaged by foreign objects;
- f) Where the product has been serviced, repaired, altered or moved otherwise than by Peerless Products or its nominees or using other than Peerless approved replacement parts.

To obtain full details of your warranty and approved service agency, please contact Capital Machinery Sales, or the nearest Peerless Products Agent.