Drawing	: - TPC597
Issue	: - 2
Date	: - 08/06/23

HM150 DEHUMIDIFIER

OWNER'S MANUAL

www.eipl.co.uk

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HM150

PACKAGE CONTENTS

Item	Description	Quantity
11580RG-US	Dehumidifier	1
3944110	PVC tube – 3/8” I/D	7.8M
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SAFETY INFORMATION

Children shall not play with the appliance.

This appliance can be used by children from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the application in a safe way and understand the hazards involved.

Cleaning and user maintenance shall not be made by children without supervision.

If the SUPPLY CORD is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person in order to avoid hazard.

If the appliance is switched off at the mains power supply for any reason, the unit must be allowed to stand at rest for at least three minutes before restarting.

Due to the high pressures within the refrigeration circuit, under no circumstances must direct heat be applied to the evaporator coil in an attempt to remove the build-up of ice.

No attempt should be made to cut open any part of the refrigeration circuit due to high pressures and gas involved.

If the appliance is switched off at the mains power supply for any reason, it must be allowed to stand at rest for at least three minutes before restarting. Failure to do so may cause the appliance to blow the fuses owing to the compressor due to there being a refrigerant imbalance.

The Global Warming Potential (GWP) of refrigerants used in products manufactured by Ebac Industrial Products Ltd is as follows: -
R134a – 1300
R407c – 1610

For type and weight of refrigerant contained in this appliance, please refer to the product data label

Do not insert objects into any of the grilles on the machine.

Do no cover or obstruct airflow from the grilles.

Do not operate the unit with the covers removed

Do not stand on the unit

Do not attempt to lift heavy units unassisted.

Do check the plug on the unit matches the supply.

Do check the supply cord and power supply are earthed correctly

Do check the voltage selection before attempting to power up the unit (This is for dual voltage units only).

Do use a residual current device “RCD” where possible

DEHUMIDIFIER PRINCIPLE

Dehumidifiers remove moisture from the air that is circulating through the appliance.
The resulting reduction of relative humidity helps prevent rust, rot, mould, mildew and condensation within the room, or other enclosed spaces where the dehumidifier is used.
A dehumidifier consists of a motor-compressor unit, a refrigerant condenser, an air circulating fan, a refrigerated surface, a means of collecting and disposing the condensed moisture and a cabinet to house these components.
The fan draws air through the refrigerated surface and cools it below its dew point, removing moisture which is collected and led away. The cool air then passes the hot condenser, where it is reheated. With the addition of other radiated heat, the air is discharged into the room at a higher temperature but lower relative humidity than when the air entered the appliance. Continuous circulation of the room air through the appliance gradually reduces the relative humidity in the room.
The appliance is a rugged, reliable drying unit designed to operate effectively over a broad range of temperature and humidity conditions.
An active hot gas defrost system guarantees positive de-icing, thereby optimizing operation at low temperatures. Should the ambient temperature fall below 15°C then ice will form on the evaporator coil as the air is passed over it, and in turn the efficiency of the unit will drop. To prevent the buildup of this ice on the evaporator coil an electronic timer is incorporated to energize the hot-gas defrost valve. Operating the hot-gas valve causes the evaporator coil to defrost and the water to drain down to the condensate well and then is pumped out of the unit.
The appliance has been designed to work in ambient temperatures between 3°C and +35°C. Should the temperature in the room become excessive a thermostat within the compressor casing will open and dehumidifying will stop, until the thermostat resets itself.

UNPACKING

Carefully remove the appliance from its transit box and visually check for signs of transit damage. If there is evidence of damage DO NOT attempt to operate the appliance, call your supplier for advice. Do not discard the packing; it will be useful when transporting the dehumidifier unit in the future.

INSTALLATION

POSITIONING:

Position the appliance in the center of the room to be conditioned if at all possible. However, if a damp patch is particularly apparent the outlet grille should be pointed towards it.

NOTE: Both inlet grille and outlet grille of the appliance must have clear space around them and not be obstructed in anyway. The unit must also be on a level surface.
Appliance shall be installed, operated and stored in a room with a floor area larger than 4M^2.

WIRING:

Connect the power mains cable / plug of the dehumidifier as follows: -

Brown	Live
Blue	Neutral
Green/Yellow	Earth (ground)

As the colour of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminal in your own plug, proceed as follows.
The wire which is coloured Green and Yellow must be connected to the terminal marked E or by the Earth symbol or coloured Green or Green and Yellow. The wire which is coloured Blue must be connected to the terminal in the plug which is marked the letters N or coloured Black. The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Red.
You must safely dispose of the non re-wireable plug once it has been removed from the flexible cord. It is dangerous to attempt to insert the plug into any electrical socket.

CHANGING THE FUSE

13 Amp fuses that are ASTA approved to BS1362 should only be used.

NON REWIREABLE PLUGS

The fuse cover must be refitted after the replacement of the fuse.

DRAINAGE:

The appliance is fitted with a condensate pump which collects all the condensate. As the condensate pump fills with water it will automatically activate and empty via the tube outlet located at the back of the dehumidifier, this should be connected to a water container or permanent drain. If the pump fails, then the dehumidifier will automatically switch off. NOTE: after the pump has emptied there will still be a small amount of water standing in the pump reservoir which will leak if the dehumidifier is not kept upright.

OPERATION

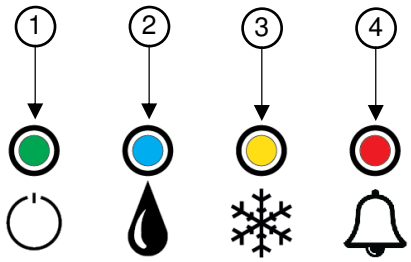
Once the appliance is installed turn the power supply on, then turn the on / off switch to the 'I' position and note the unit starts. Then carry out the following: -

- Check that the compressor is running
- Leave the appliance to run for approximately 15 minutes
- Observe the coils through the filter grille to confirm frost formation or weeping of the evaporator coil
    - If the air temperature is below 25°C, an even coating of frost should cover the entire evaporator coil.
    - If the air temperature is above 25°C, frost and/or droplets of condensed water should cover the entire evaporator coil.
- When the unit is operated in an ambient of less than 15°C, a defrost cycle should occur. This will be at intervals of no more than every hour and will last no more than 5 minutes. The exact time is impossible to predict as the unit is fitted with a temperature sensitive defrost control.

After using the appliance, turn it off for 5 minutes to allow the condensate on the coils to drain into the pump reservoir. Then turn the appliance back on and press the momentary purge switch for 20 to 30 seconds to evacuate the water from the pump reservoir.

Light Functions:

The unit has four LED indicators, located on the side of the unit. The following lists the functions of these lights:



1 - ON / OFF
Green solid – Indicates power ON

2 – DRYING
Blue flashing – Indicates drying selected (compressor has not started)
Blue solid – Indicates drying ON (compressor has started)

3 – DEFROST
Yellow flashing (Approximately every 5 seconds) – Defrost cycle active
Yellow solid – Defrost in progress

4 – Alarm
Yellow Flashing followed by Red solid – Indicates a pump fault and unit will stop

If, after carrying out the above procedures, the appliance does not appear to function properly, refer to the *Trouble Shooting* section, which follows, or contact EIPL.

ROUTINE SERVICE

WARNING:
ENSURE THE POWER CORD TO THE APPLIANCE IS DISCONNECTED BEFORE CARRYING OUT ROUTINE SERVICE. SERVICING AND REPAIR SHOULD ONLY BE CARRIED OUT BY A SUITABLY QUALIFIED PERSON.

To ensure continued full efficiency of the appliance, maintenance procedures should be performed as follows:

1. Clean the surface of the evaporator and condenser coils by blowing the dirt out from behind the fins with compressed air. Hold the nozzle of the air hose away from the coil (approx 6") to avoid damaging the fins. Alternatively, vacuum clean the coils.

WARNING:
DO NOT STEAM CLEAN THE REFRIGERATION COILS

2. Check that the fan is firmly secured to the motor shaft and that the fan rotates freely. The motor is sealed for life and does not require any lubrication

3. To check the refrigerant charge, run the appliance for 15 minutes. The evaporator coil should be evenly frost coated across its surface. At temperatures above 25°C, the coil may be covered with droplets of water rather than frost. Partial frosting accompanied by frosting of the thin capillary tubes, indicates loss of refrigerant gas or low charge.

4. Check all wiring connections.

TROUBLESHOOTING

SYMPTOM	CAUSE	REMEDY
Little or no airflow	1. Loose fan on shaft 2. Fan motor burnt out 3. Dirty refrigeration coils 4. Loose electrical wiring 5. Control humidistat either set too high or malfunctioning	1. Tighten fan 2. Replace the fan motor 3. See *Routine Maintenance* 4. Check the wiring diagram to find fault and repair 5. Adjust humidistat as required or replace
Little or no water extraction	1. Insufficient air flow 2. Compressor fault 3. Loss of refrigerant gas	1. Check all of the above 2. Contact EIPL 3. Contact EIPL
Little or no defrost when required	1. Faulty Timer 2. Faulty bypass timer	1. Contact EIPL 2. Contact EIPL

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SPECIFICATIONS

MODEL:	HM150
HEIGHT:	470 mm (18.5 in)
WIDTH:	465 mm (18.3 in)
LENGTH:	680 mm (26.8 in)
WEIGHT:	43Kg (95 lb)
AIRFLOW:	540 CFM
POWER SUPPLY:	110 V, 1 ph, 60 Hz
FINISH:	Rotational Moulded polyethylene
REFRIGERANT TYPE/QTY:	R454c (See unit rating label for quantity)
OPERATING RANGE:	3°C – 35°C

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APPLIANCE SPARE PARTS LIST

Description	Part Number
Product Part Number	11580RG-US
PCB Timer	1619522
PCB Display	1619523
Mains Cable	3031231
Plug	3934517
Foam Blanking Strip	2056028
Refrigeration Coils	2158002
Filter	2158036
Capillary	3014250
Foam Tape (Inseal)	3015199
Reversing Valve	3020833
Filter Dryer	3020958
Solenoid Coil	3030453
20mm Open Grommet	3032101
3/8” Open Grommet	3032101
12.5mm Open Grommet	3032104
25mm Open Grommet	3032111
Mains Lead Klambush	3032501
Pump High Level Float Switch	3033043
Coil Sensor	3035142
Circuit Board Jumper	3035834
On / Off Switch	3035924
On / Off Switch Cover	3035926
PTCR	3036347
PTCR Clip	3934701
Pump Purge Switch	3036779
Fan	3040279
Fan Inlet Ring	3040284
Wheel	3050125
Starlock Washer Uncapped	3082610
Starlock Washer Capped	3082611
Hose Snapper Clip (SNP6)	3086136
Hose Snapper Clip (SNP8)	3086146
Quick Release Tube Coupling	3086144
Handle Spacer Washer	3087727
Handle Pivot Bolt	3088580
Handle Pivot Nut	3088594
Handle Retainer Catch	3088595
Circuit Board Support	3101413
Non Return Valve	3160157
Condensate Pump	3160161
Solid State Relay	3931320
LED Light Pipes	3931732
Compressor Capacitor	3030908
PCB Connecting Cable	2013748
Condensate Outlet Tube	3944110
Condensate Reinforced Pump Tube	3944113
Compressor	3022153

Spare parts available online

www.EIPLDIRECT.com

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