

HEALTH & SAFETY WARNING

As the Heat Pump contains electrical and rotational equipment, it is recommended that **ONLY** competent persons carry out any work on this type of machine (see guarantee). Isolate electrically before entering machine or removing panels.

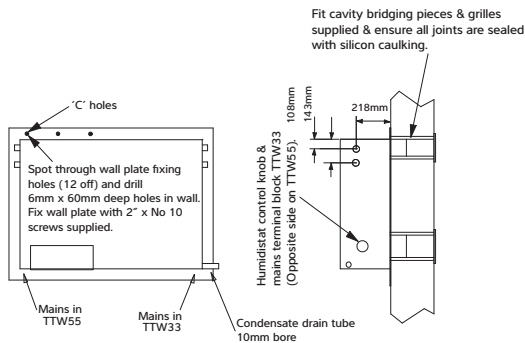
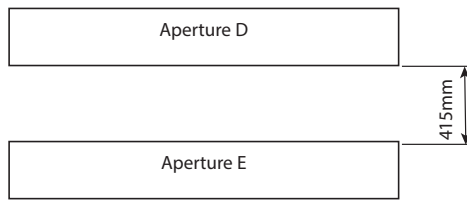
This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children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

The Calorex TTW units are designed for installation in a heated room, adjacent to the poolroom.

INSTALLATION MODELS TTW30/33/55/60.

1. Remove machine from packaging.
2. Check both sides of wall, mark out apertures 'D' and 'E' in required location and ensure they are level.
3. Cut out apertures 'D' and 'E' with due consideration to structure and safety using a suitable lintel to bridge the gap.
4. Remove the four bolts holding the dehumidifier to the wall plate and also the earth lead.
5. Locate the wall plate in apertures and ensure it is level. Drill and fix using 12 'C' holes and wall plugs /screws provided. Hole size 6mm (No 10) x 60mm.
6. Lift the dehumidifier on to wall and replace six M6 bolts and wall plate earth lead.
7. Fix supplied cavity bridging pieces and air inlet/outlet grilles, ensure all joints are sealed with silicon caulking.

	'D' Aperture	'E' Aperture
TTW30/33	85 high X 520 long	110 high X 520 long
TTW55/60	85 high X 980 long	110 high X 520 long



PLANT ROOM VIEW OF MACHINE

8. Electrical supply to the unit must be sized according to data on serial number label paying special attention to I.E.E. regulations latest edition regarding the special conditions governing electrical supply to machines in potentially damp areas. The machine should be installed in accordance with EMC2004/108/EC.
9. The electrical supply should be connected to the terminal block mounted on the side of the bracket supporting the compressor. Brown/red to 'live', blue/black to neutral and earth to the stud provided.
10. Fan mode switch can be set to cycle fan when humidistat senses demand but should be set to continuous to promote good air circulation and reduce condensation. Note that on models fitted with LPHW the fan(s) will start automatically whenever there is an air heating demand. On 'X' models fan(s) will stop during defrost cycle.
11. Locate pipe from drip tray and run away to waste, a short length of 10mm pipe is provided which should be led into a fixed waste pipe (ensure an air gap, tun dish).

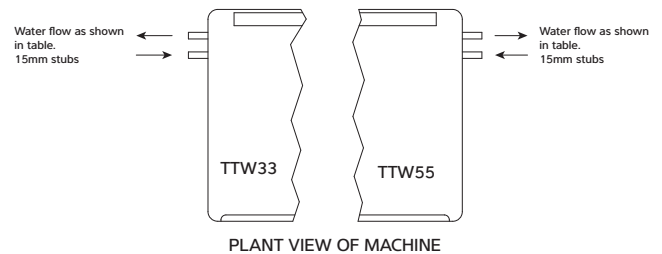
MODELS WITH L.P.H.W FITTED

12. Connect water circuit piping to 15mm stubs projecting from side of machine as per diagram below:
13. It is recommended that isolating valves are fitted to enable isolation of the machine in the event of service.

Complete water circuit as per diagrams overleaf.

(a) Circulating pump must be sized to take into account the design flow rate of the machine plus the water system resistance. For Pressure drops see data section.

	TTW30/33	TTW55/60
Unit flow rate L/min	5.0	5.0
Unit pressure drop m head	1.1	1.8



12V REMOTE HUMIDISTAT, THERMOSTAT, & REMOTE ON/OFF CONNECTIONS

(These options need to be specified when ordering the dehumidifier)

REMOTE HUMIDISTAT

14. Remove link wire from mains in terminal block marked 'Remote Humidistat' and connect remote humidistat as shown below, ensure dial on internal humidistat is set fully anti-clockwise (ie maximum dehumidification).

REMOTE ON/OFF

15. Remove the link from the mains in terminal block marked Remote On/Off. and connect to a switch as shown below.

'P' MODELS WITH RESISTANCE HEATER

16. Connect remote air thermostat as shown above to mains in terminal block marked Remote Thermostat
17. Ensure safety thermostat(s) below are set, ie push red button(s).
18. Replace front cover, turn on electrical supply and turn humidistat towards 20%. (Unless remote humidistat fitted, see note 14 above) unit fan will start, followed 6 minutes later by the compressor.
19. It is recommended that the fan mode switch is set to continuous, as in cycle mode the fan and heaters only run together if there is a demand for dehumidification.

FIG 2 WIRING DIAGRAM

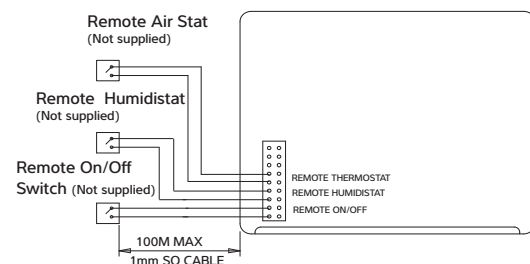
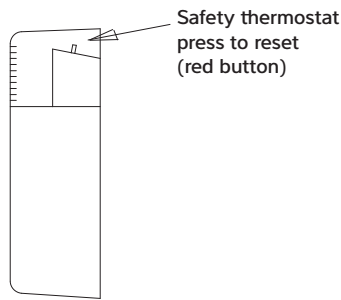


FIG 3



MODEL		TTW33(7)/& TTW30(7)A	TTW33(7)/& TTW30(7)AX	TTW30(7)AP/& TTW30(7)AXP	TTW55(7)/& TTW60(7)A	TTW55(7)/& TTW60(7)AX	TTW50(7)AP/& TTW60(7)AXP
Dehumidification	L/hr	1.25	1.25	1.25	2.5	2.5	2.5
	L/day	30	30	30	60	60	60
Total Heat to Air							
Dehumidifier only	kW	1.9	1.9	1.9	3.5	3.5	3.5
Dehum & Resistance heater	kW	n/a	n/a	2.89	n/a	n/a	5.55
Resistance heater only	kW	n/a	n/a	2.0	n/a	n/a	4
Dehum & LPHW	kW	3.9	3.9	n/a	6.5	6.5	n/a
LPHW only	kW	3.0	3.0	n/a	5	5	n/a
Nominal Power Consumed							
Fan only	kW	0.05	0.05	0.05	0.1	0.1	0.1
Dehum (Comp & Fan)	kW	0.75	0.75	0.75	1.2	1.2	1.2
Dehum & Heater	kW	n/a	n/a	2.75	n/a	n/a	5.2
Heater & Fan	kW	n/a	n/a	2.05	n/a	n/a	4.1
Supply		230V 50Hz	230V 50Hz	230V 50Hz	230V 50Hz	230V 50Hz	230V 50Hz
Fuse	A	10	20	20	13	13	32
Nominal Running Amps	A	3.4	3.4	11.7	5.6	5.6	22.3
Full Load Amps	A	4.4	4.4	12.7	7.5	7.5	24.2
Compressor LRA	A	15.8	15.8	15.8	30	30	30
Air Flow	m ³ /h	420	420	420	750	750	750
Noise Level @3m	dB/A	46	46	46	47	47	47
Water Flow Rate	L/min	5.0	5.0	n/a	5.0	5.0	n/a
Pressure Drop	m hd	1.1	1.1	n/a	1.8	1.8	n/a
LPHW Flow Rate	L/min	n/a	n/a	n/a	5.0	5.0	n/a
LPHW Pressure Drop	m hd	n/a	n/a	n/a	1.1	1.1	n/a
HERMETIC SYSTEM							
Refrigerant Charge 'A' Dehumidifiers	kg R407c	0.5	0.4	0.5	0.75	0.8	0.75
Refrigerant Charge 'AX' Dehumidifiers	kg	0.5	0.5	0.45	0.75	0.8	0.8

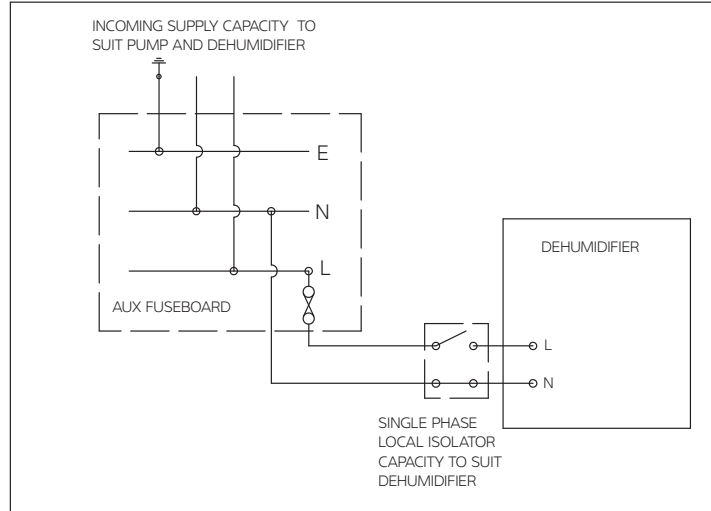
R407c Global Warming Potential (GWP) 1774

NOTES:-

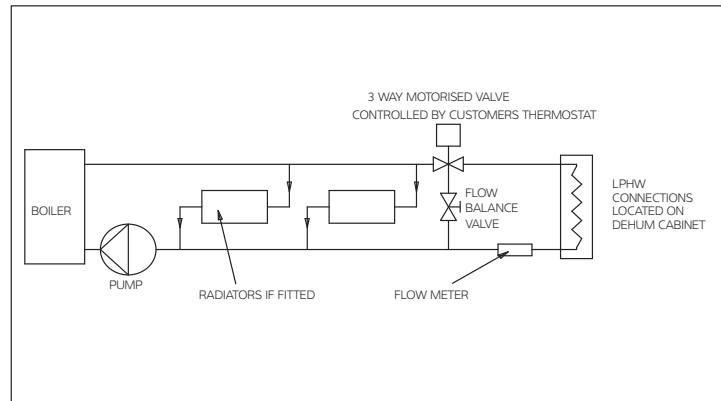
- a) These performance figures are based on air @ 30°C and 60% RH & pool water @ 28°C, Boiler water at 80°C
- b) Humidistat adjustable from 20% to 80%
- c) Minimum air temperature on standard models 15°C and 0°C on defrost 'X' models
- d) Reduced LPHW output when TTW operating is 1kW less on 33 model and 2kW less on 55 model
- e) IP rating for all models is IP45
- f) Maximum operating conditions air temp 35°C and 90% RH 1L/min = 0.22 gal/min
- g) Maximum operating conditions for AP versions air temp 32°C and 62% RH

1mm Wg = 9.8 Pa
 1m hd = 1.4 psi
 1L/min = 0.22 gal/min

ELECTRICAL SUPPLY CIRCUIT



LPHW PLUMBING SCHEMATIC



USER CHECK LIST

OPERATION

A recommended humidistat setting (50-60% RH) is a mid way point on the dial (Green segment on label).

Minimum Air Temperature TTW30/33/50/55/60 A = 15°C

Minimum Air Temperature TTW30/33/50/55/60 AX = 0°C.

Note on "X" models the fan stops during defrost.

On machines with resistance heaters TTW30/50/60 "P" heating control is governed by the remote mounted air thermostat, adjust to desired air temperature, the heater will run automatically as required.

On machines with LPHW, fans will start automatically as required.

MAINTENANCE

a) Ensure air inlets/outlets are kept clear and clean.

b) Wipe clean with damp cloth or cleaning fluid suitable for plastic coated steel.

c) Ensure drain line is kept clear.

Note: The reply paid Warranty Registration Card must be returned to ensure the correct warranty is given. If you do not find a Registration Card with your machine please contact the Dantherm Group Service Department giving your name, address, and the serial number of your machine. A card will be sent to you for completion.

HEALTH AND SAFETY WARNING

As the heat pump contains electrical and rotational equipment, it is recommended that ONLY competent persons carry out any work on this type of machine (see guarantee).

Isolate machine electrically before entering machine or removing panels.

MACHINE NOT RUNNING AT ALL

CHECK THE FOLLOWING

- 1 Is the supply switched on?
- 2 Is the supply fuse healthy?
- 3 Turn humidistat knob fully anti-clockwise.
- 4 Check air inlets and outlets for obstructions.
- 5 ON P models reset the thermostat(s) see FIG 2.
- 6 If after carrying out the above and waiting one hour, the machine does not start, phone for service.

MACHINE FAN ONLY RUNNING

- 7 Turn humidistat knob fully anti-clockwise.
- 8 Check air inlets and outlets for obstructions, if after 30 minutes the machine has not restarted, phone for service.

WATER LEAKING FROM BASE OF UNIT

- 9 Check connection from machine to drain for blockages and clear accordingly, check fall is adequate.
- 10 Check the machine is level, both vertically and horizontally.

The user check list should be carried out before initiating a service call. Do not attempt to interfere with any internal control settings as these have been factory calibrated and sealed.

If in doubt or if advice is required, contact the Dantherm Group Service Department
Telephone (01621) 856611 option 4

PLEASE LEAVE INSTRUCTIONS FOR USER