calorex DH75 Range Instruction Manual

Contents

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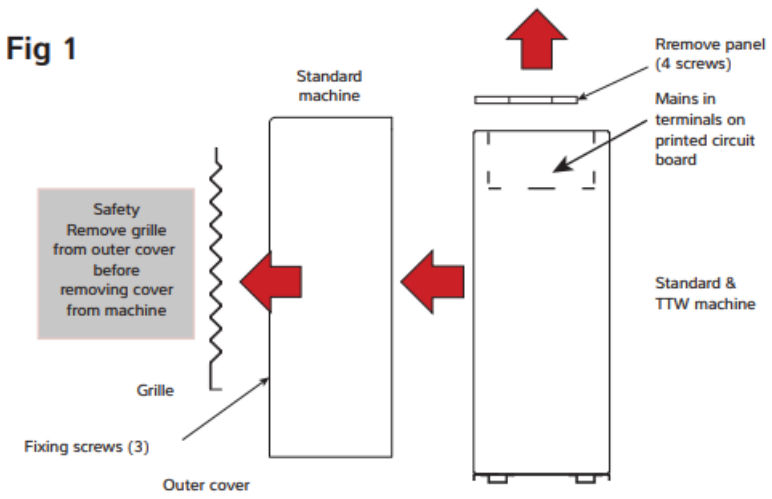
HEALTH & SAFETY WARNING

- 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
- ISOLATE ELECTRICALLY BEFORE ENTERING MACHINE OR REMOVING PANELS.
  The Calorex TTW units are designed for installation in a heated room, adjacent to the poolroom.

Installation model DH75/110

1. Remove machine from packaging and set on a level surface. Check that machine is level both vertically and horizontally.
2. Remove covers as shown in FIG.1 relative to machine type installed.



3. The Electrical supply to unit must be sized according to the data on the serial number label, paying close attention to

   I. E.E regulations latest edition regarding the special conditions governing electrical supply to machines in potentially damp areas (DH75/110 are IP45).
4. The electrical supply should be connected to the terminals on the Printed Circuit Board in the electrical box found in

   the top corner of the machine, see Fig1 & Fig4. Wires to be connected as follows: brown/red to live, blue/black – to neutral, and green/yellow to earth.The fan mode switch can be set to cycle fan when Hygrostat senses demand but should be set to continuous to promote good air circulation and reduce condensation.

   Note that on models fitted with LPHW and or remote hygrostat the fans will start automatically whenever there is an air heating or dehumidification demand. During defrost the fans will stop. (Fan cycle not recommended for TTW machines with humidistat only). Set Fan Speed switch to “High” for maximum duty, “Low” for minimum sound.
5. Locate drain, 15mm compression fitting, on side of unit and run it away to waste as preferred. A single hole is provided in the side of the unit. The drain is factory fitted to this hole. (In TTW machines there is an alternate position – see drawings).

   Models with LPHW fitted
6. Connect water circuit piping to the 22mm stubs provided on the side of the machine as per diagram.
7. It is recommended that isolation valves are fitted to enable isolation of the machine in the event of service.The Circulating Pump must be sized to take into account the design flow rate of the machine plus the water system resistance. (Flow Rate 9.6 l/min Pressure Drop 2.8 m/hd).

Fig 2

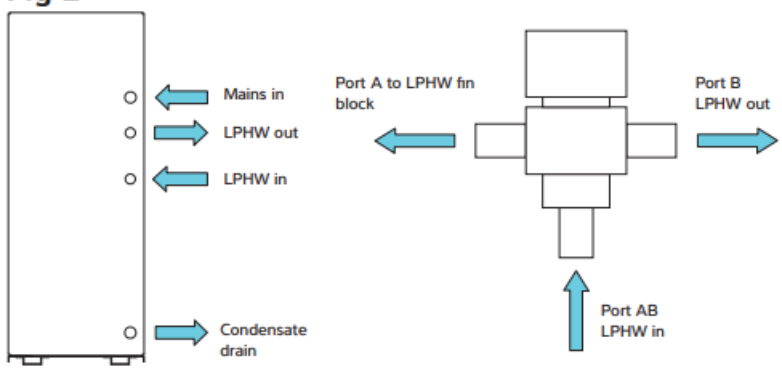
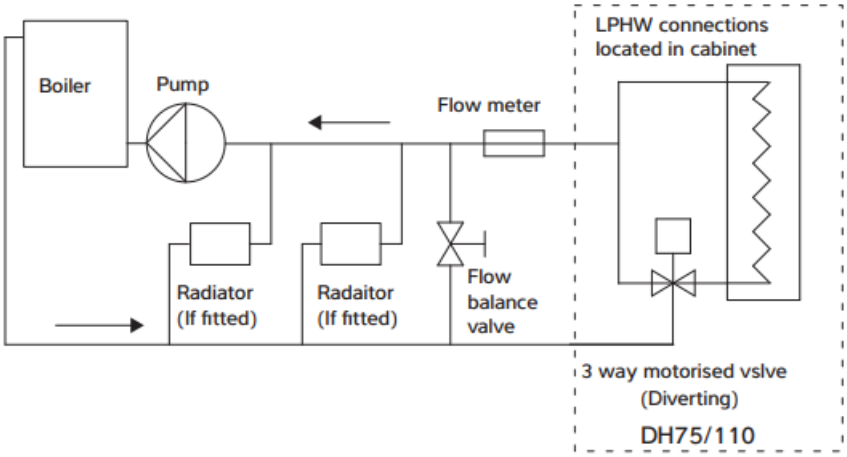


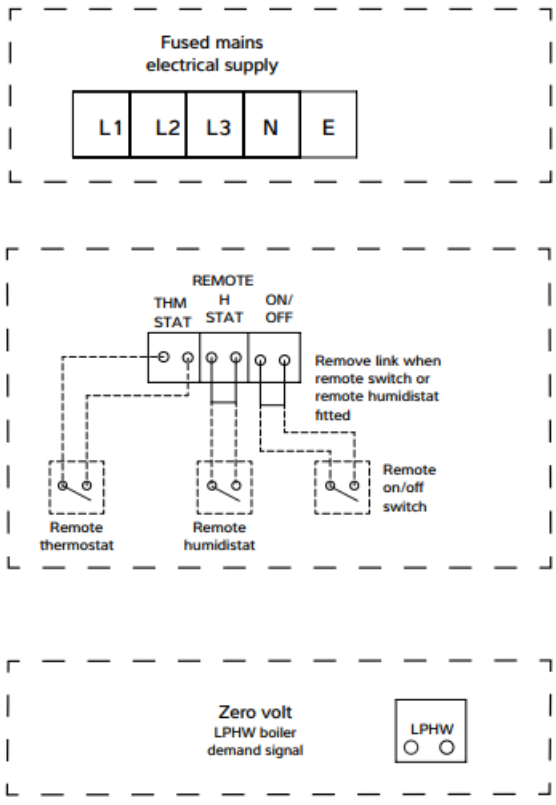
Fig 3 LPHW SCHEMATIC

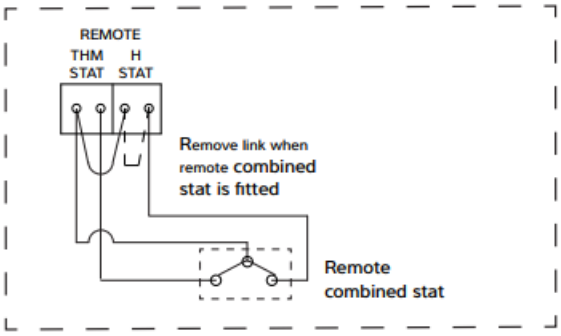


Connections for remote 12V air thermostat, optional hygrostat, and Rremote on/off.

8. If the Remote Hygrostat or combined stat is fitted, ensure thatthe dial on the internal humidistat is set to minimum 20% -Fully anti-clockwise. Connect remote Hygrostat to terminals on Printed Circuit Board as shown in Fig 4.

Fig 4





All terminals are on the printed circuit board

OPERATION

A normal hygrostat setting (50-60%) is marked on the console.Min air temp 5°C.
Note : The fan stops during defrost.
The fan will start automatically, as required, on machines fitted with LPHW and/or remote Hygrostat.

- Ensure air inlets/outlets and filters are kept clear and clean.
- Wipe clean with damp cloth or cleaning fluid suitable for painted surfaces.
- 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 Calorex Service Department giving your name, address and serial number of your machine, a card will then be sent to you.

Filter cleaning
The filter can be washed in warm, soapy water, rinsed and shaken dry before replacement. Frequency of cleaning depends on user although no more than two months should elapse between cleaning. The dehumidifier must not be run without a filter fitted.

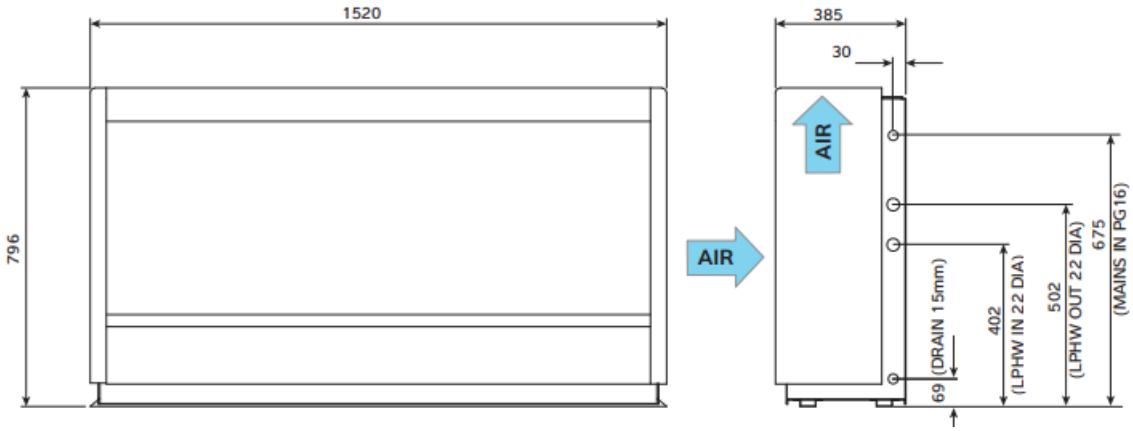
Machine not running at all. Check the following.

1. Is supply switched on?
2. Is supply fuse healthy?
3. Turn Hygrostat knob fully anti-clockwise.
4. Check air inlet and outlet for obstructions and that filter is not blocked.
5. Check that HP and LP switch are reset.
6. If, after carrying out the above and waiting 30 mins, the machine does not start, telephone for service.
   Machine fan only running (No LPHW demand)?
7. Turn Hygrostat knob fully anti-clockwise.
8. Check air inlet and outlet for obstructions and that filter is not blocked.
9. Check that HP and LP switch are reset, if after 30 mins the machine has not restarted, telephone for service.
   Water leaking from the base of the unit
10. Check connection from machine to drain for blockages and clear accordingly. Check fall is adequate.
11. Check that 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 Calorex Service Department. Telephone (01621) 856611 (option 4) or

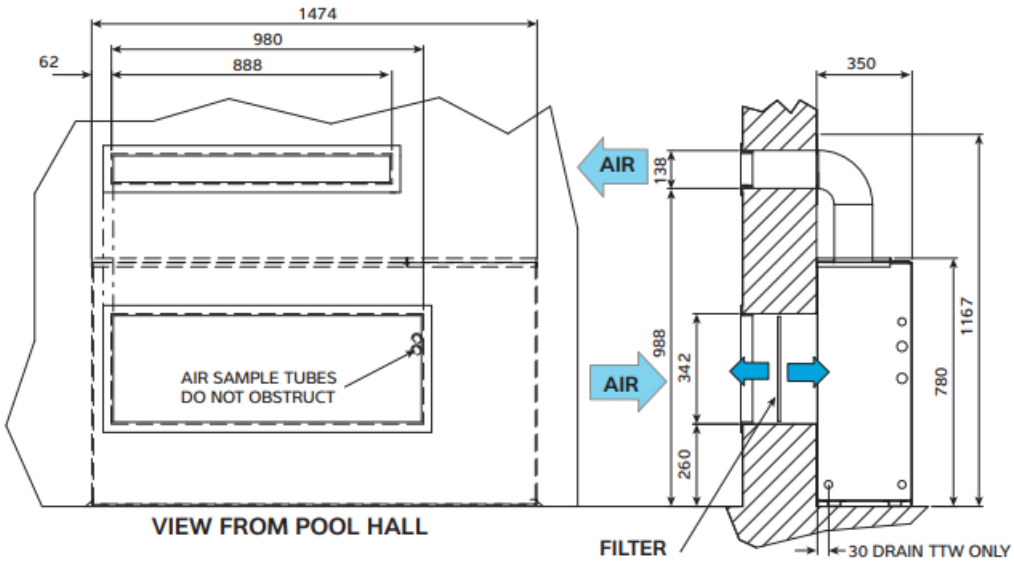
email service.department@dantherm.com.

Machine dimensions

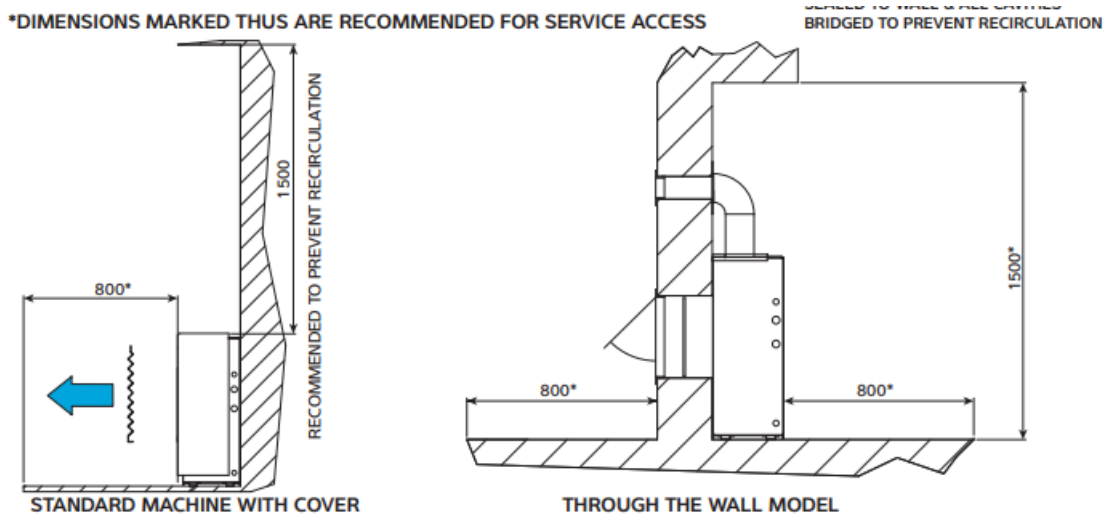
STANDARD MACHINE WITH COVER



THROUGH THE WALL MODEL



SERVICE REQUIREMENTS



Technical data

Model				DH75AX	DH110AX	DH110BX	TTW75AX	TTW110AX	TTW110BX
Duty									
Dehumidification			L/hr	3,6	4,5	4,5	3,6	4,5	4,5
Air heating (sensible) dehumidifier only			kW	4,7	6,4	6,4	4,7	6,4	6,4
Air heating (sensible) dehumidifier and LPHW			kW	11,3	12,2	12,2	11,3	12,2	12,2
Air heating (sensible) LPHW only			kW	8,9	8,9	8,9	8,9	8,9	8,9
Nominal power consumed									
Fan only			kW	0,16	0,16	0,16	0,16	0,16	0,16
Compressor and fan			kW	1,46	2,12	1,94	1,46	2,12	1,94
Electrical data									
Electrical supply				230V ~1 N 50Hz	230V ~1 N 50Hz	400V ~3 N 50Hz	230V ~1 N 50Hz	230V ~1 N 50Hz	400V ~3 N 50Hz
Maximum fuse rating			AMP	13	16	10	13	16	10
Nominal running amps			AMP	6,4	9,3	4,2	6,4	9,3	4,2
Full load amps (minimum supply capacity)			AMP	7,8	10,6	5,0	7,8	10,6	5,0
Compressor LRA			AMP	55	66	30	55	66	30
Air data									
Air flow (nominal)	High speed		m^3/h	925	1007	1007	925	1007	1007
	Low speed		m^3/h	750	812	812	750	812	812
Water data									
LPHW flow rate			L/min	9,6	9,6	9,6	9,6	9,6	9,6
LPHW pressure drop			m hd	2,80	2,80	2,80	2,80	2,80	2,80

LPHW coil v olume			L	0,63	0,63	0,63	0,63	0,63	0,63
Geeneral dat a									
Hermetic sys tem									
Refrigeration charge		R407c	kg	2	2	2	2	2	2
Sound pressure level @ 1m			dB(A)	53	53	53	53	53	53
Dimensions									
Width	(Unpac ked)		mm	1520	1520	1520	1474	1474	1474
Depth	(Unpac ked)		mm	385	385	385	350	350	350
Height	(Unpac ked)		mm	796	796	796	1167	1167	1167
Weight	(Unpac ked)	STD/LPH W	kg	143/147	144/148	144/148	143/147	144/148	143/147
Width	(Packe d)		mm	1575	1575	1575	1575	1575	1575
Depth	(Packe d)		mm	420	420	420	420	420	420
Height	(Packe d)		mm	932	932	932	932	932	932
Weight	(Packe d)	STD/LPH W	kg	163/167	164/168	164/168	163/167	164/168	163/167
Global warming potential R407c 1774.									

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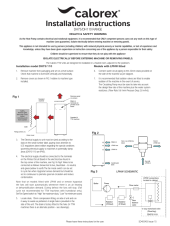
Documents / Resources

	calorex DH75 Range [pdf] Instruction Manual DH75, DH110, DH75 Range, DH75, Range

References

- Dantherm Group