



Instruction Sheet

Hydro Air Fan Controls

102-093

SUPERSEDES: 102-093 September 1, 1999

EFFECTIVE: December 1, 1999

Plant ID# 9300-866

Operation HAF101 and 201:

The Hydro Air Fan Control is an interface between the thermostat and air handler. It also has an isolated end switch to start the boiler and/or pump. When the thermostat calls for heat, the Fan Control energizes the end switch relay and allows the fan to operate at low speed when the water is above the optional aquastat setting. When the thermostat calls for cooling, the Fan Control energizes the condenser and operates on high speed.

Additional HAF201 Operations:

Selectable one, three or four minute delay on fan operation in heating mode. Selectable pump exercise activates circulator but does not enable boiler contacts. Two minutes every 24 hours minimizes the chance of bacteria build-up in an open loop system. Thirty seconds every two weeks minimizes seasonal start-up problems generally associated with harsh water conditions. Optional aquastat or thermostat can be connected to Freeze Protection TT terminals to reduce the chance of pipes freezing by energizing the pump dry contacts (boiler contacts not activated.)

Switch Settings (HAF201):

- 1 1 minute on fan delay, in heating mode
- 2 3 minute on fan delay, in heating mode
- 1&2 4 minute on fan delay, in heating mode
- 3 Pump dry contact activated for 2 minutes every 24 hours (boiler contacts not activated)
- 4 Pump dry contacts activated for 30 seconds every two weeks (boiler contacts not activated)

External Diagnostics:

The external lights show full functionality of the Hydro Air Fan Control. The green light should always be on, indicating that power is connected. Red lights indicate fan operation for heating and cooling modes.

Warning:

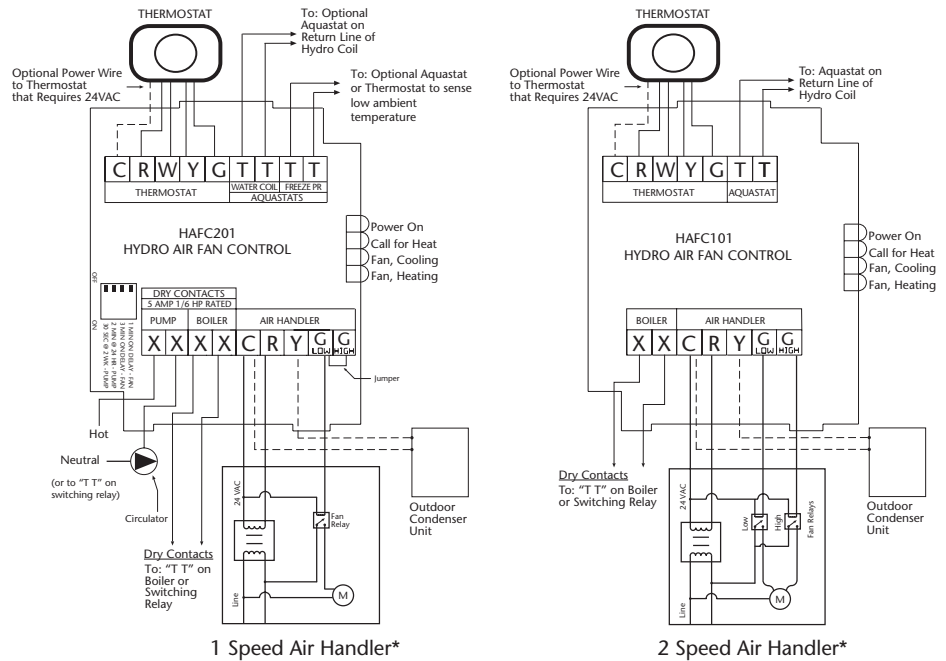
Wiring connections must be made in accordance with all applicable electrical codes. Use copper wire only. Failure to follow this instruction can result in personal injury or death and/or property damage. 10-18 gauge wire recommended for 120 VAC connections with 9 in.lbs. max torque, 12-22 gauge wire for thermostat connections with 9 in.lbs. max torque, and 12-22 gauge wire for 24 VAC source with 5 in.lbs. max torque.

Specifications:

** Model number changed from SR501-F

PRODUCT NUMBER	NUMBER OF ZONES	POWER INPUT VOLTAGE	MAXIMUM COMBINED LOAD	RELAY TYPE	THERMOSTAT CURRENT	SINGLE PHAZE MOTOR RATING (RELAY)	DIMENSIONS OF ENCLOSURE		
							WIDTH	HEIGHT	DEPTH
HAF101**	1 Zone	24 VAC Input	5 amps	DPDT	.18	1/6 HP(5A) @120VAC	4 1/4"	5 1/4"	2 3/4"
HAF201	1 Zone	24 VAC Input	5 amps	DPDT	.18	1/6 HP(5A) @120VAC	4 1/4"	5 1/4"	2 3/4"

The Hydro Air Fan Controls are relay type DPDT, have a thermostat current of .18 and a single phase motor rating per zone of 1/6 HP (5A) @ 120 VAC.



* Both HAF101 and 201 capable of 1 and 2 speed applications

Terminal Description:

Thermostat:

- C Optional: Common side of transformer to power some styles of thermostats
- R Red - Hot side of transformer used to switch all functions
- W White - Heating signal
- Y Yellow - Condenser signal
- G Green - Fan signal

Water Coil Aquastat:

TT Connect to aquastat at air handler to control operation of the fan when in the heating mode. Install a jumper if the aquastat is not used

Freeze Protection Aquastat:

TT Connect to aquastat or thermostat to sense low ambient temperature. Reduces the chance of pipes freezing by energizing the pump dry contacts.

Pump Dry Contacts:

XX May switch pump directly by bringing in external line voltage or connect to "T T" on a switching relay.

Boiler Dry Contacts:

XX Connect to the boiler or "T T" terminals on a switching relay.

Air Handler:

- C Common side of transformer to power the Fan Control
- R Red - Hot side of transformer used to switch all functions
- Y Yellow - Condenser signal

One Speed Motor:

G_{low} Connect the fan to the relay. Keep the jumper installed between G_{high} and G_{low}.

Two Speed Motor:

Remove jumper and connect G_{high} to the high speed fan relay and connect G_{low} to the low speed fan relay.

Do it Once. Do it Right.

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