

Ducted Systems Technical Services: Service Tips Letter

Letter: ST-018-22

Date: October 25, 2022

To: Service Manager, Parts Manager, Warranty Manager, Ducted Systems Technical Services, DS Parts/S1, Warranty teams.

Subject: **HMH7 Dual Fuel “W” Control**

Product/s: All HMH7 models paired with a gas furnace.

Summary: This letter provides information and resolution to prevent gas furnace operation during an initial call for heat pump operation in dual fuel applications paired with the HMH7 model heat pumps.

Dear valued customer:

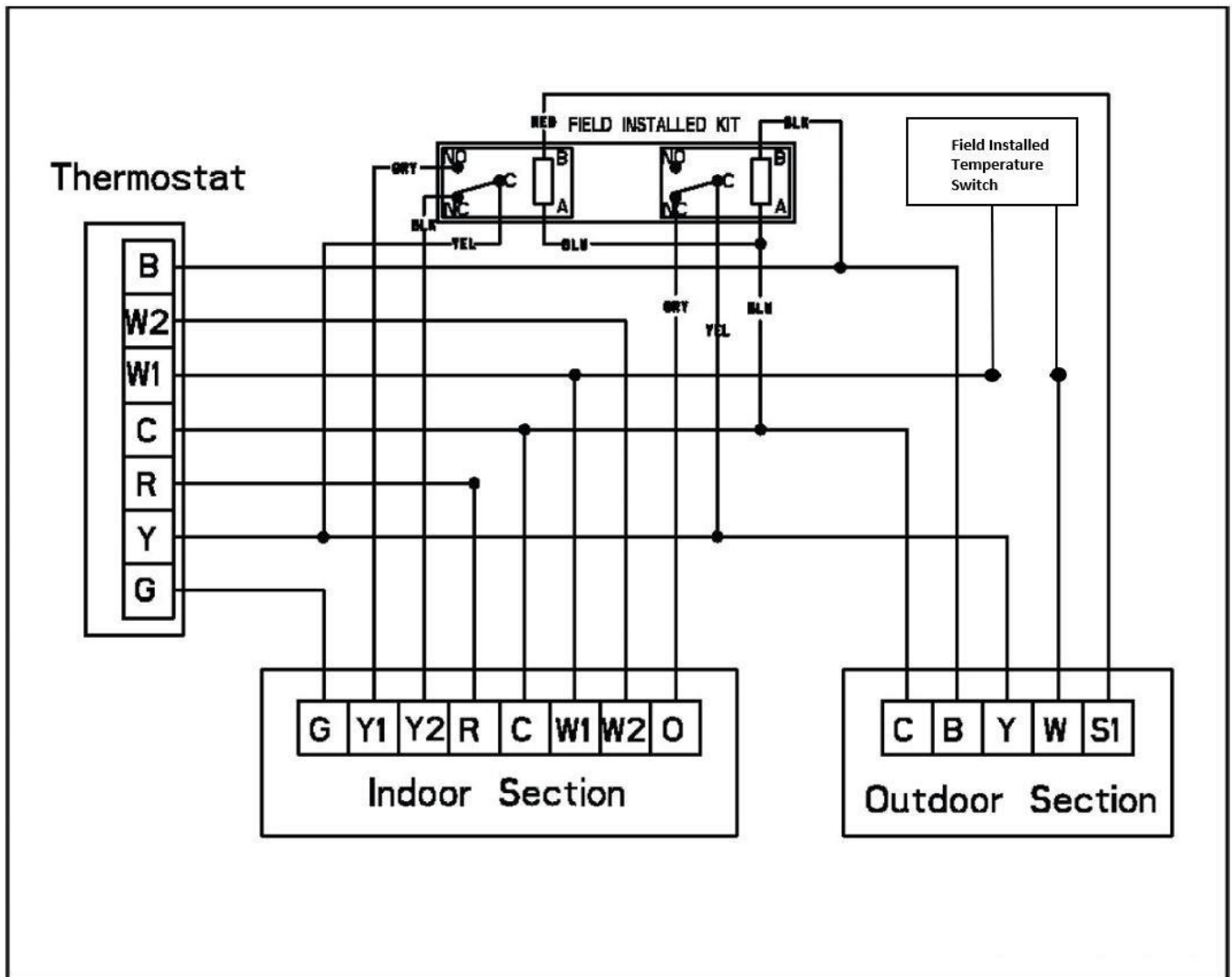
During field testing, it has been verified that the HMH7 energizes W during an initial call for heat pump operation in heating mode for a short period of time. This is done to temper the supply air while the heat pump ramps to its operating parameters. The HMH7 was designed to be paired with air handlers with electric heat strips. During normal operation, the energizing of the electric heat strips during the first few minutes of a call for heat pump operation in heating mode is acceptable. In a dual-fuel application, the system will energize the gas furnace during an initial call for heat pump operation in heating mode. Although this does not affect system performance, the short firing of the gas furnace in the dual fuel application may confuse the installing/servicing dealer and/or end user.

To stop the gas furnace initiating burner operation during a call for heat pump operation, the W signal from the heat pump to the furnace must be broken. This can be achieved by installing a temperature switch on the indoor evaporator coil vapor line and wiring it in series with the heat pump's W wire.

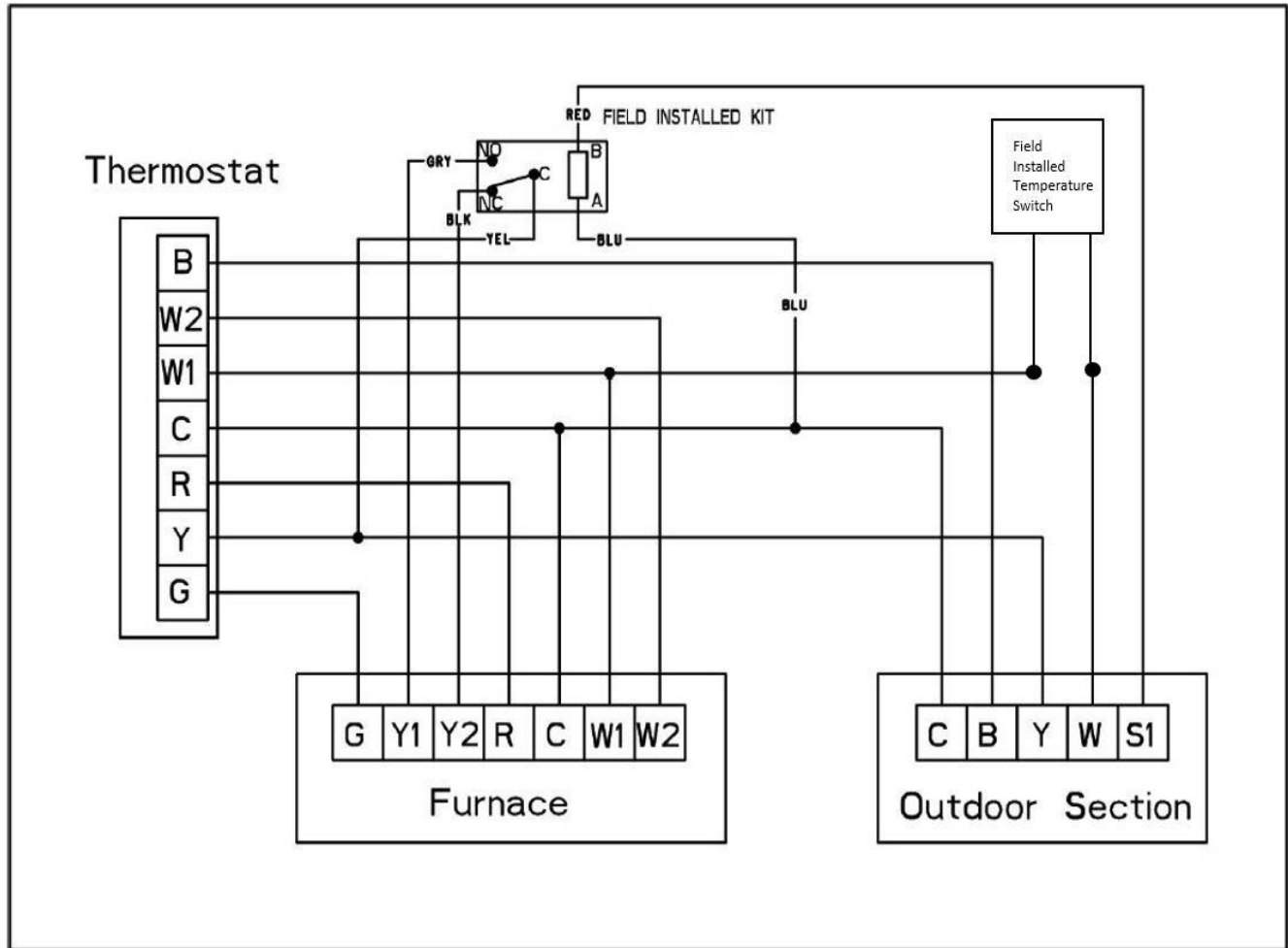
This will still allow the gas furnace to come on during defrost and during an aux heat or emergency heat call from the thermostat. Our field validated thermostat used is Source1 part S1-SC065. This control is a 65°F “heating” type device. The switch closes when the vapor line is colder than 65°, hence during a defrost cycle, allowing the HMH7 “W” signal to reach the gas furnace “W” terminal, initiating the gas heat.

Refer to the wiring diagrams shown below. Install the temperature switch on the evaporator coil vapor line and secure with black electrical tape, leaving the wires exposed for wiring in series to the low voltage W wires. Then insulate the switch with Armaflex foam insulation or the equivalent.

If you have any questions on this feel free to call Ducted Systems Technical Services at 1-877-874-7378 and speak with a technical support representative.



Refer to this diagram if using Kit HMH7AK002



Refer to this diagram if using Kit HMH7AK001

Warm regards,

Neal Clevenger
 Assoc. Product Technical Support Engineer
 Ducted Systems Technical Support