

it could be due to construction debris such as sheet rock dust, saw dust, landscaping dust, or excess pollen from pine or oak trees. If it is a dust/pollen problem, clean combustion chamber as on page 43 in the manual as well as use your Shop Vac and vacuum the 3" PVC air inlet pipe from inside the Munchkin, the top of the Munchkin insides and with the power off and gas turned off, place the shop vac hose over the fresh air inlet which is connected to the gas valve. This will clean the inside of the blower and burner. Construction debris is a non-recurring situation, so this need only be done once in this situation. Pollen is at least a yearly event, we currently do not have an approved filtration system, so an evaluation of the termination must be taken into account. Mostly what we

**F10** F10 is indicative of a flame failure while the Munchkin is running.

**First**, check that the condensate drain is clear, and that the condensate can flow freely from the boiler. Condensate back-ups create steam which suffocates the flame, throws off rectification, or in the worst cases, soaks the refractory plates, causing the spark to ground out instead of sparking.

**Second**, check the flame rod by depressing and holding the S4 button, the display should read d1. Press and release the button until d7 appears. The d7 reading should be at least 4.0, and is directly related to the CO output of the boiler.

**Third**, check your vent termination for exhaust being recirculated back into the fresh air intake. Two pipe horizontal termination the exhaust must be off-set at least 18" farther away from the intake air, for the vertical termination, the off-set must be at least 24".

With a concentric flue, make sure that the PVC kit is completely glued. Also check for, overhangs, newly installed fences, vegetation which has overgrown, anything that can trap the exhaust where the intake is. Exhaust gas recirculation will cause the unit to fire then fail almost immediately and will eventually damage the blower assembly.

**Fourth**, on the Munchkin 80M's, check that the brass vent on the rear of the gas valve is not blocked by the rear of the boiler cabinet. If necessary, gently shift the boiler slightly forward in the cabinet.