HBX Control Systems Inc.

CPU-0600 Technical Bulletin

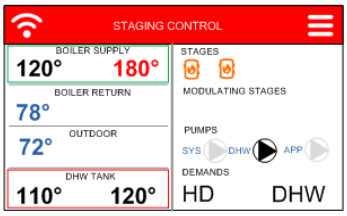
Wood/ Oil Boiler Applications

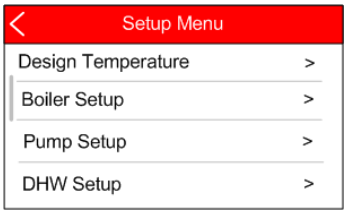
With the latest addition in firmware, the CPU-0600 will now be able to operate wood or oil boiler systems with the option to run a backup boiler. For these applications, the DHW sensor will act as the sensor for the backup to watch and verify if the oil/wood boiler is not able to keep up or has failed.

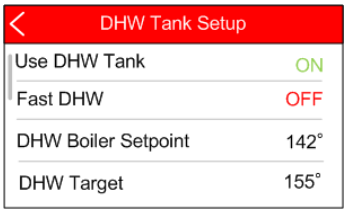
The following steps and notes will detail the steps and sequence for this setup.

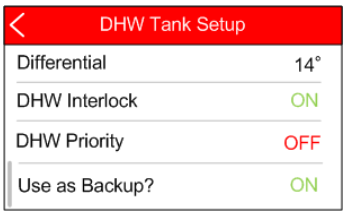
- Under the Setup menu scroll down and select DHW Setup to access the DHW Tank Setup and enable
  - Use DHW Tank to ON
  - Use As Backup? to ON
    - DHW will act as the backup instead of as a typical DHW Tank
    - (Note: all DHW settings will operate the same even when "Use as Backup?" is enabled. If Priority and/or Interlock is enabled, this will lock out the corresponding Pump types when the DHW is activated. For example, if a wood/oil pump that is wired to the CPU-0600 and is set as System Pump and Priority is enabled, this will lockout the System Pump when DHW Pump is enabled)
- Under Pump Setup select and set any Pump 1, 2 or 3 as DHW
  - Set the post purge to AT LEAST 10 seconds
- Under Boiler Setup
  - Number of On/Off Stages **set this value to the number of stages plus one more than the number of wood/oil boilers running**
  - Stage ON Lagtime where this will be the time between boiler stages coming on including the backup (DHW Pump).
  - Rotate Time to OFF
  - Rotate Cycles to OFF
  - Number of Mod Stages to 0
- Once the settings are configured when each of these conditions are met, the Backup (DHW) will be able to act as a backup for the wood/oil boiler.
  - When there is an HD demand enabled (highlighted in Black).
  - When the Boiler Supply temperature is below the Supply target and the Backup sensor (DHW input) is below the DHW setpoint
  - After the last boiler stage has come on.
    - (Note: WWSD (Warm weather shutdown) which can be set under Design Temperature will turn off the backup boiler and disable the DHW Pump based on outdoor temperature)

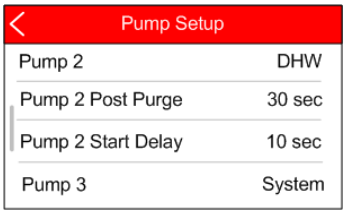
When each of these situations happens, the Backup (DHW Pump) will be able to come on. The Pump (AUX) contact that is selected as DHW Pump will be where the backup boiler is wired to. (Refer to wiring below). As the temperature for the Backup sensor (DHW) rises and reaches its set point, the Backup (DHW Pump) will turn Off and proceed to normal boiler operation.

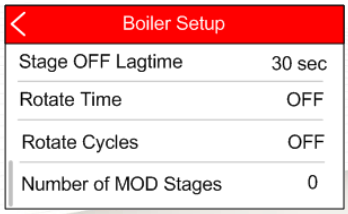












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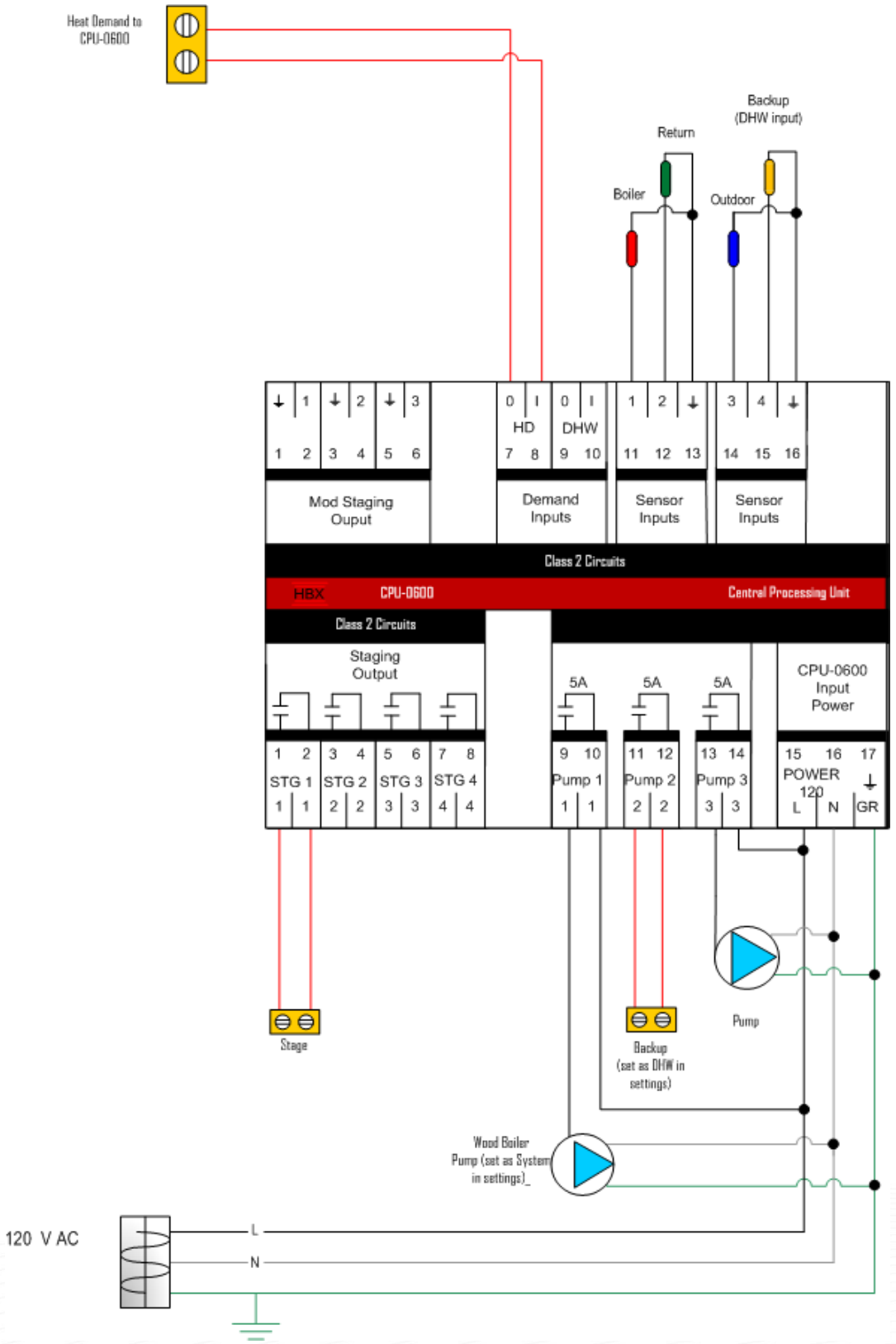

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