

# Crown Boiler Company

This control is programmed for use as a replacement for the R7910B1020 control used on the following Crown boiler models:

PHNTM080  
PHNTM100  
PHNTM120  
PHNTM150  
PHNTM180



## WARNING

- **This control shall be installed by a qualified service agency in accordance with these instructions. Attempts to do so by others, or to use this control on models not listed above, could result in unreliable operation, property damage, personal injury, or loss of life.**
- **As shipped, this control will not permit operation across the entire boiler input range. After the control is installed, both the boiler model and altitude must be selected in accordance with the instructions below. Failure to select the boiler and altitude before leaving the boiler in operation could result in unreliable operation. Selecting an incorrect model and/or altitude could result in unreliable operation, property damage, personal injury, or loss of life.**

- 1) Turn off all electrical power to the boiler.
- 2) Unplug all electrical connectors from the old control. All electrical connections to this control are plugs (including the green screw terminal strip on the bottom of the control) and all are keyed to prevent misconnection.
- 3) Press on the two tabs on the right side of the control (Figure 1) to release the old control from the door panel.
- 4) Install the new control on the boiler and replace all electrical connections removed in Step 2.
- 5) Restore electrical power to the boiler.
- 6) Depending on the display software version, you should see the screen shown at the top of either Figure 2 or Figure 3 within a few seconds of restoring power. Follow the instructions in either Step 7 or Step 8 as appropriate.
- 7) **Boilers equipped with Version 1 display software only** – The screen shown at the top of Figure 2 will appear. Do the following to select the correct model:
  - a) At the Home Screen on the display press **MENU**.
  - b) Press **CONFIGURE** from the Main Menu.
  - c) When prompted for a password, use the “+1” key to raise the password to “005” and press **SUBMIT**, then **NEXT**.
  - d) Review the warning and press **ACCEPT** to continue to the Configuration Menu and press **FACTORY SET**.
  - e) Review the warning and press **ACCEPT** to continue to the Restore Factory Settings Menu.
  - f) Press the large button (the one initially showing “WGR162=E”) repeatedly to advance through the boiler model choices. When the boiler model is shown which matches that on the rating plate, press **SET** to save the size selected. This selection is accepted when the display stops blinking.

Note: Version 1 display software was only used on boilers intended for installation at altitudes between sea level and 2000ft. There is therefore no way to select other operating altitudes using this display.

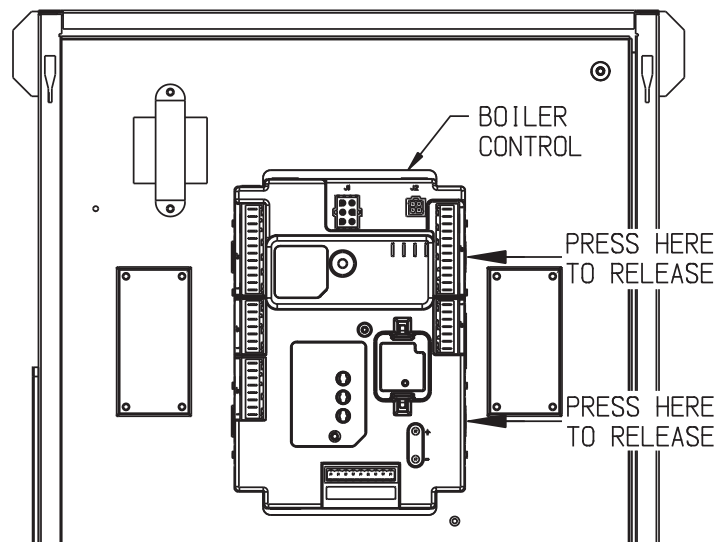


Figure 1: Location Of Boiler Control Release Tabs

- 8) **Boilers equipped with Version 2 display software only** – One of the screens shown at the top of Figure 3 will appear. Do the following to select the correct model and altitude:
  - a) If the screen at the top left (the one headed “Unspecified Model”) appears, turn off the power to the boiler, wait two seconds, and restore power. The top right screen (Boiler Control has been replaced. ....) should then appear.
  - b) Review the warning and press **ACCEPT**.
  - c) Press the large button (the one initially showing “Press Here to Select Model”) repeatedly to advance through the boiler model choices. When the boiler model is shown which matches that on the rating plate, press **SET** to save the size selected. This selection is accepted when the display stops blinking.
  - d) Press **NEXT** to advance to altitude selection.
  - e) If the boiler is installed at an altitude below 2000ft, press **NEXT** to skip altitude selection. Otherwise press the large button on the altitude screen to select the altitude range within which the boiler is installed. Press **SET** to save this setting. Altitude range setting is accepted when button stops blinking. Press **NEXT** to reach the confirmation screen.
  - f) If the model and altitude range are correctly shown, press **ACCEPT**. Otherwise, press **BACK** to return to the previous screens and correct selection.
- 9) Refer to Section XII, Part B (Configuring the Control) in the installation manual to configure the control for the particular system in which the boiler is installed.

## NOTICE

**When this control is replaced, all boiler configuration options and settings (e.g. pump logic, reset curve, etc.) revert to their factory default values. Failure to configure the new control in accordance with the installation manual supplied with the boiler could result in unreliable operation and/or property damage.**

- 10) Perform any steps not already done in Section XI (Start-up and Checkout) of the installation manual, before returning the boiler to service.

Figure 2: Selecting Model on Boilers Equipped with Version 1 Display Software

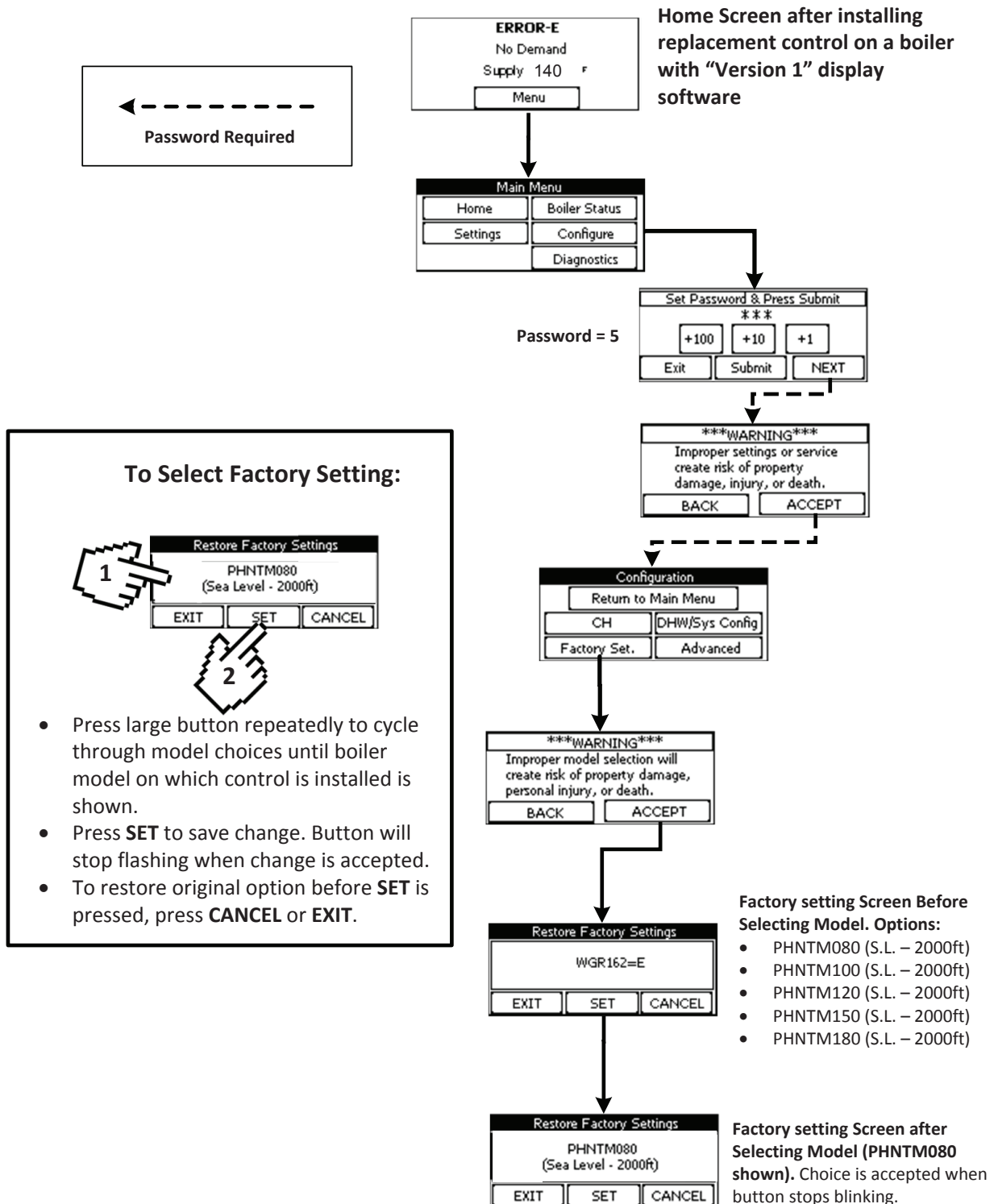


Figure 3: Selecting Model & Altitude on Boilers Equipped with Version 2 Display Software

One of the two screens below will appear when boiler having "Version 2" display software is first powered on with new control. If "Unspecified Model" screen appears, cycle power to boiler so that screen on right appears.

