



**TECHNICAL INSTRUCTION DOCUMENT**

Instructions For:

**C-More Firmware Upgrade Kit 64087-TAB**

For Innovation Water Heaters, Benchmark Boilers, KC1000 Water Heaters & Boilers

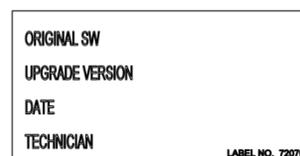
This kit includes the following parts:



**ITEM 1:**  
USB Wall Adapter  
P/N 69136



**ITEM 2:**  
Flash Programmer  
P/N 69137



**ITEM 3:**  
C-More Upgrade  
Version Label  
P/N 72070

Available Kits	Firmware Version	Applies To:
64087- V3.07.06	3.07.06	KC1000, BMK 2.0 Std, BMK 2.0 Venturi
64087- V3.08.11	3.08.11	Innovation Water Heaters
64087- V4.14.08	4.14.08	Benchmark 1.5, 2.0 LN, 3.0, 750 – 6000

**Initial Release: 06/16/2017**

This document applies only to newer PMC boards (colored blue) and Firmware version 3.00 and above. To re-flash older (green) PMC boards with Firmware version 2.00 to 2.99, use the FREESCALE programming device.

**Technical Support**  
1-800-526-0288  
(Mon-Fri, 8am-5pm EST)  
[www.aerco.com](http://www.aerco.com)



**DISCLAIMER:**

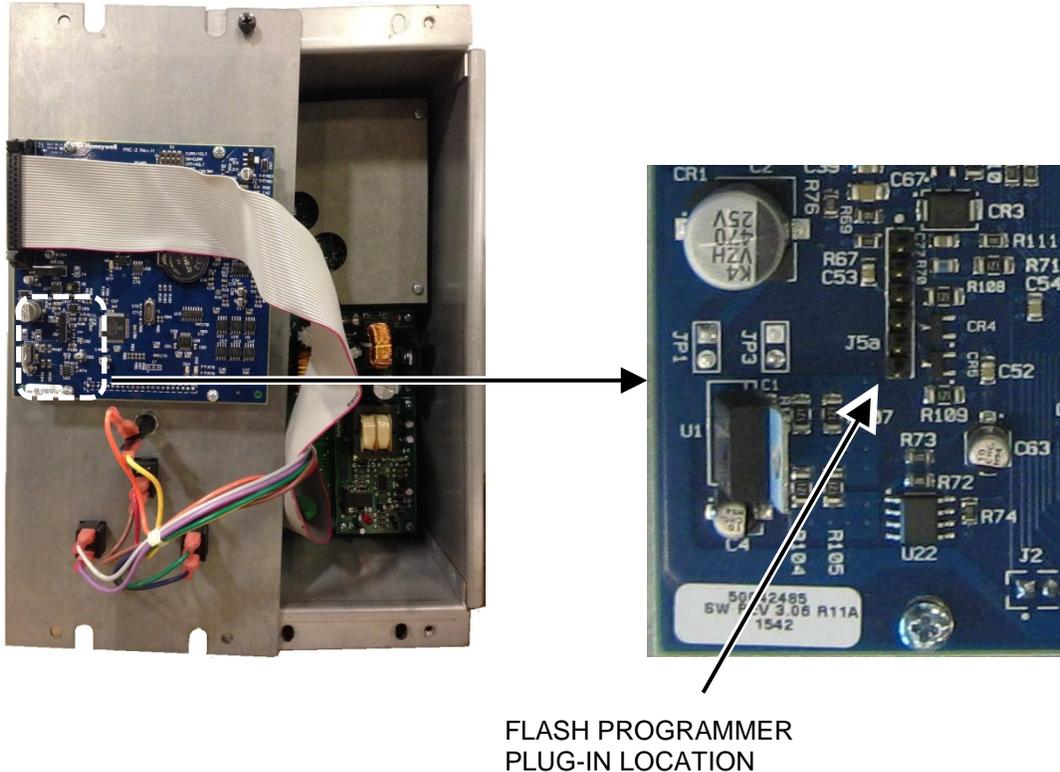
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## 1. Introduction

C-More Controllers with firmware revision numbers V3.00 or greater have critical parameter settings not included in earlier models (i.e., Freescale).

The firmware upgrade is performed on the C-More Controllers PMC board, mounted behind the C-More Controllers front face see Figure 1). The PICKit-3 Flash Programmer will re-flash newer C-More PMC boards (color blue) with the current firmware version.

To re-flash older PMC boards (color green with firmware version 2.00 to 2.99) use the FREESCALE programming device.



**Figure-1: Flash Programmer Plug-In Location on PMC Board**

## 2. Re-Flashing a C-More Controller

Complete the following procedure to re-flash the C-More Controller with the current firmware version.

### INSTRUCTIONS: Re-Flashing the C-More Controller

1. Prior to proceeding, record any critical unit settings currently in use, including:

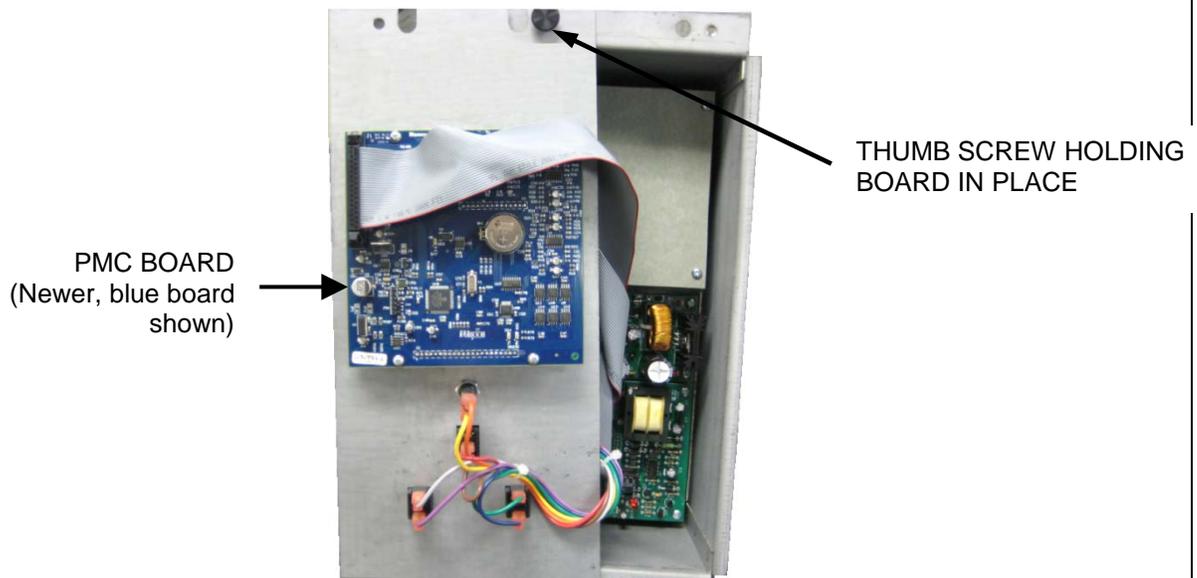
- UNIT TYPE
- UNIT SIZE
- FUEL TYPE
- Combustion Calibration Voltage settings
- Any other relevant information

#### IMPORTANT!

Any unit using the 0-10v output to drive the blower motor relies on critical “Combustion Calibration” settings within the C-More Controller. RE-FLASHING the PMC board will erase any Combustion Calibration Menu & all other Menu settings. It is therefore ***crucial*** that these values be recorded prior to RE-FLASHING so that they can be re-entered for proper unit performance.

2. Turn the boiler power **OFF**.

3. Open C-More Controller & flip the front cover around, so that PMC board is facing you (see Figure 2). If desired, re-install one screw to hold front panel in place.



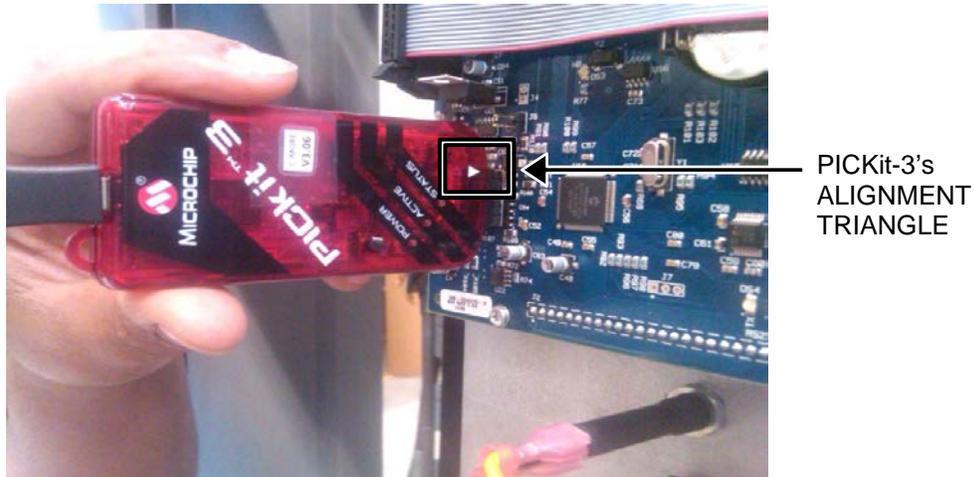
**Figure 2: Cover Removed, Turned around, and Affixed to Chassis with Screw**

4. Fill in the C-More Upgrade Version Label (P/N **72070**), included with the kit, with relevant information. The Upgrade Version should match the firmware version on the label attached to the Flash Programmer.

5. Attached the label to the inside surface of the PMC board. This label will eliminate any future question about what firmware version is installed on the unit.

**INSTRUCTIONS: Re-Flashing the C-More Controller**

6. Plug one end of the Connecting Cable into the Flash Programmer and the other end into the USB Wall Adapter, and then plug the USB Wall Adapter into a wall outlet.
  - The *POWER* LED should be solid GREEN.
  - The *ACTIVE* LED should be flashing BLUE.
7. Connect the PICKit-3 directly into the PMC board's 6 pin connector #J5a making sure that pin #1 of the PICKit-3 (alignment triangle) aligns with pin #1 of connector J5a (white dot), as shown in Figure 3.



**Figure 3: Connecting PICKit-3 into J5a 6-pin Connector**

8. Turn the boiler power **ON**.
9. Press the pushbutton switch on the PICKit-3 (directly above the *POWER* LED).
10. The *STATUS* LED should be flashing ORANGE for about 40 seconds.
11. When the *STATUS* LED turns solid GREEN, programming is complete.
12. Turn the boiler power **OFF**.
13. Remove & unplug the PICKit-3 programmer.
14. Turn the boiler power **ON**.

**\*IMPORTANT \***

**\*IMPORTANT \***

**\*IMPORTANT \***

15. Enter the following parameters first before entering any Combustion Calibration settings:

- UNIT TYPE
- UNIT SIZE
- FUEL TYPE

16. Enter Combustion Calibration Voltage settings.

17. Enter any other modified settings to properly configure the unit.

**\*IMPORTANT \***

**\*IMPORTANT**

**\*IMPORTANT \***

18. Press the **AUTO/MANUAL** key until the *MANUAL* LED indicator turns off, then on again.

**INSTRUCTIONS: Re-Flashing the C-More Controller**

19. Now set the AUTO/MANUAL mode to your desired setting.
20. Reassemble the cover back on the chassis enclosure.
21. Fill in the original software version, upgrade version, date of upgrade, and upgrade technician's name on the C-More Upgrade Version Label (P/N **72070**), included in the kit.
22. Affix the label to the rear of the chassis enclosure where the connectors are, **NOT** on the cover. If there is an existing label from a previous firmware upgrade, ensure that the label completely covers the existing label. Some older units may have a square piece of colored tape already affixed there, indicating the past version. If so, it should be covered with the new label indicating the new version.



**Figure 4: Label Location – Before and After**

-- END --

## CHANGE LOG:

DATE	DESCRIPTION	CHANGED BY
06/28/2017	Rev D: <b>DIR 1355:</b> Revised for new firmware version 3.07.06, 3.08.11, 4.14.08 (ref DIR 17-044)	