

CHEM-FEED[®]

Firmware Update Procedure



C2 C3 Pumps
MC2 MC3 Pumps

Purpose of This Manual

This manual describes how to use BWI Boot Loader to upgrade pump firmware on your Chem-Feed pump.

What You'll Need

- Personal computer with at least a 486 processor
- Windows® XP or later operating system
- Serial port 9 Pin DB9 on computer - **or** - USB to Serial Cable Adapter
- Serial 'Null Modem' cable, female to female
- Chem-Pro firmware upgrades must be performed by use of a computer running Windows XP or greater.
- CD with latest firmware. Contact your local sales representative or factory.

Available Upgrade Kits

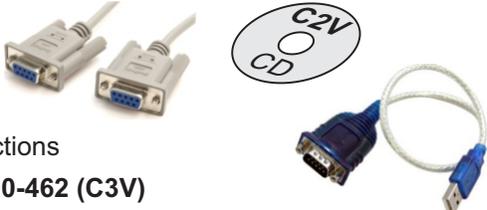
- **C2F / C3F (basic) Series Kit**
 - USB to Serial cable adapter (9 Pin DB9)
 - Serial 'Null Modem' cable, female to female
 - Boot Loader (firmware) CD/Flash Drive with instructions

Order part number: **72000-459 (C2F), 72000-461 (C3F)**



- **C2V / C3V / MC2 / MC3 (deluxe) Series Kit**
 - USB to Serial cable adapter (9 Pin DB9)
 - Serial 'Null Modem' cable, female to female
 - Boot Loader (firmware) CD/Flash Drive with instructions

Order part number: **72000-460 (C2V), 72000-462 (C3V)**



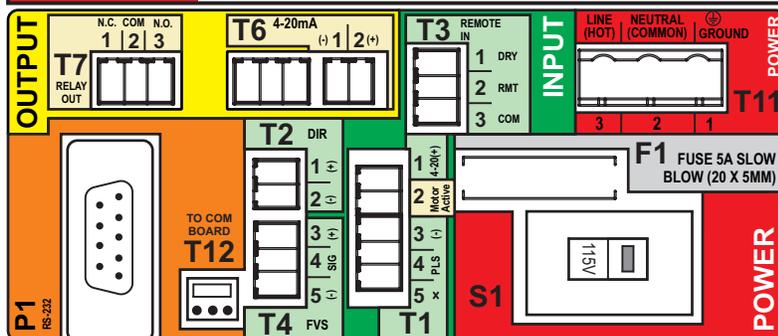
WARNING Risk of electric shock – cord connected models are supplied with a grounding conductor and grounding-type attachment plug. To reduce risk of electric shock, be certain that it is connected only to a properly grounded, grounding-type receptacle.



WARNING Electrical connections and grounding (earthing) must conform to local wiring codes. Be certain that a grounding conductor is connected to terminal T11-1 located in wiring compartment.



WARNING Risk of electric shock - Disconnect electricity before removing wiring compartment cover.

Installing Firmware Update

Step 1

Create a folder on your Windows® PC in a location you can remember. i.e. on your desktop
Name folder BWI_BootLoader (or similar)

Step 2

If using an existing configured USB to Serial cable adapter or if using an existing 9 Pin DB9 Serial connection on PC, skip to Step 3.
If connecting using a new USB to Serial cable adapter, first install software from cable adapter manufacturer. After USB to Serial cable adapter installation is complete, begin Step 3.

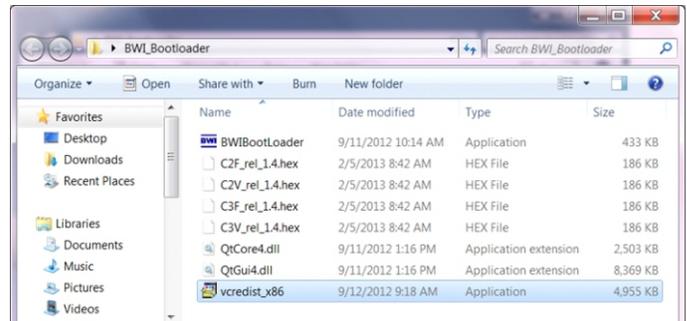


Step 3

Copy boot loader files from CD/Drive to new folder you created in Step 1.

It is important to keep all files within same folder.

If Visual C++ is already installed on computer, skip to Step 7.



Step 4

Open newly created folder (BWI_BootLoader).

Run install program 'vcredist_x86' by double clicking file.

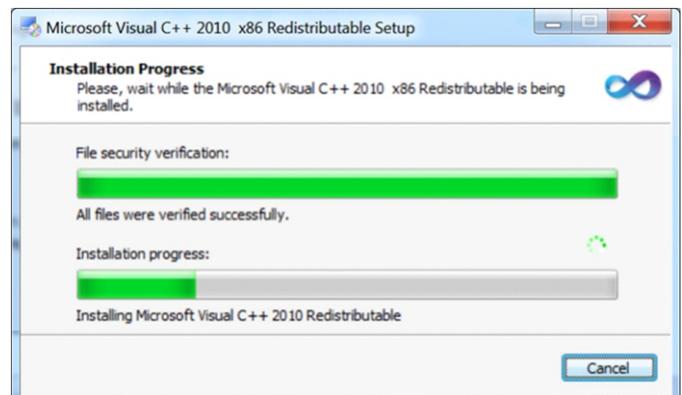
This will install Microsoft® Visual C++ Redistributable Package on your PC.

Note: This program only needs to be installed one time. You do not need to install this for future upgrades using same computer.



Step 5

Allow Microsoft® Visual C++ Redistributable to fully install.



Installing Firmware Update

Step 6

Click Finish to exit Setup.

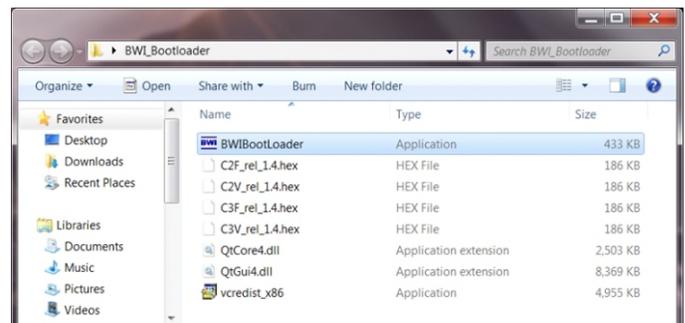


Step 7

- Remove power from pump.
- Remove Junction Box located at rear of pump housing.
(use Alan wrench provided with pump)
- Connect "Null Modem" cable to 9 Pin RS-232 connector located on terminal block board at rear of pump.
- Connect "Null Modem" cable to serial connector on USB to Serial cable adapter - or - directly to your serial connector on your PC.
- Double check all connections from your PC to Chem-Pro pump.
- Apply power to pump.

Step 8

Run host boot loader by double clicking file BWIBootLoader.exe

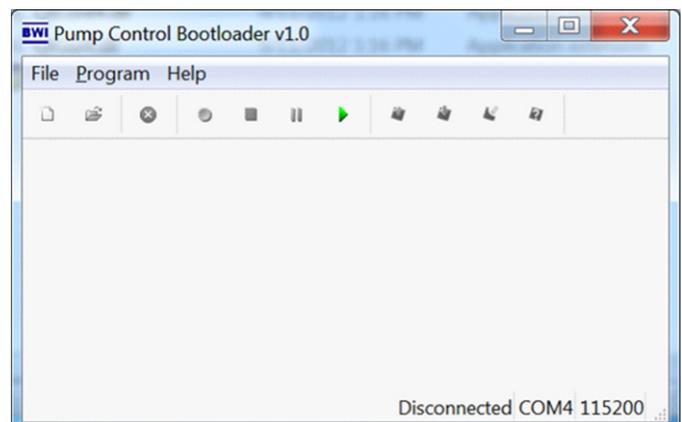


Step 9

BWI Pump Control Bootloader program will load.

Select PROGRAM from menu bar.

Select SETTINGS.



Installing Firmware Update

Step 10

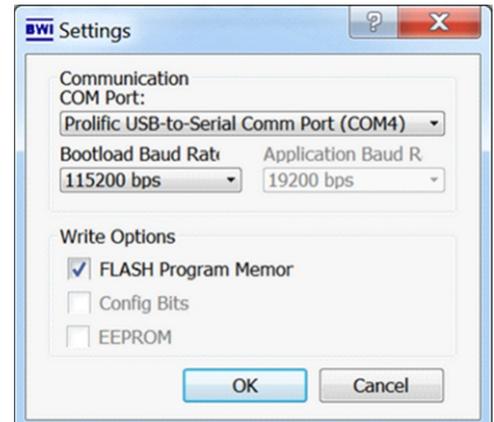
BWI Setting dialog box will open.

Select COM port = (Select correct COMM port for serial cable - or - USB to Serial adapter cable)

Select Bootload Baud Rate = 115200 bps

Write Options = Flash Program Memory (check box)

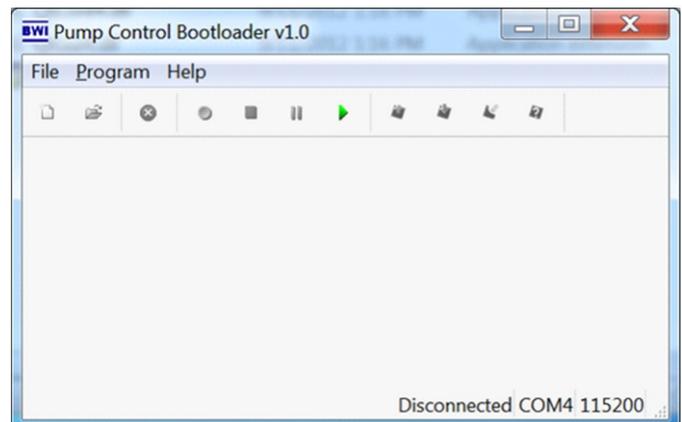
Click OK

**Step 11**

Select Green Arrow head button on task bar.

Select FILE from the menu bar.

Select OPEN.

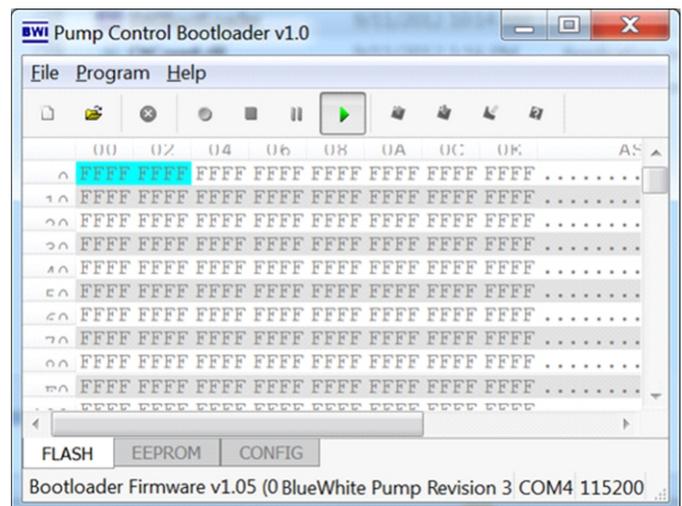
**Step 12**

Select Green Arrow head button on task bar.

Alternatively:

Select FILE from the menu bar.

Select OPEN.

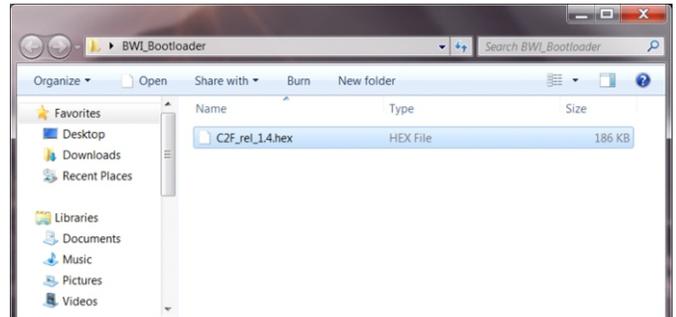


Installing Firmware Update

Step 13

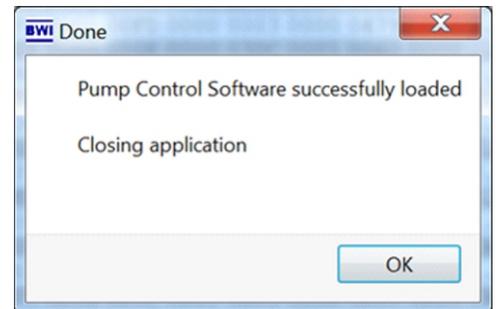
Select firmware version (HEX File) for your pump located in folder you created in Step 1.

Double click HEX file and program will start immediately.



Step 14

After programming is complete, select OK from the Done message box.



Step 15

- Disconnect power from pump.
- Disconnect Serial cables from pump and PC.
- Reattach all pump connections and Junction box.
- Reapply power to pump.
- Pump will start running with the newly upgraded pump firmware.

Release Notes**C2 & C3**

Version	Release Date	Notes
Software	XX / XX / XXXX	Describe what was changed, removed or added

MC-2 & MC-3

Version	Release Date	Notes
Software	XX / XX / XXXX	Describe what was changed, removed or added

Blue-White®



Users of electrical and electronic equipment (EEE) with the WEEE marking per Annex IV of the WEEE Directive must not dispose of end of life EEE as unsorted municipal waste, but use the collection framework available to them for the return, recycle, recovery of WEEE and minimize any potential effects of EEE on the environment and human health due to the presence of hazardous substances. The WEEE marking applies only to countries within the European Union (EU) and Norway. Appliances are labeled in accordance with European Directive 2002/96/EC. Contact your local waste recovery agency for a *Designated Collection Facility* in your area.

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