

## PRODUCT CHANGE NOTICE FOR PAX2C

This document contains information regarding recent changes to the PAX2C firmware. Included below is a list of enhancements that are available beginning with PAX2C firmware version 1.5. If you wish to utilize the new features, it will be necessary to convert previous firmware version database files in order to use those files in a PAX2C with version 1.5 firmware. Instructions for converting a version 1.0x program file to be used in a version 1.5 PAX2C is included in a section below. If this is your first time using a PAX2C, the following information does not need to be considered.

PAX2C enhancements, beginning with version 1.50 firmware:

- FlexCard Support for:
  - Heater Current Monitor (PX2FCA10)
  - Process Input/Remote Setpoint (PX2FCA00)
- Custom multi-point linearization support for the standard Analog Output option card (PAXCDL10).
- Increased parameter viewing options: allows a parameter to be view/accessed in multiple display loops (Main, Parameter, and Hidden).
- Proportional Band is now entered as display units (was % input range).

PAX2C programming modules that were affected by the above enhancements include: process input scaling, display locks, and PID settings.

### EXISTING VERSION 1.0X PAX2C APPLICATIONS

If you have an existing application and associated database file, you may continue to use the database on the new PAX2C using your current build of Crimson 2.0 or the latest Crimson 2.0 build contained on the USB flash drive. Simply download (Link, Send) the database file to the new PAX2C. In the download process, the new PAX2C will be “down-graded” to version 1.0x and configured for your application.

If you use the build of Crimson 2.0 contained on the included USB flash drive, review the following change to the Band and Deviation Alarm Modes for version 1.06 PAX2C firmware, as it may affect your application.

#### PAX2C Version 1.06 Band/Deviation Alarm Mode

The PAX2C Band/Deviation alarm modes have been changed to provide setpoint tracking. As the setpoint is changed, the alarm trigger points will shift to provide alarming around the new setpoint. If you’ve previously set the alarm value to accomplish this, it is no longer necessary. The alarm value, however, will need to be set to zero; otherwise an alarm offset will occur. Refer to the Alarm Figures in the PAX2C manual contained on the USB flash drive.

### DATABASE FILE/PAX2C FIRMWARE CONVERSION:

The easiest method to convert a 1.0x database file is to use the latest build of Crimson 2.0 to extract the database file from a version 1.0x PAX2C. The extracted database is then sent to the new PAX2C. To do this, follow the procedure below.

1. Install Crimson 2.0 from the USB Flash Drive.
2. Apply power to the version 1.0x PAX2C.
3. Connect a USB cable from the PAX2C to a PC.
4. Open Crimson 2.0, select File, New, select the “PAX2 Panel Meters/Controllers” Product Family and model “PX2C Temp/Process PID Controller w/FlexBus V1.5+”.
5. Select Link, Extract, and “Yes” at the “Do you wish to convert?” prompt.
6. The database settings will automatically be converted to a version 1.5 database file. Save the newly extracted file.
7. Disconnect the version 1.0x PAX2C and apply power to the version 1.5 PAX2C.
8. Connect the USB cable from the version 1.5 PAX2C to the PC.
9. Send the converted version 1.5 database file to the new PAX2C using the Crimson 2 Link, Send operation.
10. All settings should be checked.

If a version 1.0x PAX2C is not available, another conversion method is to send the existing 1.0x database file to the new PAX2C, as is. Then extract into a new version 1.5 database file, and resend to the PAX2C.

## PROPORTIONAL BAND CONVERSION

Beginning with version 1.5, the Proportional Band units have been changed from % input range to display units. If keying in the Proportional Band value from a version 1.0x unit, the Proportional Band value must be converted from % input range to display units. Note: The latest build of Crimson 2.0 will convert the values automatically when extracting the database from a version 1.0x PAX2C into a version 1.5 database.

### Conversion Example:

Version 1.0x Settings:

Proportional Band = 21.4

Input Type = T

Display Scale = °C

Display Decimal = 0.0

Conversion of the version 1.0x Proportional Band value from % input range to display units, can be accomplished using the following formula:

Ver 1.5 Proportional Band = Input Range \* (Ver 1.0x Proportional Band /100)

Using the Input Range Tables below, select the input type range for the applicable input type. In this example, we are using a Type T thermocouple, so the input range value would be 600 °C.

By substituting known values into the equation above, the version 1.5 proportional band can be calculated:

Ver 1.5 Proportional Band = Input Range \* (Ver 1.0x Proportional Band /100)

Ver 1.5 Proportional Band = 600 \* (21.4/100)

Ver 1.5 Proportional Band = 128.4 (For Display Scale = °F, multiply result by 1.8: For Display Decimal point = 0, round result to nearest whole unit)

### Input Range Tables

THERMOCOUPLE INPUT TYPE	RANGE (IN °C)
T	600
E	950
J	960
K	1450
R	1768
S	1768
B	1670
N	1500
C	2315

RTD INPUT TYPE	RANGE (IN °C)
385	1050
392	1050
672	339
427	370

CURRENT/VOLTAGE/RESISTANCE INPUT TYPE	RANGE
Any	10000

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