Love 4C, 8C and 16C Microprocessor Based Temperature Process Control
Programming guide for PVI Industries EZ Plate Water Heater with Boiler Water Control Valve

INITIAL SETTING MENU (all parameters in this menu must be set before programming other values)
Press and hold the ENTER key for at least 3 seconds while at the Home Display in order to access the Initial Setting Menu. Pressing the INDEX key will cycle through the menu items. The parameter will be displayed in the top display, while its value will be displayed in the bottom display. The UP and DOWN arrows change the values of the parameters. The ENTER key must be pressed after any changes.

INITIAL SETTING MENU		
Parameter	Description	Value
inPt	Input Selection.	J2
tPUn	Temperature Units.	F
tP-H	Scale Height Limit.	752.0
tP-L	Scale Low Limit.	-4.0
Ctrl	Control Mode.	PID
S-HC	Heat/Cool Selection.	HEAT
ALA1	Alarm 1 Setting.	0
ALA2	Alarm 2 Setting.	0
C-SL	Communications protocol language.	ASCII
CoSH	Communications Write Function Feature.	Off
C-no	Controller Address: Set from 1 to 247.	1
bPS	Baud Rate Setting.	9600
LEn	Communication Data Length.	7
Prty	Communication Parity Bit.	Even
StoP	Communication Stop Bit.	1

REGULATION MENU
Press the ENTER key while at the Home Display in order to access the Regulation Menu. Pressing the INDEX key will cycle through the menu items. The parameter will be displayed in the top display, while its value will be displayed in the bottom display. The UP and DOWN arrows change the values of the parameters. The ENTER key must be pressed after any changes.

REGULATION MENU		
Parameter	Description	Value
At	Auto Tune.	Off
P	Proportional Band Setting.	5
i	Integral time (reset time).	10
d	Derivative time (rate time).	0
ioF	Integral Deviation Offset Correction.	0
tPoF	Process Temperature Offset.	0.0
Crhi	Analog Output High Limit.	0
CrLo	Analog Output Low Limit.	0

OPERATION MENU
Pressing the INDEX key will cycle through the below menu items. The parameter will be displayed in the top display, while its value will be displayed in the bottom display, except for the set point which is displayed in the bottom display on the Home Display. The UP and DOWN arrows change the values of the parameters. The ENTER key must be pressed after any changes.

OPERATION MENU		
Parameter	Description	Value
r-S	Select Run - Stop Output Control.	Run
LoC	Set front panel security lock.	Loc1
oUt	Display the % output value for output 1.	0

After Setting LoC to Loc1, the control will no longer allow changes to the settings without following the unlocking procedures in the "Security Settings" of this guide.   See next page for reference information.

FRONT KEY FUNCTIONS
Key functions are as follows:

INDEX: Pressing the INDEX key advances the display to the next menu item.

UP ARROW: Increments a value or changes a menu item. If pressed during the **Operation Mode**, the set point value will be increased.

DOWN ARROW: Decrements a value or changes a menu item. If pressed during the **Operation Mode**, the set point value will be decreased.

ENTER: Stores the value or item change. If not pressed, the previously stored value or item will be retained. When pressed during the **Operation Mode**, the controller switches to the **Regulation Mode**. If held for more than 3 seconds during the **Operation Mode**, the controller switches to the **Initial Setting Mode**. If pressed during the **Regulation Mode** or **Initial Setting Mode**, the controller will return to the **Operation Mode**.

SECURITY FEATURES
The C series controller has two built in security lock settings to prevent unauthorized personnel from changing parameter settings. These parameters are set in the **Operation Mode**.

The LoC1 setting affects all parameters in the controller. If LoC1 setting is enabled, the operator will have to unlock the controller to make any changes to the controller's parameters.

The LoC2 setting affects all parameters except the set point. If LoC2 setting is enabled, the only parameter that the operator will be able to change is the set point. In order to change any other parameters, the operator will have to unlock the control before making a change.

In order to unlock the control, the operator must depress the ENTER and INDEX key simultaneously.