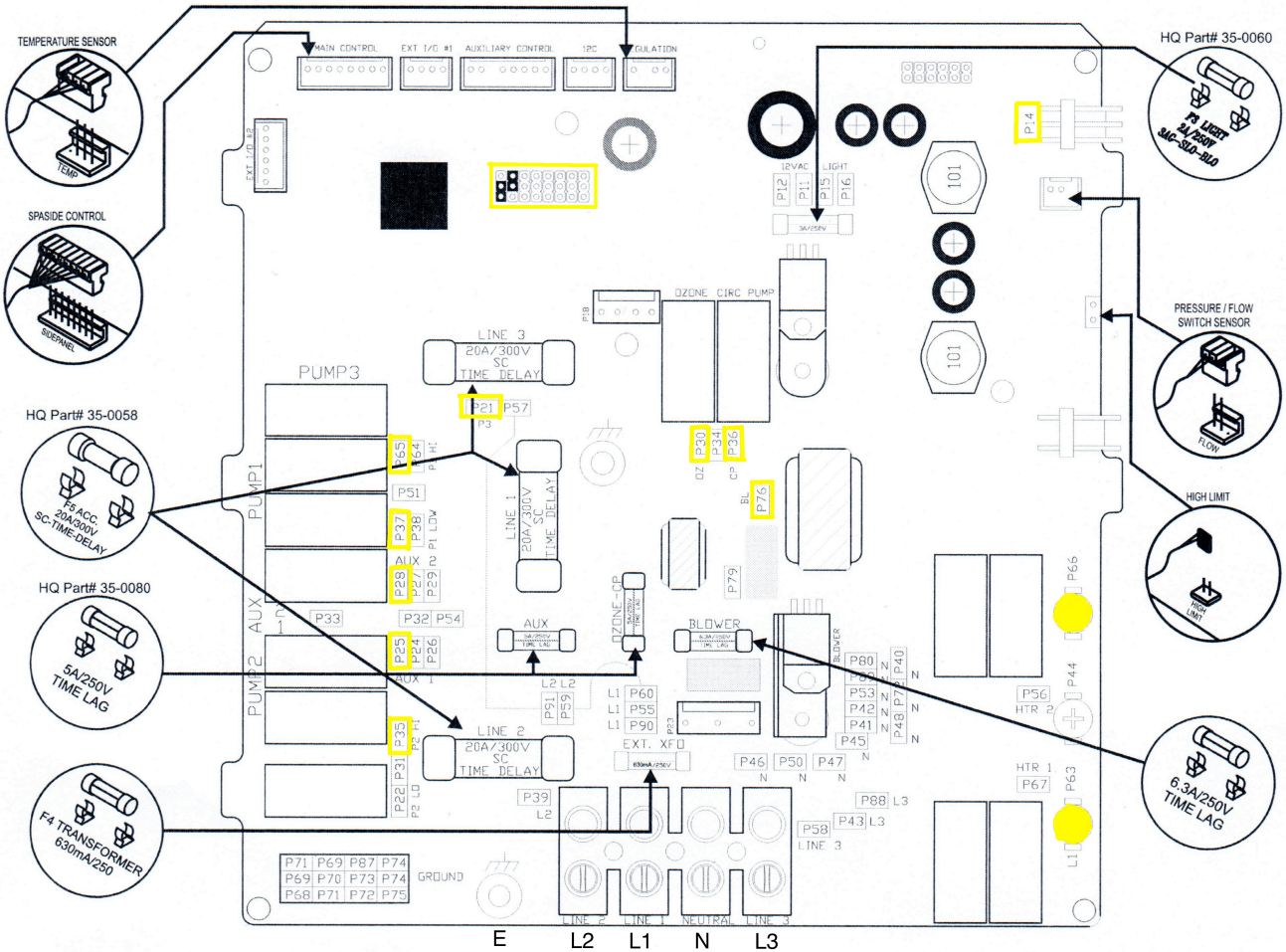


33-0028A-K PCB KIT



**MP 10-KEY TERMINAL AND
CIRCUIT ID SHEET**

Current Rev 614_100

		Current Rev
33-0028A-K		R1
PUMP 1	High Speed	P65
	Low Speed	P37
	Common	N
	Ground	Ground
PUMP 2	High Speed	P35
	Low Speed	P22
	Common	N
	Ground	Ground
PUMP 3	Hot	P21
	Common	N
	Ground	Ground
BLOWER	Hot	P76
	Common	N
	Ground	Ground
OZONE	Hot	P30
	Common	N
	Ground	Ground
CIRC	Hot	P36
	Common	N
	Ground	Ground
LIGHT	Light	P14
	Light Wires	P14
AUX 1	Hot	P25
AUX 2	Hot	P28

MULTI-PHASE CONNECTION & SETUP INSTRUCTIONS

SINGLE PHASE (1 x 16A or 1 x 32A):

Input power is Line and Neutral as shown in *Figure 1*.

White wire jumpers MUST be installed from P59 to P60 (short) and from P91 to P57 (long) as shown in *Figure 1*.

Jumper #1 and #2 must be positioned as shown in *Figure 2* or *Figure 3*.

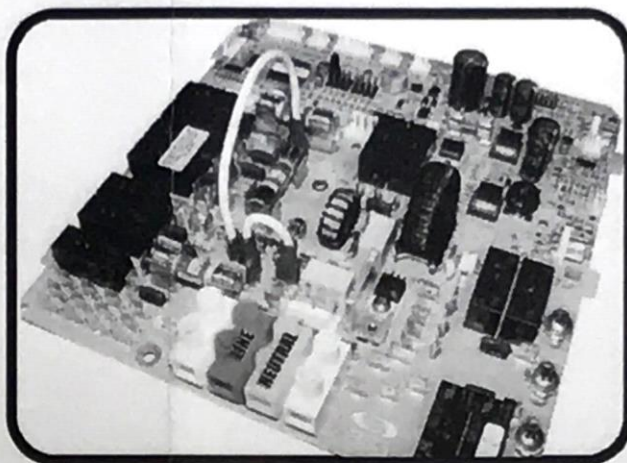
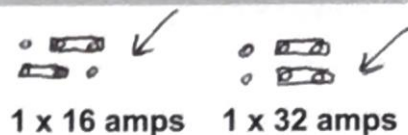


Fig. 1



1 x 16 amps

1 x 32 amps



Fig. 2



Fig. 3

TWO PHASE (2 x 16A):

Input power is Line 1, Line 2 and Neutral as shown in *Figure 4*.

The short White wire jumper MUST be removed from P59 to P60, the long White wire jumper MUST remain installed from P91 to P57 as shown in *Figure 4*.

Jumper #1 and #2 must be positioned as shown in *Figure 5*.

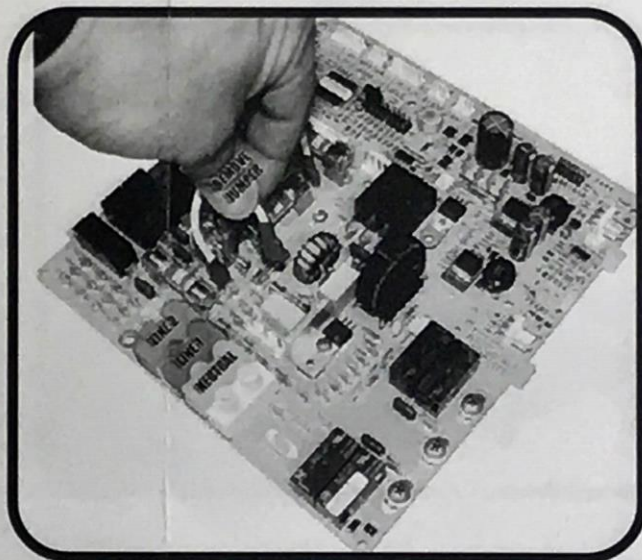
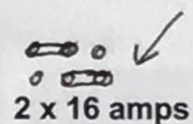


Fig. 4



2 x 16 amps

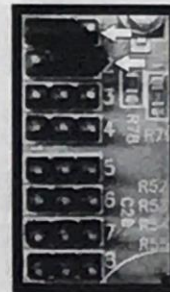


Fig. 5

MULTI-PHASE CONNECTION & SETUP INSTRUCTIONS

THREE PHASE (3 x 16A):

Input power is Line 1, Line 2, Neutral and Line 3 as shown in *Figure 6*.

One end of the long White wire jumper MUST be moved from P91 to P58 as shown in *Figure 6*.
(Note: the short White wire jumper MUST be removed as in the 2 x 16A instructions)

Jumper #1 and #2 must be positioned as shown in *Figure 7*.

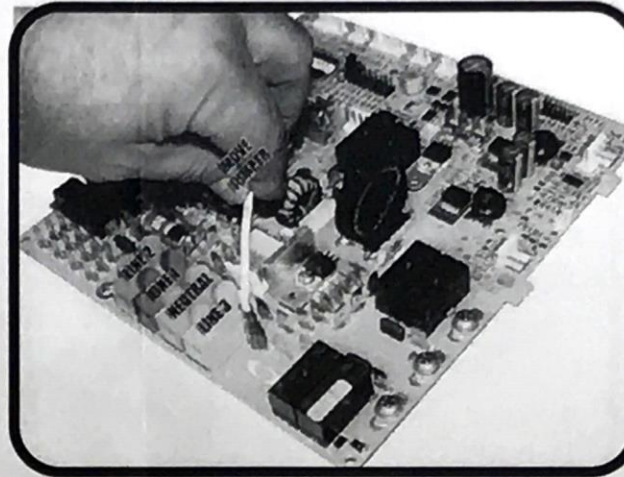


Fig. 6

3 x 16 amps

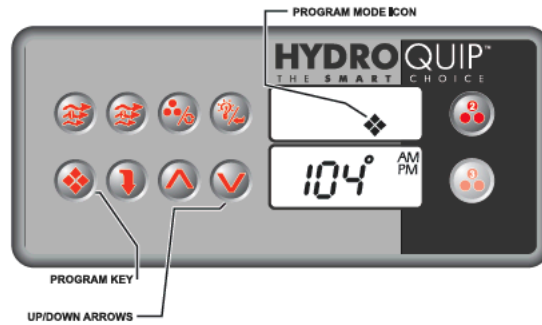


Fig. 7

These instructions describe single, two and three phase connections for CS/ES9700 series controls. **HYDROQUIP** cannot be held liable for damage caused by mis-wire if these instructions are not followed carefully. All installations must be accomplished by a licensed electrician and must conform to all National and local codes at the time of installation

9700 SERIES - LOW LEVEL PROGRAMMING

It is possible to change the parameters of the system from the spaside control. All circuit presets have been programmed at the factory. Follow the procedures described below to adjust these settings.



- Press & Hold the Program key for approx 20 seconds. A value of P1_X will appear in the lower window and the Program icon will appear in the upper window indicating that programming mode is active. (X = 1 or 2 in this case)
- To advance to the next setting press the Program key
- To change a setting Press the Up or Down key accordingly
- After desired changes are made press the Program key repeatedly to advance through the rest of the settings, exit the programming mode, and reset the system.

PROGRAMMABLE VALUES

PUMP 1 DISPLAY: P1_X

VALUE OF X: 1 = Single Speed
2 = Two Speed

PUMP 2 DISPLAY: P2_X

VALUE OF X: 0 = Not Installed
1 = Single Speed
2 = Two Speed

PUMP 3 DISPLAY: P3_X

VALUE OF X: 0 = Not Installed
1 = Single Speed (30 minute timeout)
2 = Single Speed (5 Min timeout)

BLOWER DISPLAY: BL_X

VALUE OF X: 0 = Not Installed
1 = Single Speed
2 = Two Speed
3 = Three Speed

CIRC PUMP DISPLAY: CP_X

VALUE OF X: 0 = Not Installed
1 = 24hr operation (no 4 degree over)
2 = 24hr operation (with 4 degree over)
3 = 24hr operation (with 4 degree over and over temp filtration cycle)

DISPLAY: LI_X

LIGHT VALUE OF X: 0 = Not Installed
1 = 12V Single Intensity (LED Ready)
2 = 12V Three Intensity
3 = (2) Lights - (1) 12V-3 Intensity, (1) 120V CP must be set to "0"

DISPLAY: O3_X

OZONE VALUE OF X: 0 = Not Installed
1 = ON with Filter Cycles
2 = Always ON
3 = Controlled by Filtration Timer

DISPLAY: AU_X (5A Max. Load)

AUXFIO VALUE OF X: 0 = Not installed
1 = (1) Component
2 = Fiber Optic Box
3 = (2) Components (Toggled)

DISPLAY: Cu_X

HC/LC VALUE OF X: 0 = Low Current Mode
1 = High Current Mode

DISPLAY: TI_X

CLOCK VALUE OF X: 12 = 12/12hr Time Format
24 = 24 hr Time Format

DISPLAY: Ts_X

KEYPAD VALUE OF X: 0 = 8 Button
1 = 10 Button