



Bell & Gossett
a xylem brand

e-HV Package Systems



WARNING: This product is intended to be operated by qualified personnel only.

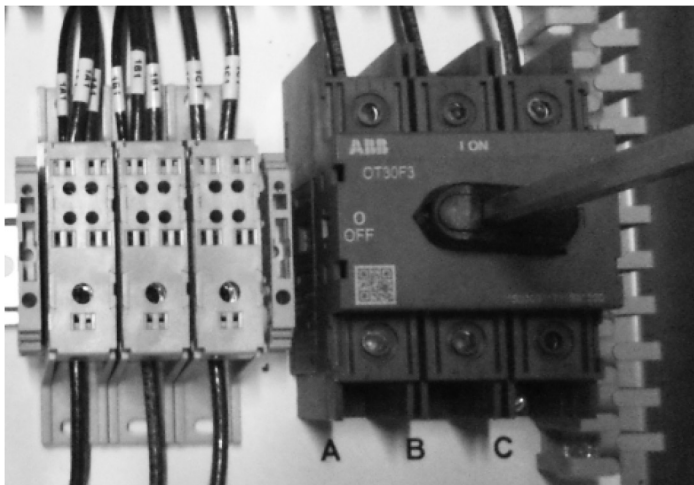
HYDROVARS ON PACKAGE SYSTEMS COME PRE-WIRED FROM THE FACTORY

WIRING

INPUT POWER WIRING:

For **Single Phase Input (230V) Wiring** use A, C and Ground

For **Three phase Input Wiring** use A, B, C, and Ground



CONTROL WIRING IN MOST BOOSTER APPLICATIONS:

X-1 Terminals:

14 & 15 pre-wired to connect inside of panel

16 & 17 (Low Water Input)

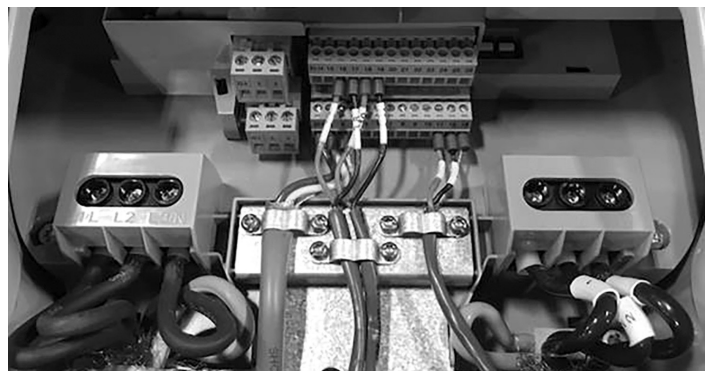
18 & 19 (Start/ Stop Input) used for low inlet pressure switch

Brown #1 (24VDC)

White #2 (Analog Input #1)

Shield on Chassis

RS485 communication cable on terminal X1 on 11, 12, 13.



PROGRAMMING

PLEASE NOTE: Package systems will already be programmed. This can be used to review the set-up.

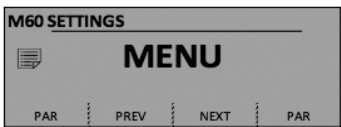
Your first step is to hold the left arrow and the right arrow key together for three seconds until the **main controller screen** appears



Push the right arrow key until you get to **M00 Main Menu**



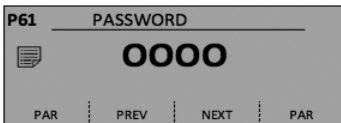
Push the down key until you get to **M60 Settings**



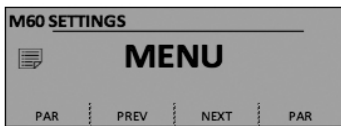
Push the right arrow key to **P61 Password**



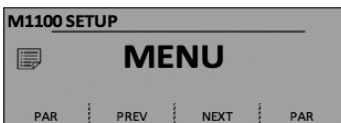
Push the up arrow until you get to the Passcode 66. Then hold the right arrow key for three seconds. Once it defaults back to zeros you are OK.



Now push the right arrow key until you get back to **M60 Settings**



Push the down arrow to advance to **M1100 Setup Menu**



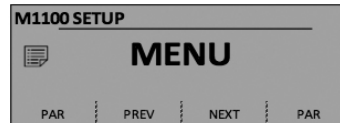
Push the Right arrow button until **P1110 Factory Set** Comes up



Push the up arrow and change **1110 to USA**. Hold the right arrow key for three seconds to accept the change. (An * asterisk will be to the left of the USA).



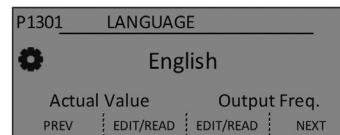
Push the left arrow key to get back to **M1100 Setup Menu**



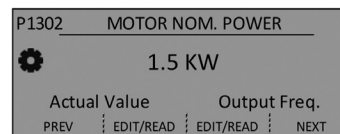
Push the down arrow to **M1300 Startup**



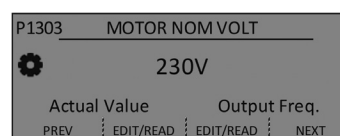
Push the right arrow key to **P1301 Language** and verify English is your Language



Push the right arrow to **P1302 Motor Nom Power** and input your motor power HP from motor nameplate



Push the right arrow key to **P1303 Motor Nom Voltage** and enter Motor Voltage



Commercial Water

Push the right arrow key to **P1304 Preset Motor**. Select No for U.S. motors and Yes for Lowara 50 Hz Motors. Refer to Manual for further information.

P1304 PRE-SET MOTOR?	
NO	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow key to **P1305 Motor Nom. Current** and input current from motor nameplate

P1305 MOTOR NOM. CURRENT	
7.5 A	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow key to **P1306 Motor Nom. Speed** and input your motor speed

P1306 MOTOR NOM. SPEED	
3500 rpm	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow key to **P1307 AMPI** (Automatic Motor Parameter Identification). Select OFF. Refer to the IOM for further instructions.

P1307 AMPI	
Off	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow key to **P1308 STC Motor Trip** and select STC Trip. If you are using a motor thermistor select Thermistor Trip. Refer to the manual for further information.

P1308 STC MOTOR TRIP	
STC TRIP	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow key to **P1309 Mode**. Select Cascade Serial for Multi pump.

P1309 MODE	
Controller	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow key to **P1310 Pump Address**. If selecting cascade serial (multi pump) each address will have to be different. Example: One Hydrovar has address 1, and the next unit requires address 2.

P1310 PUMP ADDR.	
1	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow key to **P1311 Control Mode** and select Constant for constant pressure.

P1311 CONTROL MODE	
Constant	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow key to **P1312 Dimension Unit** and select PSI.

P1312 DIMENSION UNIT	
PSI	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow key to **P1313 Start-up Completed?** and select Yes since start should be complete on package systems.

P1313 START-UP COMPLETED?	
Yes	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow key to **P1314 Sensor Range** and select the max PSI of your pressure transducer (Example: 300PSI)

P1314 SENSOR RANGE	
300PSI	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow to **P1315 Required Value** and put in your required value

P1315 REQUIRED VALUE	
50PSI	
Actual Value	Output Freq.
PREV	EDIT/READ EDIT/READ NEXT

Push the right arrow key to **P1316 Start Value**. Enter your value in %. This parameter defines, in percentage (0-100%) the start value after pump stops. Refer to the IOM for further information.

P1316		START VALUE	
85%			
Actual Value	Output Freq.		
PREV	EDIT/READ	EDIT/READ	NEXT

Push the right arrow key to **P1317 Min Thresh**. You can select the minimum threshold limit: if an adjusted value is not reached within the P1317 DELAY-TIME, then the unit stops. From the factory, packages should have this value set, 15 psi below the required value (P1315).

P1317		MIN. THRESH.	
Disabled			
Actual Value	Output Freq.		
PREV	EDIT/READ	EDIT/READ	NEXT

Push the right arrow key to **P1318 Delay-Time**. This selects the delay time of the minimum threshold limit: it shuts off the HYDROVAR if the actual value drops below P1317 MIN.THRESH. On package systems this value should be set to 30 Seconds.

P1318		DELAY-TIME	
2 Sec			
Actual Value	Output Freq.		
PREV	EDIT/READ	EDIT/READ	NEXT

Push the right arrow key to **P1319 Date** and set the current date.

P1319		DATE	
xx.xx.20xx			
Actual Value	Output Freq.		
PREV	EDIT/READ	EDIT/READ	NEXT

Push the right arrow key to **P1320 Time** and set the time.

P1320		TIME	
HH.MM			
Actual Value	Output Freq.		
PREV	EDIT/READ	EDIT/READ	NEXT

Push the right arrow key to **P1321 Auto Start**. If Auto Start is ON, then the HYDROVAR starts automatically (if there is demand) after a power loss.

P1321		AUTO-START	
ON			
Actual Value	Output Freq.		
PREV	EDIT/READ	EDIT/READ	NEXT

Push the right arrow key to **P1322 Startup Completed** and select Yes.

P1322		STARTUP COMPLETED?	
Yes			
Actual Value	Output Freq.		
PREV	EDIT/READ	EDIT/READ	NEXT

Now hold your left arrow key for 3 seconds to return to the Home screen.

* Verify Correct Motor Rotation.

* If you are running Cascade Serial (Multi-Pump), Please power down and connect your RS485 Communication cable between Terminal X1 on 11, 12, 13. Please refer to your Quick Startup Guide for further wiring instructions.

* P205 is the maximum amount of pumps that can run at once if the demand is large enough. Some units are designed to have one pump always on standby, in that case, the value here should be one less than the total number of pumps on the system.

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