

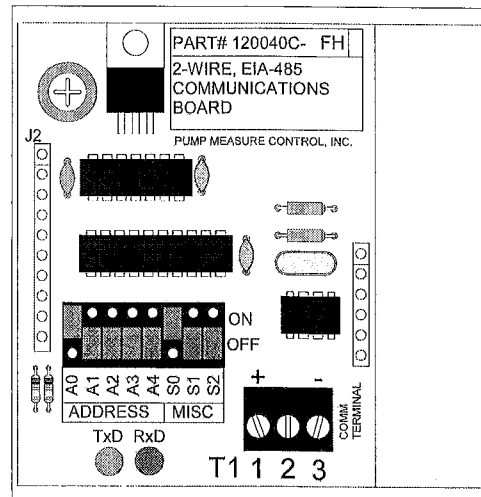
FH DISPENSER COMMUNICATIONS UPGRADE

The 120040x-FH communications daughter board for the 110000 CPU board allows the FH dispensers to communicate via EIA-485 to a POS system that supports the PMC protocol. Contact PMC for POS systems that support this protocol. The board is red in color and is mounted to the CPU board on the right side. The board is shown in the box to the right.

Minimum Requirements for communications:

For the 120040x board to function, five conditions must exist:

1. It ***must*** be installed correctly on the 120000x CPU board.
2. The CPU board hardware version ***must*** be a 120000E hardware version or later as identified in the upper right corner with white text on a green background.
3. The firmware chip (U3 in the upper right of the CPU board) ***must*** be labeled as "120000x V2.00" or later.
4. The dispenser ***must*** be set for "Console Mode" as defined in the 'Programming' section (page 6) of the dispenser manual.
5. The 120040x board must be programmed for the correct address of the dispenser and protocol used.



120040x Comm Daughter Board.

PROGRAMMING THE 120040x COMMUNICATIONS BOARD

NOTE: AFTER CHANGING ANY SETTING, THE CPU BOARD MUST BE RESET BY CYCLING POWER OR PRESSING THE RESET BUTTON

Address / Protocol:

The 120040x communications board must be programmed via the 8 position jumper block located on the board. The communications address and protocol for the dispenser is set using these jumpers. See drawing #91-08G271 included on the following pages for definitions of these jumpers.

Product Price Per Volume:

When a 120040x communications board is installed on the 120000x CPU board, the price setting for the dispenser is determined by one of two methods.

Console Mode (*dip switch 1 on the main CPU board is in the 'OFF' position*)

In normal "Console Mode" operation, the price setting for the product dispensed is set remotely via communications from the POS system. The price setting switches SW2 thru SW5 on the CPU board should be set to '0.000' when in console mode to prevent confusion since they are not being used.

Stand Alone Mode (*dip switch 1 on the main CPU board is in the 'ON' position*)

If the dispenser is set to operate in "Stand Alone Mode", the 120040x board is not recognized by the CPU board and therefore, the price setting is determined by SW2 thru SW5 on the main CPU board (see programming section of dispenser manual). The price setting on the switches must be set to any value other than '0.000' for the dispenser to operate. Valid reasons for setting the dispenser to "Stand Alone Mode" with a 120040x board installed include failure of the POS system and initial startup / testing. When returning the dispenser to 'Console Mode', be sure to set the rotary price switches back to '0.000'.

NOTE: AFTER CHANGING ANY SETTING, THE CPU BOARD MUST BE RESET BY CYCLING POWER OR PRESSING THE RESET BUTTON

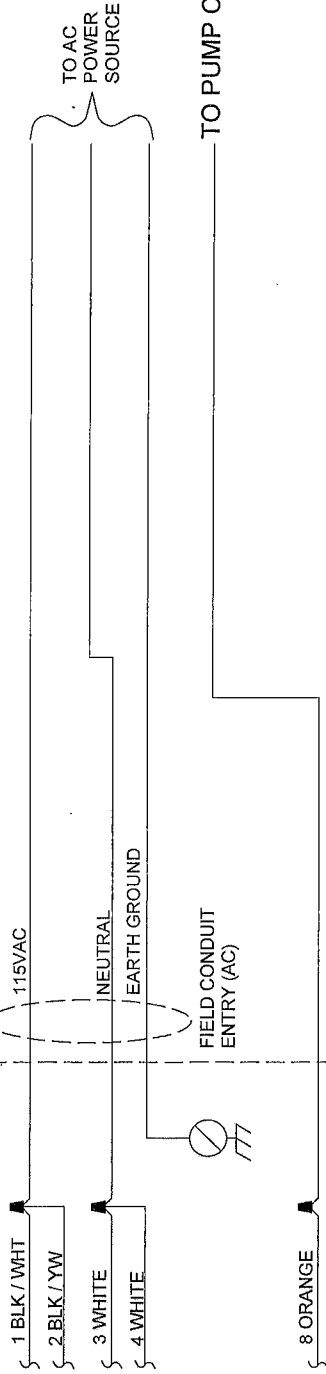
WIRING CHANGES FOR UPGRADE:

NOTE: REMOVE ALL POWER FROM DISPENSER PRIOR TO MAKING ANY WIRING CHANGES

See drawing 91-08G268 and 91-08G267 on the following pages for details.

FUELHOUSE DISPENSER

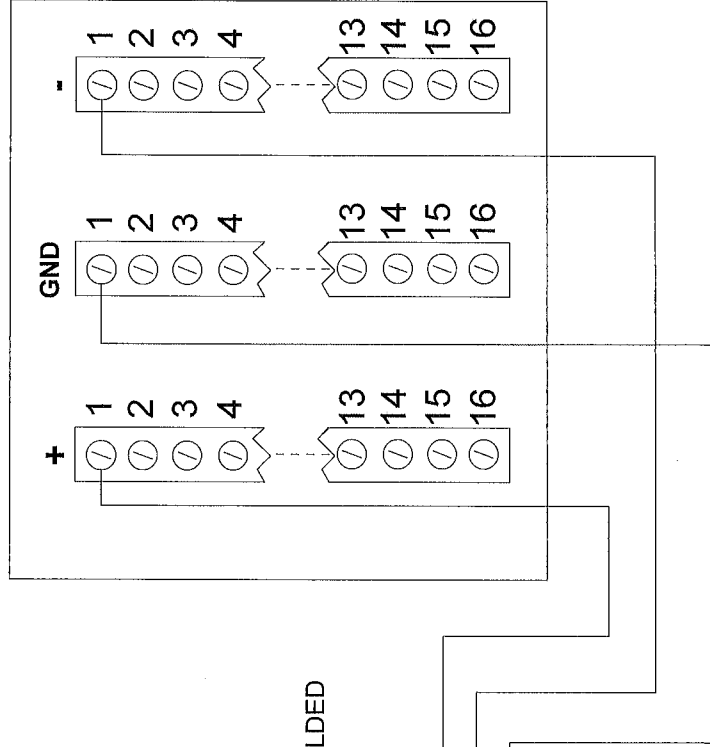
FUELHOUSE DISPENSER J-BOX



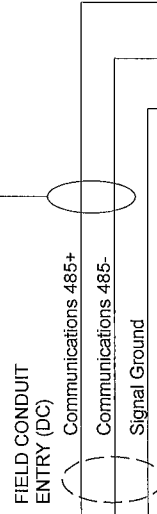
TO AC POWER SOURCE

TO PUMP CONTROLLER

PIE 485 DBOX INTERFACE



TWISTED PAIR / SHIELDED



MAIN JUNCTION BOX

*NOTES:

1. ONLY FIELD WIRING CONNECTIONS SHOWN IN MAIN JUNCTION BOX
2. FOR COMMUNICATIONS, DISPENSER CPU BOARD MUST HAVE A 120040 DAUGHTER BOARD INSTALLED.
3. CONNECT COMMUNICATIONS WIRING TO TERMINALS IN PIE DBOX CORRESPONDING TO THE ADDRESS OF THE DISPENSER BEING CONNECTED. FOR EXAMPLE, WIRING FOR DISPENSER #1 IS SHOWN ABOVE.
4. THE PIE D-BOX MUST BE INSTALLED PER INSTRUCTIONS SUPPLIED WITH THE UNIT. (MANUFACTURED BY PROGRESSIVE INTERNATIONAL ELECTRONICS IN RALEIGH, NC.)
5. ORANGE #8 CAN BE USED AS THE PUMP START SIGNAL.



Pump Measure Control, Inc.
1070 Nine North Drive, Suite 100
Alpharetta, GA 30004

FUELHOUSE / CMD-501 TOP
RS485 COMM D-BOX

DATE: 09/10/2008
SCALE: NTS
DRAWN BY: GJC

PH. 770-667-0667 FAX 770-667-0476
DRAWING NUMBER: 91-08G267

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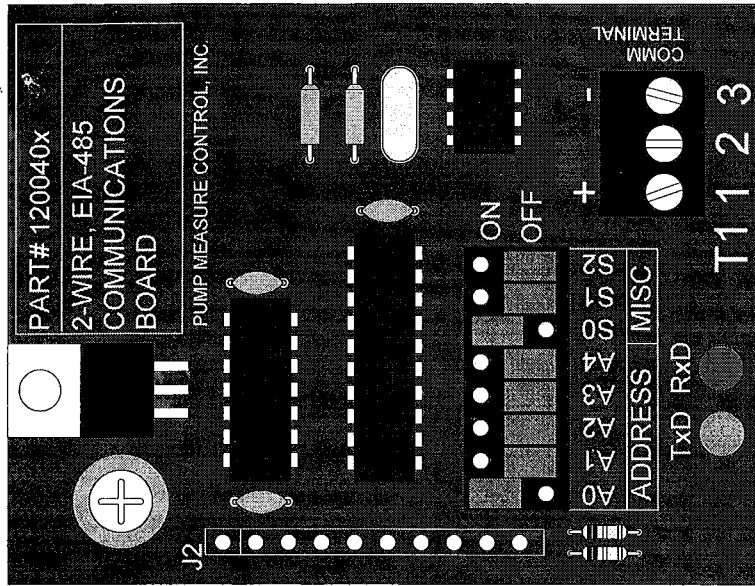
JUMPERS ON THE 120040 CPMM BOARD SETS THE COMMUNICATIONS ADDRESS FOR THE DISPENSER AND THE TYPE OF PROTOCOL USED.

ADDRESS JUMPERS

ADDRESS	A0	A1	A2	A3	A4
0		NOT VALID			
1	ON	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF
5	ON	OFF	ON	OFF	OFF
6	OFF	ON	ON	OFF	OFF
7	ON	ON	ON	OFF	OFF
8	OFF	OFF	OFF	ON	OFF
9	ON	OFF	OFF	ON	OFF
10	OFF	ON	OFF	ON	OFF
11	ON	ON	OFF	ON	OFF
12	OFF	OFF	ON	ON	OFF
13	ON	OFF	ON	ON	OFF
14	OFF	ON	ON	ON	OFF
15	ON	ON	ON	ON	OFF
16	OFF	OFF	OFF	OFF	ON
17	ON	OFF	OFF	OFF	ON
18	OFF	ON	OFF	OFF	ON
19	ON	ON	OFF	OFF	ON
20	OFF	OFF	ON	OFF	ON
21	ON	OFF	ON	OFF	ON
22	OFF	ON	ON	OFF	ON
23	ON	ON	ON	OFF	ON
24	OFF	OFF	OFF	ON	ON
25	ON	OFF	OFF	ON	ON
26	OFF	ON	OFF	ON	ON
27	ON	ON	OFF	ON	ON
28	OFF	OFF	ON	ON	ON
29	ON	OFF	ON	ON	ON
30	OFF	ON	ON	ON	ON
31	ON	ON	ON	ON	ON

MISC

PROTOCOL	S0	S1	S2
NOT USED	OFF	OFF	OFF
PMC	ON	OFF	OFF
NOT USED	OFF	ON	OFF
NOT USED	ON	ON	OFF
NOT USED	OFF	OFF	ON
NOT USED	ON	OFF	ON
NOT USED	OFF	ON	ON
NOT USED	ON	ON	ON



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DRAWING NUMBER

91-08G271

120040x PROGRAMMING
JUMPER DEFINITIONS

DATE: 09/10/2008
SCALE: NTS
DRAWN BY: GJG

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