







COMPACT QCU INSTALLATION GUIDE

> Platinum c o N T R o L



COMPACT QUICK CONNECT UNIT

INSTALLATION GUIDE

PLATINUM CONTROL

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For Manual updates, please visit www.platinumcontrol.com





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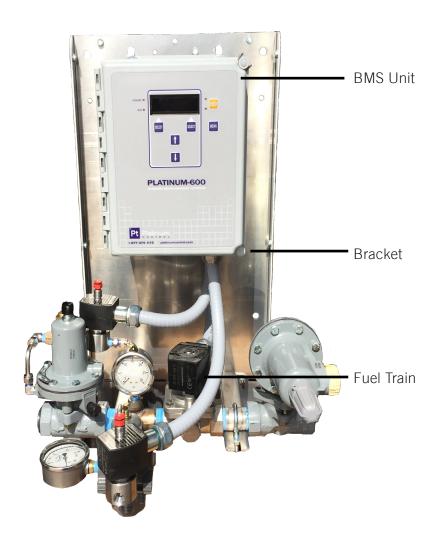
COMPONENTS AND SPECIFICATIONS

SHIPPING CONTENTS

The Compact Quick Connect Unit comes pre-assembled with the following items:

- Mounted Platinum BMS unit
- Fuel Train
- Bracket
- Optional Solar Package
- Compact Quick Connect Installation Guide
- Reference BMS product manual for additional shipped items

COMPACT QUICK CONNECT UNIT LAYOUT





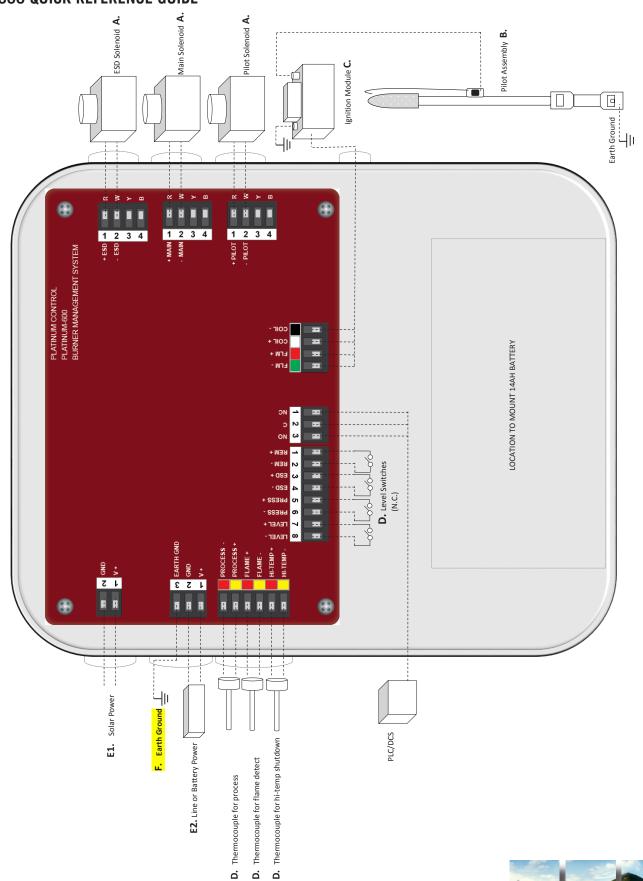


INSTALLATION

Please visit platinumcontrol.com/support for the most current version of this manual. Additional technical resources are also available online at platinumcontrol.com/technical.



PLATINUM-600 QUICK REFERENCE GUIDE





IGNITION MODULE

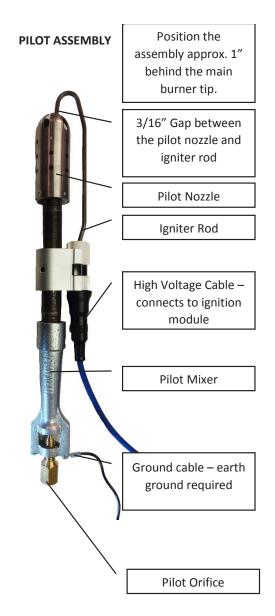
STEPS

- 1. The Ignition Module wiring will be connected in the BMS main control box.
- 2. See BMS product manual for instructions for mounting and wiring the ignition module.

PILOT ASSEMBLY

STEPS

- 1. Positioned the igniter rod so that the tip of the rod is 3/16" away from the top opening of the Pilot Nozzle within the gas stream.
- 2. Securely fasten the Pilot Assembly approximately 1" behind the tip of the burner. Make sure that the securing device isn't touching the igniter rod.
- 3. Earth ground the assembly.
- 4. See BMS product manual for further instructions.





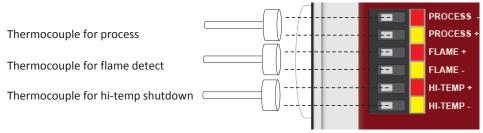


CONNECT TEMPERATURE DEVICE

STEPS

- 1. Open the BMS box.
- 2. If using a Type-K Thermocouple, connect the two thermocouple wires to the two connector(s) in the BMS box.

Note: In software versions 3.XX, the Flame +/- input can also be used for high temperature shutdown and auxiliary temperature control.

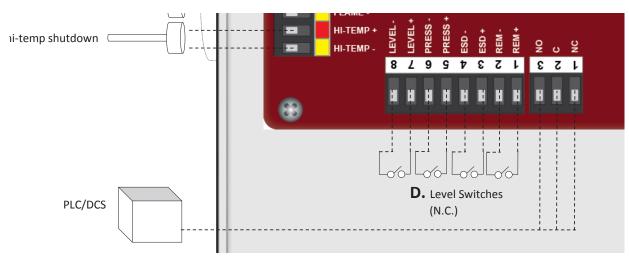


- 3. Repeat for all thermocouples.
- 4. SEE BMS PRODUCT MANUAL FOR FURTHER INSTRUCTIONS ON INSTALLING TEMPERATURE DEVICES.

CONNECT EXTERNAL DEVICES

STEPS

- 1. External devices may be connected to the BMS box.
- 2. External devices include modbus, level switches, pressure switches, etc.
- 3. To install an external device, you must remove the jumper if one is installed.
- 4. Leave jumper installed if external connection is not used.
- 5. SEE BMS PRODUCT MANUAL FOR EXTERNAL DEVICES THAT ARE COMPATIBLE WITH THE BMS UNIT.





GROUNDING

STEPS

- 1. The Compact Quick Connect Unit must be grounded.
- 2. The grounding wire should be connected from the ground lug (located on the outside, bottom of the BMS box) to a grounding rod.
- 3. If a grounding rod is not already available, one must be installed.
- 4. Reference the below image for the location of the ground lug.



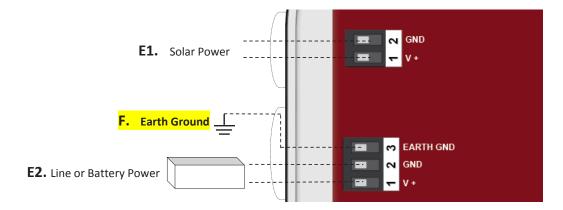


CONNECT POWER

STEPS

- 1. Power must be connected to the BMS box.
- 2. Connect power to the connectors as shown below.

 Note: For line power, the 2 pin terminal block (connection E1) is not used. For solar power, E1 are the wires coming directly from the solar panel and E2 are the wires from the battery.



3. SEE BMS PRODUCT MANUAL FOR POWER REQUIREMENTS.

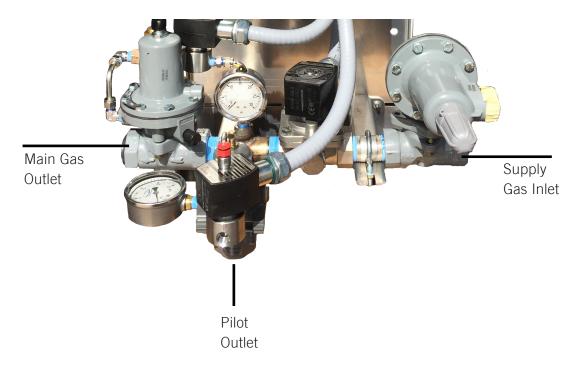




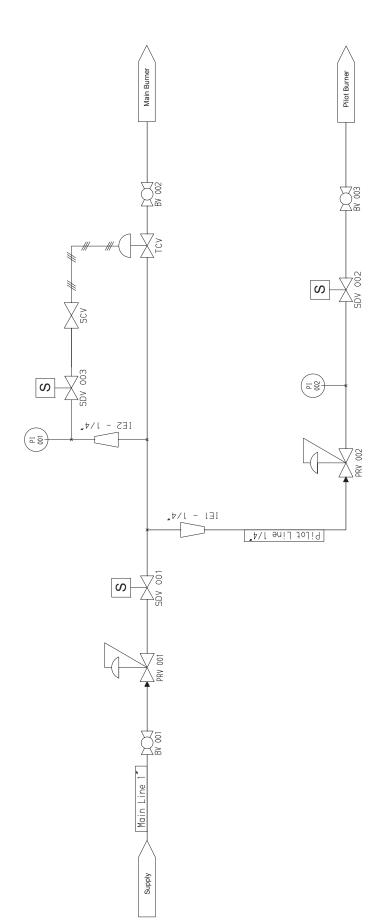
CONNECT GAS LINE

STEPS

1. Connect gas line to the fuel train referencing the below image.



COMPACT QCU P&ID ELECTRIC/PNEUMATIC



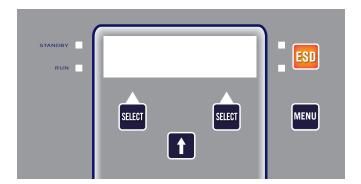


Component List					
Pos.	Tag	Description	Type	Specifications	Totals
1.	BV 001	VALVE	BALL	BALL VALVE, 1", WRENCH OPERATOR (optional)	-
2.	BV 002	VALVE	BALL	BALL VALVE, 1", WRENCH OPERATOR (optional)	-
3.	BV 003	VALVE	BALL	BALL VALVE, 1/4", WRENCH OPERATOR (optional)	-
4.	TCV	VALVE	DIAPHRAGM	PNEUMATIC VALVE, 1"	-
5.	PRV 001	VALVE	PRESSURE REGULATOR	PRESSURE REGULATOR, 1", (2-5 PSI)	-
.9	PRV 002	VALVE	PRESSURE REGULATOR	PRESSURE REGULATOR PRESSURE REGULATOR, 1/4", (5-25 PSI)	-
.6	SDV 001	VALVE	SOLENOID	SOLENOID, 1", LOW WATT FOR ESD (optional)	-
10.	SDV 002	VALVE	SOLENOID	SOLENOID, 1/4", LOW WATT FOR PILOT	-
11.	SDV 003	VALVE	SOLENOID	SOLENOID, 1/4", LOW WATT FOR MAIN	-
12.	SCV	VALVE	SPEED CONTROL	SPEED CONTROL VALVE, 1/4", ADJUSTABLE	-



START-UP PROCEDURE

- **1.** Ensure QCU is properly grounded.
 - Inside BMS
 - Ignition Module
- 2. Connect all fuel gas lines and ensure there aren't any leaks
- **3.** Position the spark rod about 1/8" from the tip of the pilot nozzle
- **4.** Position the pilot assembly about 1" behind the main flame
- **5.** Verify that the thermocouple is providing an accurate temperature
- **6.** Set "Main On" temperature, "Main Off" temperature, and "High Shutdown" from the front menu button



- **7.** Adjust pilot pressure to 2-5 psi. Adjust main pressure to 8-12 psi.
- **8.** Close main ball valve. Open Pilot ball valve.
- **9.** Push "ON" (Right Select Button) on the BMS-600 and wait for pilot to ignite. Ensure that pilot lights and flame shows 100% on the BMS.
- **10.** Slowly open the main ball valve and ensure that heater runs smoothly with a blue and yellow flame. (65% blue, 35% yellow)
- **11.**Once burner is running smoothly, push the ESD button and make sure the BMS closes all solenoid valves.





- **12.** Push "ON" again and let the system go through a complete lighting sequence. Adjust speed control valve if necessary. (The main needs to come on slowly over 5 seconds or more)
- **13.** Be sure to check on the heater after it warms up and ensure that the main solenoid is cycling on and off.

NOTE: The control valve may need adjustment if the main doesn't come on after the solenoid engages. Ensure that the control valve opens first, and then adjust the speed control valve.









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