

Installation Instructions for PowerCommand x.1 Operator Panel to PowerCommand x.2 Operator Panel, Conversion Kit 300-6456-14



FIGURE 2-1. POWERCOMMAND X.2 OPERATOR PANEL (HMI 220)

GENERAL INFORMATION

Note: The PowerCommand x.1 operator panel is also called the HMI 211. The PowerCommand x.2 operator panel is also called the HMI 220.

This Instruction Sheet describes the steps required to replace a PowerCommand x.1 operator panel with a PowerCommand x.2 operator panel. This kit includes the following items.

PART DESCRIPTION	QTY
PowerCommand x.2 Operator Panel	1
Control Box Cover	1
M4 screws (0.7 x 10)	8
Split-lock Washers (#10)	8

SAFETY PRECAUTIONS

Read these instructions completely and become familiar with safety warnings, cautions, and procedures before starting the installation.

⚠ WARNING *Incorrect installation, service, or parts replacement can result in severe personal injury, death, and/or equipment damage. Service personnel must be trained and experienced to perform electrical and mechanical component installations.*

⚠ CAUTION *A generator set control must be serviced only by technically qualified personnel. High voltages are present. These voltages can cause electrical shock, resulting in personal injury.*

Even with power removed, improper handling of components can cause electrostatic discharge and damage to circuit components.

⚠ WARNING *AC voltages and currents present an electrical shock hazard that can cause severe personal injury or death. Incorrect installation, service, or parts replacement can result in severe personal injury, death, and/or equipment damage. Only trained and experienced personnel are to perform the following procedures.*

Turn off or remove AC power from the battery charger and then remove the negative (-) battery cable from the set starting battery. This is to make sure the set will not start while working on it and to avoid circuit board damage, caused by voltage spikes when removing and replacing circuit board connectors. ©

⚠CAUTION *If present, always disconnect a battery charger from its AC source before disconnecting the battery cables. Otherwise, disconnecting the cables can result in voltage spikes high enough to damage the DC control circuits of the generator set.*

⚠WARNING *Accidental starting of the generator set while working on it can cause severe personal injury or death. Prevent accidental starting by disconnecting the starting battery cables (negative [-] first).*

Make certain the battery area has been well-ventilated before servicing the battery—Wear goggles—Stop the genset and disconnect the charger before disconnecting battery cables. Arcing can ignite explosive hydrogen gas given off by batteries, causing severe personal injury. Arcing can occur when a cable is removed or re-attached, or when the negative (-) battery cable is connected and a tool used to connect or disconnect the positive (+) battery cable touches the frame or other grounded metal part of the generator set. Always remove the negative (-) cable first, and reconnect it last. Make certain hydrogen from the battery, engine fuel, and other explosive fumes are fully dissipated. This is especially important if the battery has been connected to a battery charger.

⚠WARNING *Ignition of explosive battery gases can cause severe personal injury or death. Arcing at battery terminals, light switch or other equipment, flame, pilot lights and sparks can ignite battery gas. Do not smoke, or switch trouble light ON or OFF near a battery. Discharge static electricity from body before touching batteries by first touching a grounded metal surface.*

KIT INSTALLATION

1. Make sure the control is in the **Off** mode by pressing the  button.
2. Disconnect the battery charger (if equipped). Remove all electrical supply sources.

⚠WARNING *Ignition of explosive battery gases can cause severe personal injury. Do not smoke or cause any spark, arc, or flame while servicing batteries.*

3. Disconnect the generator set starting battery cables. Disconnect the negative (-) cable first to reduce the risk of arcing.
4. Open the cover on the control box, and set it on top of the control box so that the harnesses inside the control box are visible.

Note: If it is not possible to set the cover on top of the control box in your configuration, you can remove all the bolts except for one and pivot the door on that one bolt. You can also skip this step.

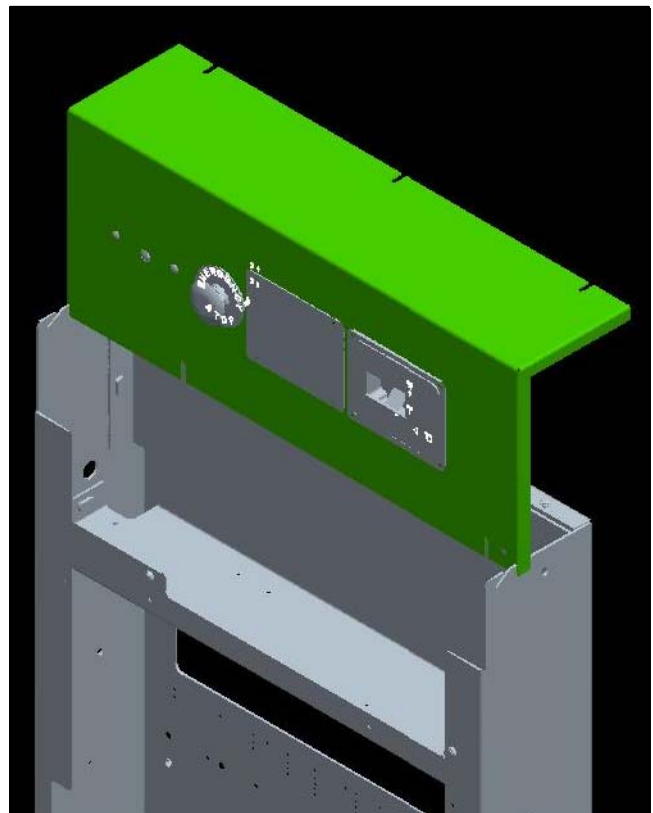


FIGURE 2-2. SET THE COVER ON TOP OF THE CONTROL BOX

5. Disconnect all wiring connections to every component on the cover, including (but not limited to) the PowerCommand x.1 operator panel, bargraph, audible alarm, and emergency stop button.

6. Remove the cover from the control box, and set it on a suitable workbench.

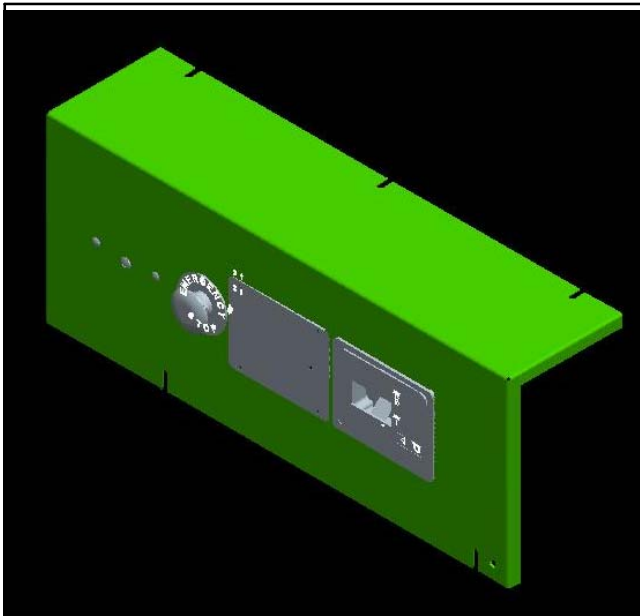


FIGURE 2-3. REMOVE THE COVER FROM THE CONTROL BOX

7. Remove every component on the cover. You do not have to remove the PowerCommand x.1 operator panel.
8. Install all of the components you just removed in the new cover included in this kit. Also install the PowerCommand x.2 operator panel in the new cover using the screws and split-lock washers included in this kit.
9. Put the new cover on top of the control box.

Note: If it is not possible to set the cover on top of the control box in your configuration, you can connect the cover to one of the bolts and pivot the door on that one bolt. You can also skip this step.

10. Reconnect all wiring connections to every component on the new cover. See Figure 2-4 for the location of each connection on the PowerCommand x.2 operator panel.

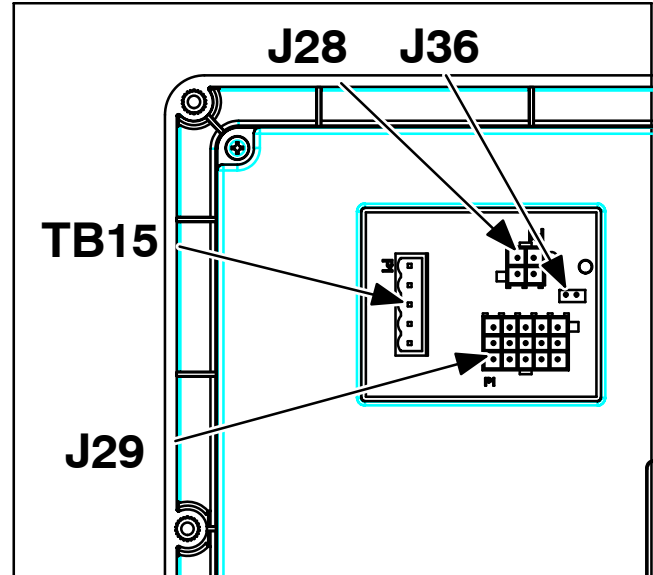


FIGURE 2-4. POWERCOMMAND X.2 OPERATOR PANEL CONNECTIONS

Note: Only J28 and J29 are required for operation and included in the harness.

CONNECTION	DESCRIPTION
J28	Power
J29	Local installations
J36	Power-down mode disable (use jumper to disable power-down mode)
TB15	Remote installations, PC-based service tool

11. Close the cover on the control box.
12. Reconnect the generator set starting battery. Connect the positive cable (+) first.
13. Reconnect the battery charger (if equipped).
14. Test the installation by starting the genset and verifying proper operation.
15. Set the control to the desired operating mode.
16. Refer to the PowerCommand x.2 Operator Manual (provided with the controller) for information about the operator panel.

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