



# GAW180HE Regulator Conversion Conversion Kit Installation Instructions

The following instructions are intended to assist the user in the installation of the GAW180HE “Regulator Conversion Kit”, P/N REGUPGKIT180. Please read instructions before installing regulator conversion kit.

## Tools

- 7/16-inch Wrench
- Phillips-Head Screwdriver
- Wire Cutters
- Crimp Tool

## Front Panel Removal

- Place the generator on a suitable workbench. Make sure the area is clear of clutter.
- Using a phillips-head screwdriver, remove the 6 screws (Figure 1) that secure the front panel to the generator.

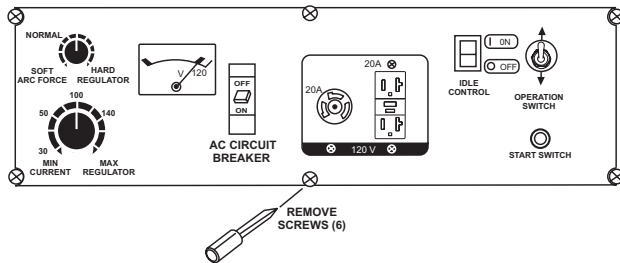
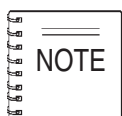


Figure 1. Front Panel Removal

- Tilt the front panel downward (Figure 2) to gain access to the control box wiring. If necessary support the front panel to reduce the strain on the internal wiring.



**NEVER** work on the welder/generator when the battery is connected. Electrical shock or short circuit could occur, causing harm to personnel or damage to the equipment. **ONLY** have qualified service personnel perform this modification.

## Rectifier Removal

- Using wire cutters, cut all wires connected at the terminal leads of rectifier Re1 (Figure 2).
- Using a phillips-head screwdriver, remove the screw and nut that secures rectifier Re1 to the generator.
- Discard rectifier Re1, it will not be used any more.

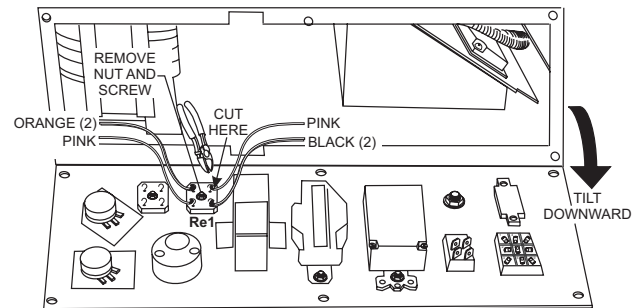


Figure 2. Rectifier Re1 Removal Removal

## Preparing the Wiring

- Strip off 3/8-inch insulation (Figure 3) from all wires that were connected to rectifier Re1.

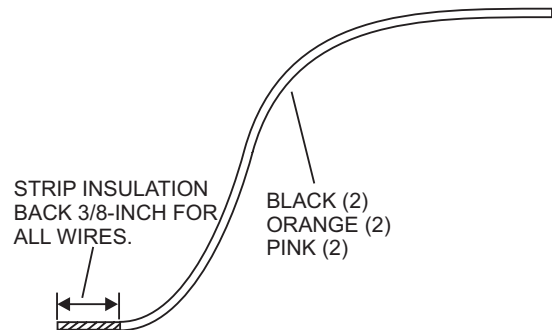


Figure 3. Wire Insulation Removal

- Insert, then crimp both black wires (Figure 4) into the female crimp connector.
- Remove the BLACK 7.5-inch wire from the kit. Insert the male crimp end of this wire into the female crimp connector with the two black wires.

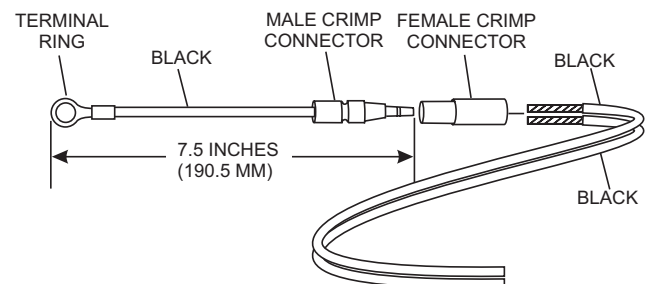


Figure 4. Black Wire Crimp Connection

- Insert, then crimp both orange wires (Figure 5) into the female crimp connector.
- Remove the ORANGE 11.5-inch wire from the kit. Insert the male crimp end of this wire into the female crimp connector with the two orange wires.

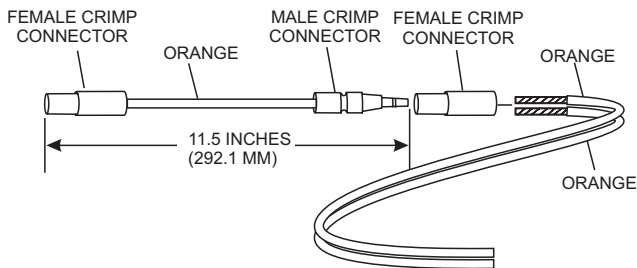


Figure 5. Orange Wire Crimp Connection

- Connect the other end of the ORANGE wire (female crimp) onto the RED wire on to the voltage regulator (Figure 6) with the male crimp connector

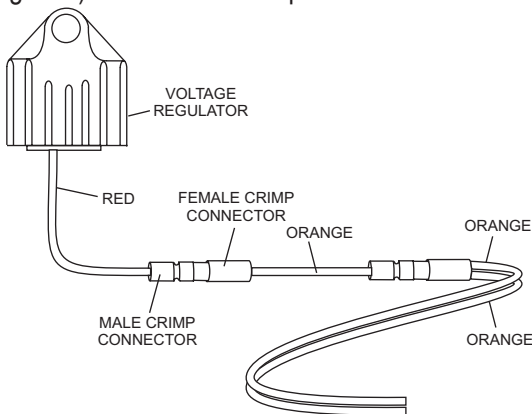


Figure 6. Regulator Red Wire Connection

- Crimp each pink wire (Figure 7) with a female crimp connector.
- Insert, pink wire (2) with the female crimp connector into blue wire (2) on the voltage regulator with the male crimp connector. Orientation of wires does not matter.

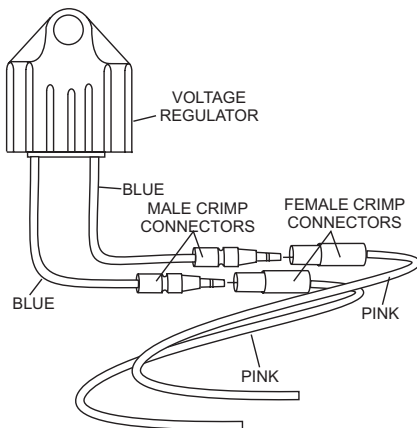


Figure 7. Regulator Blue Wire Connections

- Remove the GREEN 5.5-inch wire from the kit. Insert the male crimp connector of this wire (Figure 8) into green wire on the voltage regulator with the female crimp connector.

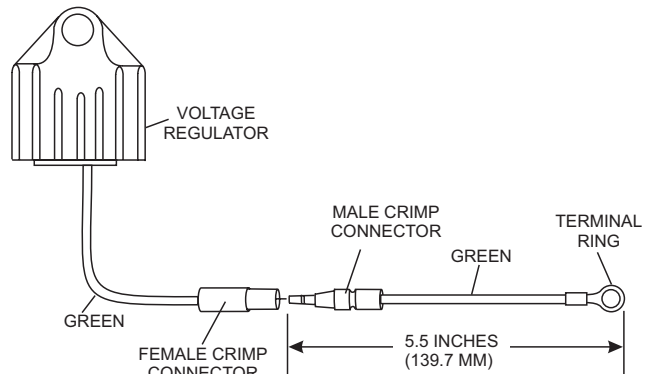


Figure 8. Regulator Green Wire Connection

## Voltage Regulator Mounting

- Using a 1/4-inch drill, drill a hole into the triangular wall behind the control panel as shown in Figure 9.
- Locate green and black wires that have a terminal ring at each end. Place terminal ring of each wire onto 1/4-28 x 1 screw.
- Place regulator behind wall, insert 1/4-28 x 1 screw with green and black wires through mounting hole to hold regulator in place. Secure regulator with lock washers (2), and nut. Tighten securely.
- Use the supplied tie-wraps to secure wiring.
- Clean up any shavings or debris that might have accumulated during drilling.
- Re-install front panel securing all 6 screws.

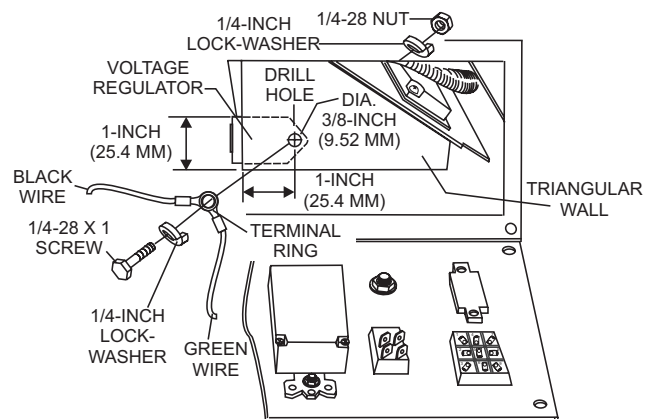


Figure 9. Voltage Regulator Mounting



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