



## 4181US Duplex Outlet

The Cardas 4181US can be configured as a standard duplex, or as two electrically independent outlets. Please read these instructions before installation\*.

Right-side up vs down? You'll notice the alignment of the Cardas logo indicates that we prefer the ground slot on top. You may install your 4181US this way, or upside down. However, these instructions will refer to the "top" & "bottom" outlets as if the 4181US is installed with the Cardas logo properly aligned (as shown on the right).

**Standard configuration:** To use the 4181US like a typical outlet, leave jumpers in place (ie, use it as it comes from the factory).

**Separate top from bottom (hot & neutral only):** Remove the jumpers joining the hot & neutral screws. You can now run separate hot & neutral wires to your 4181US outlet.

Completely separate top from bottom (hot, neutral and ground): Remove hot & neutral jumpers. Then refer to Page 2 of these instructions for information on custom ground configurations.





<sup>\*</sup>Please refer installation to a licensed electrician.

## Configuring Grounds on 4181US Duplex Outlet

The Cardas 4181US ships in standard configuration (ie, as a standard duplex with both outlets joined). This page shows how to isolate the ground from one of the outlets. In these instructions, we refer to the "top" and "bottom" outlets. Note that the alignment of the Cardas logo indicates that we prefer the ground slot on top.





**Step 1.** Remove the center screw from the back of the outlet.



**Step 2.** Pry the mounting bracket off of the outlet.

Note the hex-screws in the bracket. Leave those in place.



**Step 3.** Locate the t-shaped gasket that came packaged with your outlet. Cut one of the sides off.



**Step 4.** Determine which of the two outlets is to be un-grounded.

In PIC 4, the back of the outlet is shown without the gasket. "A" shows the ground tab for the top outlet. "B" shows the ground tab for the bottom outlet.



**Step 5.** Place trimmed gasket from Step 3 on back of outlet.

In PIC 5, the trimmed gasket is aligned to leave the top outlet's ground tab exposed. This will result in the top outlet being grounded, and the bottom outlet being un-grounded.

In PIC 6, the gasket leaves the bottom outlet's ground tab exposed. This will result in an un-grounded top outlet, and a grounded bottom outlet.



**Step 6.** Reassemble the 4181US, ensuring that the gasket stays in place while you snap the mounting bracket back on, and replace the center screw.

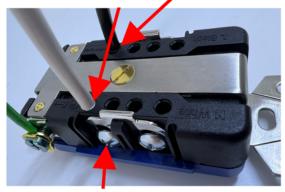
## Additional Notes:

We do not recommend leaving both outlets un-grounded.

Please refer installation to a licensed electrician.



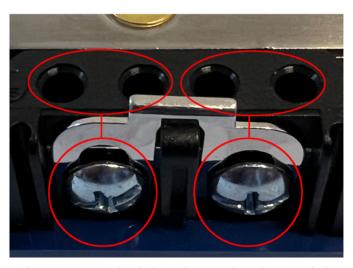
The hot & neutral wires go into the holes, as shown.



Back the screw out just enough to fit the wire into the hole, then re-tighten the screw to hold the wire in.

Do not back the screw out past the point of resistance, or the plug will be damaged and likely unrepairable.

Do not attempt to wrap the hot & neutral wires around the screw. Put them into the wire holes as described.

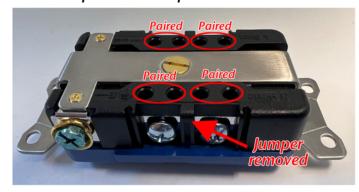


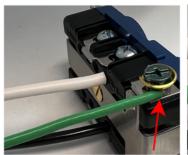
The screw on the left tightens the clamp of the two wire-holes on the left. The screw on the right tightens the clamp of the two-wire holes on the right. The same is true on the other side of the plug.

There are 4 wire holes on the hot side, and 4 on the neutral side. With the jumper plates installed, the holes are all connected on their respective sides. Use whichever is most convenient.



With the jumpers removed, the pairs of holes closest to each clamp screw are still connected, but the pairs are independent of each other.







The ground wire wraps around the ground screw, under the brass washer. This is the only wire that wraps around a screw. The hot & neutral go into the wire holes and are clamped down as shown elsewhere on this page.