

# How to replace a whirlpool refrigerator start relay.

The example shown here is done on a side-by-side whirlpool refrigerator. Many of the start relays are the same on other makes and models even though they may look a little different.

## Customer Complaint:

- My refrigerator is too warm and I can hear a clicking noise
- My refrigerator is not cooling at all but it sounds like it is running

Often times the customer will hear just the fans running and think the refrigerator is running, but the compressor is not running because the start relay is bad and needs to be replaced.

To replace the start relay you will need to unplug the refrigerator at the outlet. Pull the refrigerator away from the wall so you can remove the lower back cover.



Once you have the back cover removed you will be able to see the compressor. The start relay will be located on the side of the compressor. The start relay shown on this side-by-side whirlpool refrigerator is white and has a white and red wire going to it.



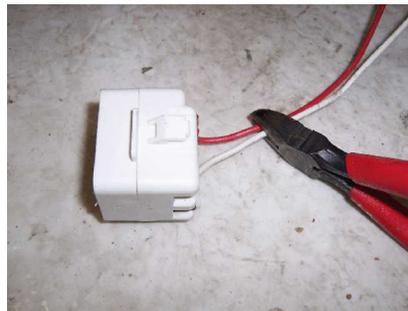
Remove the old start relay by pulling it off by hand. If it does not pull off by hand easily you may have to put the tip of a flat blade screw driver between the start relay and the body of the compressor to help pry it off. Most of the time you can remove them without any force.



Now you have a couple of options here. You can replace the start relay with a factory one. The factory start relay will look just like the one you are replacing so all you have to do is unplug the old start relay and plug in the new one.

Your other option is to install a 3n1 universal start relay. There is a little more to installing a 3n1 universal start relay.

Cut the two wires going to the old start relay



Then take a look at the new 3n1 start relay. It will have a wire diagram on it showing you how to install it. Take a couple wire nuts and connect the power wires that you just cut from the old relay to the new start relay. Then connect the other three wires as shown on the new start relay.



The terminal position shown on the 3n1 start relay diagram should match the compressor terminals. If the compressor terminals do not match the same position as the ones on the 3n1 start relay diagram just turn the diagram upside down so you have the single terminal on the bottom.



Above is a example of a compressor that has the terminals upside down from what is shown on the wire diagram that is on the 3n1 universal start relay.

After you have the new start relay on plug the refrigerator in and the compressor should start running. If the compressor does not start and the new relay starts to make a clicking sound like the old relay you may have something wired wrong or the compressor may need to be replaced.

If the compressor starts and runs ok you will want to unplug the refrigerator again and clean any dust out before you put the cover back on.

Be sure to not only vacuum the dust out from around the compressor area but also from the front of the refrigerator. Remove the front grill at the bottom of the refrigerator. Clean the dust from the coils.



The dust that has collected inside the coils and around the compressor is what the start relay went out. The compressor will run to warm when it can not get enough air around the coils to cool itself.

Once you have everything cleaned up put the front grill back on and the back cover. Plug the refrigerator back in and push the refrigerator back in place.

Give the refrigerator a little time to cool down.