How Do I Reverse a Resolver’s Count Direction?

Some AMCI products have a Count Direction parameter which allows you to program the direction of rotation that causes increasing counts. If you have a unit without this parameter, or you are unable to change the modules’ programming, then you can reverse the count direction by changing the wiring of the transducer cable. Changes are easily accomplished at the controllers’ screw terminal phoenix connector.

If you are using a CT, C1T, C1TP, C2T, C3T, or C4T cable, then reverse the Green/Black wire pair, which is the resolver’s S2-S4 winding, to reverse the count direction. The Black wire of the pair goes into the terminal that was used by the Green wire, and the Green wire goes into the terminal that was used by the Black wire of the pair. Note that all of the pairs in an AMCI cable have a Black wire. Make sure that you switch the correct Black wire. Switching the wrong Black wire will cause the transducer to work intermittently at best.

If you are using a CTT or C2TT cable, then you must reverse the Green/Black and Blue/Black wire pairs. This reverses the S2-S4 wiring for both the Fine and Course resolvers. The Black wire of the Green/Black pair goes into the terminal that was used by the Green wire, and the Green wire goes into the terminal that was used by the Black wire of the Green/Black pair. The Black wire of the Blue/Black pair goes into the terminal that was used by the Blue wire, and the Blue wire goes into the terminal that was used by the Black wire of the Blue/Black pair. Note that all of the pairs in an AMCI cable have a Black wire. Make sure that you switch the correct Black wires. Switching the wrong Black wires will cause the transducer to work intermittently at best.