

HAND | OFF | AUTO *(using a Phase Technologies supplied speed potentiometer)*

Hand (Manual): In this position, the equipment is controlled manually. For a VFD, this means that the speed or operation mode (such as start/stop) is controlled manually by the operator using external controls such as a potentiometer.

Off: In this position, motor control is stopped.

Auto (Automatic): For a VFD, this means that the speed or operation mode is controlled automatically based on input signals from a pressure transducer, programmable logic controllers (PLCs), or other control systems.

HOA Wiring

- COM - yellow/red
- AUX1 - red/white
- AUX3 - black/yellow

Speedpot Wiring

- COM - white
- VIN - black
- 10VO - red

Common Issues

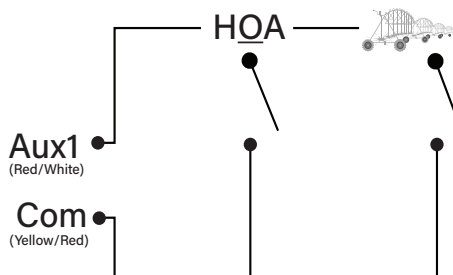
- ▶ Make sure keypad is set to auto. *(This is the most common mistake users make)*
- ▶ When submersible pump is set to "Yes" and minimum is set to "30 Hz", the speed potentiometer must be at 50% or greater for the motor to start.
- ▶ When using the VFD for constant pressure, Interface Parameters → System Config must be set to #7.
- ▶ When System Config is set to #6, the Auto functionality of the HOA switch will be disabled.
- ▶ Interface Parameters → System Config / AUX 1 Select must always be set to "0".

Other Scenarios

Calls for water from a PLC or pivot control relay should use Aux 2 and Com. When Aux 2 is reserved by something else, you may need to tap into the red/white wire going into Aux 1.

When tapping into the red/white wire there are two wiring options:

Wire in parallel
 Either the HOA or pivot relay may be used to turn on the pump



Wire in series
 Both the HOA and pivot relay must be used to turn on the pump

