

Electrical Connections

The following instructions and wiring diagrams illustrate typical wiring connections. For applications not shown in Figures 2-1 and 2-2, refer to the plant wiring diagram (Figure 1-4) or contact Woodward for assistance.

Connect the synchronizer terminals as shown in Figure 1-4. When making the connections, observe the following:

- Make all connections using insulated terminals.
- Use 0.5 mm² (20 AWG) or larger stranded, twisted shielded wire.
- Make sure that all wires shown as shielded on the plant wiring diagram, are shielded.
- Do not place shielded wires in the same cable conduits with high-voltage or high-current carrying cables.
- Do not connect the cable shields to any external grounds. The shields are grounded at the control end only.
- Make sure that cable shields are carried through all intermediate terminal blocks from signal source to signal termination.
- Do not subject any wiring to temperatures above 100 °C (212 °F).
- Avoid kinks or sharp bends in the wiring.
- Make sure that all connections are tight.

For additional wiring information, see Woodward Manual 25070, *Electric Governor Installation Guide*.

Install and wire the other units and actuators in your system using instructions in applicable manuals.

Connections to the Generator

The synchronizer is powered by voltage supply connections to the generator potential transformers (PTs). It uses a standard 120 Vac or 208/230 Vac, 50/60 Hz input. The synchronizer can use the same voltage connections to the generator PTs as the electronic governor's load sensor. Power consumption of the synchronizer is 5 W maximum.

1. Connect the generator PT neutral to synchronizer terminal 5 (Figure 2-1).
2. Connect one phase of the generator PT (usually phase A) to synchronizer terminal 2.
3. Connect the same phase from the bus PT to synchronizer terminal 6.
4. Connect bus neutral to terminal 9.