

FAQ Note

Multiple 1250's on One Synchro Transmitter

Problem:

A 1250 is needed in more than one location to display the position of a single synchro transmitter.

Examples:

A 1250 is used to display the LTC Tap Position locally, but a remote display is needed 1000 feet away.

A 1250 is used to display Spillway Gate Position locally, but a display is needed in the Control Room.

One 1250 is used to provide a 4-20mA signal to a controller and another 1250 is used to provide a 0-1mA to SCADA.

Explanation:

The 1250 does not place a current load on the synchro transmitter's stator outputs like a mechanical synchro (Sel-Syn[®]) does. Therefore, many 1250's can be wired in parallel to a single synchro transmitter without fear of overloading it. The high-impedance inputs on each 1250 measure the stator voltages independently of the other 1250's on the same synchro. Each 1250 must be programmed independently. For all 1250's to display the exact same reading, they must be programmed exactly the same with particular attention to loading the same Present Position point (OP 17 and OP 18 or OP 27 and OP28, depending upon the Operating Mode OP 2).

Installation:

Run five wires from the synchro transmitter to EACH 1250. Five wires can be run from one 1250 to the next 1250, in "daisy chain" fashion. Two of the five wires are for AC power. All 1250's and synchro transmitter must run from the SAME AC POWER SOURCE. Never power a 1250 from a different power source as the transmitter. Accuracy and stability problems could arise. Program the first 1250. Load the present position into memory. Program subsequent 1250's with the exact same programming parameters. Load the present position into memory on each 1250. Each 1250 should display the same reading.

Alternative:

The INCON model RD-4 Remote Display can be used as an inexpensive alternative to using a second 1250 for a remote display. It has no outputs, it is just a display. It receives its display value from the 1250 through a 2-wire RS-232 serial connection. The 1250 communicating to the RD-4 must be equipped with the Serial RS-232 option, designated by a "-S" in the model number. The 1250's serial port must also be programmed for "Remote Display Driver Mode" (OP 51 = 7).