

QUICK REFERENCE GUIDE REPLACE PSO II OR PSO III MODULES WITH PSO 4000 MODULE

Document Number SIG-QG-10-02
Version A.1

The following procedure should be used when upgrading from the Phase Shift Overlay II (PSO II) or Phase Shift Overlay III (PSO III) Track Circuits to Phase Shift Overlay 4000 (PSO 4000) Track Circuits

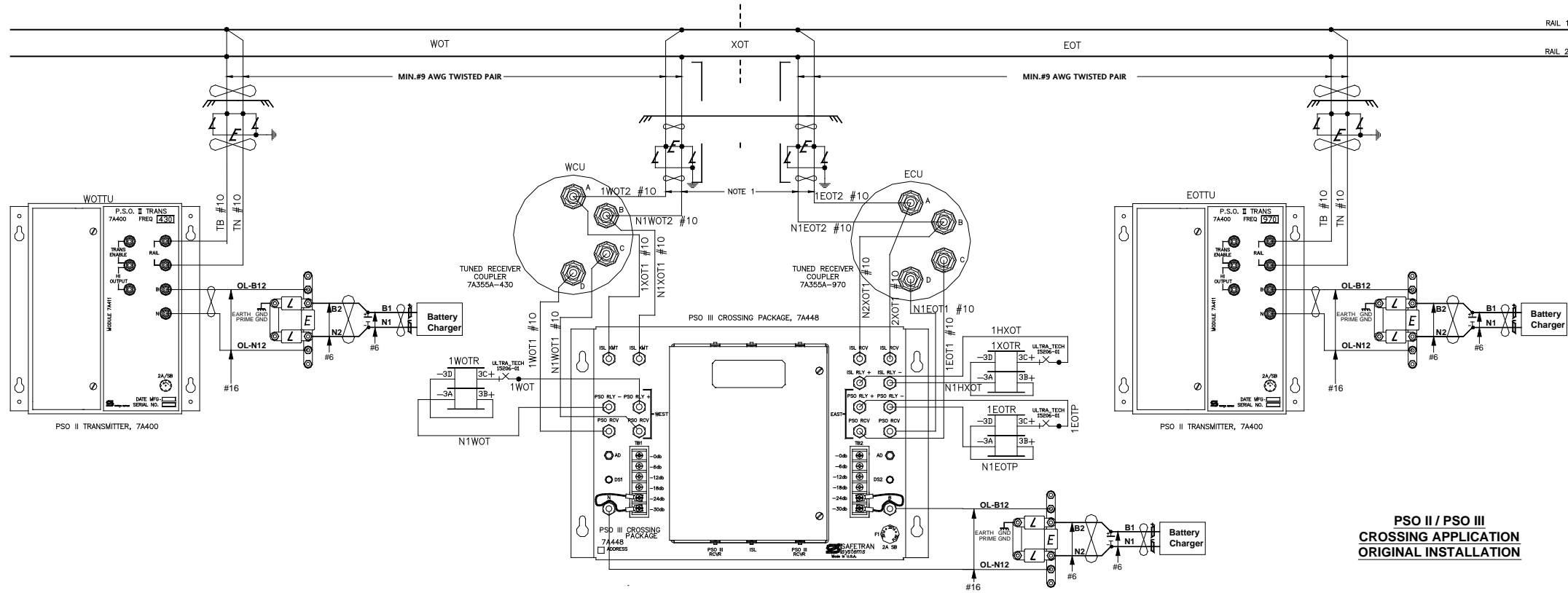
WARNING

VERIFY THAT THE TRANSMITTER SOFTWARE, FREQUENCY, AND ADDRESS FORMAT ARE AS SPECIFIED BY THE RAILROAD'S OR AGENCY'S APPROVED WIRING OR INSTALLATION DIAGRAM. FAILURE TO DO SO MAY LEAD TO INCORRECT OR UNSAFE OPERATION OF THE TRACK CIRCUIT.

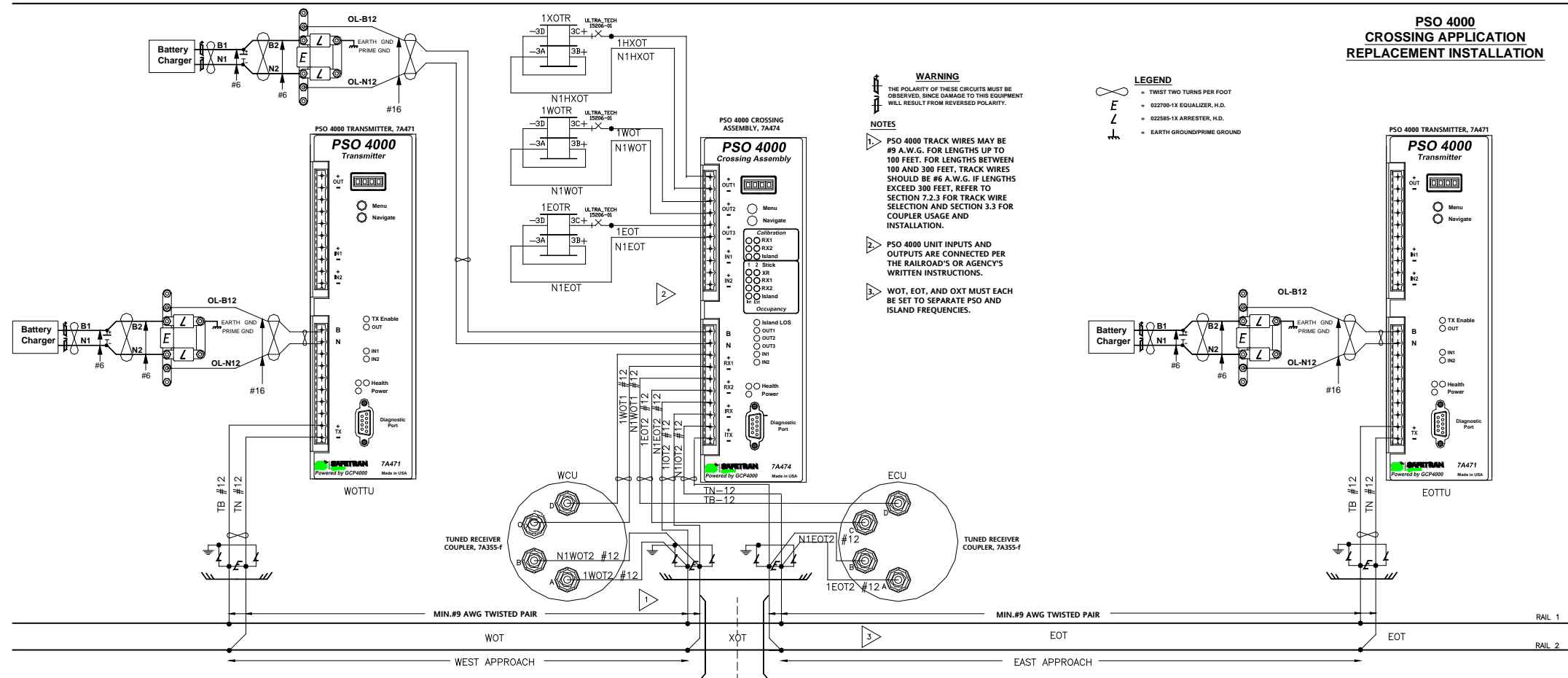
VERIFY THAT THE PSO 4000 RECEIVER, CROSSING ASSEMBLY, AND TRANSCIEVER ASSEMBLY'S SOFTWARE, FREQUENCY, AND ADDRESS FORMATS ARE AS SPECIFIED BY THE RAILROAD'S OR AGENCY'S APPROVED WIRING OR INSTALLATION DIAGRAM. FAILURE TO DO SO MAY LEAD TO INCORRECT OR UNSAFE OPERATION OF THE TRACK CIRCUIT.

IF ANY RECEIVER IS CALIBRATED IN POOR BALLAST CONDITIONS, IT MUST BE RE-CALIBRATED WHEN BALLAST CONDITIONS IMPROVE.

FAILURE TO FOLLOW THE RAILROAD'S OR AGENCY'S APPROVED WIRING OR INSTALLATION GUIDELINES REGARDING RECEIVER SETTINGS AND CALIBRATION MAY LEAD TO POSSIBLE UNSAFE OPERATION OF THE TRACK CIRCUIT.



PSO II / PSO III
CROSSING APPLICATION
ORIGINAL INSTALLATION



PSO 4000
CROSSING APPLICATION
REPLACEMENT INSTALLATION

WARNING
THE POLARITY OF THESE CIRCUITS MUST BE OBSERVED, SINCE DAMAGE TO THIS EQUIPMENT WILL RESULT FROM REVERSED POLARITY.

NOTES

- 1. PSO 4000 TRACK WIRES MAY BE #9 A.W.G. FOR LENGTHS UP TO 100 FEET. FOR LENGTHS BETWEEN 100 AND 300 FEET, TRACK WIRES SHOULD BE #6 A.W.G. IF LENGTHS EXCEED 300 FEET, REFER TO SECTION 7.2.3 FOR TRACK WIRE SELECTION AND SECTION 3.3 FOR COUPLER USAGE AND INSTALLATION.
- 2. PSO 4000 UNIT INPUTS AND OUTPUTS ARE CONNECTED PER THE RAILROAD'S OR AGENCY'S WRITTEN INSTRUCTIONS.
- 3. WOT, EOT, AND XOT MUST EACH BE SET TO SEPARATE PSO AND ISLAND FREQUENCIES.

LEGEND

- TWIST TWO TURNS PER FOOT
- 022700-1X EQUALIZER, H.D.
- 022585-1X ARRESTER, H.D.
- EARTH GROUND/PRIME GROUND

AFTER CALIBRATION, VERIFY THAT THE TRACK CIRCUIT DE-ENERGIZES WHEN THE TRACK CIRCUIT IS SHUNTED WITH THE APPROPRIATE CALIBRATION RESISTANCE (0.06, 0.2, 0.3, 0.4, OR 0.5 OHMS). FAILURE TO DO SO MAY LEAD TO INCORRECT OR UNSAFE OPERATION OF THE TRACK CIRCUIT.

FOLLOWING INSTALLATION OR AFTER ANY RECEIVER MENU CHANGES HAVE BEEN MADE, RECALIBRATE THE RECEIVER AND TEST FOR PROPER OPERATION PER THE REQUIREMENTS SPECIFIED IN TABLE 7-2 AND TABLE 7-3 OF SIG-00-07-06, PSO 4000 I & I MANUAL.

To change from earlier versions to PSO 4000 Track Circuits:

1. Disconnect all fuses from original equipment.
2. Remove all #10 AWG wire connections from the equipment to the coupler or surge panel and replace with the size specified per the railroad's or agency's approved wiring or installation diagram (i.e., #12 AWG or #16 AWG).
3. Mount PSO 4000 unit per the railroad's or agency's approved wiring or installation diagram.
4. Connect all required leads per the railroad's or agency's approved wiring or installation diagram.
5. Following the procedures specified in Siemens' PSO 4000 Installation and Instruction Manual, SIG-00-07-06, perform programming, calibration, and checkout procedures in accordance with the railroad's or agency's approved wiring or installation diagram.

The illustrations provided in the Quick Start Guide are for general reference purposes only. For specific installation guidelines, refer to the railroad's or agency's approved written instructions.

