

MG514 Upgrade Installation Tips

**IMPORTANT READ NUMBER 1. WARRANTY WILL BE VOID IF
NEW COMPUTER IS WIRED INCORRECTLY**

BEFORE Disconnecting 400 Series Computer

1. Identify and label wires connected to
 - a. TB1 B- (System Ground)
 - b. TB1 B+ (System Power)
 - c. TB2 TX0+ (Piston Side Transducer)
 - d. TB2 TX1+ (Rod Side Transducer)
 - e. TB3 + DR (Swing Sensor + Drive)
 - f. TB3 AIN 5 (Swing Sensor Signal A)
 - g. TB3 AIN 6 (Swing Sensor Signal B)
 - h. TB3 –DR (Swing Sensor – Drive)
 - i. TB7 Relay 2 NO (Function K/O Feed)

(If crane has swing switches label wires on TB5 that are connected to DIN terminals & VP+ Terminals on TB4)
2. The wire connected to TB7 Relay 1 C will no longer be required and should be taped with electrical tape and tied in a proper stored position
3. Wire connections on new computer are as follows
 - a. System Ground Blade 1
 - b. System Power Blade 2
 - c. Function K/O Feed Blade 8
 - d. Swing + Drive Blade 34 (Red)
 - e. Swing – Drive Blade 35 (Black)
 - f. Swing Signal A Blade 36 (Green)
 - g. Swing Signal B Blade 37 (White)
4. All other wiring is pre-wired from the factory
5. You will need to manufacturer two hydraulic hoses (I normally make them 14') locally to connect the pressure transducers in the computer to the boom lift cylinder. Be sure to connect hoses properly, the connector on the computer with the red sleeve is for the Rod side (TX1) transducer and the connector with the green sleeve is for the Piston side (TX0) transducer. Be sure when you raise boom the first time to watch hoses for any obstructions and proper routing.
6. When installing the extension reel make sure the arrow on the back of the mounting plate is pointing up
7. When routing the cable from the computer to the extension reel be sure to check for proper routing and obstructions when raising boom for the first time.

- 8. Before disconnecting the original pressure transducers be sure the boom is FULLY lowered and the cap is removed from the hydraulic reservoir to relieve any pre-charge pressure.**
- 9. The new computer has a smaller footprint than the original computer and may require new mounting holes to be drilled.**
- 10. The connector on the boom extension cable may or may not be required on your particular machine if not required you may cut the connector and strip the insulation to expose the shield and core which are used for transmitting the anti-two block signal**
- 11. When the system is completely installed remove the cover from the extension reel and measure the voltage at the terminal strip between the red and blue wires (Black lead on blue wire and red lead of voltmeter or red wire). You should read 4.7 – 5.3 Volts if you have a negative voltage reading less than the voltage listed you will need to swap the blue and white wires in the computer on blades 21 and 25. Recheck the voltage reading at the extension reel and verify correct drive voltage.**