

SERVICE BULLETIN
MODIFICATION KIT
GREER PART NUMBER: S440997

Purpose

This bulletin applies to MicroGuard® 4xx Series Computers carrying Part Numbers A440103 through A440113 inclusive and applies only to serial numbers preceding 838406, which were manufactured prior to 09-23-98.

This modification must be completed immediately because, under certain conditions, the MicroGuard® motion cut and two-block alarm indicators may not operate properly when the lifted two-block weight actuates the anti two-block switch.

Temperature and humidity changes can create fluctuations in the impedance characteristics of the extension reel-off cable causing interference with the alarm indicators. This problem can occur at any temperature, but is most severe in high temperature, high humidity environments.

Completion of this modification will eliminate the problem by reducing the computer's sensitivity to impedance fluctuations.

MODIFICATION INSTRUCTIONS

Install the attached 10K resistor on the Computer Interface Board using the following instructions.

Required Tools

- Medium Phillips screwdriver
- Small slotted screwdriver

Parts List

10K resistor with two ¾ inch leads

Locating the Computer

Locate the computer by following the electrical cable from the extension reel to its termination at the aluminum box.

SWING CAB CRANES – look inside or outside on the cab wall.

CAB DOWN CRANES – look on the rotating upper structure (turret) of the crane.

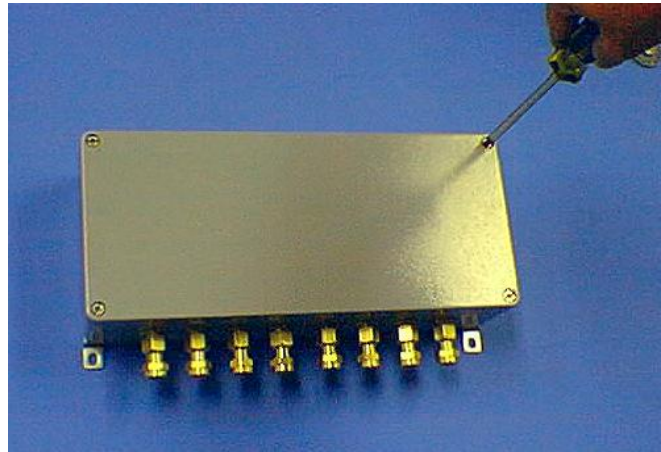
The Computer Unit is manufactured with and identified by Model and Serial Numbers located on one end of the outer surface of the aluminum box.

CAUTION: Turn off the electrical system. Check to see that the MicroGuard® Display Unit is not showing any lights or numbers.

Accessing Computer Unit Parts

1. Open the aluminum box containing the Computer Unit as follows:
While holding the cover in place with one hand, loosen the screw on each corner of the cover with a large screwdriver. Carefully remove the cover and set aside. It is not hinged.

The Computer Unit contains two boards: the Computer Board on top and the Interface Board below.

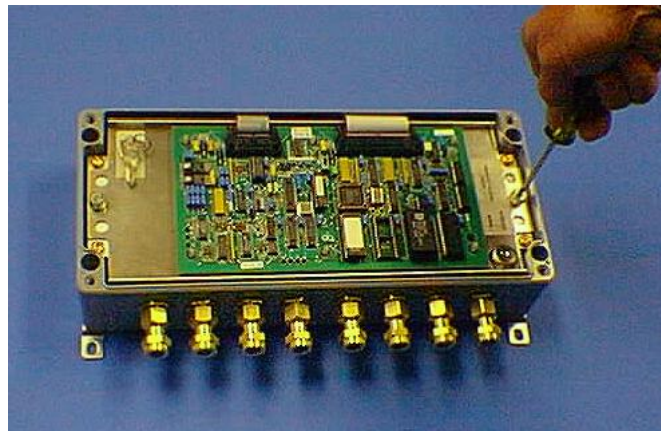


THE COMPUTER UNIT

2. The Computer Board, containing the microprocessor and its related components, is now exposed.

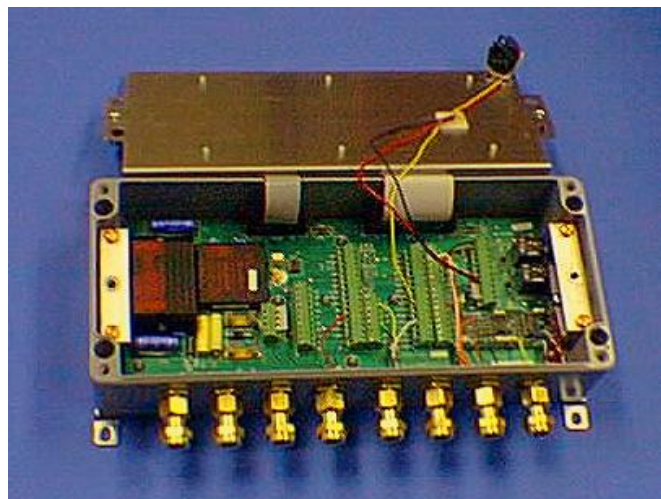
Select the center screw of the three screws located at either end of the Computer Board mounting plate. Unscrew $\frac{1}{4}$ turn counterclockwise; then release pressure on the screw, which will cause it to pop up. Repeat this process for the same screw at the other end of the mounting plate.

Gripping these two loosened screws, swing the plate all of the way up and secure it in this position. Ensure that the electrical components do not contact the aluminum box or cab walls.



THE COMPUTER BOARD

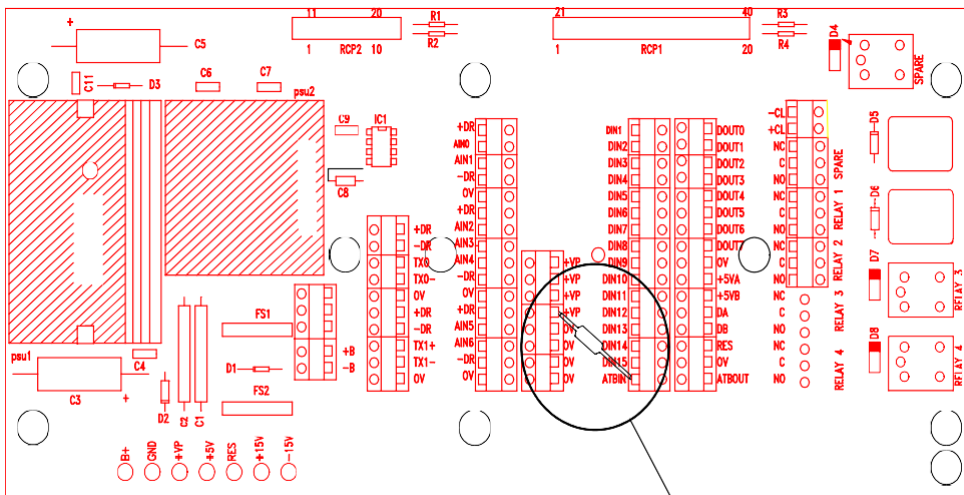
3. The Interface Board is now exposed. The Computer Board is connected to the Interface Board via two ribbon cables that carry signals to and from the Interface Board. Be careful not to damage the ribbon cables.



THE INTERFACE BOARD

Installing the Resistor

1. Refer to the illustrations below. Locate terminal blocks TB4 and TB5 on the Interface Board.
2. Loosen the screws at terminals +VP and ATBIN on terminal blocks TB4 and TB5. Be careful not to disturb the wires already in place.
3. Insert the resistor leads into the terminal blocks, as shown in the illustration at the bottom of this page. Be sure that the resistor insulating sleeves do not go into the terminal blocks! Tighten the terminal block screws.
4. Check for loose wires in terminals +VP and ATBIN.
5. Reinstall the Computer Board and lid.
6. Turn on the electrical system of the crane.
7. Lift the two-block weight and check for motion cut and alarms.



COMPUTER INTERFACE BOARD

TB5

Position resistor as shown

TB4

