

# TECH TIPS

## Service Call:

- **Loss of all functions and the alarm sounds, when the primary boom is lifted off its rest, when using the ground control panel.**
- **Works fine and alarm stops, when power is switched to platform.**

## Tools Needed:

#2 Phillips tip screwdriver  
3/8 Combination wrench  
7/16 Combination wrench  
Continuity tester or Multimeter

## Model:

**TZ50/30**



## Tech Tips Safety Rules



### **Danger**

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury. Many of the hazards identified in the operator's manual are also safety hazards when maintenance and repair procedures are performed.

### **Do Not Perform Maintenance Unless:**

- You are trained and qualified to perform maintenance on this machine.
- You read, understand and obey:
  - manufacturer's instructions and safety rules
  - employer's safety rules and worksite regulations
  - applicable governmental regulations
- You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this tech tip is a supplement to the service manual. Consult the appropriate service manual of your machine for safety rules and hazards.

## Step 1

Verify machine is on its outriggers and that it is level.

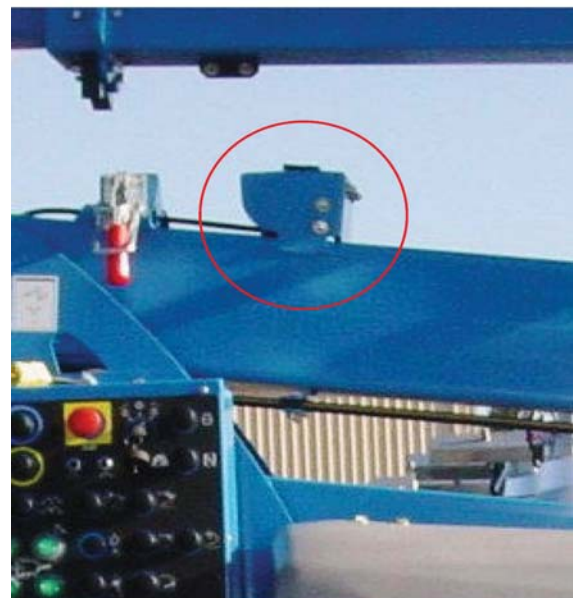
- Lift the primary boom off its' rest.
- Turn the power key switch to the off position to silence the alarm.



## Step 2

Boom limit switch location:

- The boom limit switches are located on the top of the secondary boom, in the small metal enclosure, pictured on right.



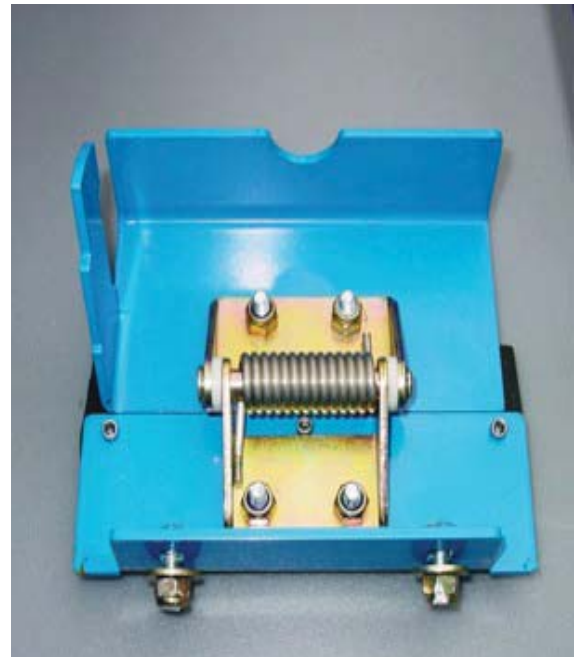
## Step 3

Loosening the indicated lock nuts on the front face of the enclosure, will allow you to lift off the hinged cover providing access to the limit switches inside.



## Step 4

Bottom view of the dis-mounted hinged cover that attaches to the boom limit switch enclosure box.



## Step 5

After removing hinged cover:

- Examine the hinge on the cover, for rust or damage, that may prevent it from engaging and depressing the limit switch rollers correctly.
- Verify that both plungers are fully extended and not binding, clean limit switch plungers with a non-residue electrical contact cleaner if they are sticking.
- If this fails to correct the problem, replacing the limit switches would be your only option, these are sealed units and not repairable. Proceed to step 6, for the correct way of doing this.

Note: If the above procedures correct the problem, return the machine to service.



## Step 6

Boom limit switch replacement:

- Removing the lock nuts from the side of the box, will allow the removal of the limit switch mounting plate, with the limit switches still attached.
- The connector on the end of the harness, will pass through the indicated hole, allowing quick replacement of the switches with the attached harness.



## Step 7

When installing the spring cover on the limit switch box, careful adjustment will be necessary.

- After re-installing the cover, turn the key switch to the ground position and see if the alarm sounds.
- If it does, loosen the locknuts and slide the bolts and cover slightly up the slots, just high enough to cut off the alarm.
- Test for proper function by pushing the cover down, with your hand and then releasing.
- When the boom is down there should be continuity between the Red and White wires and NO continuity to the White/Black wire.
- When the boom is up there should be continuity between the White and White/Black wires and NO continuity to the Red wire.

Return machine to service if it is working correctly.  
If it continues to malfunction contact the technical support department at; 1-800-536-1800

