

Loss of Data from Sign Panel has occurred displays on control console.

Restart Control Console

- Turn Main Power switch off, then back on to restart control console.

Test Display Modules

- Press <2> when the Main Menu appears. **NOTE:** Restart again if message: "Temporary Loss of Data" appears. Enter your password.
- Press <Enter>.
- Press <3> for the menu option Check System Status.
- Press <2>. Display will read "Display Module Test" and "Module Under Test 1".



Is the first display module (#1) in the upper left of the sign display corner lit?



Check Connections

- Remove display module (#17)(MB) or (#18) (MB2).
- Inspect **POWER IN LED** on exposed interconnect board.

Check Display Modules

- Press <Right Arrow> on the keyboard to advance to next display module.
- Continue to press <Right Arrow> to light all display modules or until one does not light.



Is the POWER IN LED lit?



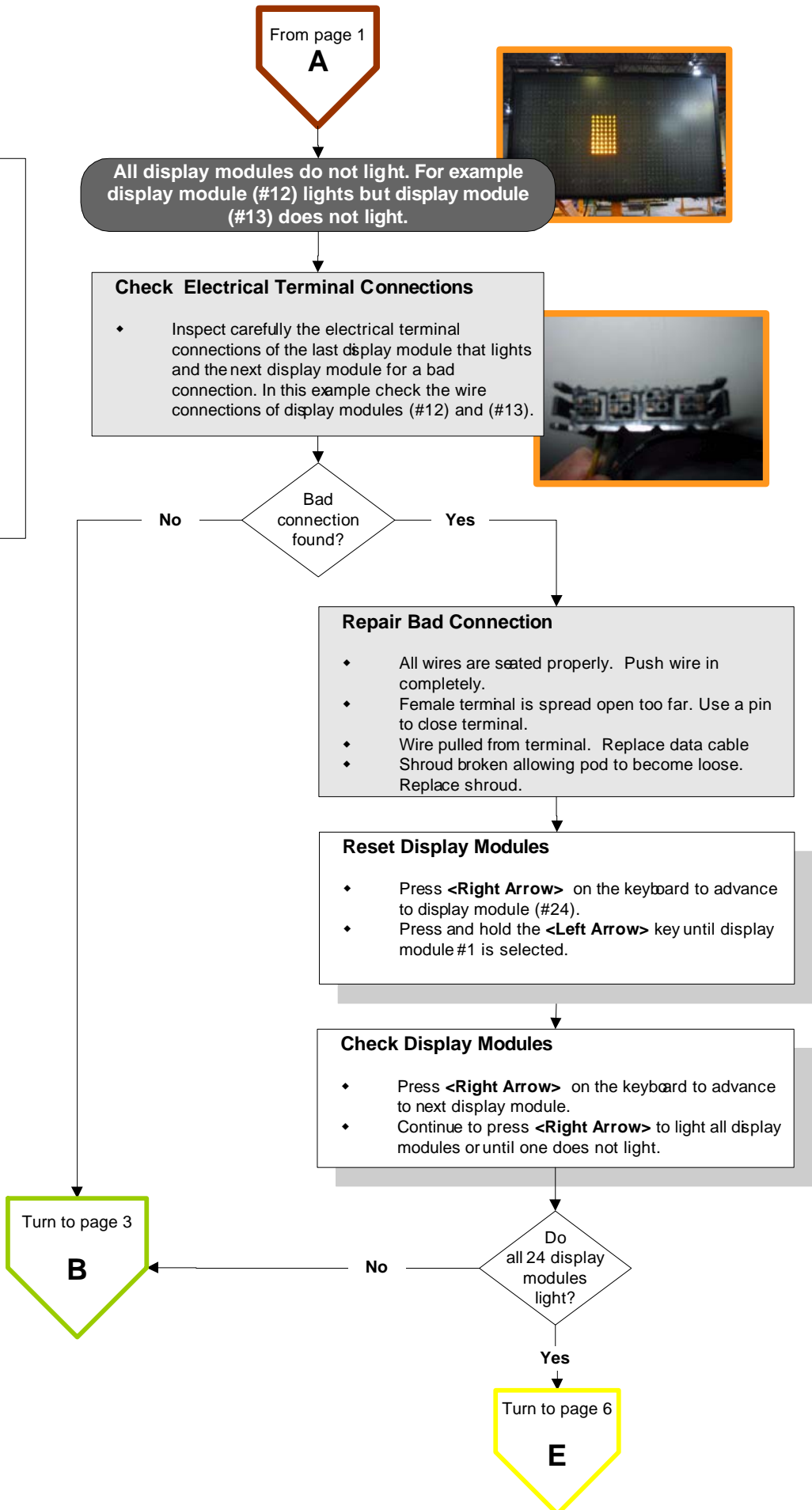
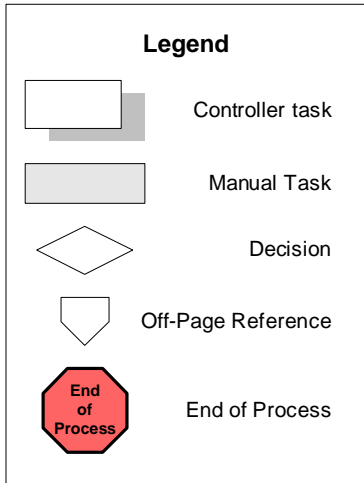
Do all 24 display modules light?

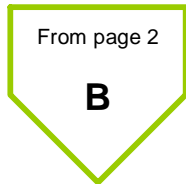
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All display modules do not light (display module (#12) lights but display module (#13) does not light).

Switch Display Modules

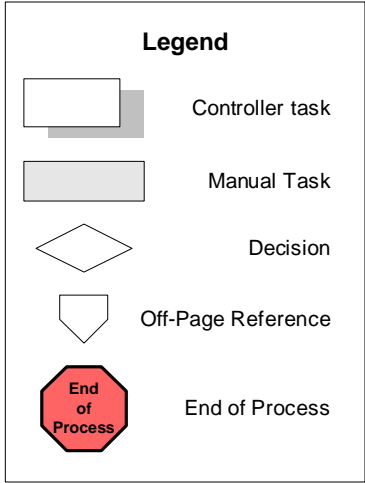
- Switch the first display module that does not light, for this example switch (#13) with display module (#24) .

Reset Display Modules

- Press **<Right Arrow>** on the keyboard to advance to display module #24.
- Press and hold the **<Left Arrow>** key until display module #1 is selected.

Check Display Modules

- Press **<Right Arrow>** on the keyboard to advance to next display module.
- Continue to press **<Right Arrow>** to light all display modules or until one does not light.

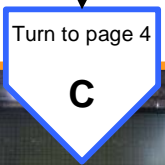


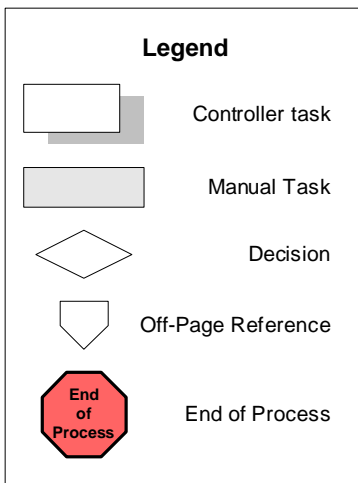
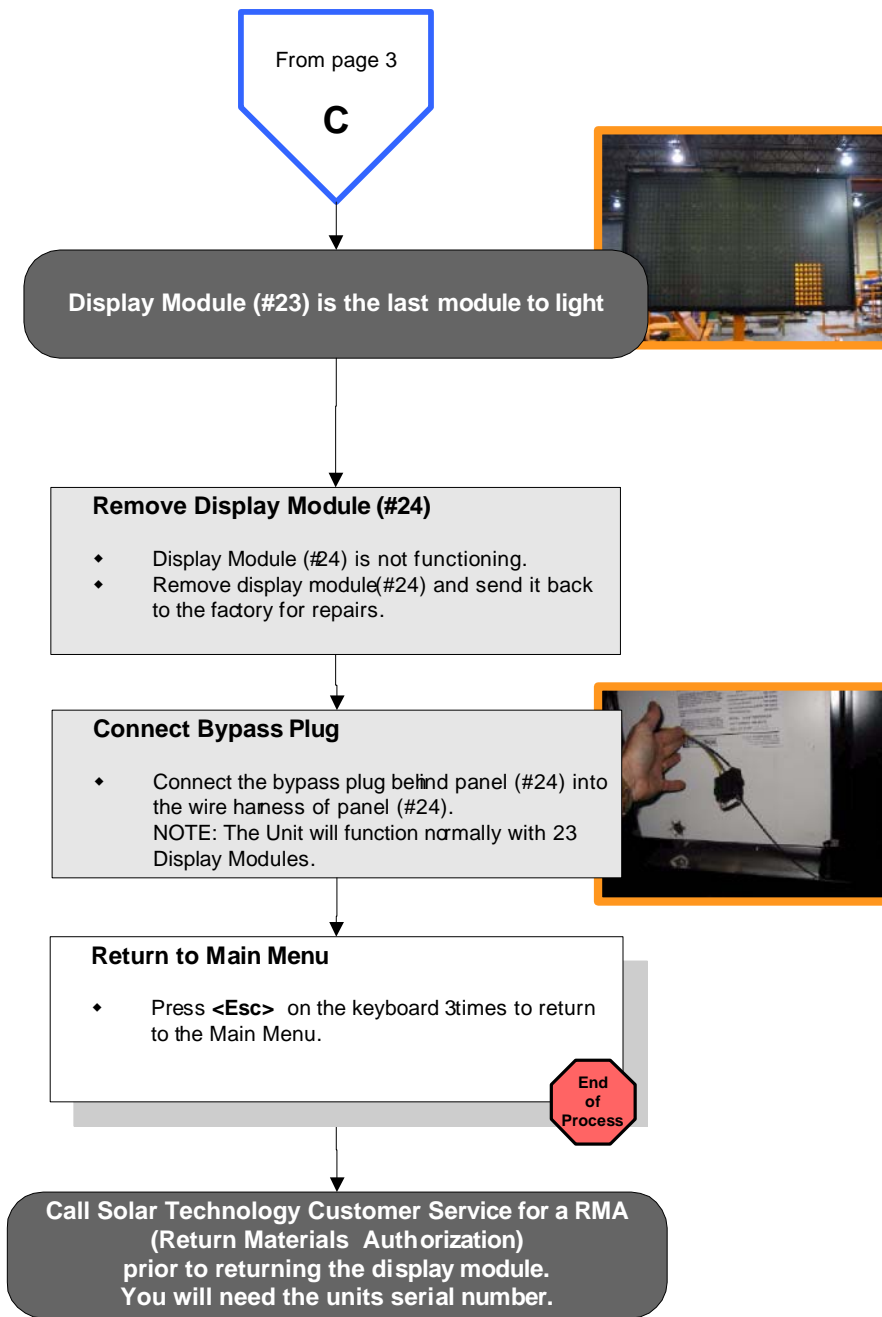
Which is the last display module to light?

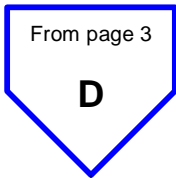
(#12)
Last to Light

(#23)
Last to Light

(#24)
Last to Light







Display Module (#12) is the last module to light.

Switch Display Modules

- Switch the last display module to light (#12) with display module (#23) to determine if data is being sent to the next module.

Reset Display Modules

- Press <Right Arrow> on the keyboard to advance to display module (#24).
- Press and hold the <Left Arrow> key until display module (#1) is selected.

Check Display Modules

- Press <Right Arrow> on the keyboard to advance to next display module.
- Continue to press <Right Arrow> to light all display modules or until one does not light.



Which Display Module is the last to light?

Replace Data wire

- Replace the data wire between (#12) and (#13) display modules.

Remove Display Module (#23)

- Display Module (#23) is not sending data to display module (#24).
- Remove display module (#23) and send it back to the factory for repairs.

Relocate Display Module (#24)

- Remove Display Module #24 and put it in position (#23).

Connect Bypass Plug

- Connect the bypass plug behind panel (#24) into the wire harness of panel (#24).
NOTE: The Unit will function normally with 23 Display Modules.

Return to Main Menu

- Press <Esc> on the keyboard 3 times to return to the Main Menu.

Call Solar Technology Customer Service for further assistance.



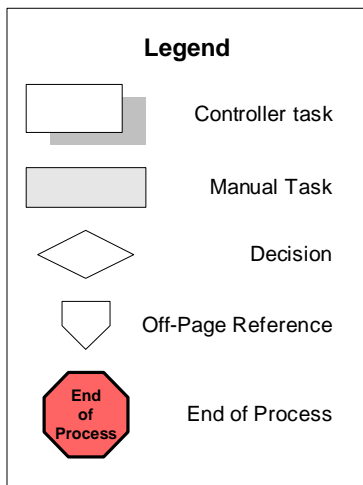
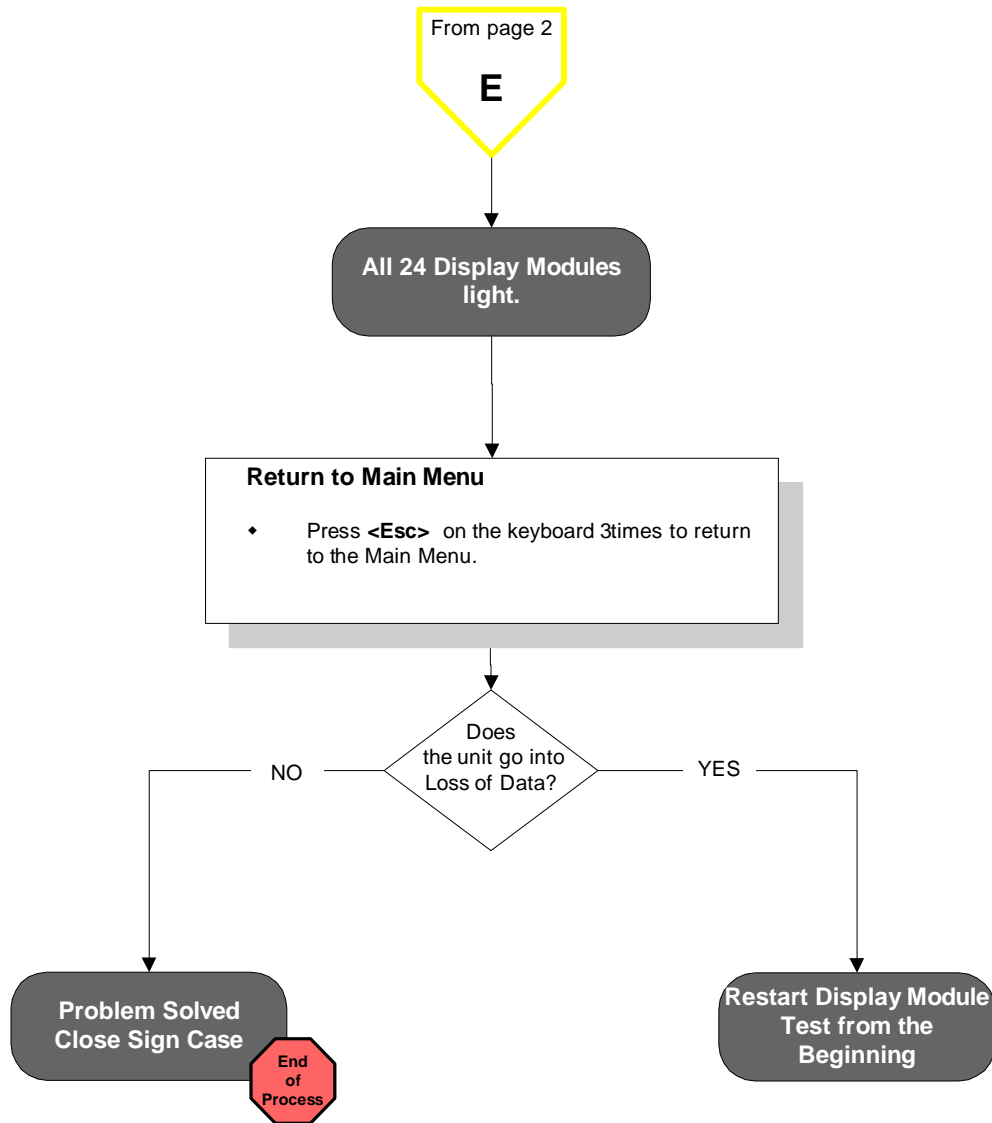
Call Solar Technology Customer Service for a RMA (Return Materials Authorization) prior to returning the display module. You will need the units serial #.

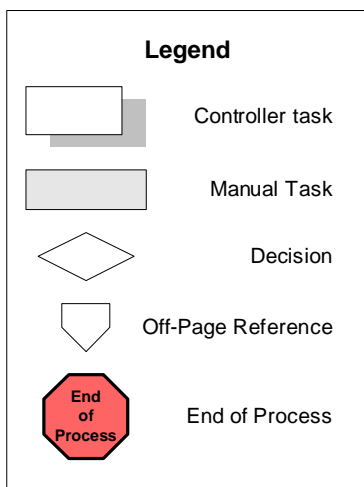
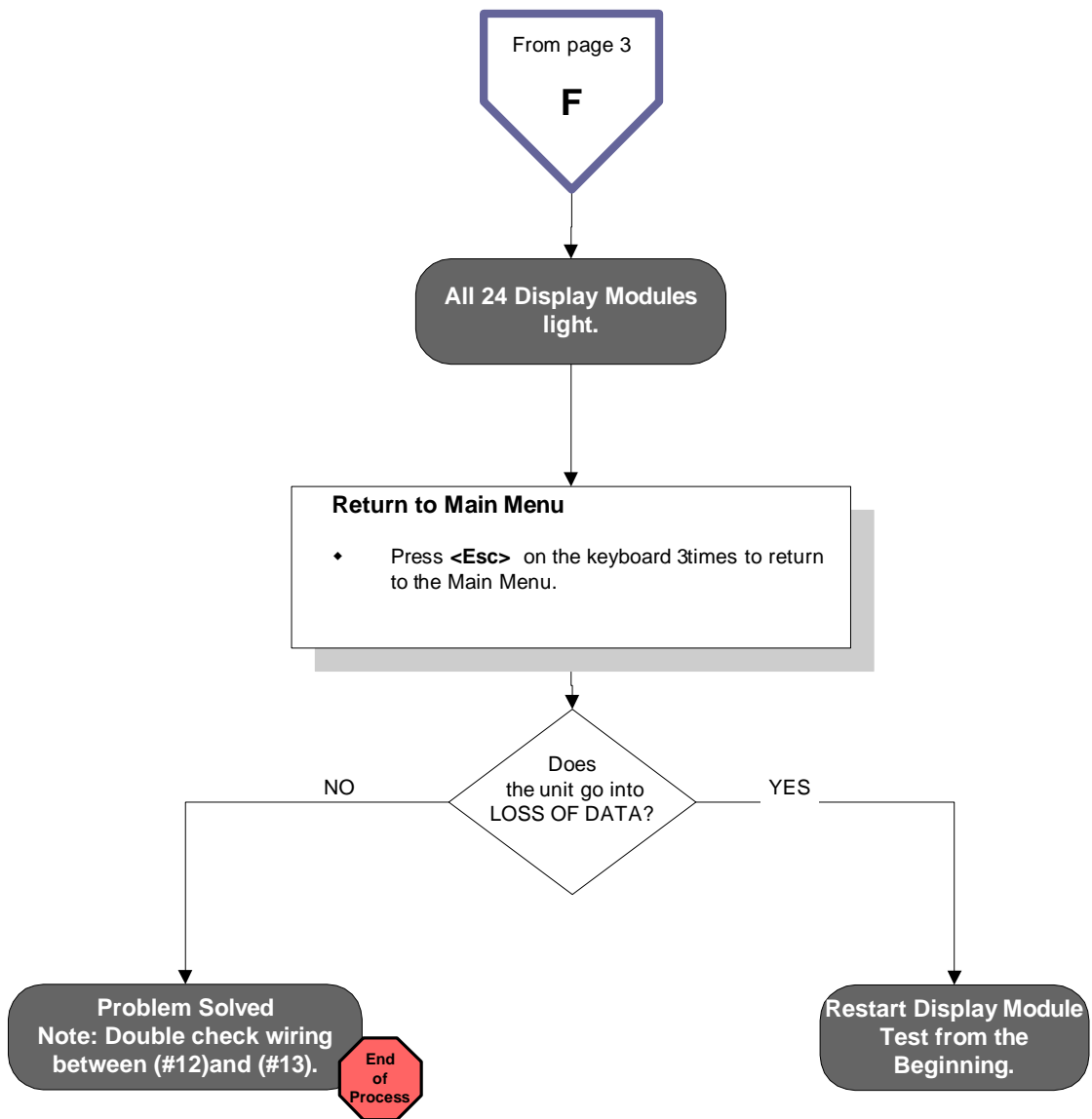


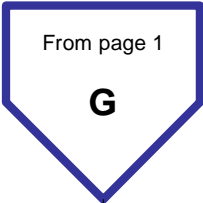
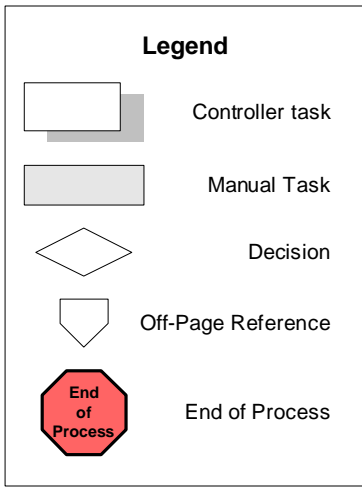
Legend

- Controller task
- Manual Task
- Decision
- Off-Page Reference
- End of Process

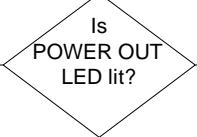






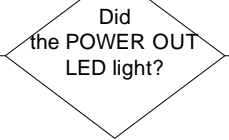


Power In LED is lit.



Test Fail Safe Circuit

- Remove the rightamp connector on the Control Console.



Replace Interconnect Board

- If available replace interconnect board with a known good interconnect board.

Replace Control Console

- If available replace control console with a known good unit.

Call Solar Technology Customer Service for further assistance.

End of Process

Check the Data Wire Connections

- Check the data wire connections at the interconnect board, energy management system and the control console.



Call Solar Technology Customer Service for further assistance.

End of Process

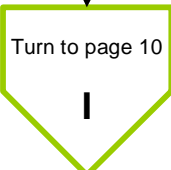
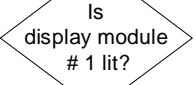


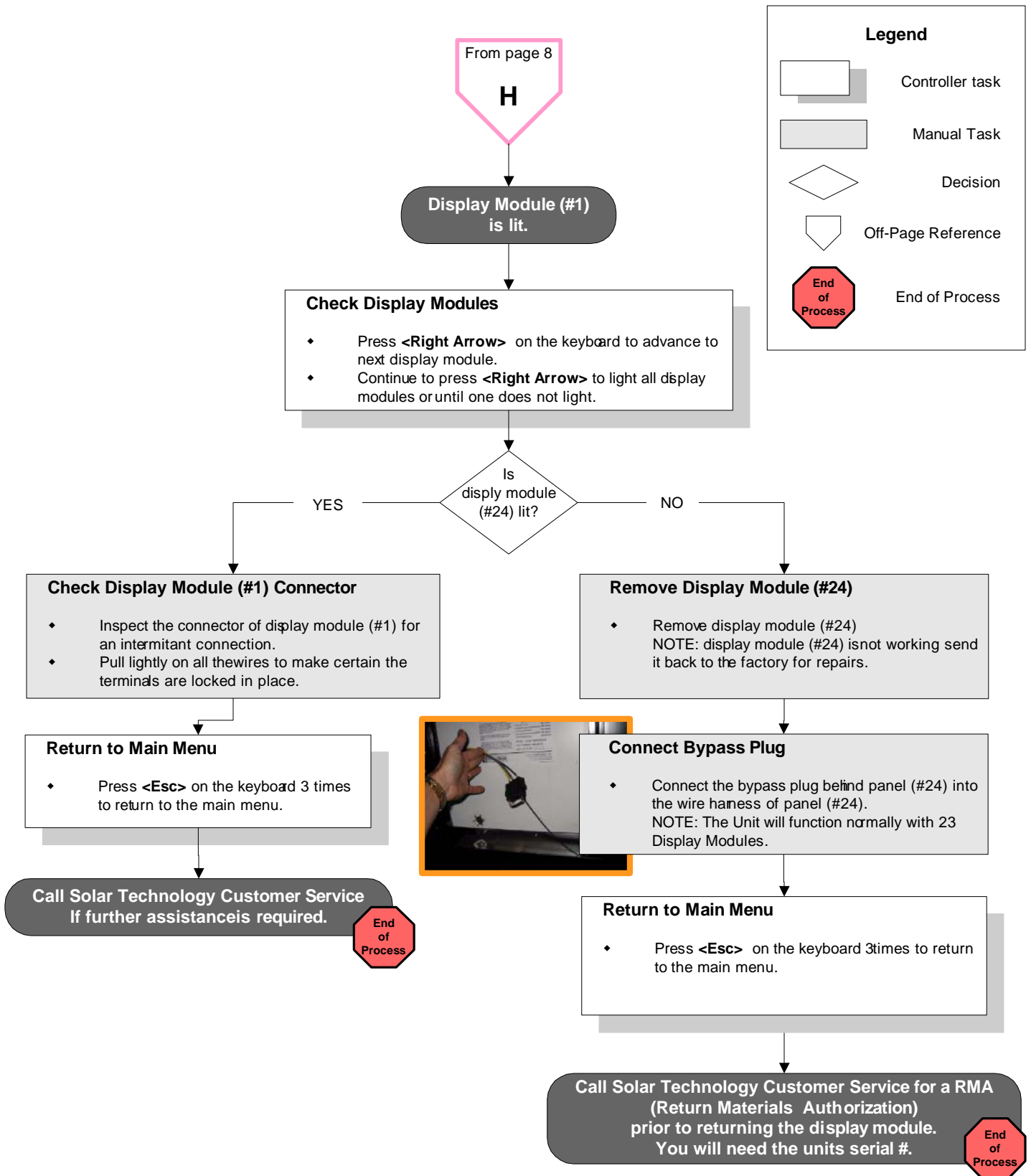
Switch Display Modules

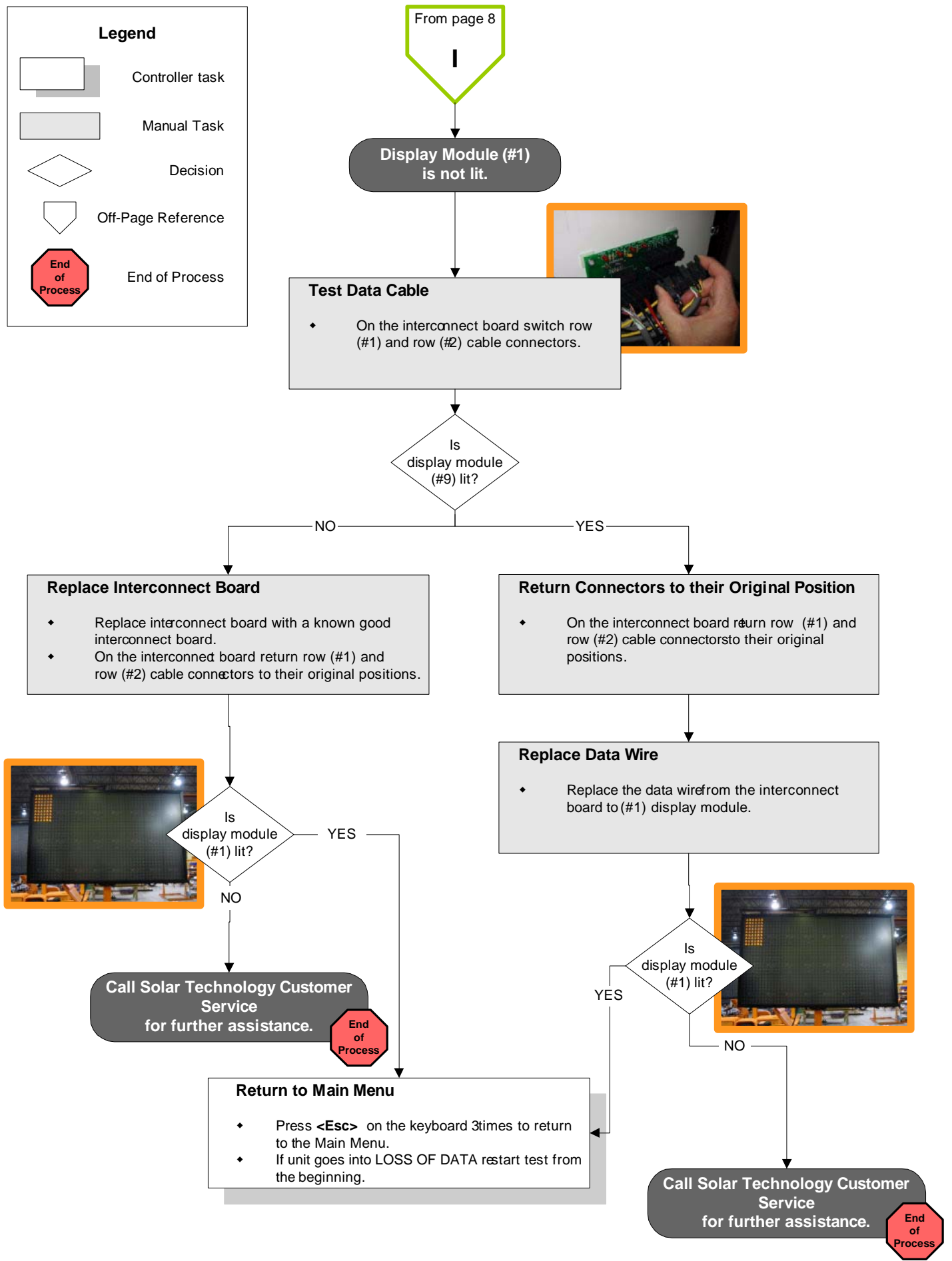
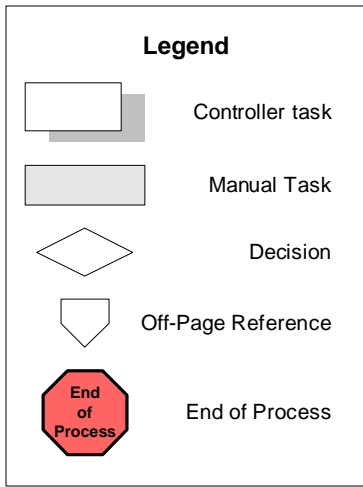
- Switch display module(#1) with display module (#24).

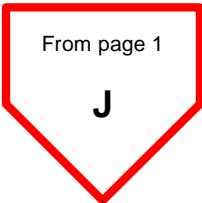
Reset Display Modules

- Press **<Right Arrow>** on the keyboard to advance to display module (#24).
- Press and hold the **<Left Arrow>** key until display module (#1) is selected.







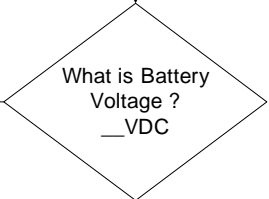


POWER IN LED is not lit.



Check Battery Voltage

- Check the Battery voltage on the LCD display of the Energy Management System.
- VDC reading under Battery Bank.



Less then 11 volts

More then 11 volts

Recharge the Battery Bank

- Using a 75 amp charger recharge unit for 28 hours.
- Using a 45 amp charger recharge unit for 36 hours.

Check Sign Power Circuit

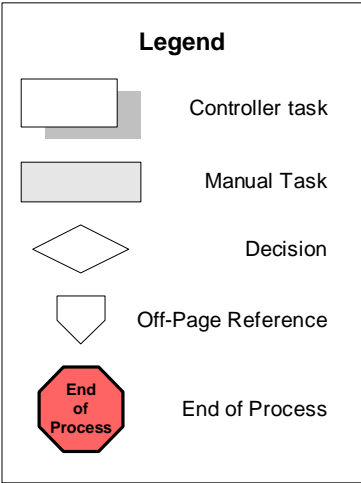
- Check connectors at interconnect board.
- Check connectors at the Energy Management System.



After batteries have recharged, restart the test from the beginning.



Call Solar Technology Customer Service for further assistance.



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All 24 Display Modules light.

Check DATA OUT LED on Interconnect Board

- ♦ Remove display module (#17) (MB) or (#18) (MB-2).
- ♦ Check the DATA OUT LED for a flickering light.
NOTE: The flickering light can be hard to see in bright sunlight. You may need to shade it with your hand.



Is the DATA OUT LED flickering?

NO

YES

Test Display Module (#24)

- ♦ Switch display module (#24) with display module (#23).

Reset Display Modules

- ♦ Press <Right Arrow> on the keyboard to advance to display module (#24).
- ♦ Press and hold the <Left Arrow> key until display module (#1) is selected.

Check Display Modules

- ♦ Press <Right Arrow> on the keyboard to advance to next display module.
- ♦ Continue to press <Right Arrow> to light all display modules or until one does not light.

Does Display Module (#24) light?

NO

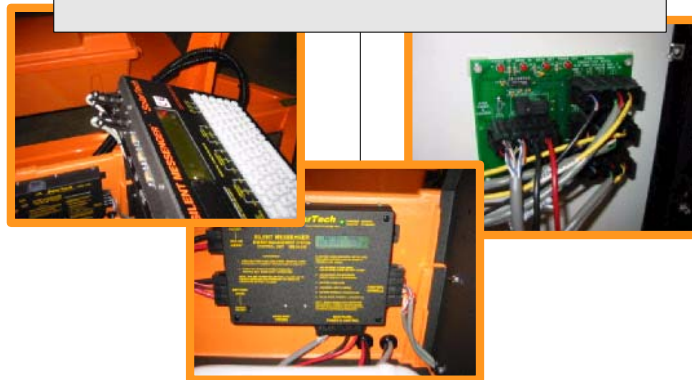
YES

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L

Check the Data Wire Connections

- ♦ Check the data wire connections at the Interconnect board, Energy Management System and the Control Console.



If no problem is found Call Solar Technology Customer Service for further assistance.

End of Process

Check Data Return Wire

- ♦ Black wire that runs from display module (#24) to the interconnect board
- ♦ Check the data out connection on display module (#24).
- ♦ Check the data connections on the DATA IN wire of row (#3) on the interconnect board.

Is the DATA OUT LED flickering?

NO

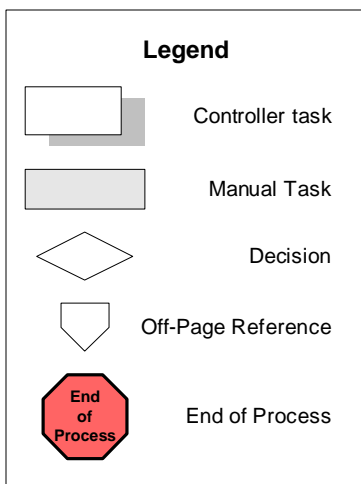
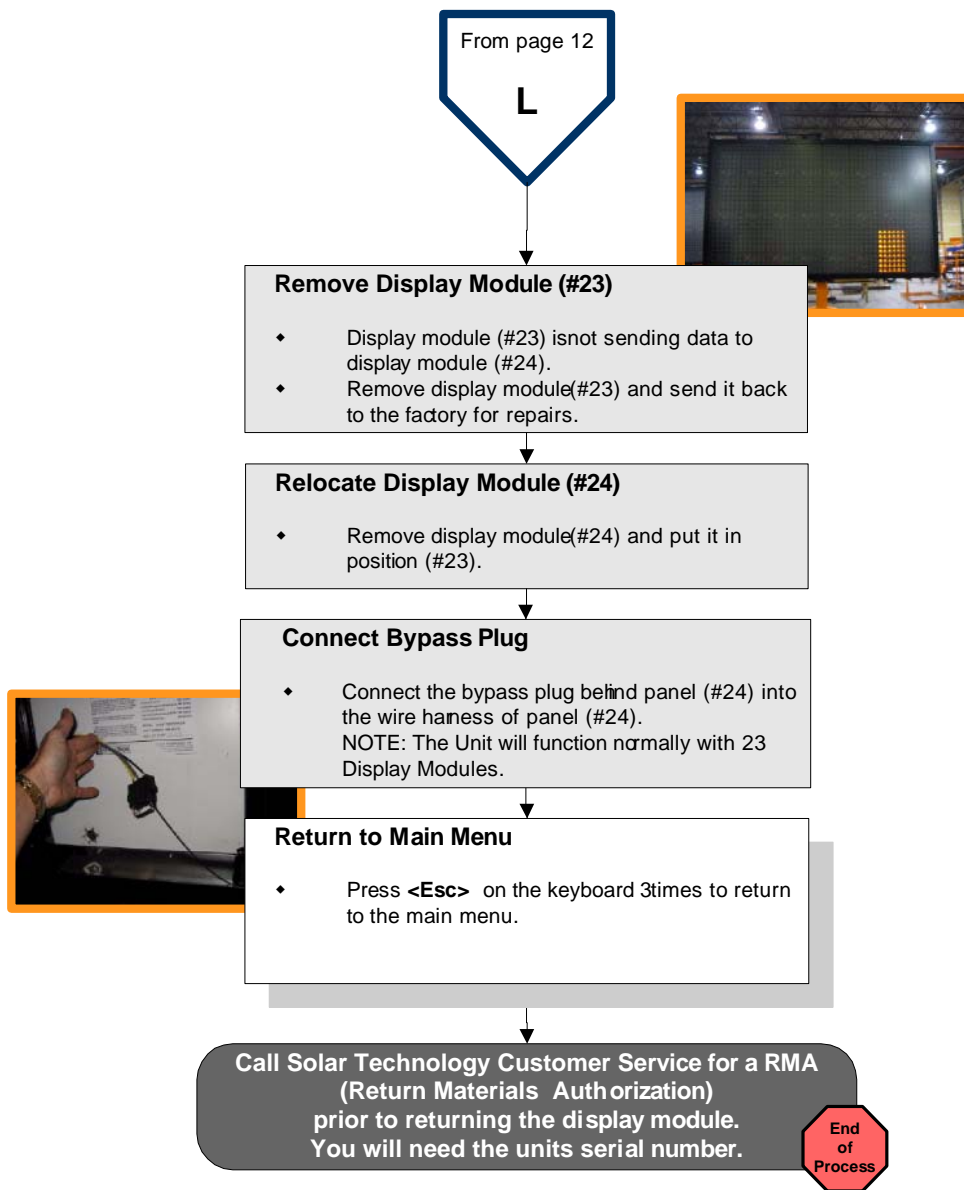
YES

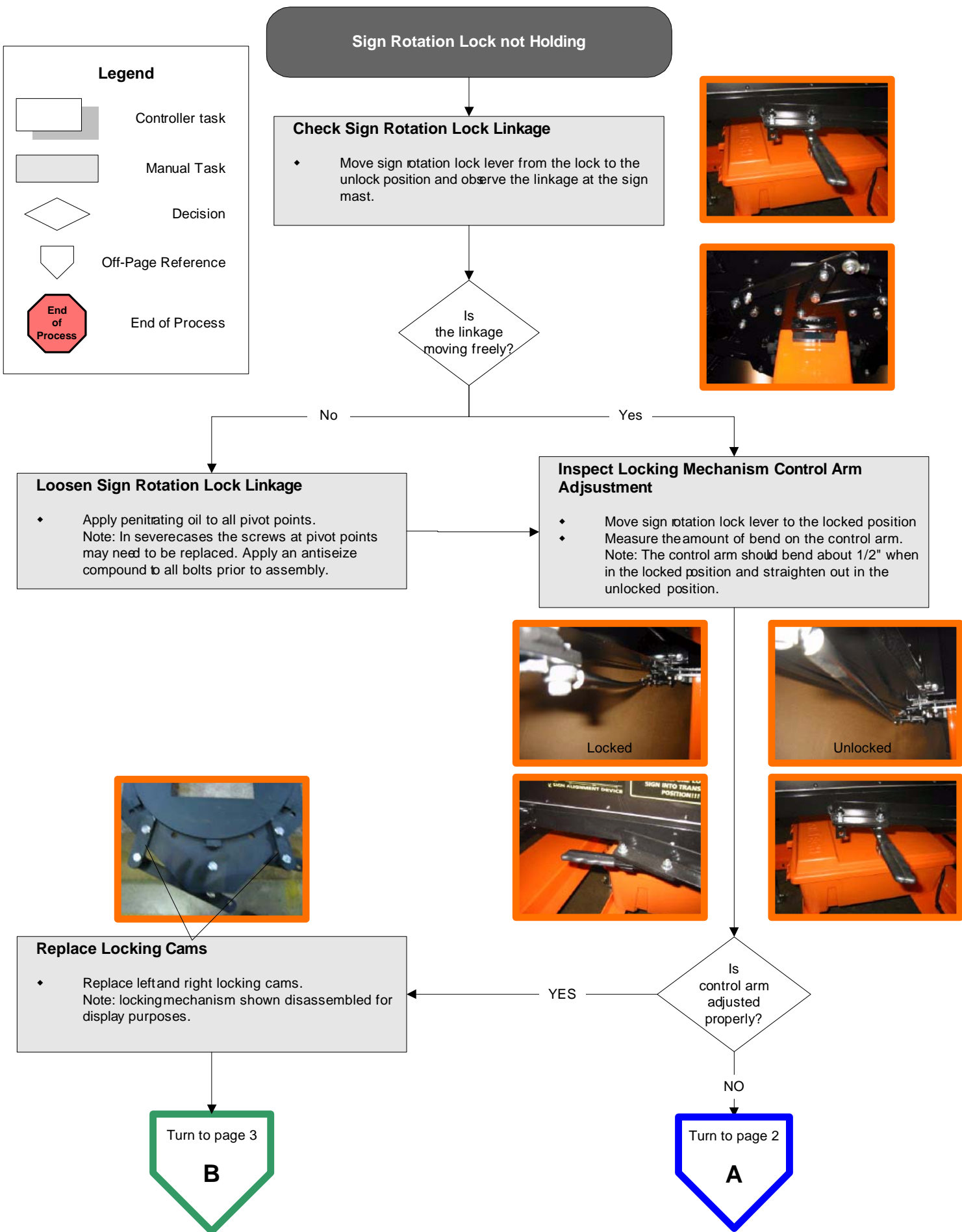
Call Solar Technology Customer Service for further assistance.

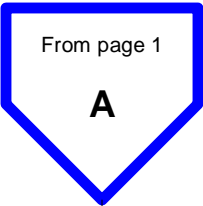
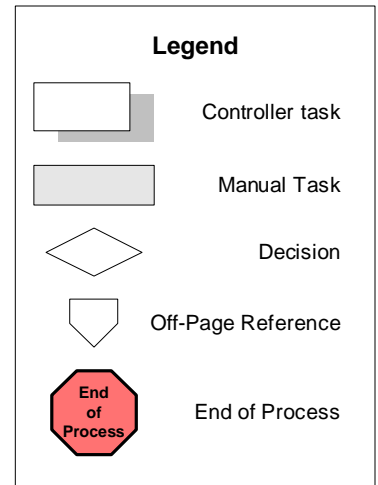
End of Process

Return to Main Menu

- ♦ Press <Esc> on the keyboard 3 times to return to the Main Menu.





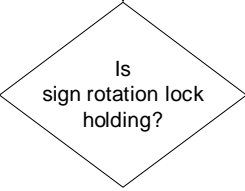


Adjust Locking Mechanism Control Arm

- ♦ Loosen nuts at both ends of the control arm.
NOTE: at one end of the control arm the clevis and nut are left handed threads the other end is normal.
- ♦ Turn the control arm to lengthen or shorten the arm.
- ♦ Tighten nuts at both ends of the control arm.

Reinspect Locking Mechanism Control Arm

- ♦ Move sign rotation lock lever to the locked position
- ♦ Measure the amount of bend on the control arm.
Note: The control arm should bend about 1/2" when in the locked position and straighten out in the unlocked position.
- ♦ Readjust the control arm if necessary.

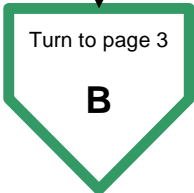


Replace Locking Cams

- ♦ Replace left and right locking cams.
Note: locking mechanism shown disassembled for display purposes.

Unlock Sign Rotation Lock

- ♦ Move rotation lock to the unlocked position
- ♦ Place sign in the travel position.
NOTE: DO NOT LOCK SIGN WHEN IN TRAVEL POSITION. This will lead to excessive cam wear.



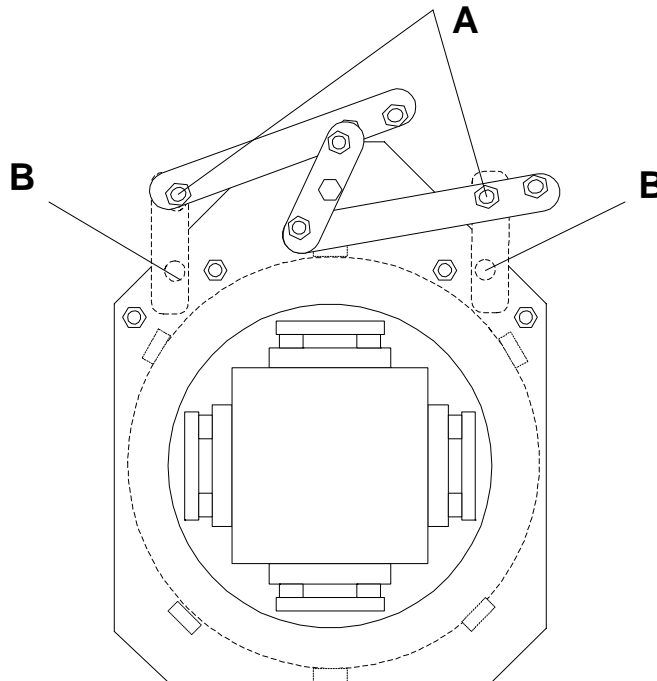
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Replace Locking Cams

Remove Locking Cams

- ◆ Replace left and right locking cams.
- ◆ Remove bolts holding cams to connecting links (item A).
- ◆ Remove bolts holding cams to rotor plate (item B).
- ◆ Slide cams out from between rotor plates.



Reinstall Locking Cams

- ◆ Slide new cams into position. Note: Cam holes are offset. Narrow side of cam goes toward center of mast.
- ◆ Reinstall bolts holding cams to rotor plate (item B).
- ◆ Reinstall bolts holding cams to connecting links (item A). Note: apply anti-seize compound to bolts to keep linkage moving freely.
- ◆ Readjust locking mechanism control arm. Instructions on page 2.

**End
of
Process**