### Notes

A. If there are issues with the equipment that are beyond the scope of work or will delay the completion of the system check, please contact the correct market Services Coordinator.
B. If water is found in the display or more than four broken gears are found, call Customer Service at 605-697-4907.
C. To access internal display components on a Galaxy AF-3200 series, open the face panel door. For all other Galaxy series displays, remove modules from the display.

### 1 Verify display information

A. Find the following information in the Work Order and enter it into the checklist:
   i. Site ID/Location
   ii. Case Number
   iii. Market

### 2 Checks upon arrival

A. As you arrive on site, verify that content is running on the display (Figure 2).
B. Verify that the temperature reading is reasonably accurate (if displayed).
C. If equipped, check the temperature sensor for proper mounting (Figure 3).
   i. The sensor should be mounted vertically, above vegetation, at a northern exposure, and shaded from direct sunlight.
   ii. If mounted incorrectly, note on checklist.
D. Confirm the following information:
   i. Display height
   ii. Is a lift or ladder needed?
   iii. Restrictions or access issues around the display

### 3 Check IP Address, start test patterns, and verify all LEDs turn on

A. Obtain display’s IP address or DHCP name and document on checklist by either:
   i. Power cycling the display to obtain the IP address from the startup sequence.
   ii. Using the Display Finder utility to discover the IP address.
B. Initiate Test Patterns on the display:
   i. Venus 1500 controlled displays:
      - Locate the Venus 1500 computer and initiate test patterns
   ii. Venus Control Suite controlled displays:
      - Use the IP address or DHCP name to log into the Remote Display Configuration Utility.
      - Use the Remote Display Configuration Utility to check redundancy and Port A/B errors.
      - Start Test Patterns using Remote Display Configuration Utility.
C. Return to the display:
   i. Check both sides of the display for blank LEDs or other visual issues.

### 4 Check physical appearance of display

A. Look for any damage to modules (Figure 4) and the cabinet structure.
   i. For Galaxy AF-3200 displays, check the face panel door for signs of leaking or damage.
   ii. If any damage or issues are present, take photos to include with the checklist.

### 5 Check display for loose moduls and water damage

A. Check display face for modules that are not flush with the rest of the modules (Figure 5).
   i. If any modules are loose, remove them and check for stripped or broken gears.
B. As modules are removed in this step:
   i. Look for water stains on cabinet back sheet.
   ii. Inspect module gaskets.
   iii. Check for signs of corrosion (Figure 6) on modules and other product boards.

### 6 Verify ventilation fans turn on in display

A. Access the display thermostat in the upper left corner of the display:
   i. Look for water stains on cabinet back sheet.
   ii. Inspect module gaskets.
   iii. Check for signs of corrosion (Figure 6) on modules and other product boards.
B. Press and hold the button on the thermostat (Figure 7) to test fans (if equipped):
   i. Fans (Figure 8) should turn on while button is pressed.
   ii. Fans will turn off when button is released.
   iii. Listen for clingy, grinding, or other unusual noises during fan operation.
   iv. Replace fans that make unusual noise or do not turn on.
### Task: Check display filters (If equipped)

<table>
<thead>
<tr>
<th>Step</th>
<th>Key Points / Reason Why</th>
<th>Tools / Skills / Info Required</th>
<th>Cycle Time</th>
</tr>
</thead>
</table>
| 7    | A. If filters are present, remove and clean/replace.  
     | B. If no filters are present, skip to Step 7. | - Allen wrench 1/8"  
     |  | - Volt Meter | 1/8" Allen wrench  
     |  |  | Volt Meter |

### Task: Check controller connections

<table>
<thead>
<tr>
<th>Step</th>
<th>Key Points / Reason Why</th>
<th>Tools / Skills / Info Required</th>
<th>Cycle Time</th>
</tr>
</thead>
</table>
| 8    | A. Access the controller located in the bottom left corner of the primary face.  
     | i. Look for water stains on cabinet back sheet.  
     | ii. Inspect module gaskets.  
     | iii. Check for signs of corrosion on modules and other product boards.  
     | B. On the controller:  
     | i. Check for loose connections (ribbon cables, light sensor, etc.).  
     | ii. If the customer is reporting issues with the display, check the input voltage to the controller.  
     | For M2 and M3 controllers: Input voltage should be 11AC ± 1 volt. | - Flashlight  
     |  |  | 1/8" Allen wrench  
     |  |  | Black Electrical Tape |

### Task: Test functionality of light sensor

<table>
<thead>
<tr>
<th>Step</th>
<th>Key Points / Reason Why</th>
<th>Tools / Skills / Info Required</th>
<th>Cycle Time</th>
</tr>
</thead>
</table>
| 9    | A. Locate the light sensor in the bottom left corner of the primary face.  
     | B. Shine a flashlight into the lens or cover the lens using a dark colored tape.  
     | i. If using flashlight: display will brighten in approximately 3 minutes.  
     | ii. If covering with tape: display will dim in approximately 10 minutes.  
     | C. Remove light source or tape from light sensor.  
     | o. The display should dim or brighten appropriately. | - Volt Meter  
     |  |  | Volt Meter  
     |  |  | Nut Driver  
     |  |  | 1/8" Allen wrench |

### Task: Check incoming power to display's breaker panel

<table>
<thead>
<tr>
<th>Step</th>
<th>Key Points / Reason Why</th>
<th>Tools / Skills / Info Required</th>
<th>Cycle Time</th>
</tr>
</thead>
</table>
| 10   | Note: Complete this step only if the customer has reported issues with the display. If no issues are present, proceed to Step 10.  
     | A. Locate display breaker panel in display cabinet.  
     | B. Remove enclosure cover.  
     | C. Record voltage reading in notes on checklist and CVS PM Report (if applicable). | - Volt Meter  
     |  |  | Volt Meter  
     |  |  | Nut Driver  
     |  |  | 1/8" Allen wrench |

### Task: Check quick connect board on primary face

<table>
<thead>
<tr>
<th>Step</th>
<th>Key Points / Reason Why</th>
<th>Tools / Skills / Info Required</th>
<th>Cycle Time</th>
</tr>
</thead>
</table>
| 11   | A. Remove module on primary face to look for corrosion (Figure 6), discoloration, or other evidence of water damage on mod, back sheets, and quick connect board.  
     | B. If accessible, locate the Interconnect cable between the Primary and Mirror faces and visually confirm that it is connected properly (Figure 11). | - Flashlight  
     |  |  | Wireless Ethernet Bridge Installation Quick Guide |

### Task: Check communication equipment

<table>
<thead>
<tr>
<th>Step</th>
<th>Key Points / Reason Why</th>
<th>Tools / Skills / Info Required</th>
<th>Cycle Time</th>
</tr>
</thead>
</table>
| 12   | A. Locate the communication box or radio and check for proper mounting.  
     | i. If communication equipment is mounted improperly, add a note on the checklist.  
     | B. If equipped with Ethernet Bridge Radios,  
     | i. Locate the server radio on the building (Figure 12).  
     | ii. Verify antennas of both radios are parallel and in line of sight (Figure 13).  
     | C. Check for loose connections. | - Wireless Ethernet Bridge Installation Quick Guide  
     |  |  |  |

### Task: Mirror side checks

<table>
<thead>
<tr>
<th>Step</th>
<th>Key Points / Reason Why</th>
<th>Tools / Skills / Info Required</th>
<th>Cycle Time</th>
</tr>
</thead>
</table>
| 13   | A. Locate the Quick Connect cable on the back of the mirror side to determine the location of the Quick Connect board.  
     | B. Access the Quick Connect board.  
     | i. Look for corrosion (Figure 6), discoloration, or other evidence of water damage on modules, back sheets, and the quick connect board.  
     | C. Remove an additional module from the mirror side to access the PUR or MLC (if equipped).  
     | i. Look for water stains on cabinet back sheet.  
     | ii. Inspect module gaskets.  
     | iii. Check for signs of corrosion on modules and other product boards. | - Volt Meter  
     |  |  | Volt Meter |

### Task: Check Ground Resistance of Display

<table>
<thead>
<tr>
<th>Step</th>
<th>Key Points / Reason Why</th>
<th>Tools / Skills / Info Required</th>
<th>Cycle Time</th>
</tr>
</thead>
</table>
| 14   | A. Verify ground wires are attached to the back of the display cabinet using ground lugs.  
     | B. Locate the ground rod near the display.  
     | i. If the ground rod is accessible, measure the ground resistance (Figure 14).  
     | ii. Ground resistance must be less than 10 ohms.  
     | iii. Document ground reading on checklist. | - Ground Meter  
     |  |  | Ground Meter |

### Task: Spare Parts Count

<table>
<thead>
<tr>
<th>Step</th>
<th>Key Points / Reason Why</th>
<th>Tools / Skills / Info Required</th>
<th>Cycle Time</th>
</tr>
</thead>
</table>
| 15   | A. If the customer has spare parts:  
     | i. Perform a count of all spare parts and indicate type and quantity on checklist  
     | ii. Note location of spare parts on checklist |   | - 1/8" Allen wrench |

**Total Cycle Time:**