

Product(s) Affected: IntelliGuide v23 and v60 products

Risk <input type="checkbox"/> Human Safety - personal injury may occur <input type="checkbox"/> Tool Safety - tool damage may occur <input checked="" type="checkbox"/> Product Safety - product damage may occur <input type="checkbox"/> No Safety Risk	Repair Method <input checked="" type="checkbox"/> Repair On Tool <input type="checkbox"/> Repair Off Tool <input type="checkbox"/> Repair Center <input type="checkbox"/> No Repair Required
Priority <input type="checkbox"/> Urgent - Immediate Proactive Action Required <input type="checkbox"/> Next Visit - Prompt Action Required <input checked="" type="checkbox"/> As Required - On Customer Request <input type="checkbox"/> Information Only	Parts Disposition <input checked="" type="checkbox"/> Return Old Parts for Analysis <input type="checkbox"/> Return Old Parts for Repair <input type="checkbox"/> Dispose of Old Parts in Appropriate Manner <input type="checkbox"/> No Parts Required
Action <input type="checkbox"/> Mandatory – All Affected Tools <input type="checkbox"/> Recommended – Check with Customer <input checked="" type="checkbox"/> On Failure <input type="checkbox"/> No Action Required	Distribution <input type="checkbox"/> Brooks Field Service, Support, Repair <input type="checkbox"/> Brooks and OEMs <input checked="" type="checkbox"/> Brooks, OEMs, and End Users <input type="checkbox"/> Brooks and Specific Groups/OEMs/End Users
Reason <input checked="" type="checkbox"/> Hardware Issue <input type="checkbox"/> Software Issue <input type="checkbox"/> Operation Issue <input type="checkbox"/> Maintenance Issue <input type="checkbox"/> Information or Documentation <input type="checkbox"/> Other	Billing <input checked="" type="checkbox"/> Retrofit – no charge <input type="checkbox"/> Upgrade – billable <input type="checkbox"/> Standard Warranty <input type="checkbox"/> Other Warranty, see explanation below <input type="checkbox"/> No Billing

Purpose of this TSB

This Technical Service Bulletin (TSB) addresses potential hardware failure of the front and bottom-facing LED PCBAs or IntelliGuide vision processor of the IntelliGuide v23 and v60 products.

Affected Product(s)

Part Numbers: PF0V-MA-00400-4, PF0V-MA-00400-7, PF0V-MA-00400-12, PF0V-MA-0040X-4, PF0V-MA-0040X-7, PF0V-MA-0040X-12, PF30-MA-0040X-4-V23, PF30-MA-0040X-7-V23, PF30-MA-0040X-12-V23, PF30-MA-0040X-4-V60, PF30-MA-0040X-7-V60, PF30-MA-0040X-12-V60, PFC0-MA-00010-05-V23, PFC0-MA-00010-10-V23, PFC0-MA-00010-14-V23, PFC0-MA-00010-05-V60, PFC0-MA-00010-10-V60, PFC0-

MA-00010-14-V60, 397209, 601388, PF0V-MA-00001-1, PF3V-MA-00001-1, PF0V-MA-C1001-1, PF3V-MA-C1001-1, PF0V-MA-00001-2, PF3V-MA-00001-2

Cause

The failure may occur upon powering up the IntelliGuide vision gripper or turning the LEDs on.

The gripper functions (position and force control) of the IntelliGuide v23 and v60 grippers remain functional even after the mentioned failure modes.

Resolution

The LED PCBA has been updated from Rev B01 (capacitor C5 with 35V rating) to Rev B02 (capacitor C5 upgraded to 50V rating). Brooks tested >40,000 power cycles without failure.

Field-replaceable IntelliGuide cover subassembly will be provided to customers upon failure. The subassembly includes the IntelliGuide vision processor, cameras (qty 2), and Rev B02 LED boards (qty 2) and the cover.

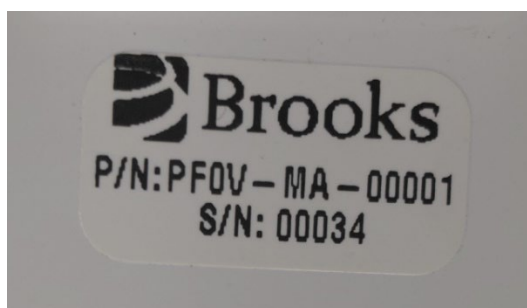


Figure 1: Example label applied to existing IntelliGuide vision grippers, with part and serial numbers

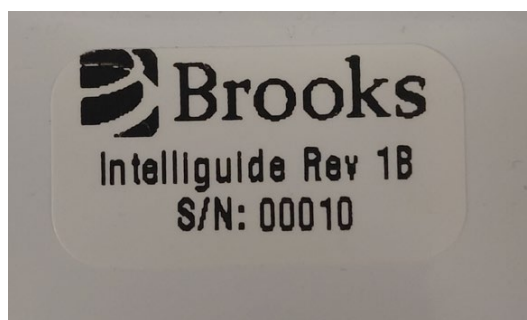


Figure 2: Example label applied to new, field-replaceable subassemblies, with revision and serial numbers

Replacement options:

1. Replace existing IntelliGuide cover subassembly with new subassembly
 - Requires compatibility check between calibration model on new IntelliGuide vision processor and runtime library

If users experience a failure as described above, issue a replacement request to support_preciseflex@brooks.com along with serial number and part number of PreciseFlex robot.

Replacement procedure is provided below.

Additional Warranty Information

Products beyond their initial warranty period with the affected IntelliGuide vision gripper hardware failure will be eligible for replacement parts (IntelliGuide vision gripper subassembly) at no cost. This additional warranty period to be up to one (1) year beyond the original warranty.

Tools Required

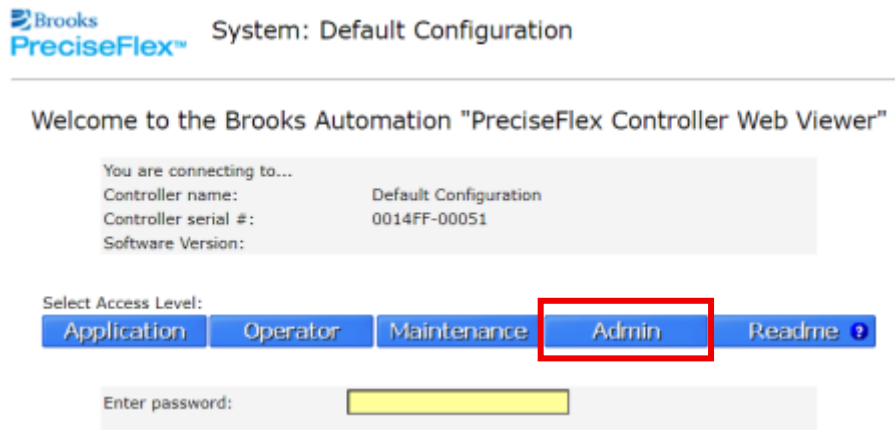
Quantity	Description
1	M1.3 Hex Driver
2	M2 Hex Driver

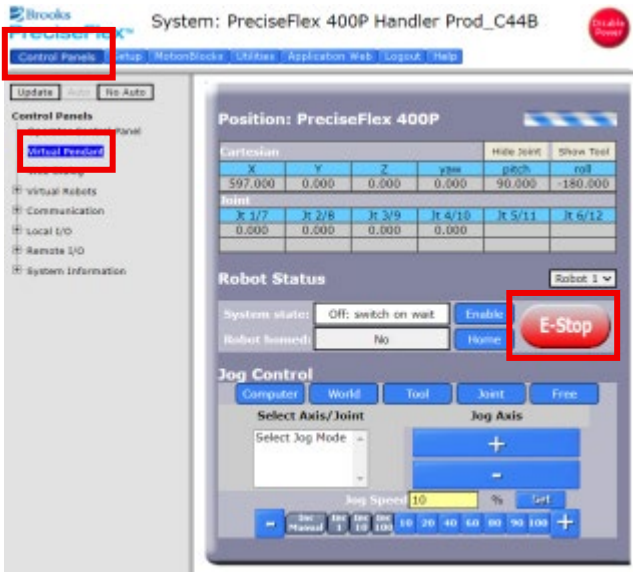

Materials Required


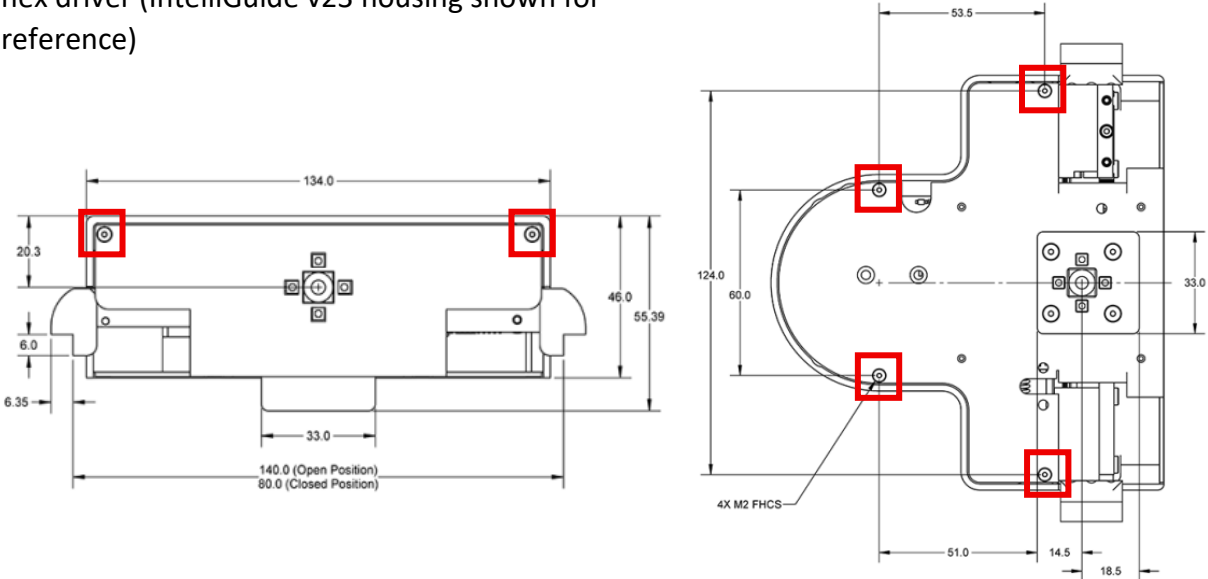
One of the following:

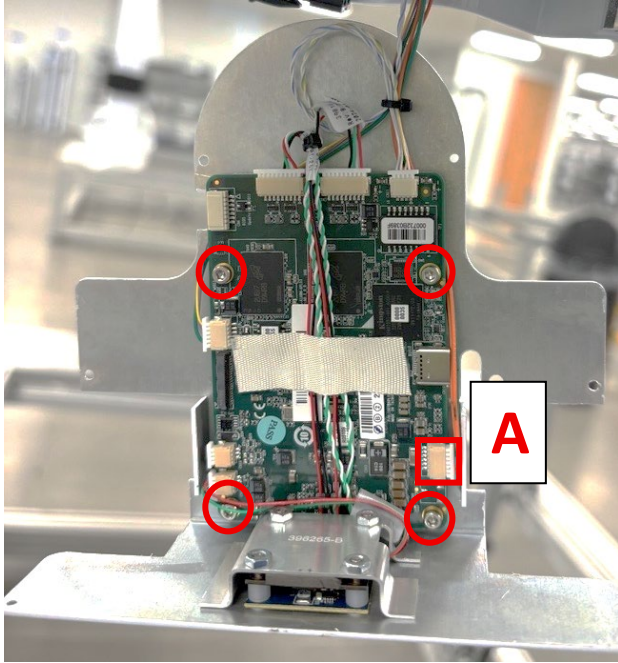
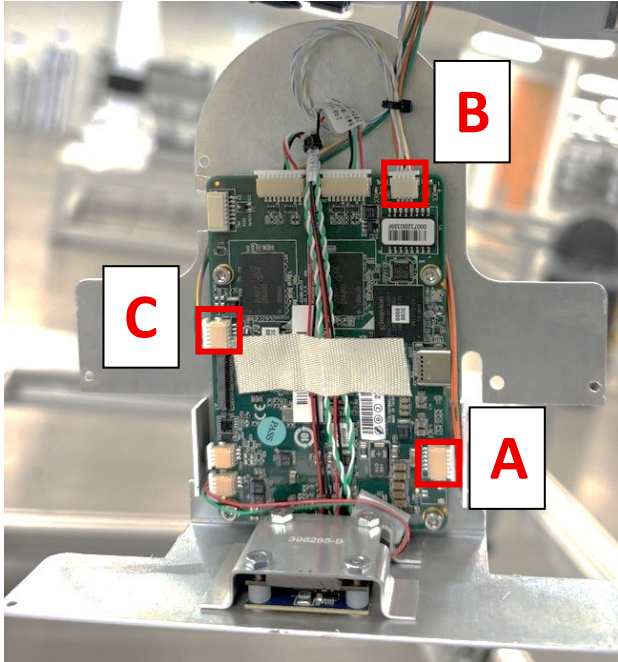
Part Number	Quantity	Description
610398	1	ASSY,COVER,GRIPPER,P009-WH14 PC,23N WITH VISION
610810	1	ASSY,COVER,GRIPPER,P009-WH14 PC,60N WITH VISION

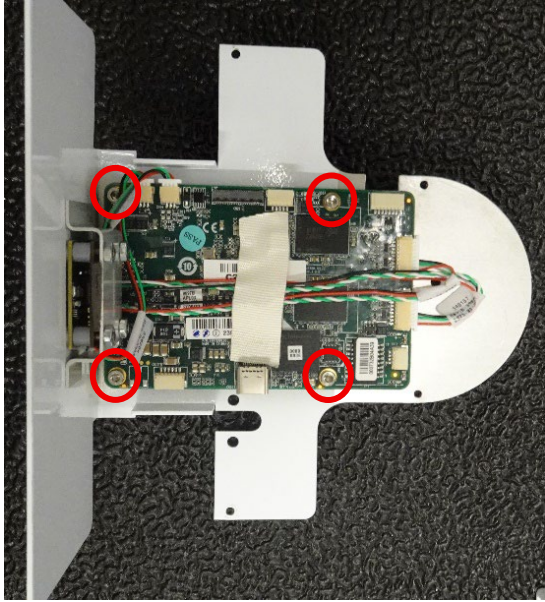
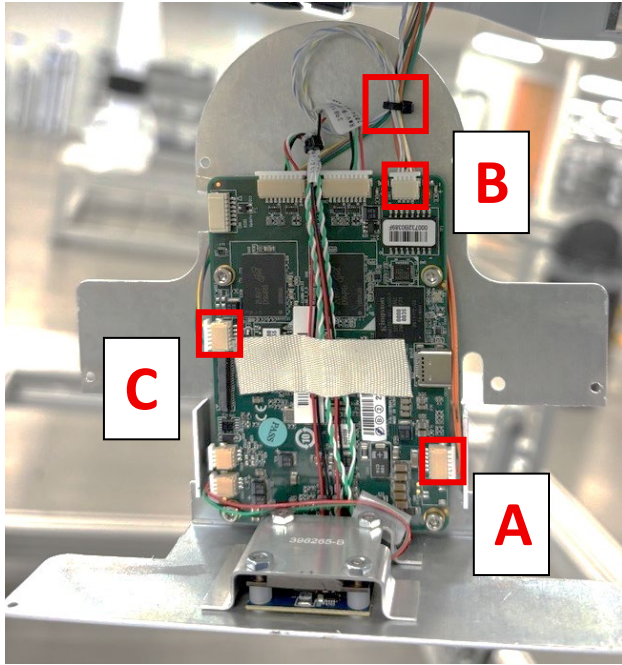
Procedure – Replacement

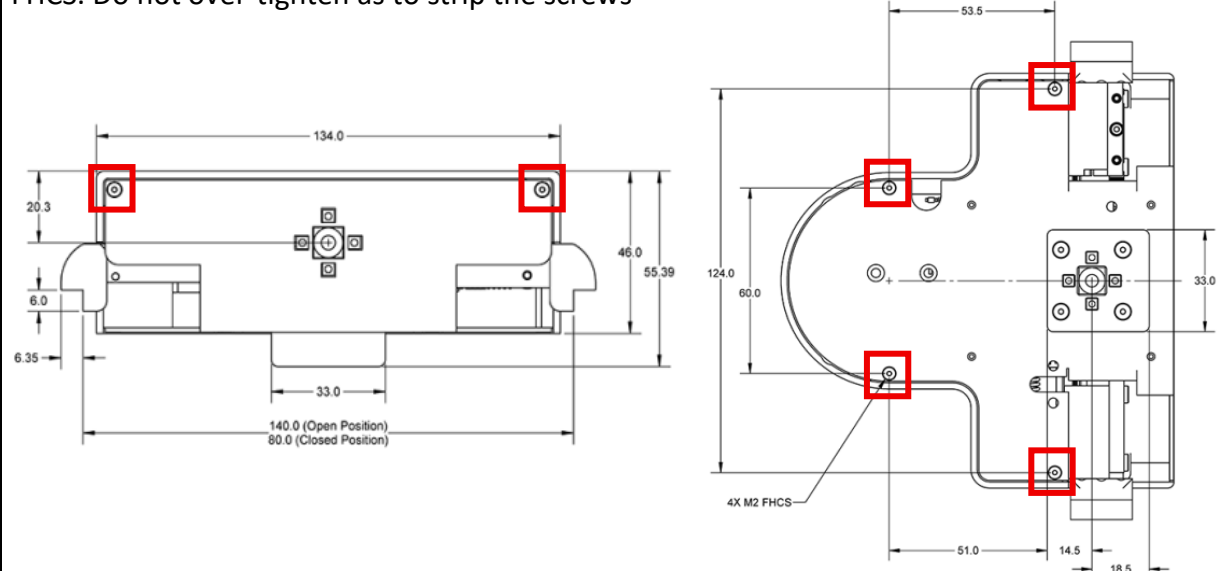
Step	Action
1.	<p>Navigate to the web server using your preferred web browser and enter the IP address of the robot controller into the search bar. Navigate to the virtual control pendant by pressing Admin</p> 

Step	Action
2.	<p>Navigate to the virtual control pendant with Control Panels > Virtual Pendant. Disable motor power with the virtual pendant by pressing E-Stop</p> 
3.	<p>If possible lower the robot arm closer to a working surface by pressing on the brake release button underneath the inner link (brake release button on PreciseFlex 400 robot shown for reference)</p> 

Step	Action
4.	<p>Turn off AC power by flipping the green AC switch to the off position (facilities panel of PreciseFlex 400 robot shown for reference)</p> 
5.	<p>Remove 6x M2-6 FHCS from the IntelliGuide vision gripper cover subassembly with an M1.3 hex driver (IntelliGuide v23 housing shown for reference)</p> 

Step	Action
6.	<p>Loosen the 4x M2.5-6 SHCS with an M2 hex driver and lift the IntelliGuide vision processor board up enough to clear connector A from the sheet metal tab</p> 
7.	<p>Disconnect the following slip-ring plugs from the IntelliGuide vision processor connectors</p>  <p> A: 24 VDC Power Input (6 pin) B: Ethernet (4 pin) C: Digital Output (5 pin) </p>

Step	Action
8.	<p>With new subassembly (PN 610398 OR PN 610810), repeat step 6 from above</p> 
9.	<p>With new subassembly (PN 610398 OR PN 610810), install the following slip-ring plugs into the IntelliGuide vision processor connectors. Route the cables for plugs A and C under the board as shown. Zip tie the cables from plugs A, B and C together as shown. Tighten the 4x M2.5-6 SHCS</p>  <p>A: 24 VDC Power Input (6 pin) B: Ethernet (4 pin) C: Digital Output (5 pin)</p>

Step	Action
10.	<p>Fasten the IntelliGuide vision gripper cover subassembly to the housing with the 6x M2-6 FHCS. Do not over-tighten as to strip the screws</p> 

Revision History:

Revision	ECO	Date	Action	Author
A	EC158080	9/25/2025	Initial Release	Dalton Dodge