




# INBOUND Q&C TEST REPORT #: 14 G

Use number and year letter labeling: (Example 23 B)

<b>Inbound Date:</b> 7/17/18		<b>Inspector(s):</b> Chris / Bill V.		
<b>PO Number:</b> 1119		<b>Order quantity:</b> 200 <b>Test quantity:</b> 20		
<b>Model/Part Numbers:</b> SM05J (200) (added 200 ADD25F pretested)				
<b>Serial Numbers:</b> SM05J 6223 - 6424				
<b>Released for inventory:</b> <b>Y</b> <del>N</del>		<b>Date:</b> 7/20		<b>Quantity</b>
<b>Pre-shipment inspection</b> <del>Y</del> <b>N</b>		<b>AI</b>	<b>QC</b>	<b>Passed US</b>

	Description	Method	Sample Size # of units/systems	Result / Reading
1.	Function check (DVRs Only)	1, Insert a memory card, connect the power, power on. Was recording auto start? 2, Set (date, time, time video, etc.); 3, playback (video, photo) Power down, restart and check functions. No malfunction	NA	
2.	Assembly check & Contents Check	Assemble the unit according to the description. (e.g. user manual or instruction sheet or any packing). Ease of assembly on production line.	200	<b>200 all with security seals</b>
3.	Fatigue Test	20 times for each button, plug, and switch. Check auto dim and trigger activation. No damage	20	<b>Passed</b>
4.	Rub Check	Use cotton dripped with water, rub the marking on rating label and silk-screen printing or electro-plating by hand for 15 seconds. Marking is clear after the rub, no peel-off or lift upward on rating label.	20	<b>Passed</b>
5.	Tape Check	Use the 3M (600) gummed tape to cover the total printing or electro-plating, peel the tape at 90°±30° rapidly; Marking is clear after the test, no-peel off on plating. *Gorilla Glue black can be use. Do not remove testing tape from R&D. If more than 6 months old, have purchasing replace it.	20	<b>Passed</b>

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6.	Running Test	Operate the samples continuously for at least 72 hours at +/- 10% of rated voltage. Testing rack to be placed in main meeting room or an R&D location during working hours. Record any voltage change and report during tests. No security problems, no functional damage	20 2 at 30 DCV 2 at 8 DCV	Passed
7.	Over/under voltage test	Use input voltage at 30 VDC to test and then drop to 7 VDC. No damage	4	Passed
8.	Remote/component. Battery check. *Backup batteries on DVRs need to be checked	Check the battery fitness, marking and rating voltage. The voltage should be more than the rated voltage. Actual reading	N/A	
9.	Carton drop test.  If cartons are damaged upon receipt, complete this test record and contact supplier.	One corner, three edges, six sides, at height of 30inch ( < 9.5kg) 24inch (9.5kg~18.6kg) 18inch (18.6kg~27.7kg) 12inch (27.7kg~45.3kg) 8inch (45.3kg~68kg) on the cement floor. No unit drop out, no damage on unit.	Not needed Only slight damage with acceptable range.	Passed
10.	High and low temperature operational test	Test temperature according to the spec or High temperature: +60°C Low temperature: -20°C Running 4 hours.  <b>Note: Cafeteria refrigerator is NOT a test location</b>	4	Passed
11.	Vibration test   <i>Video recording suggested if time permits</i>	10-50Hz (Geindus Orbital Shaker setting 4 on table) for 30 minutes. 1. Center cameras on table, 1 at a time. 2. Center monitors on table, 1 at a time. 3. Utilize bracket test plate to test mount and monitor backing /vesa plate. <b>If failure or concern: address and 3<sup>rd</sup> party lab test</b>	20 Cameras 3 monitors on brackets	Passed

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12.	<p>Camera viewing angle test</p> <p>Test and record on provided Verity Rear Vision test chart</p>	<p>1. Using the camera angle test chart, place camera in pre-marked location.            2. Place unit lens so that line goes in the center of Camera's view screen            3. Put dot on the line in position which is on the bottom of screen.            4. Put the dot on the paper which marks left bottom corner of the screen; Same way to mark left-middle side of the screen;            5.Repeat actions above on right side of screen.</p> <p>Produce straight lines between left two dots and right two dots, these lines will cross center line on same point; check angle with angle protractor. Meet the nominal value. Check the workmanship. No damage on component.</p>	10	<p><b>Passed</b></p> <p><b>120 degrees</b></p>
13.	IR testing	<p>All cameras bench box test</p> <p>R&amp;D wall spot test at 110 "</p> <p>Warehouse 40' test Lux reading .03</p>	<p>20</p> <p>20</p> <p>4</p>	<p><b>PASSED</b></p> <p><b>PASSED</b></p> <p><b>PASSED</b></p>
13.	<p>Internal test</p> <p><i>If for an OEM ODM project. Example "F" series for Oshkosh, record with pictures.</i>  <i>If an AI or QC inspection preformed skip 13</i></p>	<p>Open unit and visually check the workmanship. No damage on components allowed. Check for surface mounted (glued) components. Compare key components, CPU, surge protection, and reverse polarity with 1<sup>st</sup> article. On cameras check above along with lens and CCD board.            Use pictorial standards to compare.</p>	4	<p><b>Passed</b></p> <p><b>2 extra CPU pads added</b></p>
15.	<p>Waterproof check</p> <p>Test and record on provided Verity Rear Vision test chart</p>	<p>As per specifications. Regardless of IP level at least 2 percent must be tested in IP68 test.</p> <p>Test and record on provided Verity Rear Vision test chart.</p>	ALSO SEE RESULTS SHEETS	<p><b>10 All Passed</b></p>

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14.	Application test on truck and/or outdoor test rack.  This can be performed if an installation process can be improved on or maybe jeopardized.	Test on company truck, send to installer for end-user testing.  1 percent of yearly total. See purchasing for unit level.	NA	
15	Serial Numbers	Did numbers match PO? Did all parts that require serial numbers have them?		

**Results (specifics):** Test systems were cleared and placed on inbound tables. Systems had QC stickers and mounts added. "Content Verified" stickers applied. There were no issues other than slight box damage on case corners. All contents of shipment were released. Part one of this order 300 SM07J arriving 7/24

**Remarks: (place for opinions and recommendations.)** All went well. Treated R&D to barbeque.

**Attached Test Papers and Photos.** Test sheets to be marked in page order of blank of blank. All photos to be put in to a word document, labeled photo 1, photo 2, with small description and saved.

Please take the time to fill out completely and remember this document may be reviewed by others who are looking to find a problem/occurrence long after this test has been completed.

**100% 100% of the time is not just a slogan, it is our mission. Pride!**

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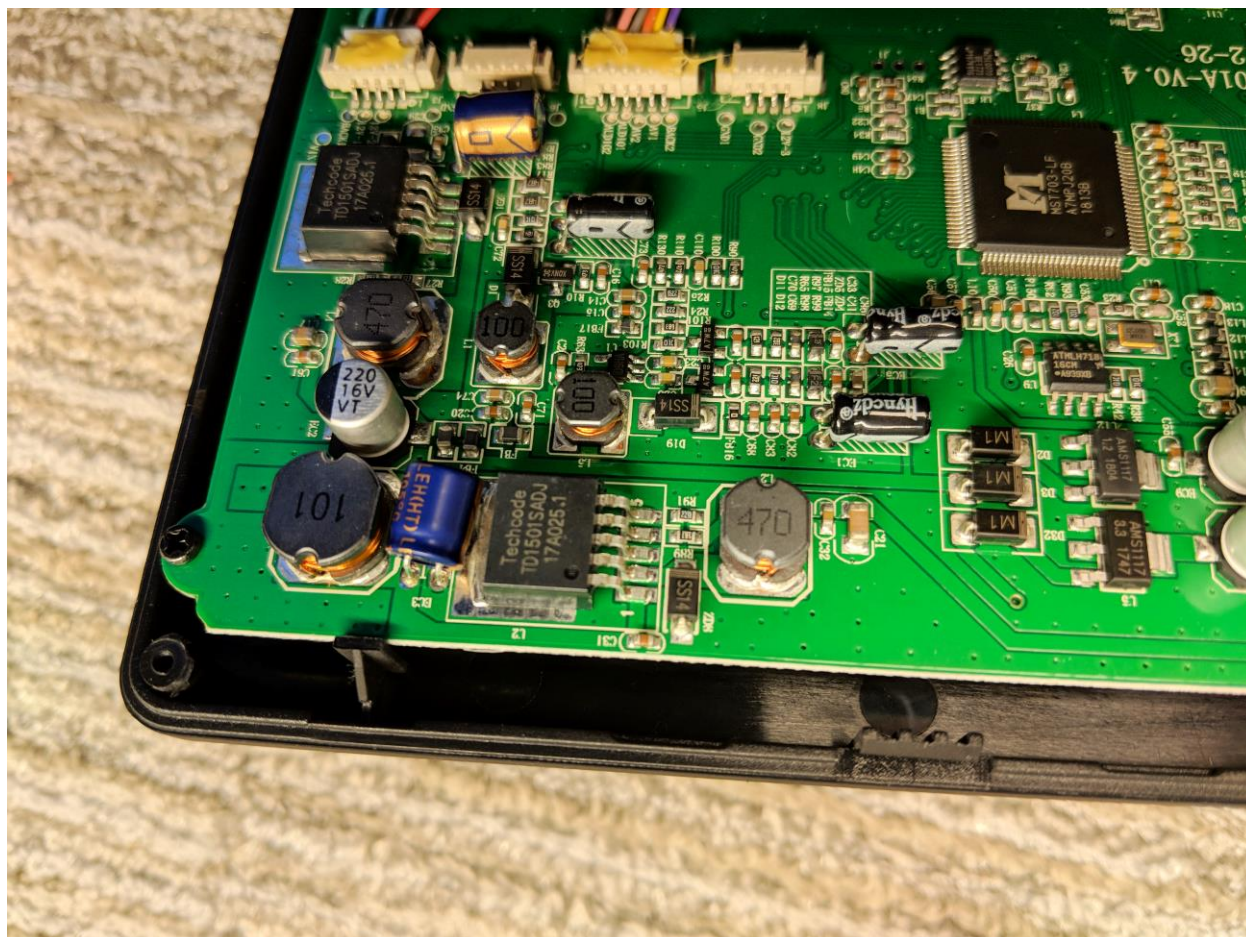
System Opened



#6223

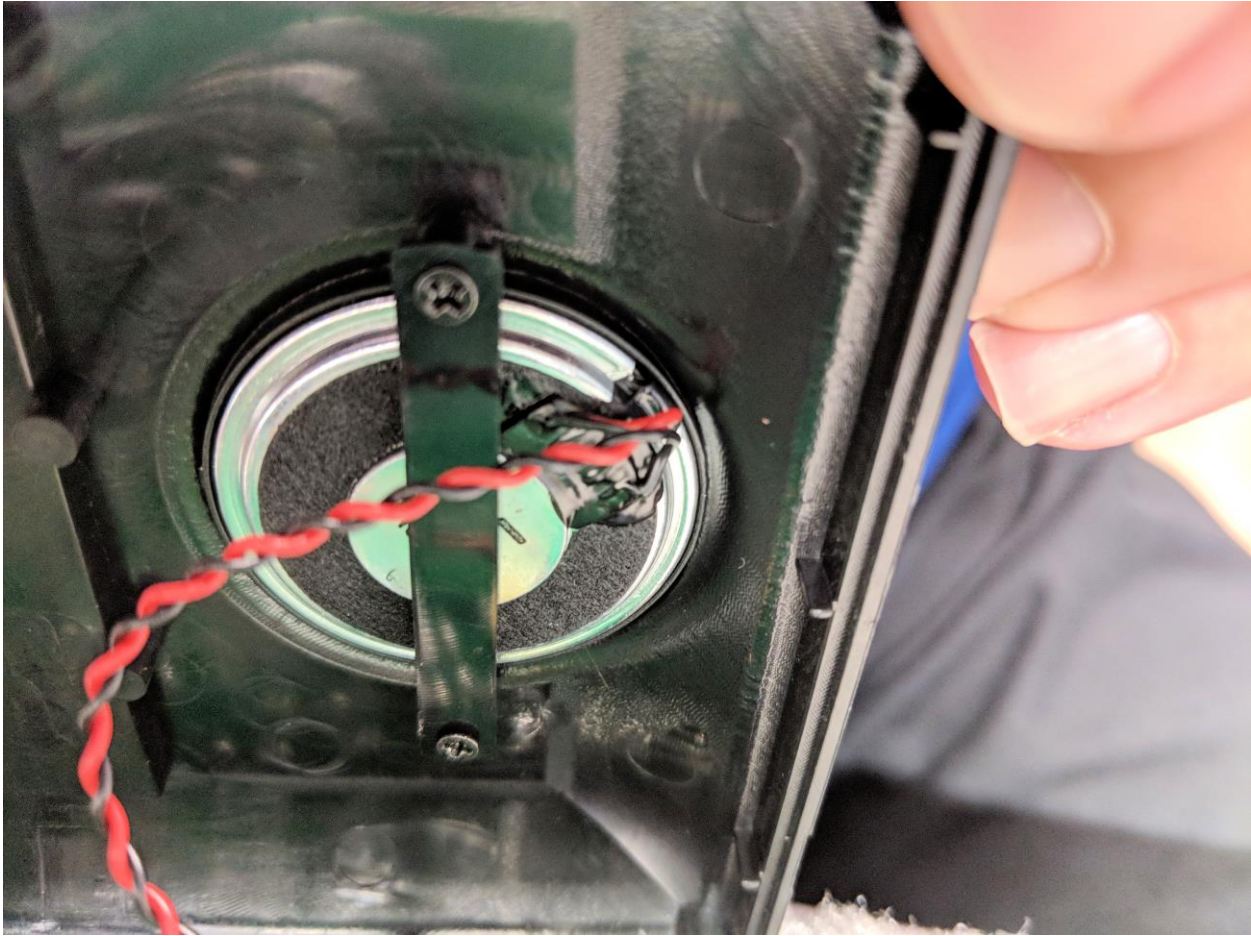
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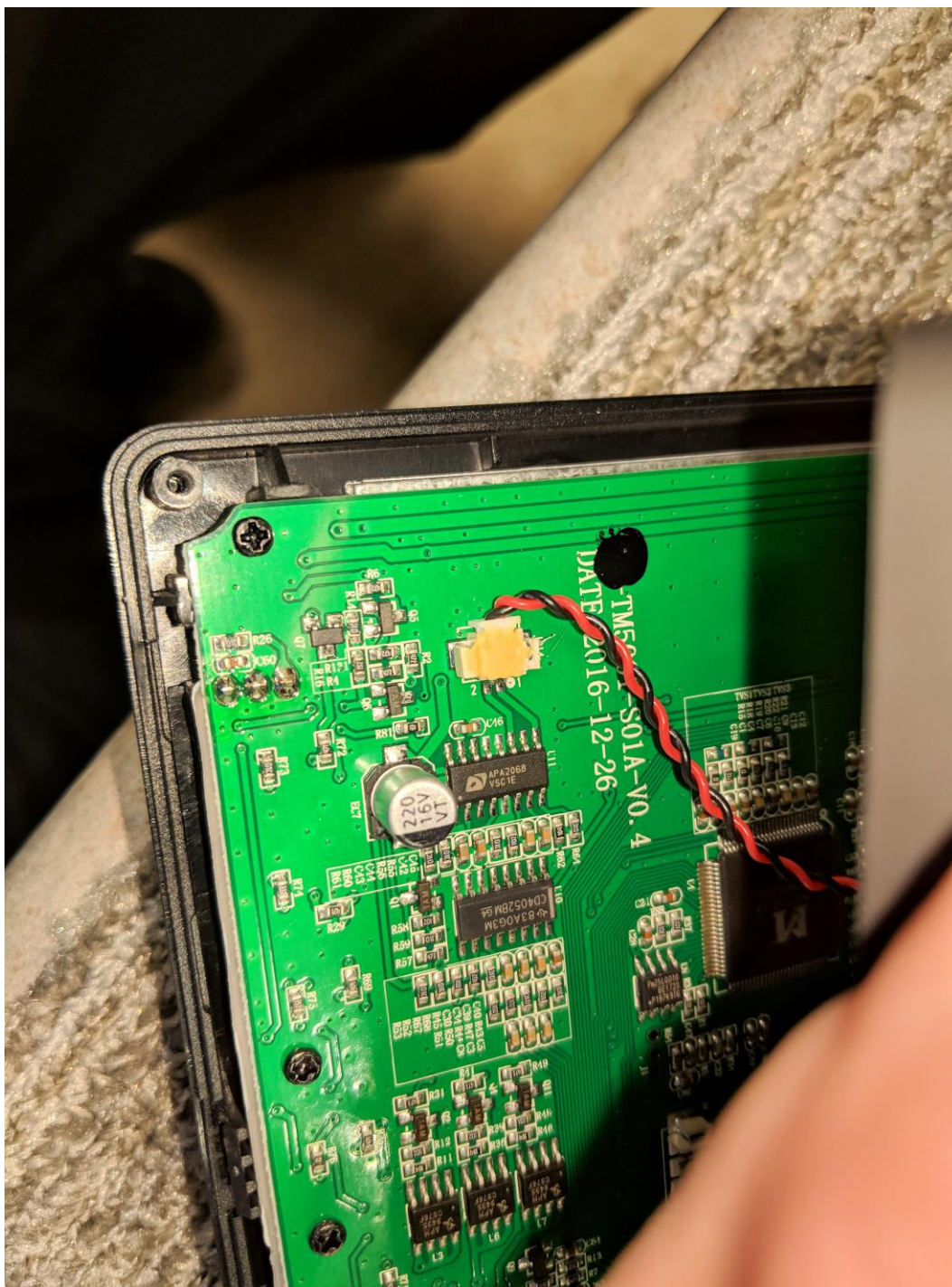
### #6223 All components tested and comply

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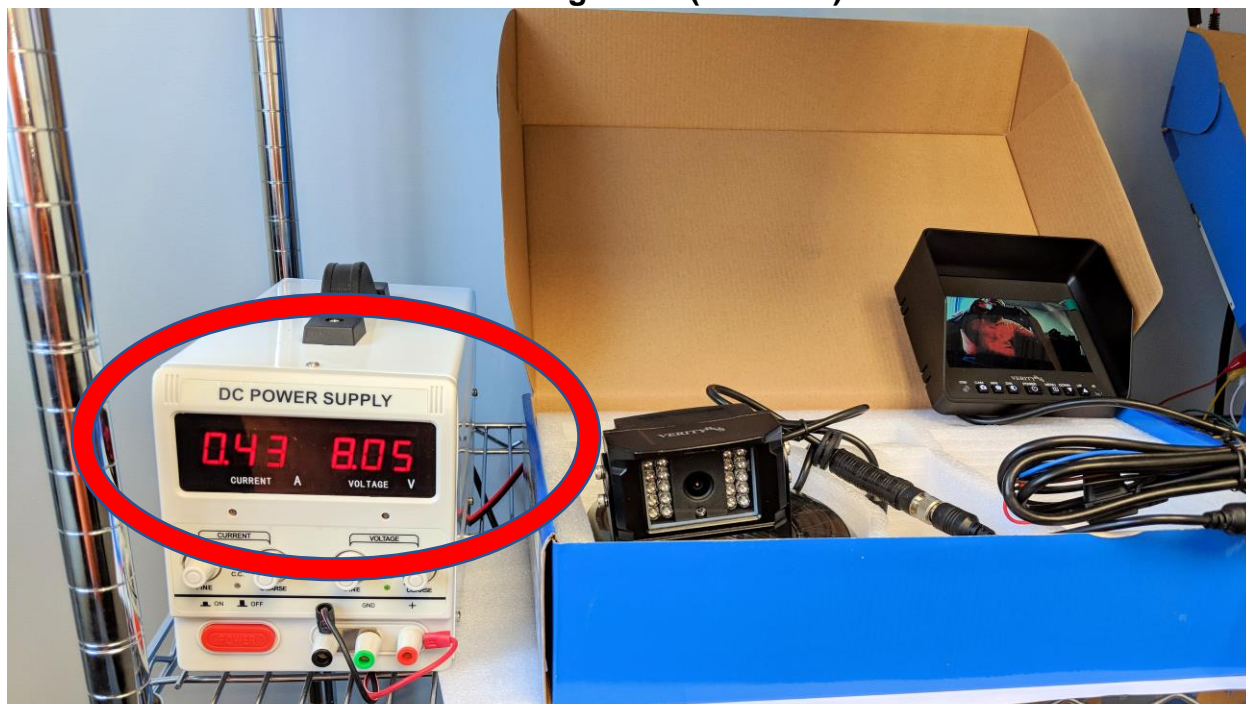
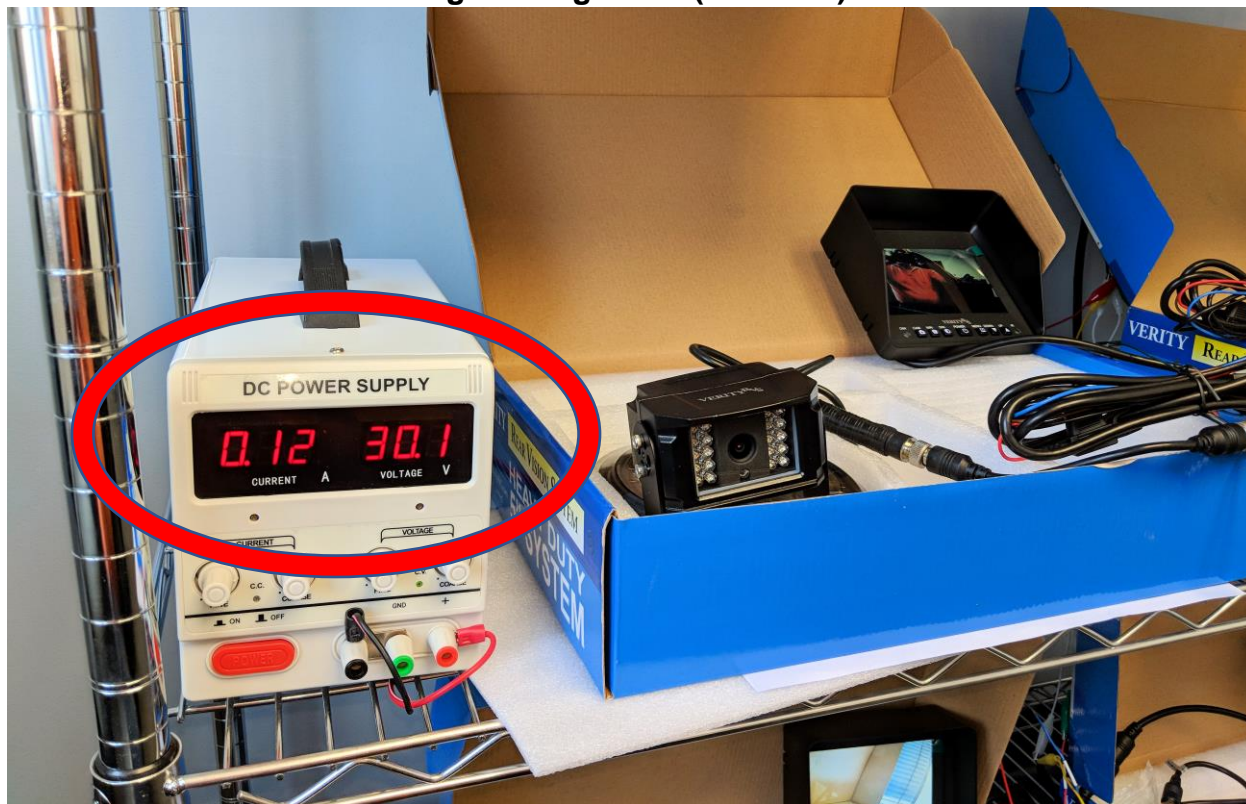
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**Low Voltage Test (16 hours)****High Voltage Test (16 hours)**

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**72 Hour Burn Test**

8 in on portable rack in J.R. office (monitored 16 hours) & 8 in R&D room, Bill's bench  
24 hours in black out condition



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## IP 68 TEST



Test Date: 7/17/2018 Page 1 of 1

Inbound Date: 7/17/18		Inspector(s): Chris / Bill V.	
Po Number: 1119		Order quantity: 200 <b>IP Test quantity: 6</b>	
Model/Part Numbers: SM05J (200) (added 200 ADD24F pretested)			
Serial Numbers: SM05J 6223 - 6424			
Released for inventory: <b>Y</b> / <del>N</del>		Date: 7/20	Quantity Passed
Pre shipment inspection <del>Y</del> / <b>N</b>	Date	AI	QC US

Tester(s): Bill ☒ Ed ☐ Other ☐ \_\_\_\_\_ Chris \_\_\_\_\_

Serial #'s	Time	Pass	Fail
6231	30 min.	Passed	
6249	30 min.	Passed	
6298	30 min.	Passed	
6401	30 min.	Passed	
6387	30 min.	Passed	
2340	120 min.	Passed	

All cameras tested must have photos placed in "QC test" Folder.

If camera failed, does the OEM need to be contacted? ☐ yes no ☒

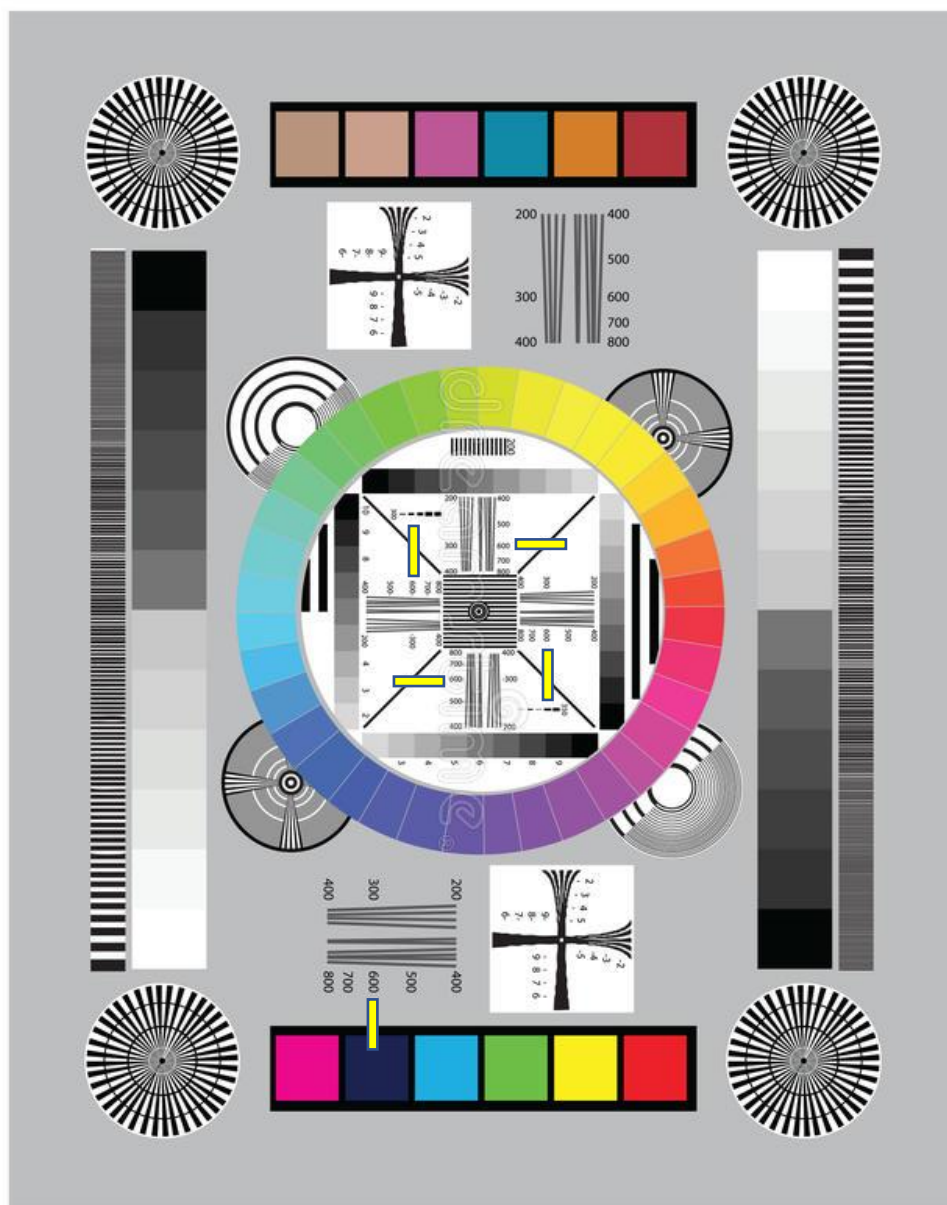
Is USA 3<sup>rd</sup> party testing needed? ☐ yes ☒ no

**Comments:** (If all cameras passed, no comment is needed.)

Tests went well. Also, performed one camera overnight soak and no issue was found. Performed moisture reading on one overnight soak and no indication of any moisture.

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Indicator marks placed. View in 200 percent. If problem was found a comment would have been added JR

**PASSED**

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