

## Part Certification

|   |   |            |                            |  |                                |  |            |            |                 |
|---|---|------------|----------------------------|--|--------------------------------|--|------------|------------|-----------------|
| Control Plan Category   |   |            | Key Contact Name           |  | Date (Orig)                    |  | Date (Rev) |            | Page 1          |
| Prototype   | X | Pre-Launch | Production                 | CAVAZOS, EDUARDO                               |                                | 27-Oct-2015                              |            | 6-Aug-2020 |                 |
| Control Plan Number:<br>RESISTOR  |   |            |                            | Key Contact Phone<br>+52 844 4389060           |                                | Customer Engineering Approval (If Req'd) |            |            | Date (If Req'd) |
| Part Number:<br>15429045  |   |            | Ecl<br>04                  | Key Contact email<br>LZFWH1@APTIV.COM          |                                | Customer Quality Approval (If Req'd)     |            |            | Date (If Req'd) |
| Part Name / Description<br>ASM CONN 2 M GT 150 BLK RESISTOR   |   |            |                            | Supplier / Plant Approval / Date<br>6-Aug-2020 |                                | Other Approval (If Req'd)                |            |            | Date (If Req'd) |
| Supplier / Plant<br>Delphi Packard Plant 97 MEXICO  |   |            | Supplier Code<br>812933091 |  | Other Approval Date (If Req'd) |  |            |            |                 |
| Core team Members<br>RENTERIA, JUAN +52 844 4389060 TORRES, ENRIQUE +52 844 4389060 GUTIERREZ, IGNACIO +52 844 4389060 SAUCEDO, DANIA JESUCITA P +52 04484 4389060 RODRIGUEZ, SANTOS 844 4389060 DE LEON, JUAN C +52 844 4389060 LUNA, JESUS 4-3120 ROBLES, ANTONIO 844 4389060 |   |            |                            |  |                                |  |            |            |                 |
| Manufacturing plant maintains listing of all Gage Numbers   |   |            |                            |  |                                |  |            |            |                 |

| Part /<br>Proc # | Process Name /<br>Operation description            | Machine, Device, Jig,<br>Tools For Mfg. | Characteristics |   |  | Special<br>Char.<br>Class | Methods   |  |   |   |  | Reaction Plan   |
|------------------|--|---|-----------------|---|--|---------------------------|---|--|---|---|--|---|
|                  |  |   | No.             | Product   | Process  |                           | Product / Process<br>Specification /<br>Tolerance                                     | Evaluation /<br>Measurement<br>Technique | Sample<br>Size  | Sample<br>Freq.   | Control Method   |   |
| 10               | Receive resin, resistor and insert in receive      |   |                 | Correct quantity and ID/<br>Pack free of damaged      |  |                           | Correct Quantity and ID<br>per Shipping Manifest/<br>Not damaged packages             | Visual / Scanner<br>electronic system    | Each standar<br>pack                                      | Each received<br>material   | Handling and receiving material to plant<br>DPNP-5.2-PC-OM-04, Reciving and<br>assurement Quality direct material,<br>Process certification, First sample<br>release DPNW-5.3-CS-P97-06.04 F01                           | Control of Non<br>Conforming product<br>W.I           |
| 10.1             |  |   |                 |   |  |                           | Correct Quantity and ID<br>per Shipping Manifest/<br>Not damaged packages             | Visual / Scanner<br>electronic system    | Each standar<br>pack                                      | Each received<br>material   | Product audit DPNW-5.3-CS-4-7-<br>06.01,Process Inspection DPNW-5.3-CS-<br>P97-03.01 F01   | Control of Non<br>Conforming product<br>W.I           |
| 20               | Raw resin,resistor and Insert<br>Inspection        |   |                 | Correct raw resin                                     |  |                           | Material spec receiving<br>inspection forms, see<br>form parts for inspection<br>list | Visual                                   | Samples to<br>inspect per<br>reported<br>problem<br>Form. | Per material for<br>inspection in plant<br>DPNP-5.2-CS-OM-<br>01.01 | Handling and receiving material to plant<br>(DPNP-5.2-PC-OM-04) and<br>Nonconformance product control DPGP-<br>5.3-CS-02 ,   | Control of non<br>conforming product<br>W.I           |
| 20.1             |  |   |                 |   |  |                           | Material spec receiving<br>inspection forms, see<br>form parts for inspection<br>list | Visual                                   | Samples to<br>inspect per<br>reported<br>problem<br>Form. | Per material for<br>inspection in plant<br>DPNP-5.2-CS-OM-<br>01.01 | First sample release DPNW-5.3-CS-P97-<br>06.04 F01, Product audit,Calibration<br>program of measurement equipment  | Control of non<br>conforming product<br>W.I           |
| 30               | Move Raw Resin,resistor and<br>Insert to warehouse |   |                 | Undamaged package                                     |  |                           | Handling material guide<br>WI   | Visual                                   | Each lot<br>material                                      | Each movement of<br>material to<br>warehouse                        | Handling and receiving material to plant<br>DPNP-5.2-PC-OM-04, Certificate drive<br>freight Elevator Process certification First<br>sample release DPNW-5.3-CS-P97-<br>06.04 F01,Product audit DPNW-5.3-CS-<br>4-7-06.01 | Nonconformance<br>product control<br>(DPGP-5.3-CS-02) |
| 40               | Store Raw resin,resistor and<br>Insert in Location |   |                 |   | Srock material<br>I.D. correct<br>location<br>material |                           | Handling material guide<br>WI   | Visual                                   | Each lot<br>material                                      | Each movement of<br>material to<br>warehouse                        | MTMS Sys certificate drive freight<br>Elevator Process certification First<br>sample release DPNW-5.3-CS-P97-<br>06.04 01  | Nonconformance<br>product control<br>(DPGP-5.3-CS-02) |
| 50               | Move insert and resistor to<br>crimp station       |   |                 | Correct material                                      |  |                           | Handling material guide<br>WI   | Manually/ Visual                         | Each lot<br>material                                      | Each movement of<br>material to<br>manufact. area                   | Operator Method DPNW-0.3-ME-00.01<br>A01,Dryer Preventive Maintenance MMP-<br>MP-95, Dryer alarms  | Nonconformance<br>product control<br>(DPGP-5.3-CS-02) |
| 51               |  |   |                 | Correct material                                      |  |                           | Handling material guide<br>WI   | Manually/ Visual                         | Each lot<br>material                                      | Each movement of<br>material to<br>manufact. area                   | Operator Method DPNW-0.3-ME-00.01<br>A01,Dryer Preventive Maintenance MMP-<br>MP-95, Dryer alarms, Final Inspection -<br>Operation method  | Nonconformance<br>product control<br>(DPGP-5.3-CS-02) |
| 51.1             |  |   |                 | Correct material                                      |  |                           | Handling material guide<br>WI   | Manually/ Visual                         | Each lot<br>material                                      | Each movement of<br>material to<br>manufact. area                   | Operator Method DPNW-0.3-ME-00.01<br>A01,Dryer Preventive Maintenance MMP-<br>MP-95, Dryer alarms, material racks<br>audits -operator visual inspection when<br>remove the material with the scanner                     | Nonconformance<br>product control<br>(DPGP-5.3-CS-02) |
| 52               | Move runner to recycling area                      |   |                 | Correct material                                      |  |                           | Handling material guide<br>WI   | Manually/ Visual                         | Each lot<br>material                                      | Each movement of<br>material to<br>manufact. area                   | Operator Method DPNW-0.3-ME-00.01<br>A01,Dryer Preventive Maintenance MMP-<br>MP-95, Dryer alarms, Operator method -<br>Visual Aids  | Nonconformance<br>product control<br>(DPGP-5.3-CS-02) |
| 52.1             |  |   |                 | Correct runner in recycling<br>area                   |  |                           | Handling material guide<br>WI   | Manually/ Visual                         | Each lot<br>material                                      | Each movement of<br>material to<br>manufact. area                   | Operator Method DPNW-0.3-ME-00.01<br>A01,Dryer Preventive Maintenance MMP-<br>MP-95, Dryer, Operator method - Visual<br>Aids   | Nonconformance<br>product control<br>(DPGP-5.3-CS-02) |
| 53               | Grind runner                                       |   |                 | Correct material                                      |  |                           | Handling material guide<br>WI   | Manually/ Visual                         | Each lot<br>material                                      | Each movement of<br>material to<br>manufact. area                   | Operator Method DPNW-0.3-ME-00.01<br>A01,Dryer Preventive Maintenance MMP-<br>MP-95, Dryer, Operation method - Visual<br>aids - Magnet to stop metals  | Nonconformance<br>product control<br>(DPGP-5.3-CS-02) |
| 53.1             |  |   |                 | Material not contaminated<br>with a external material |  |                           | Handling material guide<br>WI   | Manually/ Visual                         | Each lot<br>material                                      | Each movement of<br>material to<br>manufact. area                   | Operator Method DPNW-0.3-ME-00.01<br>A01,Dryer Preventive Maintenance MMP-<br>MP-95, Dryer, Operation method - Visual<br>aids - Magnet to stop metals  | Nonconformance<br>product control<br>(DPGP-5.3-CS-02) |

| Part /<br>Proc # | Process Name /<br>Operation description  | Machine, Device, Jig,<br>Tools For Mfg. | Characteristics |   |   | Special<br>Char.<br>Class | Methods   |  |                                     |   |   | Reaction Plan   |
|------------------|--|---|-----------------|---|---|---------------------------|---|--|-------------------------------------|---|---|---|
|                  |  |   | No.             | Product   | Process   |                           | Product / Process<br>Specification /<br>Tolerance   | Evaluation /<br>Measurement<br>Technique           | Sample<br>Size                      | Sample<br>Freq.                                   | Control Method  |   |
| 54               | Blender process  |   |                 | Correct material  |   |                           | Handling material guide<br>WI   | Manually/ Visual                                   | Each lot<br>material                | Each movement of<br>material to<br>manufact. area | Operator Method DPNW-0.3-ME-00.01<br>A01,Dryer Preventive Maintenance MMP-<br>MP-95, Dryer Equipment preventive<br>maintenance. Use of scale method.<br>Operator method. Blender parameters.                            | Nonconformance<br>product control<br>(DPGP-5.3-CS-02)   |
| 54.1             |  |   |                 | Material not contaminated<br>with a external material           |   |                           | Handling material guide<br>WI   | Manually/ Visual                                   | Each lot<br>material                | Each movement of<br>material to<br>manufact. area | Operator Method DPNW-0.3-ME-00.01<br>Equipment preventive maintenance. Use<br>of scale method. Operator method.<br>Blender parameters. A01,Dryer<br>Preventive Maintenance MMP-MP-95,<br>Dryer                          | Nonconformance<br>product control<br>(DPGP-5.3-CS-02)   |
| 60               | Feed Raw Resin to Dryer  |   |                 |   | Dryer loads<br>correctly                        |                           | Process chart / method  | Visual   | Start up                            | Start up  | Dryer preventive maintenance )(MMP-MP-<br>95) Dryer alarms, program calibrations  | Adjust process  |
| 70               | Dry raw Resin and verify<br>Moisture   | Dryer                                   |                 |   | Dry resin                                       |                           | Operator method /<br>Operation inspection<br>instruction                                      | Moisture analyzer                                  | Each twice a<br>shift               | Each twice a shift                                | Dryer alarm Moisture test Program First<br>Sample release DPNW-5.3-CS-P97-<br>06.04 F01, Operator Method DPNW-0.3-<br>ME-00.01 A01, Dryer PM MMP-MP-95<br>Dryer Calibration PC, PCI DPNW-5.3-<br>CS-P97-03.01 F01       | Dryer adjust or increase<br>drying time or turn off<br>dryer to avoid that the<br>moisture is too night |
| 80               | Store Resin in Dryer   |   |                 |   | Correct<br>material                             |                           | Op method   | Visual / scanner<br>electronic system              | each vessel                         | each vessel                                       | Visual Identification Dryer, First Sample<br>Release DPNW-5.3-CS-P97-06.04 F01,<br>Process Certification, Process Audit<br>DPNW-5.3-CS-P97-03.01 F01  | Control of Non<br>Conforming product<br>W.I   |
| 90               | Feed injection molding<br>machine of resin   |   |                 |   | Correct<br>material                             |                           | Op method   | Manually/ Visual /<br>scanner electronic<br>system | each vessel                         | each vessel                                       | Operator Method DPNW-0.3-ME-00.01<br>A01, Dryer PM MMP-MP-95, Poka yoke<br>sensor fill material   | Control of Non<br>Conforming product<br>W.I   |
| 100              | Move inserts and resistor to<br>crimp Machine and load<br>terminals reel in Work station                 |   |                 | Load the correct, not bent &<br>undamaged inserts to<br>machine |   |                           | Op method   | Manually/ Visual                                   | Each load                           | Each load   | Operator method DPNW-0.3-ME-00.01<br>A01, First sample release DPNW-5.3-CS-<br>P97-06.04 F01, Process inspection<br>DPNW-5.3-CS-P97-03.01 F01, visual aid<br>DPNW-4.7-CS-OM-01.01 F01                                   | Control of Non<br>Conforming product<br>W.I   |
| 110              | Crimp resistor and terminal to<br>make assembly according to<br>the resistance (first sample<br>release) |   |                 |   | Correct<br>terminal and<br>resistor<br>crimping |                           | Op.Method/ Op.<br>inspection instruction/<br>Visual Aid Ensemble de<br>resistencia y terminal | Visual   | Each<br>Crimping<br>press.          | Each start of shift                               | Set-up Op method DPNW-0.3-ME-00.01<br>A01, IIO DPNW-5.3-CS-OM-00.02 F03,<br>set up check list DPNW-5.3-CS-OM-<br>00.02 F04, first sample release DPNW-<br>5.3-CS-P97-06.04 F01, MFG ins DPNW-<br>5.3-CS-P97-06.04 F01   | Process adjust given/<br>Crim Station /Control<br>of Non Conforming<br>product W.I                      |
| 110.01           |  |   |                 | Coorrect crimp assembly   |   |                           | Op method   | Visual   | 100%                                | Ongoing   | PM routine MMP-MP-95, First Sample rls<br>DPNW-5.3-CS-P97-06.04 F01, Set-up<br>check list DPNW-5.3-CS-OM-00.02 F04,<br>Sensor for terminals, VPS, MFG<br>Inspection DPNW-5.3-CS-P97-06.04<br>F01, CCH monitor           | Red tag as required/<br>Adjust process  |
| 110.02           |  |   |                 | Good assembly crimp   |   |                           | Visual aids   | Visual   | 100%                                | Ongoing   | PM routine MMP-MP-95, First sample<br>release DPNW-5.3-CS-P97-06.04 F01,<br>Process sheet. CCH monitor  | Red tag as required/<br>Adjust process  |
| 110.03           |  |   |                 | Resistor in good conditions                                     |   |                           | Product drawing   | Visual, meassurement<br>equipement                 | According to<br>IIO                 | Set up  | PM routine MMP-MP-95, Process<br>inspection DPNW-5.3-CS-P97-03.01<br>F01, First sample release DPNW-5.3-CS-<br>P97-06.04 F01, VPS   | Red tag as required/<br>Adjust process / Scrap  |
| 110.04           |  |   |                 | Crimp within specifications                                     |   | FF: CCH<br>1.10mm         | Visual aids, CCH<br>1.10mm  | Micrometer   | 100%                                | Ongoing   | PM routine MMP-MP-95, First sample<br>release DPNW-5.3-CS-P97-06.04 F01,<br>IIO DPNW-5.3-CS-OM-00.02 F03, MFG<br>Insp DPNW-5.3-CS-P97-06.04 F01, VPS,<br>Measurement equipment method, VPS<br>CFM Monitor,              | Red tag as required/<br>Adjust process / Scrap  |
| 110.041          |  |   |                 | Crimp within specifications                                     |   |                           | Visual aids, CCW<br>dimension: 1.70mm   | Micrometer   | 100%                                | Ongoing   | PM routine MMP-MP-95, First sample<br>release DPNW-5.3-CS-P97-06.04 F01,<br>IIO DPNW-5.3-CS-OM-00.02 F03, MFG<br>Inspections DPNW-5.3-CS-P97-06.04<br>F01, VPS Measurement equipment, VPS<br>CFM Monitor                | Red tag as required/<br>Adjust process / Scrap  |
| 110.05           |  |   |                 | Correct resistor  |   |                           | Visual aids   | Visual   | Sample to<br>verify correct<br>PN   | Set up  | PM routine MMP-MP-95 First sample<br>release DPNW-5.3-CS-P97-06.04 F01,<br>IIO DPNW-5.3-CS-OM-00.02 F03, MFG<br>Inspections DPNW-5.3-CS-P97-06.04<br>F01, VPS CFM Monitor   | Red tag as required/<br>Adjust process / Scrap  |
| 110.07           |  |   |                 | Correct Die   |   |                           | Visual aids, Value: 75N   | Visual, Automatic part<br>discriminator            | One piece<br>each cavity<br>per die | Start Of Production                               | Op method DPNW-0.3-ME-00.01 A01PM<br>tool, First sample Rls DPNW-5.3-CS-<br>P97-06.04 F01, Prcss Inps DPNW-5.3-<br>CS-P97-03.01 F01, Visual Inps, final<br>audit DPNW-5.3-CS-P97-06-04 IIO<br>DPNW-5.3-CS-OM-00.02 F03, | Red tag as required/<br>Adjust process / Scrap  |

| Part /<br>Proc # | Process Name /<br>Operation description  | Machine, Device, Jig,<br>Tools For Mfg. | Characteristics |  |                           | Special<br>Char.<br>Class | Methods   |   |                               |  |  | Reaction Plan                                      |
|------------------|--|---|-----------------|--|---------------------------|---------------------------|---|---|-------------------------------|--|--|--|
|                  |  |   | No.             | Product  | Process                   |                           | Product / Process<br>Specification /<br>Tolerance | Evaluation /<br>Measurement<br>Technique  | Sample<br>Size                | Sample<br>Freq.  | Control Method   |  |
| 110.071          |  |   |                 | Correct Die  |                           |                           | Visual aids, Value: 75N                           | Visual, Automatic part discriminator  | One piece each cavity per die | Start Of Production  | Automatic part discriminator   | Red tag as required/<br>Adjust process / Scrap     |
| 110.08           |  |   |                 | Terminal in good conditions                                  |                           |                           | Visual aids, IIO                                  | Visual  | 100%                          | Ongoing  | PM routine MMP-MP-95 first sample release DPNW-5.3-CS-P97-06.04 F01 VPS, sensor to eliminate stack terminals conditions  | Red tag as required/<br>Adjust process / Scrap     |
| 110.09           |  |   |                 | Right resistor   |                           |                           | Visual aids, IIO                                  | Visual  | Sample to verify correct PN   | Set Up   | First sample release DPNW-5.3-CS-P97-06.04 F01, visual aid for resistor DPNW-4.7-CS-OM-01.01 F01 IIO DPNW-5.3-CS-OM-00.02 F03 Electrical Tester  | Red tag as required/<br>Adjust process / Scrap     |
| 110.1            |  |   |                 | Filament in crimp area                                       |                           |                           | Visual aids, IIO                                  | Visual  | 100%                          | Ongoing  | PM routine MMP-MP-95, First sample release DPNW-5.3-CS-P97-06.04 F01, VPS sensor to eliminate stack terminals conditions   | Red tag as required/<br>Adjust process / Scrap     |
| 110.11           |  |   |                 | Electrical continuity within resistor and terminal           |                           |                           | Visual aids, IIO                                  | Electrical Tester, Continuity Tester  | 100%                          | Ongoing  | Manufacturing Inspection DPNW-5.3-CS-P97-06.04 F01, First samples release DPNW-5.3-CS-P97-06.04 F01, electrical test in next station; Resistor design  | Red tag as required/<br>Adjust process / Scrap     |
| 110.75           |  |   |                 | Terminal and resistance crimp height                         |                           |                           | According Drawing item 290 (33.75mm + 0.85mm)     | Digital Caliper   | 1 shot                        | Start of production, Set up, Middle of Production, Final Audit | IIO, Operathor Method, Manufacturing Inspection DPNW-5.3-CS-P97-06.04 F01,   | Red tag as required/<br>Adjust process / Scrap     |
| 120              | Crimp assembly Process inspection  |   |                 | Correct crimp assembly and process inspection                |                           |                           | Visual aids, op. method                           | Visual  | 100%                          | Ongoing  | Operator check-list, operator Inspection instructive DPNW-0.3-ME-00.01 A01   | Red tag as required/<br>Adjust process / Scrap     |
| 130              | Sleeves assembly   |   |                 | Undamaged assembly   |                           |                           | Visual aids                                       | Visual  | Each piece                    | Ongoing  | Vision system, visual aid: resistance DPNW-4.7-CS-OM-01.01 F01 assembly method.  | Red tag as required                                |
| 130.1            |  |   |                 | Assembly with sleeve   |                           |                           | Visual aids, op method                            | Visual, vision system   | Each piece                    | Ongoing  | Vision system, visual aid: resistance DPNW-4.7-CS-OM-01.01 F01 assembly method.  | Scrap  |
| 130.2            |  |   |                 | Sleve correctly placed                                       |                           |                           | Visual aids, op method                            | Visual, vision system   | Each piece                    | Ongoing  | Vision system, visual aid: resistance DPNW-4.7-CS-OM-01.01 F01 assembly method.  | Scrap  |
| 140              | Put assembly on device to contract sleeve on terminal  |   |                 | Sleeve properly seated                                       |                           |                           | Op method   | Visual  | Each Pc.                      | Each Pc.   | Vision system, visual aid: resistance DPNW-4.7-CS-OM-01.01 F01, assembly method.   | Process Adjust Or Mold Repair/ red tag as required |
| 140.1            | Put 13534897 assy on device to contract sleeve on terminal, Condumex 20-12                   |   |                 | Sleeve properly seated                                       |                           |                           | Op method   | Vision System   | 100%                          | Each Pc.   | Work method DPNP-5.2-PC-OM-04 vision system parameters to detect sleeve not properly assembled condition master samples for vision system  | Process Adjust Or Mold Repair/ red tag as required |
| 150              | Move assembly to injection molding machine   |   |                 | Undamaged assembly and not bent terminals to molding machine |                           |                           | Op.Inspection Instruction/ Product print          | Visual  | Each Pc.                      | Each Pc.   | Move material, process inspection DPNW-5.3-CS-P97-03.01 F01, Product Audit DPNW-5.3-CS-4-7-06.01, operator method DPNW-0.3-ME-00.01 A01  | Process Adjust Or Mold Repair/ red tag as required |
| 160              | Perform Start up inspection put shipping label on box material / Set up for molded connector | Mold Mach. 80 tons.                     |                 |  | Correct set-up            |                           | Operator method. Process card                     | Visual Inspection Verify mach parameters vs. process card. Verify material correctly supplied | 100%                          | Each Start and end run   | *Operator Method,First sample Release,Calibration Program Machine,Process certification,Process Inspection,Material Id,CCA system,scanner station in electrical tester                                   | Red Tag As Required                                |
| 170              | Manually subassembly terminal/resistor to mold   | Mold Mach. 80 tons.                     |                 | Terminal correctly seated in cavity tool                     |                           |                           | Operator method.                                  | Visual Inspection   | 100% process inspection       | Every Charge On Mold   | Operator Method DPNW-0.3-ME-00.01 A01, Operator traning, Preventive maintenance Tool, First sample release DPNW-5.3-CS-P97-06.04 F01, Product Audit DPNW-5.3-CS-4-7-06.01, vision sistem, master samples | Complete Loading                                   |
| 170.1            |  |   |                 | Correct load terminals                                       |                           |                           | Operator method.                                  | Visual Inspection   | 100% process inspection       | Every Charge On Mold   | *Operator Method,Operator traning,Preventive maintenance Tool,First sample release,Product Audit", vision sistem   | Complete Loading                                   |
| 170.2            |  |   |                 | Terminal present in tool                                     |                           |                           | Operator method.                                  | Visual Inspection   | 100% process inspection       | Every Charge On Mold   | Operator Method DPNW-0.3-ME-00.01 A01, Operator traning, PM Tool, First sample release DPNW-5.3-CS-P97-06.04 F01, Product Audit DPNW-5.3-CS-4-7-06.01, visual inspection, vision system                  | Complete Loading                                   |
| 180              | Premold Vision system inspection   | Mold Mach. 80 tons.                     |                 | Dont pass non conformance premold assembly                   |                           |                           | Vision System Operator method                     | Visual, vision system   | Each cycle                    | Each cycle   | Op Method DPNW-0.3-ME-00.01 A01, Operator traning, PM MMP-MP-95 vision system Electrical Tester Master Pieces method DPNW-0.3-ME-OM-00.01 A01 First sample release DPNW-5.3-CS-P97-06.04 F01             | Red target as aplies, scrap                        |
| 180.1            |  |   |                 |  | Calibration Vision System |                           | Vison System Calibration Method                   | Samples master  | Each Vision system            | Each set-up, Start Of Production,                              | Op meth DPNW-0.3-ME-00.01 A01, Op training, PM MMP-MP-95 vision  | Vision system adjust                               |

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|------------------|---|---|-----------------|---|---------|---------------------------|---|--|-------------------------------------|---|--|--|
|                  |   |   | No.             | Product   | Process |                           | Product / Process<br>Specification /<br>Tolerance | Evaluation /<br>Measurement<br>Technique | Sample<br>Size                      | Sample<br>Freq.   | Control Method   |  |
|                  |   |   |                 |   |         |                           |   |  |                                     | after of prev.<br>mainenance and<br>corrective          | syst,electr tester, calibr samples test on<br>1st sample release, Position Guides<br>vision system   |  |
| 190              | Manufacture Parts on mold<br>Machine /Visual<br>Inspection(first sample<br>release) | Mold Mach. 80 tons.                     |                 | Connector without NFO                             |         |                           | Visual aids, process<br>card                      | Visual                                   | One piece                           | Start Of Production                                     | Process Certification Process Inspection<br>DPNW-5.3-CS-P97-03.01 F01 Product<br>Audit DPNW-5.3-CS-4-7-06.01 First<br>sample release DPNW-5.3-CS-P97-<br>06.04 F01   | Process Adjust Or<br>Mold Repair/ red tag                |
| 190.01           |   |   |                 | No terminalexposed                                |         |                           | Visual aids, op method                            | Visual                                   | One piece<br>each cavity<br>per die | Start Of Production                                     | Op method DPNW-0.3-ME-00.01 A01,<br>PM tool, first sample rls release DPNW-<br>5.3-CS-P97-06.04 F01, process<br>inspection DPNW-5.3-CS-P97-03.01<br>F01, visual inspection, final audit DPNW-<br>5.3-CS-P97-06-04 F01  | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 190.02           |   |   |                 | No flash on connector                             |         |                           | Visual aids, process<br>card                      | Visual                                   | One piece<br>each cavity<br>per die | Start Of Production                                     | Operator method DPNW-0.3-ME-00.01<br>A01, PM tool, first sample release<br>DPNW-5.3-CS-P97-06.04 F01,process<br>inspection DPNW-5.3-CS-P97-03.01 F01<br>visual inspection, final audit DPNW-5.3-<br>CS-P97-06-04 F01   | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 190.03           |   |   |                 | No resistance exposed                             |         |                           | Visual aids, op method                            | Visual                                   | One piece<br>each cavity<br>per die | Start Of Production                                     | Process Inspection DPNW-5.3-CS-P97-<br>03.01 F01, Product Audit DPNW-5.3-MG-<br>P84-04.13 F01, First sample release<br>DPNW-5.3-CS-P97-06.04 F01 PM tool,<br>visual inspection   | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 190.05           |   |   |                 | No bent terminals                                 |         |                           | Visual aids                                       | Visual, Gages G-F898,<br>G-F899          | 1 shot                              | Start, half and end<br>of production shift.             | Process inspection DPNW-5.3-CS-P97-<br>03.01 F01 Product Audit DPNW-5.3-CS-<br>4-7-06.01 Op method DPNW-0.3-ME-<br>00.01 A01 Operator certificated,<br>Electrical tester, vision system                                | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 190.06           |   |   |                 | All terminals present                             |         |                           | Visual aid  | Visual                                   | 100%                                | Ongoing   | Process inspection DPNW-5.3-CS-P97-<br>03.01 F01 First sample release DPNW-<br>5.3-CS-P97-06.04 F01,Process<br>certification, visual inspection  | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 190.07           |   |   |                 | No brittle connector                              |         |                           | Process card                                      | Visual, process card                     | 1 shot                              | set up  | Process inspection DPNW-5.3-CS-P97-<br>03.01 F01 First sample release DPNW-<br>5.3-CS-P97-06.04 F01 PM Tool,<br>Operator Method DPNW-0.3-ME-00.01<br>A01, Preventiva maintenance machine<br>MMP-MP-95                  | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 190.08           |   |   |                 | Connector no contaminated                         |         |                           | Visual aid  | Visual, process card                     | 1 shot                              | set up  | PM tool MMP-MP-95 First sample<br>release DPNW-5.3-CS-P97-06.04 F01<br>Inspection report on layout annual, IIO<br>DPNW-5.3-CS-OM-00.02 F03, final audit<br>DPNW-5.3-CS-P97-06-04 F01                                   | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 190.11           |   |   |                 | No voids  |         |                           | Visual aids                                       | Visual                                   | 100%                                | ongoing   | Preventive maintenance<br>machine,Program calibration injection<br>molding machine,process injection and<br>temperatures parameters  | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 190.12           |   |   |                 | Resistences not mixed                             |         |                           | Product drawing, Visual<br>aids                   | Visual                                   | Each piece                          | Start of production                                     | Op method DPNW-0.3-ME-00.01<br>A01,first sample release DPNW-5.3-CS-<br>P97-06.04 Proces inspection DPNW-5.3-<br>CS-P97-03.01 visual inspection, final<br>audit DPNW-5.3-CS-P97-06-04 Raw<br>material lock Check list. | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 190.13           |   |   |                 | resistences not mixed                             |         |                           | Product drawing, Visual<br>aids                   | Visual                                   | Each piece                          | Start of production                                     | QC audit of the raw material of resistance<br>and rack of resistance after assembly on<br>twice per sfith- program for validate the<br>electrical test DPNW-5.3-CS-P97-06-04<br>F01                                    | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 190.14           |   |   |                 | Connector widht                                   |         | PSD                       | Part Drawing ITEM 8<br>17.56 +/- 0.15             | Digital Caliper                          | 1 shot                              | Start. middle and<br>end of production,<br>every set-up | QC audit of the raw material of resistance<br>and rack of resistance after assembly on<br>twice per sfith- program for validate the<br>electrical test DPNW-5.3-CS-P97-06-04<br>F01                                    | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 190.15           |   |   |                 | Connector free of material<br>in the clip area    |         |                           | Visual Aid  | Mating Part Clip<br>15326712             | 1 shot                              | Start, half and end<br>of production shift.             | QC audit of the raw material of resistance<br>and rack of resistance after assembly on<br>twice per sfith- program for validate the<br>electrical test DPNW-5.3-CS-P97-06-04<br>F01                                    | Process Adjust Or<br>Mold Repair/ red tag<br>as required |
| 200              | Put parts on Buffer area  |   |                 | Material free of Bend Pins<br>or damage connector |         |                           | Op.Inspection<br>Instruction/ Product print       | Visual                                   | Each Pc.                            | Each Pc.  | Process inspection DPNW-5.3-CS-P97-<br>03.01 F01 Product Audit DPNW-5.3-CS-<br>4-7-06.01 operator method DPNW-0.3-<br>ME-00.01 A01   | Process Adjust Or<br>Mold Repair/ red tag<br>as required |

| Part /<br>Proc # | Process Name /<br>Operation description  | Machine, Device, Jig,<br>Tools For Mfg. | Characteristics |   |                      | Special<br>Char.<br>Class | Methods   |  |                                     |                                  |   | Reaction Plan  |
|------------------|--|---|-----------------|---|----------------------|---------------------------|---|--|-------------------------------------|----------------------------------|---|--|
|                  |  |   | No.             | Product   | Process              |                           | Product / Process<br>Specification /<br>Tolerance | Evaluation /<br>Measurement<br>Technique                   | Sample<br>Size                      | Sample<br>Freq.                  | Control Method  |  |
| 210              | Molding parts Process<br>inspection  | Mold Mach. 80 tons.                     |                 | Pass connector by process<br>inspection, dont pass non<br>conformances parts  |                      |                           | Op method   | Visual   | Each Pc.                            | Each Pc.                         | Inspection instructive operator DPNW-<br>5.3-CS-P97-03.01 F01 Op method<br>DPNW-0.3-ME-00.01 A01, Product audit<br>DPNW-5.3-CS-4-7-06.01  | Process Adjust Or<br>Mold Repair. Red Tag<br>As Required |
| 220              | Perform electrical test, mark<br>of the resistance value on the<br>connector (from cavities 10 to<br>17) and packing |   |                 | Not open circuit or short<br>circuit, resistor within<br>tolerance, complete std<br>pack, correct handling of<br>Non conformant parts |                      |                           | Op method   | Visual   | Each Pc.                            | Each Pc.                         | Continuity testing, Op method DPNW-<br>0.3-ME-00.01 A01 product audit DPNW-<br>5.3-CS-4-7-06.01, First sample release<br>DPNW-5.3-CS-P97-06.04 F01 Electrical<br>tester mark, certificated operator, PM<br>tester | Process Adjust Or<br>Mold Repair. Red Tag<br>As Required |
| 220.1            |  |   |                 | Not open circuit or short<br>circuit, resistor within<br>tolerance, complete std<br>pack, correct handling of<br>Non conformant parts |                      |                           | Op method   | Visual   | Each Pc.                            | Each Pc.                         | automatic counter in electrical tester,<br>Guard to prevent the bad handling of Non<br>conformant parts, process sheet, release<br>check-list DPNW-5.3-CS-P97-06-04 F01   | Process Adjust Or<br>Mold Repair. Red Tag<br>As Required |
| 230              | Process Inspection by Mfg  |   |                 | inspect visual attributes   |                      |                           | Op. Inspection<br>Instruction, Visual Aid         | Visual Inspection/<br>measurement<br>equipment as it apply | According to<br>IIO                 | According to IIO                 | Instruction inspection operator, Process<br>inspection DPNW-5.3-CS-P97-03.01 F01<br>Process Audit DPNW-5.3-CS-4-7-06.01<br>piece free of defects and parting line all<br>around, AVP                              | Red Tag As Required                                      |
| 240              | Move material to Final<br>product area   |   |                 | Pack free of damage, labels<br>free of damage   |                      |                           | Op. Inspection                                    | Visual   | Each box                            | each box                         | Product Audit DPNW-5.3-CS-4-7-06.01.<br>Layer Audit   | Process adjust/ Red Tag<br>As Required                   |
| 250              | Perform Product Audit  |   |                 | Attributes inspection   |                      |                           | Op. Inspection<br>Instruction /Visual Aid         | Visual   | According to<br>IIO                 | According to IIO                 | Product Audit DPNW-5.3-CS-4-7-06.01<br>WI DPNP-5.2-PC-OM-04, Quality seal on<br>box material  | Red Tag As Required                                      |
| 260              | Move parts to care<br>containment area (if apply)  |   |                 | Material free of damage   |                      |                           | No defects according to<br>method operation       | Visual   | 100%                                | Each container                   | Operator method DPNW-0.3-ME-00.01<br>A01, -D-visual aids DPNW-4.7-CS-OM-<br>01.01 F01, -D-containment inspection  | Red Tag As Required                                      |
| 270              | Care containment (if apply)  |   |                 | Attributes inspection   |                      |                           | No defects according to<br>visual aids            | Visual   | 100%                                | Each container                   | Containment W.I DPNP-5.2-PC-OM-04,<br>AVP, green dot is apply in the external<br>side of container to evidence  | Red Tag As Required                                      |
| 280              | Move parts to shipping area  |   |                 |   | No damage<br>packing |                           | Op. Method finished<br>goods picking              | Visual   | Each box                            | Each box                         | Process inspection DPNW-5.3-CS-P97-<br>03.01 F01, Process Audit DPNW-5.3-<br>MG-P84-04.13 F01, Layer Audit, Operator<br>method  | Red Tag As Required                                      |
| 290              | Shipping Audit   | Quality final assembly<br>auditor       |                 | Correct ID  |                      |                           | Op. Instruction                                   | Visual   | According to<br>Work<br>instruction | According to Work<br>instruction | Shipping Audit W.I DPNP-5.2-PC-OM-04  | Red Tag As Required                                      |
| 300              | Shipping to distribution center  |   |                 | No damage packing   |                      |                           | Handling material<br>Method                       | Visual   | Each box                            | Each box                         | Certificated Drive Freight<br>Elevator, Shipping final product operator<br>method DPNW-5.3-CS-P97-06-04 F01   | Red Tag As Required                                      |