PART SUBMISSION WARRANT

Part Name	34 W/M Hybrid Sealed Connector Assembly	Customer Part Number	FU5T-14A624-CC(000)
Shown on Drawing No.	FU5T-14A624-CC	Supplier Part Number	60013512A01C(000)
Engineering Change Level	S1 Ford Release AELE E 12035198 323	Dated	28-Feb-2015
Additional Engineering Changes	Na	Dated	Na
Safety and/or Government Regulation	☐ Yes ☑ No	Purchase Order No.	Na
Weight (kg)	0.0581		
Checking Aid No.	Na	Checking Aid Engineering Change Level	Na
Dated	Na		

SUPPLIER MANUFACTURING INFORMATION

Western Diversified Plastics / 609123190
Supplier Name & Supplier/Vendor Code

53150 N. Main St.
Street Address

Mattawan | MI | 49071 | USA
City | State | Postal Code | Country

CUSTOMER SUBMITTAL INFORMATION

Nursan
Customer Name/Division

Buyer/Buyer Code

Various
Application

MATERIALS REPORTING

Has customer-required Substances of Concern information been reported? ☑ Yes ☐ No ☐ Not Applicable
IMDS -504617055

Are polymeric parts identified with appropriate ISO marking codes? ☑ Yes ☐ No ☐ Not Applicable

REASON FOR SUBMISSION (Check at least one)

- ☑ Initial Submission
- ☐ Engineering Change(s)
- ☐ Tooling: Transfer, Replacement, Refurbishment, or additional
- ☐ Correction of Discrepancy
- ☐ Tooling Inactive > than 1 year
- ☐ Change to Optional Construction or Material
- ☐ Supplier or Material Source Change
- ☐ Change in Part Processing
- ☐ Parts Produced at Additional Location
- ☐ Other - please specify below

REQUESTED SUBMISSION LEVEL (Check one)

- ☐ Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.
- ☐ Level 2 - Warrant with product samples and limited supporting data submitted to customer.
- ☑ Level 3 - Warrant with product samples and complete supporting data submitted to customer.
- ☐ Level 4 - Warrant and other requirements as defined by customer.
- ☐ Level 5 - Warrant with product samples and complete supporting data reviewed at organization's manufacturing location.

SUBMISSION RESULTS

The results for ☑ dimensional measurements ☑ material and functional tests ☐ appearance criteria ☐ statistical process package
These results meet all drawing and specification requirements: ☑ Yes ☐ No (If "No" - Explanation Required)
Mold / Cavity / Production Process: Assembly

DECLARATION

I hereby affirm that the samples represented by this warrant are representative of our parts which were made by a process that meets all Production Part Approval Process Manual 4th Edition Requirements. I further affirm that these samples were produced at the production rate of 10000 / 8 hours. I also certify that documented evidence of such compliance is on file and available for review. I have noted any deviations from the declaration below.

EXPLANATION / COMMENTS: Customer requested

Is each Customer Tool properly tagged and numbered? ☐ Yes ☐ No ☑ n/a

Supplier Authorized Signature	Alice Lossie	Date	19-Mar-15
Print Name	Alice Lossie	Phone No.	269-668-3393
Fax No.	269-668-7143		
Title	Quality Engineer	E-mail	Alice.Lossie@westerndp.com

Part Warrant Disposition: ☐ Approved ☐ Rejected ☐ Other

Customer Signature | Date

Print Name | Customer Tracking Number (optional)

PART SUBMISSION WARRANT

Part Name	34 W/M Hybrid Sealed Connector Assembly	Customer Part Number	FU5T-14A624-CC(179)
Shown on Drawing No.	FU5T-14A624-CC	Supplier Part Number	60013512A01C(179)
Engineering Change Level	S1 Ford Release AELE E 12035198 323	Dated	28-Feb-2015
Additional Engineering Changes	Na	Dated	Na
Safety and/or Government Regulation	☐ Yes ☑ No	Purchase Order No.	Na
Weight (kg)	0.0581		
Checking Aid No.	Na	Checking Aid Engineering Change Level	Na
Dated	Na		

SUPPLIER MANUFACTURING INFORMATION

Western Diversified Plastics / 609123190
Supplier Name & Supplier/Vendor Code

53150 N. Main St.
Street Address

Mattawan | MI | 49071 | USA
City | State | Postal Code | Country

CUSTOMER SUBMITTAL INFORMATION

Nursan
Customer Name/Division

Buyer/Buyer Code

Various
Application

MATERIALS REPORTING

Has customer-required Substances of Concern information been reported? ☑ Yes ☐ No ☐ Not Applicable
IMDS -527369793

Are polymeric parts identified with appropriate ISO marking codes? ☑ Yes ☐ No ☐ Not Applicable

REASON FOR SUBMISSION (Check at least one)

- ☑ Initial Submission
- ☐ Engineering Change(s)
- ☐ Tooling: Transfer, Replacement, Refurbishment, or additional
- ☐ Correction of Discrepancy
- ☐ Tooling Inactive > than 1 year
- ☐ Change to Optional Construction or Material
- ☐ Supplier or Material Source Change
- ☐ Change in Part Processing
- ☐ Parts Produced at Additional Location
- ☐ Other - please specify below

REQUESTED SUBMISSION LEVEL (Check one)

- ☐ Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.
- ☐ Level 2 - Warrant with product samples and limited supporting data submitted to customer.
- ☑ Level 3 - Warrant with product samples and complete supporting data submitted to customer.
- ☐ Level 4 - Warrant and other requirements as defined by customer.
- ☐ Level 5 - Warrant with product samples and complete supporting data reviewed at organization's manufacturing location.

SUBMISSION RESULTS

The results for ☑ dimensional measurements ☑ material and functional tests ☐ appearance criteria ☐ statistical process package
These results meet all drawing and specification requirements: ☑ Yes ☐ No (If "No" - Explanation Required)
Mold / Cavity / Production Process: Assembly

DECLARATION

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EXPLANATION / COMMENTS: Customer requested

Is each Customer Tool properly tagged and numbered? ☐ Yes ☐ No ☑ n/a

Supplier Authorized Signature	Alice Lossie	Date	19-Mar-15
Print Name	Alice Lossie	Phone No.	269-668-3393
Fax No.	269-668-7143		
Title	Quality Engineer	E-mail	Alice.Lossie@westerndp.com

Part Warrant Disposition: ☐ Approved ☐ Rejected ☐ Other

Customer Signature | Date

Print Name | Customer Tracking Number (optional)

WDP Western Diversified Plastics

PART SUBMISSION WARRANT

Part Name	34 W/M Hybrid Sealed Connector Assembly	Customer Part Number	FU5T-14A624-CC(210)
Shown on Drawing No.	FU5T-14A624-CC	Supplier Part Number	60013512A01C(210)
Engineering Change Level	S1 Ford Release AELE E 12035198 323	Dated	28-Feb-2015
Additional Engineering Changes	Na	Dated	Na
Safety and/or Government Regulation	☐ Yes ☑ No	Purchase Order No. Na	Weight (kg) 0.0581
Checking Aid No.	Na	Checking Aid Engineering Change Level Na	Dated Na

SUPPLIER MANUFACTURING INFORMATION

Western Diversified Plastics / 609123190
Supplier Name & Supplier/Vendor Code

53150 N. Main St.
Street Address

Mattawan | MI | 49071 | USA
City | State | Postal Code | Country

CUSTOMER SUBMITTAL INFORMATION

Nursan
Customer Name/Division

Buyer/Buyer Code

Various
Application

MATERIALS REPORTING

Has customer-required Substances of Concern information been reported? ☑ Yes ☐ No ☐ Not Applicable
IMDS -527369793

Are polymeric parts identified with appropriate ISO marking codes? ☑ Yes ☐ No ☐ Not Applicable

REASON FOR SUBMISSION (Check at least one)

- ☑ Initial Submission
- ☐ Engineering Change(s)
- ☐ Tooling: Transfer, Replacement, Refurbishment, or additional
- ☐ Correction of Discrepancy
- ☐ Tooling Inactive > than 1 year
- ☐ Change to Optional Construction or Material
- ☐ Supplier or Material Source Change
- ☐ Change in Part Processing
- ☐ Parts Produced at Additional Location
- ☐ Other - please specify below

REQUESTED SUBMISSION LEVEL (Check one)

- ☐ Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.
- ☐ Level 2 - Warrant with product samples and limited supporting data submitted to customer.
- ☑ Level 3 - Warrant with product samples and complete supporting data submitted to customer.
- ☐ Level 4 - Warrant and other requirements as defined by customer.
- ☐ Level 5 - Warrant with product samples and complete supporting data reviewed at organization's manufacturing location.

SUBMISSION RESULTS

The results for ☑ dimensional measurements ☑ material and functional tests ☐ appearance criteria ☐ statistical process package
These results meet all drawing and specification requirements: ☑ Yes ☐ No (If "No" - Explanation Required)
Mold / Cavity / Production Process Assembly

DECLARATION

I hereby affirm that the samples represented by this warrant are representative of our parts which were made by a process that meets all Production Part Approval Process Manual 4th Edition Requirements. I further affirm that these samples were produced at the production rate of 10000 / 8 hours. I also certify that documented evidence of such compliance is on file and available for review. I have noted any deviations from the declaration below.

EXPLANATION / COMMENTS: Customer requested

Is each Customer Tool properly tagged and numbered? ☐ Yes ☐ No ☑ n/a

Supplier Authorized Signature	Alice Lossie	Date	19-Mar-15
Print Name	Alice Lossie	Phone No. 269-668-3393	Fax No. 269-668-7143
Title	Quality Engineer	E-mail	Alice.Lossie@westerndp.com

Part Warrant Disposition: ☐ Approved ☐ Rejected ☐ Other

Customer Signature | Date

Print Name | Customer Tracking Number (optional)

PART SUBMISSION WARRANT

Part Name	34 W/M Hybrid Sealed Connector Assembly	Customer Part Number	FU5T-14A624-CC(211)
Shown on Drawing No.	FU5T-14A624-CC	Supplier Part Number	60013512A01C(211)
Engineering Change Level	S1 Ford Release AELE E 12035198 323	Dated	28-Feb-2015
Additional Engineering Changes	Na	Dated	Na
Safety and/or Government Regulation	☐ Yes ☑ No	Purchase Order No.	Na
Weight (kg)	0.0581		
Checking Aid No.	Na	Checking Aid Engineering Change Level	Na
Dated	Na		

SUPPLIER MANUFACTURING INFORMATION

Western Diversified Plastics / 609123190
Supplier Name & Supplier/Vendor Code

53150 N. Main St.
Street Address

Mattawan | MI | 49071 | USA
City | State | Postal Code | Country

CUSTOMER SUBMITTAL INFORMATION

Nursan
Customer Name/Division

Buyer/Buyer Code

Various
Application

MATERIALS REPORTING

Has customer-required Substances of Concern information been reported? ☑ Yes ☐ No ☐ Not Applicable
IMDS -527369815

Are polymeric parts identified with appropriate ISO marking codes? ☑ Yes ☐ No ☐ Not Applicable

REASON FOR SUBMISSION (Check at least one)

- ☑ Initial Submission
- ☐ Engineering Change(s)
- ☐ Tooling: Transfer, Replacement, Refurbishment, or additional
- ☐ Correction of Discrepancy
- ☐ Tooling Inactive > than 1 year
- ☐ Change to Optional Construction or Material
- ☐ Supplier or Material Source Change
- ☐ Change in Part Processing
- ☐ Parts Produced at Additional Location
- ☐ Other - please specify below

REQUESTED SUBMISSION LEVEL (Check one)

- ☐ Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.
- ☐ Level 2 - Warrant with product samples and limited supporting data submitted to customer.
- ☑ Level 3 - Warrant with product samples and complete supporting data submitted to customer.
- ☐ Level 4 - Warrant and other requirements as defined by customer.
- ☐ Level 5 - Warrant with product samples and complete supporting data reviewed at organization's manufacturing location.

SUBMISSION RESULTS

The results for ☑ dimensional measurements ☑ material and functional tests ☐ appearance criteria ☐ statistical process package
These results meet all drawing and specification requirements: ☑ Yes ☐ No (If "No" - Explanation Required)
Mold / Cavity / Production Process: Assembly

DECLARATION

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EXPLANATION / COMMENTS: Customer requested

Is each Customer Tool properly tagged and numbered? ☐ Yes ☐ No ☑ n/a

Supplier Authorized Signature	Alice Lossie	Date	19-Mar-15
Print Name	Alice Lossie	Phone No.	269-668-3393
Fax No.	269-668-7143		
Title	Quality Engineer	E-mail	Alice.Lossie@westerndp.com

Part Warrant Disposition: ☐ Approved ☐ Rejected ☐ Other

Customer Signature | Date

Print Name | Customer Tracking Number (optional)

PART SUBMISSION WARRANT

Part Name	34 W/M Hybrid Sealed Connector Assembly	Customer Part Number	FU5T-14A624-CC(331)
Shown on Drawing No.	FU5T-14A624-CC	Supplier Part Number	60013512A01C(331)
Engineering Change Level	S1 Ford Release AELE E 12035198 323	Dated	28-Feb-2015
Additional Engineering Changes	Na	Dated	Na
Safety and/or Government Regulation	☐ Yes ☑ No	Purchase Order No.	Na
Weight (kg)	0.0581		
Checking Aid No.	Na	Checking Aid Engineering Change Level	Na
Dated	Na		

SUPPLIER MANUFACTURING INFORMATION

Western Diversified Plastics / 609123190
Supplier Name & Supplier/Vendor Code

53150 N. Main St.
Street Address

Mattawan | MI | 49071 | USA
City | State | Postal Code | Country

CUSTOMER SUBMITTAL INFORMATION

Nursan
Customer Name/Division

Buyer/Buyer Code

Various
Application

MATERIALS REPORTING

Has customer-required Substances of Concern information been reported? ☑ Yes ☐ No ☐ Not Applicable
IMDS -527369828

Are polymeric parts identified with appropriate ISO marking codes? ☑ Yes ☐ No ☐ Not Applicable

REASON FOR SUBMISSION (Check at least one)

- ☑ Initial Submission
- ☐ Engineering Change(s)
- ☐ Tooling: Transfer, Replacement, Refurbishment, or additional
- ☐ Correction of Discrepancy
- ☐ Tooling Inactive > than 1 year
- ☐ Change to Optional Construction or Material
- ☐ Supplier or Material Source Change
- ☐ Change in Part Processing
- ☐ Parts Produced at Additional Location
- ☐ Other - please specify below

REQUESTED SUBMISSION LEVEL (Check one)

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- ☑ Level 3 - Warrant with product samples and complete supporting data submitted to customer.
- ☐ Level 4 - Warrant and other requirements as defined by customer.
- ☐ Level 5 - Warrant with product samples and complete supporting data reviewed at organization's manufacturing location.

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Mold / Cavity / Production Process: Assembly

DECLARATION

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EXPLANATION / COMMENTS: Customer requested

Is each Customer Tool properly tagged and numbered? ☐ Yes ☐ No ☑ n/a

Supplier Authorized Signature	Alice Lossie			Date	19-Mar-15
Print Name	Alice Lossie	Phone No.	269-668-3393	Fax No.	269-668-7143
Title	Quality Engineer	E-mail	Alice.Lossie@westerndp.com		

Part Warrant Disposition: ☐ Approved ☐ Rejected ☐ Other

Customer Signature | Date

Print Name | Customer Tracking Number (optional)

PROCESS FLOW DIAGRAM

53150 North Main St.
Mattawan, MI – 49071
Phone: (269) 668-3393
Fax: (269) 668-4694

Process Flow #	3512-01	Date (Org)	8/17/2007 Date Rev. 10/14/2014
Item / Part #	3512x-01-001C(xxx), all versions	Prepared By	Alice Lossie
Program / Part Name	34 W/M Hybrid Conn Asmy		

Step	Operation	Move	Store	Inspect	Operation Description / Key Product Characteristics
0	○	△	▽	■	Containment for Initial Startup Production
10	●	▲	▽	□	Receive Purchase Component
20	○	△	▽	■	Receiving Inspection
30	●	△	▽	□	Assemble Components (Sub Assembly / Molded & Purchased)
40	○	△	▽	■	First Article Inspection
50	○	△	▽	■	In Process Inspection
60	○	△	▽	■	100% Auto Inspection of Assembly
70	●	△	▽	□	Packaging and Labeling
80	○	△	▽	■	Final Audit Inspection
90	○	△	▼	□	Store Parts In-House
100	●	△	▽	□	Assemble Components (Final Assembly / Sub Assy & Molded)
110	○	△	▽	■	First Article Inspection
120	○	△	▽	■	In Process Inspection
130	○	△	▽	■	100% Auto Inspection of Assembly
140	●	△	▽	□	Packaging and Labeling
150	○	△	▽	■	Final Audit Inspection
160	○	△	▽	■	100 % Visual Inspection of the assembly
170	●	△	▽	□	Ship the parts to customer
500	○	△	▽	■	Annual Layout
500	○	△	▽	■	Annual Product Validation per DVP&R

WDP
Western Diversified Plastics

53150 North Main St.
Mattawan, MI – 49071
Phone: (269) 668-3393
Fax: (269) 668-4694

POTENTIAL FAILURE MODE AND EFFECTS ANALYSIS (Process FMEA)

FMEA Number: **3512-01**

ITEM: **3512x-01-001C(xxx), all versions** Process Responsibility: **WDP Mfg. Engineering** Prepared by: **Alice Lossie - QE / Steven Taylor - ME**

MODEL YEAR(s) / PROGRAM(s): **34 W/M Hybrid Conn Asmy** Key Date: **8/17/2007** FMEA Date (Orig): **8/17/2007**

CORE TEAM: **Alice Lossie - QE / Primo Garcia / Mfg. Eng. Mgr. / Mike Davidson - PM / Ed Webb - Plant Superintendent / Christy Sackrider - Quality Supervisor** FMEA Date (Rev): **10/14/2014**

PROCESS FUNCTION / REQUIREMENTS	POTENTIAL FAILURE MODE	POTENTIAL EFFECTS OF FAILURE	SEV	CLASS	POTENTIAL CAUSE(S)/ MECHANISM OF FAILURE	OCC	Current Controls: CURRENT DESIGN / PROCESS CONTROL PREVENTION	Current Controls: CURRENT DESIGN / PROCESS CONTROL DETECTION	DET	RPN	RECOMMENDED ACTION(S)	RESPONSIBILITY &TARGET COMPLETION DATE	ACTION RESULTS: ACTION TAKEN	ACTION RESULTS: SEV	ACTION RESULTS: OCC	ACTION RESULTS: DET	ACTION RESULTS: RPN
Receiving-Purchase Materials Process 10	Incorrect material composition for the application specified	Premature failures of the part design due to the material properties	5		Error in raw material handling or processing at supplier.	2	1. Suppliers are ISO 9001 certified at minimum. 2. See supplier PFMEA. 3. Training of the Receiving Inspector to the work Instructions.	1. Supplier submits PPAP to WDP. 2. Supplier submits Certificate of Compliance with each shipment. 3. Materials labels are scanned into the DTR for Verification.	6	60	TBD						
	Molded Grommet defective	Assembly non functional	5		See individual Supplier pFMEA for this component	2	1. See Supplier Audit of this Supplier verifying the Supplier Controls. 2. Material Handling training to the MWI208 Warehouse receiving and Quality procedures and Work Instructions.	1. See individual Control Plan for this component. 2. Material Certification of Compliance from the Supplier. 3. Materials labels are scanned into the DTR for Verification.	5	50	TBD						
	Molded Interfacial Seal defective	Assembly non functional	5		See individual Supplier pFMEA for this component	2	1. See Supplier Audit of this Supplier verifying the Supplier Controls. 2. Material Handling training to the MWI208 Warehouse receiving and Quality procedures and Work Instructions.	1. See individual Control Plan for this component. 2. Material Certification of Compliance from the Supplier. 3. Materials labels are scanned into the DTR for Verification.	5	50	TBD						
	Internal Molded Components defective (Connector Shell) (Grommet Cover) (Spacer)	Assembly non functional	5		See individual pFMEA for this component	2	1.Quallity Management System at WDP to assure conformance to Specifications. 2. Associates training to the procedures and Work Instructions.	1. See individual Control Plan for this component. 2. Material inspection Compliance in the WDP Database.	5	50	Review per CAR WDP1226 and WDP1231 for incorrect Latchfingers in the hard shell.	Brenda Lewman 10/2/2014 Marge Gest 10/14/2014	Requiested CA from the toll source received 10/02/2014 Reworked all the inserts to the updated design. No changes to the RPN. - ST				
Receiving Inspection Process 20	Incorrect material composition received for the application.	Premature failures of the part design due to the material properties	5		1. Wrong material composition shipped by material supplier. 2. Mislabeling internally.	2	1. Procedure QWI0022 Receiving Inspection procedure defines the Receiving inspection process. 3. Quality inspector training to execute the control plan. 4. Supplier's internal controls	1. Materials certification documentation with the shipment. 2. Receiving Inspection per Control Plan documented in the database. 3. Melt index test per control plan.	5	50							
	Purchased material that will not comply with the print specifications	1. Dimensional inconsistency 2. Physical properties inadequate for design requirements 3. Part incomplete or deformed	5		1. Machine parameters set up incorrectly on the machine 2. Supplier Tooling Failures 3. Supplier Machine Failures 4. Supplier Operational failures	3	1. See Supplier Audit of this Supplier verifying the Supplier Controls. 2. Material Handling training to the MWI208 Warehouse receiving and Quality procedures and Work Instructions.	1. Receiving inspection QWI0022 Receiving Inspection by Quality documented in the database. 2. Receiving Inspection testing per the Control Plan. 3.	6	90	Add Keyence Measurement Device to the Control Plan.	Ted Luebke 10/12/2014	Added the Keyence to Plant #5 and trained the inspectors to use.	5	3	4	60
Assembly of **spacer** to connector Automated Assembly Process 30	Spacer missing	1. Open circuit in the finished application 2. Customer Rejection 3. Product Verification Sorting	4		1. Machine misfed 2. Part detection sensor failure	2	1. Master sample error proof verification 2. Machine logic does not cycle without part presence detection. 3. Inspector and Operator Training to the procedures.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. 100% machine inspection after assembly. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	3	24	TBD						

WDP
Western Diversified Plastics

53150 North Main St.
Mattawan, MI – 49071
Phone: (269) 668-3393
Fax: (269) 668-4694

POTENTIAL FAILURE MODE AND EFFECTS ANALYSIS (Process FMEA)

FMEA Number: **3512-01**

ITEM: **3512x-01-001C(xxx), all versions** Process Responsibility: **WDP Mfg. Engineering** Prepared by: **Alice Lossie - QE / Steven Taylor - ME**

MODEL YEAR(s) / PROGRAM(s): **34 W/M Hybrid Conn Asmy** Key Date: **8/17/2007** FMEA Date (Orig): **8/17/2007**

CORE TEAM: **Alice Lossie - QE / Primo Garcia / Mfg. Eng. Mgr. / Mike Davidson - PM / Ed Webb - Plant Superintendent / Christy Sackrider - Quality Supervisor** FMEA Date (Rev): **10/14/2014**

PROCESS FUNCTION / REQUIREMENTS	POTENTIAL FAILURE MODE	POTENTIAL EFFECTS OF FAILURE	SEV	CLASS	POTENTIAL CAUSE(S)/ MECHANISM OF FAILURE	OCC	Current Controls: CURRENT DESIGN / PROCESS CONTROL PREVENTION	Current Controls: CURRENT DESIGN / PROCESS CONTROL DETECTION	DET	RPN	RECOMMENDED ACTION(S)	RESPONSIBILITY &TARGET COMPLETION DATE	ACTION RESULTS: ACTION TAKEN	ACTION RESULTS: SEV	ACTION RESULTS: OCC	ACTION RESULTS: DET	ACTION RESULTS: RPN
	Spacer misoriented	1. Open circuit in the finished application 2. Customer Rejection 3. Product Verification Sorting	5		1. Machine misfed 2. Part detection sensor failure	1	1. Part design allows spacer assembly symmetrical 180° 2. Fixtures have been Pokey-Yoke to assemble to the locked position and proper orientation 3. Inspector and Operator Training to the procedures.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database 2. 100% machine inspection after assembly. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	1	5	TBD						
	Spacer damaged / broken	1. Not capture the terminals 2. Customer Rejection 3. Product Verification Sorting	5		1. Machine misfed 2. Molding issues	3	1. Camera is in line to verify that spacers are not broken. 2. Fixtures and cylinder stoke have been designed to assemble to locked position - positive stop in equipment. 3. Inspector and Operator Training to the procedures. Receiving inspection process. 4. Individual control plan /FMEA to verify the molding process to make sure components are not broken or damaged in the molding process.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database documented in the database. 2. 100% machine inspection after assembly. 3. In-Process Inspection by floor operator. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.	5	75	TBD						
	Spacer fully engaged from prestaged position (seated)	1. Requires wire harness assembler to pull spacer out to prestage position prior to assembling terminals 2. Customer Rejection 3. Product Verification Sorting	3		1. Machine cylinder over stroke	5	1. Cylinder stroke position sensor 2. Fixtures and cylinder stoke have been designed to assemble to locked position - positive stop in equipment. 3. Inspector and Operator Training to the procedures.	1. 100% machine inspection after assembly. (Camera) 2. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	5	75	TBD						
Assembly of **Grommet** to connector Automated Assembly Process 30	Grommet missing	1. Connector leak causing open circuit 2. Customer Rejection 3. Product Verification Sorting	4		1. Machine misfed 2. Part detection sensor failure	3	1. Master sample error proof verification 2. Machine logic does not cycle without part presence detection. 3. Inspector and Operator Training to the procedures.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. 100% machine inspection after assembly. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	3	36	Review per CAR WDP0569 for missing Grommet	Alice Lossie 2/10/2012	Reviewed the PM records and 100% Verified product.				
	Grommet miss orientated	1. Connector leak causing open circuit 2. Customer Rejection 3. Product Verification Sorting	4		1. Machine misfed 2. Part detection sensor failure	1	1. Part design allows grommet assembly symmetrical 180° 2. Fixtures have been Pokey-Yoke to assemble to the proper orientation 3. Inspector and Operator Training to the procedures.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. 100% machine inspection after assembly. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.	1	4	TBD						

WDP
Western Diversified Plastics

POTENTIAL
FAILURE MODE AND EFFECTS ANALYSIS
(Process FMEA)

53150 North Main St.
Mattawan, MI – 49071
Phone: (269) 668-3393
Fax: (269) 668-4694

FMEA Number: **3512-01**

ITEM: **3512x-01-001C(xxx), all versions** Process Responsibility: **WDP Mfg. Engineering** Prepared by: **Alice Lossie - QE / Steven Taylor - ME**

MODEL YEAR(s) / PROGRAM(s): **34 W/M Hybrid Conn Asmy** Key Date: **8/17/2007** FMEA Date (Orig): **8/17/2007**

CORE TEAM: **Alice Lossie - QE / Primo Garcia / Mfg. Eng. Mgr. / Mike Davidson - PM / Ed Webb - Plant Superintendent / Christy Sackrider - Quality Supervisor** FMEA Date (Rev): **10/14/2014**

PROCESS FUNCTION / REQUIREMENTS	POTENTIAL FAILURE MODE	POTENTIAL EFFECTS OF FAILURE	SEV	CLASS	POTENTIAL CAUSE(S)/ MECHANISM OF FAILURE	OCC	Current Controls: CURRENT DESIGN / PROCESS CONTROL PREVENTION	Current Controls: CURRENT DESIGN / PROCESS CONTROL DETECTION	DET	RPN	RECOMMENDED ACTION(S)	RESPONSIBILITY &TARGET COMPLETION DATE	ACTION RESULTS: ACTION TAKEN	ACTION RESULTS: SEV	ACTION RESULTS: OCC	ACTION RESULTS: DET	ACTION RESULTS: RPN
	Grommet Underfilled / Torn	1. Connector leak causing open circuit 2. Customer Rejection 3. Product Verification Sorting	4		1. Underfilled / Damaged Grommet received from supplier 2. Grommet damaged during assembly	2	1. Cylinder stroke position sensor 2. Supplier process controls 3. Inspector and Operator Training to the procedures.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. 100% machine inspection after assembly. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	3	24	TBD						
	Grommet dimensionally unstable	1. Connector leak causing open circuit 2. Customer Rejection 3. Product Verification Sorting	5		1. Grommet dimensionally undersized / oversized received from supplier 2. Grommet nonfunctional as designed in the assembly. 3. Peg holes will not line up with the cover.	3	1. Training of the receiving inspector to conduct inspections to the Control Plan. 2. Supplier process controls 3. In process Testing for sealing.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. Supplier PPAP back to WDP with inspection data. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	6	90	TBD						
First Article Inspection Process 40	Inspection process does not detect defects	1. Customer Rejection, see molding and or assembly process for specifics 2. Verification Sorting of all product.	5		1. Inspection Instructions not adequate 2. Inspection instructions not followed 3. Operator error	2	1. Inspection instructions reviewed by multiple levels of management 2. Inspector and Operator Training to the procedures. 3. Internal auditing of the process per procedure QWI025 Internal Audit Instructions.	1. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database. 2. Control plan in the WDP database.	6	60	TBD						
In Process Inspection Process 50	See First Article Inspection and Control plan in the WDP Database	See First Article Inspection and Control plan in the WDP Database	5		See First Article Inspection and Control plan in the WDP Database	2	See First Article Inspection and Control plan in the WDP Database	See First Article Inspection and Control plan in the WDP Database	7	70	TBD						
100% inspection of Assembly Automated Assembly Process 60	Parts mis-assembled (wrong or missing components)	1. Cause loss of designed functionality	7		1. Vision system not detecting mis-assembled parts	1	1. Training on setup of equipment. 2. Computer controlled system. 3. Use of master samples to verify vision system. 4. Inspector and Operator Training to the procedures.	1. In station Sensor Inspection for defects 2. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 3. In Process inspection 4. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	2	14	TBD						
Packaging Verification Process 70	Fractures or cracks in the assembly	1. Potentially damaging wires causing open or short circuit 2. Results in parts crushed and/or deformed during storage or shipment 3. Will not mate to mating part(s) 4. Loss of assembly integrity	6		1. Operator not following packaging instructions 2. Over/Under packaged carton quantity	2	1. Packaging plan operating procedures 2. Packaging set up documentation per job instructions 3. Operator training with packaging plan	1. In Process inspection 2. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.. 3. 3000 Mile Shake and Drop Test Conducted by Packaging company.	6	72	TBD						

WDP
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POTENTIAL FAILURE MODE AND EFFECTS ANALYSIS (Process FMEA)

FMEA Number: **3512-01**

ITEM: **3512x-01-001C(xxx), all versions** Process Responsibility: **WDP Mfg. Engineering** Prepared by: **Alice Lossie - QE / Steven Taylor - ME**

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	Mixed parts (polarities, colors, etc.) in the package	1. Customer rejection 2. Potential customer manufacturer shut down 3. Verification Sorting	4		1. Packages sitting open and unsealed 2. Operators not cleaning out job setups from run to run	3	1. Packaging plan 2. Operator training of their instructions	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. In Process inspection 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	6	72	TBD						
	Trapped debris or contaminates from the molding process in the shipping container	1. Open or short circuit 2. Loss of assembly integrity 3. Verification Sorting	4		1. Packages sitting open for long periods allow debris and contaminates to accumulate 2. Operator not following packaging instructions	2	1. Packaging plan / instructions 2. Operator training of their instructions 3. Housekeeping	1. In Process inspection documented in the database. 2. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	6	48	TBD						
	Incorrect Label	1. Customer rejection 2. Potential customer manufacturer shut down 3. Verification Sorting	2		1. Operator not following packaging instructions	3	1. Packaging plan / instructions in DTR database. 2. Housekeeping and Line clearance from previous run. 3. Inspector and Operator Training to the inspection and scanning procedures.	1. In Process inspection by Quality documented in the Database. 2. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database. 3. Scanners used at the Final audit station and in Shipping.	6	36	TBD						
	Incorrect carton count	1. Customer rejection 2. Potential customer manufacturer shut down 3. Verification Sorting	2		1. Count operation not setup properly. 2. Calibration error in counting equipment.	2	1. Scale count - scales are calibrated and procedure for performing operation. 2. Machine count, dependent on limit switches and programming logic. 3. Training to procedure QWI012 Using Scale at Final Audit	1. Visual appearance of full box. 2. Periodic product / process audit.	7	28	TBD						
Final Audit Inspection Process 80	Inspection process not completed	1. Potential nonconforming part will be produced 2. Customer rejection 3. Potential customer manufacturer shut down 4. Verification Sorting	5		1. Inspection instructions not followed 2. Inspector error	2	1. Internal auditing process per the procedure QMP05 Internal Audit 2. Final Audit inspection per QWI016 Final Audit Inspection and Scanning Instruction 3. Customer specifications developed during the Product Development process and is approved by the customer at PPAP. 4. Inspector training of QWI016 Final Audit inspection and Scanning Instruction	1. Product is deemed "not produced" until final label is scanned to go to warehouse per QWI016 Final Audit Inspection and Scanning Instruction 2. Specifications from the Control plan documented in the WDP Database	5	50	TBD						

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PROCESS FUNCTION / REQUIREMENTS	POTENTIAL FAILURE MODE	POTENTIAL EFFECTS OF FAILURE	SEV	CLASS	POTENTIAL CAUSE(S)/ MECHANISM OF FAILURE	OCC	Current Controls: CURRENT DESIGN / PROCESS CONTROL PREVENTION	Current Controls: CURRENT DESIGN / PROCESS CONTROL DETECTION	DET	RPN	RECOMMENDED ACTION(S)	RESPONSIBILITY &TARGET COMPLETION DATE	ACTION RESULTS: ACTION TAKEN	ACTION RESULTS: SEV	ACTION RESULTS: OCC	ACTION RESULTS: DET	ACTION RESULTS: RPN
	Inspection process not effective	1. Potential nonconforming part will be produced 2. Customer rejection 3. Potential customer manufacturer shut down 4. Verification Sorting	5		1. Inspection Instructions not adequate 2. Inspection instructions not completed correctly 3. Inspector error	2	1. Inspection instructions reviewed by multiple levels of management 2. Inspector training of QWI016 Final Audit inspection and Scanning Instruction. 3. Internal auditing process per the procedure QMP05 Internal Audit	1. Product Development Process (PDP) 2. Non-conforming pictures in WDP Database 3. Alerts in WDP Database, when required	3	30	TBD						
Store Parts In-House Process 90	•Wrong product stored •Product stored in wrong location	•Product non-functional for the customers application •Potential customer Mfg. shut down •Customer dissatisfaction	4		•Mis-labeled cartons •Operator not following label instructions	2	1. Confirmation of line clearance from previous run per QWI010 First & Last Article Inspection Instructions 2. Operator training per MWI004-F001I Molding Inspection instructions. 3. Operator training per MWI004 - LABEL - ID and USE	1. Final Audit inspection instructions per QWI016 Final Audit Inspection and Scanning Instruction 2. Label Verification Master used by operator	3	24							
Assembly of **Grommet Cover** to connector Automated Assembly Process 100	Cover missing	1. Wire harness Potential loss of grommet - Connector leak causing open circuit 2. Customer Rejection 3. Product Verification Sorting	4		1. Machine misfed 2. Part detection sensor failure	2	1. Master sample error proof verification 2. Machine logic does not cycle without part presence detection. 3. Inspector and Operator Training to the procedures.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. 100% machine inspection after assembly. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	2	16	TBD						
	Cover misoriented	1. Wire harness Potential loss of grommet - Connector leak causing open circuit 2. Customer Rejection 3. Product Verification Sorting	4		1. Machine misfed 2. Part detection sensor failure	2	1. Part design allows Grommet Cover assembly symmetrical 180° 2. Fixtures have been Pokey-Yoke to assemble in proper orientation 3. Inspector and Operator Training to the procedures.	1. Design Error-proofed so the cover can only be oriented 1 way. 2. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 3. 100% machine inspection after assembly. 4. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.	2	16	Add sensor to check for backward cover.	SE / SM 6/3/2013	WDP0882 / 0884 Added another sensor to catch backward covers. 6/3/2013 No changes to RPN AL				
	Wrong Cover Pin Configuration (Orientation)	1. Wire harness Potential cutting of wires - Connector leak causing open circuit 2. Customer Rejection 3. Product Verification Sorting	4		1. Punch machine set up wrong. 2. Operator error 3. Vision system failure	3	1. Operator set up instructions 2. Inspector and Operator Training to the procedures. 3. Verification test parts	1. Operator in process inspection 2. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 3. 100% machine vision system inspection after assembly. 4. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	6	72	Add Fixture to check pin configuration	Alice Lossie 08/3/2012	WDP0676 AL Systemic for WDP0700 added fixture FW-0128 to check pin configuration AL No changes to RPN				

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	Cover not fully engaged (seated)	1. Wire harness Potential cutting of wires - Connector leak causing open circuit 2. Customer Rejection 3. Product Verification Sorting	4		1. Machine cylinder under stroke	2	1. Cylinder stroke position sensor 2. Fixtures and cylinder stoke have been designed to assemble to locked position - positive stop in equipment. 3. Inspector and Operator Training to the procedures.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. 100% machine vision system inspection after assembly. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.. 4 Machine PM maintenance to maintain optimal function.	2	16	TBD						
	Cover pegs broken and / or bent	1. Wire harness Potential cutting of wires - Connector leak causing open circuit 2. Customer Rejection 3. Product Verification Sorting	4		1. Machine cylinder malfunction. 2. Molding ejection process not stable. Grommet not dimensionally stable.	2	1. Cylinder stroke position sensor 2. Fixtures and cylinder stoke have been designed to assemble to locked position - positive stop in equipment. 3. Inspector and Operator Training to the procedures. Receiving inspection process.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. 100% machine vision system inspection after assembly. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.. 4 Machine PM maintenance to maintain optimal function.	2	16	Reviewed CAR WDP 0632 for Bent Cover pegs.	Alice lossie 06/15/2012	No changes required				
	Cover peg holes not punched clean. (Chads)	1. Wire harness Potential cutting of wires - Connector leak causing open circuit 2. Customer Rejection 3. Product Verification Sorting	4		1. Machine cylinder punch malfunction. 2. Molding ejection process not stable. Cover not dimensionally stable.	2	1. Cylinder stroke position sensor 2. Fixtures and cylinder stoke have been designed to assemble to locked position - positive stop in equipment. 3. Inspector and Operator Training to the procedures.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. 100% machine vision system inspection after assembly. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.. 4 Machine PM maintenance to maintain optimal function.	2	16	TBD						
	Cover station cylinders becoming too weak to pick up the covers.	1. Will not grip the cover properly. 2. Customer Rejection 3. Product Verification Sorting	4		1. Machine cylinder malfunction. 2. Cover will misalign and not seat properly on the connector.	3	1. Inspector and Operator Training to the procedures. 2. Predictive Maintenance scheduled weekly.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.. 3. Machine PM maintenance to maintain optimal function.	6	72	TBD						

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First Article Inspection Process 110	Inspection process does not detect defects	1. Customer Rejection, see molding and or assembly process for specifics 2. Verification Sorting of all product.	5		1. Inspection Instructions not adequate 2. Inspection instructions not followed 3. Operator error	2	1. Inspection instructions reviewed by multiple levels of management 2. Inspector and Operator Training to the procedures. 3. Internal auditing of the process per procedure QWI025 Internal Audit Instructions.	1. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database. 2. Control plan in the WDP database.	6	60	TBD						
In Process Inspection Process 120	See First Article Inspection and Control plan in the WDP Database	See First Article Inspection and Control plan in the WDP Database	5		See First Article Inspection and Control plan in the WDP Database	2	See First Article Inspection and Control plan in the WDP Database	See First Article Inspection and Control plan in the WDP Database	7	70	TBD						
100% inspection of Assembly Automated Assembly Process 130	Parts mis-assembled (wrong or missing components)	1. Cause loss of designed functionality	7		1. Vision system not detecting mis-assembled parts	1	1. Training on setup of equipment. 2. Computer controlled system. 3. Use of master samples to verify vision system. 4. Inspector and Operator Training to the procedures.	1. In station Sensor Inspection for defects 2. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 3. In Process inspection 4. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	2	14	TBD						
Packaging Verification Process 140	Fractures or cracks in the assembly	1. Potentially damaging wires causing open or short circuit 2. Results in parts crushed and/or deformed during storage or shipment 3. Will not mate to mating part(s) 4. Loss of assembly integrity	6		1. Operator not following packaging instructions 2. Over/Under packaged carton quantity	2	1. Packaging plan operating procedures 2. Packaging set up documentation per job instructions 3. Operator training with packaging plan	1. In Process inspection 2. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.. 3. 3000 Mile Shake and Drop Test Conducted by Packaging company.	6	72	TBD						
	Mixed parts (polarities, colors, etc.) in the package	1. Customer rejection 2. Potential customer manufacturer shut down 3. Verification Sorting	4		1. Packages sitting open and unsealed 2. Operators not cleaning out job setups from run to run	3	1. Packaging plan 2. Operator training of their instructions	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. In Process inspection 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	6	72	TBD						
	Trapped debris or contaminates from the molding process in the shipping container	1. Open or short circuit 2. Loss of assembly integrity 3. Verification Sorting	4		1. Packages sitting open for long periods allow debris and contaminates to accumulate 2. Operator not following packaging instructions	2	1. Packaging plan / instructions 2. Operator training of their instructions 3. Housekeeping	1. In Process inspection documented in the database. 2. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	6	48	TBD						

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	Incorrect Label	1. Customer rejection 2. Potential customer manufacturer shut down 3. Verification Sorting	2		1. Operator not following packaging instructions	3	1. Packaging plan / instructions in DTR database. 2. Housekeeping and Line clearance from previous run. 3. Inspector and Operator Training to the inspection and scanning procedures.	1. In Process inspection by Quality documented in the Database. 2. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database. 3. Scanners used at the Final audit station and in Shipping.	6	36	TBD						
	Incorrect carton count	1. Customer rejection 2. Potential customer manufacturer shut down 3. Verification Sorting	2		1. Count operation not setup properly. 2. Calibration error in counting equipment.	2	1. Scale count - scales are calibrated and procedure for performing operation. 2. Machine count, dependent on limit switches and programming logic. 3. Training to procedure QWI012 Using Scale at Final Audit	1. Visual appearance of full box. 2. Periodic product / process audit.	7	28	TBD						
Final Audit Inspection Process 150	Inspection process not completed	1. Potential nonconforming part will be produced 2. Customer rejection 3. Potential customer manufacturer shut down 4. Verification Sorting	5		1. Inspection instructions not followed 2. Inspector error	2	1. Internal auditing process per the procedure QMP05 Internal Audit 2. Final Audit inspection per QWI016 Final Audit Inspection and Scanning Instruction 3. Customer specifications developed during the Product Development process and is approved by the customer at PPAP. 4. Inspector training of QWI016 Final Audit inspection and Scanning Instruction	1. Product is deemed "not produced" until final label is scanned to go to warehouse per QWI016 Final Audit Inspection and Scanning Instruction 2. Specifications from the Control plan documented in the WDP Database	5	50	TBD						
	Inspection process not effective	1. Potential nonconforming part will be produced 2. Customer rejection 3. Potential customer manufacturer shut down 4. Verification Sorting	5		1. Inspection Instructions not adequate 2. Inspection instructions not completed correctly 3. Inspector error	2	1. Inspection instructions reviewed by multiple levels of management 2. Inspector training of QWI016 Final Audit inspection and Scanning Instruction. 3. Internal auditing process per the procedure QMP05 Internal Audit	1. Product Development Process (PDP) 2. Non-conforming pictures in WDP Database 3. Alerts in WDP Database, when required	3	30	TBD						
100% Visual Inspection of Product Process 160	1. Lack of discipline of the inspector to process control plan	1. Customer rejection 2. Potential customer manufacturing shut down 3. Verification Sorting	5		1. Operator not following proper instructions 2. Human Error	2	1. Inspector and Operator Training to the procedures.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. In Process inspection and documented in the database. 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.	6	60	TBD						

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	1. Visual Inspection not 100% effective	1. Customer rejection 2. Potential customer manufacturing shut down 3. Verification Sorting	5		1. Operator not following proper instructions 2. Human Error	2	1. Inspector and Operator Training to the procedures.	1. First article inspection QWI0010 First and Last Piece Inspection by Quality documented in the database. 2. In Process inspection 3. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database..	6	60	TBD						
Shipping Process 170	•Wrong product shipped to customer	1. Product non-functional for the customers application 2. Potential customer Mfg. shut down 3. Customer dissatisfaction 4. Verification re-sorting	4		1. Mis-labeled cartons 2. Operator not following label instructions 3. Improper shipping instructions	2	1. Packaging Plan developed by Manufacturing Engineering in the PDP process. 2. Packaging Instructions 3. Operator training with shipping instructions 4. Bar Code ERP system for shipping	1. Bar code ERP system 2. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.. 3. Operator label verification	3	24	TBD						
	•Product shipped to wrong customer	1. Product non-functional for the customers application 2. Potential customer Mfg. shut down 3. Customer dissatisfaction 4. Verification re-sorting	4		1. Mis-labeled cartons 2. Operator not following label instructions 3. Improper shipping instructions	2	1. Packaging Plan developed by Manufacturing Engineering in the PDP process. 2. Packaging Instructions 3. Operator training with shipping instructions 4. Bar Code ERP system for shipping	1. Bar code ERP system 2. Final Audit inspection QWI0022 Final Audit Inspection & Scanning Instruction by Quality documented in the database.. 3. Operator label verification	3	24	TBD						

Control Plan

Western Diversified Plastics

Master on Computer - Printed Copies for Reference Only

[ ] Pre-Launch [X] Production [ ] Assembly [ ] GP-12 **Job Number** 3512A **Part** 60013512A01C(000)				**Key Contact / Phone** Alice Lossie 269.668.3393	**Date (Orig.)** 08/17/2007	**Date (Rev.)** 10/10/2014
Part Number	**Rev.**	**Engineering Number** 3512-01 Rev C	**Rev.**	**Core Team** A. Lossie, P. Garcia, E. Webb, M.Davidson, C. Sackrider	**Customer Engineering Approval / Date (If Req'd)**	
Part Name / Description 34 W M Hybrid Shell (Blk)				**Quality Engineering**	**Customer Quality Approval / Date (If Req'd)**	
Supplier / Plant WDP		**Supplier Code** 609123190		**Quality Control**	**Other Approval / Date (If Req'd)**	

Step No.	Process No.	Process Name Operation / Description	Machine, Device, Jig, or Tool for Manufacturing	Characteristics		Special Char. Class.	Methods					Reaction Plan
				Product	Process		Product/Process Specification/ Tolerance	Evaluation Measurement Technique	Sample Size	Sample Freq.	Control Method	
1	10	Receiving	Supplier	Purchased Grommet 3512-51-001, 3512-51-002			Verify PPAP is on file and not more than 1 year old	Supplier Database - Purchased Components		Each Lot / Each Shipment	QWI022 / Receiving Inspection	Reject Per QWI001 / Notify Supervisor / Request PPAP From Supplier
2	10	Receiving	Supplier	Purchased Grommet 3512-51-001, 3512-51-002			Inspect for any defects, underill, flash, tears, etc.	Visual	Sampling Plan AQL 1 / See Measuring Guide	Each Lot / Shipment	QWI022 / Receiving Inspection	Reject Per QWI001 / Notify Supervisor / Request RMA & 8D From Supplier
3	10	Receiving	Supplier	Purchased Grommet 3512-51-001, 3512-51-002			Verify parts have sufficient silicone	Visual / Verify Not Dry	Sampling Plan AQL 1 / See Measuring Guide	Each Lot / Shipment	QWI022 / Receiving Inspection	Reject Per QWI001 / Notify Supervisor / Request RMA & 8D From Supplier
4	10	Receiving	Supplier	Purchased Grommet 3512-51-001, 3512-51-002			Dimension- Outside Length 51.10 +.70 / -.0 mm	Keyence Measuring Device / Measuring Guide	10 Parts	Each Lot / Shipment	QWI022 / Receiving Inspection	Reject Per QWI001 / Notify Supervisor / Request RMA & 8D From Supplier
5	10	Receiving	Supplier	Purchased Grommet 3512-51-001, 3512-51-002			Dimension- Outside Width 26.60 +.50 / -.0 mm	Keyence Measuring Device / Measuring Guide	10 Parts	Each Lot / Shipment	QWI022 / Receiving Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
6	10	Receiving	Supplier	Purchased Grommet 3512-51-001			Dimension -(26) Hole Diameter .90 +/- 0.10 mm	Keyence Measuring Device / Measuring Guide	10 Parts	Each Lot / Shipment	QWI022 / Receiving Inspection	Reject Per QWI001 / Notify Supervisor / Request RMA & 8D From Supplier
7	10	Receiving	Supplier	Purchased Grommet 3512-51-002			Dimension- (26) Hole Diameter .70 +/- .10 mm	Keyence Measuring Device / Measuring Guide	10 Parts	Each Lot / Shipment	QWI022 / Receiving Inspection	Reject Per QWI001 / Notify Supervisor / Request RMA & 8D From Supplier
8	10	Receiving	Supplier	Purchased Grommet 3512-51-001, 3512-51-002			Place OK TO USE on acceptable cartons	Use OK TO USE stamp	Each Acceptable Carton	Each carton per shipment	Pass / Fail	Re-inspect cartons with no label
9	20	Automated Assembly	Sub Assembly Machine Station #1	Assembly Step #1 (1-30)			Shell Placement	Fiber Optice Eye Station #1	Each Part	Each Assembly	Operator Instructions	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Vision Syst
10	20	Automated Assembly	Sub Assembly Machine Station #2	Assembly Step #2 (1-30)			Spacer Placement	Vision System Station #3	Each Part	Each Assembly	Operator Instructions	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Vision Syst
11	20	Automated Assembly	Sub Assembly Machine Station #3	Assembly Step #3 (1-30)			Grommet Placement	Vision System Station #5	Each Part	Each Assembly	Operator Instructions	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Vision Syst
12	20	Automated Assembly	Sub Assembly Machine Station #6	Assembly Step #4 (1-30)			Eject Good Part Into Production Carton / Eject Bad Part Reject Bin	Vision System Stations #3 & #5	Each Part	Each Assembly	Operator Instructions	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Vision Syst

Control Plan

Western Diversified Plastics

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[ ] Pre-Launch [X] Production [ ] Assembly [ ] GP-12 **Job Number** 3512A **Part** 60013512A01C(000)				**Key Contact / Phone** Alice Lossie 269.668.3393	**Date (Orig.)** 08/17/2007	**Date (Rev.)** 10/10/2014
Part Number	**Rev.**	**Engineering Number** 3512-01 Rev C	**Rev.**	**Core Team** A. Lossie, P. Garcia, E. Webb, M.Davidson, C. Sackrider	**Customer Engineering Approval / Date (If Req'd)**	
Part Name / Description 34 W M Hybrid Shell (Blk)				**Quality Engineering**	**Customer Quality Approval / Date (If Req'd)**	
Supplier / Plant WDP		**Supplier Code** 609123190		**Quality Control**	**Other Approval / Date (If Req'd)**	

Step No.	Process No.	Process Name Operation / Description	Machine, Device, Jig, or Tool for Manufacturing	Characteristics		Special Char. Class.	Methods					Reaction Plan
				Product	Process		Product/Process Specification/ Tolerance	Evaluation Measurement Technique	Sample Size	Sample Freq.	Control Method	
13	30	First / Last Piece Inspection	Automated Assembly	Sub Assembly (1-30)			All Control Plan In-Process Inspection steps listed	See steps listed	2 Parts	At start up	QWI010 First/Last Article	Reject Per QWI001 / Notify Supervisor / Adjust Process
14	40	100% Inspection Automated Assembly	Automated Assembly	Sub Assembly (1-30)			Verify No Missing Components & Proper Component Placement	Vision System Stations # 3, & 5	Each Assembly	Each Cycle	Verification Test Parts Beginning Of Each Shift	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Vision Syst
15	50	In-Process Inspection	Automated Assembly	Sub Assembly (1-30)			Proper assembly	Visual Parts From Production Carton	10 Parts	Every 4 hours	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
16	50	In-Process Inspection	Automated Assembly	Sub Assembly (1-30)			Verify Correct Spacer Is Being Used For The Part Number Running	Visual Spacers & Labels To Label Verification Card	All Cartons By Machine	Every 4 hours	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
17	50	In-Process Inspection	Automated Assembly	Sub Assembly (1-30)			Verify No Molding Defects, underfill, flash, burn, warp, etc.	Visual Parts From Assembly Hoppers	25 Parts	Every 4 hours	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
18	50	In-Process Inspection	Automated Assembly	Sub Assembly (1-30)			Verify No Purchased Component Defects, Flash, Underfill, Tears, etc.	Visual Parts From Assembly Hoppers	25 Parts	Every 4 hours	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
19	50	In-Process Inspection	Automated Assembly	Sub Assembly (1-30)			Verify Operator Is Following Instructions & Aware Of Any Alerts	Verbally Verify With The Operator	Each Operator	At start up / Once A Shift	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
20	50	In-Process Inspection	Automated Assembly	Sub Assembly (1-30)			Carton Identification / Proper Label	Visual	All Labels At Point Of Use	At start up / Once A Shift	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Re-Print Labels
21	60	Manufacturing Packaging Verification	Automated Assembly	Sub Assembly (1-30)			Carton Identification / Proper Label	Visual	Each Label	Each Carton	MWI004 Label ID & Use	Reject Per QWI001 / Notify Supervisor / Re-Print Labels
22	70	Final Audit	Automated Assembly	Sub Assembly (1-30)			Proper assembly	Visual / Final Audit Graphic	25 Parts	Each Carton	QWI016 Final Audt Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
23	70	Final Audit	Automated Assembly	Sub Assembly (1-30)			Verify No Molding Defects, underfill, flash, burn, warp, etc.	Visual	25 Parts	Each Carton	QWI016 Final Audt Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
24	70	Final Audit	Automated Assembly	Sub Assembly (1-30)			Verify No Purchased Component Defects, Flash, Underfill, Tears, etc	Visual	25 Parts	Each Carton	QWI016 Final Audt Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
25	70	Final Audit	Automated Assembly	Sub Assembly (1-30)			Carton Identification / Proper Label	Visual	Each Label	Each Carton	QWI016 Final Audit Inspection	Reject Per QWI001 / Notify Supervisor / Re-Print Labels
26	80	Store In-House	Automated Assembly	Sub Assembly (1-30)			Sub Assembly	Scanning System	Each Carton	Each Skid	MWI209 Scanning From Plant To Warehouse Location	Reject Per QWI001 / Notify Supervisor / Adjust Process

Control Plan

Western Diversified Plastics

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[ ] Pre-Launch [X] Production [ ] Assembly [ ] GP-12 **Job Number** 3512A **Part** 60013512A01C(000)			**Key Contact / Phone** Alice Lossie 269.668.3393	**Date (Orig.)** 08/17/2007	**Date (Rev.)** 10/10/2014
Part Number	**Rev.**	**Engineering Number** 3512-01 Rev C **Rev.**	**Core Team** A. Lossie, P. Garcia, E. Webb, M.Davidson, C. Sackrider	**Customer Engineering Approval / Date (If Req'd)**	
Part Name / Description 34 W M Hybrid Shell (Blk)			**Quality Engineering**	**Customer Quality Approval / Date (If Req'd)**	
Supplier / Plant WDP	**Supplier Code** 609123190		**Quality Control**	**Other Approval / Date (If Req'd)**	

Step No.	Process No.	Process Name Operation / Description	Machine, Device, Jig, or Tool for Manufacturing	Characteristics		Special Char. Class.	Methods					Reaction Plan
				Product	Process		Product/Process Specification/ Tolerance	Evaluation Measurement Technique	Sample Size	Sample Freq.	Control Method	
27	90	Automated Assembly	Assembly Machine Station #1	Assembly Step #1 (1-29)			Place Cover	Fiber Optice Eye Station #1	Each Part	Each Assembly	Operator Instructions	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Leak Tester
28	90	Automated Assembly	Assembly Machine Station #2	Assembly Step #2 (1-29)			Punch Cover	Vision System #3	Each Part	Each Assembly	Operator Instructions	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Vision Syst
29	90	Automated Assembly	Assembly Machine Station #3	Assembly Step #3 (1-29)			Verify Cover	Vision System #3	Each Part	Each Assembly	Operator Instructions	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Vision Syst
30	90	Automated Assembly	Assembly Machine Station #4	Assembly Step #4 (1-29)			Lazer Cover Part Number	Visual Inspection At Start Up / Train Computer	Each Part	Each Assembly	Operator Instructions	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Vision Syst
31	90	Automated Assembly	Assembly Machine Station # 5	Assembly Step #5 (1-29)			Place Cover On Shell	Vision System Station #3	Each Part	Each Assembly	Operator Instructions	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Vision Syst
32	90	Automated Assembly	Assembly Machine Station #6	Assembly Step #6 (1-29)			Eject Good Part Production Carton / Eject Bad Part Reject Bin	Vision System Station #3	Each Part	Each Assembly	Operator Instructions	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Vision Syst
33	100	First / Last Piece Inspection	Automated Assembly	Final Assembly (1-29)			All Control Plan In-Process Inspection steps listed	Visual	2 Parts	At start up	QWI010 First / Last Article	Reject Per QWI001 / Notify Supervisor / Adjust Process
34	100	First / Last Piece Inspection	Automated Assembly	Final Assembly (1-29)			Verify Correct Cover Pin Configuration	Set Up Fixture FW-0128 Using Pin Configuration Sheet	2 Parts	At start up	QWI010 First/Last Article	Reject Per QWI001 / Notify Supervisor / Adjust Process
35	110	100% Inspection Automated Assembly	Automated Assembly	Final Assembly (1-29)			Verify No Missing, Mis-seated, Correct Pin Configuration	Vision System Station #3	Each Part	Each Assembly	Verification Test Parts Beginning Of Each Shift	Reject Per QWI001 / Notify Supervisor / Re-Program / Re-Qualify Vision Syst
36	120	In-Process Inspection	Automated Assembly	Final Assembly (1-29)			Proper assembly	Visual Parts From Production Carton	25 Parts	Every 4 hours	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
37	120	In-Process Inspection	Automated Assembly	Final Assembly (1-29)			Verify No Defects On The Molded Components, Flash, Underfill, etc.	Visual Parts From Assembly Hoppers	25 Parts	Every 4 hours	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
38	120	In-Process Inspection	Automated Assembly	Final Assembly (1-29)			Verify No Defects On The Purchased Components, Flash, Underfill, Tears, etc	Visual Parts From Assembly Hopper	25 Parts	Every 4 hours	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
39	120	In-Process Inspection	Automated Assembly	Final Assembly (1-29)			Verify Correct Cover Pin Configuration	Fixture FW-0128	1 part	Every Other Full Carton	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
40	120	In-Process Inspection	Automated Assembly	Final Assembly (1-29)			Verify Operator Is Following Instructions & Aware Of Any Alerts	Verbally Verify With The Operator	Each Operator	At start up / Once A Shift	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process

Control Plan

Western Diversified Plastics

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[ ] Pre-Launch [X] Production [ ] Assembly [ ] GP-12 **Job Number** 3512A **Part** 60013512A01C(000)				**Key Contact / Phone** Alice Lossie 269.668.3393	**Date (Orig.)** 08/17/2007	**Date (Rev.)** 10/10/2014
Part Number	**Rev.**	**Engineering Number** 3512-01 Rev C	**Rev.**	**Core Team** A. Lossie, P. Garcia, E. Webb, M.Davidson, C. Sackrider	**Customer Engineering Approval / Date (If Req'd)**	
Part Name / Description 34 W M Hybrid Shell (Blk)				**Quality Engineering**	**Customer Quality Approval / Date (If Req'd)**	
Supplier / Plant WDP		**Supplier Code** 609123190		**Quality Control**	**Other Approval / Date (If Req'd)**	

Step No.	Process No.	Process Name Operation / Description	Machine, Device, Jig, or Tool for Manufacturing	Characteristics		Special Char. Class.	Methods					Reaction Plan
				Product	Process		Product/Process Specification/ Tolerance	Evaluation Measurement Technique	Sample Size	Sample Freq.	Control Method	
41	120	In-Process Inspection	Automated Assembly	Final Assembly (1-29)			Carton Identification / Proper Label	Visual	All Labels At Point Of Use	At start up / Once A Shift	QWI026 In-Process Inspection	Reject Per QWI001 / Notify Supervisor / Re-Print Labels
42	130	Manufacturing Verification	Automated Assembly	Final Assembly (1-29)			Carton Identification / Proper Label	Visual	Each Label	Each Carton	MWI004 Label ID & Use	Reject Per QWI001 / Notify Supervisor / Re-Print Labels
43	140	Final Audit	Automated Assembly	Final Assembly (1-29)			Proper assembly	Visual / Final Audit Graphics	25 Parts	Each Carton	QWI016 Final Audit Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
44	140	Final Audit	Automated Assembly	Final Assembly (1-29)			Verify No Molding Defects, Flash, Underfill, Burn, Warp, etc.	Visual	25 Parts	Each Carton	QWI016 Final Audit Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
45	140	Final Audit	Automated Assembly	Final Assembly (1-29)			Verify No Purchased Component Defects, Flash, Underfill, Plugged Holes, etc	Visual	25 Parts	Each Carton	QWI016 Final Audit Inspection	Reject Per QWI001 / Notify Supervisor / Adjust Process
46	140	Final Audit	Automated Assembly	Final Assembly (1-29)			Carton Identification / Proper Label	Visual	Each Label	Each Carton	QWI016 Final Audit Inspection	Reject Per QWI001 / Notify Supervisor / Re-Print Labels
47	150	Shipping	Automated Assembly	Final Assembly (1-29)	Load matches shipper		Shipping Document	Visual	100%	Each Shipment	MWI201 Scanning Product For Shipment	Reject Per QWI001 / Notify Supervisor / Adjust Process
48	160	Preventative Maintenance	Automated Assembly	Final Assembly (1-29)			Perform PM	MWI503		When Cycles Are Reached / Assembly Light Blinking	MWI503 Assembly Machine Preventitive Maintenance Tasks	Reject Per QWI001 / Notify Supervisor / Adjust Process
49	500	Annual Requirement	Layout Equipment	Dimensional			Print Dimensions	Layout	1 Shot	Annual	PDP 21 Annual Layout	Reject Per QWI001 / Notify Supervisor / Adjust Process
50	500	Annual Requirement	Test Equipment	Product Function			Product Function per print specification	Product Validation per DVP&R	1 Shot	Annual	PDP 14 DVP&R	Reject Per QWI001 / Notify Supervisor / Adjust Process

This assembly is processed on automated assembly equipment. The process includes the use of machine vision which verifies each step of the assembly process. The equipment is verified each shift to ensure it's continues to detect any defects. Because of the nature of the process we do not have a CPK or Gage study for this assembly.

WDP
Tool Evaluation Department Layout Disposition

Disposition by: **Greg Hall** Disposition Date: **10/24/14**

W-No.	**W-3512**
Part No.	**See Layout Report**
Part Name	**34-Way Male Hybrid Assembly**
No. of Samples	**5**

Print No.	**FU5T-14A624-CC**
Revision	**L2, AELE-E-12035198-309**
Rev. Date	**10/07/14**

Run Date	**10/20/14**
Layout Date	**10/24/14**
Material	
Inspected by	**Robert StJohn**

MES PRINTS USED	REVISION	REV DATE

MES PRINTS USED	REVISION	REV DATE

Dim.	Specification	Tol. ±	Part Actuals	Disposition Fix	 Prt. Chg.	 Other	Comments
All Dimensions Check within Print Specifications & Tolerances							

QWI004-F001 Revision Date 12/19/06

WDP
Western Diversified Plastics

Dimensional Layout Inspection Report

W-No. **W-3512**
Part No. **See below**
Part Name **34-Way Male Hybrid Assembly**

Run Date **10/20/14**
Print No. **FU5T-14A624-CC**
Revision / Date **L2 (AELE-E-12035198-309) 10/07/14**

Material
Insp. Date **10/24/14**
Insp. By **Robert StJohn**

					Sample Number									
Dim.	**Specification**	**Tol. ±**	**Lo Lim**	**Hi Lim**	**1**	**2**	**3**	**4**	**5**					
	FU5T-14A624-CC, 60013512A01C (A-Pol)													
1	(84.0)	---	---	---	84.02	84.00	83.98	84.03	84.02					
2	(45.4)	---	---	---	45.51	45.56	45.53	45.54	45.55					
3	(67.5)	---	---	---	67.53	67.52	67.50	67.53	67.51					
4	(66.1)	---	---	---	66.21	66.19	66.17	66.22	66.20					
5	(3.7)	---	---	---	3.64	3.64	3.63	3.64	3.63					
6	(35.5)	---	---	---	34.81	34.83	34.82	34.80	34.81					
7	Material ID Note...	---	---	---	Conforms	Conforms	Conforms	Conforms	Conforms					
8	R0.3 Max	---	0.00	0.30	0.30	0.30	0.30	0.30	0.30					
9	R0.5	0.3	0.20	0.80	0.50	0.50	0.50	0.50	0.50					
10	Parts Free of Imperfection	---	---	---	Conforms	Conforms	Conforms	Conforms	Conforms					
	FU5T-14A624-DC, 60013512B01C (B-Pol)													
1	(84.0)	---	---	---	84.00	83.99	83.99	83.97	83.98					
2	(45.4)	---	---	---	45.53	45.52	45.49	45.48	45.50					
3	(67.5)	---	---	---	67.52	67.52	67.47	67.46	67.48					
4	(66.1)	---	---	---	66.21	66.20	66.19	66.18	66.20					
5	(3.7)	---	---	---	3.65	3.63	3.63	3.66	3.65					
6	(35.5)	---	---	---	34.80	34.83	34.82	34.81	34.80					
7	Material ID Note...	---	---	---	Conforms	Conforms	Conforms	Conforms	Conforms					
8	R0.3 Max	---	0.00	0.30	0.30	0.30	0.30	0.30	0.30					
9	R0.5	0.3	0.20	0.80	0.50	0.50	0.50	0.50	0.50					
10	Parts Free of Imperfection	---	---	---	Conforms	Conforms	Conforms	Conforms	Conforms					
	FU5T-14A624-BC, 60013512C01C (C-Pol)													
1	(84.0)	---	---	---	83.97	83.99	84.02	84.01	84.00					
2	(45.4)	---	---	---	45.54	45.50	45.53	45.54	45.52					
3	(67.5)	---	---	---	67.54	67.52	67.51	67.56	67.53					
4	(66.1)	---	---	---	66.20	66.19	66.22	66.21	66.23					
5	(3.7)	---	---	---	3.62	3.59	3.63	3.61	3.62					
6	(35.5)	---	---	---	34.81	34.83	34.80	34.82	34.80					
7	Material ID Note...	---	---	---	Conforms	Conforms	Conforms	Conforms	Conforms					
8	R0.3 Max	---	0.00	0.30	0.30	0.30	0.30	0.30	0.30					
9	R0.5	0.3	0.20	0.80	0.50	0.50	0.50	0.50	0.50					
10	Parts Free of Imperfection	---	---	---	Conforms	Conforms	Conforms	Conforms	Conforms					

WDP Western Diversified Plastics

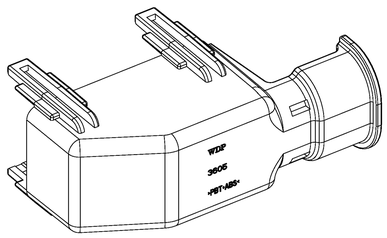
Dimensional Layout Inspection Report

W-No. **W-3512**
Part No. **See below**
Part Name **34-Way Male Hybrid Assembly**

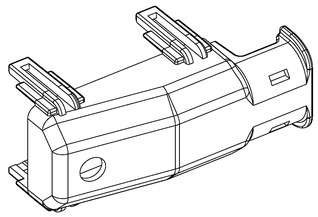
Run Date **10/20/14**
Print No. **FU5T-14A624-CC**
Revision / Date **L2 (AELE-E-12035198-309) 10/07/14**

Material
Insp. Date **10/24/14**
Insp. By **Robert StJohn**

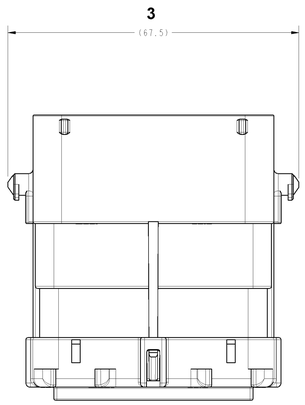
					Sample Number									
Dim.	**Specification**	**Tol. ±**	**Lo Lim**	**Hi Lim**	**1**	**2**	**3**	**4**	**5**					
	HU5T-14A624-AB, 60013512D01B (D-Pol)													
1	(84.0)	---	---	---	83.95	83.97	84.00	83.99	84.01					
2	(45.4)	---	---	---	45.47	45.48	45.50	45.50	45.53					
3	(67.5)	---	---	---	67.48	67.50	67.53	67.49	67.49					
4	(66.1)	---	---	---	66.16	66.17	66.21	66.19	66.21					
5	(3.7)	---	---	---	3.58	3.59	3.61	3.60	3.62					
6	(35.5)	---	---	---	34.81	34.83	34.80	34.81	34.80					
7	Material ID Note...	---	---	---	Conforms	Conforms	Conforms	Conforms	Conforms					
8	R0.3 Max	---	0.00	0.30	0.30	0.30	0.30	0.30	0.30					
9	R0.5	0.3	0.20	0.80	0.50	0.50	0.50	0.50	0.50					
10	Parts Free of Imperfection	---	---	---	Conforms	Conforms	Conforms	Conforms	Conforms					

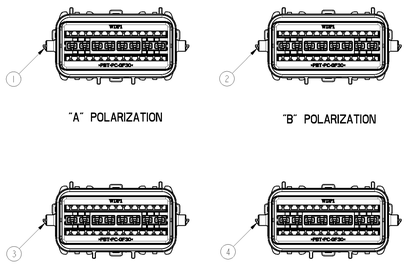


9U5T-14N003-KA
OPTIONAL WIRE DRESS
FOR REFERENCE ONLY

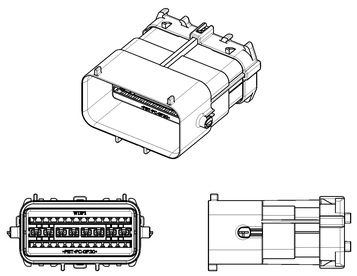


CU5T-14N003-GA
OPTIONAL WIRE DRESS
FOR REFERENCE ONLY

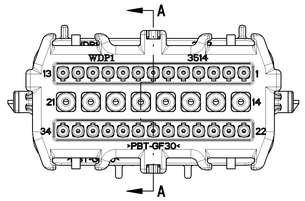


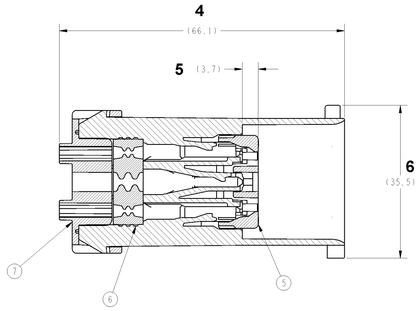


"A" POLARIZATION
"B" POLARIZATION
"C" POLARIZATION
"D" POLARIZATION

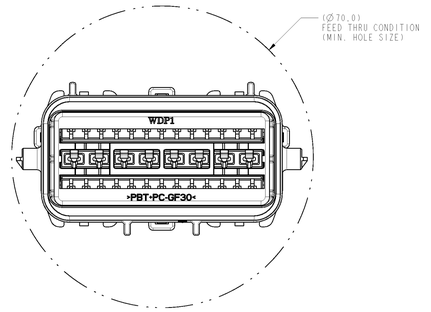


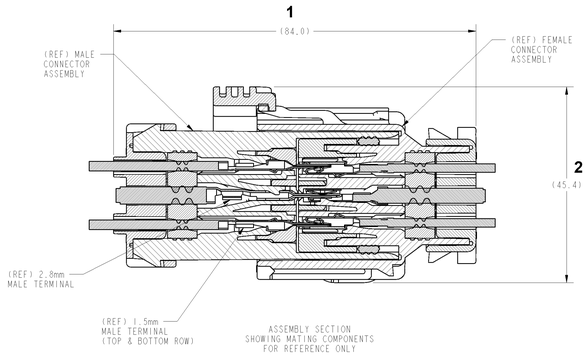
FULL SIZE VIEWS





SECTION A-A





PLEASE CONTACT WDP FOR CROSS REFERENCE PARTS LIST OLD (AU5T'S) VS NEW (FU5T'S)

REFERENCE - APPLICABLE COMPONENTS

DESCRIPTION	FORD COMPONENT PART NUMBER	SUPPLIER	SUPPLIER COMPONENT PART NUMBER	MATERIAL / SPECIFICATION NUMBER	APPLICABLE WIRE SIZES	FINISHED WIRE DIAMETER	FORD COMPONENT MATING PART NUMBER	SUPPLIER COMPONENT MATING PART NUMBER
TERMINAL - MALE (Sn) - 2.8mm	8U5T-14421-BA	FCI	54001001	COPPER ALLOY / TIN PLATE	10 - 12 AWG 2.5 - 5.0 mm	1.91 - 4.20	XF2T-14474-BA	54001018
TERMINAL - MALE (Sn) - 2.8mm	8U5T-14421-CA	FCI	54001401	COPPER ALLOY / TIN PLATE	14 - 16 AWG 1.5 - 2.0 mm		F8VB-14474-AA	54001431
TERMINAL - MALE (Sn) - 2.8mm	8U5T-14421-DA	FCI	54001801	COPPER ALLOY / TIN PLATE	18 AWG 1.0 mm		F8VB-14474-BA	54001839
TERMINAL - MALE (Sn) - 1.5mm	2L1T-14421-CA	MOLEX	33000-1002	COPPER ALLOY / TIN PLATE	16 AWG 1.0 mm	1.41 - 2.34	7C3T-14474-EA	33012-3001
					18 - 20 AWG .75 mm		7C3T-14474-DA	33012-3002
TERMINAL - MALE (Sn) - 1.5mm	2L1T-14421-BA	MOLEX	33000-1003	COPPER ALLOY / TIN PLATE	22 AWG 0.5 mm		7C3T-14474-CA	33012-3003
TERMINAL - MALE (Sn) - 1.5mm	BU5T-14421-HA	MOLEX	34781-1004	COPPER ALLOY / TIN PLATE	0.35 mm	1.20 - 1.40	BU5T-14474-UA	34780-1004
TERMINAL - MALE (Au) - 1.5mm	2L1T-14421-FA	MOLEX	33011-0004	COPPER ALLOY / GOLD PLATE	16 AWG 1.0 mm	1.41 - 2.34	7C3T-14474-HA	33001-3003
					18 - 20 AWG .75 mm		7C3T-14474-GA	33001-3004
TERMINAL - MALE (Au) - 1.5mm	2L1T-14421-EA	MOLEX	33011-0006	COPPER ALLOY / GOLD PLATE	22 AWG 0.5 mm		7C3T-14474-FA	33001-3005
TERMINAL - MALE (Ag) - 1.5mm	7U5T-14421-BA	MOLEX	33011-3002	COPPER ALLOY / SILVER PLATE	16 AWG 1.0 mm	1.41 - 2.34	7C3T-14474-UA	33001-5001
					18 - 20 AWG .75 mm		7C3T-14474-TA	33001-5002
TERMINAL - MALE (Ag) - 1.5mm	7U5T-14421-AA	MOLEX	33011-3001	COPPER ALLOY / SILVER PLATE	22 AWG 0.5 mm		7C3T-14474-SA	33001-5003
WIRE DRESS (LEFT OR RIGHT ROUTE)	9U5T-14N003-KA	WDP	3605-02-001	>PBT+ABS<	N/A	N/A	N/A	N/A
WIRE DRESS (LEFT OR RIGHT ROUTE)	CU5T-14N003-GA	WDP	4018-02-001	>PBT+ABS<	N/A	N/A	N/A	N/A

NOTES: UNLESS OTHERWISE SPECIFIED

PART MUST CONFORM TO THE ELECTRICAL CONNECTION DESIGN SPECIFICATION (SDS). (REV: 14/26-MAR-07) WITH THE FOLLOWING EXCEPTIONS: SAE/USCAR-2, 5.4.8 GROMMET COVER WIRE DRESS FEATURES DISTORTED EL-0172 #4 CONNECTOR PRE-LOCK INSERTION FORCE = 72 N MAX

PART MUST CONFORM TO THE LATEST LEVEL OF USCAR REFERENCED IN THE SDS.

MAXIMUM INSERTION FORCE FULLY POPULATED WITH TIN TERMINALS = 70 N.

7 ALL PLASTIC PARTS MUST HAVE MATERIAL IDENTIFICATION SYMBOLS CLEARLY MARKED, WHEREVER PACKAGE SIZE PERMITS.

FOR ENGINEERING APPROVED SOURCE, SEE ENGINEERING RELEASE.

GENERAL TOLERANCE:
±0.3 ALL ONE PLACE DIMENSIONS
±0.10 ALL TWO PLACE DIMENSIONS
±1°00' ALL ANGULAR DIMENSIONS

FEED THROUGH CONDITION (I.E. MIN HOLE SIZE) TO GIVE 2MM TOTAL CLEARANCE ACROSS THE MAXIMUM DIAMETER.

8 0.3mm MAXIMUM RADIUS PERMISSIBLE ON EDGES SHOWN AS SHARP FOR PLASTIC PARTS.

9 ALL RADIUS R0.5.

10 PARTS ARE TO BE FREE OF SCRATCHES, DISCOLORATION, SALT RESIDUE OR OTHER IMPERFECTIONS THAT MAY AFFECT FUNCTION OR FIT OF PART.

DRAWING CONFORMS TO AVP-(T404/T406)-001 REVISION C DATED 8-8-03.

LIST OF PARTS

TEMPERATURE RANGE -40°C TO 125°C (CLASS #3)

ITEM	DESCRIPTION	COLOR	WDP COMPONENT PART NUMBER	MATERIAL I.D. SYMBOL	NUMBER OF ITEMS REQUIRED			
1	HOUSING (A POL.)	BLACK	3512A-00-001	>PBT-GF30<	1			
2	HOUSING (B POL.)	GRAY	3512B-00-001	>PBT-GF30<		1		
A1	3 HOUSING (C POL.)	BROWN	3512C-00-001	>PBT-GF30<			1	
F1	4 HOUSING (D POL.)	GREEN	3512D-00-001	>PBT-GF30<				1
L1	5 SPACER	NATURAL	3513-00-002	>PBT+PC-GF30<	1	1	1	1
6	GROMMET	RED	3512-51-002	>VMQ<	1	1	1	1
7	GROMMET COVER	GRAY	3514B-00-001	>PBT-GF30<	1	1	1	1

FORD ASSEMBLY NUMBER	WDP ASSEMBLY NUMBER	FORD MATING COMPONENT	WDP MATING COMPONENT
FU5T-14A624-CC	60013512A01C	FU5T-14A464-AV*	60013508A01*
FU5T-14A624-DC	60013512B01C	FU5T-14A464-AU*	60013508B01*
FU5T-14A624-BC	60013512C01C	FU5T-14A464-Y*	60013508C01*
HU5T-14A624-AB	60013512D01B	HU5T-14A464-C*	60013508D01*

POLARIZATION	WDP ASSEMBLY NO.	FORD ASSEMBLY NO.
D	60013512D01B	HU5T-14A624-AB
C	60013512C01C	FU5T-14A624-BC
B	60013512B01C	FU5T-14A624-DC
A	60013512A01C	FU5T-14A624-CC

LTRS	REVISIONS			
	ORIGINATOR	CHECKER	ENGR APP	MAT'L APP
	RELEASED AELE E 12035198 231 20130118			
	FINSTROM	ENSING	MSALANTA	WDP
A1	A1 BROWN WAS DARK GREY RELEASED FU5T-14A624-CB, DB, BB AELE E 12035198 247 20130806			
	SHINABARGAR	FINSTROM	MSALANTA	WDP
B1	B1 ADDED FU5T-14A624-CB (001 THRU 014 & 016 THRU 018) AELE E 12035198 257 20130927			
	FINSTROM	ENSING	KLAZARI	WDP
C1	C1 ADDED FU5T-14A624-CB (019 THRU 028) C2 ADDED FU5T-14A624-BB (001) AELE E 12035198 260 20131015			
	FINSTROM	ENSING	KLAZARI	WDP
D1	D1 ADDED FU5T-14A624-BB (002) AELE E 12035198 262 20131202			
	FINSTROM	ENSING	KLAZARI	WDP
E1	E1 ADDED FU5T-14A624-CB (029 THRU 034) E2 ADDED FU5T-14A624-DB (001 THRU 015) E3 ADDED FU5T-14A624-BB (003 THRU 016) AELE E 12035198 278 20140314			
	FINSTROM	ENSING	KLAZARI	WDP
F1	F1 ADDED HOUSING (D POL.) & REORDERED ITEM NUMBERS RELEASED HU5T-14A624-AA AELE E 12035198 284 20140409			
	FINSTROM	ENSING	KLAZARI	WDP
G1	G1 ADDED FU5T-14A624-CB (035 THRU 037) G2 ADDED FU5T-14A624-DB (016 THRU 026) AELE E 12035198 290 20140509			
	FINSTROM	ENSING	KLAZARI	WDP
H1	H1 ADDED FU5T-14A624-CB (038 THRU 063) H2 ADDED FU5T-14A624-DB (027 THRU 036) AELE E 12035198 294 20140619			
	FINSTROM	ENSING	KLAZARI	WDP
J1	J1 ADDED FU5T-14A624-CB (064) J2 ADDED FU5T-14A624-DB (037 THRU 044) AELE E 12035198 300 20140731			
	FINSTROM	ENSING	KLAZARI	WDP
K1	K1 ADDED FU5T-14A624-CB (065 THRU 067) AELE E 12035198 303 20140829			
	FINSTROM	ENSING	KLAZARI	WDP
L1	L1 3513-00-002 WAS 3513-00-001 - MODIFIED TPA L2 ADDED FU5T-14A624-CC (068 THRU 132) REMOVED FU5T-14A624-CB, DB, BB, HU5T-14A624-AA RELEASED FU5T-14A624-CC, DC, BC, HU5T-14A624-AB AELE E 12035198 309 20141007			
	FINSTROM	ENSING	MSALANTA	WDP

WDP RECEIVED
By Mike Davidson at 2:10 pm, Oct 09, 2014

WDP
Western Diversified Plastics
Phone: (269) 668-3393

REFERENCE

PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT

DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 24

3RD ANGLE PROJ
DIMENSIONS ARE IN MILLIMETERS

CAD TYPE X-PROE	CAD LOC. TCE	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING FU5T-14A624-CC	
DESIGN FINSTROM	DETAIL FINSTROM	TITLE SLV ASY WIR CONN MLE	SHT 1 OF 3
CHECKED ENSING	SAFETY		
SCALE 2:1	DATE 20130114	DIVISION PLANT	

FORD MOTOR COMPANY

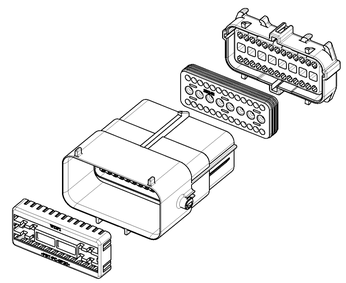
CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
FU5T-14A624-C*(000)	34	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351 2A01*(000)
FU5T-14A624-C*(001)	22	1 2 4 7 8 12 13 16 23 24 25 27	6001351 2A01*(001)
FU5T-14A624-C*(002)	18	1 2 3 4 5 7 8 12 13 15 16 19 23 24 25 27	6001351 2A01*(002)
FU5T-14A624-C*(003)	19	1 2 3 4 5 7 13 15 16 19 20 23 24 25 27	6001351 2A01*(003)
FU5T-14A624-C*(004)	20	1 2 3 4 5 7 13 15 16 19 23 24 25 27	6001351 2A01*(004)
FU5T-14A624-C*(005)	22	1 2 7 8 13 15 16 19 20 23 24 27	6001351 2A01*(005)
FU5T-14A624-C*(006)	23	1 2 7 8 13 15 16 19 23 24 27	6001351 2A01*(006)
FU5T-14A624-C*(007)	25	3 7 8 12 15 16 20 23 24	6001351 2A01*(007)
FU5T-14A624-C*(008)	26	3 7 8 12 15 16 23 24	6001351 2A01*(008)
FU5T-14A624-C*(009)	29	8 12 15 23 24	6001351 2A01*(009)
FU5T-14A624-C*(010)	25	2 8 13 15 19 20 23 24 27	6001351 2A01*(010)
FU5T-14A624-C*(011)	26	2 8 13 15 19 23 24 27	6001351 2A01*(011)
FU5T-14A624-C*(012)	21	1 7 8 13 15 16 19 20 23 24 27 28 29	6001351 2A01*(012)
FU5T-14A624-C*(013)	22	1 7 8 13 15 16 19 23 24 27 28 29	6001351 2A01*(013)
FU5T-14A624-C*(014)	21	1 2 4 7 8 12 13 16 20 23 24 25 27	6001351 2A01*(014)
FU5T-14A624-C*(016)	17	1 2 3 4 5 7 8 12 13 15 16 19 20 23 24 25 27	6001351 2A01*(016)
FU5T-14A624-C*(017)	19	3 4 8 10 11 15 16 17 18 19 20 23 24 25 26	6001351 2A01*(017)
FU5T-14A624-C*(018)	28	8 12 15 20 23 24	6001351 2A01*(018)
FU5T-14A624-C*(019)	10	3 4 5 6 11 14 16 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351 2A01*(019)
FU5T-14A624-C*(020)	9	3 4 5 6 11 13 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351 2A01*(020)
FU5T-14A624-C*(021)	11	3 4 5 6 11 14 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351 2A01*(021)
FU5T-14A624-C*(022)	16	9 10 11 12 15 17 18 19 20 21 23 27 28 29 30 31 32 34	6001351 2A01*(022)
FU5T-14A624-C*(023)	16	9 10 12 15 17 18 19 20 21 22 23 27 28 29 30 31 32 34	6001351 2A01*(023)
FU5T-14A624-C*(024)	18	14 15 16 17 18 19 24 26 27 28 29 30 31 32 33 34	6001351 2A01*(024)
FU5T-14A624-C*(025)	19	9 10 15 17 18 19 20 21 27 28 29 30 31 32 34	6001351 2A01*(025)
FU5T-14A624-C*(026)	15	9 10 11 12 15 17 18 19 20 21 22 23 27 28 29 30 31 32 34	6001351 2A01*(026)
FU5T-14A624-C*(027)	18	9 10 11 15 17 18 19 20 21 27 28 29 30 31 32 34	6001351 2A01*(027)
FU5T-14A624-C*(028)	17	9 10 12 15 17 18 19 20 21 23 27 28 29 30 31 32 34	6001351 2A01*(028)
FU5T-14A624-C*(029)	18	9 10 11 15 17 18 19 20 21 27 28 29 30 31 32 33 34	6001351 2A01*(029)
FU5T-14A624-C*(030)	15	9 10 12 15 17 18 19 20 21 22 23 27 28 29 30 31 32 33 34	6001351 2A01*(030)
FU5T-14A624-C*(031)	25	9 17 18 19 20 23 24 26 27	6001351 2A01*(031)
FU5T-14A624-C*(032)	16	9 10 12 15 17 18 19 20 21 23 27 28 29 30 31 32 33 34	6001351 2A01*(032)
FU5T-14A624-C*(033)	29	9 23 24 26 27	6001351 2A01*(033)
FU5T-14A624-C*(034)	27	9 15 16 23 24 26 27	6001351 2A01*(034)
FU5T-14A624-C*(035)	24	1 2 7 13 15 16 19 23 24 27	6001351 2A01*(035)
FU5T-14A624-C*(036)	26	1 13 16 19 20 23 24 27	6001351 2A01*(036)
FU5T-14A624-C*(037)	27	1 13 16 19 23 24 27	6001351 2A01*(037)
FU5T-14A624-C*(038)	24	1 2 11 12 13 16 17 20 24 27	6001351 2A01*(038)
FU5T-14A624-C*(039)	22	1 2 3 4 5 11 16 17 20 24 25 27	6001351 2A01*(039)
FU5T-14A624-C*(040)	26	2 12 17 19 20 23 24 27	6001351 2A01*(040)
FU5T-14A624-C*(041)	33	17	6001351 2A01*(041)
FU5T-14A624-C*(042)	23	1 2 3 4 5 11 16 17 24 25 27	6001351 2A01*(042)
FU5T-14A624-C*(043)	27	2 12 17 19 23 24 27	6001351 2A01*(043)
FU5T-14A624-C*(044)	23	1 2 5 11 12 16 17 20 24 25 27	6001351 2A01*(044)
FU5T-14A624-C*(045)	27	11 12 13 16 17 24 27	6001351 2A01*(045)
FU5T-14A624-C*(046)	31	12 17 20 24 27	6001351 2A01*(046)
FU5T-14A624-C*(047)	24	1 2 5 11 12 16 17 24 25 27	6001351 2A01*(047)
FU5T-14A624-C*(048)	32	12 17 24 27	6001351 2A01*(048)
FU5T-14A624-C*(049)	27	2 17 19 20 23 24 27	6001351 2A01*(049)
FU5T-14A624-C*(050)	28	2 17 19 23 24 27	6001351 2A01*(050)
FU5T-14A624-C*(051)	32	17 20 24 27	6001351 2A01*(051)
FU5T-14A624-C*(052)	24	1 2 5 11 12 16 20 24 25 27	6001351 2A01*(052)
FU5T-14A624-C*(053)	25	1 2 5 11 12 16 24 25 27	6001351 2A01*(053)
FU5T-14A624-C*(054)	7	4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351 2A01*(054)
FU5T-14A624-C*(055)	24	6 7 8 9 20 25 30 31 32 33	6001351 2A01*(055)
FU5T-14A624-C*(056)	8	4 5 6 7 8 9 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33	6001351 2A01*(056)
FU5T-14A624-C*(057)	10	4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	6001351 2A01*(057)
FU5T-14A624-C*(058)	21	4 5 6 7 8 9 13 20 25 30 31 32 33	6001351 2A01*(058)
FU5T-14A624-C*(059)	7	3 4 5 6 7 8 9 10 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351 2A01*(059)
FU5T-14A624-C*(060)	8	3 4 6 7 8 9 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33	6001351 2A01*(060)
FU5T-14A624-C*(061)	13	4 5 6 7 8 9 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32	6001351 2A01*(061)
FU5T-14A624-C*(062)	24	8 9 11 12 25 30 31 32 33 34	6001351 2A01*(062)
FU5T-14A624-C*(063)	21	4 5 8 9 11 12 13 25 30 31 32 33 34	6001351 2A01*(063)
FU5T-14A624-C*(064) (K1)	10	4 5 6 7 8 9 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33	6001351 2A01*(064)
FU5T-14A624-C*(065)	10	3 4 6 7 8 9 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33	6001351 2A01*(065)
FU5T-14A624-C*(066)	21	1 2 3 4 5 7 11 17 19 20 23 25 27	6001351 2A01*(066)
FU5T-14A624-C*(067)	23	1 2 5 7 8 11 12 17 20 25 27	6001351 2A01*(067)
FU5T-14A624-C*(068) (L2)	31	15 17 21	6001351 2A01*(068)
FU5T-14A624-C*(069)	29	3 7 15 17 21	6001351 2A01*(069)
FU5T-14A624-C*(070)	22	1 3 4 7 12 15 17 21 24 26 32 33	6001351 2A01*(070)
FU5T-14A624-C*(071)	24	1 4 12 15 17 21 24 26 32 33	6001351 2A01*(071)
FU5T-14A624-C*(072)	23	3 6 7 8 12 20 25 26 27 31 33	6001351 2A01*(072)
FU5T-14A624-C*(073)	15	3 4 5 6 7 8 12 15 16 17 18 20 23 25 26 27 31 33 34	6001351 2A01*(073)
FU5T-14A624-C*(074)	21	3 6 7 8 12 20 23 25 26 27 31 33 34	6001351 2A01*(074)
FU5T-14A624-C*(075)	17	3 4 5 6 7 8 12 15 16 17 18 20 25 26 27 31 33	6001351 2A01*(075)
FU5T-14A624-C*(076)	19	3 4 8 10 11 15 16 17 18 19 20 23 24 25 26	6001351 2A01*(076)
FU5T-14A624-C*(077)	22	1 2 4 7 8 12 13 18 20 24 25 27	6001351 2A01*(077)
FU5T-14A624-C*(078)	19	1 2 3 4 5 7 13 15 16 19 20 23 24 25 27	6001351 2A01*(078)
FU5T-14A624-C*(079)	20	1 2 3 4 5 7 13 15 16 19 23 24 25 27	6001351 2A01*(079)
FU5T-14A624-C*(080)	20	1 2 3 4 5 7 13 15 16 19 20 23 24 27	6001351 2A01*(080)
FU5T-14A624-C*(081)	24	3 4 11 15 16 17 18 19 25 26	6001351 2A01*(081)
FU5T-14A624-C*(082)	16	1 2 3 4 10 11 12 13 14 16 17 18 19 20 21 22 33 34	6001351 2A01*(082)
FU5T-14A624-C*(083)	17	1 2 3 4 10 11 12 13 14 16 17 18 19 20 21 33 34	6001351 2A01*(083)
FU5T-14A624-C*(084)	18	1 2 3 4 10 12 13 20 22 23 24 25 26 27 33 34	6001351 2A01*(084)
FU5T-14A624-C*(085)	12	1 2 3 4 7 13 14 16 17 18 19 20 21 22 23 24 25 26 29 30 33 34	6001351 2A01*(085)
FU5T-14A624-C*(086)	25	11 13 16 17 18 20 22 33 34	6001351 2A01*(086)
FU5T-14A624-C*(087)	21	1 2 3 11 13 14 16 17 18 20 22 33 34	6001351 2A01*(087)
FU5T-14A624-C*(088)	24	3 6 7 8 9 11 12 20 32 34	6001351 2A01*(088)
FU5T-14A624-C*(089)	21	1 2 4 7 8 12 13 16 20 23 24 25 27	6001351 2A01*(089)
FU5T-14A624-C*(090)	22	1 2 4 7 8 12 13 16 23 24 25 27	6001351 2A01*(090)
FU5T-14A624-C*(091)	17	1 2 3 4 5 7 8 12 13 15 16 19 20 23 24 25 27	6001351 2A01*(091)
FU5T-14A624-C*(092)	18	1 2 3 4 5 7 8 12 13 15 16 19 23 24 25 27	6001351 2A01*(092)
FU5T-14A624-C*(093)	28	3 8 9 11 12 34	6001351 2A01*(093)
FU5T-14A624-C*(094)	22	1 2 7 8 13 15 16 19 20 23 24 27	6001351 2A01*(094)
FU5T-14A624-C*(095)	22	1 2 4 7 8 13 15 16 19 23 24 27	6001351 2A01*(095)
FU5T-14A624-C*(096)	21	1 2 4 7 8 13 15 16 19 20 23 24 27	6001351 2A01*(096)
FU5T-14A624-C*(097)	25	3 7 8 12 15 16 20 23 24	6001351 2A01*(097)
FU5T-14A624-C*(098)	26	3 7 8 12 15 16 23 24	6001351 2A01*(098)
FU5T-14A624-C*(099)	29	8 12 15 23 24	6001351 2A01*(099)
FU5T-14A624-C*(100)	28	8 12 15 20 23 24	6001351 2A01*(100)
FU5T-14A624-C*(101)	11	3 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	6001351 2A01*(101)
FU5T-14A624-C*(102)	12	3 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 34	6001351 2A01*(102)
FU5T-14A624-C*(103)	7	3 6 7 8 9 11 12 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351 2A01*(103)
FU5T-14A624-C*(104)	8	3 6 7 8 9 11 12 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 30 31 33 34	6001351 2A01*(104)
FU5T-14A624-C*(105)	8	3 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351 2A01*(105)
FU5T-14A624-C*(106)	9	3 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 33 34	6001351 2A01*(106)
FU5T-14A624-C*(107)	25	2 8 13 15 19 20 23 24 27	6001351 2A01*(107)
FU5T-14A624-C*(108)	26	2 6 13 15 19 23 24 27	6001351 2A01*(108)
FU5T-14A624-C*(109)	23	1 2 7 8 13 15 16 19 23 24 27	6001351 2A01*(109)
FU5T-14A624-C*(110)	23	1 4 7 8 13 15 16 19 23 24 27	6001351 2A01*(110)
FU5T-14A624-C*(111)	22	1 4 7 8 13 15 16 19 20 23 24 27	6001351 2A01*(111)
FU5T-14A624-C*(112)	26	1 4 13 16 19 23 24 27	6001351 2A01*(112)

CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
FU5T-14A624-D*(000)	34	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351 2B01*(000)
FU5T-14A624-D*(001)	21	1 9 11 12 13 21 22 23 24 26 27 33 34	6001351 2B01*(001)
FU5T-14A624-D*(002)	17	1 9 11 12 13 17 18 19 20 21 22 23 24 26 27 33 34	6001351 2B01*(002)
FU5T-14A624-D*(003)	21	9 15 16 17 18 19 20 21 22 23 24 26 27 33 34	6001351 2B01*(003)
FU5T-14A624-D*(004)	15	1 9 11 12 13 15 16 17 18 19 20 21 22 23 24 26 27 33 34	6001351 2B01*(004)
FU5T-14A624-D*(005)	18	1 9 11 12 13 17 18 19 20 22 23 24 26 27 33 34	6001351 2B01*(005)
FU5T-14A624-D*(006)	22	9 15 16 17 18 19 20 22 23 24 26 27 33 34	6001351 2B01*(006)
FU5T-14A624-D*(007)	16	1 9 11 12 13 15 16 17 18 19 20 22 23 24 26 27 33 34	6001351 2B01*(007)
FU5T-14A624-D*(008)	22	1 9 11 12 13 22 23 24 26 27 33 34	6001351 2B01*(008)
FU5T-14A624-D*(009)	25	9 15 16 17 18 19 20 23 24	6001351 2B01*(009)
FU5T-14A624-D*(010)	19	1 9 11 12 13 15 16 21 22 23 24 26 27 33 34	6001351 2B01*(010)
FU5T-14A624-D*(011)	31	9 15 16 23 24 26 27	6001351 2B01*(011)
FU5T-14A624-D*(012)	25	9 15 16 21 22 23 24 26 27	6001351 2B01*(012)
FU5T-14A624-D*(013)	20	1 9 11 12 13 15 16 22 23 24 26 27 33 34	6001351 2B01*(013)
FU5T-14A624-D*(014)	27	9 15 16 17 18 19 20 23 24 26 27	6001351 2B01*(014)
FU5T-14A624-D*(015)	26	9 15 16 22 23 24 26 27	6001351 2B01*(015)
FU5T-14A624-D*(016)	23	9 15 16 17 18 19 20 23 24 26 27	6001351 2B01*(016)
FU5T-14A624-D*(017)	29	9 23 24 26 27	6001351 2B01*(017)
FU5T-14A624-D*(018)	27	9 15 16 23 24 26 27	6001351 2B01*(018)
FU5T-14A624-D*(019)	25	9 17 18 19 20 23 24 26 27	6001351 2B01*(019)
FU5T-14A624-D*(020)	29	9 15 16 23 24	6001351 2B01*(020)
FU5T-14A624-D*(021)	17	2 3 4 5 6 8 9 15 16 17 18 19 20 23 24 26 27	6001351 2B01*(021)
FU5T-14A624-D*(022)	21	2 3 4 5 6 8 9 15 16 23 24 26 27	6001351 2B01*(022)
FU5T-14A624-D*(023)	18	7 9 10 11 12 13 15 16 17 18 19 20 23 24 26 27	6001351 2B01*(023)
FU5T-14A624-D*(024)	22	7 9 10 11 12 13 15 16 23 24 26 27	6001351 2B01*(024)
FU5T-14A624-D*(025)	24	9 17 18 19 20 21 23 24 26 27	6001351 2B01*(025)
FU5T-14A624-D*(026)	28	9 21 23 24 26 27	6001351 2B01*(026)
FU5T-14A624-D*(027)	26	9 15 16 21 23 24 26 27	6001351 2B01*(027)
FU5T-14A624-D*(028)	21	1 9 11 12 13 15 16 23 24 26 27 33 34	6001351 2B01*(028)
FU5T-14A624-D*(029)	17	1 9 11 12 13 15 16 17 18 19 20 23 24 26 27 33 34	6001351 2B01*(029)
FU5T-14A624-D*(030)	22	9 15 16 17 18 19 20 21 23 24 26 27 33 34	6001351 2B01*(030)
FU5T-14A624-D*(031)	20	1 9 11 12 13 15 16 21 23 24 26 27 33 34	6001351 2B01*(031)
FU5T-14A624-D*(032)	16	1 9 11 12 13 15 16 17 18 19 20 21 23 24 26 27 33 34	6001351 2B01*(032)
FU5T-14A624-D*(033)	23	1 9 11 12 13 23 24 26 27 33 34	6001351 2B01*(033)
FU5T-14A624-D*(034)	19	1 9 11 12 13 17 18 19 20 23 24 26 27 33 34	6001351 2B01*(034)
FU5T-14A624-D*(035)	22	1 9 11 12 13 21 23 24 26 27 33 34	6001351 2B01*(035)
FU5T-14A624-D*(036)	18	1 9 11 12 13 17 18 19 20 21 23 24 26 27 33 34	6001351 2B01*(036)
FU5T-14A624-D*(037)	23	1 9 11 12 13 21 23 24 26 27 34	6001351 2B01*(037) (J2)
FU5T-14A624-D*(038)	22	1 9 11 12 13 15 16 23 24 26 27 34	6001351 2B01*(038)
FU5T-14A624-D*(039)	24	1 9 11 12 13 23 24 26 27 34	6001351 2B01*(039)
FU5T-14A624-D*(040)	17	1 9 11 12 13 15 16 17 18 19 20 21 23 24 26 27 34	6001351 2B01*(040)
FU5T-14A624-D*(041)	19	1 9 11 12 13 17 18 19 20 21 23 24 26 27 34	6001351 2B01*(041)
FU5T-14A624-D*(042)	18	1 9 11 12 13 15 16 17 18 19 20 23 24 26 27 34	6001351 2B01*(042)
FU5T-14A624-D*(043)	20	1 9 11 12 13 17 18 19 20 23 24 26 27 34	6001351 2B01*(043)
FU5T-14A624-D*(044)	21	1 9 11 12 13 15 16 21 23 24 26 27 34	6001351 2B01*(044)

CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
FU5T-14A624-A*(000)	34	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351 2D01*(000)

CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
FU5T-14A624-B*(000)	34	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351 2C01*(000)
FU5T-14A624-B*(001)	19	14 15 16 17 18 19 24 25 28 29 30 31 32 33 34	6001351 2C01*(001)
FU5T-14A624-B*(002)	18	14 15 16 17 18 19 24 26 27 28 29 30 31 32 33 34	6001351 2C01*(002)
FU5T-14A624-B*(003)	16	9 12 13 14 15 16 17 18 19 24 25 28 29 30 31 32 33 34	6001351 2C01*(003)
FU5T-14A624-B*(004)	16	14 15 16 17 18 19 20 21 24 26 27 28 29 30 31 32 33 34	6001351 2C01*(004)
FU5T-14A624-B*(005)	13	9 12 13 14 15 16 17 18 19 20 21 24 26 27 28 29 30 31 32 33 34	6001351 2C01*(005)
FU5T-14A624-B*(006)	15	12 13 14 15 16 17 18 19 20 21 24 25 28 29 30 31 32 33 34	6001351 2C01*(006)
FU5T-14A624-B*(007)	18	14 15 16 17 18 19 24 26 27 28 29 30 31 32 33 34	6001351 2C01*(007)
FU5T-14A624-B*(008)	14	9 12 13 14 15 16 17 18 19 22 23 24 25 28 29 30 31 32 33 34	6001351 2C01*(008)
FU5T-14A624-B*(009)	14	12 13 14 15 16 17 18 19 20 21 24 26 27 28 29 30 31 32 33 34	6001351 2C01*(009)
FU5T-14A624-B*(010)	12	9 12 13 14 15 16 17 18 19 20 21 22 23 24 25 28 29 30 31 32 33 34	6001351 2C01*(010)
FU5T-14A624-B*(011)	13	9 12 13 14 15 16 17 18 19 22 23 24 26 27 28 29 30 31 32 33 34	6001351 2C01*(011)
FU5T-14A624-B*(012)	17	12 13 14 15 16 17 18 19 24 25 28 29 30 31 32 33 34	6001351 2C01*(012)
FU5T-14A624-B*(013)	11	9 12 13 14 15 16 17 18 19 20 21 22 23 24 26 27 28 29 30 31 32 33 34	6001351 2C01*(013)
FU5T-14A624-B*(014)	15	9 12 13 14 15 16 17 18 19 24 26 27 28 29 30 31 32 33 34	6001351 2C01*(014)
FU5T-14A624-B*(015)	16	12 13 14 15 16 17 18 19 24 26 27 28 29 30 31 32 33 34	6001351 2C01*(015)
FU5T-14A624-B*(016)	14	9 12 13 14 15 16 17 18 19 20 21 24 25 28 29 30 31 32 33 34	6001351 2C01*(016)

WDP RECEIVED
By Mike Davidson at 2:10 pm, Oct 09, 2014



WDP
Western Diversified Plastics
Phone: (269) 668-3393

REFERENCE

PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT

DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 24

3RD ANGLE PROJ
DIMENSIONS ARE IN MILLIMETERS

CAD TYPE	CAD LOC.	CAD FILE	DTMC
X-PROE	TCE		IS MASTER
OPER. NO.	UNIT	DRAWING FU5T-14A624-CC	
DESIGN FINSTROM	DETAIL FINSTROM	TITLE SLV ASY WIR CONN MLE	SHT 2 OF 3
CHECKED ENSING	SAFETY		
SCALE 1:1	DATE 20130114	DIVISION	
		PLANT	

FORD MOTOR COMPANY

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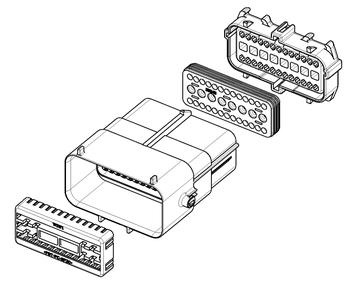
CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
FU5T-14A624-C★(113)	25	1 4 13 16 19 20 23 24 27	60013512A01★(113)
FU5T-14A624-C★(114)	22	4 7 10 11 21 22 23 26 28 30 31 32	60013512A01★(114)
FU5T-14A624-C★(115)	19	1 4 7 10 11 15 18 21 22 23 26 28 30 31 32	60013512A01★(115)
FU5T-14A624-C★(116)	21	1 4 7 10 11 21 22 23 26 28 30 31 32	60013512A01★(116)
FU5T-14A624-C★(117)	30	21 30 31 32	60013512A01★(117)
FU5T-14A624-C★(118)	20	4 7 10 11 15 18 21 22 23 26 28 30 31 32	60013512A01★(118)
FU5T-14A624-C★(119)	16	2 3 4 5 6 7 8 9 12 15 16 19 20 24 25 26 31 33	60013512A01★(119)
FU5T-14A624-C★(120)	14	2 3 4 5 6 7 8 9 12 15 16 19 20 23 24 25 26 31 33 34	60013512A01★(120)
FU5T-14A624-C★(121)	17	2 3 4 5 6 8 9 15 16 19 20 23 24 25 31 33 34	60013512A01★(121)
FU5T-14A624-C★(122)	19	2 3 4 5 6 8 9 15 16 19 20 24 25 31 33	60013512A01★(122)
FU5T-14A624-C★(123)	28	9 19 23 24 25 34	60013512A01★(123)
FU5T-14A624-C★(124)	30	9 19 24 25	60013512A01★(124)
FU5T-14A624-C★(125)	16	1 3 5 7 8 9 10 11 12 20 22 24 25 26 28 29 30 32	60013512A01★(125)
FU5T-14A624-C★(126)	15	1 2 3 5 7 8 9 10 11 12 20 22 24 25 26 28 29 30 32	60013512A01★(126)
FU5T-14A624-C★(127)	29	9 19 24 25 27	60013512A01★(127)
FU5T-14A624-C★(128)	15	2 3 4 5 6 7 8 9 12 15 16 19 20 24 25 26 27 31 33	60013512A01★(128)
FU5T-14A624-C★(129)	18	2 3 4 5 6 8 9 15 16 19 20 24 25 27 31 33	60013512A01★(129)
FU5T-14A624-C★(130)	25	11 12 15 25 30 31 32 33 34	60013512A01★(130)
FU5T-14A624-C★(131)	27	6 7 30 31 32 33 34	60013512A01★(131)
FU5T-14A624-C★(132)	27	6 7 20 25 30 31 33	60013512A01★(132)



WDP RECEIVED

By Mike Davidson at 2:10 pm, Oct 09, 2014

WDP
Western Diversified Plastics
Phone: (269) 668-3393

REFERENCE

PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT

DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 24

3RD ANGLE PROJ
DIMENSIONS ARE IN MILLIMETERS

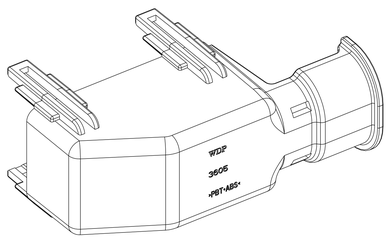
CAD TYPE X-PROE	CAD LOC. TCE	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING FU5T-14A624-CC	
DESIGN FINSTROM	DETAIL FINSTROM	TITLE SLV ASY WIR CONN MLE	SHT 3 OF 3
CHECKED ENSING	SAFETY		
SCALE 1:1	DATE 20130114	DIVISION	
		PLANT	

FORD MOTOR COMPANY

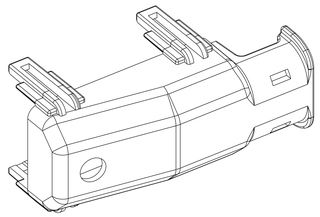
Layout Rev Level

Note: Print revisions after current layout were part number related. Does not effect dimensional data.

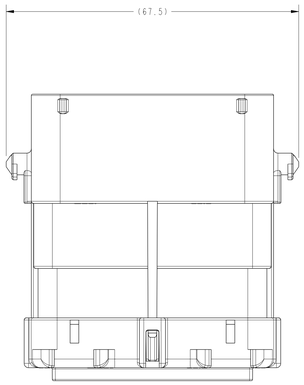
Note: This print shows the location of the ballooned dimensions.

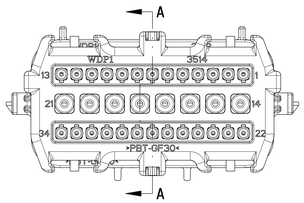


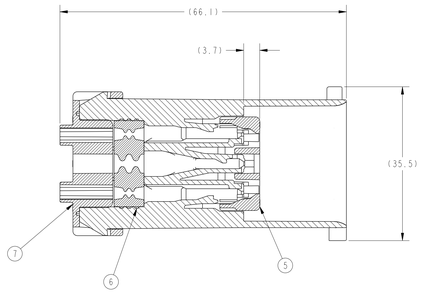
9U5T-14N003-KA
OPTIONAL WIRE DRESS
FOR REFERENCE ONLY



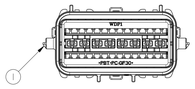
CU5T-14N003-GA
OPTIONAL WIRE DRESS
FOR REFERENCE ONLY



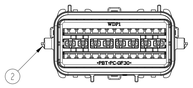




SECTION A-A



"A" POLARIZATION



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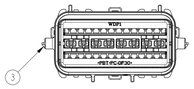
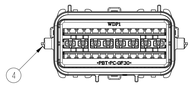
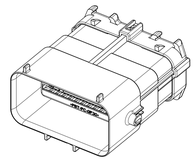
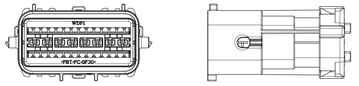


"C" POLARIZATION

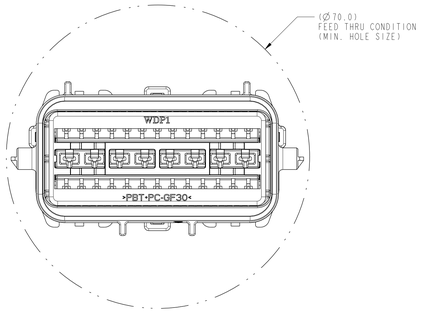


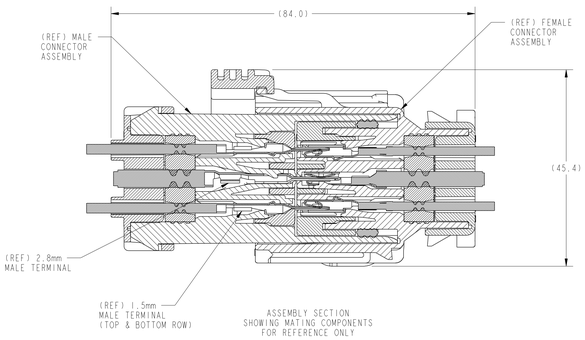
"D" POLARIZATION





FULL SIZE VIEWS





PLEASE CONTACT WDP FOR CROSS REFERENCE PARTS LIST OLD (AU5T'S) VS NEW (FU5T'S)

REFERENCE - APPLICABLE COMPONENTS

DESCRIPTION	FORD COMPONENT PART NUMBER	SUPPLIER	SUPPLIER COMPONENT PART NUMBER	MATERIAL / SPECIFICATION NUMBER	APPLICABLE WIRE SIZES	FINISHED WIRE DIAMETER	FORD COMPONENT MATING PART NUMBER	SUPPLIER COMPONENT MATING PART NUMBER
TERMINAL - MALE (Sn) - 2.8mm	8U5T-14421-BA	FCI	54001001	COPPER ALLOY / TIN PLATE	10 - 12 AWG 2.5 - 5.0 mm	1.91 - 4.20	XF2T-14474-BA	54001018
TERMINAL - MALE (Sn) - 2.8mm	8U5T-14421-CA	FCI	54001401	COPPER ALLOY / TIN PLATE	14 - 16 AWG 1.5 - 2.0 mm		F8VB-14474-AA	54001431
TERMINAL - MALE (Sn) - 2.8mm	8U5T-14421-DA	FCI	54001801	COPPER ALLOY / TIN PLATE	18 AWG 1.0 mm		F8VB-14474-BA	54001839
TERMINAL - MALE (Sn) - 1.5mm	2L1T-14421-CA	MOLEX	33000-1002	COPPER ALLOY / TIN PLATE	16 AWG 1.0 mm	1.41 - 2.34	7C3T-14474-EA	33012-3001
					18 - 20 AWG .75 mm		7C3T-14474-DA	33012-3002
TERMINAL - MALE (Sn) - 1.5mm	2L1T-14421-BA	MOLEX	33000-1003	COPPER ALLOY / TIN PLATE	22 AWG 0.5 mm		7C3T-14474-CA	33012-3003
TERMINAL - MALE (Sn) - 1.5mm	8U5T-14421-HA	MOLEX	34781-1004	COPPER ALLOY / TIN PLATE	0.35 mm	1.20 - 1.40	8U5T-14474-UA	34780-1004
TERMINAL - MALE (Au) - 1.5mm	2L1T-14421-FA	MOLEX	33011-0004	COPPER ALLOY / GOLD PLATE	16 AWG 1.0 mm	1.41 - 2.34	7C3T-14474-HA	33001-3003
					18 - 20 AWG .75 mm		7C3T-14474-GA	33001-3004
TERMINAL - MALE (Au) - 1.5mm	2L1T-14421-EA	MOLEX	33011-0006	COPPER ALLOY / GOLD PLATE	22 AWG 0.5 mm		7C3T-14474-FA	33001-3005
TERMINAL - MALE (Ag) - 1.5mm	7U5T-14421-BA	MOLEX	33011-3002	COPPER ALLOY / SILVER PLATE	16 AWG 1.0 mm	1.41 - 2.34	7C3T-14474-UA	33001-5001
					18 - 20 AWG .75 mm		7C3T-14474-TA	33001-5002
TERMINAL - MALE (Ag) - 1.5mm	7U5T-14421-AA	MOLEX	33011-3001	COPPER ALLOY / SILVER PLATE	22 AWG 0.5 mm		7C3T-14474-SA	33001-5003
WIRE DRESS (LEFT OR RIGHT ROUTE)	9U5T-14N003-KA	WDP	3605-02-001	>PBT+ABS<	N/A	N/A	N/A	N/A
WIRE DRESS (LEFT OR RIGHT ROUTE)	CU5T-14N003-GA	WDP	4018-02-001	>PBT+ABS<	N/A	N/A	N/A	N/A

LIST OF PARTS

TEMPERATURE RANGE -40°C TO 125°C (CLASS #3)

ITEM	DESCRIPTION	COLOR	WDP COMPONENT PART NUMBER	MATERIAL I.D. SYMBOL	NUMBER OF ITEMS REQUIRED					
					FORD ASSEMBLY NUMBER	WDP ASSEMBLY NUMBER	FORD MATING COMPONENT	WDP MATING COMPONENT		
					FU5T-14A624-CC	60013512A01C	FU5T-14A464-AV•	60013508A01•		
					FU5T-14A624-DC	60013512B01C	FU5T-14A464-AU•	60013508B01•		
					FU5T-14A624-BC	60013512C01C	FU5T-14A464-Y•	60013508C01•		
					HU5T-14A624-AB	60013512D01B	HU5T-14A464-C•	60013508D01•		
					AU5T-14A459-AD	60023512A01D	AU5T-14489-A•	60023508A01•		
					AU5T-14A459-BD	60023512B01D	AU5T-14489-B•	60023508B01•		
1	HOUSING (A POL.)	BLACK	3512A-00-001	>PBT-GF30<	1					1
2	HOUSING (B POL.)	GRAY	3512B-00-001	>PBT-GF30<		1				1
A1 3	HOUSING (C POL.)	BROWN	3512C-00-001	>PBT-GF30<			1			
F1 4	HOUSING (D POL.)	GREEN	3512D-00-001	>PBT-GF30<				1		
L1 5	SPACER	NATURAL	3513-00-002	>PBT+PC-GF30<	1	1	1	1	1	1
6	GROMMET	RED	3512-51-002	>VMQ<	1	1	1	1		
7	GROMMET COVER	GRAY	3514B-00-001	>PBT-GF30<	1	1	1	1	1	1

	SEALING	POLARIZATION	WDP ASSEMBLY NO.	FORD ASSEMBLY NO.
M1	UNSEALED	B	60023512B01D	AU5T-14A459-BD
	UNSEALED	A	60023512A01D	AU5T-14A459-AD
	SEALED	D	60013512D01B	HU5T-14A624-AB
	SEALED	C	60013512C01C	FU5T-14A624-BC
	SEALED	B	60013512B01C	FU5T-14A624-DC
	SEALED	A	60013512A01C	FU5T-14A624-CC

NOTES: UNLESS OTHERWISE SPECIFIED

PART MUST CONFORM TO THE ELECTRICAL CONNECTION DESIGN SPECIFICATION (SDS). (REV. 14/26-MAR-07) WITH THE FOLLOWING EXCEPTIONS: SAE/USCAR-2, 5.4.8 GROMMET COVER WIRE DRESS FEATURES DISTORTED EL-017Z #4 CONNECTOR PRE-LOCK INSERTION FORCE = 72 N MAX

PART MUST CONFORM TO THE LATEST LEVEL OF USCAR REFERENCED IN THE SDS.

MAXIMUM INSERTION FORCE FULLY POPULATED WITH TIN TERMINALS = 70 N.

ALL PLASTIC PARTS MUST HAVE MATERIAL IDENTIFICATION SYMBOLS CLEARLY MARKED, WHEREVER PACKAGE SIZE PERMITS.

FOR ENGINEERING APPROVED SOURCE, SEE ENGINEERING RELEASE.

GENERAL TOLERANCE:
±0.3 ALL ONE PLACE DIMENSIONS
±0.10 ALL TWO PLACE DIMENSIONS
±1°00' ALL ANGULAR DIMENSIONS

FEED THROUGH CONDITION (I.E. MIN HOLE SIZE) TO GIVE 2MM TOTAL CLEARANCE ACROSS THE MAXIMUM DIAMETER.

0.3mm MAXIMUM RADIUS PERMISSIBLE ON EDGES SHOWN AS SHARP FOR PLASTIC PARTS.

ALL RADIUS R0.5.

PARTS ARE TO BE FREE OF SCRATCHES, DISCOLORATION, SALT RESIDUE OR OTHER IMPERFECTIONS THAT MAY AFFECT FUNCTION OR FIT OF PART.

DRAWING CONFORMS TO AVP-(T404/T406)-001 REVISION C DATED 8-8-03.

LTRS	REVISIONS			
	ORIGINATOR	CHECKER	ENGR APP	MAT'L APP
	RELEASED AELE E 12035198 231		20130118	
	FINSTROM	ENSING	MSALANTA	WDP
A1	BROWN WAS DARK GREY RELEASED FU5T-14A624-CB, DB, BB AELE E 12035198 247		20130806	
	SHINABARGAR	FINSTROM	MSALANTA	WDP
B1	ADDED FU5T-14A624-CB (001 THRU 014 & 016 THRU 018) AELE E 12035198 257		20130927	
	FINSTROM	ENSING	KLAZARI	WDP
C1 C2	ADDED FU5T-14A624-CB (019 THRU 028) ADDED FU5T-14A624-BB (001) AELE E 12035198 260		20131015	
	FINSTROM	ENSING	KLAZARI	WDP
D1	ADDED FU5T-14A624-BB (002) AELE E 12035198 262		20131202	
	FINSTROM	ENSING	KLAZARI	WDP
E1 E2 E3	ADDED FU5T-14A624-CB (029 THRU 034) ADDED FU5T-14A624-DB (001 THRU 015) ADDED FU5T-14A624-BB (003 THRU 016) AELE E 12035198 278		20140314	
	FINSTROM	ENSING	KLAZARI	WDP
F1	ADDED HOUSING (D POL.) & REORDERED ITEM NUMBERS RELEASED HU5T-14A624-AA AELE E 12035198 284		20140409	
	FINSTROM	ENSING	KLAZARI	WDP
G1 G2	ADDED FU5T-14A624-CB (035 THRU 037) ADDED FU5T-14A624-DB (016 THRU 026) AELE E 12035198 290		20140509	
	FINSTROM	ENSING	KLAZARI	WDP
H1 H2	ADDED FU5T-14A624-CB (038 THRU 063) ADDED FU5T-14A624-DB (027 THRU 036) AELE E 12035198 294		20140619	
	FINSTROM	ENSING	KLAZARI	WDP
J1 J2	ADDED FU5T-14A624-CB (064) ADDED FU5T-14A624-DB (037 THRU 044) AELE E 12035198 300		20140731	
	FINSTROM	ENSING	KLAZARI	WDP
K1	ADDED FU5T-14A624-CB (065 THRU 067) AELE E 12035198 303		20140829	
	FINSTROM	ENSING	KLAZARI	WDP
L1 L2	3513-00-002 WAS 3513-00-001 - MODIFIED TPA ADDED FU5T-14A624-CC (068 THRU 132) REMOVED FU5T-14A624-CB, DB, BB, HU5T-14A624-AA RELEASED FU5T-14A624-CC, DC, BC, HU5T-14A624-AB AELE E 12035198 309		20141007	
	FINSTROM	ENSING	MSALANTA	WDP
M1 M2 M3	RELEASED AU5T-14A459-AD & AU5T-14A459-BD AU5T-14A459-AC & AU5T-14A459-BC WERE SHOWN ON AU5T-14A624-JC ADDED FU5T-14A624-CC (133 THRU 416) ADDED FU5T-14A624-DC (045 THRU 047) AELE E 12035198 312		20141031	
	FINSTROM	ENSING	KLAZARI	WDP
N1 N2	ADDED FU5T-14A624-CC (417 THRU 480) ADDED FU5T-14A624-DC (048 THRU 050) AELE E 12035198 317		20141210	
	FINSTROM	ENSING	KLAZARI	WDP
P1	ADDED FU5T-14A624-CC (481 THRU 516) AELE E 12035198 319		20150102	
	FINSTROM	ENSING	KLAZARI	WDP
R1 R2	ADDED FU5T-14A624-CC (517 THRU 523) ADDED FU5T-14A624-DC (051 THRU 052) AELE E 12035198 320		20150202	
	FINSTROM	ENSING	KLAZARI	WDP
S1	ADDED FU5T-14A624-CC (524 THRU 546) AELE E 12035198 323		20150228	
	FINSTROM	ENSING	KLAZARI	WDP

WDP RECEIVED
By Mike Davidson at 9:33 am, Mar 02, 2015

WDP
Western Diversified Plastics
Phone: (269) 668-3393

REFERENCE			
PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT			
DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 24		3RD ANGLE PROJ DIMENSIONS ARE IN MILLIMETERS	
CAD TYPE X-PROE	CAD LOC. TCE	CAD FILE	DTMC IS MASTER
OPER. NO.	UNIT	DRAWING FU5T-14A624-CC	
DESIGN FINSTROM	DETAIL FINSTROM	TITLE SLV ASY WIR CONN MLE	SHT 1 OF 4
CHECKED ENSING	SAFETY		
SCALE 2:1	DATE 20130114	DIVISION PLANT	
		FORD MOTOR COMPANY	

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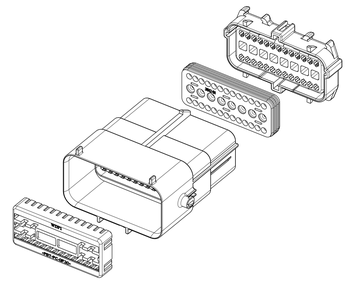
CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
AU5T-14A459-A*	34	THIS ASSEMBLY DOES NOT INCLUDE GROMMET	60023512A01*
FU5T-14A624-C*(000)	34	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	60013512A01*(000)
FU5T-14A624-C*(001)	22	1 2 4 7 8 12 13 16 23 24 25 27	60013512A01*(001)
FU5T-14A624-C*(002)	18	1 2 3 4 5 7 8 12 13 15 16 19 23 24 25 27	60013512A01*(002)
FU5T-14A624-C*(003)	19	1 2 3 4 5 7 13 15 16 19 20 23 24 25 27	60013512A01*(003)
FU5T-14A624-C*(004)	20	1 2 3 4 5 7 13 15 16 19 23 24 25 27	60013512A01*(004)
FU5T-14A624-C*(005)	22	1 2 7 8 13 15 16 19 20 23 24 27	60013512A01*(005)
FU5T-14A624-C*(006)	23	1 2 7 8 13 15 16 19 23 24 27	60013512A01*(006)
FU5T-14A624-C*(007)	25	3 7 8 12 15 16 20 23 24	60013512A01*(007)
FU5T-14A624-C*(008)	26	3 7 8 12 15 16 23 24	60013512A01*(008)
FU5T-14A624-C*(009)	29	8 12 15 23 24	60013512A01*(009)
FU5T-14A624-C*(010)	25	2 8 13 15 19 20 23 24 27	60013512A01*(010)
FU5T-14A624-C*(011)	26	2 8 13 15 19 23 24 27	60013512A01*(011)
FU5T-14A624-C*(012)	21	1 7 8 13 15 16 19 20 23 24 27 28 29	60013512A01*(012)
FU5T-14A624-C*(013)	22	1 7 8 13 15 16 19 23 24 27 28 29	60013512A01*(013)
FU5T-14A624-C*(014)	21	1 2 4 7 8 12 13 16 20 23 24 25 27	60013512A01*(014)
FU5T-14A624-C*(016)	17	1 2 3 4 5 7 8 12 13 15 16 19 20 23 24 25 27	60013512A01*(016)
FU5T-14A624-C*(017)	19	3 4 8 10 11 15 16 17 18 19 20 23 24 25 26	60013512A01*(017)
FU5T-14A624-C*(018)	28	8 12 15 20 23 24	60013512A01*(018)
FU5T-14A624-C*(019)	10	3 4 5 6 11 14 16 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	60013512A01*(019)
FU5T-14A624-C*(020)	9	3 4 5 6 11 13 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	60013512A01*(020)
FU5T-14A624-C*(021)	11	3 4 5 6 11 14 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	60013512A01*(021)
FU5T-14A624-C*(022)	16	9 10 11 12 15 17 18 19 20 21 23 27 28 29 30 31 32 34	60013512A01*(022)
FU5T-14A624-C*(023)	16	9 10 12 15 17 18 19 20 21 22 23 27 28 29 30 31 32 34	60013512A01*(023)
FU5T-14A624-C*(024)	18	14 15 16 17 18 19 24 26 27 28 29 30 31 32 33 34	60013512A01*(024)
FU5T-14A624-C*(025)	19	9 10 15 17 18 19 20 21 27 28 29 30 31 32 34	60013512A01*(025)
FU5T-14A624-C*(026)	15	9 10 11 12 15 17 18 19 20 21 22 23 27 28 29 30 31 32 34	60013512A01*(026)
FU5T-14A624-C*(027)	18	9 10 11 15 17 18 19 20 21 27 28 29 30 31 32 34	60013512A01*(027)
FU5T-14A624-C*(028)	17	9 10 12 15 17 18 19 20 21 23 27 28 29 30 31 32 34	60013512A01*(028)
FU5T-14A624-C*(029)	18	9 10 15 17 18 19 20 21 27 28 29 30 31 32 33 34	60013512A01*(029)
FU5T-14A624-C*(030)	15	9 10 12 15 17 18 19 20 21 22 23 27 28 29 30 31 32 33 34	60013512A01*(030)
FU5T-14A624-C*(031)	25	9 17 18 19 20 23 24 26 27	60013512A01*(031)
FU5T-14A624-C*(032)	16	9 10 12 15 17 18 19 20 21 23 27 28 29 30 31 32 33 34	60013512A01*(032)
FU5T-14A624-C*(033)	29	9 23 24 26 27	60013512A01*(033)
FU5T-14A624-C*(034)	27	9 15 16 23 24 26 27	60013512A01*(034)
FU5T-14A624-C*(035)	24	1 2 7 13 15 16 19 23 24 27	60013512A01*(035)
FU5T-14A624-C*(036)	26	1 13 16 19 20 23 24 27	60013512A01*(036)
FU5T-14A624-C*(037)	27	1 13 16 19 23 24 27	60013512A01*(037)
FU5T-14A624-C*(038)	24	1 2 11 12 13 16 17 20 24 27	60013512A01*(038)
FU5T-14A624-C*(039)	22	1 2 3 4 5 11 16 17 20 24 25 27	60013512A01*(039)
FU5T-14A624-C*(040)	26	2 12 17 19 20 23 24 27	60013512A01*(040)
FU5T-14A624-C*(041)	33	17	60013512A01*(041)
FU5T-14A624-C*(042)	23	1 2 3 4 5 11 16 17 24 25 27	60013512A01*(042)
FU5T-14A624-C*(043)	27	2 12 17 19 23 24 27	60013512A01*(043)
FU5T-14A624-C*(044)	23	1 2 5 11 12 16 17 20 24 25 27	60013512A01*(044)
FU5T-14A624-C*(045)	27	11 12 13 16 17 24 27	60013512A01*(045)
FU5T-14A624-C*(046)	31	12 17 20	60013512A01*(046)
FU5T-14A624-C*(047)	24	1 2 5 11 12 16 17 24 25 27	60013512A01*(047)
FU5T-14A624-C*(048)	32	12 17	60013512A01*(048)
FU5T-14A624-C*(049)	27	2 17 19 20 23 24 27	60013512A01*(049)
FU5T-14A624-C*(050)	28	2 17 19 23 24 27	60013512A01*(050)
FU5T-14A624-C*(051)	32	17 20	60013512A01*(051)
FU5T-14A624-C*(052)	24	1 2 5 11 12 16 20 24 25 27	60013512A01*(052)
FU5T-14A624-C*(053)	25	1 2 5 11 12 16 24 25 27	60013512A01*(053)
FU5T-14A624-C*(054)	7	4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	60013512A01*(054)
FU5T-14A624-C*(055)	24	6 7 8 9 20 25 30 31 32 33	60013512A01*(055)
FU5T-14A624-C*(056)	8	4 5 6 7 8 9 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33	60013512A01*(056)
FU5T-14A624-C*(057)	10	4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	60013512A01*(057)
FU5T-14A624-C*(058)	21	4 5 6 7 8 9 13 20 25 30 31 32 33	60013512A01*(058)
FU5T-14A624-C*(059)	7	3 4 5 6 7 8 9 10 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	60013512A01*(059)
FU5T-14A624-C*(060)	8	3 4 6 7 8 9 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33	60013512A01*(060)
FU5T-14A624-C*(061)	13	4 5 6 7 8 9 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32	60013512A01*(061)
FU5T-14A624-C*(062)	24	8 9 11 12 25 30 31 32 33 34	60013512A01*(062)
FU5T-14A624-C*(063)	21	4 5 8 9 11 12 13 25 30 31 32 33 34	60013512A01*(063)
FU5T-14A624-C*(064)	10	4 5 6 7 8 9 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33	60013512A01*(064)
FU5T-14A624-C*(065)	10	3 4 6 7 8 9 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33	60013512A01*(065)
FU5T-14A624-C*(066)	21	1 2 3 4 5 7 11 17 19 20 23 25 27	60013512A01*(066)
FU5T-14A624-C*(067)	23	1 2 5 7 8 11 12 17 20 25 27	60013512A01*(067)
FU5T-14A624-C*(068)	31	15 17 21	60013512A01*(068)
FU5T-14A624-C*(069)	29	3 7 15 17 21	60013512A01*(069)
FU5T-14A624-C*(070)	22	1 3 4 7 12 15 17 21 24 26 32 33	60013512A01*(070)
FU5T-14A624-C*(071)	24	1 4 12 15 17 21 24 26 32 33	60013512A01*(071)
FU5T-14A624-C*(072)	23	3 6 7 8 12 20 25 26 27 31 33	60013512A01*(072)
FU5T-14A624-C*(073)	15	3 4 5 6 7 8 12 15 16 17 18 20 23 25 26 27 31 33 34	60013512A01*(073)
FU5T-14A624-C*(074)	21	3 6 7 8 12 20 23 25 26 27 31 33 34	60013512A01*(074)
FU5T-14A624-C*(075)	17	3 4 5 6 7 8 12 15 16 17 18 20 25 26 27 31 33	60013512A01*(075)
FU5T-14A624-C*(076)	19	3 4 8 10 11 15 16 17 18 19 20 23 24 25 26	60013512A01*(076)
FU5T-14A624-C*(077)	22	1 2 4 7 8 12 13 16 20 24 25 27	60013512A01*(077)
FU5T-14A624-C*(078)	19	1 2 3 4 5 7 13 15 16 19 20 23 24 25 27	60013512A01*(078)
FU5T-14A624-C*(079)	20	1 2 3 4 5 7 13 15 16 19 23 24 25 27	60013512A01*(079)
FU5T-14A624-C*(080)	20	1 2 3 4 5 7 13 15 16 19 20 23 24 27	60013512A01*(080)
FU5T-14A624-C*(081)	24	3 4 11 15 16 17 18 19 25 26	60013512A01*(081)
FU5T-14A624-C*(082)	16	1 2 3 4 10 11 12 13 14 16 17 18 19 20 21 22 33 34	60013512A01*(082)
FU5T-14A624-C*(083)	17	1 2 3 4 10 11 12 13 14 16 17 18 19 20 21 33 34	60013512A01*(083)
FU5T-14A624-C*(084)	18	1 2 3 4 10 12 13 20 22 23 24 25 26 27 33 34	60013512A01*(084)
FU5T-14A624-C*(085)	12	1 2 3 4 7 13 14 16 17 18 19 20 21 22 23 24 25 26 29 30 33 34	60013512A01*(085)
FU5T-14A624-C*(086)	25	11 13 16 17 18 20 22 33 34	60013512A01*(086)
FU5T-14A624-C*(087)	21	1 2 3 11 13 14 16 17 18 20 22 33 34	60013512A01*(087)
FU5T-14A624-C*(088)	24	3 6 7 8 9 11 12 20 32 34	60013512A01*(088)
FU5T-14A624-C*(089)	21	1 2 4 7 8 12 13 16 20 23 24 25 27	60013512A01*(089)
FU5T-14A624-C*(090)	22	1 2 4 7 8 12 13 16 23 24 25 27	60013512A01*(090)
FU5T-14A624-C*(091)	17	1 2 3 4 5 7 8 12 13 15 16 19 20 23 24 25 27	60013512A01*(091)
FU5T-14A624-C*(092)	18	1 2 3 4 5 7 8 12 13 15 16 19 23 24 25 27	60013512A01*(092)
FU5T-14A624-C*(093)	28	3 8 9 11 12 34	60013512A01*(093)
FU5T-14A624-C*(094)	22	1 2 7 8 13 15 16 19 20 23 24 27	60013512A01*(094)
FU5T-14A624-C*(095)	22	1 2 4 7 8 13 15 16 19 23 24 27	60013512A01*(095)
FU5T-14A624-C*(096)	21	1 2 4 7 8 13 15 16 19 20 23 24 27	60013512A01*(096)
FU5T-14A624-C*(097)	25	3 7 8 12 15 16 20 23 24	60013512A01*(097)
FU5T-14A624-C*(098)	26	3 7 8 12 15 16 23 24	60013512A01*(098)
FU5T-14A624-C*(099)	29	8 12 15 23 24	60013512A01*(099)
FU5T-14A624-C*(100)	28	8 12 15 20 23 24	60013512A01*(100)
FU5T-14A624-C*(101)	11	3 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	60013512A01*(101)
FU5T-14A624-C*(102)	12	3 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 34	60013512A01*(102)
FU5T-14A624-C*(103)	7	3 6 7 8 9 11 12 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	60013512A01*(103)
FU5T-14A624-C*(104)	8	3 6 7 8 9 11 12 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 30 31 33 34	60013512A01*(104)
FU5T-14A624-C*(105)	8	3 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	60013512A01*(105)
FU5T-14A624-C*(106)	9	3 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 33 34	60013512A01*(106)
FU5T-14A624-C*(107)	25	2 8 13 15 19 20 23 24 27	60013512A01*(107)
FU5T-14A624-C*(108)	26	2 8 13 15 19 23 24 27	60013512A01*(108)
FU5T-14A624-C*(109)	23	1 2 7 8 13 15 16 19 23 24 27	60013512A01*(109)
FU5T-14A624-C*(110)	23	1 4 7 8 13 15 16 19 23 24 27	60013512A01*(110)
FU5T-14A624-C*(111)	22	1 4 7 8 13 15 16 19 20 23 24 27	60013512A01*(111)

CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
AU5T-14A459-B*	34	THIS ASSEMBLY DOES NOT INCLUDE GROMMET	60023512B01*
FU5T-14A624-D*(000)	34	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	60013512B01*(000)
FU5T-14A624-D*(001)	21	1 9 11 12 13 21 22 23 24 26 27 33 34	60013512B01*(001)
FU5T-14A624-D*(002)	17	1 9 11 12 13 17 18 19 20 21 22 23 24 26 27 33 34	60013512B01*(002)
FU5T-14A624-D*(003)	21	9 15 16 17 18 19 20 21 22 23 24 26 27	60013512B01*(003)
FU5T-14A624-D*(004)	15	1 9 11 12 13 15 16 17 18 19 20 21 22 23 24 26 27 33 34	60013512B01*(004)
FU5T-14A624-D*(005)	18	1 9 11 12 13 17 18 19 20 22 23 24 26 27 33 34	60013512B01*(005)
FU5T-14A624-D*(006)	22	9 15 16 17 18 19 20 22 23 24 26 27	60013512B01*(006)
FU5T-14A624-D*(007)	16	1 9 11 12 13 15 16 17 18 19 20 22 23 24 26 27 33 34	60013512B01*(007)
FU5T-14A624-D*(008)	22	1 9 11 12 13 22 23 24 26 27 33 34	60013512B01*(008)
FU5T-14A624-D*(009)	25	9 15 16 17 18 19 20 23 24	60013512B01*(009)
FU5T-14A624-D*(010)	19	1 9 11 12 13 15 16 21 22 23 24 26 27 33 34	60013512B01*(010)
FU5T-14A624-D*(011)	31	9 15 16 23 24 26 27	60013512B01*(011)
FU5T-14A624-D*(012)	25	9 15 16 21 22 23 24 26 27	60013512B01*(012)
FU5T-14A624-D*(013)	20	1 9 11 12 13 15 16 22 23 24 26 27 33 34	60013512B01*(013)
FU5T-14A624-D*(014)	27	9 15 16 17 18 19 20 23 24	60013512B01*(014)
FU5T-14A624-D*(015)	26	9 15 16 22 23 24 26 27	60013512B01*(015)
FU5T-14A624-D*(016)	23	9 15 16 17 18 19 20 23 24 26 27	60013512B01*(016)
FU5T-14A624-D*(017)	29	9 23 24 26 27	60013512B01*(017)
FU5T-14A624-D*(018)	27	9 15 16 23 24 26 27	60013512B01*(018)
FU5T-14A624-D*(019)	25	9 17 18 19 20 23 24 26 27	60013512B01*(019)
FU5T-14A624-D*(020)	29	9 15 16 23 24	60013512B01*(020)
FU5T-14A624-D*(021)	17	2 3 4 5 6 8 9 15 16 17 18 19 20 23 24 26 27	60013512B01*(021)
FU5T-14A624-D*(022)	21	2 3 4 5 6 8 9 15 16 23 24 26 27	60013512B01*(022)
FU5T-14A624-D*(023)	18	7 9 10 11 12 13 15 16 17 18 19 20 23 24 26 27	60013512B01*(023)
FU5T-14A624-D*(024)	22	7 9 10 11 12 13 15 16 23 24 26 27	60013512B01*(024)
FU5T-14A624-D*(025)	24	9 17 18 19 20 21 23 24 26 27	60013512B01*(025)
FU5T-14A624-D*(026)	28	9 21 23 24 26 27	60013512B01*(026)
FU5T-14A624-D*(027)	26	9 15 16 21 23 24 26 27	60013512B01*(027)
FU5T-14A624-D*(028)	21	1 9 11 12 13 15 16 23 24 26 27 33 34	60013512B01*(028)
FU5T-14A624-D*(029)	17	1 9 11 12 13 15 16 17 18 19 20 23 24 26 27 33 34	60013512B01*(029)
FU5T-14A624-D*(030)	22	9 15 16 17 18 19 20 21 23 24 26 27	60013512B01*(030)
FU5T-14A624-D*(031)	20	1 9 11 12 13 15 16 21 23 24 26 27 33 34	60013512B01*(031)
FU5T-14A624-D*(032)	16	1 9 11 12 13 15 16 17 18 19 20 21 23 24 26 27 33 34	60013512B01*(032)
FU5T-14A624-D*(033)	23	1 9 11 12 13 23 24 26 27 33 34	60013512B01*(033)
FU5T-14A624-D*(034)	19	1 9 11 12 13 17 18 19 20 23 24 26 27 33 34	60013512B01*(034)
FU5T-14A624-D*(035)	22	1 9 11 12 13 21 23 24 26 27 33 34	60013512B01*(035)
FU5T-14A624-D*(036)	18	1 9 11 12 13 17 18 19 20 21 23 24 26 27 33 34	60013512B01*(036)
FU5T-14A624-D*(037)	23	1 9 11 12 13 21 23 24 26 27 34	60013512B01*(037)
FU5T-14A624-D*(038)	22	1 9 11 12 13 15 16 23 24 26 27 34	60013512B01*(038)
FU5T-14A624-D*(039)	24	1 9 11 12 13 23 24 26 27 34	60013512B01*(039)
FU5T-14A624-D*(040)	17	1 9 11 12 13 15 16 17 18 19 20 21 23 24 26 27 34	60013512B01*(040)
FU5T-14A624-D*(041)	19	1 9 11 12 13 17 18 19 20 21 23 24 26 27 34	60013512B01*(041)
FU5T-14A624-D*(042)	18	1 9 11 12 13 15 16 17 18 19 20 23 24 26 27 34	60013512B01*(042)
FU5T-14A624-D*(043)	20	1 9 11 12 13 17 18 19 20 23 24 26 27 34	60013512B01*(043)
FU5T-14A624-D*(044)	21	1 9 11 12 13 15 16 21 23 24 26 27 33 34	60013512B01*(044)
FU5T-14A624-D*(045)	16	11 14 15 16 17 18 19 20 21 26 27 28 29 30 31 32 33 34	60013512B01*(045)
FU5T-14A624-D*(046)	14	11 14 15 16 17 18 19 20 21 24 25 26 27 28 29 30 31 32 33 34	60013512B01*(046)
FU5T-14A624-D*(047)	22	11 14 15 16 19 20 21 24 25 26 27 28	60013512B01*(047)
FU5T-14A624-D*(048)	16	11 14 15 16 17 18 19 20 21 26 27 28 29 30 31 32 33 34	60013512B01*(048)
FU5T-14A624-D*(049)	14	11 14 15 16 17 18 19 20 21 24 25 26 27 28 29 30 31 32 33 34	60013512B01*(049)
FU5T-14A624-D*(050)	22	11 14 15 16 19 20 21 24 25 26 27 28	60013512B01*(050)
FU5T-14A624-D*(051)	32	15 16	60013512B01*(051)
FU5T-14A624-D*(052)	28	15 16 17 18 19 20	60013512B01*(052)

CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
FU5T-14A624-B*(000)	34	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	60013512C01*(000)
FU5T-14A624-B*(001)	19	14 15 16 17 18 19 24 25 28 29 30 31 32 33 34	60013512C01*(001)
FU5T-14A624-B*(002)	18	14 15 16 17 18 19 24 26 27 28 29 30 31 32 33 34	60013512C01*(002)
FU5T-14A624-B*(003)	16	9 12 13 14 15 16 17 18 19 24 25 28 29 30 31 32 33 34	60013512C01*(003)
FU5T-14A624-B*(004)	16	14 15 16 17 18 19 20 21 24 26 27 28 29 30 31 32 33 34	60013512C01*(004)
FU5T-14A624-B*(005)	13	9 12 13 14 15 16 17 18 19 20 21 24 26 27 28 29 30 31 32 33 34	60013512C01*(005)
FU5T-14A624-B*(006)	15	12 13 14 15 16 17 18 19 20 21 24 25 28 29 30 31 32 33 34	60013512C01*(006)
FU5T-14A624-B*(007)	18	14 15 16 17 18 19 24 26 27 28 29 30 31 32 33 34	60013512C01*(007)
FU5T-14A624-B*(008)	14	9 12 13 14 15 16 17 18 19 22 23 24 25 28 29 30 31 32 33 34	60013512C01*(008)
FU5T-14A624-B*(009)	14	12 13 14 15 16 17 18 19 20 21 24 26 27 28 29 30 31 32 33 34	60013512C01*(009)
FU5T-14A624-B*(010)	12	9 12 13 14 15 16 17 18 19 20 21 22 23 24 25 28 29 30 31 32 33 34	60013512C01*(010)
FU5T-14A624-B*(011)	13	9 12 13 14 15 16 17 18 19 22 23 24 26 27 28 29 30 31 32 33 34	60013512C01*(011)
FU5T-14A624-B*(012)	17	12 13 14 15 16 17 18 19 24 25 28 29 30 31 32 33 34	60013512C01*(012)
FU5T-14A624-B*(013)	11	9 12 13 14 15 16 17 18 19 20 21 22 23 24 26 27 28 29 30 31 32 33 34	60013512C01*(013)
FU5T-14A624-B*(014)	15	9 12 13 14 15 16 17 18 19 24 26 27 28 29 30 31 32 33 34	60013512C01*(014)
FU5T-14A624-B*(015)	16	12 13 14 15 16 17 18 19 24 26 27 28 29 30 31 32 33 34	60013512C01*(015)
FU5T-14A624-B*(016)	14	9 12 13 14 15 16 17 18 19 20 21 24 25 28 29 30 31 32 33 34	60013512C01*(016)

WDP RECEIVED
By Mike Davidson at 9:33 am, Mar 02, 2015



WDP
Western Diversified Plastics
Phone: (269) 668-3393

REFERENCE

PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT

DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 24

3RD ANGLE PROJ
DIMENSIONS ARE IN MILLIMETERS

CAD TYPE	CAD LOC.	CAD FILE	DTMC
X-PROE	TCE		IS MASTER
OPER. NO.	UNIT	DRAWING: FU5T-14A624-CC	
DESIGN: FINSTROM	DETAIL: FINSTROM	TITLE: SLV ASY WIR CONN MLE	SHT 2 OF 4
CHECKED: ENSING	SAFETY		
SCALE: 1:1	DATE: 20130114	DIVISION / PLANT	

FORD MOTOR COMPANY

PRINTED COPIES ARE UNCONTROLLED

CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
FU5T-14A624-C*(112)	26	1 4 13 16 19 23 24 27	600135I2A01*(112)
FU5T-14A624-C*(113)	25	1 4 13 16 19 20 23 24 27	600135I2A01*(113)
FU5T-14A624-C*(114)	22	4 7 10 11 21 22 23 26 28 30 31 32	600135I2A01*(114)
FU5T-14A624-C*(115)	19	1 4 7 10 11 15 18 21 22 23 26 28 30 31 32	600135I2A01*(115)
FU5T-14A624-C*(116)	21	1 4 7 10 11 21 22 23 26 28 30 31 32	600135I2A01*(116)
FU5T-14A624-C*(117)	30	21 30 31 32	600135I2A01*(117)
FU5T-14A624-C*(118)	20	4 7 10 11 15 18 21 22 23 26 28 30 31 32	600135I2A01*(118)
FU5T-14A624-C*(119)	16	2 3 4 5 6 7 8 9 15 16 19 20 24 25 26 31 33	600135I2A01*(119)
FU5T-14A624-C*(120)	14	2 3 4 5 6 7 8 9 12 15 16 19 20 23 24 25 26 31 33 34	600135I2A01*(120)
FU5T-14A624-C*(121)	17	2 3 4 5 6 8 9 15 16 19 20 23 24 25 31 33 34	600135I2A01*(121)
FU5T-14A624-C*(122)	19	2 3 4 5 6 8 9 15 16 19 20 24 25 31 33	600135I2A01*(122)
FU5T-14A624-C*(123)	28	9 19 23 24 25 34	600135I2A01*(123)
FU5T-14A624-C*(124)	30	9 19 24 25	600135I2A01*(124)
FU5T-14A624-C*(125)	16	1 3 5 7 8 9 10 11 12 20 22 24 25 26 28 29 30 32	600135I2A01*(125)
FU5T-14A624-C*(126)	15	1 2 3 5 7 8 9 10 11 12 20 22 24 25 26 28 29 30 32	600135I2A01*(126)
FU5T-14A624-C*(127)	29	9 19 24 25 27	600135I2A01*(127)
FU5T-14A624-C*(128)	15	2 3 4 5 6 7 8 9 12 15 16 19 20 24 25 26 27 31 33	600135I2A01*(128)
FU5T-14A624-C*(129)	18	2 3 4 5 6 8 9 15 16 19 20 24 25 27 31 33	600135I2A01*(129)
FU5T-14A624-C*(130)	25	11 12 15 25 30 31 32 33 34	600135I2A01*(130)
FU5T-14A624-C*(131)	27	6 7 30 31 32 33 34	600135I2A01*(131)
FU5T-14A624-C*(132)	27	6 7 20 25 30 31 33	600135I2A01*(132)
FU5T-14A624-C*(133)	11	3 4 6 7 11 14 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(133)
FU5T-14A624-C*(134)	10	5 6 11 13 14 15 16 17 18 19 20 21 22 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(134)
FU5T-14A624-C*(135)	7	3 4 6 7 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(135)
FU5T-14A624-C*(136)	7	3 4 5 7 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(136)
FU5T-14A624-C*(137)	14	6 11 14 16 17 18 19 20 22 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(137)
FU5T-14A624-C*(138)	10	3 4 6 7 11 14 16 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(138)
FU5T-14A624-C*(139)	11	3 4 7 11 14 16 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(139)
FU5T-14A624-C*(140)	10	3 4 5 6 7 11 14 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(140)
FU5T-14A624-C*(141)	8	3 4 5 6 7 11 13 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(141)
FU5T-14A624-C*(142)	15	6 11 14 17 18 19 20 22 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(142)
FU5T-14A624-C*(143)	12	3 4 7 11 14 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(143)
FU5T-14A624-C*(144)	12	4 5 6 7 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33	600135I2A01*(144)
FU5T-14A624-C*(145)	28	4 5 13 30 31 33	600135I2A01*(145)
FU5T-14A624-C*(146)	26	6 7 20 25 30 31 32 33	600135I2A01*(146)
FU5T-14A624-C*(147)	4	3 4 5 6 7 8 9 11 12 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(147)
FU5T-14A624-C*(148)	31	30 31 33	600135I2A01*(148)
FU5T-14A624-C*(149)	15	4 5 6 7 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32	600135I2A01*(149)
FU5T-14A624-C*(150)	9	3 4 5 6 7 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 33 34	600135I2A01*(150)
FU5T-14A624-C*(151)	12	4 5 6 7 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33	600135I2A01*(151)
FU5T-14A624-C*(152)	24	3 4 5 11 12 13 30 31 33 34	600135I2A01*(152)
FU5T-14A624-C*(153)	27	3 11 12 30 31 33 34	600135I2A01*(153)
FU5T-14A624-C*(154)	10	4 5 6 7 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33	600135I2A01*(154)
FU5T-14A624-C*(155)	8	3 4 5 6 7 8 9 11 12 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 32 34	600135I2A01*(155)
FU5T-14A624-C*(156)	16	4 5 6 7 13 14 15 18 19 20 22 23 24 25 26 27 28 29	600135I2A01*(156)
FU5T-14A624-C*(157)	23	4 5 6 7 13 20 25 30 31 32 33	600135I2A01*(157)
FU5T-14A624-C*(158)	29	3 14 18 19 23	600135I2A01*(158)
FU5T-14A624-C*(159)	21	3 6 7 8 9 11 12 20 30 31 32 33 34	600135I2A01*(159)
FU5T-14A624-C*(160)	5	4 5 6 7 8 9 11 12 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(160)
FU5T-14A624-C*(161)	6	3 4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(161)
FU5T-14A624-C*(162)	18	3 4 5 6 7 8 9 11 12 13 20 30 31 32 33 34	600135I2A01*(162)
FU5T-14A624-C*(163)	19	4 5 6 7 8 9 11 12 13 20 30 31 32 33 34	600135I2A01*(163)
FU5T-14A624-C*(164)	22	6 7 8 9 11 12 20 30 31 32 33 34	600135I2A01*(164)
FU5T-14A624-C*(165)	9	3 4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	600135I2A01*(165)
FU5T-14A624-C*(166)	8	3 4 6 7 8 9 11 14 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(166)
FU5T-14A624-C*(167)	8	3 4 6 7 8 9 11 14 16 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(167)
FU5T-14A624-C*(168)	7	3 4 5 6 7 8 9 11 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(168)
FU5T-14A624-C*(169)	4	3 4 5 6 7 8 9 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(169)
FU5T-14A624-C*(170)	9	3 4 7 8 9 11 14 16 17 18 19 20 22 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(170)
FU5T-14A624-C*(171)	6	3 4 7 8 9 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(171)
FU5T-14A624-C*(172)	7	3 4 5 6 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(172)
FU5T-14A624-C*(173)	10	5 6 11 13 14 15 16 17 18 19 20 21 22 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(173)
FU5T-14A624-C*(174)	22	3 4 6 11 14 17 18 19 23 27 28 29 34	600135I2A01*(174)
FU5T-14A624-C*(175)	11	3 4 6 11 14 16 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(175)
FU5T-14A624-C*(176)	12	3 4 6 11 14 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(176)
FU5T-14A624-C*(177)	19	3 4 5 6 11 13 14 15 17 18 19 23 27 28 29	600135I2A01*(177)
FU5T-14A624-C*(178)	13	5 6 11 14 16 17 18 19 20 22 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(178)
FU5T-14A624-C*(179)	24	15 26 27 28 29 30 31 32 33 34	600135I2A01*(179)
FU5T-14A624-C*(180)	20	4 7 12 18 19 20 21 27 28 29 30 31 32 33	600135I2A01*(180)
FU5T-14A624-C*(181)	12	4 7 9 10 11 12 13 14 15 17 18 19 20 21 26 27 28 29 30 31 32 33	600135I2A01*(181)
FU5T-14A624-C*(182)	2	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(182)
FU5T-14A624-C*(183)	19	3 4 5 8 9 10 11 12 13 20 22 23 25 26 34	600135I2A01*(183)
FU5T-14A624-C*(184)	4	3 4 5 6 7 8 9 10 11 12 13 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(184)
FU5T-14A624-C*(185)	12	5 6 7 8 9 10 14 15 17 18 19 20 25 26 27 28 29 30 31 32 33 34	600135I2A01*(185)
FU5T-14A624-C*(186)	21	5 6 7 8 9 10 14 15 17 18 19 20 34	600135I2A01*(186)
FU5T-14A624-C*(187)	23	5 6 10 11 12 13 14 15 18 19 20	600135I2A01*(187)
FU5T-14A624-C*(188)	26	5 6 10 11 12 18 19 20	600135I2A01*(188)
FU5T-14A624-C*(189)	28	1 12 23 26 28 31	600135I2A01*(189)
FU5T-14A624-C*(190)	21	1 4 7 10 11 12 22 23 26 28 30 31 32	600135I2A01*(190)
FU5T-14A624-C*(191)	19	1 4 7 10 11 12 15 18 22 23 26 28 30 31 32	600135I2A01*(191)
FU5T-14A624-C*(192)	9	5 6 7 8 9 10 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(192)
FU5T-14A624-C*(193)	13	6 7 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(193)
FU5T-14A624-C*(194)	19	3 4 5 8 9 10 11 12 13 20 22 23 26 27 34	600135I2A01*(194)
FU5T-14A624-C*(195)	25	1 2 3 4 11 12 13 16 21	600135I2A01*(195)
FU5T-14A624-C*(196)	21	22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(196)
FU5T-14A624-C*(197)	17	6 7 8 9 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(197)
FU5T-14A624-C*(198)	18	6 7 8 9 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(198)
FU5T-14A624-C*(199)	30	6 7 8 9 34	600135I2A01*(199)
FU5T-14A624-C*(200)	23	6 7 8 9 22 29 30 31 32 33 34	600135I2A01*(200)
FU5T-14A624-C*(201)	22	23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(201)
FU5T-14A624-C*(202)	32	1 2	600135I2A01*(202)
FU5T-14A624-C*(203)	26	8 9 20 22 23 26 27 34	600135I2A01*(203)
FU5T-14A624-C*(204)	7	1 2 3 4 5 6 7 8 9 15 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(204)
FU5T-14A624-C*(205)	5	3 4 5 6 7 8 9 10 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(205)
FU5T-14A624-C*(206)	7	3 4 5 6 7 8 9 10 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(206)
FU5T-14A624-C*(207)	10	3 4 5 6 7 8 9 10 14 15 17 18 19 20 25 26 27 28 29 30 31 32 33 34	600135I2A01*(207)
FU5T-14A624-C*(208)	19	3 4 5 6 7 8 9 10 14 15 17 18 19 20 34	600135I2A01*(208)
FU5T-14A624-C*(209)	25	3 4 8 9 20 22 23 26 27	600135I2A01*(209)
FU5T-14A624-C*(210)	31	17 18 19	600135I2A01*(210)
FU5T-14A624-C*(211)	15	6 7 15 16 17 18 19 20 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(211)
FU5T-14A624-C*(212)	7	3 4 6 7 8 9 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(212)
FU5T-14A624-C*(213)	9	3 4 6 7 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(213)
FU5T-14A624-C*(214)	26	3 4 20 22 23 26 27 34	600135I2A01*(214)
FU5T-14A624-C*(215)	24	3 4 8 9 20 22 23 26 27 34	600135I2A01*(215)
FU5T-14A624-C*(216)	22	6 7 8 9 17 18 19 20 30 31 32 33	600135I2A01*(216)
FU5T-14A624-C*(217)	18	3 4 5 6 7 8 9 10 13 14 15 17 18 19 20 34	600135I2A01*(217)
FU5T-14A624-C*(218)	4	1 2 3 4 5 6 7 8 9 10 13 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(218)
FU5T-14A624-C*(219)	4	3 4 5 6 7 8 9 10 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(219)
FU5T-14A624-C*(220)	6	3 4 5 6 7 8 9 10 13 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(220)
FU5T-14A624-C*(221)	2	1 2 3 4 5 6 7 8 9 10 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(221)

CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
FU5T-14A624-C*(222)	9	1 3 4 7 8 9 11 13 14 16 17 18 19 20 21 22 24 25 27 28 30 31 32 33 34	600135I2A01*(222)
FU5T-14A624-C*(223)	9	3 4 6 7 8 9 14 15 16 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33	600135I2A01*(223)
FU5T-14A624-C*(224)	11	3 4 6 7 8 9 14 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33	600135I2A01*(224)
FU5T-14A624-C*(225)	30	5 13 23 30 33	600135I2A01*(225)
FU5T-14A624-C*(226)	25	4 14 15 16 21 30 31 32 33	600135I2A01*(226)
FU5T-14A624-C*(227)	27	4 14 15 16 30 33	600135I2A01*(227)
FU5T-14A624-C*(228)	22	3 4 14 15 16 21 26 27 29 30 33 34	600135I2A01*(228)
FU5T-14A624-C*(229)	16	4 5 9 10 11 12 13 14 16 19 20 23 24 30 31 32 33 34	600135I2A01*(229)
FU5T-14A624-C*(230)	18	4 5 9 10 11 12 13 19 20 23 24 30 31 32 33 34	600135I2A01*(230)
FU5T-14A624-C*(231)	25	4 5 13 23 30 31 32 33 34	600135I2A01*(231)
FU5T-14A624-C*(232)	24	9 10 11 12 13 19 20 22 26 28	600135I2A01*(232)
FU5T-14A624-C*(233)	28	3 14 17 18 19 23	600135I2A01*(233)
FU5T-14A624-C*(234)	23	1 3 4 6 7 8 26 28 30 31 33	600135I2A01*(234)
FU5T-14A624-C*(235)	22	3 4 7 8 9 14 15 17 18 19 20 34	600135I2A01*(235)
FU5T-14A624-C*(236)	16	1 4 6 9 10 13 19 20 23 24 25 26 27 29 31 32 33 34	600135I2A01*(236)
FU5T-14A624-C*(237)	28	3 4 20 22 26 27	600135I2A01*(237)
FU5T-14A624-C*(238)	13	3 4 6 7 8 9 15 17 18 19 20 22 23 24 25 26 27 30 31 32 33	600135I2A01*(238)
FU5T-14A624-C*(239)	10	3 4 6 7 8 9 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33	600135I2A01*(239)
FU5T-14A624-C*(240)	14	6 7 8 9 15 17 18 19 20 22 23 24 25 26 27 30 31 32 33 34	600135I2A01*(240)
FU5T-14A624-C*(241)	26	2 4 15 16 20 21 27 33	600135I2A01*(241)
FU5T-14A624-C*(242)	17	1 3 4 6 7 8 9 10 22 23 24 25 26 28 30 31 33	600135I2A01*(242)
FU5T-14A624-C*(243)	15	1 3 4 6 7 8 9 10 22 23 24 25 26 28 29 30 31 33 34	600135I2A01*(243)
FU5T-14A624-C*(244)	22	2 3 4 15 16 20 21 27 28 29 33 34	600135I2A01*(244)
FU5T-14A624-C*(245)	24	4 8 19 20 29 30 31 32 33 34	600135I2A01*(245)
FU5T-14A624-C*(246)	12	6 8 9 11 14 16 17 18 19 20 22 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(246)
FU5T-14A624-C*(247)	17	3 4 6 8 9 11 14 17 18 19 23 26 27 28 29 30 31 34	600135I2A01*(247)
FU5T-14A624-C*(248)	10	3 4 6 8 9 11 14 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(248)
FU5T-14A624-C*(249)	5	3 4 5 6 8 9 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(249)
FU5T-14A624-C*(250)	19	3 4 5 6 11 13 14 15 17 18 19 23 27 28 29	600135I2A01*(250)
FU5T-14A624-C*(251)	24	4 8 24 25 29 30 31 32 33 34	600135I2A01*(251)
FU5T-14A624-C*(252)	23	4 7 8 24 25 29 30 31 32 33 34	600135I2A01*(252)
FU5T-14A624-C*(253)	28	7 24 25 31 32 34	600135I2A01*(253)
FU5T-14A624-C*(254)	15	2 4 8 10 11 13 15 16 19 20 21 23 24 25 26 27 30 31 33	600135I2A01*(254)
FU5T-14A624-C*(255)	22	2 4 15 16 20 21 23 24 25 26 27 33	600135I2A01*(255)
FU5T-14A624-C*(256)	8	5 6 8 9 11 13 14 15 16 17 18 19 20 21 22 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(256)
FU5T-14A624-C*(257)	22	6 7 8 9 11 12 20 30 31 32 33 34	600135I2A01*(257)
FU5T-14A624-C*(258)	10	4 5 6 7 8 9 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33	600135I2A01*(258)
FU5T-14A624-C*(259)	28	8 9 30 31 32 33	600135I2A01*(259)
FU5T-14A624-C*(260)	18	2 3 4 15 16 20 21 23 24 25 26 27 28 29 33 34	600135I2A01*(260)
FU5T-14A624-C*(261)	19	2 4 8 10 11 13 15 16 19 20 21 27 30 31 33	600135I2A01*(261)
FU5T-14A624-C*(262)	14	3 4 6 7 15 17 18 19 20 22 23 24 25 26 27 30 31 32 33 34	600135I2A01*(262)
FU5T-14A624-C*(263)	12	3 4 6 7 8 9 15 17 18 19 20 22 23 24 25 26 27 30 31 32 33 34	600135I2A01*(263)
FU5T-14A624-C*(264)	29	24 25 31 32 34	600135I2A01*(264)
FU5T-14A624-C*(265)	25	4 24 25 29 30 31 32 33 34	600135I2A01*(265)
FU5T-14A624-C*(266)	24	4 7 24 25 29 30 31 32 33 34	600135I2A01*(266)
FU5T-14A624-C*(267)	31	7 24 25 34	600135I2A01*(267)
FU5T-14A624-C*(268)	32	24 25 34	600135I2A01*(268)
FU5T-14A624-C*(269)	29	2 3 8 24 25 34	600135I2A01*(269)
FU5T-14A624-C*(270)	27	2 3 7 8 15 24 25 34	600135I2A01*(270)
FU5T-14A624-C*(271)	31	8 9 32 34	600135I2A01*(271)
FU5T-14A624-C*(272)	25	6 7 8 9 11 12 20 32 34	600135I2A01*(272)
FU5T-14A624-C*(273)	18	1 2 3 4 6 7 8 15 24 25 29 30 31 32 33 34	600135I2A01*(273)
FU5T-14A624-C*(274)	20	1 2 3 4 6 8 24 25 29 30 31 32 33 34	600135I2A01*(274)
FU5T-14A624-C*(275)	28	2 3 7 15 24 25 34	600135I2A01*(275)
FU5T-14A624-C*(276)	24	3 6 7 8 9 11 12 20 32 34	600135I2A01*(276)
FU5T-14A624-C*(277)	19	4 5 6 7 8 9 11 12 13 20 30 31 32 33 34	600135I2A01*(277)
FU5T-14A624-C*(278)	10	4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	600135I2A01*(278)
FU5T-14A624-C*(279)	25	4 5 8 9 13 30 31 32 33	600135I2A01*(279)
FU5T-14A624-C*(280)	14	4 5 6 7 8 9 13 14 15 18 19 22 23 24 25 26 27 28 29 32 34	600135I2A01*(280)
FU5T-14A624-C*(281)	26	1 2 5 6 7 8 9 34	600135I2A01*(281)
FU5T-14A624-C*(282)	14	1 2 5 6 7 8 9 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(282)
FU5T-14A624-C*(283)	18	1 2 5 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(283)
FU5T-14A624-C*(284)	19	1 2 5 6 7 8 9 22 23 24 25 26 27 28 34	600135I2A01*(284)
FU5T-14A624-C*(285)	20	1 2 5 6 7 8 9 22 29 30 31 32 33 34	600135I2A01*(285)
FU5T-14A624-C*(286)	25	1 2 5 6 7 8 9 22 34	600135I2A01*(286)
FU5T-14A624-C*(287)	29	15 16 17 18 21	600135I2A01*(287)
FU5T-14A624-C*(288)	28	15 16 17 18 21 33	600135I2A01*(288)
FU5T-14A624-C*(289)	26	8 15 16 17 18 21 31 33	600135I2A01*(289)
FU5T-14A624-C*(290)	11	3 6 7 8 9 11 12 14 15 18 19 20 21 22 23 24 25 26 27 28 29 32 34	600135I2A01*(290)
FU5T-14A624-C*(291)	12	3 6 7 8 9 11 12 14 15 18 19 20 21 22 23 24 25 26 27 28 29 34	600135I2A01*(291)
FU5T-14A624-C*(292)	21	10 17 18 19 20 21 22 23 24 25 28 29 31	600135I2A01*(292)
FU5T-14A624-C*(293)	25	17 18 19 20 21 22 23 28 29	600135I2A01*(293)
FU5T-14A624-C*(294)	20	4 5 17 18 19 20 21 22 23 24 25 28 29 30	600135I2A01*(294)
FU5T-14A624-C*(295)	12	2 3 4 5 6 7 8 9 10 11 12 13 15 16 17 18 19 21 25 32 33 34	600135I2A01*(295)
FU5T-14A624-C*(296)	21	9 10 11 12 13 15 16 17 18 19 21 33 34	600135I2A01*(296)
FU5T-14A624-C*(297)	22	9 10 11 12 13 15 16 17 18 19 21 34	600135I2A01*(297)
FU5T-14A624-C*(298)	21	3 4 6 11 14 15 17 18 19 23 27 28 29 33	600135I2A01*(298)
FU5T-14A624-C*(299)	14	1 2 4 7 8 9 10 13 15 16 17 19 20 21 24 29 30 31 32 33	600135I2A01*(299)
FU5T-14A624-C*(300)	23	1 4 5 8 13 16 17 19 20 21 24 30 31 33 34	600135I2A01*(300)
FU5T-14A624-C*(301)	19	8 9 10 11 12 13 15 16 17 18 19 21 31 33 34	600135I2A01*(301)
FU5T-14A624-C*(302)	11	1 2 4 6 7 8 9 10 13 15 17 19 20 23 24 26 27 28 29 30 31 32 33	600135I2A01*(302)
FU5T-14A624-C*(303)	20	1 4 5 6 8 13 17 19 20 23 24 26 27 28 33	600135I2A01*(303)
FU5T-14A624-C*(304)	7	4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(304)
FU5T-14A624-C*(305)	13	4 5 6 7 8 9 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 33	600135I2A01*(305)
FU5T-14A624-C*(306)	22	4 5 6 7 8 9 11 12 13 20 32 34	600135I2A01*(306)
FU5T-14A624-C*(307)	28	4 5 8 9 13 32 33	600135I2A01*(307)
FU5T-14A624-C*(308)	19	1 2 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(308)
FU5T-14A624-C*(309)	24	1 2 3 4 5 6 7 8 9 34	600135I2A01*(309)
FU5T-14A624-C*(310)	26	1 2 6 7 8 9 22 34	600135I2A01*(310)
FU5T-14A624-C*(311)	15	1 2 6 7 8 9 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(311)
FU5T-14A624-C*(312)	16	1 2 6 7 8 9 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(312)
FU5T-14A624-C*(313)	21	1 2 6 7 8 9 22 29 30 31 32 33 34	600135I2A01*(313)
FU5T-14A624-C*(314)	22	1 2 6 7 8 9 29 30 31 32 33 34	600135I2A01*(314)
FU5T-14A624-C*(315)	27	1 2 6 7 8 9 34	600135I2A01*(315)
FU5T-14A624-C*(316)	15	4 5 8 9 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32	600135I2A01*(316)
FU5T-14A624-C*(317)	13	6 8 9 11 14 17 18 19 20 22 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(317)
FU5T-14A624-C*(318)	7	3 4 5 6 8 9 11 13 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(318)
FU5T-14A624-C*(319)	21	2 3 4 5 8 15 16 17 18 21 25 32 33	600135I2A01*(319)
FU5T-14A624-C*(320)	5	4 5 6 7 8 9 11 12 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(320)
FU5T-14A624-C*(321)	7	4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	600135I2A01*(321)
FU5T-14A624-C*(322)	17	3 6 7 8 9 10 22 23 24 25 26 28 29 30 31 33 34	600135I2A01*(322)
FU5T-14A624-C*(323)	21	3 6 7 8 9 24 26 28 29 30 31 33 34	600135I2A01*(323)
FU5T-14A624-C*(324)	19	3 6 7 8 9 10 22 23 24 25 26 28 30 31 33 34	600135I2A01*(324)
FU5T-14A624-C*(325)	23	3 6 7 8 9 24 26 28 30 31 33	600135I2A01*(325)
FU5T-14A624-C*(326)	17	2 3 4 5 6 7 8 12 15 16 19 20 25 26 27 31 33	600135I2A01*(326)
FU5T-14A624-C*(327)	14	4 5 6 7 8 9 15 16 17 18 19 20 21 25 26 28 30 31 32 33	600135I2A01*(327)
FU5T-14A624-C*(328)	14	4 5 6 7 8 9 15 16 17 18 19 20 21 25 26 27 30 31 32 33	600135I2A01*(328)
FU5T-14A624-C*(329)	22	5 6 15 16 17 18 19 20 21 25 26 27 34	600135I2A01*(329)
FU5T-14A624-C*(330)	24	6 15 16 17 18 19 20 21 25 26 34	600135I2A01*(330)
FU5T-14A624-C*(331)	16	6 7 15 16 17 18 19 20 25 26 27 28 29 30 31 32 33 34	600135I2A01*(331)

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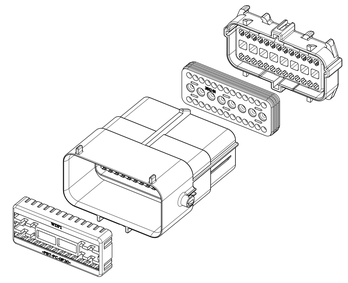
By Mike Davidson at 9:33 am, Mar 02, 2015



WDP

Western Diversified Plastics
Phone: (269) 668-3393

REFERENCE

PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT

DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 24

3RD ANGLE PROJ
DIMENSIONS ARE IN MILLIMETERS

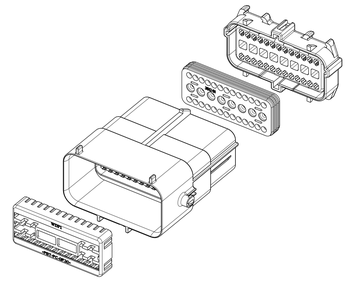
CAD TYPE	CAD LOC.	CAD FILE	DTMC
X-PROE	TCE		IS MASTER
OPER. NO.	UNIT	DRAWING FU5T-14A624-CC	
DESIGN	DETAIL	TITLE	SHT 3 OF 4
FINSTROM	FINSTROM	SLV ASY WIR CONN MLE	
CHECKED	SAFETY		
ENSING			
SCALE 1:1	DATE 20130114	DIVISION	
		PLANT	

FORD MOTOR COMPANY

CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
FU5T-14A624-C*(332)	23	2 3 6 7 8 12 21 25 26 27 31	6001351201*(332)
FU5T-14A624-C*(333)	31	3 24 25	6001351201*(333)
FU5T-14A624-C*(334)	20	1 2 3 4 5 7 11 16 17 19 20 23 25 27	6001351201*(334)
FU5T-14A624-C*(335)	23	1 2 5 7 8 11 12 17 20 25 27	6001351201*(335)
FU5T-14A624-C*(336)	12	3 4 6 10 11 12 14 15 17 18 19 23 24 25 26 27 28 29 31 32 33 34	6001351201*(336)
FU5T-14A624-C*(337)	19	3 7 8 9 10 22 23 24 25 26 28 29 31 33 34	6001351201*(337)
FU5T-14A624-C*(338)	23	3 7 8 9 24 26 28 29 31 33 34	6001351201*(338)
FU5T-14A624-C*(339)	21	3 7 8 9 10 22 23 24 25 26 28 31 33 34	6001351201*(339)
FU5T-14A624-C*(340)	23	3 6 7 8 9 24 26 28 30 31 33	6001351201*(340)
FU5T-14A624-C*(341)	19	1 2 3 4 5 11 13 16 17 19 20 23 24 25 27	6001351201*(341)
FU5T-14A624-C*(342)	8	4 5 6 7 8 9 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33	6001351201*(342)
FU5T-14A624-C*(343)	22	1 2 5 7 8 11 12 13 17 20 25 27	6001351201*(343)
FU5T-14A624-C*(344)	31	30 31 33	6001351201*(344)
FU5T-14A624-C*(345)	21	1 2 3 4 5 7 13 15 16 19 23 24 27	6001351201*(345)
FU5T-14A624-C*(346)	25	3 7 8 9 24 26 28 31 33	6001351201*(346)
FU5T-14A624-C*(347)	18	2 3 4 7 8 15 19 20 24 25 29 30 31 32 33 34	6001351201*(347)
FU5T-14A624-C*(348)	30	3 15 24 25	6001351201*(348)
FU5T-14A624-C*(349)	20	2 3 4 15 19 20 24 25 29 30 31 32 33 34	6001351201*(349)
FU5T-14A624-C*(350)	28	3 7 8 15 24 25	6001351201*(350)
FU5T-14A624-C*(351)	24	2 3 15 19 20 24 25 31 32 34	6001351201*(351)
FU5T-14A624-C*(352)	25	15 16 17 18 19 20 21 25 26	6001351201*(352)
FU5T-14A624-C*(353)	33	17	6001351201*(353)
FU5T-14A624-C*(354)	20	1 2 3 4 5 11 13 16 17 19 23 24 25 27	6001351201*(354)
FU5T-14A624-C*(355)	22	1 2 7 8 12 16 17 19 20 23 24 27	6001351201*(355)
FU5T-14A624-C*(356)	21	1 2 5 8 11 12 13 16 20 23 24 25 27	6001351201*(356)
FU5T-14A624-C*(357)	21	1 2 8 11 12 13 16 17 19 20 23 24 27	6001351201*(357)
FU5T-14A624-C*(358)	23	1 2 7 8 12 16 17 19 23 24 27	6001351201*(358)
FU5T-14A624-C*(359)	22	1 2 5 8 11 12 13 16 23 24 25 27	6001351201*(359)
FU5T-14A624-C*(360)	24	1 2 7 16 17 19 20 23 24 27	6001351201*(360)
FU5T-14A624-C*(361)	25	1 2 7 16 17 19 23 24 27	6001351201*(361)
FU5T-14A624-C*(362)	25	2 8 12 17 19 20 23 24 27	6001351201*(362)
FU5T-14A624-C*(363)	26	2 8 12 17 19 23 24 27	6001351201*(363)
FU5T-14A624-C*(364)	27	2 17 19 20 23 24 27	6001351201*(364)
FU5T-14A624-C*(365)	28	2 17 19 23 24 27	6001351201*(365)
FU5T-14A624-C*(366)	27	3 7 8 12 16 17 20 24 25 27	6001351201*(366)
FU5T-14A624-C*(367)	28	3 7 8 12 16 17	6001351201*(367)
FU5T-14A624-C*(368)	30	8 12 17 20 23 24	6001351201*(368)
FU5T-14A624-C*(369)	31	8 12 17 24 25 27	6001351201*(369)
FU5T-14A624-C*(370)	29	3 7 16 17 20	6001351201*(370)
FU5T-14A624-C*(371)	32	17 20	6001351201*(371)
FU5T-14A624-C*(372)	30	3 7 16 17	6001351201*(372)
FU5T-14A624-C*(373)	29	20 30 31 32 33	6001351201*(373)
FU5T-14A624-C*(374)	20	3 4 5 8 9 11 12 13 25 30 31 32 33 34	6001351201*(374)
FU5T-14A624-C*(375)	25	10 11 12 25 30 31 32 33 34	6001351201*(375)
FU5T-14A624-C*(376)	22	3 8 9 10 11 12 25 30 31 32 33 34	6001351201*(376)
FU5T-14A624-C*(377)	21	1 2 6 7 8 9 23 24 25 26 27 28 34	6001351201*(377)
FU5T-14A624-C*(378)	24	1 2 22 23 24 25 26 27 28 34	6001351201*(378)
FU5T-14A624-C*(379)	20	1 2 6 7 8 9 22 23 24 25 26 27 28 34	6001351201*(379)
FU5T-14A624-C*(380)	23	3 8 9 11 12 25 30 31 32 33 34	6001351201*(380)
FU5T-14A624-C*(381)	10	1 2 3 4 6 7 8 9 10 11 13 14 15 16 20 21 23 24 25 26 27 28 32 33	6001351201*(381)
FU5T-14A624-C*(382)	8	1 2 3 4 6 7 8 9 10 11 13 14 15 16 20 21 23 24 25 26 27 28 30 31 32 33	6001351201*(382)
FU5T-14A624-C*(383)	25	3 4 6 9 10 11 13 24 30 34	6001351201*(383)
FU5T-14A624-C*(384)	9	1 2 3 4 6 7 8 9 10 11 13 14 15 16 20 21 23 24 25 26 27 28 29 32 33	6001351201*(384)
FU5T-14A624-C*(385)	7	1 2 3 4 6 7 8 9 10 11 13 14 15 16 20 21 23 24 25 26 27 28 29 30 31 32 33	6001351201*(385)
FU5T-14A624-C*(386)	28	1 9 21 27 31 32	6001351201*(386)
FU5T-14A624-C*(387)	19	1 4 7 9 10 11 21 22 23 26 27 28 30 31 32	6001351201*(387)
FU5T-14A624-C*(388)	19	1 4 7 10 11 15 18 21 22 23 26 28 30 31 32	6001351201*(388)
FU5T-14A624-C*(389)	21	1 4 7 10 11 21 22 23 26 28 30 31 32	6001351201*(389)
FU5T-14A624-C*(390)	30	21 30 31 32	6001351201*(390)
FU5T-14A624-C*(391)	20	4 7 10 11 15 18 21 22 23 26 28 30 31 32	6001351201*(391)
FU5T-14A624-C*(392)	19	3 4 7 14 15 17 18 19 20 24 25 29 32 33 34	6001351201*(392)
FU5T-14A624-C*(393)	23	4 7 14 15 19 20 26 27 28 32 33	6001351201*(393)
FU5T-14A624-C*(394)	19	3 4 5 7 14 15 17 18 19 20 24 25 32 33 34	6001351201*(394)
FU5T-14A624-C*(395)	21	2 4 7 8 15 19 20 29 30 31 32 33 34	6001351201*(395)
FU5T-14A624-C*(396)	33	15	6001351201*(396)
FU5T-14A624-C*(397)	23	2 4 15 19 20 29 30 31 32 33 34	6001351201*(397)
FU5T-14A624-C*(398)	27	2 15 19 20 31 32 34	6001351201*(398)
FU5T-14A624-C*(399)	31	7 8 15	6001351201*(399)
FU5T-14A624-C*(400)	23	3 4 6 9 10 11 13 24 29 30 34	6001351201*(400)
FU5T-14A624-C*(401)	27	4 6 9 10 11 13 30	6001351201*(401)
FU5T-14A624-C*(402)	9	3 4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	6001351201*(402)
FU5T-14A624-C*(403)	18	3 4 5 6 7 8 9 11 12 13 20 30 31 32 33 34	6001351201*(403)
FU5T-14A624-C*(404)	21	3 6 7 8 9 11 12 20 30 31 32 33 34	6001351201*(404)
FU5T-14A624-C*(405)	23	4 7 14 15 19 20 23 26 27 28 32	6001351201*(405)
FU5T-14A624-C*(406)	19	3 4 7 14 15 17 18 19 20 22 23 24 25 29 32	6001351201*(406)
FU5T-14A624-C*(407)	20	3 4 7 14 15 17 18 19 20 22 23 24 25 29	6001351201*(407)
FU5T-14A624-C*(408)	23	4 7 15 19 20 21 23 26 27 28 32	6001351201*(408)
FU5T-14A624-C*(409)	19	3 4 7 15 17 18 19 20 21 22 23 24 25 29 32	6001351201*(409)
FU5T-14A624-C*(410)	25	11 12 15 25 30 31 32 33 34	6001351201*(410)
FU5T-14A624-C*(411)	27	6 7 30 31 32 33 34	6001351201*(411)
FU5T-14A624-C*(412)	27	6 7 20 25 30 31 33	6001351201*(412)
FU5T-14A624-C*(413)	21	3 10 12 14 18 19 23 24 25 31 32 33 34	6001351201*(413)
FU5T-14A624-C*(414)	14	3 4 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	6001351201*(414)
FU5T-14A624-C*(415)	17	3 4 6 7 11 14 17 18 19 20 23 26 27 28 29 30 34	6001351201*(415)
FU5T-14A624-C*(416)	18	3 4 6 11 14 17 18 19 20 23 26 27 28 29 30 34	6001351201*(416)
FU5T-14A624-C*(417)	20	3 4 5 6 7 11 12 13 20 30 31 32 33 34	6001351201*(417)
FU5T-14A624-C*(418)	8	5 6 7 8 9 10 13 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(418)
FU5T-14A624-C*(419)	28	20 22 23 26 27 34	6001351201*(419)
FU5T-14A624-C*(420)	20	5 6 7 8 9 10 13 14 15 17 18 19 20 34	6001351201*(420)
FU5T-14A624-C*(421)	19	3 4 5 8 9 10 11 12 13 20 22 23 26 27 34	6001351201*(421)
FU5T-14A624-C*(422)	6	5 6 7 8 9 10 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(422)
FU5T-14A624-C*(423)	9	6 7 8 9 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(423)
FU5T-14A624-C*(424)	27	3 4 20 22 26 27 34	6001351201*(424)
FU5T-14A624-C*(425)	11	6 7 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(425)
FU5T-14A624-C*(426)	28	20 22 23 26 27 34	6001351201*(426)
FU5T-14A624-C*(427)	29	20 22 26 27 34	6001351201*(427)
FU5T-14A624-C*(428)	16	6 7 15 17 18 19 20 22 23 24 25 26 27 30 31 32 33 34	6001351201*(428)
FU5T-14A624-C*(429)	7	5 6 7 8 9 10 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(429)
FU5T-14A624-C*(430)	24	7 8 9 14 15 17 18 19 20 34	6001351201*(430)
FU5T-14A624-C*(431)	27	2 4 15 16 20 21 33	6001351201*(431)
FU5T-14A624-C*(432)	23	2 3 4 15 16 20 21 28 29 33 34	6001351201*(432)
FU5T-14A624-C*(433)	23	4 5 11 12 13 25 30 31 32 33 34	6001351201*(433)
FU5T-14A624-C*(434)	14	4 5 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	6001351201*(434)
FU5T-14A624-C*(435)	23	3 8 9 11 12 25 30 31 32 33 34	6001351201*(435)
FU5T-14A624-C*(436)	26	11 12 25 30 31 32 33 34	6001351201*(436)
FU5T-14A624-C*(437)	11	3 4 5 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	6001351201*(437)
FU5T-14A624-C*(438)	21	3 4 5 6 7 11 12 20 25 30 31 33 34	6001351201*(438)
FU5T-14A624-C*(439)	30	30 31 32 33	6001351201*(439)
FU5T-14A624-C*(440)	23	3 6 7 11 12 20 25 30 31 33 34	6001351201*(440)
FU5T-14A624-C*(441)	20	3 4 5 6 7 11 12 13 20 25 30 31 33 34	6001351201*(441)

CONN. ASS'Y NO.	TOTAL OPEN HOLES	TERMINAL CAVITY NUMBER DENOTES SEALING PIN POSITION	WDP PART NUMBER
FU5T-14A624-C*(442)	13	3 4 5 6 7 11 12 14 15 18 19 20 22 23 24 25 26 27 28 29 34	6001351201*(442)
FU5T-14A624-C*(443)	15	1 2 5 6 7 8 9 22 23 24 25 26 27 28 29 30 31 32 33	6001351201*(443)
FU5T-14A624-C*(444)	21	1 2 5 6 7 8 9 29 30 31 32 33 34	6001351201*(444)
FU5T-14A624-C*(445)	21	3 4 5 8 9 11 12 13 30 31 32 33 34	6001351201*(445)
FU5T-14A624-C*(446)	22	2 3 6 7 8 12 20 25 26 27 31 33	6001351201*(446)
FU5T-14A624-C*(447)	20	1 2 5 6 7 8 9 23 24 25 26 27 28 34	6001351201*(447)
FU5T-14A624-C*(448)	23	1 2 5 22 23 24 25 26 27 28 34	6001351201*(448)
FU5T-14A624-C*(449)	26	22 23 24 25 26 27 28 34	6001351201*(449)
FU5T-14A624-C*(450)	12	1 2 3 4 5 6 7 8 9 15 18 19 20 21 22 23 24 25 26 27 28 34	6001351201*(450)
FU5T-14A624-C*(451)	9	3 4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	6001351201*(451)
FU5T-14A624-C*(452)	22	3 6 7 8 9 11 12 20 30 31 33 34	6001351201*(452)
FU5T-14A624-C*(453)	6	3 4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(453)
FU5T-14A624-C*(454)	24	3 8 9 11 12 30 31 32 33 34	6001351201*(454)
FU5T-14A624-C*(455)	7	3 4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 33 34	6001351201*(455)
FU5T-14A624-C*(456)	10	3 4 5 6 7 8 9 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 34	6001351201*(456)
FU5T-14A624-C*(457)	19	3 4 5 6 7 8 9 11 12 13 20 30 31 33 34	6001351201*(457)
FU5T-14A624-C*(458)	19	1 2 3 4 5 7 11 13 16 17 19 20 23 25 27 30 31 32 33 34	6001351201*(458)
FU5T-14A624-C*(459)	26	4 14 15 16 21 30 32 33	6001351201*(459)
FU5T-14A624-C*(460)	21	3 4 14 15 16 21 26 27 29 30 32 33 34	6001351201*(460)
FU5T-14A624-C*(461)	11	2 3 4 8 10 11 13 15 16 19 20 21 23 24 25 26 27 28 29 30 31 33 34	6001351201*(461)
FU5T-14A624-C*(462)	15	2 3 4 8 10 11 13 15 16 19 20 21 27 28 29 30 31 33 34	6001351201*(462)
FU5T-14A624-C*(463)	20	1 3 4 6 7 8 24 26 28 29 30 31 33 34	6001351201*(463)
FU5T-14A624-C*(464)	24	4 7 14 15 29 30 31 32 33 34	6001351201*(464)
FU5T-14A624-C*(465)	25	4 14 15 29 30 31 32 33 34	6001351201*(465)
FU5T-14A624-C*(466)	29	14 15 31 32 34	6001351201*(466)
FU5T-14A624-C*(467)	32	14 15	6001351201*(467)
FU5T-14A624-C*(468)	31	7 14 15	6001351201*(468)
FU5T-14A624-C*(469)	28	20 25 30 31 32 33	6001351201*(469)
FU5T-14A624-C*(470)	6	3 4 5 6 7 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(470)
FU5T-14A624-C*(471)	23	1 2 3 4 5 7 17 19 23 25 27	6001351201*(471)
FU5T-14A624-C*(472)	12	3 4 5 6 7 8 9 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29	6001351201*(472)
FU5T-14A624-C*(473)	31	3 8 9	6001351201*(473)
FU5T-14A624-C*(474)	23	1 2 8 11 12 13 16 17 20 24 27	6001351201*(474)
FU5T-14A624-C*(475)	29	8 12 17 23 24	6001351201*(475)
FU5T-14A624-C*(476)	23	1 2 5 8 11 12 16 20 24 25 27	6001351201*(476)
FU5T-14A624-C*(477)	26	8 11 12 13 16 17 24 27	6001351201*(477)
FU5T-14A624-C*(478)	28	8 12 17 20 23 24	6001351201*(478)
FU5T-14A624-C*(479)	24	1 2 5 8 11 12 16 24 25 27	6001351201*(479)
FU5T-14A624-C*(480)	9	3 4 5 6 7 8 9 11 12 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 34	6001351201*(480)
FU5T-14A624-C*(481)	7	4 5 6 7 11 12 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(481)
FU5T-14A624-C*(482)	6	3 4 5 6 7 11 12 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(482)
FU5T-14A624-C*(483)	11	4 5 6 7 11 12 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 32 34	6001351201*(483)
FU5T-14A624-C*(484)	9	4 5 6 7 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(484)
FU5T-14A624-C*(485)	12	4 5 6 7 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 33	6001351201*(485)
FU5T-14A624-C*(486)	11	3 4 5 6 7 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 33	6001351201*(486)
FU5T-14A624-C*(487)	10	3 4 5 6 7 11 12 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 32 33	6001351201*(487)
FU5T-14A624-C*(488)	21	4 5 6 7 11 12 13 20 30 31 32 33 34	6001351201*(488)
FU5T-14A624-C*(489)	24	6 7 11 12 20 30 31 32 33 34	6001351201*(489)
FU5T-14A624-C*(490)	23	3 6 7 11 12 20 30 31 32 33 34	6001351201*(490)
FU5T-14A624-C*(491)	12	3 4 5 6 7 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 34	6001351201*(491)
FU5T-14A624-C*(492)	7	3 4 5 6 7 11 12 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 33 34	6001351201*(492)
FU5T-14A624-C*(493)	11	3 4 5 6 7 11 12 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 34	6001351201*(493)
FU5T-14A624-C*(494)	8	3 4 5 6 7 11 12 13 14 15 18 19 21 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(494)
FU5T-14A624-C*(495)	9	4 5 6 7 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(495)
FU5T-14A624-C*(496)	12	4 5 6 7 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	6001351201*(496)
FU5T-14A624-C*(497)	14	4 5 6 7 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 32 34	6001351201*(497)
FU5T-14A624-C*(498)	27	4 5 13 30 31 32 33	6001351201*(498)
FU5T-14A624-C*(499)	10	3 4 5 6 7 11 12 13 14 15 18 19 20 21 22 23 24 25 26 27 28 29 32 34	6001351201*(499)
FU5T-14A624-C*(500)	11	3 4 5 6 7 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	6001351201*(500)
FU5T-14A624-C*(501)	8	3 4 5 6 7 11 12 13 14 15 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(501)
FU5T-14A624-C*(502)	21	1 2 3 4 5 7 11 16 19 20 23 25 27	6001351201*(502)
FU5T-14A624-C*(503)	21	1 2 3 4 5 7 11 16 17 19 20 25 27	6001351201*(503)
FU5T-14A624-C*(504)	22	1 2 8 11 12 13 16 17 19 23 24 27	6001351201*(504)
FU5T-14A624-C*(505)	25	3 7 8 12 16 17 20 23 24	6001351201*(505)
FU5T-14A624-C*(506)	26	3 7 8 12 16 17 23 24	6001351201*(506)
FU5T-14A624-C*(507)	19	2 3 10 12 13 18 19 20 25 26 27 28 29 31 32	6001351201*(507)
FU5T-14A624-C*(508)	20	2 3 6 7 8 12 20 25 26 27 30 31 32 33	6001351201*(508)
FU5T-14A624-C*(509)	18	2 3 6 7 8 12 20 23 25 26 27 30 31 32 33 34	6001351201*(509)
FU5T-14A624-C*(510)	15	3 4 5 6 7 8 12 15 16 17 18 20 25 26 27 30 31 32 33	6001351201*(510)
FU5T-14A624-C*(511)	13	3 4 5 6 7 8 12 15 16 17 18 20 23 25 26 27 30 31 32 33 34	6001351201*(511)
FU5T-14A624-C*(512)	21	3 6 7 8 12 20 25 26 27 30 31 32 33	6001351201*(512)
FU5T-14A624-C*(513)	22	2 3 7 8 15 19 20 24 25 31 32 34	6001351201*(513)
FU5T-14A624-C*(514)	13	3 4 5 6 7 8 9 13 14 15 18 19 20 22 23 24 25 26 27 28 29	6001351201*(514)
FU5T-14A624-C*(515)	8	3 4 5 6 7 8 9 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 33	6001351201*(515)
FU5T-14A624-C*(516)	25	3 4 5 8 9 13 30 31 33	6001351201*(516)
FU5T-14A624-C*(517)	27	23 24 25 26 27 28 34	6001351201*(517)
FU5T-14A624-C*(518)	11	6 7 8 9 14 15 17 18 19 20 22 23 24 25 26 27 28 29 30 31 32 33 34	6001351201*(518)
FU5T-14A624-C*(519)	24	2 3 6 7 8 12 25 26 31 33	6001351201*(519)
FU5T-14A624-C*(520)	21	1 2 3 4 5 7 13 15 16 19 20 25 27 30 31 32 33 34	6001351201*(520)
FU5T-14A624-C*(521)	14	6 7 15 16 17 18 19 20 21 22 23 24 25 26 27 30 31 32 33 34	6001351201*(521)
FU5T-14A624-C*(522)	22	1 2 3 11 13 16 17 18 20 22 33 34	6001351201*(522)
FU5T-14A624-C*(523)	29	13 20 31 33 34	6001351201*(523)
FU5T-14A624-C*(524)	13	3 6 7 8 9 11 12 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	6001351201*(524)
FU5T-14A624-C*(525)	12	3 6 7 8 9 11 12 14 15 18 19 20 22 23 24 25 26 27 28 29 32 34	6001351201*(525)
FU5T-14A624-C*(526)	26	3 4 8 9 20 22 26 27 34	6001351201*(526)
FU5T-14A624-C*(527)	20	3 4 5 6 7 8 9 14 15 17 18 19 20 34	6001351201*(527)
FU5T-14A624-C*(528)	17	8 9 10 11 12 13 15 16 17 18 19 21 22 30 31 33 34	6001351201*(528)
FU5T-14A624-C*(529)	20	9 10 11 12 13 15 16 17 18 19 21 22 30 34	6001351201*(529)
FU5T-14A624-C*(530)	24	8 15 16 17 18 21 22 30 31 33	6001351201*(530)
FU5T-14A624-C*(531)	27	15 16 17 18 21 22 30	6001351201*(531)
FU5T-14A624-C*(532)	10	2 3 4 5 6 7 8 9 10 11 12 13 15 16 17 18 19 21 22 25 30 32 33 34	6001351201*(532)
FU5T-14A624-C*(533)	16	3 4 5 11 12 13 14 15 17 18 19 23 28 29 30 31 33 34	6001351201*(533)
FU5T-14A624-C*(534)	9	2 3 4 5 6 7 14 15 16 17 18 19 20 21 24 25 26 27 28 29 30 31 32 33 34	6001351201*(534)
FU5T-14A624-C*(535)	9	2 3 4 5 6 7 12 14 15 16 17 18 19 20 21 24 25 26 27 28 29 30 31 32 33	6001351201*(535)
FU5T-14A624-C*(536)	10	2 3 4 5 6 7 12 14 15 16 17 18 19 21 24 25 26 27 28 29 30 31 32 33	6001351201*(536)
FU5T-14A624-C*(537)	6	2 3 4 5 6 7 8 9 10 11 14 15 16 17 18 19 20 21 24 25 26 27 28 29 30 31 32 33	6001351201*(537)
FU5T-14A624-C*(538)	11	2 3 4 5 6 7 14 15 16 17 18 19 21 24 25 26 27 28 29 30 31 32 33	6001351201*(538)
FU5T-14A624-C*(539)	10	2 3 4 5 6 7 14 15 16 17 18 19 20 21 24 25 26 27 28 29 30 31 32 33	6001351201*(539)
FU5T-14A624-C*(540)	24	8 11 12 13 16 17 19 20 24 27	6001351201*(540)
FU5T-14A624-C*(541)	22	1 2 3 4 5 11 16 17 19 24 25 27	6001351201*(541)
FU5T-14A624-C*(542)	25	8 11 12 13 16 17 19 24 27	6001351201*(542)
FU5T-14A624-C*(543)	21	1 2 3 4 5 11 16 17 19 20 24 25 27	6001351201*(543)
FU5T-14A624-C*(544)	22	1 2 8 11 12 13 16 17 19 20 24 27	6001351201*(544)
FU5T-14A624-C*(545)	20	1 2 3 4 6 7 12 15 17 21 24 26 32 33	6001351201*(545)
FU5T-14A624-C*(546)	27	2 3 6 7 15 17 21	6001351201*(546)

(S1)



WDP RECEIVED
By Mike Davidson at 9:33 am, Mar 02, 2015

WDP
Western Diversified Plastics
Phone: (269) 668-3393

REFERENCE

PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT

DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION 24

3RD ANGLE PROJ
DIMENSIONS ARE IN MILLIMETERS

CAD TYPE	CAD LOC.	CAD FILE	DTMC
X-PROE	TCE		IS MASTER
OPER. NO.	UNIT	DRAWING FU5T-14A624-CC	
DESIGN FINSTROM	DETAIL FINSTROM	TITLE SLV ASY WIR CONN MLE	SHT 4 OF 4
CHECKED ENSING	SAFETY		
SCALE 1:1	DATE 20130114	DIVISION	
		PLANT	

FORD MOTOR COMPANY

SABIC Innovative Plastics™

سابك sabic

Product Quality Documentation

LETTER OF CERTIFICATION

Customer Order Number	Customer Part Number	Sales Order Number	Material,Grade and Color
5899.4	MAT-009-BLK-VIR	4617653-001	VALOX K4560 BK1066

Lot Number	Shipped From	Date Shipped	Shippers Number
CV8N29	SABIC IP - MT VERNON	09/17/14	

Specification
WSK-M4D725-A2

Specification Originator
FORD

Specification-Comments

It is hereby certified that the product indicated above conforms to the specification listed herein for the designated material. This certification is subject to our standard conditions of sale applying to products sold by SABIC Innovative Plastics.

This document shall not be reproduced except in full without written approval.

TEST	REFERENCE	REV	REQUIREMENT	(ENGLISH)	(METRIC)
LOT DATA(CONDITIONING TIME MAY BE SHORTER THAN ASTM/ISO REQUIREMENTS):					
MELT VOLUME RATE	ISO 1133		27.3-53.7 CC/10 MIN		45.1 CC/10 MIN
GLASS PERCENT			26.6-32.2 %	30.1 %	
ASH CONTENT - ISO	ISO 3451/2		26.6-32.2 %	30.1 %	
				DATE OF LAST AUDIT: 02/14	
PRODUCT AUDIT DATA(COMPLIANT WITH ASTM/ISO CONDITIONING REQUIREMENTS):					
CHARPY IMPACT @ 23 C	ISO 179		1.9 K-J/METER 2 MINIMUM		17.1 K-J/METER
DENSITY	ISO 1183		1.47-1.51 G/CC		1.49 G/CC
	WATER BATH 23 +/- 2 C				
HEAT DEFLECTION 1.82MPA	ISO 75		193 DEG C MINIMUM	406 DEG F	208 DEG C
TENSILE STRENGTH @BREAK	ISO 527		84.0 MPA MINIMUM	19,203 PSI	132.4 MPA
TENSILE MODULUS	ISO R527		8,446 MPA MINIMUM	1,250,970 PSI	8,625 MPA

WOODIE PUNTNEY
Quality Manager

JESSICA ZIRKELBACH
Manufacturing Manager

If you have any questions concerning this, please contact:

SABIC INNOVATIVE PLASTICS

1-800-PLASTIC

CUST FAX NUMBER: 2694887374

BONNIE NICHOLS
WESTERN DIVERSIFIED PLAST
53150 NORTH MAIN STREET
MATTAWAN MI 49071

REGISTERED TO ISO9001:2008 CERT # FM93268

SABIC Innovative Plastics™

سابك sabic

Product Quality Documentation

CERTIFICATE OF COMPLIANCE

Customer Order Number	Customer Part Number	Sales Order Number	Material,Grade and Color
5899.4	MAT-009-BLK-VIR	4617653-001	VALOX K4560 BK1066

Lot Number	Shipped From	Date Shipped	Shippers Number
CV8N29	SABIC IP - MT VERNON	09/17/14	

Specification

Specification Originator

Specification-Comments

It is hereby certified that the product indicated above conforms to our standard internal specifications for the designated material. This certification is subject to our standard conditions of sale applying to products sold by SABIC Innovative Plastics.

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TEST	REFERENCE	REV	REQUIREMENT	(ENGLISH)	(METRIC)
LOT DATA(CONDITIONING TIME MAY BE SHORTER THAN ASTM/ISO REQUIREMENTS):					
MELT VOLUME RATE	ISO 1133		27.3-53.7 CC/10 MIN		45.1 CC/10 MIN
GLASS PERCENT			28.0-32.0 %	30.1 %	

WOODIE PUNTNEY
Quality Manager

JESSICA ZIRKELBACH
Manufacturing Manager

If you have any questions concerning this, please contact:

SABIC INNOVATIVE PLASTICS

1-800-PLASTIC

CUST FAX NUMBER: 2694887374

BONNIE NICHOLS
WESTERN DIVERSIFIED PLAST
53150 NORTH MAIN STREET
MATTAWAN MI 49071

REGISTERED TO ISO9001:2008 CERT # FM93268

SABIC Innovative Plastics™

سابك sabic

Product Quality Documentation

LETTER OF CERTIFICATION

Customer Order Number	Customer Part Number	Sales Order Number	Material,Grade and Color
4893.15	MAT-003-NAT-VIR	4618117-001	VALOX 508 1001

Lot Number	Shipped From	Date Shipped	Shippers Number
CV8M29	SABIC IP - MT VERNON	09/02/14	

Specification
GMP.PBT.009

Specification Originator
GENERAL MOTORS

Specification-Comments

It is hereby certified that the product indicated above conforms to the specification listed herein for the designated material. This certification is subject to our standard conditions of sale applying to products sold by SABIC Innovative Plastics.

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TEST	REFERENCE	REV	REQUIREMENT	(ENGLISH)	(METRIC)
LOT DATA(CONDITIONING TIME MAY BE SHORTER THAN ASTM/ISO REQUIREMENTS):					
GLASS PERCENT			28.0-32.0 %	29.7 %	
MELT FLOW INDEX	ASTM D1238		8.0-13.0 G/10 MIN		10.7 G/10 MIN
				DATE OF LAST AUDIT: 02/14	
PRODUCT AUDIT DATA(COMPLIANT WITH ASTM/ISO CONDITIONING REQUIREMENTS):					
CHARPY IMPACT @ 23 C	ISO 179		10.1 K-J/METER 2 MINIMUM		11.5 K-J/METER
DENSITY	ISO 1183		1.44-1.54 G/CC		1.48 G/CC
	WATER BATH 23 +/- 2 C				
HEAT DEFLECTION 1.82MPA	ISO 75		143-192 DEG C	304 DEG F	151 DEG C
TENSILE STRENGTH @BREAK	ISO 527		93.0-145.0 MPA	17,187 PSI	118.5 MPA
TENSILE MODULUS	ISO R527		8,154-10,885 MPA	1,304,345 PSI	8,993 MPA

WOODIE PUNTNEY
Quality Manager

JESSICA ZIRKELBACH
Manufacturing Manager

If you have any questions concerning this, please contact:

SABIC INNOVATIVE PLASTICS

1-800-PLASTIC

CUST FAX NUMBER: 2694887374

BONNIE NICHOLS
WESTERN DIVERSIFIED PLAST
53150 NORTH MAIN STREET
MATTAWAN MI 49071

REGISTERED TO ISO9001:2008 CERT # FM93268

SABIC Innovative Plastics™

سابك sabic

Product Quality Documentation

LETTER OF CERTIFICATION

Customer Order Number	Customer Part Number	Sales Order Number	Material,Grade and Color
4893.15	MAT-003-NAT-VIR	4618117-001	VALOX 508 1001

Lot Number	Shipped From	Date Shipped	Shippers Number
CV8M29	SABIC IP - MT VERNON	09/02/14	

It is hereby certified that the product indicated above conforms to the specification listed herein for the designated material. This certification is subject to our standard conditions of sale applying to products sold by SABIC Innovative Plastics.

Specification
MS-DB400

Specification Originator
DIAMLER/CHRYSLER

Specification-Comments
CPN2892-BK1066 & CPN2896-Non-matched color
ASTM D5927-03 TPES 051 G30

TEST	REFERENCE	REV	REQUIREMENT	(ENGLISH)	(METRIC)
LOT DATA(CONDITIONING TIME MAY BE SHORTER THAN ASTM/ISO REQUIREMENTS):					
GLASS PERCENT			28.0-32.0 %	29.7 %	
				DATE OF LAST AUDIT: 02/14	
PRODUCT AUDIT DATA(COMPLIANT WITH ASTM/ISO CONDITIONING REQUIREMENTS):					
CHARPY IMPACT @ 23 C	ISO 179		6.0 K-J/METER 2 MINIMUM		11.5 K-J/METER
DENSITY	ISO 1183		1.46-1.54 G/CC		1.48 G/CC
	WATER BATH 23 +/- 2 C				
HEAT DEFLECTION 1.82MPA	ISO 75		140 DEG C MINIMUM	304 DEG F	151 DEG C
TENSILE STRENGTH @BREAK	ISO 527		95.0 MPA MINIMUM	17,187 PSI	118.5 MPA
TENSILE MODULUS	ISO R527		8,000 MPA MINIMUM	1,304,345 PSI	8,993 MPA

WOODIE PUNTNEY
Quality Manager

JESSICA ZIRKELBACH
Manufacturing Manager

If you have any questions concerning this, please contact:

SABIC INNOVATIVE PLASTICS

1-800-PLASTIC

REGISTERED TO ISO9001:2008 CERT # FM93268

CUST FAX NUMBER: 2694887374

BONNIE NICHOLS
WESTERN DIVERSIFIED PLAST
53150 NORTH MAIN STREET
MATTAWAN MI 49071

SABIC Innovative Plastics™

سابك sabic

Product Quality Documentation

LETTER OF CERTIFICATION

Customer Order Number	Customer Part Number	Sales Order Number	Material,Grade and Color
4893.15	MAT-003-NAT-VIR	4618117-001	VALOX 508 1001

Lot Number	Shipped From	Date Shipped	Shippers Number
CV8M29	SABIC IP - MT VERNON	09/02/14	

Specification
WSK-M4D790-A

Specification Originator
FORD

Specification-Comments

It is hereby certified that the product indicated above conforms to the specification listed herein for the designated material. This certification is subject to our standard conditions of sale applying to products sold by SABIC Innovative Plastics.

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TEST	REFERENCE	REV	REQUIREMENT	(ENGLISH)	(METRIC)
LOT DATA(CONDITIONING TIME MAY BE SHORTER THAN ASTM/ISO REQUIREMENTS):					
GLASS PERCENT			28.0-32.0 %	29.7 %	
MELT FLOW INDEX	ASTM D1238		7.5-14.0 G/10 MIN		10.7 G/10 MIN
				DATE OF LAST AUDIT: 02/14	
PRODUCT AUDIT DATA(COMPLIANT WITH ASTM/ISO CONDITIONING REQUIREMENTS):					
IZOD IMPACT @ -40C	ISO 180		3.40 K-J/METER 2 MINIMUM	0.99 FT-LB/IN	6.60 K-J/METER
IZOD IMPACT @ 23C	ISO 180		4.40 K-J/METER 2 MINIMUM	1.17 FT-LB/IN	7.80 K-J/METER
DENSITY	ISO 1183		1.47-1.53 G/CC		1.48 G/CC
	WATER BATH 23 +/- 2 C				
FLEXURAL MODULUS - ISO	ISO 178		841,000 PSI MINIMUM	1,129,405 PSI	7.789 GPA
HEAT DEFLECTION 1.82MPA	ISO 75		145 DEG C MINIMUM	304 DEG F	151 DEG C
TENSILE STRENGTH @BREAK	ISO 527		95.0 MPA MINIMUM	17,187 PSI	118.5 MPA

WOODIE PUNTNEY
Quality Manager

JESSICA ZIRKELBACH
Manufacturing Manager

If you have any questions concerning this, please contact:

SABIC INNOVATIVE PLASTICS

1-800-PLASTIC

CUST FAX NUMBER: 2694887374

BONNIE NICHOLS
WESTERN DIVERSIFIED PLAST
53150 NORTH MAIN STREET
MATTAWAN MI 49071

REGISTERED TO ISO9001:2008 CERT # FM93268

SABIC Innovative Plastics™

سابك sabic

Product Quality Documentation

CERTIFICATE OF COMPLIANCE

Customer Order Number	Customer Part Number	Sales Order Number	Material,Grade and Color
4893.15	MAT-003-NAT-VIR	4618117-001	VALOX 508 1001

Lot Number	Shipped From	Date Shipped	Shippers Number
CV8M29	SABIC IP - MT VERNON	09/02/14	

Specification

Specification Originator

Specification-Comments

It is hereby certified that the product indicated above conforms to our standard internal specifications for the designated material. This certification is subject to our standard conditions of sale applying to products sold by SABIC Innovative Plastics.

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TEST	REFERENCE	REV	REQUIREMENT	(ENGLISH)	(METRIC)
LOT DATA(CONDITIONING TIME MAY BE SHORTER THAN ASTM/ISO REQUIREMENTS):					
MELT VOLUME RATE	ISO 1133		6.0-9.7 CC/10 MIN		8.0 CC/10 MIN
GLASS PERCENT			28.0-32.0 %	29.7 %	
DATE OF LAST AUDIT: 07/14					
PRODUCT AUDIT DATA(COMPLIANT WITH ASTM/ISO CONDITIONING REQUIREMENTS):					
NOTCHED IZOD (RT)	ASTM D256		1.3 FT-LB/IN MINIMUM	8.0 FT-LB/IN	428 J/M
SPECIFIC GRAVITY	ASTM D792		INFORMATION ONLY	1.49	

ADDITIONAL SPECIFICATION COMMENTS:

WOODIE PUNTNEY
Quality Manager

JESSICA ZIRKELBACH
Manufacturing Manager

If you have any questions concerning this, please contact:

SABIC INNOVATIVE PLASTICS

1-800-PLASTIC

CUST FAX NUMBER: 2694887374

BONNIE NICHOLS
WESTERN DIVERSIFIED PLAST
53150 NORTH MAIN STREET
MATTAWAN MI 49071

REGISTERED TO ISO9001:2008 CERT # FM93268

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

SABIC INNOVATIVE PLASTICS MT VERNON, LLC[1]
MC & AT
1 Lexan Lane, Building 1
Mount Vernon, IN 47620
Kim Bailey Phone: (812) 831-5213

MECHANICAL

Valid To: July 31, 2015 Certificate Number: 0956.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on plastics:

Test Method(s):	Test Name:
ASTM D256; ISO 180	Pendulum Impact Resistance (Notched Izod)
ISO 179-1	Charpy Impact
ASTM D618	Conditioning of Plastic Specimens
ASTM D638; ISO 527-1, 2	Tensile Properties
ASTM D648; ISO 75-1, 2	Deflection Temperature Under Flexural Load
ASTM D1525; ISO 306	Vicat Softening Temperature
ASTM D790; ISO 178	Flexural Properties
ASTM D792; ISO 1183-1 (Method A)	Density and Specific Gravity (Relative Density) by Displacement
ASTM D1238; ISO 1133	Flow Rates of Thermoplastics by Extrusion Plastometer
ASTM D3418; ISO 11357-1, 2, 3	Transition Temperatures of Polymers by Thermal Analysis
ASTM D3763	High-Speed Puncture Properties
ASTM D5630 (Procedure B)	Ash Content
ASTM E168	Practice for General Techniques of Infrared Qualitative Analysis
ASTM E831; ISO 11359-1, 2	Linear Thermal Expansion by TMA

5301 Buckeystown Pike, Suite 350 | Frederick, Maryland 21704-8373 | Phone: 301 644 3248 | Fax: 301 662 2974 | www.A2LA.org

Test Method(s):	Test Name:
ISO 11358	Thermogravimetry (TG) of Polymers
ISO 3795	Flammability

[1]This accreditation covers testing performed at the main laboratory listed above, and the following satellite laboratory listed below:

SABIC INNOVATIVE PLASTICS LLC
Ultem QA Lab
1 Lexan Lane, Building 62
Mount Vernon, IN 47620-9367
Jon Zwingelberg Phone: (812) 831-4714

Test Method(s):	Test Name:
ASTM D256	Pendulum Impact Resistance (Notched Izod)
ASTM D618	Conditioning of Plastic Specimens
ASTM D638	Tensile Properties
ASTM D648	Deflection Temperature Under Flexural Load
ASTM D790	Flexural Properties
ASTM D792	Density and Specific Gravity (Relative Density) by Displacement
ASTM D1238	Flow Rates of Thermoplastics by Extrusion Plastometer
ASTM D5630 (Procedure B)	Ash Content

The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Laboratory

A2LA has accredited

SABIC INNOVATIVE PLASTICS MT VERNON, LLC

Mount Vernon, IN

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 15th day of July 2013.

President & CEO
For the Accreditation Council
Certificate Number 0956.01
Valid to July 31, 2015

For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2008

This is to certify that:

Sabic Innovative Plastics LLC
One Lexan Lane
Mount Vernon
Indiana
47620-9364
USA

Holds Certificate No: **FM 93268**

and operates a Quality Management System which complies with the requirements of ISO 9001:2008 for the following scope:

The design and development of new or modified processes and thermoplastic products, the manufacture and supply of commercialized thermoplastic resins and compounds produced at the Mt. Vernon Sabic site sold under the following trade names: Lexan, Cycoloy, Valox, Xenoy, Ultem, Xylex and Extem. Each of these products/resins are produced in various colors and various properties and are supplied against internal and/or customer agreed specifications.

For and on behalf of BSI:

Gary Fenton, Global Assurance Director

Originally registered: 01/19/2005 Latest Issue: 11/13/2013 Expiry Date: 12/12/2016

...making excellence a habit.™

823

XIAMETER - BLMCKINL

XIAMETER from DOW CORNING
Dow Corning Corporation
2200 W. Salzburg Rd.
PO Box 994
MIDLAND MI 48686-0994

Telephone: (800) 248-2481
Fax: (989) 496-6299

Certificate of Analysis

Fax(Ship-to: 1105774) (440)6472248
Date Generated 25Apr2014

Delivery Number	Item Number	Ship Date
8609893399	000010	25Apr2014

Sales Order Number	Item Number	Sales Order Date
6679411	000010	15Apr2014

Purchase Order Number 0026127
PO Date

Ship-to: 1105774
Quality Assurance Department
FOREST CITY TECH INC
232 MAPLE STREET
WELLINGTON OH 44090

Our Material 3351360
XIAMETER(R) 23010-V SILICONE RUBBER RED

Customer Material
FCMS 823

Batch	Shelf Life Expiration Date
0007806810	22Oct2014

Delivery Quantity		Date of Manufacture
908	kg	25Apr2014

Characteristic	Value	Unit of Measure	Lower Limit	Upper Limit
APPEARANCE	Pass			
RHEOMETER CONDITIONS	MDR, 1°, 6 MIN, 350°F			
MOVING DIE RHEOMETER, S' MAX.	6.88	LbInch	0.00	50.00
MOVING DIE RHEOMETER, S' MIN.	0.91	LbInch	0.00	10.00
MOVING DIE RHEOMETER, TC-90	1.74	min	0.00	10.00
MOVING DIE RHEOMETER, TS-2	0.67	min	0.00	5.00
PRESS CURE	10 MINUTES @ 350°F			
SPECIAL INSTRUCTIONS	RUN DUROMETER ON CONVELOADER			
LUBRICANT BLEED	Pass			
COLOUR	Pass			
SPECIFIC GRAVITY	1.051		1.040	1.100
DUROMETER SHORE A (GENERAL)	16.0	Shore A	13.0	22.0
TENSILE STRENGTH (GENERAL)	3.3	MPa	2.0	
ELONGATION (GENERAL)	894	%	500	
MODULUS 100% (GENERAL MPA)	0.4	MPa	0.2	0.6
TEAR DIE C (GENERAL KNM)	14.15	kN/m	3.00	

This is to certify that the above designated material has been tested and did comply with the listed specifications (with listed exceptions) when supplied in original container. It is our best technical judgement that the material will meet the specification number (if listed above) but additional testing and verification has not been completed. The material is subject to the conditions listed on the Xiameter (R) invoice. The above is a copy of information on file. The lot acceptance data are available for examination.

William Fiengo
Quality Lab Manager

SMITHERS
QUALITY ASSESSMENTS

CERTIFICATE OF APPROVAL

This is to Certify that the Quality Management System of:

Forest City Technologies

299 Clay Street
Wellington, OH

(Page 1 of 2; see Appendix)

has been assessed and approved by Smithers Quality Assessments, Inc., to the following quality management system standards and requirements:

ISO 9001:2008 without Design

The Quality Management System is Applicable to:

The manufacture of sealing devices and molded products and the application of sealants, coatings and related services to both such as sorting/packing, and delivery for the fastener, automotive, infant care and other industries.

Approval
Certificate Number: 97.127.1

Original Approval:	May 7, 1997
Current Certificate:	April 30, 2012
Certificate Expires:	April 29, 2015

Q
A

The use of the accreditation mark indicates accreditation in respect of those activities covered by the above certificate number.

on behalf of SQA - J. Michael Hochschwender, CEO

The approval is subject to the company maintaining its system to the required standards which will be monitored by Smithers Quality Assessments, Inc., 425 W. Market St., Akron, Ohio 44303-2099, USA

ANAB
ACCREDITED

APPENDIX A
TO THE CERTIFICATE
OF REGISTRATION NO. 97.127.1

SMITHERS QUALITY ASSESSMENTS, INC.

Forest City Technologies
299 Clay Street
Wellington, OH 44090

is certified by Smithers Quality Assessments, Inc. with regard to ISO 9001:2008 without design

In addition to the corporate office in Wellington, OH, the following sites have been assessed and found to be in compliance with the applicable requirements of ISO 9001:2008 without design utilizing a multi-site sampling approach.

Locations:

Forest City Technologies
401 Magyar Street
Wellington, OH 44090

Forest City Technologies
232 Maple Street
Wellington, OH 44090

Forest City Technologies
22069 Fairgrounds Road
Wellington, OH 44090

Forest City Technologies
892 Southrock Drive
Rockford, IL 61102

This appendix applies only to those sites listed above. As other sites are assessed and approved, or as sites already approved are removed from active services, this appendix will be amended to show the current status. Sites not listed on this appendix shall not be viewed as approved.

SMITHERS
QUALITY ASSESSMENTS

CERTIFICATE OF APPROVAL

This is to Certify that the Quality Management System of:

Forest City Technologies

299 Clay Street
Wellington, OH

(Page 1 of 2; see Appendix)

has been assessed and approved by Smithers Quality Assessments, Inc., to the following quality management system standards and requirements:

ISO 14001:2004

The Environmental Management System is Applicable to:

The manufacture of sealing devices and molded products and the application of sealants, coatings and related services to both such as sorting/packing, and delivery for the fastener, automotive, infant care and other industries.

Approval
Certificate Number: 10.328.2

Original Approval:	November 24, 2010
Current Certificate:	April 3, 2013
Certificate Expires:	April 2, 2016

Q
A

The use of the accreditation mark indicates accreditation in respect of those activities covered by the above certificate number.

on behalf of SQA - J. Michael Hochschwender, CEO

The approval is subject to the company maintaining its system to the required standards which will be monitored by Smithers Quality Assessments, Inc., 425 W. Market St., Akron, Ohio 44303-2099, USA

ANAB
ACCREDITED

APPENDIX A
TO THE CERTIFICATE
OF REGISTRATION NO. 10.328.2

SMITHERS QUALITY ASSESSMENTS, INC.

Forest City Technologies
299 Clay Street
Wellington, OH 44090

is certified by Smithers Quality Assessments, Inc. with regard to ISO 14001:2004.

In addition to the corporate office in Wellington, OH, the following sites have been assessed and found to be in compliance with the applicable requirements of ISO 14001:2004 utilizing a multi-site sampling approach.

Locations:

Forest City Technologies
401 Magyar Street
Wellington, OH 44090

Forest City Technologies
232 Maple Street
Wellington, OH 44090

Forest City Technologies
22069 Fairgrounds Road
Wellington, OH 44090

This appendix applies only to those sites listed above. As other sites are assessed and approved, or as sites already approved are removed from active services, this appendix will be amended to show the current status. Sites not listed on this appendix shall not be viewed as approved.

Design Verification Plan and **Report**

Generic Sealed Connector

Date: Rev 9/26/14

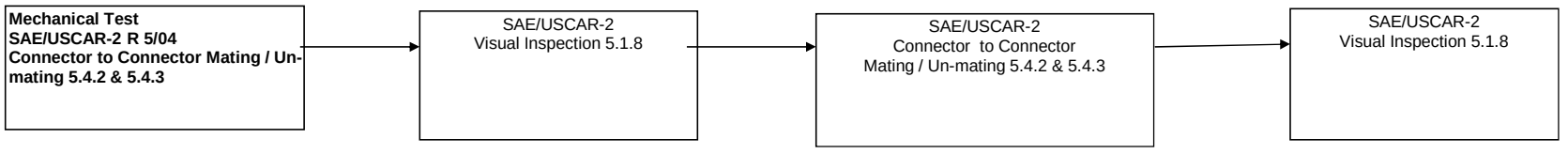
System	Assembly	Program	Design Engineer
CPSC 18.01.07 connectors	FU5T-14A464-AVb (A Pol) FU5T-14A464-AUB (B Pol), FU5T-14A464-YB (C Pol), HU5T-14A464-CA(DPOL) / FU5T-14A624-CB (A Pol) FU5T-14A624-DB (B Pol), FU5T-14A624-BB (C Pol), HU5T-14A624-AA(DPOL)	Cross Carline	Mike Salanta
	3508A-01-001B (A Pol) 3508B-01-001B (B Pol), 3508C-01-001B, 3508-01-001A(D pol) / 3512A-01-001C (A Pol), 3512B-01-001C (B Pol), 3512C-01-001C (C Pol), 3512-01-001A(D pol) 9U5T-14N003-KA (Wire Dress M/F)		Concurred
Subsystem Connectors Assembly	Component: 34 way M/F sealed hybrid	Latest Design Level (DV- Prototype) (PV-Production)	

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size Required	Sample Size Tested	Statistical Test Accept. Criteria* Required	Statistical Test Accept. Criteria* Actual	Timing Sched.	Timing Actual	Remarks
Group D -Mechanical Test Flow Chart 5.9.5										
Mechanical Test SAE/USCAR-2 R 5/04 Terminal to Connector Insertion/Extraction 5.4.1 → SAE/USCAR-2 Visual Inspection 5.1.8 → SAE/USCAR-2 Terminal to Connector Insertion / Extraction 5.4.1 → SAE/USCAR-2 Visual Inspection 5.1.8										
D-1. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Pass	PV	3	4			12/14/2012	4/20/2013	Periodic Testing - N/A
D-2. Insertion Force	Maximum Insertion Force for a terminal is 30 N		DV / PV	3						Since Grommet specific Deviate to 2pc ea.
		Max 7.49 Min 4.45 Ave 5.95								1.5F Min Wire 12-171
		Max 9.33 Min 4.98 Ave 6.11			2				4/24/2013	2.8F Min Wire 12-171
		Max 8.08 Min 5.62 Ave 6.59						12/14/2012		1.5F Min Wire (Progressively loaded)12-171
		Max 10.35 Min 5.81 Ave 7.42			2				4/24/2013	2.8F Min Wire (Progressively loaded)12-171
		Max 7.29 Min 3.33 Ave 4.59								1.5M Min Wire12-171
		Max 11.71 Min 5.23 Ave 6.97			2				4/20/2013	2.8M Min Wire12-171
		Max 5.80 Min 4.05 Ave 4.78								1.5M Min Wire (Progressively loaded)12-171
		Max 7.75 Min 4.98 Ave 6.68			2				4/20/2013	2.8M Min Wire (Progressively loaded)12-171
		Max 7.56 Min 4.04 Ave 5.76	Proto	3	3				7/11/14	Per 14-061 1.5 Male Min (Progress loaded)
		Max 7.98 Min 4.55 Ave 5.80								1.5 Male Max (Progress loaded)

System	Assembly	Program	Design Engineer
CPSC 18.01.07 connectors	FU5T-14A464-AVb (A Pol) FU5T-14A464-AUB (B Pol), FU5T-14A464-YB (C Pol), HU5T-14A464-CA(DPOL) / FU5T-14A624-CB (A Pol) FU5T-14A624-DB (B Pol), FU5T-14A624-BB (C Pol), HU5T-14A624-AA(DPOL)	Cross Carline	Mike Salanta
	3508A-01-001B (A Pol) 3508B-01-001B (B Pol), 3508C-01-001B, 3508-01-001A(D pol) / 3512A-01-001C (A Pol), 3512B-01-001C (B Pol), 3512C-01-001C (C Pol), 3512-01-001A(D pol) 9U5T-14N003-KA (Wire Dress M/F)		Concurred
Subsystem Connectors Assembly	Component: 34 way M/F sealed hybrid	Latest Design Level (DV- Prototype) (PV-Production)	

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Statistical Test Accept. Criteria*		Timing		Remarks
				Required	Tested	Required	Actual	Sched.	Actual	
	Neither the conductor nor the terminal may buckle during testing The forward stop must withstand a push-through force of 50 N or the column strength of the largest applicable conductor size, whichever is smallest	Pass								
D-4. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Pass	DV / PV	3	4			12/14/2012	4/24/13 / 7/11/14	Post Insertion/removal from grommet inspection indicated grommets were not damaged during servicing.

Group G -Mechanical Test Connector to Connector Mating / Un-mating



System	Assembly	Program	Design Engineer
CPSC 18.01.07 connectors	FU5T-14A464-AVb (A Pol) FU5T-14A464-AUB (B Pol), FU5T-14A464-YB (C Pol), HU5T-14A464-CA(DPOL) / FU5T-14A624-CB (A Pol) FU5T-14A624-DB (B Pol), FU5T-14A624-BB (C Pol), HU5T-14A624-AA(DPOL)	Cross Carline	Mike Salanta
	3508A-01-001B (A Pol) 3508B-01-001B (B Pol), 3508C-01-001B, 3508-01-001A(D pol) / 3512A-01-001C (A Pol), 3512B-01-001C (B Pol), 3512C-01-001C (C Pol), 3512-01-001A(D pol) 9U5T-14N003-KA (Wire Dress M/F)		Concurred
Subsystem Connectors Assembly	Component: 34 way M/F sealed hybrid	Latest Design Level (DV- Prototype) (PV-Production)	

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Statistical Test Accept. Criteria*		Timing		Remarks
				Required	Tested	Required	Actual	Sched.	Actual	
G-1. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Pass	Proto	15 connector assembly.	15				7/11/2014	
G-2.a) Connector-to Connector Mating Force	Mating (engage) force must meet 75N Max and/or SAE/USCAR-25	Max 73.1 Min 49.67 Ave 67.2	Proto	15 connector assembly.	15				7/11/2014	Per 14-061
G-2.b) Connector-to Connector Mating Force Curve SAE/USCAR Figure 5.4.2.3	Mating Force vs. Insertion Distance Graph	Pass	Proto	15 connector assembly.	15				7/11/2014	Per 14-061
G-4. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their	Pass	Proto	15 connector assembly.	15				7/11/2014	Post mating inspeciton did not indicate male blade contact with female spacer.
Group E -Mechanical Test Misc. Component Engage/Disengage										
Mechanical Test SAE/USCAR-2 R 5/04 Misc. Component Engage/Disengage 5.4.5 → SAE/USCAR-2 Visual Inspection 5.1.8 → SAE/USCAR-2 Misc. Component Engage/Disengage 5.4.5 → SAE/USCAR-2 Visual Inspection 5.1.8										
E-1. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their	Pass	Proto	10 (each)	10				7/10/2014	
E-2. Misc. Component Engage/Disengage										

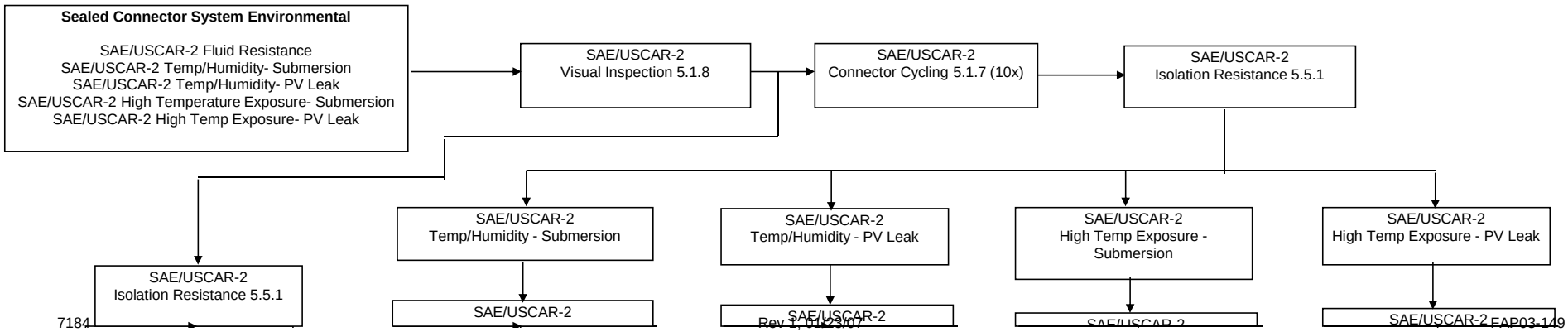
System	Assembly	Program	Design Engineer
CPSC 18.01.07 connectors	FU5T-14A464-AVb (A Pol) FU5T-14A464-AUB (B Pol), FU5T-14A464-YB (C Pol), HU5T-14A464-CA(DPOL) / FU5T-14A624-CB (A Pol) FU5T-14A624-DB (B Pol), FU5T-14A624-BB (C Pol), HU5T-14A624-AA(DPOL)	Cross Carline	Mike Salanta
	3508A-01-001B (A Pol) 3508B-01-001B (B Pol), 3508C-01-001B, 3508-01-001A(D pol) / 3512A-01-001C (A Pol), 3512B-01-001C (B Pol), 3512C-01-001C (C Pol), 3512-01-001A(D pol) 9U5T-14N003-KA (Wire Dress M/F)		Concurred
Subsystem Connectors Assembly	Component: 34 way M/F sealed hybrid	Latest Design Level (DV- Prototype) (PV-Production)	

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Statistical Test Accept. Criteria*		Timing		Remarks
				Required	Tested	Required	Actual	Sched.	Actual	
E-2.g TPA/PLR Engage (insert to Lock)	60 N Max (w/terminals installed)	Max 47.9 Min 39.4 Ave 43.4	Proto	10	10					Male Assy : per 14-061
E-2.h TPA/PLR Engage (Pre-set to Lock)	15 N Min (w/out terminals)	Max 42.5 Min 31.9 Ave 37.9		10	10				7/10/2014	
E-2.i TPA/PLR Disengage (Lock to preset)	60 N Max 18 N Min after initial removal	Max 37.89 Min 21.90 Ave 27.44		10	10					
E-2.j TPA/PLR Disengage (Remove)	25 N Min	Max 40.9 Min 25.3 Ave 29.95		10	10					
E-2.j TPA/PLR Disengage (Remove)	25 N Min	Max 132.4 Min 112.2 Ave 121.0		10	10					
E-3. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Pass		10 (each)	10				7/11/2014	
Group J -Mechanical Test Cavity Damage										
J-1. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their	Pass	Proto	5 (each)	5				7/14/2014	

System	Assembly	Program	Design Engineer
CPSC 18.01.07 connectors	FU5T-14A464-AVb (A Pol) FU5T-14A464-AUB (B Pol), FU5T-14A464-YB (C Pol), HU5T-14A464-CA(DPOL) / FU5T-14A624-CB (A Pol) FU5T-14A624-DB (B Pol), FU5T-14A624-BB (C Pol), HU5T-14A624-AA(DPOL)	Cross Carline	Mike Salanta
	3508A-01-001B (A Pol) 3508B-01-001B (B Pol), 3508C-01-001B, 3508-01-001A(D pol) / 3512A-01-001C (A Pol), 3512B-01-001C (B Pol), 3512C-01-001C (C Pol), 3512-01-001A(D pol) 9U5T-14N003-KA (Wire Dress M/F)		Concurred
Subsystem Connectors Assembly	Component: 34 way M/F sealed hybrid	Latest Design Level (DV- Prototype) (PV-Production)	

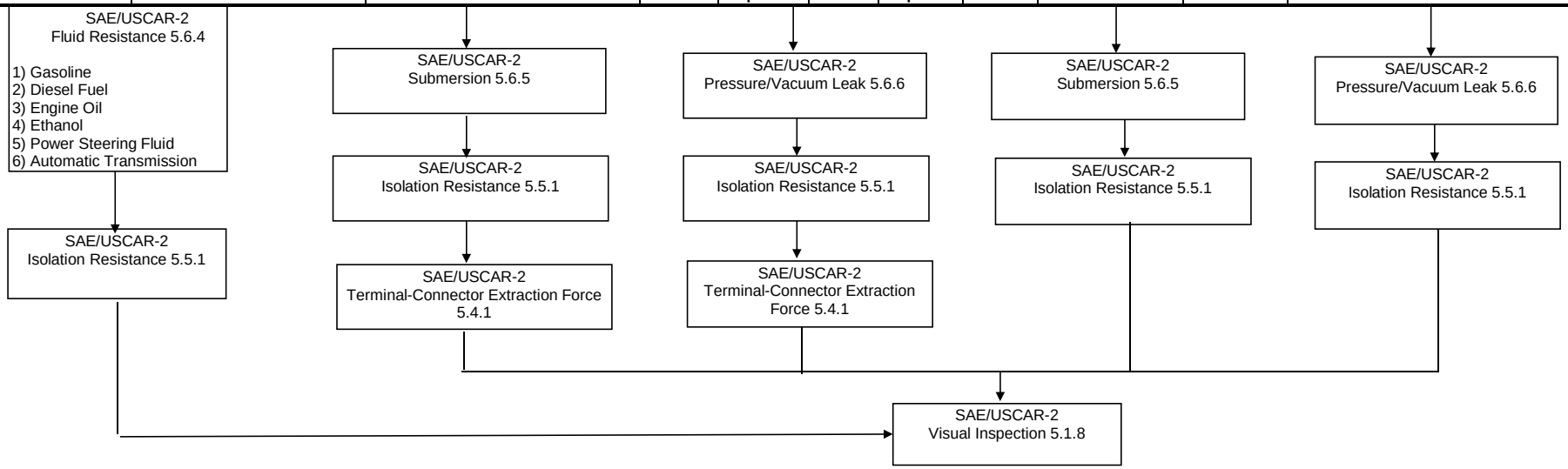
Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Statistical Test Accept. Criteria*		Timing		Remarks
				Required	Tested	Required	Actual	Sched.	Actual	
J-2 Cavity Damage	Condition Step	Pass	Proto	5	5				7/14/2014	88N Applied to Male
J-2.b Extraction Force - With Primary and Secondary Locks - Before Moisture	1.5 - 1.8 = 85 N Min	Max 120.31 Min 100.22 Ave 111.13	Proto	5	5				7/14/2014	Male Assy per 14-061
	2.8 - 3.0 = 90 N Min	Max Min Ave		5						N/A 2.8 Cav not affected
J-3. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their	Pass	Proto	5 (each)	5				7/14/2014	

Group Q,R,S,T,U - Sealed Connector System Environmental Test Flow Chart 5.9.7



System	Assembly	Program	Design Engineer
CPSC 18.01.07 connectors	FU5T-14A464-AVb (A Pol) FU5T-14A464-AUB (B Pol), FU5T-14A464-YB (C Pol), HU5T-14A464-CA(DPOL) / FU5T-14A624-CB (A Pol) FU5T-14A624-DB (B Pol), FU5T-14A624-BB (C Pol), HU5T-14A624-AA(DPOL) 3508A-01-001B (A Pol) 3508B-01-001B (B Pol), 3508C-01-001B, 3508-01-001A(D pol) / 3512A-01-001C (A Pol), 3512B-01-001C (B Pol), 3512C-01-001C (C Pol), 3512-01-001A(D pol) 9U5T-14N003-KA (Wire Dress M/F)	Cross Carline	Mike Salanta Concurred
Subsystem Connectors Assembly	Component: 34 way M/F sealed hybrid	Latest Design Level (DV- Prototype) (PV-Production)	

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Statistical Test Accept. Criteria*		Timing		Remarks
				Required	Tested	Required	Actual	Sched.	Actual	
Q,R,S,T,U-1. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their appearance. Connector locking mechanism must function without brea	Pass	DV / PV	48						Periodic testing-N/A Parts meet material performance for fluid resistance. See results based on W-3148



System	Assembly	Program	Design Engineer
CPSC 18.01.07 connectors	FU5T-14A464-AVb (A Pol) FU5T-14A464-AUB (B Pol), FU5T-14A464-YB (C Pol), HU5T-14A464-CA(DPOL) / FU5T-14A624-CB (A Pol) FU5T-14A624-DB (B Pol), FU5T-14A624-BB (C Pol), HU5T-14A624-AA(DPOL) 3508A-01-001B (A Pol) 3508B-01-001B (B Pol), 3508C-01-001B, 3508-01-001A(D pol) / 3512A-01-001C (A Pol), 3512B-01-001C (B Pol), 3512C-01-001C (C Pol), 3512-01-001A(D pol) 9U5T-14N003-KA (Wire Dress M/F)	Cross Carline	Mike Salanta Concurred
Subsystem Connectors Assembly	Component: 34 way M/F sealed hybrid	Latest Design Level (DV- Prototype) (PV-Production)	

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Statistical Test Accept. Criteria*		Timing		Remarks
				Required	Tested	Required	Actual	Sched.	Actual	
Q-2. Isolation Resistance 5.5.1	Resistance between **every** combination of two adjacent terminals must exceed 100 Mohm at 500 VDC (Includes terminals that may be separated by one or move vacant terminal cavities)	Min Max Avg	PV	10 (connector						
R,S,T,U-2. Connector Cycling 5.1.7 Test SAE/USCAR-2	Connector Conditioning only (10x)	Connector Conditioning only	PV	20				1/25/2013	4/20/2013	
R,S,T,U-3. Isolation Resistance 5.5.1	Resistance between **every** combination of two adjacent terminals must exceed 100 Mohm at 500 VDC (Includes terminals that may be separated by one or move vacant terminal cavities)	Pass	PV	20				1/25/2013	4/20/2013	
R-4. Temperature/Humidity Submersion (Test Flow)	Connector Conditioning only		DV / PV	20 (connector)	20			1/25/2013	5/6/2013	*Use min wire, 10 Positions install/remove terminal, Follow by all Max and 1 min wire
R-7. Submersion 5.6.5	There should be no trace of fluid ingress in any connector at the conclusion of this test & Isolation Resistance.	Pass	PV	10	10			1/25/2013	5/9/2013	*Use min wire, 10 Positions install/remove terminal,
R-8. Isolation Resistance 5.5.1	Resistance between **every** combination of two adjacent terminals must exceed 100 Mohm at 500 VDC (Includes terminals that may be separated	Pass IR>500Mohms	PV	10	10			1/25/2013	5/9/2013	

System	Assembly	Program	Design Engineer
CPSC 18.01.07 connectors	FU5T-14A464-AVb (A Pol) FU5T-14A464-AUB (B Pol), FU5T-14A464-YB (C Pol), HU5T-14A464-CA(DPOL) / FU5T-14A624-CB (A Pol) FU5T-14A624-DB (B Pol), FU5T-14A624-BB (C Pol), HU5T-14A624-AA(DPOL) 3508A-01-001B (A Pol) 3508B-01-001B (B Pol), 3508C-01-001B, 3508-01-001A(D pol) / 3512A-01-001C (A Pol), 3512B-01-001C (B Pol), 3512C-01-001C (C Pol), 3512-01-001A(D pol) 9U5T-14N003-KA (Wire Dress M/F)	Cross Carline	Mike Salanta Concurred
Subsystem Connectors Assembly	Component: 34 way M/F sealed hybrid	Latest Design Level (DV- Prototype) (PV-Production)	

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Statistical Test Accept. Criteria*		Timing		Remarks
				Required	Tested	Required	Actual	Sched.	Actual	
R-10. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their appearance. Connector locking mechanism must function without breakage	Pass	PV	20	20			1/25/2013	5/9/2013	Post exposure grommet inspection, See PV exposure below
S-4. Temperature/Humidity PV	Connector Conditioning only		PV	20	20			1/25/2013	5/6/2013	Use Min wire First,
S-7. Pressure/Vacuum Leak 5.6.6	Pressure = There must be no loss in the applied pressure and no bubbles visible exiting any test samples Vacuum = see Isolation Resistance	Pass >16psi	PV	10	10			1/25/2013	5/9/2013	'*Use min wire, 10 Positions install/remove terminal, Use vac bleed down test for vac 2nd Group use all Max and 1 Min,
S-8. Isolation Resistance 5.5.1	Resistance between **every** combination of two adjacent terminals must exceed 100 Mohm at 500 VDC (Includes terminals that may be separated by one or move vacant terminal cavities)	Pass IR>500Mohms	PV	10	10			1/25/2013	5/9/2013	
S-10. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples. & When disconnecting the samples, use care not to allow any residual solution to enter the interior of any connector half. Careful examination is required to	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their appearance. Connector locking mechanism must function without breakage	Pass	PV	20	20			1/25/2013	5/9/2013	Post exposure grommet inspection 5/21/13 Min Fem: Damage ranged from 0 to 3. Min Male: Damage ranged from 0 to 3 Max Fem: Damage ranged from 1 to 4 Max Male: Damage ranged from 0 to 4
T-4. High Temperature Exposure Submersion (Test Flow)	Connector Conditioning only		PV	20	20			1/25/2013	3/29/2013	Use Min wire First, Follow by Max and one min

System	Assembly	Program	Design Engineer
CPSC 18.01.07 connectors	FU5T-14A464-AVb (A Pol) FU5T-14A464-AUB (B Pol), FU5T-14A464-YB (C Pol), HU5T-14A464-CA(DPOL) / FU5T-14A624-CB (A Pol) FU5T-14A624-DB (B Pol), FU5T-14A624-BB (C Pol), HU5T-14A624-AA(DPOL) 3508A-01-001B (A Pol) 3508B-01-001B (B Pol), 3508C-01-001B, 3508-01-001A(D pol) / 3512A-01-001C (A Pol), 3512B-01-001C (B Pol), 3512C-01-001C (C Pol), 3512-01-001A(D pol) 9U5T-14N003-KA (Wire Dress M/F)	Cross Carline	Mike Salanta Concurred
Subsystem Connectors Assembly	Component: 34 way M/F sealed hybrid	Latest Design Level (DV- Prototype) (PV-Production)	

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Statistical Test Accept. Criteria*		Timing		Remarks
				Required	Tested	Required	Actual	Sched.	Actual	
T-6. Isolation Resistance 5.5.1	Resistance between **every** combination of two adjacent terminals must exceed 100 Mohm at 500 VDC (Includes terminals that may be separated by one or move vacant terminal cavities)	Pass IR>500Mohms	PV	10	10			1/25/2013	5/13/2013	
T-7. Submersion 5.6.5	There should be no trace of fluid ingress in any connector at the conclusion of this test & Isolation Resistance.	Pass	PV	10	10			1/25/2013	5/13/2013	*Use min wire, 10 Positions install/remove terminal, 2nd Group use all Max and 1 Min,
S-10. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples. & When disconnecting the samples, use care not to allow any residual solution to enter the interior of any connector half. Careful examination is required to	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their appearance. Connector locking mechanism must function without breakage	Pass	PV	20	20			1/25/2013	5/13/2013	Post exposure grommet inspection is currently in process
U-4. High Temperature Exposure PV Leak (Test Flow)	Connector Conditioning only		PV	20	20			1/25/2013	3/29/2013	Use Min wire First, Follow by Max and one min
U-6. Isolation Resistance 5.5.1	Resistance between **every** combination of two adjacent terminals must exceed 100 Mohm at 500 VDC (Includes terminals that may be separated by one or move vacant terminal cavities)	Pass IR>500Mohms	PV	10 (connector)	10			1/25/2013	5/13/2013	

System	Assembly	Program	Design Engineer
CPSC 18.01.07 connectors	FU5T-14A464-AVb (A Pol) FU5T-14A464-AUB (B Pol), FU5T-14A464-YB (C Pol), HU5T-14A464-CA(DPOL) / FU5T-14A624-CB (A Pol) FU5T-14A624-DB (B Pol), FU5T-14A624-BB (C Pol), HU5T-14A624-AA(DPOL)	Cross Carline	Mike Salanta
	3508A-01-001B (A Pol) 3508B-01-001B (B Pol), 3508C-01-001B, 3508-01-001A(D pol) / 3512A-01-001C (A Pol), 3512B-01-001C (B Pol), 3512C-01-001C (C Pol), 3512-01-001A(D pol) 9U5T-14N003-KA (Wire Dress M/F)		Concurred
Subsystem Connectors Assembly	Component: 34 way M/F sealed hybrid	Latest Design Level (DV- Prototype) (PV-Production)	

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Statistical Test Accept. Criteria*		Timing		Remarks
				Required	Tested	Required	Actual	Sched.	Actual	
U-7. Pressure/Vacuum Leak 5.6.6	Pressure = There must be no loss in the applied pressure and no bubbles visible exiting any test samples Vacuum = see Isolation Resistance	Pass >16psi	PV	10 (connector)	10			1/25/2013	5/13/2013	*Use min wire, 10 Positions install/remove terminal, Use vac bleed down test for vac. 2nd Group use all Max and 1 Min,
U-9. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples. & When disconnecting the samples, use care not to allow any residual solution to enter the interior of any connector half. Careful examination is required to d	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc, that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Pass	PV	10 (connector)	10			1/25/2013	5/13/2013	Post exposure grommet inspection 5/21/13 Min Fem: Damage ranged from 0 to 4. Min Male: Damage ranged from 2 to 4 Max Fem: Damage ranged from 1 to 4 Max Male: Damage ranged from 0 to 4
U-7. Pressure/Vacuum Leak 5.6.6 (Stand Alone) with 72hr Exposure	Pressure = There must be no loss in the applied pressure and no bubbles visible exiting any test samples Vacuum = see Isolation Resistance	Pass >16psi	PV	10 (connector)	10			12/14/2012	4/1/2013	*Use min wire, 10 Positions install/remove terminal, Use vac bleed down test for vac. 2nd Group use all Max and 1 Min,
U-8. Isolation Resistance 5.5.1	Resistance between **every** combination of two adjacent terminals must exceed 100 Mohm at 500 VDC (Includes terminals that may be separated by one or move vacant terminal cavities)	Pass IR>500Mohms	PV	10 (connector)	10			12/14/2012	4/1/2013	

Rev 11/30/12 DVP&R specific to 0.70mm Grommet hole dia. on 1.5mm terminal positions to support 0.35mm2 Delphi Global wire 1.20 dia Min. MMA

Rev. 12/10/12 DVP&R updated to include Max wire for Sealing MMA
Applicable wire range for 1.5 mm Molex terminal 1.20 to 2.34 mm (0.35mm2 to 16awg M1L123)
Applicable wire range for 2.8 mm FCI terminal 1.90 to 4.10 mm

Date: Rev 9/26/14

System	Assembly	Program	Design Engineer
CPSC 18.01.07 connectors	FU5T-14A464-AVb (A Pol) FU5T-14A464-AUB (B Pol), FU5T-14A464-YB (C Pol), HU5T-14A464-CA(DPOL) / FU5T-14A624-CB (A Pol) FU5T-14A624-DB (B Pol), FU5T-14A624-BB (C Pol), HU5T-14A624-AA(DPOL)	Cross Carline	Mike Salanta
	3508A-01-001B (A Pol) 3508B-01-001B (B Pol), 3508C-01-001B, 3508-01-001A(D pol) / 3512A-01-001C (A Pol), 3512B-01-001C (B Pol), 3512C-01-001C (C Pol), 3512-01-001A(D pol) 9U5T-14N003-KA (Wire Dress M/F)		Concurred
Subsystem Connectors Assembly	Component: 34 way M/F sealed hybrid	Latest Design Level (DV- Prototype) (PV-Production)	

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Statistical Test Accept. Criteria*		Timing		Remarks
				Required	Tested	Required	Actual	Sched.	Actual	

Rev: 5/17/13 Updated DVP&R with results per 12-171 MMA

REV: 5/23/13 Updated DVP&R with post exposure grommet damage information per 12-171 MMA

Rev: 6/17/13 Updated DVP&R with new Ford PN for A, B, polarizations MMA

Rev: 10/14/13 Updated DVP&R with C polarizations MMA

Rev: 9/26/14 Updated DVP&R with D polarization & Male TPA alignment enhancement per 14-060 MMA

Certificate of Registration

This is to certify that the quality management system of

WESTERN DIVERSIFIED PLASTICS, LLC

53150 North Main Street, Mattawan, MI, 49071, USA

has been assessed and registered by Intertek as conforming to the requirements of

ISO/TS 16949:2009

The quality management system is applicable to

Design and Manufacture of Plastic Components and Assemblies

Permissible exclusions include: None

IATF Certificate Number: 0165781
Certificate Number: 2007-0124
Certificate Issue Date: 27 June 2013
(Revised: 9 September 2014)
Certificate Expiry Date: 26 June 2016

Calin Moldovean, President

Intertek – 4700 Broadmoor, Suite 200, Kentwood MI 49512, USA

In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at certificate.validation@intertek.com or by scanning the code to the right with a Smartphone.

The certificate remains the property of Intertek, to whom it must be returned upon request.

Appendix to the Certificate of Registration

This is to certify that the quality management system of

WESTERN DIVERSIFIED PLASTICS, LLC

53150 North Main Street, Mattawan, MI, 49071, USA

Including the Following Support Functions:

53196 N. Main Street, Mattawan, MI, 49071, USA	After-Sales, Calibration, Contract Review, Design, Engineering, Laboratory, Sales

Including the Following Site Extensions:

1347 East M 89, Otsego, MI, 49078, USA	Manufacturing

IATF Certificate Number: 0165781
Certificate Number: 2007-0124
Certificate Issue Date: 27 June 2013
(Revised: 9 September 2014)
Certificate Expiry Date: 26 June 2016

Calin Moldovean, President

Intertek – 4700 Broadmoor, Suite 200, Kentwood MI 49512, USA

WDP W
Western Diversified Plastics

53150 N. Main St. • Mattawan, MI 49071
Phone 269-668-3393 • Fax 269-668-4694

1.0 INTERNAL TEST LAB SCOPE

Field of Test	Products or Items Tested	Specified Tests or Properties Measured	Specification, Standard, or Method Used	Equipment / Range
Mechanical	Electrical and Mechanical Components	Force - Tension & Compression	ES-5L1T-14A067-AA ES-GU5T-14A067-AA Ford Connector SDS SAE/USCAR-2 WDP PS-001	Instron 3342 Instron 3366 Up to 10KN
Mechanical	Electrical and Mechanical Components	Torque	ES-5L1T-14A067-AA ES-GU5T-14A067-AA Ford Connector SDS WDP PS-001	Jetco ED-2501 Stanley E23lb-16 .5 to 28.2Nm
Mechanical	Electrical and Mechanical Components	Environmental Exposure – Temperature, Humidity Salt Fog Dust	ES-5L1T-14A067-AA ES-GU5T-14A067-AA Ford Connector SDS SAE/USCAR-2 SAE/USCAR-20 CETP 00.00L-412 WDP PS-001	Humboldt H30135E Thermotron SM-32 Thermotron SE-600 Singleton SCCH 22 ESPEC EDC-27 Fluke 54 T/C Monitor -40C to 500C
Mechanical	Electrical and Mechanical Components	Environmental Exposure - Vibration – Sine, Random, Sine on Random, & Transient.	ES-5L1T-14A067-AA ES-GU5T-14A067-AA Ford Connector SDS SAE/USCAR-2 SAE/USCAR-20 WDP PS-001	Thermotron DSX-8000 Vib 8000 force lb Endevco 7251A Accel ±500g max
Mechanical	Electrical and Mechanical Components	Environmental Exposure - Thermal Shock	ES-5L1T-14A067-AA ES-GU5T-14A067-AA Ford Connector SDS SAE/USCAR-2 SAE/USCAR-20 WDP PS-001	Thermotron ATS-320 Fluke 54 T/C Meter -60C to 175C
Mechanical	Electrical and Mechanical Components	Sealing Integrity	Ford Connector SDS SAE/USCAR-2 PS-344 6.6.1	Fluke PV 350 transducer 29.9 in Hg to 350 psi Omega FMA1818 Mass Flow Meter 0 to 5 SLPM air Stopwatch - 1/100th sec
Temperature	Electrical Components	Thermal Imaging	ES-5L1T-14A067-AA ES-GU5T-14A067-AA WDP PS-001	FLIR T620 Up to 500°C
Sound	Mechanical Components	Sound Level Audible noise	Ford Connector SDS SAE/USCAR-2	Extech 407768 dB A&C scale to 140dB

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53150 N. Main St. • Mattawan, MI 49071
Phone 269-668-3393 • Fax 269-668-4694

Field of Test	Products or Items Tested	Specified Tests or Properties Measured	Specification, Standard, or Method Used	Equipment / Range
AC Electrical	Electrical and Mechanical Components	Dielectric	ES-5L1T-14A067-AA ES-GU5T-14A067-AA WDP PS-001	Vitrek V63 100V to 5KV AC
Dimensional	Electrical and Mechanical Components	General Inspection Distance / Length Height/Width	ES-5L1T-14A067-AA ES-GU5T-14A067-AA Ford Connector SDS SAE/USCAR-2 SAE/USCAR-20	Mitutoyo CD 8” CSX
DC Electrical	Electrical and Mechanical Components	Insulation Resistance Dielectric Resistance	ES-5L1T-14A067-AA ES-GU5T-14A067-AA Ford Connector SDS SAE/USCAR-2 WDP PS-001	Vitrek V63 IR from 1 to 10Gohm Dielectric 100V to 6KV DC
DC Electrical	Electrical and Mechanical Components	Amperage	ES-5L1T-14A067-AA ES-GU5T-14A067-AA Ford Connector SDS SAE/USCAR-2, 20 WDP PS-001	Fluke 289 Extech 380941 Fluke 287 .01 micro to 200A DC
DC Electrical	Electrical and Mechanical Components	Voltage	ES-5L1T-14A067-AA ES-GU5T-14A067-AA Ford Connector SDS SAE/USCAR-2, 20 WDP PS-001	Fluke 289 Fluke 287 HP 44701A Rigol DS1104Z 1 micro to 1000 Volts DC
DC Electrical	Electrical and Mechanical Components	Resistance	ES-5L1T-14A067-AA ES-GU5T-14A067-AA Ford Connector SDS SAE/USCAR-2, 20 WDP PS-001	Keithley 580 10micro to 200Kohm
Mechanical / DC Electrical	Electrical and Mechanical Components	Combined Environment Durability/Life Test	Various as Listed Above	Various as Listed Above

1.1 WDP test lab performs testing relative to the internal scope using the Test Request, DVP&R, and the Test Specification.

1.2 Capabilities may include tests related to the test technologies listed which utilize equipment and properties listed.

1.3 Any required conditions, or deviations, are communicated to the customer as identified in the Test data sheet and/or DVP&R.