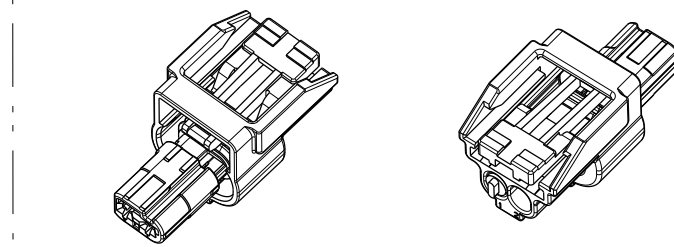
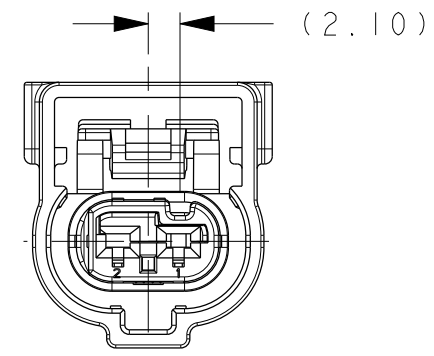


		16		15		14		13			
ASSEMBLY PART NUMBER CHART											
PART NUMBERS					KEY OPTION	COLOR	COMPONENTS				
DELPHI	REV	MVL	REV	INSULATOR (HOUSING)			TPA (BLUE)	RING SEAL (GREEN)	CPA (RED) (OPTIONAL)		
				ITEM 1			ITEM 2	ITEM 3	ITEM 4		
					PA66 GF35	PA66 GF35	SILICONE	PA66 GF35			
M	I3806231	01	F495100	A	A	BLACK	S106100	S506100	C895100	N/A	
	I3848932	01	F595100	A	B	LT GRAY	S206100	S606100			
	I5532568	01	F695100	A	C	DK GRAY	S306100	S706100			
	I3973607	02	F460400	B	A	BLACK	S106100	S506100			
	I33511726	02	F560400	B	B	LT GRAY	S206100	S606100	F752210		
I33511727	02	F660400	B	C	DK GRAY	S306100	S706100				

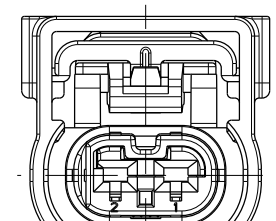
APPLICABLE COMPONENTS CHART									
ITEM NO.	DESCRIPTION	PLATING OR COLOR	SUPPLIER		DELPHI NUMBER	GRIP CODE	WIRE SIZE	INSULATION DIAMETER RANGE	MATERIAL/SPEC NO
			NAME	NUMBER					
5	I.20 SYSTEM TERMINAL	TIN	MVL	54001864	I3576990	I8	18-16 AWG 0.75-1.25mm ²	1.70mm-2.41mm	COPPER ALLOY / NA
	I.20 SYSTEM TERMINAL	TIN	MVL	54002006	I3806233	20	22-20 AWG 0.35-0.50mm ²	1.20mm-1.90mm	COPPER ALLOY / NA
	I.20 SYSTEM TERMINAL	TIN/SILVER	MVL	54001866	I3587331	I8	18-16 AWG 0.75-1.25mm ²	1.70mm-2.41mm	COPPER ALLOY / NA
	I.20 SYSTEM TERMINAL	TIN/SILVER	MVL	54002007	I5521522	20	22-20 AWG 0.35-0.50mm ²	1.20mm-1.90mm	COPPER ALLOY / NA
	I.20 SYSTEM TERMINAL	SILVER	MVL	F731400	I3805376	I8	18-16 AWG 0.75-1.25mm ²	1.70mm-2.41mm	COPPER ALLOY / NA
	I.20 SYSTEM TERMINAL	SILVER	MVL	F931400	I3805375	20	22-20 AWG 0.35-0.50mm ²	1.20mm-1.90mm	COPPER ALLOY / NA
	I.20 SYSTEM TERMINAL	GOLD	MVL	54001863	I3579640	I8	18-16 AWG 0.75-1.25mm ²	1.70mm-2.41mm	COPPER ALLOY / NA
	I.20 SYSTEM TERMINAL	GOLD	MVL	54002005	I3827658	20	22-20 AWG 0.35-0.50mm ²	1.20mm-1.90mm	COPPER ALLOY / NA
6	I.20 SYSTEM CABLE SEAL ROUND	RUST RED	MVL (QSR)	C528010 (A-0419)	I3898958	X	18-16 AWG 1.00-1.25mm ²	1.90mm-2.41mm	SILICONE
	I.20 SYSTEM CABLE SEAL ROUND	GREEN	MVL (QSR)	(A-0419C)	33402838		22-20 AWG 0.50-0.75mm ²	1.40mm-1.90mm	SILICONE
	I.20 SYSTEM CABLE SEAL ROUND	TAN	MVL (QSR)	C073510 (A-0419B)	33511987		0.35mm ²	1.20mm-1.40mm	SILICONE
7	I.20 SYSTEM SEAL PLUG	GREEN	MVL (QSR)	C628010 (A-0412)	I3898957	OPTIONAL AS REQUIRED			SILICONE



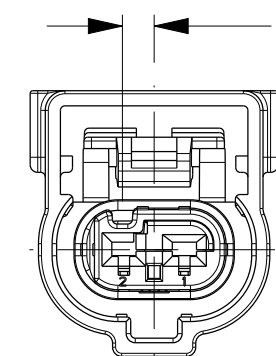
ISOMETRIC VIEW
SCALE 1:1



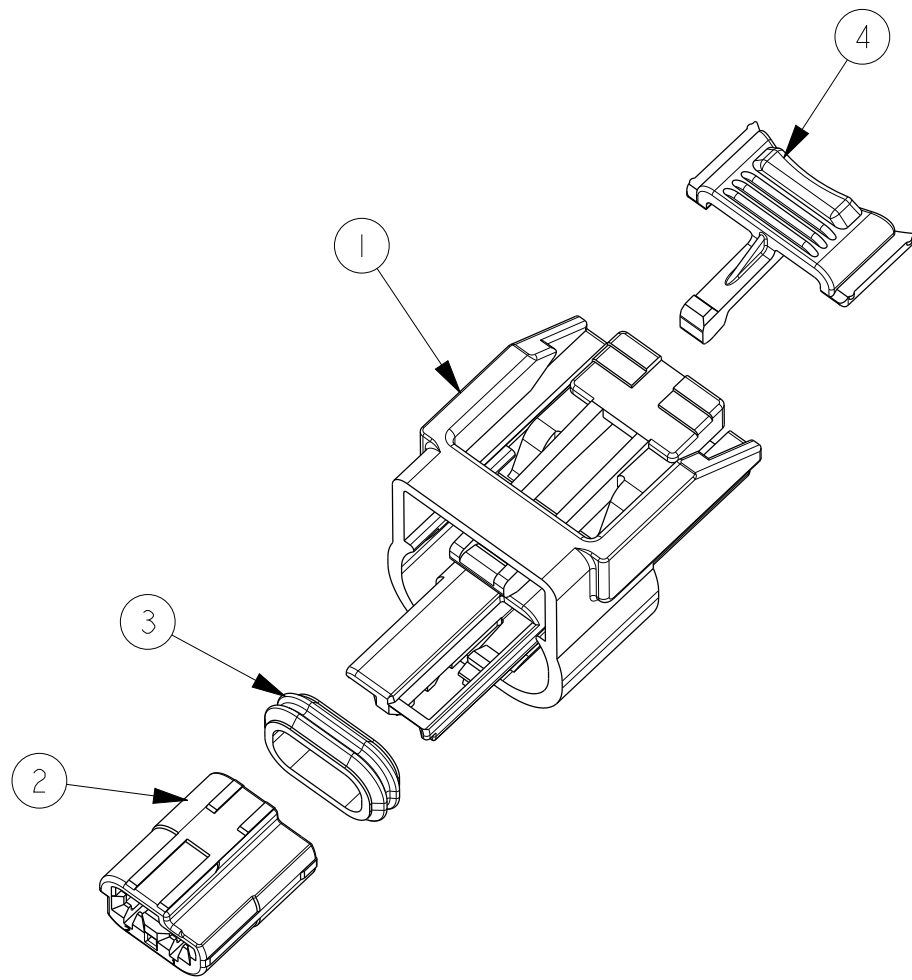
KEY A



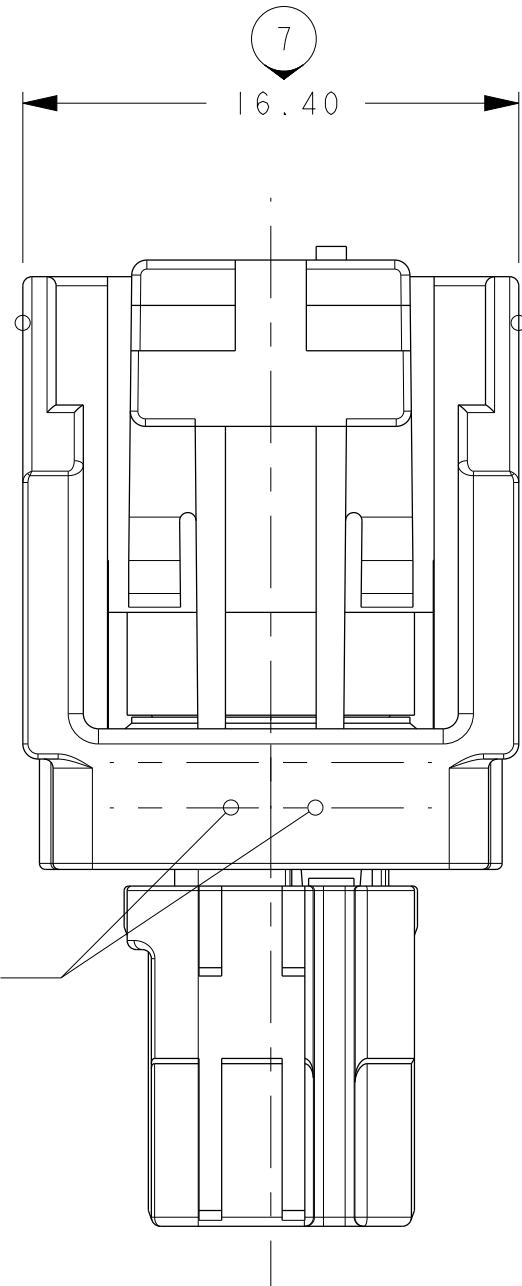
KEY B



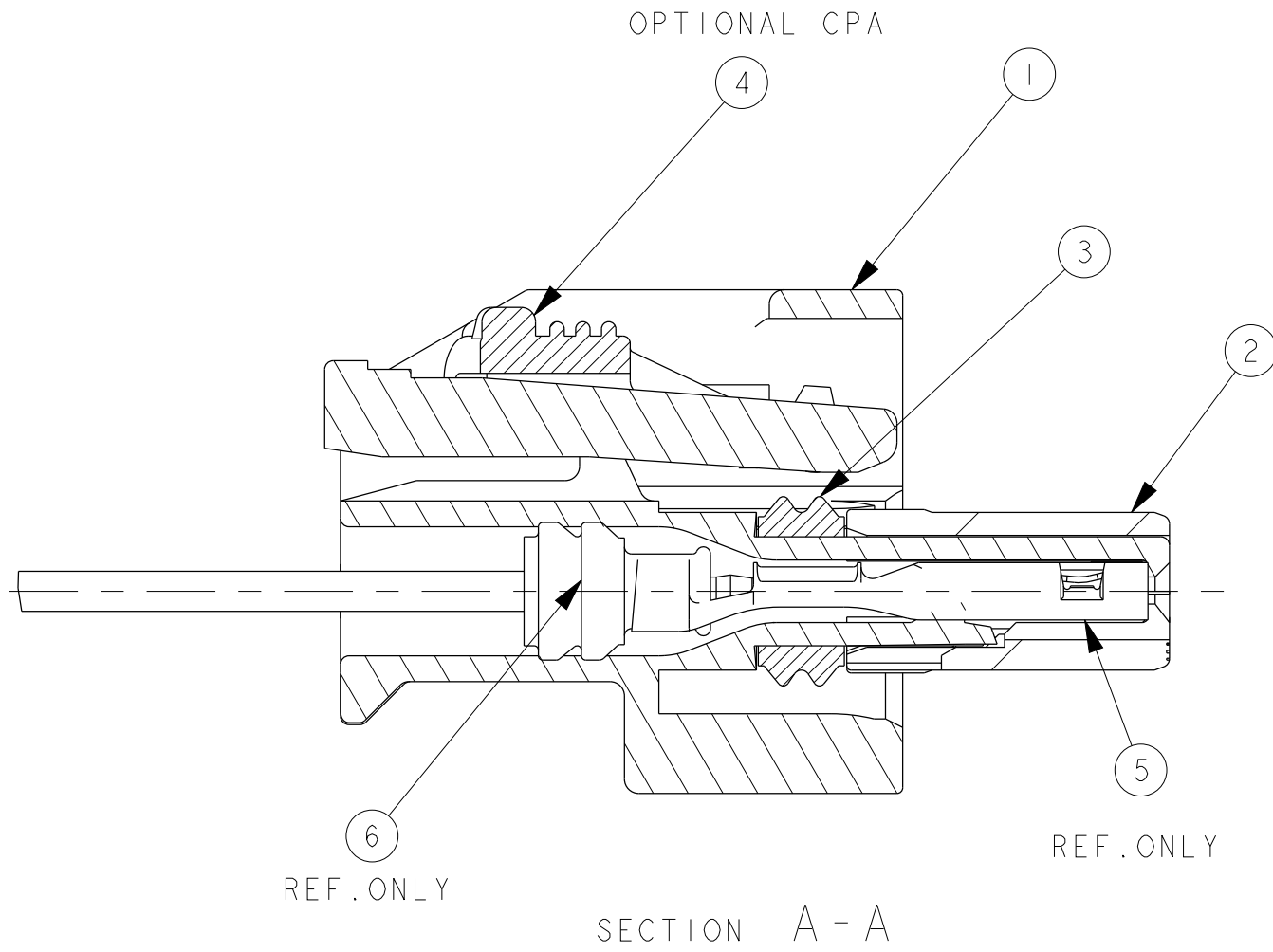
KEY C



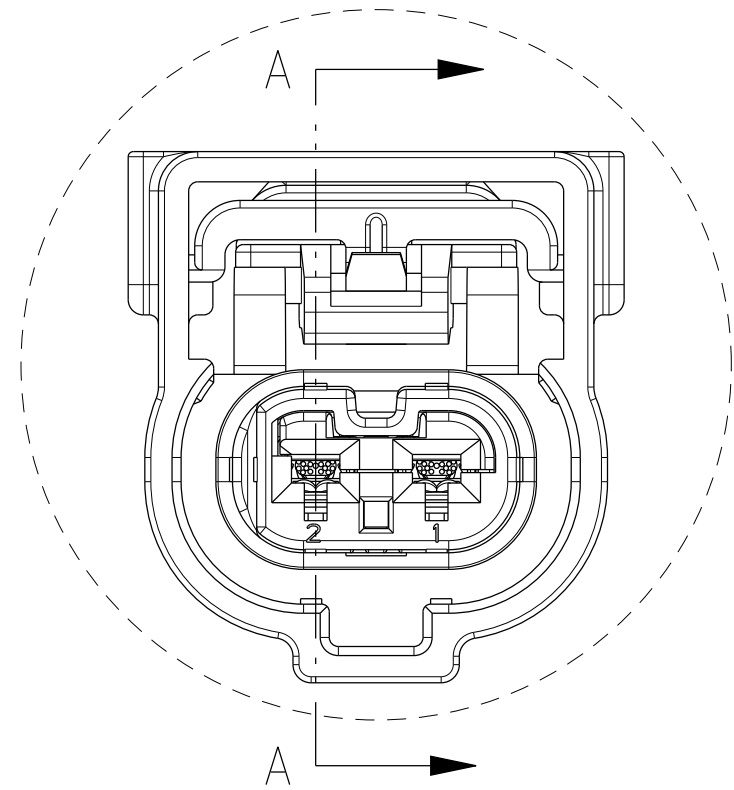
EXPLODED VIEW
(OPTIONAL CPA SHOWN)
SCALE 2:1



(ASSEMBLY DATE CODE &
PART NUMBER APPLIED
IN THIS LOCATION)



SECTION A-A



NOTES:

- 1) VALIDATED TO SAE/USCAR-2 REV 5
- 2) VALIDATED TO THE FOLLOWING TEMP, VIBRATION, AND SEALING CLASSES:
 - GMW3191 SECTION 4.28 V4 T4 (155°C) WITH GOLD OR SILVER TERMINALS
 - SAE/USCAR-2 V3 T4 (150°C) WITH GOLD OR SILVER TERMINALS
 - SAE/USCAR-2 V3 T3 (125°C) / V2 T4 (150°C) WITH TIN/SILVER TERMINALS
 - SAE/USCAR-2 V2 T3 (125°C) WITH TIN TERMINALS
 - SAE/USCAR-2 SEALING S3 T4 (150°C) (ISO16750 9K EQUIVALENT)
- 3) CONNECTOR MAY BE USED WITH THE FOLLOWING TERMINALS:
 - DELPHI APEX I.2 TERMINALS LISTED IN THE APPLICABLE COMPONENTS CHART ON THIS DRAWING WITH WIRE SIZES DEFINED IN NOTE 4.
 - SEE DELPHI DRAWING C18001-1-2-CUST FOR SPECIFIC TERMINAL DETAILS AND CRIMPING REQUIREMENTS
 - PLATING OF TERMINALS AND MATING DEVICE BLADES MUST BE COMPATIBLE
- 4) CONNECTOR SYSTEM VALIDATED TO USCAR-2 REQUIREMENTS WITH THE FOLLOWING RANGE OF WIRE SIZES AND TYPES IN CONJUNCTION WITH APPROPRIATE COMPONENTS FOUND IN THE "APPLICABLE COMPONENTS" CHART:
 - AWG - WIRE SIZES: 22AWG - 16AWG
INSULATION DIAMETER: 1.50mm MIN - 2.41mm MAX
WIRE TYPE: MIL123-A, MS-8288, MS-9502 OR EQUIVALENT (STRUCTURE AND PROPERTIES ACCORDING TO SAE J1128)
 - METRIC - WIRE SIZES: 0.35mm² - 1.25mm²
INSULATION DIAMETER: 1.20mm MIN - 2.30mm MAX
WIRE TYPE: FLR2X, FLR9X OR EQUIVALENT (STRUCTURE AND PROPERTIES ACCORDING TO ISO 6722)

CONTACT DELPHI ENGINEERING REGARDING USE OF OTHER WIRE SIZES AND/OR TYPES

WIRE AND INSULATION TYPE MUST BE APPROPRIATE FOR TEMPERATURE CLASS & APPLICATION ENVIRONMENT

- 5) CONNECTOR IS MATE COMPATIBLE WITH DEVICES WHICH CONFORM WITH THE FOLLOWING USCAR INTERFACE SPECIFICATIONS:
 - 120-S-002-1-201 (WITH EWCAP-001 TYPE 120-T BLADES)
 - 120-S-002-1-202 (WITH EWCAP-001 TYPE 120-T BLADES)
- 6) ANNUAL QUALITY REQUIREMENTS:
 - IT IS PERMISSIBLE TO PERFORM CONTINUOUS CONFORMANCE PER DELPHI SPECIFICATION #AQA-001 INSTEAD OF ANNUAL LAYOUT AND ANNUAL PV REQUIREMENTS OF ISO TS16949 AND SAE/USCAR-2 REV 5. FOR TERMINAL TO CONNECTOR AND TPA TO CONNECTOR ONLY.
- 7) SOURCE ID, MOLD & CAVITY ID SIGNIFIES TOOL OWNERSHIP, FOR REFERENCE
- 8) (K) INDICATES IN-PROCESS INSPECTION FOR MANUFACTURING DIMENSIONS OR SPECIFICATIONS.

ECN-13-01299	APP	CHRT	ADDED GREEN CABLE SEAL 33402838, REMOVED BLUE CABLE SEAL 54200391/I3576991
ECN-13-01227	-	-	ECO 423850 - UPDATE VIEWS FOR DESIGN IMPROVEMENT TO CPA F752210, DELPHI P/N'S ADDED FOR MVL P/N'S, REVISED NOTE 2 - UPDATE PERFORMANCE DATA FOR TIN/SILVER PLATING
ECN-12-01302	-	-	UPDATE CPA IN ASSY VIEWS
ECN-12-01227	PART BOM	-	F695100 COLOR WAS BROWN, F660400 COLOR WAS BROWN
ECN-12-01227	APP	CHRT	ADD PART NUMBER C073510, ADD 0.35MM & 22GA WIRE INFO
ECN-12-00892	-	-	NOTES REVISE NOTE 4 WITH 0.35mm & 22GA INFO
ECN-NO.	ZONE	CHANGE DESCRIPTION	
PRODUCT SPEC.	PACKAGING SPEC.	APPLICATION SPEC.	COPYRIGHT DELPHI CORPORATION AND/OR ITS AFFILIATES. ALL RIGHTS RESERVED. REVISED THIS DRAWING IS THE PROPERTY OF DELPHI CORPORATION AND CONTAINS DELPHI CONFIDENTIAL INFORMATION. THE REPRODUCTION, DISTRIBUTION AND UTILIZATION OF THIS DOCUMENT OR ITS RELATED CAD DATA, AS WELL AS COMMUNICATION OF ANY CONTENT TO OTHERS, WITHOUT EXPRESS AUTHORIZATION, IS PROHIBITED.
APEX I.2	-	-	-
TOLERANCES	±0.1	±2*	MATERIAL : SEE CHART
CONTRACTOR N.	SEE NOTE 5	COLOUR :	SEE CHART
DO NOT MEASURE DRAWING	-	TOOL NO.	-
DATE	NAME	TITLE	ECO Loc. Code AN
CREATED BY	2013/09/20	Frank HOLLER	PROJECT
MODIFIED BY	2013/09/20	Matt MAJORS	PROJECT
CHECKED BY	2013/09/20	Sueba DIAN	PROJECT
APPROVED BY	2013/09/20	Jeff CAMPBELL	PROJECT
FILE NAME	PCC0682863	DOCUMENT UNDER PDS CONTROL NO MODIFICATION ALLOWED OUTSIDE	PROJECT
DELPHI	DELPHI PACKARD ELECTRICAL/ELECTRONIC ARCHITECTURE	DELPHI	DELPHI
3RD ANGLE	DIMENSION IN MILLIMETERS	APPROVAL LEVEL	REV.
PCC0682863	D	1	1
See Table	1	1	1
SCALE 4:1	1	1	1