

- NOTES: UNLESS OTHERWISE SPECIFIED
- DRAFT ANGLE PERMISSIBLE 0.25° MAXIMUM.
  - ALL DIMENSIONS SHOWN IN MILLIMETERS.
  - DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994
  - RADI ON ALL CORNERS SHOWN SHARP OR ALL UNSPECIFIED RADI 0.25 EXCEPT AS NOTED.
  - STANDARD COLORS FOR POLARIZATION (SEE CHART). DEVIATION REQUIRES APPROVAL OF AUTHORIZED PERSON.
  - A FULL SHROUD ON THE MATING CONNECTOR IS REQUIRED TO INSURE THAT THE CONNECTOR-HEADER POLARIZATION FEATURES (OPTIONS A THRU H) WILL FUNCTION. THE SHROUD ALSO PREVENTS SCOOP DAMAGE TO THE HEADER PINS. REFER TO SAE/USCAR-12 CONNECTOR DESIGN GUIDE LINES FOR ADDITIONAL INFORMATION.
  - REFER TO USCAR/EWCAP PART LIST AS FOUND ON WEBSITE <http://www.jscorteam.org>
  - FOR BLADE TERMINAL DESIGN INFORMATION SEE EWCAP DWG. # EWCAP-001
  - THIS IS A 100% CAD GENERATED PART. THE CAD MATHEMATICAL DATA IS THE MASTER FOR THIS PART. FOR DIMENSIONAL OR ANY INFORMATION NOT SHOWN ON THIS DRAWING, ANALYZE THE CAD MODEL.

088	B23	ADDED DRAFT DIRECTION SYMBOL	3-25-11
088	B22	ADDED REF DIMENSION FOR LATCH HEIGHT	3-11-11
088	B21	REMOVED THE WORD "OPTION" AT VIEW OF BACK ANGLE	3-11-11
088	B20	CHANGED FROM 1.75 TO 1.80	3-11-11
088	B19	ADDED 4X (0.805) (0.25±0.02) AT BASE AND (0.30±0.01) AT TIP FOR 2.8 BLADE TERMINALS	1-14-11
088	B18	CHANGED 6X TO 12X FOR THE 15 BLADE TERMINALS	1-14-11
088	B17	UPDATED CONNECTOR COLORS	1-14-11
088	B16	ADDED [-G-]	5-04-10
088	B15	REMOVED (0.10±0.01)	5-04-10
088	B14	REMOVED SHORTING BAR NOTE	5-04-10
088	B13	UPDATED NOTE 8 REMOVED REV F	5-04-10
088	B12	ADDED NOTE 9	5-04-10
088	B11	ADDED DIM 1.35±0.10/-0.20 MEASURED AT 2.9 FROM [-A-] ALL AROUND	5-11-10
088	B10	ADDED SEE NOTE 8	5-04-10
088	B9	2.50 WAS 2.80. ADDED (280-T001)	5-11-10
088	B8	ADDED (0.50±0.01)	5-04-10
088	B7	ADDED (0.20±0.01)	5-04-10
088	B6	ADDED DIM (8.43)	5-04-10
088	B5	ADDED SEC C-C	5-04-10
088	B4	UPDATED SEC B-B	5-04-10
088	B3	ADDED DETAIL D	5-04-10
088	B2	ADDED SEC C-C	5-04-10
088	B1	ADDED DIM 0.70±0.15 ALL AROUND	5-04-10
088	B	RELEASED	5-04-10

CHANGE NUMBER	DESCRIPTION	DATE	BY	CHK
LET	REVISION RECORD			
	TOLERANCES UNLESS OTHERWISE SPECIFIED			
	DIMENSIONS ARE IN MILLIMETERS			
	ANGLES	13°		
		XX ±0.10		
		XX ±0.10		

**EWCAP**

SCALE 3:1 DRAWN BY K. CUNNINGHAM CHECKED BY V. KOSHY DATE 1-14-11

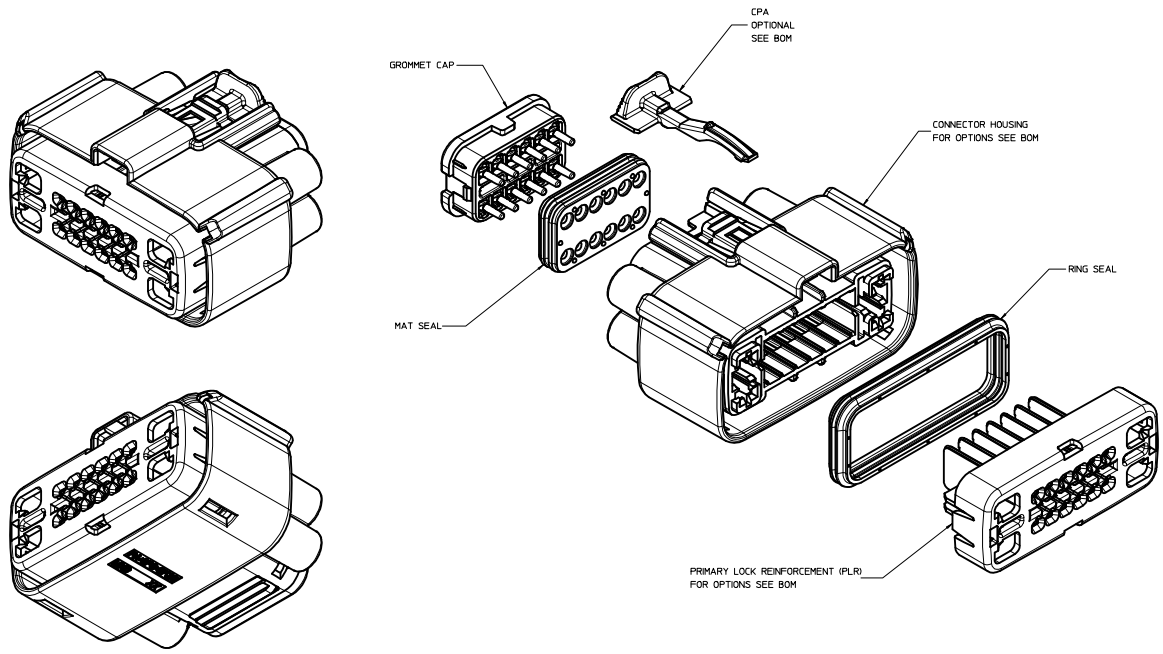
TITLE DIRECT CONNECT INTERFACE 16 WAY (2 X 8) 1.5 MM SEALED MALE

SHEET 1 OF 1 DRAWING NUMBER 999-S-016-2-Z02 DATE 1-14-11

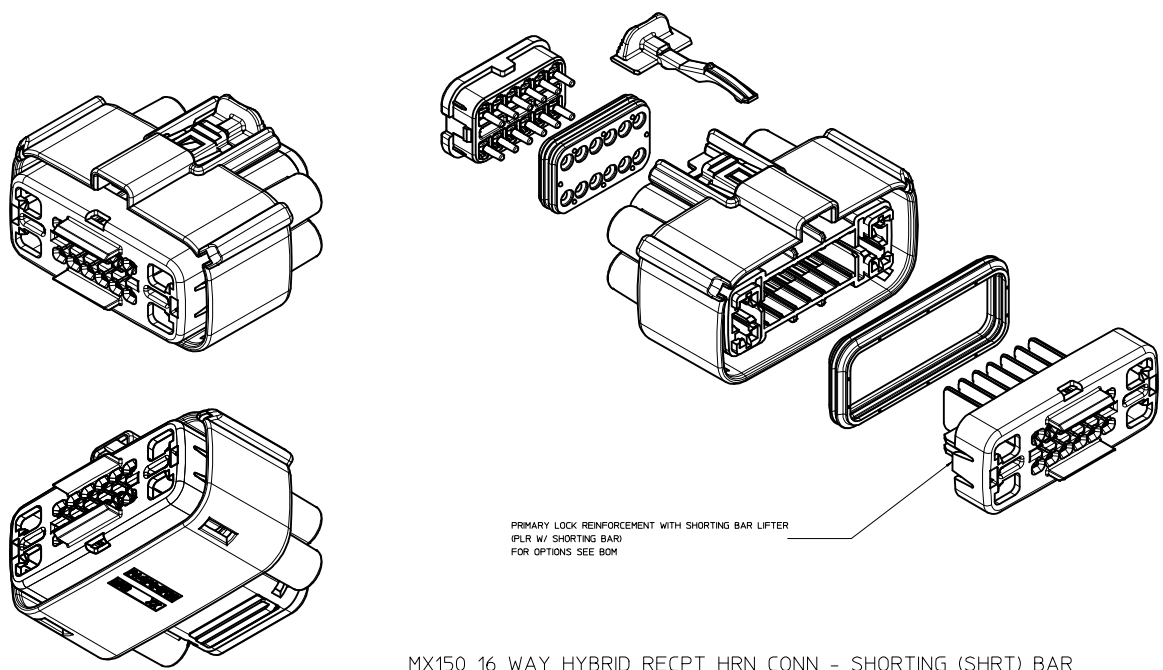
SCALE 3:1

SCALE 3:1

EWCAP PN	OPTION	MATING CONNECTOR COLOR
999-S-016-2-H01	H	YELLOW
999-S-016-2-G01	G	YELLOW
999-S-016-2-F01	F	YELLOW
999-S-016-2-E01	E	YELLOW
999-S-016-2-D01	D	BLACK
999-S-016-2-C01	C	DARK GRAY
999-S-016-2-B01	B	GREY
999-S-016-2-A01	A	BLACK



MX150 16 WAY HYBRID RECPT HRN CONN - STANDARD (STD)



MX150 16 WAY HYBRID RECPT HRN CONN - SHORTING (SHRT) BAR  
UNLESS COMPONENT NOTED, SEE STANDARD ASSEMBLY

TABLE OF CONTENTS	
SHEET NO.	SHEET DESCRIPTION
1	NOTES
2	KEY CONFIGURATIONS
3	RECEPTACLE SEALED ASSEMBLY
4-7	BOM

NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. GENERAL:
  - a. APPLICATION SPECIFICATION SEE: AS-33472-100  
CONTAINS: PRODUCT INTRODUCTION, PRODUCT SUMMARY, CONNECTOR ASSEMBLY, PACKAGING INFORMATION, CONNECTOR MATING, SERVICE INSTRUCTIONS, ELECTRICAL CONTINUITY CHECKING, CRIMPING, AND TROUBLESHOOTING.  
-STANDARD (NON-SHRT) CONFIGURATIONS DESIGNED TO MATE WITH DEVICE CONNECTION AS SPECIFIED IN DRAWING EWCAP 999-S-016-2-202. AVAILABLE AT <http://ewcap.usmccrteam.org/>.  
-STANDARD (NON-SHRT) CONFIGURATIONS AND SHORTING BAR CONFIGURATIONS DESIGNED TO MATE WITH BLADE HOUSING ASSEMBLY SPECIFIED IN DRAWING SD-33486-161.  
-FOR 15mm RECEPTACLE TERMINALS TO BE USED WITH THIS ASSEMBLY. SEE MOLEX DRAWING SD-33012-002.  
-15mm TERMINALS TO BE USED WITH WIRE WITH DIAMETER RANGE OF 1.4mm TO 2.69mm.  
-FOR 2.8mm RECEPTACLE TERMINALS TO BE USED WITH THIS ASSEMBLY SEE TABLE.  
-2.8mm TERMINALS TO BE USED WITH WIRE WITH DIAMETER RANGE OF 1.50mm TO 3.30mm.  
-ASSEMBLY SHIPPED WITH PLR AND CPA IN PRE-LOCK POSITION (SEE SECTION 2-2 PRE-LOCK).  
IN THE EVENT THAT THE PLR IS FOUND IN THE SEATED (FINAL LOCK) POSITION, REFER TO MOLEX SPECIFICATION PS-34646-001. AVAILABLE AT www.molex.com <http://www.molex.com>.  
-ASSEMBLY CONFORMS TO SAE/USCAR-2 REV.4 WITH THE FOLLOWING EXCEPTIONS:  
ENGAGEMENT FORCE TO MOVE CPA FROM PRE-LOCK TO FINAL LOCK POSITION WHEN UNMATED: 40N MIN.  
DISENGAGEMENT FORCE TO MOVE CPA FROM FINAL LOCK TO PRE-LOCK POSITION: 3N MIN. 40N MAX.  
-TERMINAL INSERTION FORCE FOR WIRE DIAMETER ABOVE 2.5mm NOT EXCEEDING 2.69mm SHALL NOT EXCEED 40 NEWTONS.
  - b. PRODUCT SPECIFICATION SEE: PS-33476-000  
CONTAINS: PRODUCT INTRODUCTION, PRODUCT SUMMARY, RATINGS (CURRENT, TEMPERATURE, SEALING, AND FLAMMABILITY), AND PRODUCT VALIDATION.
  - c. PACKAGING SPECIFICATION PER MOLEX DRAWING: PK-30907-895
  - d. PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS SPECIFICATION: ES-40000-5016
  - e. DATA MUST BE SUBMITTED UNDER THE MOLEX PART NUMBER TO IMDS (COMPANY ID:13259)
  - f. FOR INFORMATION ON 16 WAY HYBRID RECEPT HRN ASSY WITH CLIPSLOT SEE E-33476-181
2. DESIGN - MATERIALS:
  - a. SEE BOM TABLE
3. DESIGN - GEOMETRY:
  - a. THIS IS A 100% CAD GENERATED PART. THE CAD MATHEMATICAL DATA IS THE MASTER FOR THIS PART. FOR DIMENSIONAL OR ANY INFORMATION NOT SHOWN ON THIS DRAWING, ANALYZE THE CAD MODEL.
  - b. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M - 1994
  - c. EDGES AND UNDIMENSIONED DETAILS PER ISO13715
  - d. CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
  - e. LETTERING SHALL BE 0.15 MAX RAISED IN 0.25 MAX RECESS PAD. THIS INCLUDES RECYCLING CODE, CAVITY ID, VENDOR IDENTIFICATION, AND CUSTOMER MATERIAL NUMBER.
  - f. VISUAL DEFECTS SHALL MEET COSMETIC STANDARD PS-45499-002 (CLASS B)
  - g. LASER MARKING: TBD

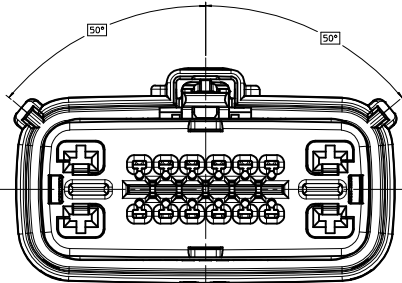
TYCO 2.8mm CABLE SEAL TERMINAL		
FORD P/N	FEMALE RECEPTACLE	GRIP SIZE
IFIT-14474-KA		12
IFIT-14474-JA		14
IFIT-14474-HA		16
IFIT-14474-GA		18
IFIT-14474-FA		20
IFIT-14474-EA		22

INSPECTION NUMBER LOG  
LAST NUMBER USED:  
ADDED:  
REMOVED:

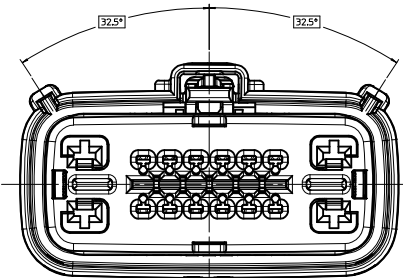
BX	UPDATED TO PLANNED OBSOLESCENCE	
BW	ADD NEW P/N 33476-4043 THRU 33476-4046	
BV10	ADD NEW P/N 33476-4042	
BV9	ADD NEW P/N 33476-4041	
BV8	ADD NEW P/N 33476-4037 33476-4038 33476-4039 33476-4040	
BV7	ADDED NEW P/N 33476-4023 33476-4024 33476-4025 33476-4026 33476-4027 33476-4028 33476-4029 33476-4030 33476-4031 33476-4032 33476-4033 33476-4034 33476-4035 33476-4036	
	BV6	ADD NEW P/N 33476-4016 33476-4017
	BV5	33476-4018 33476-4019 33476-4020 33476-4021
	BV4	ADD NEW P/N 33476-4014 33476-4015
	BV3	ADD NEW P/N 33476-4012 33476-4013
BV2	ADD NEW P/N 33476-4011	
BV1	CHANGE PART NUMBER STATUS ADD NEW P/N 33476-4009 33476-4010 ADD NEW P/N 33476-4006 33476-4007	
BV	33476-4008	
REV	DESCRIPTION	

ENTER DESCRIPTION EC NO: JAU2016-0550 DRAWING NO: 2015/0174 APPROVED: 2015/0178 REV: BX	QUALITY SYMBOLS $\nabla=0$ $\nabla=1$ $\nabla=2$ $\nabla=3$ $\nabla=4$	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± 0.1 ± 0.004 3 PLACES ± 0.15 ± 0.005 2 PLACES ± 0.2 ± 0.008 1 PLACE ± 0.3 ± 0.012 0 PLACE ± 0.5 ± 0.020	DIMENSION STYLE MM ONLY DRAWN BY: K CUNNINGHAM DATE: 2011/10/27 CHECKED BY: DATE: APPROVED BY: DATE:	SCALE: 3:1 DESIGN UNITS: METRIC THIRD ANGLE PROJECTION	TITLE: MX150 16 WAY HYBRID RECPT SEALED ASSEMBLY <b>molex</b>	SHEET NO. OF 8
	MATERIAL NO. DOCUMENT NO. SD-33476-161		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
	SEE BOM					
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					

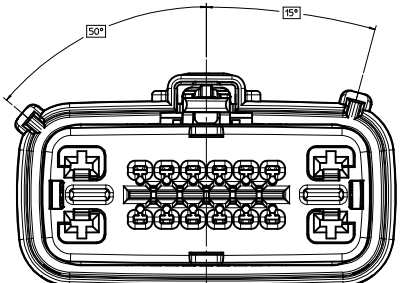
KEY CONFIGURATIONS



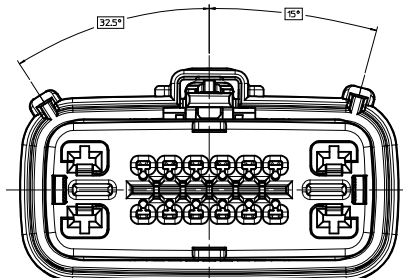
KEY A



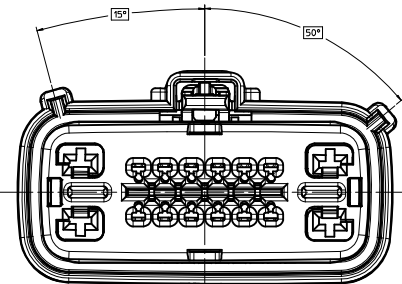
KEY E



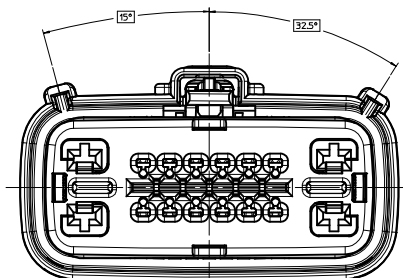
KEY B



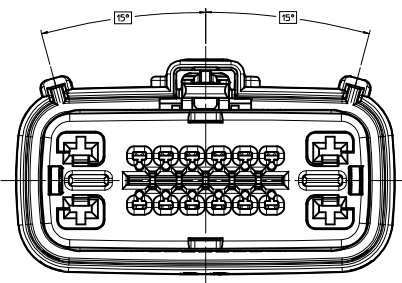
KEY F



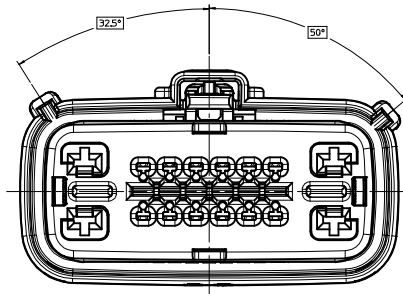
KEY C



KEY G



KEY D

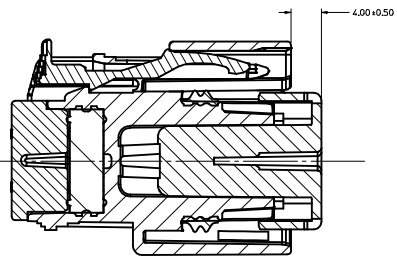
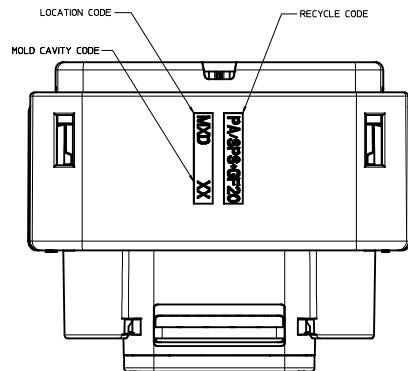
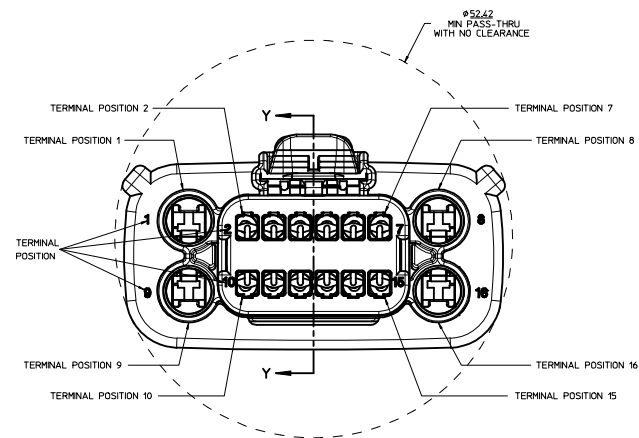
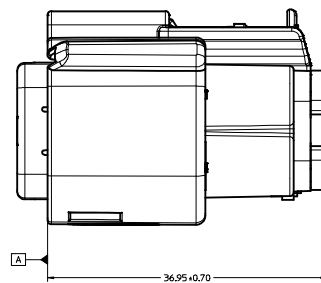
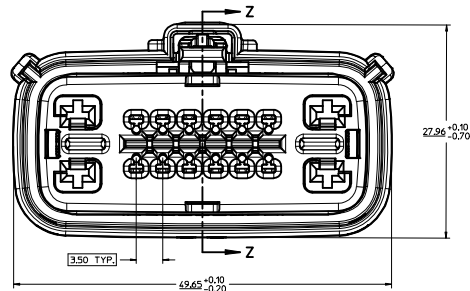
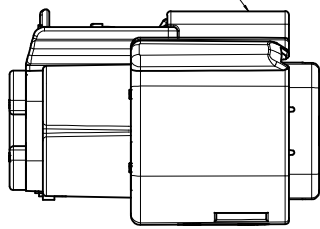


KEY H

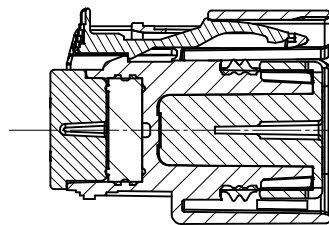
<b>ENTER DESCRIPTION</b> EC NO. UAU2016-0550 DRAWN BY: J. DUNN DATE: 2015/10/27 CHECKED BY: J. DUNN DATE: 2015/10/27 APPROVED BY: J. DUNN DATE: 2015/10/27 REV: BX	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± .005</td> <td>± .0002</td> </tr> <tr> <td>3 PLACES</td> <td>± .005</td> <td>± .0002</td> </tr> <tr> <td>2 PLACES</td> <td>± .01</td> <td>± .0004</td> </tr> <tr> <td>1 PLACE</td> <td>± .03</td> <td>± .0012</td> </tr> <tr> <td>0 PLACE</td> <td>± .05</td> <td>± .0020</td> </tr> </tbody> </table> ANGULAR ± 3° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		mm	INCH	4 PLACES	± .005	± .0002	3 PLACES	± .005	± .0002	2 PLACES	± .01	± .0004	1 PLACE	± .03	± .0012	0 PLACE	± .05	± .0020	DIMENSION STYLE MM ONLY DRAWN BY: KCUNNINGHAM DATE: 2011/10/27 CHECKED BY: DATE: APPROVED BY: DATE:	SCALE 3:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE MX150 16 WAY HYBRID RECPCT SEALED ASSEMBLY	MATERIAL NO. SEE BOM	DOCUMENT NO. SD-33476-161	SHEET NO. 2 OF 8
		mm	INCH																							
	4 PLACES	± .005	± .0002																							
	3 PLACES	± .005	± .0002																							
2 PLACES	± .01	± .0004																								
1 PLACE	± .03	± .0012																								
0 PLACE	± .05	± .0020																								
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																										
molex																										
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																										

RCPT. HRN. CONN.

OPTIONAL LASER MARKING ON THIS SURFACE  
SEE NOTE 3g.



PRIMARY LOCK REINFORCEMENT (PLR) SHOWN  
IN PRE-STAGED POSITION  
SECTION Z-Z



PRIMARY LOCK REINFORCEMENT (PLR) SHOWN  
IN FINAL-LOCK POSITION  
SECTION Y-Y

<b>ENTER DESCRIPTION</b> EC. NO. 0A02016-0550 DRAWING TITLE: 2015/10/27 0 PASSEGGI APPROVED: 2015/10/27 APPROVED BY:	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.1 ± --- 1 PLACE ± 0.3 ± --- 0 PLACE ± ±	DIMENSION STYLE MM ONLY DRAWN BY: DATE: 2011/10/27 CHECKED BY: DATE: APPROVED BY: DATE:	SCALE 4:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE MX150 16 WAY HYBRID RCPT SEALED ASSEMBLY	
	MATERIAL NO. SEE BOM	DOCUMENT NO. SD-33476-161	SHEET NO. 3 OF 8	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE E			
	BOX					





Main assembly tree table with columns for description, part number, and various assembly points (A, B, C, D, E, F, G, H, A, C, P, S, PS, CPA).

PLANNED OBSOLESCENCE  
SEE DRAWING SD-34985-8002  
FOR REPLACEMENT P/N'S  
34985-XXXX

TABLE LEGEND
ABREVIATION COMPONENT
A HOUSING KEY A
B HOUSING KEY B
C HOUSING KEY C
D HOUSING KEY D
E HOUSING KEY E
F HOUSING KEY F
G HOUSING KEY G
H HOUSING KEY H
GC GROMMET CAP
M MAT SEAL
P PLR, STANDARD
PS PLR, SHRT BAR LIFTER
R RING SEAL
CPA CPA

TABLES:
1. GROMMET CAP, MAT SEAL, RING SEAL, CPA, SHORTING BAR PLR, STANDARD PLR, HOUSING KEYING OPTION C-D-H, HOUSING KEYING OPTION A-G, HOUSING KEYING OPTION E, HOUSING KEYING OPTION D, HOUSING KEYING OPTION B, HOUSING KEYING OPTION A.
2. BOM/APPLICABLE COMPONENTS TABLE with columns for DESCRIPTION, COLOR, MATERIAL.

STATUS
BLOCKED TERMINAL
CAVITY WITH A NUMBER INDICATES BLOCKED TERMINAL POSITION
CAVITY WITHOUT A NUMBER INDICATES OPEN TERMINAL POSITION

ENTER DESCRIPTION: EC NO: UAU2016-0550, DRAWING PRT: 2015/10/17, APPR: MCKENNA, DATE: 2015/10/27. QUALITY SYMBOLS, GENERAL TOLERANCES (UNLESS SPECIFIED), DIMENSION STYLE MM ONLY, SCALE, DESIGN UNITS METRIC, THIRD ANGLE PROJECTION, TITLE: MX150 16 WAY HYBRID RECP2 SEALED ASSEMBLY, APPROVED BY, DATE, MATERIAL, SEE BOM, SD-33476-161, SHEET NO. 6 OF 8, THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.





ASSEMBLY DESCRIPTION	ASSEMBLY PART NUMBER	A	B	C	D	E	F	G	H	A	C	D	P	PS			10	11	12	13	14	15						
KEY A , BLACK	33476-4046														P		2		10	11	12							
KEY A , BLACK	33476-4045														P		2		11	12								
KEY A , BLACK	33476-4044														P	CPA		6	7	10	11	12	13	14	15			
KEY A , BLACK	33476-4043														P	CPA		6	7						15			
KEY A , BLACK	33476-4042														P			7							15			
KEY A W/CPA BLACK	33476-4041														P	CPA		7	10	11	12	13						
KEY A , BLACK	33476-4040														P		3	A	A	7		12	13	14	15			
KEY A , BLACK	33476-4039														P		3					12	13					
KEY A , BLACK	33476-4038														P	2	3			10	11	12	13					
KEY A , BLACK	33476-4037														P	2			7									
KEY A W/CPA BLACK	33476-4036														P	CPA	2		7	10			13		15			
KEY A , BLACK	33476-4035														P	2	3				11		13	14	15			
KEY A , BLACK	33476-4034														P	2	3	4	5						14	15		
KEY A , BLACK	33476-4033														P	2	A	5	6							14		
KEY B , LT.GRAY	33476-4032														P	2		5	6	7								
KEY A W/CPA BLACK	33476-4031		R												P	CPA		5	6	7						14	15	
KEY A , BLACK	33476-4030														P						11					14	15	
KEY A , BLACK	33476-4029														P					10		12	13	14	15			
KEY B , LT.GRAY	33476-4028		B												P	2		5	6	7		11						
KEY B , LT.GRAY	33476-4027		B												P	2	A	5			10	11	12	13	14	15		
KEY A , BLACK	33476-4026		B												P	2	3	A	5									
KEY A W/CPA BLACK	33476-4025														P	CPA	2		6	7	10	11	12	13	14	15		
KEY A W/CPA BLACK	33476-4024														P	CPA	2		7	10								
KEY A W/CPA BLACK	33476-4023														P	CPA	2	3	4	5	7	10	11	12	13	14	15	
KEY A W/ CPA, BLACK	33476-4022														P	CPA			5		10	11	12	13	14			
KEY A , BLACK	33476-4021														P	2	3				10	11						
KEY A , BLACK	33476-4020														P	2	3			7	10	11					15	
KEY A , BLACK	33476-4019														P					7		11					15	
KEY A , BLACK	33476-4018														P					7		10					15	
KEY A , BLACK	33476-4017														P			4	5	6	7	10		12	13	14	15	
KEY C W/ CPA, DK GRAY	33476-4016										C				P	CPA	3	4	6	7	10	11	13	14	15			
															P	CPA	2	3	4	5	6	7	10	11	12	13	14	15

PLANNED OBSOLESCENCE  
SEE DRAWING SD-34985-8002  
FOR REPLACEMENT P/N'S  
34985-XXXX

STATUS

TABLE LEGEND

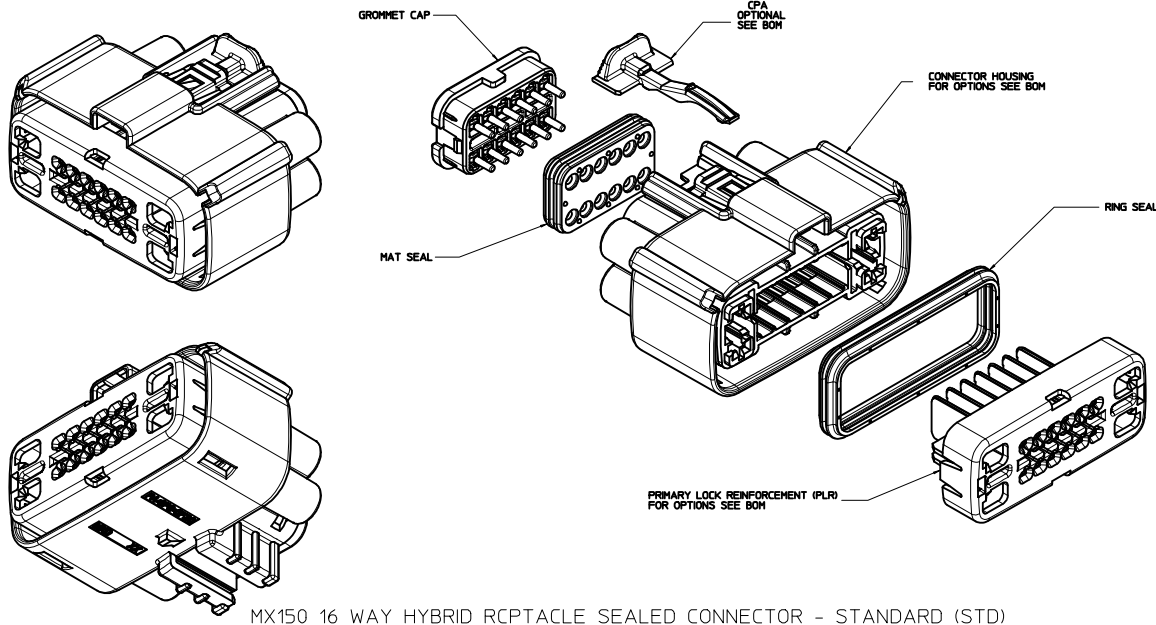
ABBREVIATION	COMPONENT
A	HOUSING KEY A
B	HOUSING KEY B
C	HOUSING KEY C
D	HOUSING KEY D
E	HOUSING KEY E
F	HOUSING KEY F
G	HOUSING KEY G
H	HOUSING KEY H
GC	GROMMET CAP
M	MAT SEAL
P	PLR, STANDARD
PS	PLR, SHRT BAR LIFTER
R	RING SEAL
CPA	CPA

DESCRIPTION	COLOR	MATERIAL
GROMMET CAP	BLACK	SPS/NYLON GF20
MAT SEAL	LIGHT BLUE	INHERENTLY LUBRICATED SILICONE
RING SEAL	GREEN	INHERENTLY LUBRICATED SILICONE
CPA	BRIGHT RED	PBT GF30
SHORTING BAR PLR	NATURAL	PBT GF15
STANDARD PLR	NATURAL	SPS/NYLON GF20
HOUSING KEYNG OPTION D	STONE GRAY	SPS/NYLON GF20
HOUSING KEYNG OPTION C	DARK GRAY	SPS/NYLON GF20
HOUSING KEYNG OPTION A	YELLOW	SPS/NYLON GF20
HOUSING KEYNG OPTION H	YELLOW	SPS/NYLON GF20
HOUSING KEYNG OPTION G	BROWN	SPS/NYLON GF20
HOUSING KEYNG OPTION F	LIGHT GRAY	SPS/NYLON GF20
HOUSING KEYNG OPTION E	BLACK	SPS/NYLON GF20
HOUSING KEYNG OPTION D	GREEN	SPS/NYLON GF20
HOUSING KEYNG OPTION C	BROWN	SPS/NYLON GF20
HOUSING KEYNG OPTION B	LIGHT GRAY	SPS/NYLON GF20
HOUSING KEYNG OPTION A	BLACK	SPS/NYLON GF20

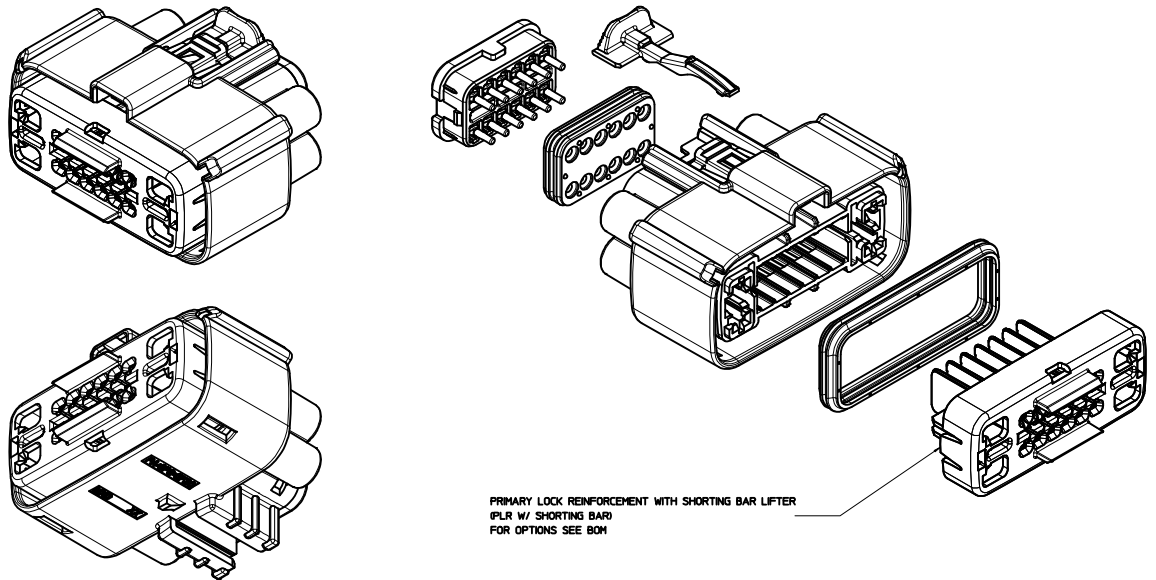
BOM/APPLICABLE COMPONENTS TABLE

ENTER DESCRIPTION  
EC NO: UAU2016-0550  
DRAWING: 0550-FIT-1  
DATE: 2015/10/27  
APPR: WOSHY  
REV: 01

QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
$\nabla = 0$	$\pm 0.1$	MM ONLY	2:1	METRIC	$\ominus \triangleleft$
$\nabla = 0$	$\pm 0.075$	DRAWN BY DATE KCUNNINGHAM 2011/10/27			
$\nabla = 0$	$\pm 0.05$	CHECKED BY DATE			
$\nabla = 0$	$\pm 0.025$	APPROVED BY DATE			
$\nabla = 0$	$\pm 0.01$	MATERIAL NO. 9999999999		DOCUMENT NO. SD-33476-161	
	ANGULAR $\pm 3^\circ$	SHEET NO. 8 OF 8			
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			



MX150 16 WAY HYBRID RCPTACLE SEALED CONNECTOR - STANDARD (STD)



MX150 16 WAY HYBRID RCPTACLE SEALED CONNECTOR - SHORTING (SHRT) BAR  
UNLESS COMPONENT NOTED, SEE STANDARD ASSEMBLY

TABLE OF CONTENTS	
SHEET NO.	SHEET DESCRIPTION
1	NOTES
2	KEY CONFIGURATIONS
3	RECEPTACLE SEALED ASSEMBLY
4-6	BOM

NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. GENERAL:

- a. APPLICATION SPECIFICATION SEE: AS-33472-100
  - CONTAINS: PRODUCT INTRODUCTION, PRODUCT SUMMARY, CONNECTOR ASSEMBLY, PACKAGING INFORMATION, CONNECTOR MATING, SERVICE INSTRUCTIONS, ELECTRICAL CONTINUITY CHECKING, CRIMPING, AND TROUBLESHOOTING.
  - STANDARD (NON-SHRT) CONFIGURATIONS DESIGNED TO MATE WITH DEVICE CONNECTION AS SPECIFIED IN DRAWING ENCAP 999-5-016-2-202. AVAILABLE AT <http://www.cpacar.com>
  - STANDARD (NON-SHRT) CONFIGURATIONS AND SHORTING BAR CONFIGURATIONS DESIGNED TO MATE WITH BLADE HOUSING ASSEMBLY SPECIFIED IN DRAWING SD-33486-161.
  - FOR 1.5mm RECEPTACLE TERMINALS TO BE USED WITH THIS ASSEMBLY. SEE MOLEX DRAWING SD-33092-002.
  - FOR 2.8mm RECEPTACLE TERMINALS TO BE USED WITH THIS ASSEMBLY SEE TABLE.
  - 2.8mm TERMINALS TO BE USED WITH WIRE WITHIN DIAMETER RANGE OF 150mm TO 3.30mm.
  - ASSEMBLY SHIPPED WITH PLR AND CPA IN PRE-LOCK POSITION (SEE SECTION Z-Z PRE-LOCK).
  - IN THE EVENT THAT THE PLR IS FOUND IN THE SEATED (FINAL LOCK) POSITION, REFER TO MOLEX SPECIFICATION PS-34666-001. AVAILABLE AT [www.molex.com](http://www.molex.com) -<http://www.molex.com>
  - ASSEMBLY CONFORMS TO SAE/USCAR-2 REV.4 WITH THE FOLLOWING EXCEPTIONS: ENGAGEMENT FORCE TO MOVE CPA FROM PRE-LOCK TO FINAL LOCK POSITION WHEN UNMATED: 40N MN.
  - DISENGAGEMENT FORCE TO MOVE CPA FROM FINAL LOCK TO PRE-LOCK POSITION: 3N MIN 40N MAX.
  - TERMINAL INSERTION FORCE FOR WIRE DIAMETER ABOVE 2.5mm NOT EXCEEDING 2.69mm SHALL NOT EXCEED 40 NEWTONS.

b. PRODUCT SPECIFICATION SEE: PS-33476-000

- CONTAINS: PRODUCT INTRODUCTION, PRODUCT SUMMARY, RATINGS (CURRENT, TEMPERATURE, SEALING, AND FLAMMABILITY), AND PRODUCT VALIDATION.

c. PACKAGING SPECIFICATION PER MOLEX DRAWING: PK-30907-895

d. PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS SPECIFICATIONS ES-40000-5016

e. DATA MUST BE SUBMITTED UNDER THE MOLEX PART NUMBER TO MDS (COMPANY 0419295)

f. FOR INFORMATION ON 16 WAY HYBRID RECEPT HRN ASSY WITHOUT CLIPSLOT SEE E-33476-161

2. DESIGN - MATERIALS:

a. SEE BOM TABLE

3. DESIGN - GEOMETRY:

- a. THIS IS A 100% CAD GENERATED PART. THE CAD MATHEMATICAL DATA IS THE MASTER FOR THIS PART. FOR DIMENSIONAL OR ANY INFORMATION NOT SHOWN ON THIS DRAWING, ANALYZE THE CAD MODEL.
- b. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M - 1994
- c. EDGES AND UNDIMENSIONED DETAILS PER ISO1975
- d. CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
- e. LETTERING SHALL BE 0.15 MAX RAISED IN 0.25 MAX RECESS PAD. THIS INCLUDES RECYCLING CODE, CAVITY ID, VENDOR IDENTIFICATION, AND CUSTOMER MATERIAL NUMBER.
- f. VISUAL DEFECTS SHALL MEET COSMETIC STANDARD PS-45499-002 (Class B)
- g. LASER MARKING: TBD

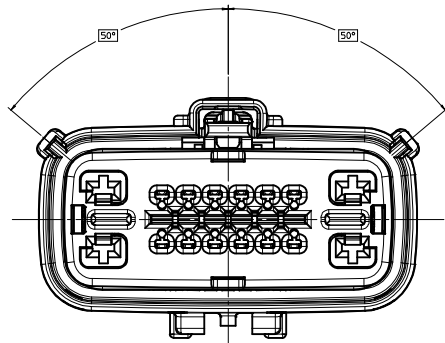
TYCO 2.8mm CABLE SEAL TERMINAL		
FORD P/N FEMALE RECEPTACLE	GRIP SIZE	
IFIT-14474-KA	12	
IFIT-14474-JA	14	
IFIT-14474-HA	16	
IFIT-14474-GA	18	
IFIT-14474-FA	20	
IFIT-14474-EA	22	

INSPECTION NUMBER LOG  
LAST NUMBER USED:  
ADDED:  
REMOVED:

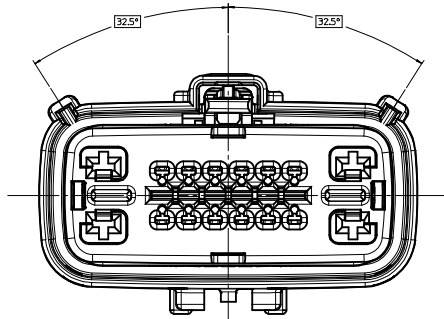
REV	DESCRIPTION
BC	UPDATED TO PLANNED OBSOLESCENCE
BB	ADD NEW P/N 33476-2345 THRU 33476-2348
BA10	ADD NEW P/N 33476-2343 THRU 33476-2344
BA9	ADD NEW P/N 33476-2338 THRU 33476-2342
BA8	CHANGE TO PK-30907-895
BA7	ADD NEW P/N 33476-2336 THRU 33476-2337
BA6	ADD NEW P/N 33476-2333 THRU 33476-2335
BA5	ADD NEW P/N 33476-2332
BA4	ADD NEW P/N 33476-2327 THRU 2331
BA3	ADD NEW P/N 33476-2314 THRU 2326
BA2	ADD NEW P/N 33476-2313
BA1	ADD NEW P/N 33476-2312
BA	ADD NEW P/N 33476-2310 33476-2311
A210	ADD NEW P/N 33476-2308 33476-2309
A29	ADD NEW P/N 33476-2305 33476-2306 33476-2307
A28	ADD NEW P/N 33476-2304
A27	ADD NEW P/N 33476-2303
A26	ADD NEW P/N 33476-2301 33476-2302
A25	ADD NEW P/N 33476-2295 33476-2300
A24	ADD NEW P/N 33476-2294
A23	ADD NEW P/N 33476-2292 33476-2293
	ADD NEW P/N 33476-2285 33476-2286 33476-2287 33476-2288 33476-2289 33476-2290
A22	
	33476-2291
A21	ADD NEW P/N 33476-2283 33476-2284
A2	ADD NEW P/N 33476-2279 33476-2280
AY17	ADD NEW P/N 33476-2278
AY16	ADD NEW P/N 33476-2275 33476-2276 33476-2277
AY15	ADD NEW P/N 33476-2273 33476-2274
AY14	ADD NEW P/N 33476-2265 33476-2266 33476-2267 33476-2268 33476-2269 33476-2270 33476-2271 33476-2272
AY13	ADD NEW P/N 33476-2263 33476-2264
AY12	ADD NEW P/N 33476-2262
AY11	ADD NEW P/N 33476-2261
AY10	ADD NEW P/N 33476-2260
AY9	ADD NEW P/N 33476-2257 33476-2258 33476-2259
AY8	UPDATED 2.8MM WIRE SIZE
AY7	UPDATED WIRE SIZE
AY6	ADD NEW P/N 33476-2255 33476-2256
AY5	ADD NEW P/N 33476-2254
AY4	ADD NEW P/N 33476-2253

ENTER DESCRIPTION EC NO: JAU0206-0550 10/17/14 DRAWN BY: JAU0206-0550 10/17/14 CHECKED BY: JAU0206-0550 10/17/14 APPROVED BY: JAU0206-0550 10/17/14 REV:	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.10 ± --- 1 PLACE ± 0.3 ± --- 0 PLACE ±	DIMENSION STYLE MM ONLY DRAWN BY DATE KUNNINGHAM 2011/10/26 CHECKED BY DATE APPROVED BY DATE	SCALE 3:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	SHEET NO. OF 7
	MATERIAL NO. SEE BOM	DOCUMENT NO. SD-33476-181	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX, INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE E	MX150 16 WAY HYBRID RCPT SEALED ASSEMBLY CLIPSLOT		
	<b>molex</b>				

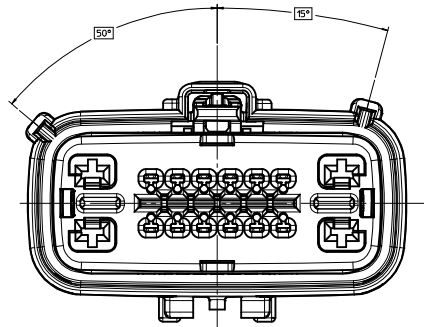
KEY CONFIGURATIONS



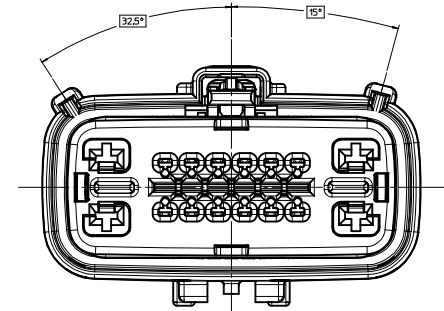
KEY A



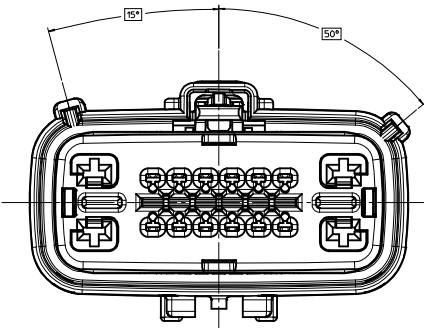
KEY E



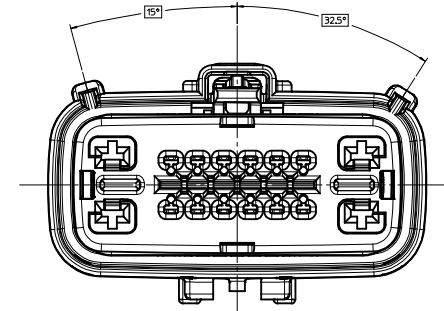
KEY B



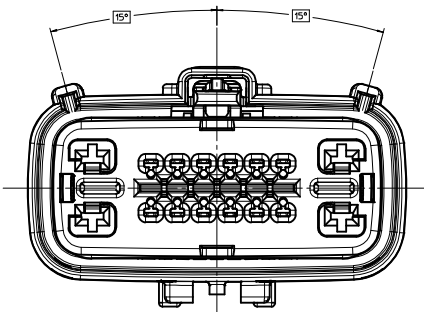
KEY F



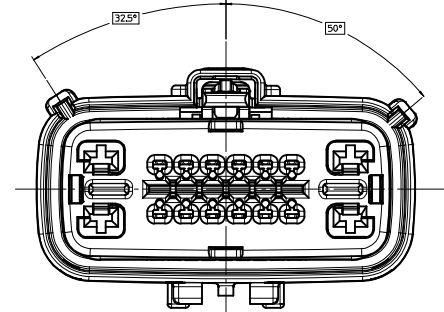
KEY C



KEY G



KEY D

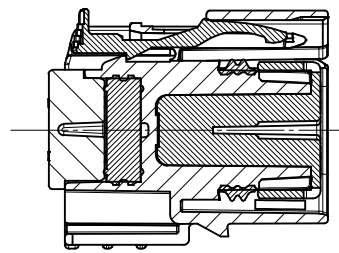
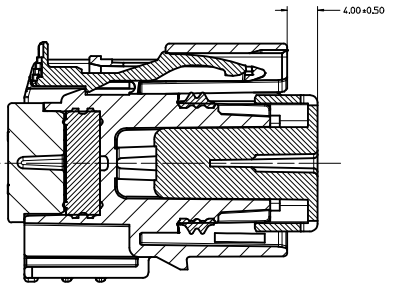
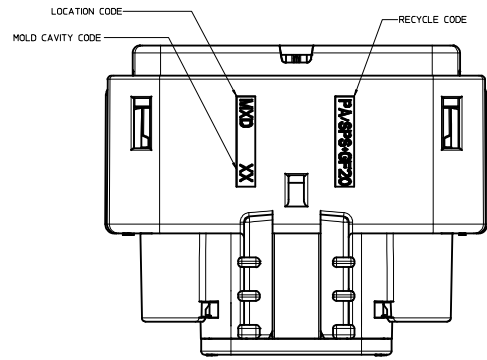
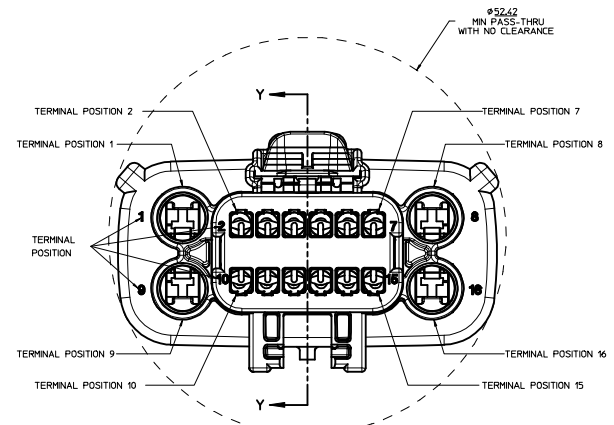
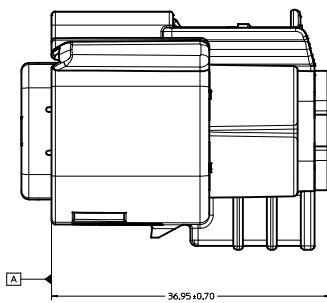
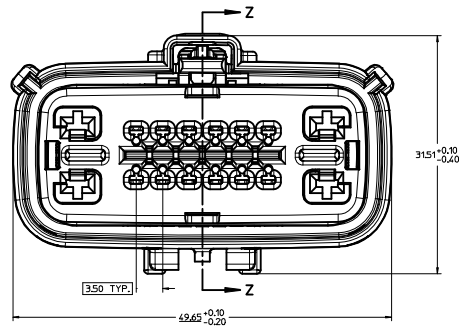
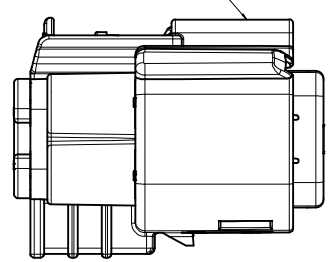


KEY H

<b>ENTER DESCRIPTION</b> EC NO. 040206-0550 DRAWN BY: JACOB CHECKED BY: JACOB APPROVED BY: JACOB DATE: 2015/10/26	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.10 ± --- 1 PLACE ± 0.3 ± --- 0 PLACE ± ±	DIMENSION STYLE MM ONLY DRAWN BY: DATE KCUNNINGHAM 2011/10/26 CHECKED BY: DATE APPROVED BY: DATE	SCALE 4:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE MX150 16 WAY HYBRID RECEPT SEALED ASSEMBLY CLIPSLOT <b>molex</b>	MATERIAL NO. SEE BOM DOCUMENT NO. SD-33476-181	SHEET NO. 2 OF 7
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

RECEPTACLE SEALED ASSEMBLY

OPTIONAL LASER MARKING ON THIS SURFACE  
SEE NOTE 3g.



PRIMARY LOCK REINFORCEMENT (PLR) SHOWN  
IN PRE-STAGED POSITION  
SECTION Z-Z

PRIMARY LOCK REINFORCEMENT (PLR) SHOWN  
IN FINAL-LOCK POSITION  
SECTION Y-Y

<b>ENTER DESCRIPTION</b> EC NO. UAU2016-0550 DRAWN BY: J. W. BETHUNE CHECKED BY: J. W. BETHUNE APPR. MOSES, 2015/10/28	QUALITY SYMBOLS ∇=0 ∇=1 ∇=2	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± 0.10</td> <td>± 0.004</td> </tr> <tr> <td>3 PLACES</td> <td>± 0.15</td> <td>± 0.006</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.20</td> <td>± 0.008</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.30</td> <td>± 0.012</td> </tr> <tr> <td>0 PLACE</td> <td>± 0.40</td> <td>± 0.016</td> </tr> </tbody> </table>		mm	INCH	4 PLACES	± 0.10	± 0.004	3 PLACES	± 0.15	± 0.006	2 PLACES	± 0.20	± 0.008	1 PLACE	± 0.30	± 0.012	0 PLACE	± 0.40	± 0.016	DIMENSION STYLE MM ONLY	SCALE 4:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		mm	INCH																					
	4 PLACES	± 0.10	± 0.004																					
	3 PLACES	± 0.15	± 0.006																					
2 PLACES	± 0.20	± 0.008																						
1 PLACE	± 0.30	± 0.012																						
0 PLACE	± 0.40	± 0.016																						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. SEE BOM	DRAWN BY DATE KCUNNINGHAM 2011/10/26	CHECKED BY DATE	TITLE MX150 16 WAY HYBRID RECEPT SEALED ASSEMBLY CLIPSLOT	DOCUMENT NO. SD-33476-181	SHEET NO. 3 OF 7																		
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																								
SIZE E																								





Main BOM table with columns for P, PS, CPA, and 13 terminal positions (1-13). Rows list assembly descriptions and their corresponding part numbers and quantities.

PLANNED OBSOLESCENCE  
SEE DRAWING SD-34985-8002  
FOR REPLACEMENT P/N'S  
34985-XXXX

LEGEND TABLE with columns for ABBREVIATION and COMPONENT. Lists abbreviations like A, B, C, D, E, F, G, H, GC, M, P, PS, R, CPA and their corresponding component names such as HOUSING KEY A, PLR. STANDARD, RING SEAL, etc.

Table for blocked terminal and cavity information. Includes 'BLOCKED TERMINAL' and 'STATUS' columns, and a 'BOM/APPLICABLE COMPONENTS TABLE' with columns for DESCRIPTION, COLOR, and MATERIAL.

ENTER DESCRIPTION  
EC NO. JAO206-0550  
DRAWN BY: ADR/MT  
APPROVED BY: MCK/MT  
DATE: 2015/07/24  
APP. WASH: 2015/07/29

QUALITY SYMBOLS  
▽=0  
▽=1  
▽=2  
▽=3

GENERAL TOLERANCES (UNLESS SPECIFIED) table with columns for DIMENSION STYLE (MM ONLY), SCALE, DESIGN UNITS (METRIC), and THIRD ANGLE PROJECTION. Includes a table of tolerance values for various dimensions and materials.

DRAWN BY: DATE  
CHECKED BY: DATE  
APPROVED BY: DATE

MATERIAL NO. DOCUMENT NO. SHEET NO.  
DRAWN BY: KCUNNINGHAM  
DATE: 2011/10/26  
CHECKED BY: DATE  
APPROVED BY: DATE  
TITLE: MX150 16 WAY HYBRID  
RECT SEALED ASSEMBLY  
CLIPSLOT  
molex  
SD-33476-181  
6 OF 7

DRAFT WHERE APPLICABLE SEE BOM THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION WITHIN DIMENSIONS

