

SPEC	
EC	O
COMPASS	X
MICROPHONE	X
HOMELINK	O
	(BACKLIGHT: WHITE)
SMARTBEAM	X
RCD	X
PRNDL LAMP	X
PG	SEE TABLE B

TABLE B:

PART NO.	CELL SUB-ASSY	NON-PG	PG	LABEL MARK
87810-0WM90	87809-0WC70	O		TBD
87810-0WM80	87809-0WC80		O	TBD

MATING CONNECTOR ON VEHICLE HARNESS	
HOUSING	TOYOTA P/N 90980-12368
TERMINAL	TOYOTA P/N 90980-09895

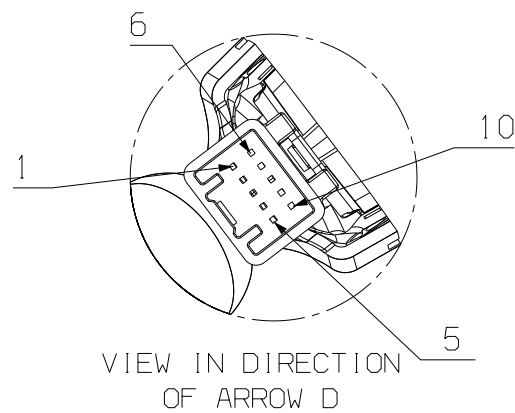
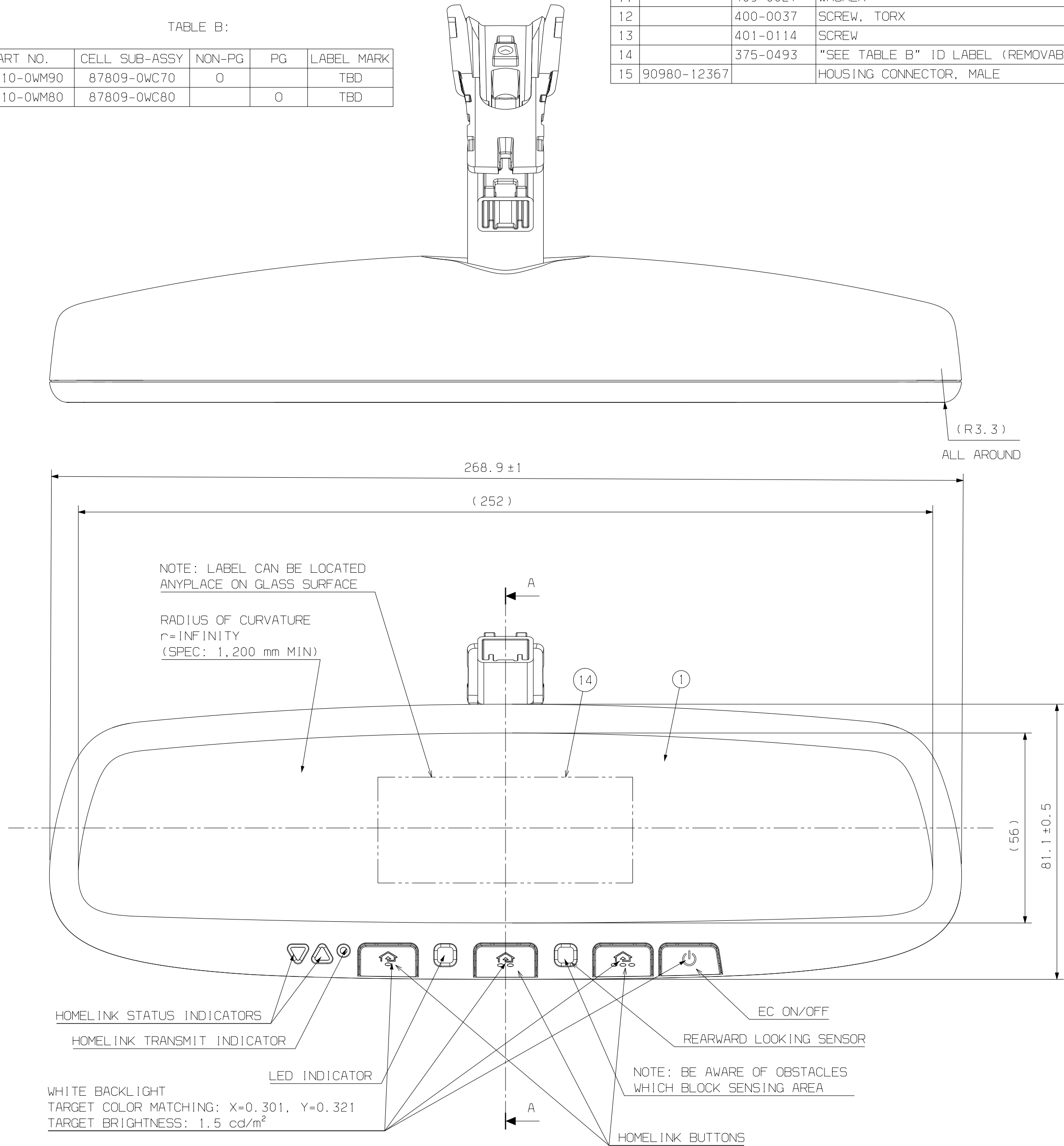
NO.	TOYOTA P/N	GENTEX P/N	PART NAME	MATERIAL	SURFACE TREATMENT	QUANTITY	MATERIAL TS
1	SEE TABLE B		CELL SUB-ASSY, INNER MIRROR W/DRIVER			1	
2		625-0731	CASE FRONT S.A., INCLUDING BUTTONS	PC+ABS (COLOR: BLACK)	GNTX-130	1	TSM5526G-1L
3		340-1124	CASE REAR	PC+ABS (COLOR: BLACK)	GNTX-130	1	TSM5526G-1L
4		343-0203	LENS, AMBIENT	POLYCARBONATE		1	TSM5513G-1
5		350-0142	MOUNT	ZINC	BLACK PAINT	1	
6		355-0010	TUBE	STEEL	BLACK PAINT	1	
7		350-0143	PIVOT BALL	ZINC	BLACK PAINT	1	
8		345-0822	BEARING CUP, MOUNT	PP TALC		1	
9		345-0821	BEARING CUP, PIVOT	HDPE		1	
10		418-0071	SPRING	STEEL		1	
11		409-0027	WASHER	STEEL		1	
12		400-0037	SCREW, TORX	STEEL	BLACK PAINT	1	
13		401-0114	SCREW	STEEL		3	
14		375-0493	"SEE TABLE B" ID LABEL (REMOVABLE)			1	
15	90980-12367		HOUSING CONNECTOR, MALE				

MODEL	87810-0WM90			MODEL	87810-0WM80		
	ISS.	MASS	E.C.No.		ISS.	MASS	E.C.No.
600A		510g±MC		600A		510g±MC	

CS AM DS	ISS	REV	MASS	REV. NO.	REVISION RECORD	E.C.NO.	DATE	REVR
		1	510g	⚠	RELEASE FOR PRODUCTION PER R.D.D.P.: IK72-0013	620WS0002	6/19/2013	LUNDY
				⚠				
				⚠				
				⚠				
				⚠				

NOTES:

- THIS PART MUST COMPLY TO FMVSS #111, #302 AND FCC/IC/IFETEL.
- THIS PART MUST COMPLY TO TEST SPECIFICATION IN TABLE A.
- MOUNTING SCREW TORX T-20 TORQUE SPEC: 1.1- 1.9 NM.
- EXTERIOR SURFACES TO BE TEXTURED AS INDICATED PER GNTX-130 OR EQUIVALENT. A MASK OF 0.38mm (WIDTH) PERMITTED ON PARTING LINES.
- THIS MIRROR SHALL COMPLY WITH TSH3130G EXCLUDING SPOT AND FRICTION TEST.
- 0.25mm MISMATCH ALLOWED IN INSERTED AREAS.
- PIVOT ADJUSTMENT TORQUE
PIVOT A= 0.88 NM TO 3.30 NM
PIVOT B= 1.80 NM TO 4.60 NM
PIVOT B TORQUE SHALL BE GREATER THAN PIVOT A BY 0.10 NM MIN.
ADJUSTMENT ANGLE SHOWN IS FOR AN INDEPENDENT PIVOT FROM NEUTRAL POSITION. ADJUSTMENT AT A PIVOT IN COMBINATION WITH ADJUSTMENT OF OTHER PIVOT COULD RESULT IN INTERFERENCE.
- THIS PART SHALL CONFORM TO SUB-PARAGRAPH "SUBSTANCE PROHIBITION AND RESTRICTION" IN TS20001G.
- THIS PRODUCT INCORPORATES HOMELINK V UNIVERSAL TRANSCEIVER.
- THE VOLUME OF PART VOC MUST COMPLY TO TIS 01204-00232.
- THIS PRODUCT IS COMPENSATED FOR USE ON VEHICLES WITH NORMAL GLASS.
- PARTS SHALL CONFORM TO TSZ6005G. (NOT APPLICABLE. PLASTIC AND RUBBER PARTS OF THIS PRODUCT ARE LESS THAN 100g)
- BUTTONS SHOULD NOT STICK THROUGH -30°C TO +80°C TEMP RANGE.



PIN	FUNCTION	CURRENT
1	IGNITION	1500mA MAX
2	GROUND	1500mA MAX
3	REVERSE	15mA MAX
4	OEC FEED (+)	300mA MAX *
5	OEC FEED (-)	300mA MAX *
6	BATTERY	100mA MAX
7	OPEN	NA
8	OPEN	NA
9	OPEN	NA
10	OPEN	NA

*PER ELEMENT

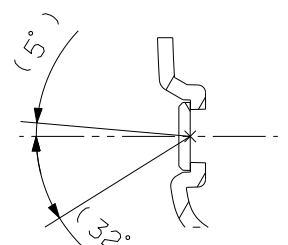
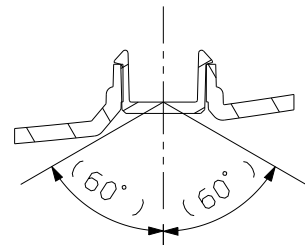
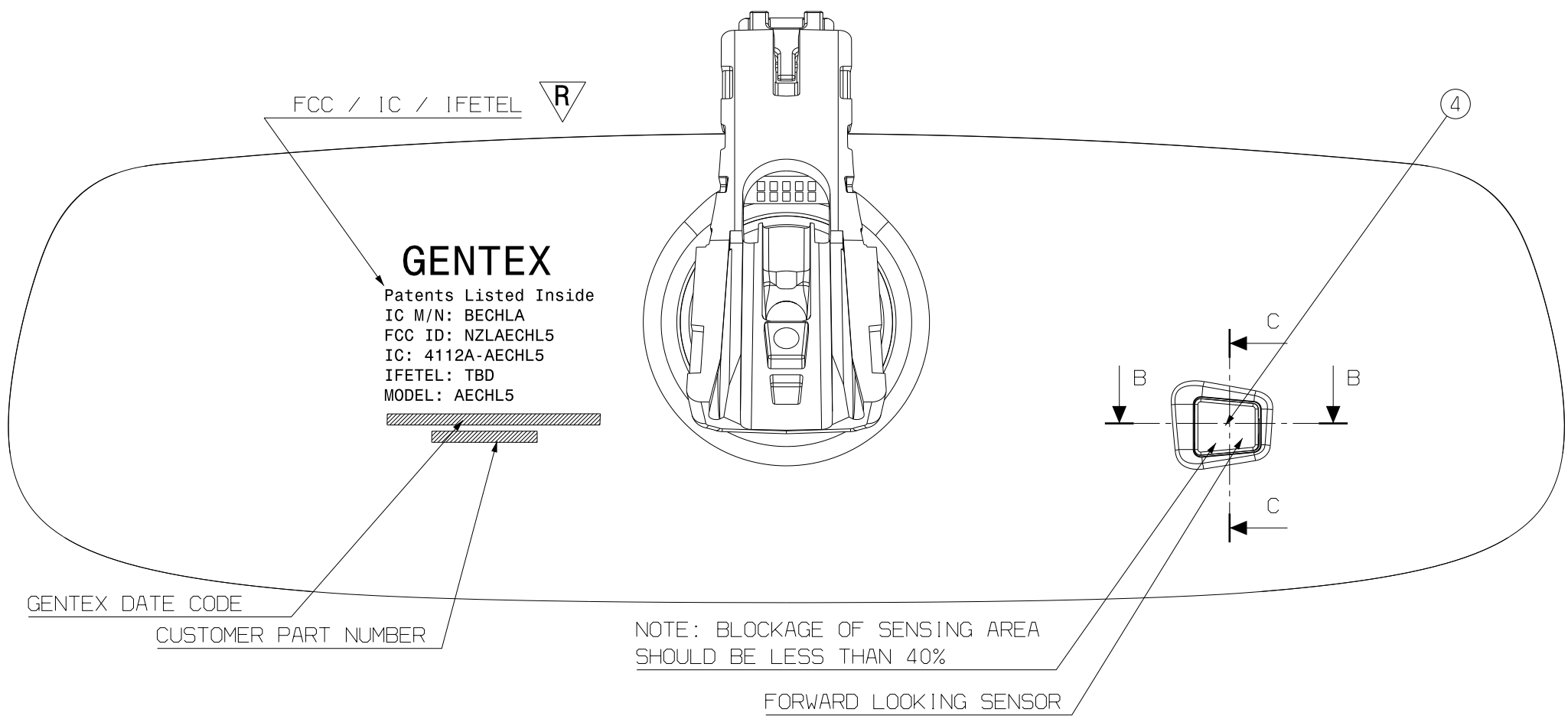
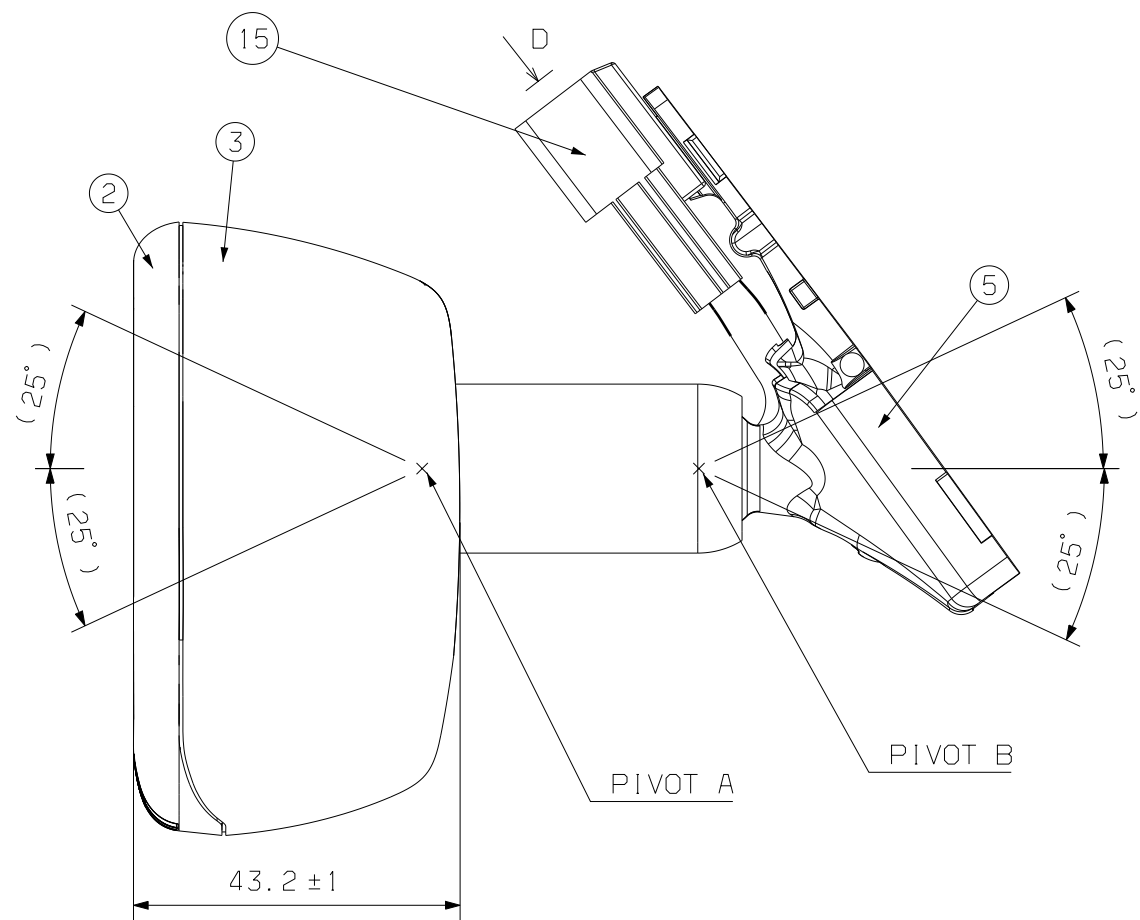
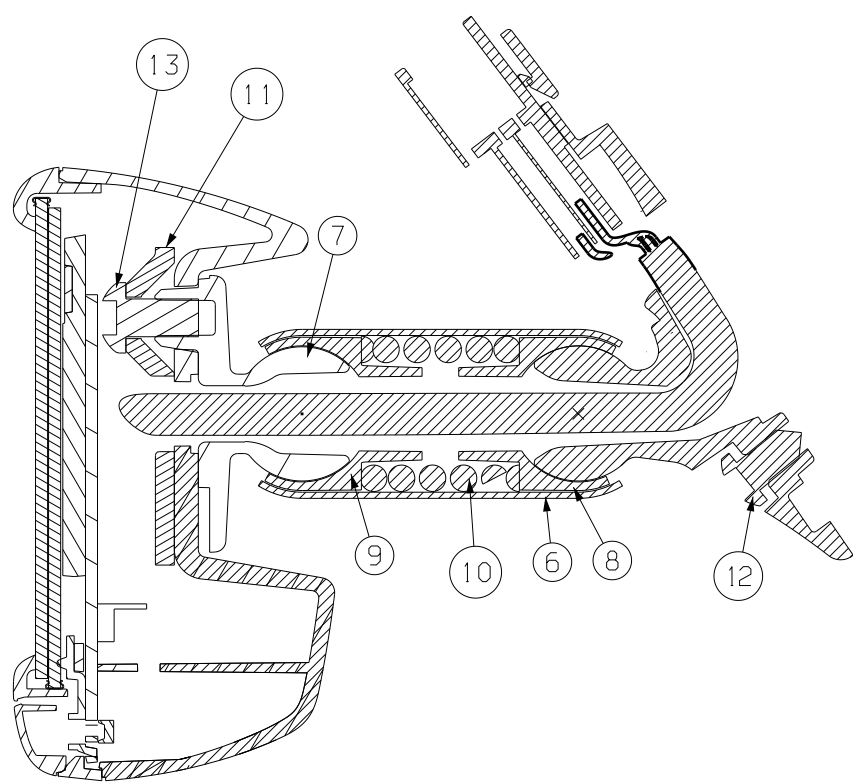
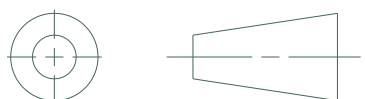


TABLE A:

No.	Test Item	Test Method	Criteria	Responsibility Supplier Toyota
1	Mirror quality	As per TSC 3900G	As per TSC 3900G-1 (bubbles, inclusion, scratch and others).	0
2	Mirror curvature	As per TSC 3900G	Concave face: R9000 MIN. Convex face: R3000 MIN.	0
3	Mirror distortion factor	As per TSC 3900G	Within 2%	0
4	Mirror angle adjustment range	As per TSC 3900G	Instruction in the drawing MIN.	0
5	Mirror angle adjustment force	As per TSC 3900G	See Note #7.	0
6	Chattering	As per TSC 3900G (Sweep from 20 to 200 Hz)	In range of the following graph (shaded area). Report results only. Actual pass/fail per vehicle test (No. 20).	0
7	Wobbling	As per TSC 3900G	Shall be 1mm MAX.	0
8	Angle adjustment durability	As per TSC 3900G (1500 cycles)	#4 to #7 shall be met.	0
9	Vibration durability	As per TSC 3900G (4 hours vertical, 2 hours lateral, 2 hours longitudinal)	(1) Initial sample: #1 and #4 to #7 shall be met. No such defects as discoloration and cracking shall be found on the mirror surface. (2) High temp exposed sample: Rotational looseness shall not occur at the fastening part. #7 shall be met.	0
10	Thermal cycle	As per TSC 3900G (-30° C X 7.5h, +23° C X 0.5h, +80° C X 15.5h, +23° C X 0.5h) X 4 cycles	Same as those in #9 (1).	0
11	High temperature storage	As per TSC 3900G (+80° C X 240 hours)	Same as those in #9 (1).	0
12	Low temperature storage	As per TSC 3900G (-30° C X 240 hours)	Same as those in #9 (1).	0
13	Light resistance	As per TSL 0601G METHOD E	#1 shall be met. No such defects as discoloration and cracking shall be found on the mirror surface.	0
14	Ozone resistance	As per TSC 3900G (Ozone Weatherometer; 72 hours)	Same as those in #13.	0
15	Chemical resistance	As per TSC 3900G	Same as those in #13.	0
16	Steam resistance	As per TSC 3900G (+90° C x 5 hours)	#1 shall be met.	0
17	Energy absorbing	As per TSC 3902G	As per TSC 3902G-1	0
18	Flammability	Per FMVSS 302	Burning speed 10 cm/min. MAX.	0
19	Change in color by aging	As per TSL 0601G METHOD E	Measured color value: E*; 3.0 MAX.	0
20	Chattering (vehicle drive test)	As per TSC3907G	Sensory evaluation: Grade 3 or better.	0

APPROVED
MIKE DEHAAN

INTERPRET DIM AND TOL PER
ASME Y14.5M - 1994
THIRD ANGLE PROJECTION



DATE
6/19/2013

NVS SYMBOLS SPECIFY
FEATURES REQUIRING
SPECIAL CONSIDERATION.
SEE CONTROL PLAN.

DRW BY
E.LUNDY
DATA FORMAT
Catia V5

TITLE
GENTEX
CORPORATION

MIRROR ASSY, INNER RR VIEW

SIZE DWG NO
A1 CP 87810-0WM90, 87810-0WM80
SCALE 1:1 DATE 6/19/2013 SHEET 1 OF 1

600 NORTH CENTENNIAL ST
ZEELAND, MICHIGAN 49464
(616) 772-1800

ECI NO. 620W50002	REVISION RECORD RELEASE FOR PRODUCTION PER R.D.D.P.: IK72-0013	MASS	MASS TOL.
		510g	±MC
TOYOTA PART NAME		TOYOTA PART NO.	
MIRROR ASSY, INNER RR VIEW		87810-0WM90	1/1
MIRROR ASSY, INNER RR VIEW		87810-0WM80	1/1
APPROVED		CHECKED	CHECKED
IK700		TOYOTA MOTOR CORPORATION	
		A1	