2006-

REVISION D 3/20/06 REAR SIGHT

### Part Number: 00016-00040 Code: MC1

Section I – Installation Preparation

Southeast Toyota Distributors, LLC

**REVISION D** 

Section I – Installation Preparation Kit Contents

Item #	Quantity Reqd.	Description
1	1	Mirror/Monitor
2	1	Reverse Mini-Camera
3	1	Extension Harness
4	1	SACK PARTS
5	1	Owner's Card
6		
7		
8		

### Hardware Bag Contents

Item #	Quantity Reqd.	Description
1	25	Wire Ties
2	6	Adhesive Foam
3	3	Т-тар, 18-22AWG
4	2	Т-тар, 14-18AWG
5	1	DOUBLE-SIDED MOLDING TAPE
6	1	Sealing Putty
7	1	Alcohol Pad
8	1	R ubber Grommet

### Additional Items Required For Installation

Item #	Quantity Reqd.	Description		
1	N/A	ELECTRICAL TAPE		
2	N/A	MASKING TAPE		
Conflicts				

### Note:

### Recommended Tools

Safety Tools	
Special Tools	
IR Temp Probe	
Installation Tools	
FASTENER REMOVAL TOOL	WIRE CUTTERS
TRIM REMOVAL TOOL	TORX-20 WRENCH
<b>10-MM DEEP SOCKET</b>	PLIERS
Torque Wrench (36 in. lb.)	
1-1/16" Step Bit	
Special Chemicals	
Soapy Water or Alcohol/water	

Color Applicability/Trim Level								
Color Vehicle/Trim Color								

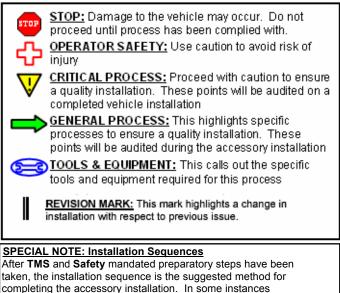
### General Applicability

All Models including Hybrid

### **Recommended Sequence of Application**

Item #	Accessory	
1		
2		
3		

### Legend



taken, the installation sequence is the suggested method for completing the accessory installation. In some instances suggested sequence is written for one associate to install and in others the sequence is given as part of a team accessory installation. Unless otherwise stated in the document, the associates may perform the installation steps in any order to make the installation as efficient as possible while maintaining consistent quality.

Also some items listed to be removed may not need to be removed if caution is taken to not damage vehicle.

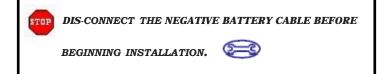
## PARTS IDENTIFICATION

ITEM QUANTITY		PART NUMBER	DESCRIPTION		
1	1	00016-00040-01	REARSIGHT MONITOR/MIRROR		
2	1	00016-00040-04	CAMERA EXTENSION HARNESS		
3	1	00016-00040-02	Rear Camera Assembly		
4	1	00016-00040-03	Sack Parts: Tie Straps, T-Taps, Sealing Putty		



**\*Before** beginning installation, **familiarize** yourself with the installation instructions and the **RearSight<sup>™</sup>** back-up camera system components.

## **VEHICLE PREPARATION**



### **VEHICLE PREPARATION**

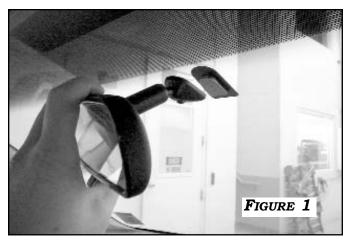


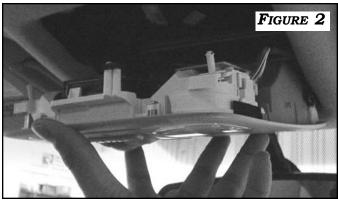
1. LOOSEN TORX-20 WINDSHIELD LUG MOUNT SCREW AND REMOVE EXISTING REARVIEW MIRROR. FIGURE 1

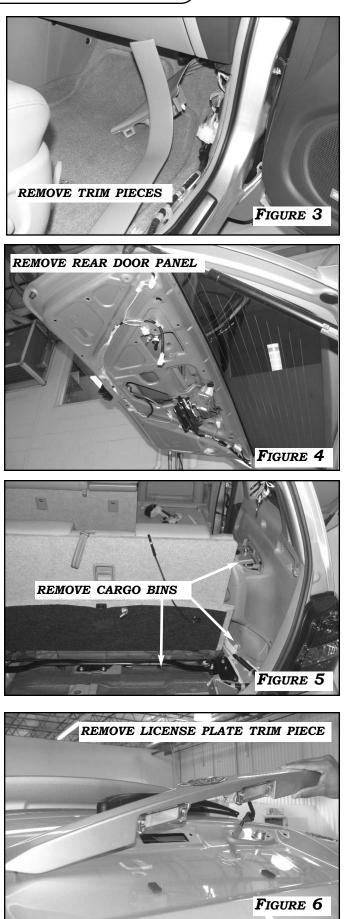
**2.** Remove overhead console by removing the philips screws in the sunglass holder and pulling down the map light console as shown **Figure 2**. Remove the passenger sunvisor retaining clip.

**3.** Remove or Loosen Passenger side trim panels including: A-pillar trim, kick panel and door sill trim; B-pillar kick panel and rear door sill trim. Remove the black compartments in the passenger side rear cargo floor. **Figures 3-5** 

**4.** Remove the molded trim piece above the license plate by removing five (5) 10mm nuts and two (2) plastic clips. (**Figure 6**) Mask the door around the trim piece to prevent scratching during removal.







## INSTALLATION

# INSTALLING MONITOR/MIRROR

1. MOUNT REARSIGHT MIRROR ON EXISTING WINDSHIELD LUG AND TIGHTEN SCREW. (FIGURE 7) ROUTE MIRROR HARNESS UP WINDSHIELD AND BEHIND THE HEADLINER TO CONSOLE OPENING. ROUTE THE END OF THE CAMERA EXTENSION HARNESS MARKED "TO MIRROR" WITH THE MALE CONNECTORS UP THE CENTER OF THE WINDSHIELD AND BEHIND HEADLINER TO THE CONSOLE OPENING. FIGURE 8

2. CONNECT MALE RCA VIDEO CONNECTOR OF CAMERA EXTEN-SION HARNESS TO VIDEO 1 INPUT (BLACK CABLE) OF MIRROR HARNESS. CONNECT MALE DC POWER CONNECTOR OF CAMERA EXTENSION HARNESS TO CAMERA POWER 1OUTPUT (GREEN CABLE) OF REARSIGHT MIRROR HARNESS. WRAP ALL RCA AND DC CONNECTORS WITH THE FOAM TAPE PROVIDED. FIGURE 9

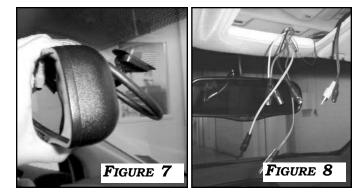
### ROUTING HARNESSES AND POWER CONNECTION 1. ROUTE CAMERA EXTENSION HARNESS AND MIRROR POWER

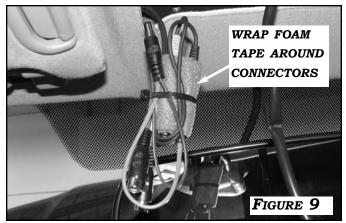
1. ROUTE CAMERA EXTENSION HARNESS AND MIRROR POWER HARNESS (RED, BLACK AND WHITE WIRES) ABOVE HEADLINER TO PASSENGER-SIDE A-PILLAR. ROUTE HARNESSES DOWN THE A-PILLAR USING THE FACTORY RETAINING CLIPS WHENEVER POSSI-BLE. IF THE VEHICLE HAS SIDE CURTAIN AIRBAGS, BE SURE TO SECURE THE HARNESS SO THAT IT DOES NOT INTERFERE WITH AIRBAG DEPLOYMENT. ROUTE THE HARNESSES FROM THE A-PIL-LAR TO THE KICKPANEL. FIGURE 10 2. Non-Hybrid

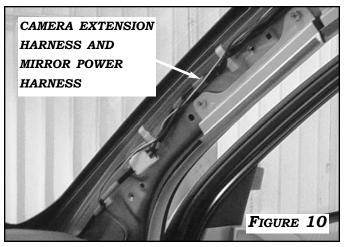
Locate gray connector IN1 at the passenger side KICKPANEL. Use the supplied red T-Tap to connect Black Ground wire of the Mirror Power Harness to the White/Black wire in Pin 1 of connector IN1. Locate white connector IM1 below the glove box area near the kickpanel. Use the supplied red T-Tap connectors to connect the White Reverse wire of the Mirror Power Harness to the Red/Black wire in Pin 20 of connector IM1 AND Red Ignition wire of the Mirror Power Harness to the Red wire in Pin 10 of connector IM1. FIGURES 11-12.

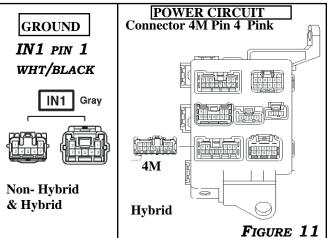
**3. Hybrid:** LOCATE GRAY CONNECTOR IN1 AT PASSENGER SIDE use red T-Tap to connect **Black Ground Wire to** white/black IN1 connector pin 1. Connect white reverse H13 connector pin 29 red. Connect red ignition wire to **the Pink wire** in **Pin 4** of connector **4M** SECURE ALL HARNESSES WITH WIRE TIES **FIGURES 11-12**.

4. Route the camera extension harness from the kickpanel under the front and rear door sill trim and beside the rear seat to the cargo area. Use the factory wire channels and retaining clips. Route the harness along the floor under the right rear trim panels and up the right D-pillar above the headliner to the rear door hose grommet. Pull the harness through the hose, using soapy water as a lubricant. Route the harness from the hose inside the rear door to the arear where the license plate trim piece was removed. Figure 13-14 Follow the factory harnesses where possible. Secure the harness with wire ties or foam tape.









### INSTALLATION

### MOUNTING CAMERA AND PCB



### Installation Temperature

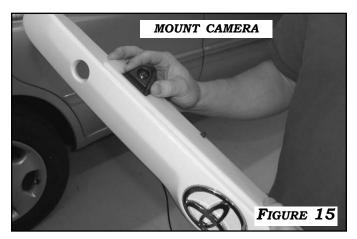
Surface temperature must be between  $70^{0}$  F and  $110^{0}$  F for optimum installation.

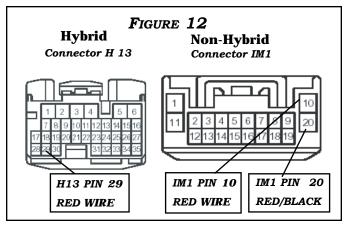
1. CLEAN THE RIGHT SIDE OF THE BOTTOM OF THE LICENSE PLATE TRIM PIECE WITH ALCOHOL. MATE THE TRIM PIECE TOGETHER WITH THE REARSIGHT HIGHLANDER REAR CAMERA MOUNTING FIXTURE USING THE MOUNTING BOLTS AS A GUIDE AS SHOWN IN FIGURE 15. PEEL THE CLEAR LINER OFF OF THE DOUBLE-SIDED TAPE ON THE CAMERA ASSEMBLY -AND MOUNT THE ASSEMBLY TO THE TRIM PIECE USING THE FIX TURE FOR ALIGNMENT. BE SURE TO PUSH THE CAMERA ASSEMBLY FIRMLY INTO THE GAP IN THE FIXTURE, AND PRESS DOWN FIRMLY ON THE TRIM PIECE FOR FIVE SECONDS BEFORE RELEASING. REMOVE THE MOUNTING FIXTURE FROM THE TRIM PIECE. USING WIRE TIES TO SECURE IT, ROUTE THE CAMERA HARNESS ALONG THE TRIM PIECE HARNESS AS SHOWN IN FIGURE 16.

#### NOTE: PRIOR TO USING THE REQUIRED DRILL BIT IN THE NEXT STEP APPLY TAPE TO THE INTERIOR OF THE DECK LID. THIS WILL KEEP THE METAL SHAVING CONTAINED. FIGURE 17

2. Using the special RearSight hole saw or a stepdrill bit, enlarge the 13mm hole used by the grommet on the trim piece harness to 1-1/16" as shown in Figure 17. (Vacuum shavings) Deburr the hole and coat the edge with approved silicone sealant. Cut the grommet from the harness and discard. Replace it with the supplied 1.25" rubber grommet by cutting a slit in it and sliding it over the harness. Enlarge the center hole as necessary. Be sure to place the grommet in between the camera assembly and in-line PCB as shown in Figure 16.

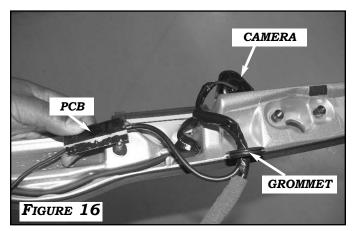
3. REPLACE THE LICENSE PLATE TRIM PIECE ONTO THE VEHI-CLE AND MOUNT THE GROMMET TO THE HOLE AS SHOWN IN FIGURE 18. USE THE SUPPLIED SEALING PUTTY WHERE THE HARNESSES EXIT THE GROMMET. USING THE SUPPLIED 1x2" PIECE OF DOUBLE-SIDED TAPE, MOUNT THE PCB TO THE INSIDE OF THE REAR DOOR AS SHOWN IN FIGURE 18.
4. CONNECT RCA CONNECTOR AND DC POWER CONNECTOR OF CAMERA HARNESS TO THE EXTENSION HARNESS. WRAP RCA AND DC CONNECTORS WITH FOAM TAPE PROVIDED. PROPERLY BUNDLE AND SECURE EXCESS HARNESS INSIDE OF REAR DOOR. BE SURE HARNESS IS NOT BINDING AND IS CLEAR OF MOVING PARTS.











## **TESTING AND REASSEMBLY**

### TESTING



1. RECONNECT NEGATIVE BATTERY CABLE AND TORQUE TO 3 FT LBS, IF NOT DONE DURING CAMERA INSTALLATION STEP 6. RE-ENTER ANY THEFT DETERRENT INFORMATION, IF APPLICABLE.



**2.** TURN THE IGNITION SWITCH **ON**. PUT THE VEHICLE IN REVERSE. VERIFY THAT THE REARSIGHT MIRROR IS ON AND THAT THE CAMERA'S PICTURE APPEARS.

**3.** IF THERE IS NO PICTURE, VERIFY ALL CONNECTIONS ARE SECURE.

### REASSEMBLY

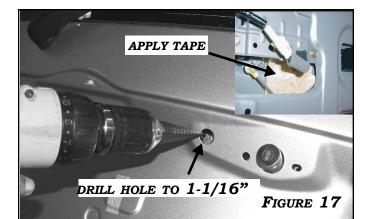


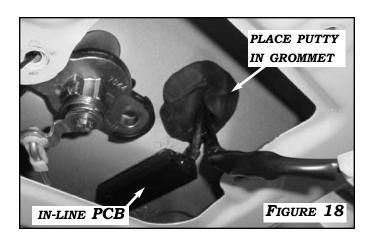
**1.** REINSTALL ALL TRIM PIECES TAKING SPECIAL CARE TO ENSURE HARNESSES AND WIRING CONNECTIONS ARE PROPERLY SECURED.

**2.** BE SURE HARNESS IS NOT PINCHED OR BOUND BY TRIM PIECES.

**3.** PLACE THE OWNER'S CARD IN THE GLOVE BOX.

**4.** RECONNECT ALL DISCONNECTED BULBS AND CHECK FOR FUNCTION.







<b>\</b>	Section III - Functional Verifications				
v	Check:	Look For:			
Acces	sory Function Checks				
	Turn the ignition switch to ON	Verify camera picture comes on. (Image will			
	and put vehicle in reverse.	disappear when vehicle is taken out of gear)			
	With ignition switch ON & vehicle out of gear press "REV"	Verify camera picture comes on.			
	With ignition switch ON & vehicle out of gear press "REV" again.	Verify camera picture turns off.			
	<b>NOTE:</b> PUTTING THE VEHICLE INTO REVERSE WILL INTERRUPT ANY CURRENT IMAGE ON THE SCREEN AND DISPLAY THE IMAGE FROM THE BACK -UP CAMERA UNTIL THE VEHICLE IS TAKEN OUT OF REVERSE. PRESSING AND RELEASING ANY INPUT BUTTON IN UNDER 1 SECOND WILL TURN THAT INPUT ON FOR 20 SECONDS. PRESSING AND HOLDING ANY INPUT BUTTON FOR LONGER THAN 1 SECOND AND THEN RELEASING IT WILL TURN THAT INPUT ON INDEFINITELY. THE INPUT CAN THEN BE TURNED OFF BY PRESSING THE BUTTON AGAIN, BY SWITCHING TO ANOTHER INPUT, OR BY TURNING OFF THE VEHICLE.				
Vehic	cle Function Checks				
	Overhead Map Light Operation	Map lamps should turn on/off.			
	Third brake light (Spoiler Installed Only)	Verify light turns on/off.			
	Rear Tailgate Glass Operation	Operates with no interference of wires.			
	Radio Operation (Check by placing vehicle	Radio should operate normally.			
	reverse gear)				

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**REAR SIGHT** 

## APPENDIX

### **INSTALLING THE FUSE HARNESS**

PRIOR TO CONNECTING THE RED WIRE OF THE REARSIGHT MIRROR POWER HARNESS TO THE SPECIFIED IGNITION WIRE IN THE VEHICLE, CONNECT THE SUPPLIED FUSE HARNESS TO THE RED "IGNITION" WIRE OF THE MIRROR POWER HARNESS BY MATING THE INSULATED CONNECTORS. THEN CONNECT THE OTHER END OF THE FUSE HARNESS TO THE SPECIFIED IGNITION WIRE IN THE VEHICLE.

