Section I – Installation Preparation

## **Part Number:**

PTS21-52053-03 (Red Light Enhancement) PTS21-52053-05 (Amber Light Enhancement) PTS21-52053-06 (Green Light Enhancement) PTS21-52053-08 (Blue Light Enhancement)

## **SE Kit Contents**

Item #	Quantity Reqd.	Description
1	2	14" Light Guide
2	1	Wire harness
3	1	Hardware bag
4	2	LED module
5	1	Switch Kit
6	1	Cup Lighting Kit

### LED Kit Contents (any color)

#### Hardware Bag / Switch Kit / Cup Holder Kit

Item #	Quantity Reqd.	Description
Hardware Kit		
1	4	Bracket w/plastic mount
2	4	#8-32 Screws
3	4	<sup>1</sup> / <sub>4</sub> " Wire ties
4	5	1/8" Wire ties
5	3	Т-Тар
6	1	Spacer
7	3	Foam tape
Switch Kit		
8	1	Switch
9	1	Button
10	1	Switch bezel
11	1	Switch plate
Cup Holder Kit		
12	1	Cup holder LED w/harness
13	2	Lenses

## **Additional Items Required For Installation**

Item #	Quantity Reqd.	Description
1a	1 per vehicle	xA (1) Lt/Rt Drill Fixtures

### Conflicts

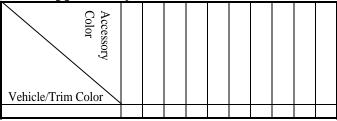
Note: Accessory Cup Holder Light Illumunation

#### **Recommended Tools**

Safety Tools		
Vehicle protection		
Safety glasses		
Special Tools		
<b>Installation Tools</b>		
Phillips screwdriver	#2 Phillips	
Pliers	for T-Taps	
10mm wrench		

	•
Diagonal cutter	or wire tie tool
Drill motor	
1/2" Drill bit.	UniBit or step drill rec.
#20 Drill bit	
Letter "J" Drill bit	
Scissors	
Nylon Remove Tool	
Scribe or Center punch	
Masking tape	
Panel clip tool.	
Electrical tape	
Wiping cloth	Non-scratch
Special Chemicals	
Window cleaner	VDC Approved
Adhesive Remover	3M Citrus Based Industrial

## **Color Applicability/Trim Level**



### **General Applicability**

Note: xB SE only

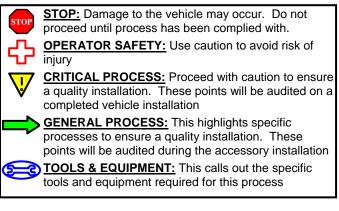
**Distilled Water** 

### **Recommended Sequence of Application**

Item #	Accessory	
1A	Interior Light Upgrade	
1B	Satellite Radio	Any combination of
1C	Sub-Woofer	these accessories should
1D	Radio	be installed in
1E	Security	conjunction with the
	-	Interior Light Upgrade

\*Mandatory

## Legend



Cleaner or equivalent

# SCION xA/xB Light Enhancement

2006 - INTERIOR LIGHT UPGRADE

Section II – Installation Procedure

## A. Check Kit Contents

- 1. Check kit for content and damage.
- **B.** Vehicle Preparation
- <sup>or</sup> 1. Remove battery negative terminal
- <sup>op</sup> 2. Apply protective covering to vehicle interior.

## C. Remove Center/Lower Dash

## xA Only (C1-C4)

1. Remove the silver side trim. (Fig. C1)

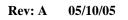


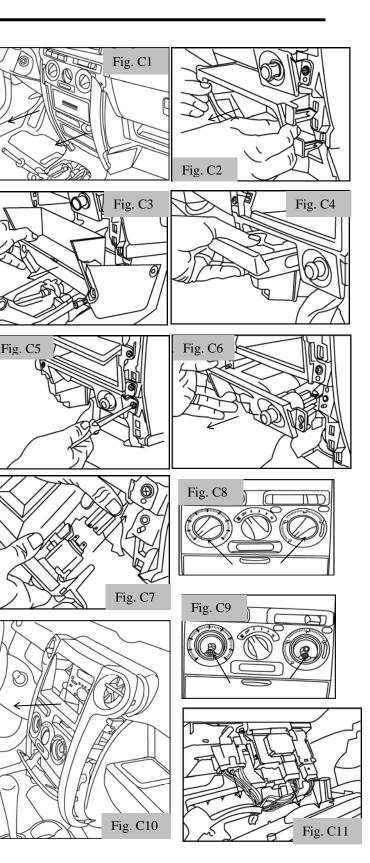
i. Pull the silver side trim straight back.

- 2. Remove storage box fascia by pulling straight back. (Fig. C2)
- 3. Remove the lower cover.
- i. Using a clip removal tool, remove the (2) push fasteners.
  - ii. Remove the lower cover by pulling straight back. (Fig. C3)
- 4. Remove the ashtray/lighter panel.
  - i. Remove the ashtray. (Fig. C4)
  - ii. Remove the (2) screws and pull the panel straight back. (Fig. C5 & C6)
  - iii. Disconnect the lighter connector from the back of the panel. (Fig. C7)

## xB Only (C5-C11)

- 5. Remove the (2) outer ventilation knobs. (Fig. C8)
- 6. Remove the (2) screws. (Fig. C9)
- 7. Pull straight back on the panel. (Fig. C10)
- 8. Disconnect the (3) connectors from the back of the panel. (Fig. C11)





## SCION xA/xB Light Enhancement Section II – Installation Procedure

- 2006 INTERIOR LIGHT UPGRADE
- 9. Remove the storage bin/ashtray/lighter panel by pulling straight back. (Fig. C12)
- 10. Disconnect the lighter connector from the panel. (Fig. C13)
  - i. When applicable, disconnect the Fog Light switch and/or Security Status Monitor connectors.
- 11. Remove the lower cover.
  - i. Using a panel tool, remove the (1) x-mas tree fastener on the passenger side.
  - ii. Remove the lower cover by pulling straight back.

## **D.** Remove Center Console

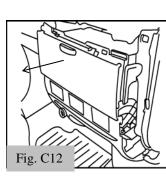
- 1. Remove the felt pad from the rear compartment.
- 2. For manual transmission vehicles, remove the shift knob. (Fig. D1)
- 3. Remove the 10mm bolt from inside the rear compartment. (Fig. D2)
- Remove the hand brake slot cover by lifting. (Fig. D3)
- 5. Lift up at the front of the console to release the (2) clips. (Fig. D4)
- 6. Remove the console.

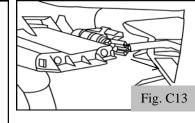
## E. Install Main Wire Harness

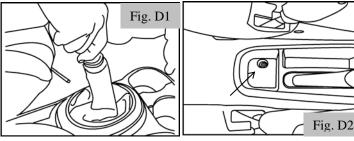
- 1. Distribute wire harness as shown. (Fig. E1)
- 2. Route the Red (power) and Black (ground) and the (2) short LED pigtails forward and under the carpet and out through the opening just under the heater duct. (Fig. E2 & E3)

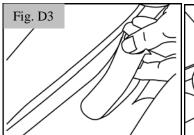
Rev: A 05/10/05

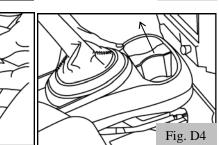
Page 3 of 11 pages PPO

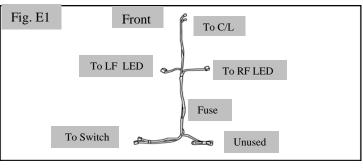


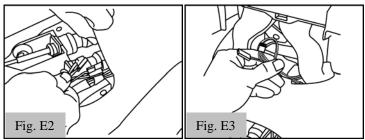










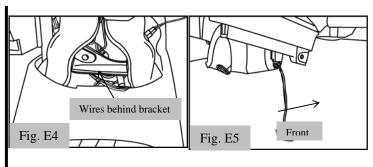


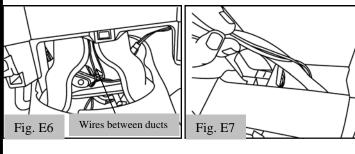
## SCION xA/xB Light Enhancement Section II – Installation Procedure

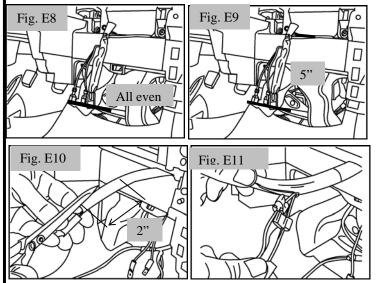
- 3. Front LED Pigtail Routing

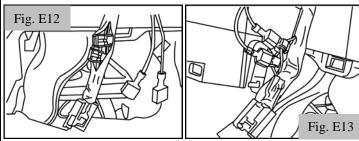
4. Feed the (2) front LED pigtails connectors under the metal bracket. (Fig. E4)

- i. Feed the pigtails out in front of the heater ducts and to the sides. (Fig. E5)
- 5. Power Supply and Ground Routing
- Feed the wires up and behind the metal bracket, between the heater ducts and follow the routing of the cigarette lighter (C/L) wire harness. (Fig.E6) Continue following the routing of the C/L harness (Fig. E7) and feed the wires until the end of the spade terminals are even with the end of the C/L connector. (Fig. E8)
- 6. Wire tie the Red and Black wires to the C/L harness about 5" from the connector. (Fig. E9)
- Using scissors, slit the black plastic sleeve covering the C/L harness about 2" from the end of the sleeve. (Fig. E10)
- 8. Pull back the covering and apply the T-Tap connectors to the C/L wires near the end of the slit in the covering.
  - i. Stagger the locations of the T-Taps, DO NOT line them up. (Fig. E11)
- 9. Close the sleeve and tape it closed just ahead of the T-Taps. (Fig. E12)
- 10. Insert spade connector of the Red wire into the T-Tap of the Black wire. (Fig. E13)
- 11. Insert spade connector of the Black wire into the T-Tap of the White/Blk wire. (Fig. E13)









- 12. Feed the harness rearward.
  - i. Wire tie the harness as shown. Wire tie the fuse holder on top of the factory harness.(Fig. E14)
  - ii. Wire tie the unused, bundled, rear light guide harness to the vehicle harness as shown. (Fig. E15)
- F. Install the LED Modules to the Light Guides
  - 1. Push the LED Module (**L/M**) firmly onto the Light Guide (**L/G**).
    - i. The L/M is installed on the "clear" end of the L/G. **Do not** install the "reflector end" of the L/G into the L/M. (Fig. F1)
    - ii. The L/G should be oriented with the white "reflector" at the top with the wires of the L/M directed forward. (Fig. F2)
  - 2. Assemble the (2) L/G assemblies.

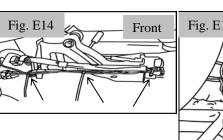
\!/

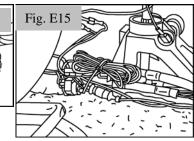
i. The L/M are oriented toward the center of the vehicle with the wires directed forward. (Fig. H3)

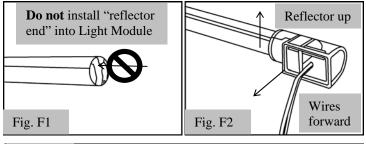
## G. Install Light Guide Assembly, Front

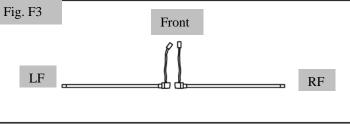
- Apply masking tape to the areas where the drill fixture will come into contact with the lower dash.
  - 2. Install the lower dash drilling fixture.
    - i. Driver Side (Fig. G1)
    - ii. Passenger Side (Fig. G2)
  - 3. Drill the holes with a #20 drill bit.
  - 4. Remove the masking tape.
- 5. Install the metal bracket/plastic mount assemblies to the lower dash holes. (Fig G3)

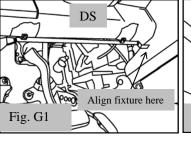
Rev: A 05/10/05

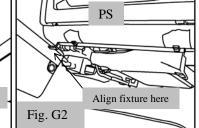


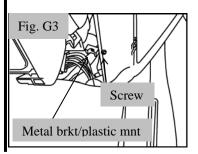












## SCION xA/xB Light Enhancement Section II – Installation Procedure



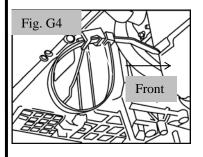
- i. The plastic mount faces down.
- ii. The threaded metal bracket/plastic mounts are installed behind the panels.
- iii. The screws are threaded from the front of the panel into the brackets.
- 6. Tighten the 8-32 screws but be careful not to over tighten.
- Install the Light Guide assembly to the plastic mounts using the <sup>1</sup>/<sub>4</sub>" wire ties.
  - i. Feed the wire ties into the plastic mounts from rear to front, orienting the wire tie "heads" toward the front of the vehicle. (Fig. G4)
    - ii. Be sure the wire tie goes through both "loops" of the plastic mount. (Fig. G4)
  - iii. Do not fully tighten at this point.
  - iv. Insert the L/G assemblies into the mounts. The L/G assemblies should be oriented with the white "reflector" at the top, the L/M positioned toward the center of the vehicle with the wires forward. (Figs. G5 & G6)
  - v. Fully tighten the wire ties and cut off excess.
  - vi. The L/G can still be re-oriented as desired.
- Plug the L/M connector into the wire harness LED pigtail connector. (Fig. G7)

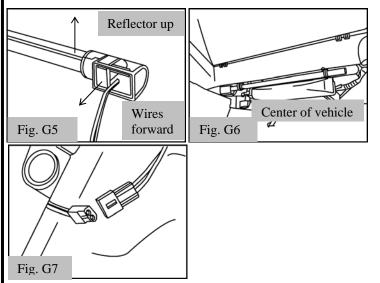
## H. Install Switch

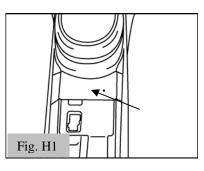
- Align the metal template flush with the bottom of the pocket and use a center punch/scribe to mark the center of the hole to be drilled. (Fig. H1)
  - i. Do not drill through the template, as the template could damage the console.

Rev: A 05/10/05

Page 6 of 11 pages PPO









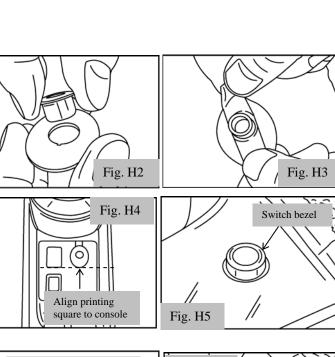
**\** 

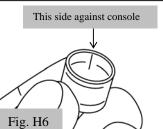
**\!**/

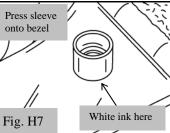
- 2. Pilot drill the center mark using the #20 drill bit.
- 3. Using a 1/2" drill bit (Uni-bit or step drill is highly recommended), drill the switch hole.
- 4. Clean the console surface to remove grease and wax.
  - Wipe the application area clean with 3M
    Prep Solvent 70 and a clean no-scratch cloth.
    - ii. Rinse the application area clean with distilled water and a clean no-scratch cloth.
  - iii. Dry the installation area using a clean, dry, lint free cloth.
- 5. Insert switch bezel into the switch plate. (Fig. H2)
- 6. Using the pull-tab, remove the tape liner from back of switch plate. (Fig. H3)
  - i. Avoid finger contact with the adhesive surface.
- Using the bezel as a guide, install switch plate/bezel into the previously drilled <sup>1</sup>/<sub>2</sub>" hole.
  - i. Align the printing "ILLUMINATION" square to the console. (Fig. H4)
  - ii. Once aligned, press down firmly to adhere tape.
- 8. Install sleeve to bezel.

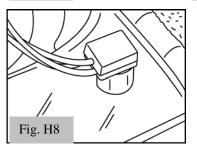
I,

- i. The "white" ink end of the sleeve must be installed against the console. (Fig. H5, H6&H7)
- 9. Install switch to bezel as shown. (Fig. H8)
  - i. Turn switch clockwise to tighten.









2006 - INTERIOR LIGHT UPGRADE

Rev: A 05/10/05

Page 7 of 11 pages PPO

## SCION xA/xB Light Enhancement

#### 2006 -**INTERIOR LIGHT UPGRADE**

Section II - Installation Procedure

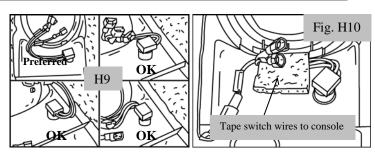
- ii. Be careful not to over tighten as this will "over ride" the threads on the switch. If this happens simply retighten being careful not to over tighten.
- iii. It is preferable that the wires face toward the center of the console but the orientation of the wires is not critical. (Fig. H9)
- 10. Affix the switch wires to the back of the console as shown.
  - i. Clean the area as described in Section H. steps 4i-4iii
  - ii. Tape the wires to the back of the console as shown. Fig. H-10
- 11. Install button onto switch by inserting button into bezel and pressing to engage. (Fig. H11)

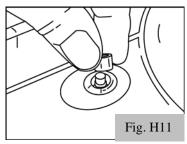
#### I. **Cup Holder Light Installation**

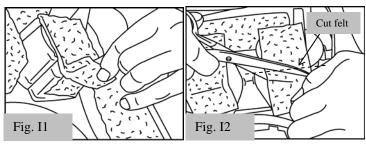
- 1. From back of cup holders, remove as much felt/adhesive as possible. (Fig. I1)
  - i. Using scissors, cut felt close to cup holder as shown. (Fig. I2)
  - ii. Using adhesive remover, remove remaining felt/adhesive.
  - iii. Remove just enough felt/adhesive to expose the two "targets" for drilling. (Figs. I3&I4))
- 2. Drill the Cup Holders
  - i. Pilot drill the centers of the two "targets" using the #20 drill bit. (Fig. I5)
  - ii. Enlarge the holes using the Letter "J" drill bit.
- 3. Install the Cup Holder LEDS.
  - i. From inside the cup holders, insert the lenses into the previously drilled holes. Press firmly to ensure the lenses are fully seated. (Fig. I6)

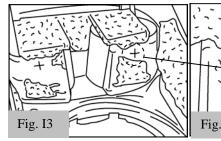
05/10/05 Rev: A

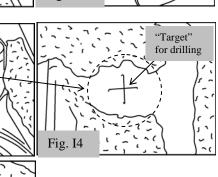
Page 8 of 11 pages PPO

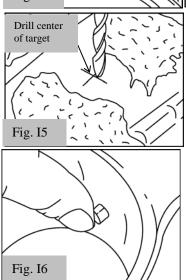












#### 2006 -**INTERIOR LIGHT UPGRADE**

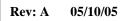
#### SCION xA/xB Light Enhancement

Section II - Installation Procedure

- ii. From the back of the cup holders, install the LEDs onto the lenses. Press firmly to ensure the LEDs and lenses are fully engaged. Hold the lenses from inside the cup holder while pressing.
- iii. Install the LED with the long extension wires in the passenger side cup holder. The remaining LED is installed in the driver side cup holder. (Figs. I7 & I8)
- Connect the LED (White) "B" extension wire 4. to the (Black) "B" switch wire. (Fig. I9)
  - 5. Affix the LED wires to the back of the console.
    - i. Clean the area as described in Section H. steps 4i-4iii.
    - ii. Using the foam tape, tape the wire to the backside of the console between the cup holders as shown. (Fig. I10)
- 6. Bundle the excess white wire and foam tape the black and white wires to the inside PS of the console as shown.
  - i. The foam tape can be applied directly to the felt. (Fig. I11)

## J. Install Console

- 1. Install the T-tap onto the Interior Light Upgrade wire harness Black wire at the blue tape on shifter tower as shown. (Figs. J1 & J2)
  - 2. Place console over location
  - 3. Connect all wires.
  - i. Connect the Console Black LED wire to the previously installed Black wire T-tap. (Fig. J1)
    - ii. The wires are all marked. Simply connect a console switch wire connector to the corresponding wire harness connector. (Fig. J3, console lifted for clarity)

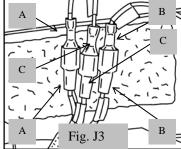


**, I**,

Fig. I7 Install LED with long wires on this side (PS). Fig. I8 в в Fig. I9 Fig. I10 Fig. I11 Bundle excess white wire Tape LED wires to console and tape LED wires to PS A/T T- tap M/T T- tap Blue tape Blue tape Fig. J1 Fig. J2 Fig. J2 А Cup holder LED  $\overline{\mathbf{O}}$ Black wire Blue ta С

Harness Black wire with T-tap

PPO



## **K.** Post Installation

- 1. Reinstall the Interior
- 2. Re-attach battery negative terminal
- 3. Clean Light Guides using window cleaner and a non-scratch cloth.
- 4. Cycle test the system with key in ACC or ON. The cycle may start from any step below but should cycle in this order.
  - i. All lights off
  - ii. Cup holder lights on only.
  - iii. All lights on.
  - iv. Interior Light on only.
  - v. Back to step "i".
- 5. The switch should be cycled to step "i" (all lights off) for shipment.

Section III – Functional Verifications

Check:

Operation of Light Guide assemblies

Single Unoperational Module

## No Operational Modules

Lights "Off" for shipment

Look For:

- Full engagement of affected LED Module to LED wire harness pigtail connector
- Full engagement of all LED Module to LED wire harness pigtail connectors.
- Power connnection
- Ground connection.
- Switch connections.
- Blown light kit fuse. (2Amp, located under center console)
- Blown cigarette lighter fuse (see vehicle owners manual for Amperage and location.)