2009 -

Preparation

Part Number: Mounting Kit PT546-12080

Tuner Assembly 86180-0W031

(Music Only)

**Tuner Assembly PT546-00090** 

(Music Plus Data)

NOTE: Part number of this accessory may not be the same as the part number shown.

## **Tuner Assembly Kit Contents (86180-0W031)**

Item #	Quantity Reqd.	Description
1	1	Tuner Assy, Stereo Component

## **Mounting Kit Contents (PT546-12080)**

- 1 g 1 1 1 1 1 ( 1 1 1 1 1 )		
Item #	Quantity Reqd.	Description
1	1	Tuner Bracket A
2	1	Tuner Bracket B
3	1	Antenna Cable
4	2	Hardware Bags

### **Hardware Bag Contents – 1 (PT546-12080)**

Item #	Quantity Reqd.	Description
1	4	Screw (M5xL8)
2	2	Nut (M6)

## **Hardware Bag Contents – 2 (PT546-12080)**

Item #	Quantity Reqd.	Description
1	2	Cushion Tape (50 x 100mm)
2	1	Protective Sheet (20 x 80mm)
3	3	Sheet Tape (30 x 30mm)
4	1	Lock Tie (Antenna Cable)

## **Additional Items Required For Installation**

Conflict	ts	

### **Recommended Tools**

Personal & Vehicle Protection	Notes	
Special Tools	Notes	
<b>Installation Tools</b>	Notes	
Ratchet		
Extensions		
Sockets	10mm, 12mm, 14mm	
Torque Wrench	4.1N•m (36 lbf•in), 18 N•m (13 lbf•ft), 37 N•m (27 lbf•ft), 42 N•m (31 lbf•ft)	
Screwdriver	Philips, #2	
Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST#00002-06001- 01	
Side Cutter		
Special Chemicals	Notes	

### **General Applicability**

### **Recommended Sequence of Application**

Item#	Accessory

\*Mandatory

## Vehicle Service Parts (may be required for reassembly)

		` ' '	
Item #	Quantity Reqd.	Description	

### Legend



**STOP:** Damage to the vehicle may occur. Do not proceed until process has been complied with.



**OPERATOR SAFETY:** Use caution to avoid risk of injury.



<u>CAUTION:</u> A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.



**TOOLS & EQUIPMENT:** Used in Figures calls out the specific tools and equipment recommended for this process.



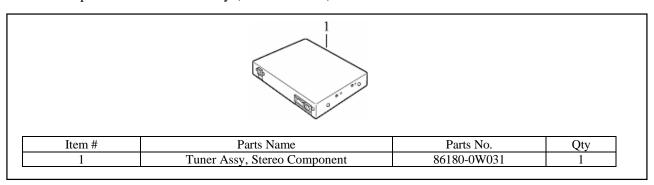
<u>**REVISION MARK:**</u> This mark highlights a change in installation with respect to previous issue.

Issue: B

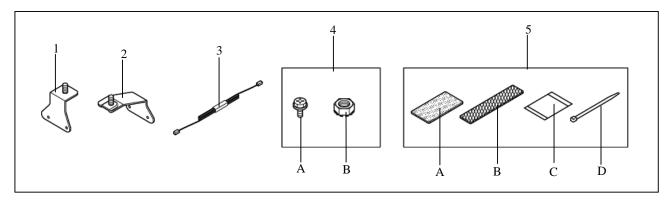
04/16/08

# Parts Description of Tuner Assembly (86180-0W031)

Matrix



# Parts Description of Mounting Kit (PT546-12080)



Item #		Parts Name	
1	1 Tuner Bracket A		1
2 Tuner Bracket B		1	
3 Antenna Cable		Antenna Cable	1
4	A	Screw (M5xL8)	4
4	В	Nut (M6)	2
	A	Cushion Tape (50 x 100mm) 2	
5	В	Protective Sheet ( 20 x 80mm)	1
	С	Sheet Tape (30 x 30mm)	3
	D	Lock Tie (attenuator cable)	1

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:-

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Toyota dealer for a copy of this document.

#### **NOTES**



Removed Parts: -

Place all removed parts on a protected surface.



Connectors: -

When disconnecting connectors, do not pull on the wires; pull on the connectors.



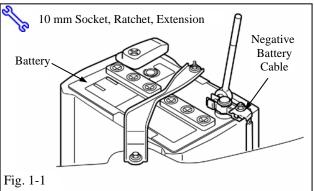
Lock Ties: -

When using lock ties to secure harness, clip the lock ties after securing them.



Machine Screws: -

Start all machine screws by hand.



## 1. Disassembly of Vehicle.

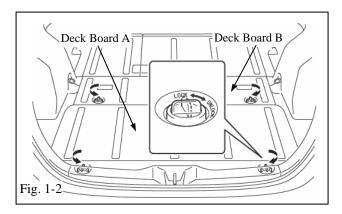
(a) Disconnect the negative battery cable of the battery installed on the left side of the engine compartment. (Fig. 1-1)



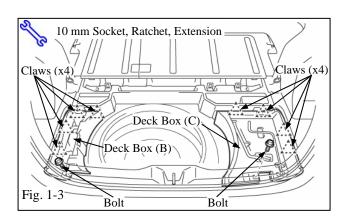
(1) Protect the fender before starting.



(2) Do not touch the positive terminal with any tool when removing cable.

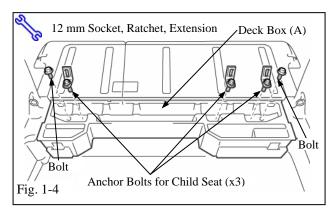


(b) Remove the deck board A and deck board B from the cargo area. (Fig. 1-2)

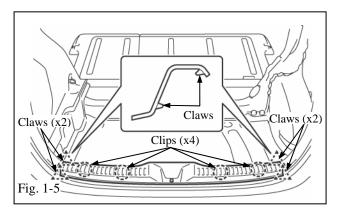


**Matrix** 

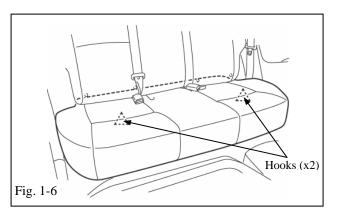
(c) Remove the two (2) installation bolts and eight (8) claws, and remove the deck box (B and C) from the cargo area. (Fig. 1-3)



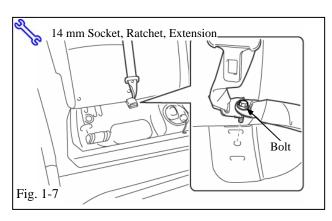
(d) Remove the two (2) installation bolts and three (3) anchor bolts for the child seat, and remove the deck box (A) from the cargo area. (Fig. 1-4)



(e) Disengage four (4) clips and (4) claws, and remove the deck trim cover. (Fig. 1-5)



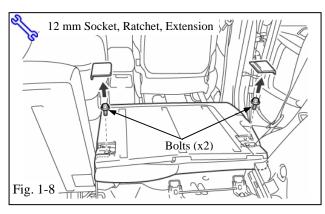
- (f) Remove the rear seat as follows:
  - (1) Disengage two (2) hooks and remove the rear seat cushion. (Fig. 1-6)



(2) Remove the rear center seat belt installation bolt. (Fig. 1-7)



**NOTE:** Be careful not to scratch or damage the vehicle body with the seat belt components. Apply masking tapes around the metallic parts of the seat belt.

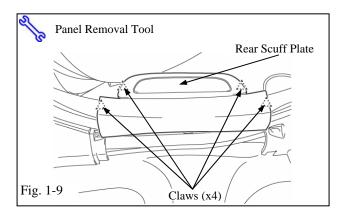


- (3) Fold down the seatback of the right side rear No.1 seat, and then remove the cover to locate the bolts.
- (4) Unbolt and remove the right rear seatback. (Fig. 1-8)



**NOTE:** Be careful not to damage the seat, door and other vehicle parts when removing the seat from the vehicle.

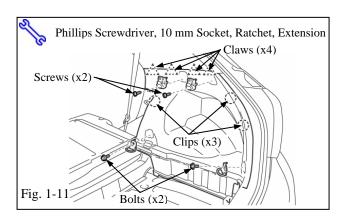
(g) Disengage the four (4) claws and remove the right side rear scuff plate. (Fig. 1-9)



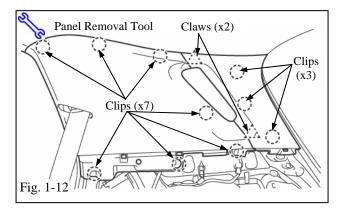
- 12 mm Socket, Ratchet, Extension

  Claws
  (x4)

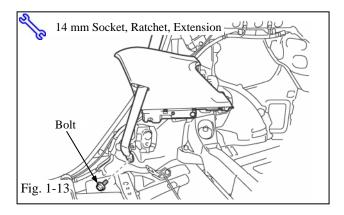
  Fig. 1-10
- (h) Remove the bolt, disengage the clip, four (4) claws and remove the rear side cover.(Fig. 1-10)
  - (1) Remove one (1) rear seat back hinge bolt.
  - (2) Move the seatbelt toward the direction shown in the figure, and detach it from the cover. Then remove the rear side cover.



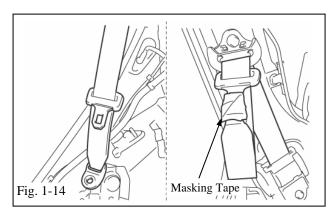
(i) Remove the two (2) screws, two (2) bolts, four (4) claws, and three (3) clips. Then remove the deck trim lower side panel. (Fig. 1-11)



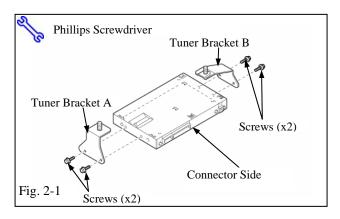
- (j) Disengage two (2) claws and three (3) clips, and then remove the right side of the rear deck trim upper side panel. (Fig. 1-12)
- (k) Disengage the seven (7) clips. (Fig. 1-12)



(l) Remove the seatbelt anchor bolt, then remove the front side panel of the right side deck trim upper side panel from the seat belt. (Fig. 1-13)



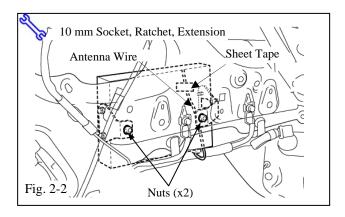
**NOTE:** Apply the masking tape to the removed seatbelt anchor for protection and secure it to the body. (Fig. 1-14)



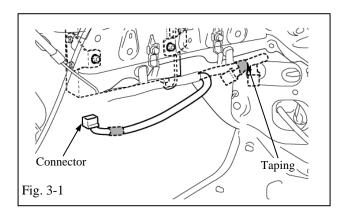
**Matrix** 

## 2. Install the Tuner.

(a) Attach the brackets to the tuner. (Fig. 2-1)



- (b) Install the antenna connector to the tuner. (Fig. 2-2)
- (c) Route the antenna cable to the back side of the tuner and secure the cable to the tuner as shown in the figure by using one (1) sheet tape. (Fig. 2-2)
- (d) Install the tuner with the brackets to the body using two (2) Nuts as shown. (Fig. 2-2)

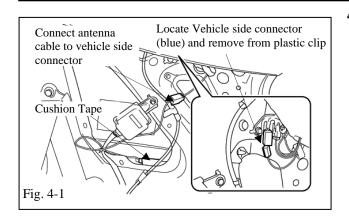


### 3. Install the Tuner Cable.

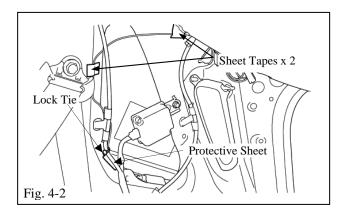
- (a) Remove the taping on the vehicle wiring harness. (Fig. 3-1)
- (b) Insert the wiring harness connector to the tuner.

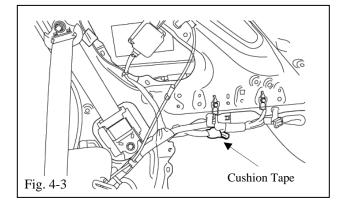
Issue: B

04/16/08



**Matrix** 





### 4. Install the Antenna Cable.

- (a) Locate the vehicle side antenna connector (Blue) as shown and Remove from vehicle plastic clip. Plastic clip should remain attached to vehicle bracket. (Fig 4-1)
- (b) Attach antenna cable to vehicle side connector (blue). (Fig. 4-1)
- (c) Secure antenna cable bundle to the top of the tuner using a cushion tape. (Fig 4-1)
- (d) Attach the protective sheet to the edge of the body panel as shown. (Fig. 4-2)
- (e) Route antenna cable and secure the antenna cable to the vehicle body panel using a two (2) sheet tapes as shown. (Fig. 4-2)
- (f) Secure the data link connector to the vehicle harness using a cushion tape. (Fig. 4-3)

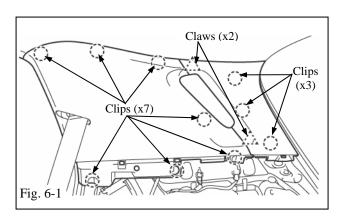
#### 5. In Process Functional Test.

- (a) Temporarily reconnect negative battery cable.
- (b) Turn ignition key to "ACC" position.
- (c) Press the power button on the receiver/player head unit. Verify the backlighting illuminates.
- (d) Press and release the "SAT" button on the head unit.
  - (1) Verify that a satellite channel is received, or a "NO SIGNAL" message appears on the display.

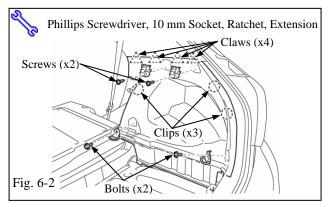
**NOTE:** If "ANTENNA" appears (flashing) on the display - then the antenna cable is disconnected from the satellite tuner.

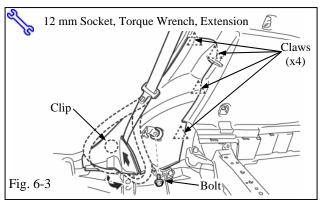
**NOTE:** If the head unit will not tune or go into satellite mode - then the tuner cable is disconnected from the satellite tuner.

(e) Disconnect negative battery cable.



**Matrix** 





## Complete the Reassembly of Vehicle.

- (a) Re-install the right side deck trim upper side panels. (Fig. 6-1)
  - (1) Install the front right deck trim upper side panel.
  - (2) Install the rear right deck trim upper side panel.
  - (3) Install the rear seatbelt.
- (b) Verify the panels fit together properly with no uneven gaps between them.
- (c) Install the deck trim lower side panel and secure it by using two (2) screws and two (2) bolts. (Fig. 6-2)
- (d) Install the rear side cover.
  - (1) Install the rear side cover and move the seatbelt in the direction shown in the figure. (Fig. 6-3)
  - (2) Install the rear seat back hinge. Tighten bolt to 18 N·m (13 lbf·ft)



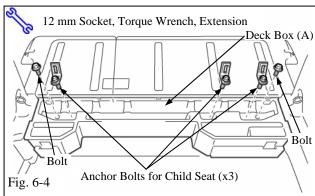
- (e) Install the rear scuff plate.
- (f) Re-assemble the rear seat.



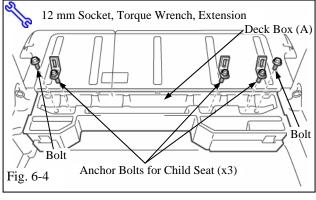
- (1) Install the rear center seat belt installation bolt and tighten it to 42 N·m (31 lbf·ft).
- (2) Install the rear seat cushion, taking care that the retaining hooks are securely engaged.
- (3) Attach and bolt the right rear seatback.

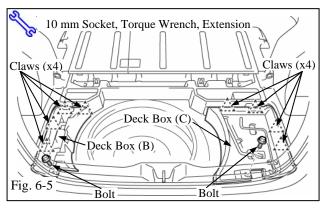


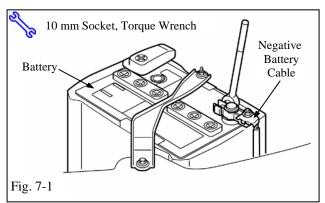
- (4) Tighten bolts to 42 N·m (31 lbf·ft)
- (5) Fold down the cover over the bolts, and then fold up the seatback.



**Matrix** 







- (g) Install the deck trim cover.
- (h) Install the deck box (A), and secure it by using two (2) bolts. (Fig. 6-4)



- (1) Tighten bolts to 37 N·m (27 lbf·ft)
- (i) Apply the three (3) child seat belt anchor bolts. (Fig. 6-4)



- (1) Tighten bolts to 37 N·m (27 lbf·ft)
- (j) Install the deck boxes (B and C), and secure them by using two (2) bolts. (Fig. 6-5)



- (1) Tighten bolts to 18 N·m (13 lbf·ft)
- (k) Install the deck boards.

# **Reconnect Battery Cable.**

- (a) Reconnect the vehicle's negative battery cable. (Fig. 7-1)
  - (1) Position the negative terminal to the battery as shown (original factory position.).



(2) Tighten the nut to 4.1 N·m (36 lbf·in).



(3) Do not touch the positive terminal with any tool when installing the cable.



- (b) Clean up and remove any trash.
  - (c) Place the owner "XM Satellite Radio" brochure in the glove box.

TOYOTA Matrix 2009 - XM SATELLITE RADIO

Look For:
*Verify the proper operation of the satellite radio tuner.
*Verify the proper operation of the receiver/player assembly  *(Refer to the receiver assembly and radio owner's manuals.)