

TOYOTA / TACOMA

2016

REMOTE KEYLESS ENTRY

Part Number: 00016-32901
Accessory Code: KE1000



Conflicts

Note: **Not for installation on vehicles equipped with factory keyless entry.**

Applicability

Note: **2016 Tacoma NOT equipped with factory keyless entry.**

Kit Contents

Item#	Quantity Req.	Description
1	1	Control Module
2	1	Main Harness
3	1	Hardware Bag
4	1	Valet Switch
5	2	24" Cable Ties
6	2	3 Button Transmitter
7	1	Owner's Card

Hardware Bag Contents

Item#	Quantity Req.	Description
1	8	Red T-Taps
2	2	Blue T-Taps
3	8	Black T-Taps
4	1	Yellow T-Tap
5	1	2-1/4" x 2-1/4" Foam Pad
6	6	8" Cable Ties

Recommended Tools

Safety Tools	
Special Tools	
Installation Tools	
Phillips Screwdriver	Straight-Slot Screwdriver
Ratchet w/ Extension	10 mm Socket
Wire Cutters/Strippers	Common Pliers
Flashlight	Nylon Trim Tool
Torque Wrench (48 in. lbs.)	
Needle Nose Pliers	Wire Crimpers
Special Chemicals	

Additional Items Required For Installation

Item#	Quantity Req.	Description

Vehicle Service Parts (may be required for reassembly)

Item#	Qty	Description
00016-00063	1	Control Module
00016-34030-05	2	Keyless Entry Transmitter
00016-32901-01	1	Main Installation Harness
00016-30960-56	1	On/Off Toggle Control Switch
00016-32901-02	1	Hardware Bag
00016-35105-01	1	Headlight Extension Wire

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.



CRITICAL PROCESS: Proceed with caution to ensure a quality installation. These points will be audited on a completed vehicle installation.



TOOLS & EQUIPMENT: This calls out the specific tools and equipment required for this process.



REVISION MARK: This mark highlights a change in installation with respect to previous issue.



SAFETY TORQUE: This mark indicates that torque is related to safety.

SPECIAL NOTE:

After TMS and Safety mandated preparatory steps have been taken, the installation sequence is the suggested method for completing the accessory installation. In some instances the 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.

A. Pre-Installation Precaution



1. Use Seat and Floor protectors to avoid damage to surfaces.



2. Please review and familiarize yourself with this document and refer to TIS before installation to check for updates to any installation procedures or techniques included in this document.

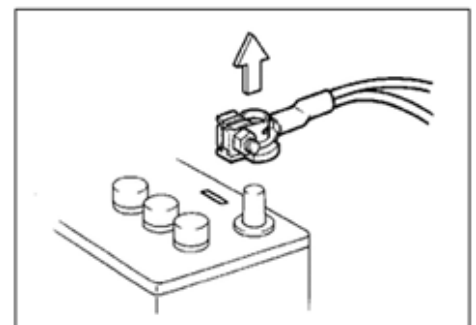


B. Battery Disconnect

CAUTION:

- Certain systems need to be initialized after disconnecting and reconnecting the cable to the negative (-) battery terminal.
 - Before starting the engine, make sure that the ground point is installed to the body with the bolts.
 - After the ignition switch is turned off, the navigation receiver assembly records various types of memory and settings. As a result, after turning the ignition switch off, make sure to wait at least 60 seconds before disconnecting the cable from the negative (-) battery terminal. (for Navigation System)
 - After the ignition switch is turned off, the radio and display receiver assembly records various types of memory and settings. As a result, after turning the ignition switch off, make sure to wait at least 80 seconds before disconnecting the cable from the negative (-) battery terminal. (for Audio and Visual System)
1. Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components. When disconnecting the cable, turn the ignition switch and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying the cable. Then disconnect the cable. Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable. (Figure B1)

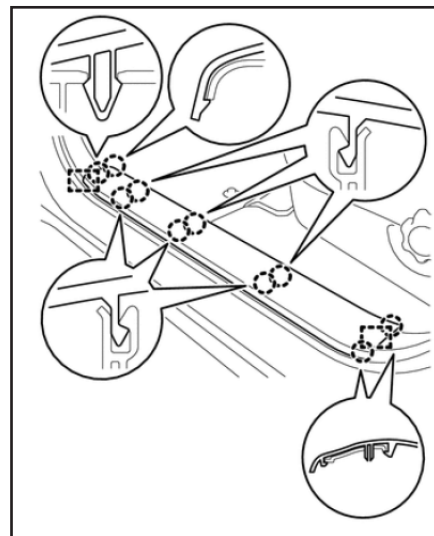
Figure
B1



C. Disassemble Vehicle Trim**1. Remove Front Door Scuff Plate LH.**

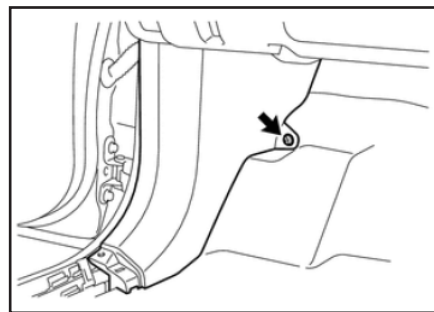
- a. Disconnect the 10 claws and 2 guides to remove the front door scuff plate LH. (Figure C1)

Figure
C1a

**2. Remove Cowl Side Trim Board LH.**

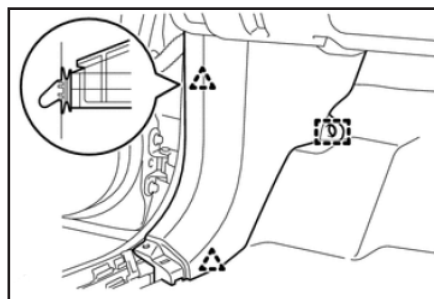
- a. Remove the clip. (Figure C2a)

Figure
C2a



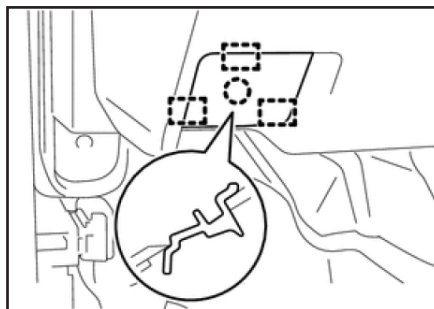
- b. Disengage the 2 clips to remove the cowl side trim board LH. (Figure C2b)

Figure
C2b

**3. Disconnect Hood Lock Control Lever Sub-Assembly.**

- a. Disengage the claw and 3 guides to disconnect the hood lock control lever sub-assembly. (figure C3)

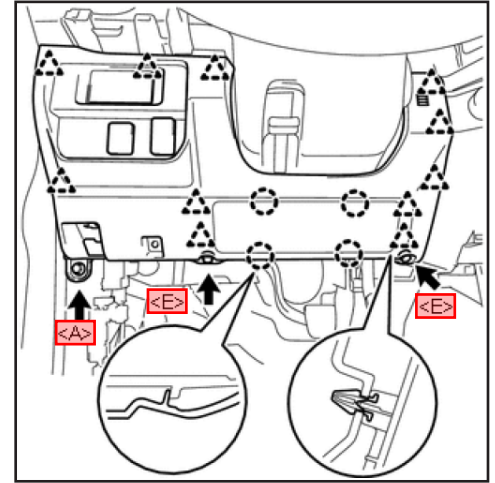
Figure
C3



4. Remove Instrument Panel Lower Finish Panel Sub-Assembly

- Remove the bolt <A>.
- Remove the 2 screws <E>.
- Disengage the 11 clips and 4 claws.
- Disconnect the connectors to remove the instrument panel lower finish panel sub-assembly. (Figure C4)

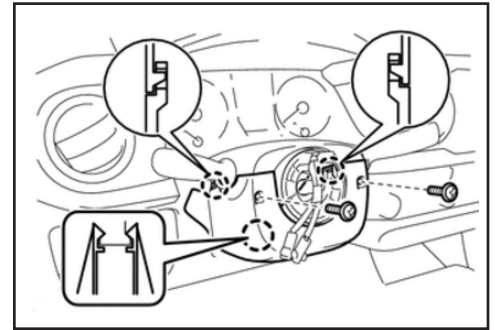
Figure C4



5. Remove Lower Steering Column Cover.

- Remove the 2 screws.
- Push the right and left sides of the lower steering column cover, and disengage the 2 claws.
- Insert a finger into the opening of the tilt lever of the lower steering column cover to disengage the claw and remove the lower steering column cover. (Figure C5)

Figure C5



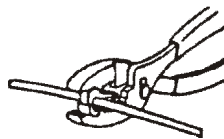
T-TAP INSTALLATION

When installing female T-Tap connectors, be sure the wire is located inside the wire channel of the female T-Tap connector before closing the connector over the wire with pliers. When possible, install T-Taps at least 1" away from connector.

Step A



Step B



Step C

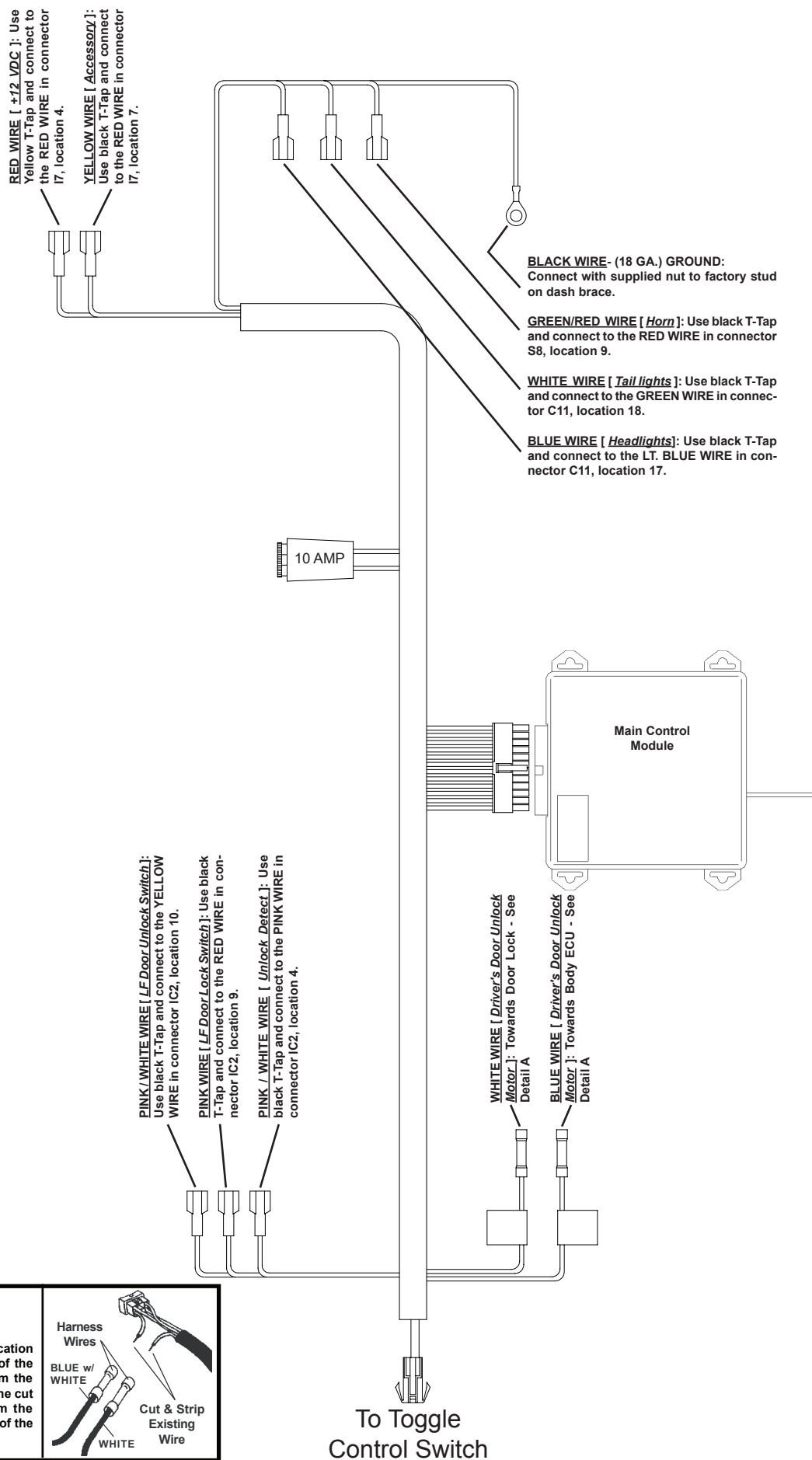


IMPORTANT! After installation, inspect and ensure that Keyless System Harnesses are clear of all HOT, SHARP or MOVING objects.

IMPORTANT! Care MUST be exercised when using the BLACK T-Taps. To avoid damage and broken wires, please note:

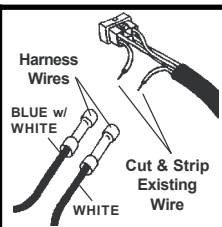
- Ensure there is **NO** tension on the T-Tap connection when securing the harness. The wire should be slack.
- Excessive manipulation and/or stress on the wire connection could lead to wire breakage.
- Center the wire in the metal insert, **NOT** the plastic side of the T-Tap. Misalignment of the wire against the metal insert could lead to cutting the wire.
- It is recommended to close the T-Tap with your fingers (Step A above). After the T-Tap has been closed with your fingers, applying light pressure with a set of pliers will complete the connection.

D. WIRING DIAGRAM



DETAIL "A" DRIVER'S DOOR UNLOCK CIRCUIT

Cut the BLACK WIRE in connector IC1, location 10. Strip the insulation from both sides of the cut wire, and crimp the WHITE WIRE from the keyless harness to the HARNESS side of the cut wire. Crimp the BLUE/WHITE WIRE from the keyless harness to the CONNECTOR side of the cut wire.



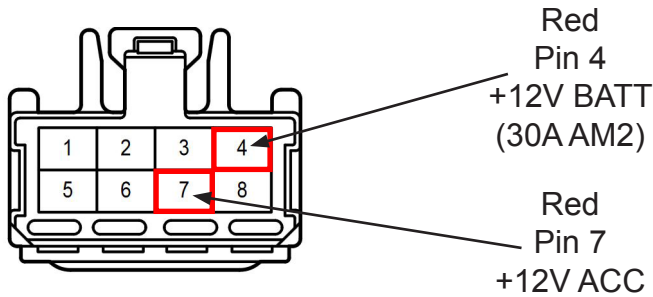
D. CONNECTOR DETAILS

All Connectors Show Terminal View

1. CONNECTOR I7 : Ignition Switch

Location : Steering Column

Color : White

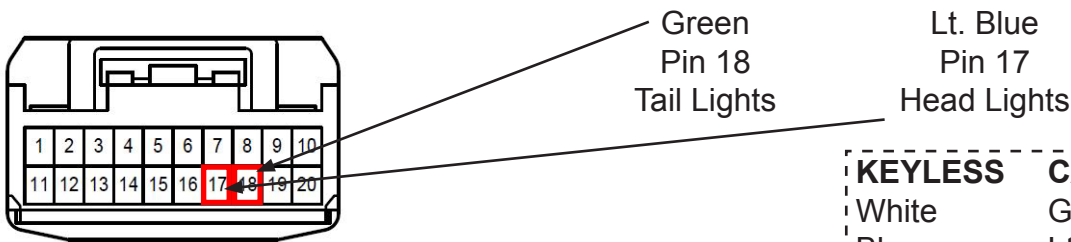


KEYLESS	CAR	PIN	T-TAP
Red	Red	4	Yellow
Yellow	Red	7	Black

2. CONNECTOR C11 : Tail Lights / Head Lights

Location : Lower Steering Column Cover Area

Color : Black

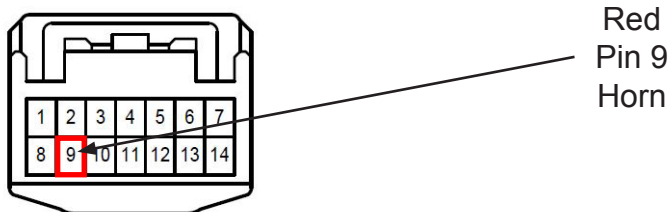


KEYLESS	CAR	PIN	T-TAP
White	Green	18	Black
Blue	Lt. Blue	17	Black

3. CONNECTOR S8 : Horn

Location : Lower Steering Column Cover Area

Color : Black

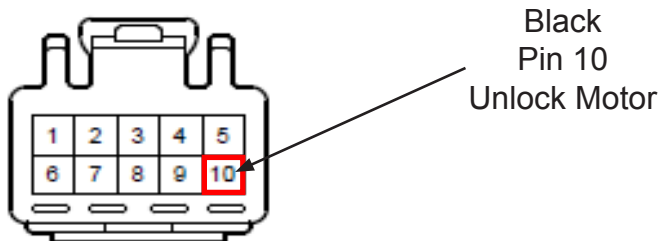


KEYLESS	CAR	PIN	T-TAP
Green/Red	Red	9	Black

4. CONNECTOR IC1 : Unlock Motor

Location : Driver's Kick Panel

Color : Gray

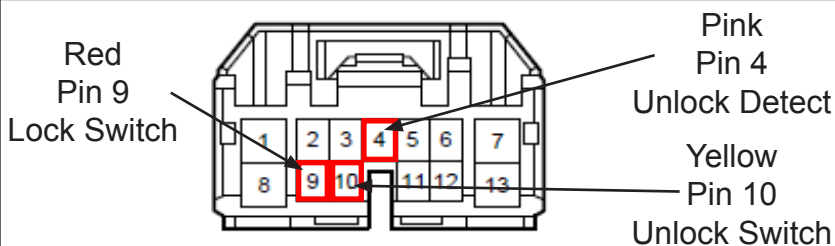


KEYLESS	CAR	PIN	T-TAP
White	Black	10	N/A
Blue/White	Black	10	N/A

4. CONNECTOR IC2 : Lock Switch / Unlock Switch

Location : Driver's Kick Panel

Color : White



KEYLESS	CAR	PIN	T-TAP
Pink	Red	9	Black
Pink/White	Pink	4	Black
Pink/White	Yellow	10	Black

E. Installing The System.

1. Mounting the control module.

a. Apply the adhesive pad to the rear of the control module. (Figure E1a)

b. Using 2 long wire ties, secure the control module to the dash brace, as pictured. (Figure E1b)

NOTE: Route the wire ties through the module's mounting eyelets.

Figure E1a

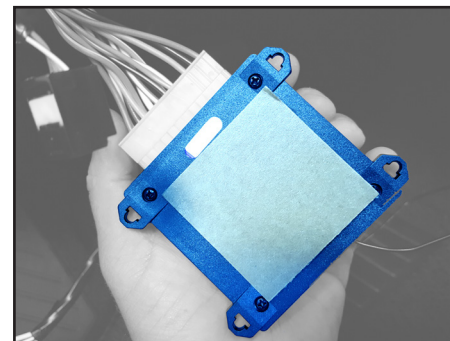


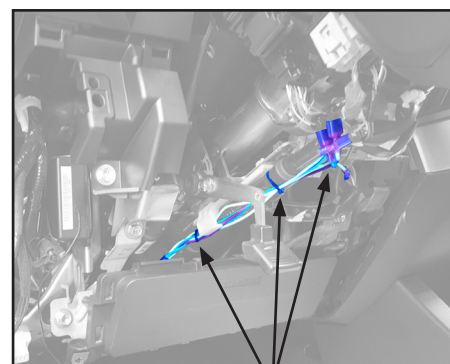
Figure E1b



Figure E2a

a. Route the portion of the wire harness with the Red, Yellow, Green/Red, White, and Blue wires towards the steering column. Secure with wire ties as shown. (Figure E2a)

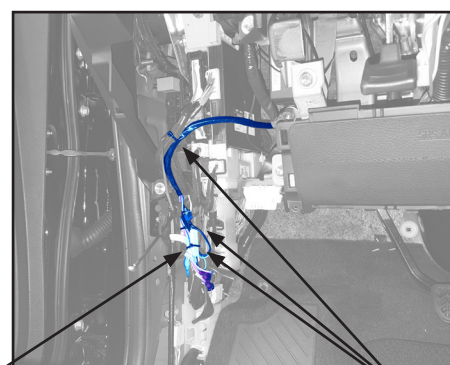
NOTE: For best range route the antenna along with the rest of the wires towards the steering column.



Wire Ties

b. Route the portion of the harness with the White, Blue, Pink, and Pink/White wires towards the driver's kick panel. Mount the toggle switch in the driver's kick panel to the factory wiring harness. Secure with wire ties as shown. (Figure E2b)

Figure E2b

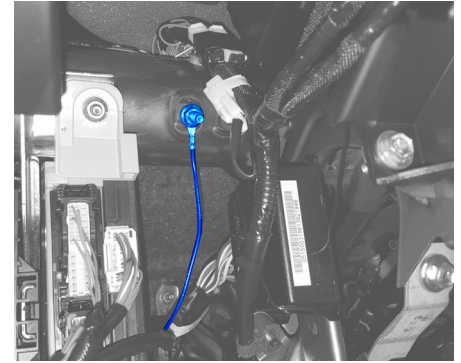


Toggle Switch

Wire Ties

c. Route Black Ground wire to the factory stud on the driver's dash brace, to the left of the steering column. Secure ring terminal to the stud with supplied 10mm nut. (Figure E2c)

Figure
E2c



F. Completing The Installation.

1. Reconnect Negative Battery Terminal.

a. Temporarily reconnect the negative battery terminal. Disconnect the negative battery terminal again after testing the system.

2. Testing The System.

Prior to delivering the vehicle, test all features of the system according to the owner's manual included.

a. **LOCK** - Press and release the LOCK button on the transmitter. All doors should lock, horn should chirp once, parking lights should flash once, and the headlights should turn on for 30 seconds.

b. **UNLOCK** - Press and release the UNLOCK button on the transmitter. The driver's door should unlock, the horn should chirp twice, parking lights flash twice, and headlights should turn on for 30 seconds.

Press and release the UNLOCK button again within 5 seconds. All the doors should unlock. Headlights will remain on, but horn and parking lights will provide no further confirmation on 2nd unlock.

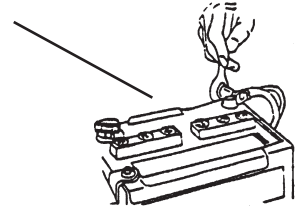
c. **PANIC** - Press and hold the PANIC button on the transmitter for approximately 3 seconds. The horn should sound and the parking lights should flash.

Press and release the PANIC button to silence the panic mode.

NOTE: Verify both transmitters included in the kit function properly.

NOTE: If the headlight switch is left in the ON or AUTO position, the parking lights may not flash. Verify the headlight switch is in the OFF position before testing the system.

Negative Battery



3. Reassemble Vehicle.

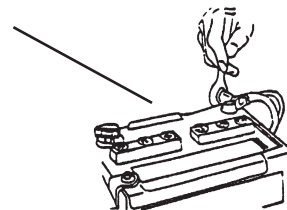
a. Reassemble all removed panels to the vehicle in reverse order of disassemble. Test thoroughly, any mechanical or electrical components disconnected or removed from the vehicle during disassembly.

4. Reconnect The Negative Battery Terminal.



a. Reconnect the negative battery terminal. Using a torque wrench, torque the bolt to **48 in-lbf**.

Negative Battery



PROGRAMMING NEW or REPLACEMENT TRANSMITTERS TO THE SECURITY MODULE:

IMPORTANT NOTE : Once you enter the programming mode, if 30 seconds elapse with no activity on the system, the programming mode will be terminated. If this happens, simply start over.

STEP 1

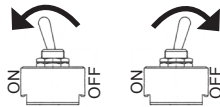
To get started, disarm the module by first locating the silver toggle switch in the driver's kick panel.



1. Insert the key into the ignition key cylinder and turn to the ON position



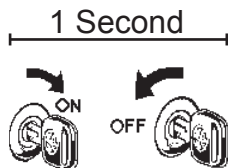
3. Flip the toggle switch ON, then OFF.



4. Turn the ignition key to the OFF position

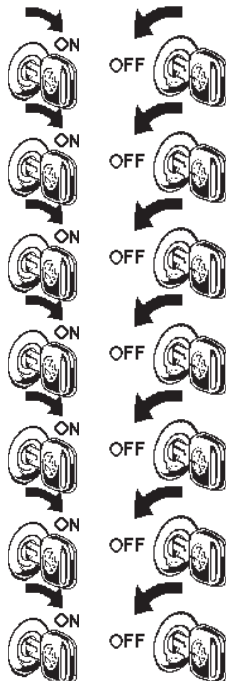
**STEP 2**

Turn the vehicle's ignition key ON then OFF 7 times at 1 second intervals.....



....Ending in the OFF position.

The vehicle will respond by sounding the horn in a SHORT-LONG pattern to confirm you have entered programming mode.

**STEP 3**

Press the Lock button on the transmitter. The horn will chirp to confirm it has learned the transmitter.

STEP 4

Repeat Step 3 for all transmitters that you need to program to operate the vehicle.
(Maximum of 4 transmitters per vehicle)

STEP 5

When all transmitters have been programmed, turn the ignition key ON then OFF to exit the program mode.



The vehicle will respond by sounding the horn in a SHORT-SHORT-LONG pattern to confirm programming mode has been terminated.

The programming mode will automatically terminate after 30 seconds of inactivity. This will be confirmed by the horn sounding a SHORT-SHORT-LONG pattern. If this happens, start over at step 1 to program transmitters.

VEHICLE FUNCTION CHECKLIST

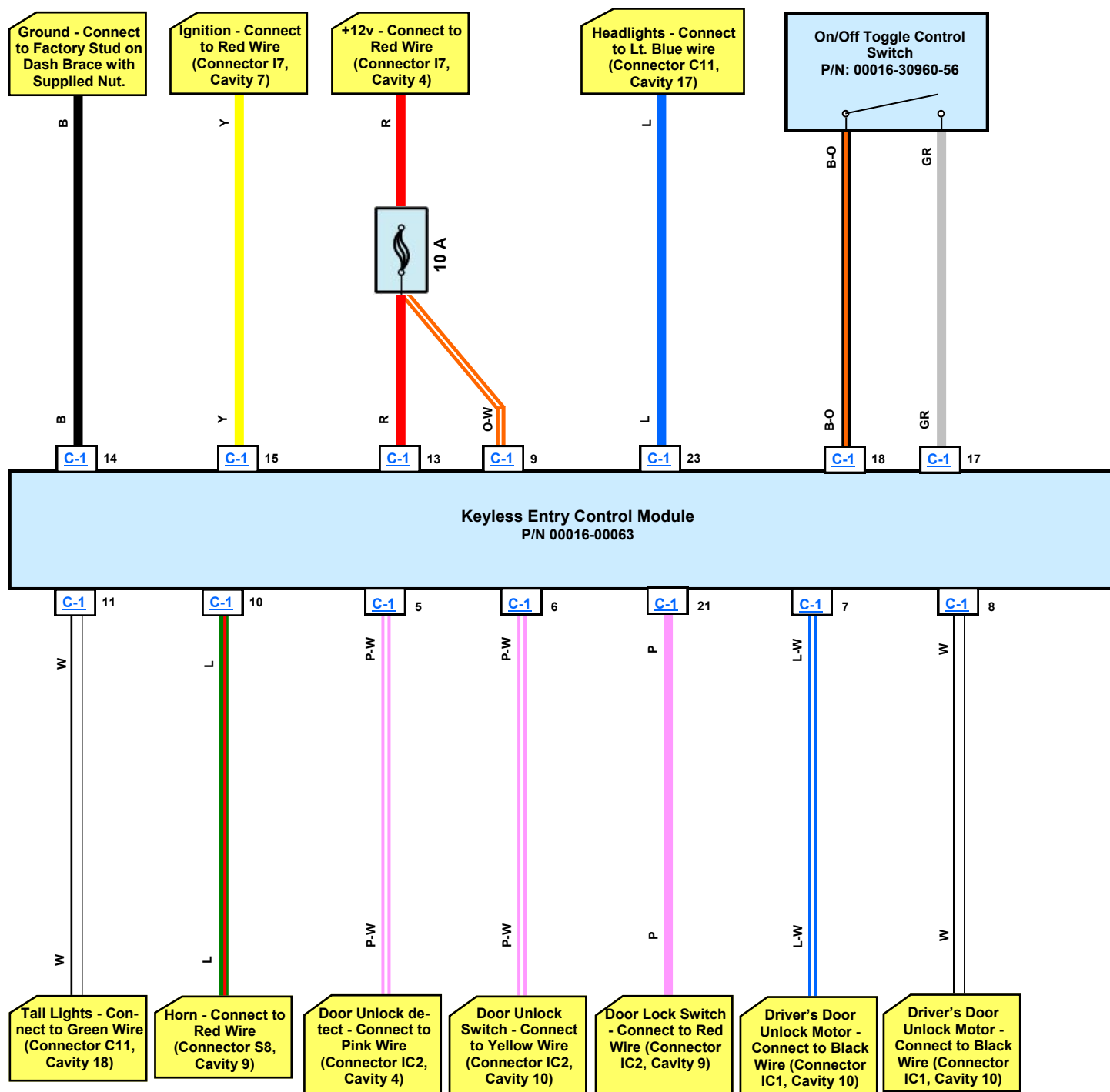
THESE POINTS MUST BE CHECKED TO ENSURE A QUALITY INSTALLATION

- | | |
|--|--|
| <input type="checkbox"/> Head Light
<i>If the warning lights remains on, it may indicate a system malfunction.</i> | <input type="checkbox"/> Massage Seats (if equipped) |
| <input type="checkbox"/> High Beams | <input type="checkbox"/> Power Side Mirrors (if equipped) |
| <input type="checkbox"/> Turn Signal Lights | <input type="checkbox"/> Side Mirror Defogger (if equipped) |
| <input type="checkbox"/> Tail Lights | <input type="checkbox"/> Front Windshield Defogger (if equipped) |
| <input type="checkbox"/> Stop Lights | <input type="checkbox"/> Navigation System (if equipped) |
| <input type="checkbox"/> Backup Lights | <input type="checkbox"/> Rear Sunshade (if equipped) |
| <input type="checkbox"/> Hazard Lights | <input type="checkbox"/> Cruise Control Light (if equipped) |
| <input type="checkbox"/> Marker Lights | <input type="checkbox"/> Steering Wheel Audio Control (if equipped) |
| <input type="checkbox"/> Dome/Courtesy Lights | <input type="checkbox"/> HVAC |
| <input type="checkbox"/> Panel/Switch Illumination | <input type="checkbox"/> Power Locks (if equipped) |
| <input type="checkbox"/> Accessory Controls/Illumination (if equipped) | <input type="checkbox"/> Power Windows (if equipped) |
| <input type="checkbox"/> Rear Window Defogger (if equipped) | <input type="checkbox"/> Gauges |
| <input type="checkbox"/> Key Sensor Buzzer | <input type="checkbox"/> Front Wiper/Washer |
| <input type="checkbox"/> Fog Lights (if equipped) | <input type="checkbox"/> Hood Latch Release |
| <input type="checkbox"/> Day Time Running Lights (if equipped) | <input type="checkbox"/> Passenger Air Bag Switch (if equipped) |
| <input type="checkbox"/> Trunk/Tailgate/Bed Lights (if equipped) | <input type="checkbox"/> Rollover Side Curtain Air Bag Switch (RSCA) |
| <input type="checkbox"/> Glove Box Light (if equipped) | <input type="checkbox"/> Horn |
| <input type="checkbox"/> ABS Light (if equipped) | <input type="checkbox"/> Seat Belt Warning Light
<i>If the warning lights remains on, it may indicate a system malfunction.</i> |
| <input type="checkbox"/> Rear Wiper/Washer (if equipped) | <input type="checkbox"/> Air Bag Warning Light
<i>If the warning lights remains on, it may indicate a system malfunction.</i> |
| <input type="checkbox"/> Clock (if equipped) | <input type="checkbox"/> Lamp Failure Sensor
<i>If the warning lights remains on, it may indicate a system malfunction.</i> |
| <input type="checkbox"/> Accessory Power Socket (if equipped) | <input type="checkbox"/> Track/Skid Control Light (if equipped)
<i>If the warning lights remains on, it may indicate a system malfunction.</i> |
| <input type="checkbox"/> Starter | <input type="checkbox"/> Tire Pressure Monitoring System (TPMS)
<i>Prior to TPMS activation and Pre-Delivery Service (PDS) of the vehicle the TPMS light will blink when IG is turned on. After TPMS activation and PDS of the vehicle the TPMS light will illuminate for a few seconds and go off when IG is turned on.</i> |
| <input type="checkbox"/> Audio/Video (if equipped) | |
| <input type="checkbox"/> Power Sliding Door (if equipped) | |
| <input type="checkbox"/> Convenience Memory Settings (if equipped) | |
| <input type="checkbox"/> Heated Seats (if equipped) | |

Block Diagram

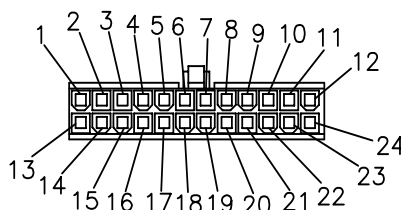
Keyless Entry System:

Tacoma: Kit P/N 00016-32901



Checking the Harness Pinouts:

Connector C-1: Keyless Entry Harness Connector Connector End View



Pin	Wire Color	Wire Function	Test Reference	Proper Operation
1	No Wire	N/A	N/A	N/A
2	No Wire	N/A	N/A	N/A
3	No Wire	N/A	N/A	N/A
4	No Wire	N/A	N/A	N/A
5	Pink/White	Unlock All Doors	Pin 5 to Ground.	<ul style="list-style-type: none"> Approximately 12VDC at rest. Continuity to Ground (pulsed) when driver's unlock switch is in the UNLOCK position or if keyless UNLOCK function is active (2nd UNLOCK press).
6	Pink/White	Unlock Detect	Pin 6 to Ground.	<ul style="list-style-type: none"> Approximately 12 VDC at rest. Continuity to Ground (pulsed) when driver's unlock switch is in the UNLOCK position or if keyless UNLOCK function is active (2nd UNLOCK press).
7	Blue/White	Driver's Unlock Motor ECU Side	Pin 7 to Ground.	<ul style="list-style-type: none"> Approximately 0 VDC at rest. Approximately 12 VDC (pulsed) when driver's unlock switch is pressed.
8	White	Driver's Unlock Motor Motor Side	Pin 8 to Ground	<ul style="list-style-type: none"> Approximately 12 VDC (pulsed) when keyless UNLOCK function is activated (first UNLOCK press). Approximately 0 VDC at rest.
9	Orange/White	Active Out	Pin 9 to Ground.	<ul style="list-style-type: none"> Always 12 VDC.
10	Green/Red	Horn Chirp / Panic	Pin 10 to Ground.	<ul style="list-style-type: none"> Approximately 12 VDC at rest. Continuity to Ground (pulsed) when horn pad is pressed / honking.
11	White	Tail Light Flash	Pin 11 to Ground.	<ul style="list-style-type: none"> Approximately 12 VDC at rest. Continuity to Ground (pulsed) when keyless is active Continuity to Ground (solid) tail lights are switched to ON at headlight switch.
12	No Wire	N/A	N/A	N/A
13	Red	Battery	Pin 13 to Ground.	<ul style="list-style-type: none"> Approximately 12 VDC.
14	Black	Ground	Pin 14 to Ground.	<ul style="list-style-type: none"> Always continuity less than 1 ohm.
15	Yellow	Ignition	Pin 15 to Ground.	<ul style="list-style-type: none"> Approximately 12 VDC when the key is turned to the ON/Run position. Approximately 0 VDC when key is turned OFF.
16	No Wire	N/A	N/A	N/A
17	Gray	Programming Switch	Pin 17 to Pin 18.	<ul style="list-style-type: none"> Continuity to Ground when programming switch is in the ON position. No Continuity to Ground when programming switch is in the OFF position.
18	Black/Orange	Programming Switch	Pin 18 to Pin 17.	<ul style="list-style-type: none"> Always continuity to Ground.
19	No Wire	N/A	N/A	N/A
20	No Wire	N/A	N/A	N/A
21	Pink	Lock	Pin 21 to Ground.	<ul style="list-style-type: none"> Approximately 12 VDC at rest. Continuity to Ground when driver's lock switch is in the LOCK position or if keyless LOCK function is active.
22	No Wire	N/A	N/A	N/A
23	Blue	Headlight	Pin 23 to Ground.	<ul style="list-style-type: none"> Approximately 12 VDC at rest. Continuity to Ground for 30 seconds after LOCK or UNLOCK operation performed on keyless system. Continuity to Ground when Head Light Hi-Beam FLASH is Activated on the Headlight Switch.
24	No Wire	N/A	N/A	N/A