INSTALL GUIDE

2018 TOYOTA TUNDRA STD KEY AUTOMATIC

DOCUMENT NUMBER
A87C853

REVISION DATE
20240213_222235

FIRMWARE
RSA-TL9

HARDWARE
CMHCXA0

ACCESSORIES
ATTENTION: TO COMPLETE THIS INSTALLATION SOME ACCESSORIES MAY BE REQUIRED. VISIT OUR WEBSITE TO SEE ALL THE REQUIRED ACCESSORIES FOR YOUR VEHICLE.

TERMS OF USE

Automotive Data Solutions Inc. ("ADS") products are strictly intended for installation by Certified Technicians who are employed by a registered business specialized in the installation of automotive aftermarket electronics products. Prior to beginning installation of an ADS product in a vehicle, it is the Certified Technician's responsibility to review the most current Product Guide, Install Guide and vehicle-specific notes available in Weblink®. ADS is not responsible for any damages whatsoever, including but not limited to any consequential damages, incidental damages, damages for loss of time, loss of earnings, loss of profit, commercial loss, loss of economic opportunity and the like that may or may not have resulted from the use, misuse, improper installation or operation of its products. ADS reserves itself the right to suspend any Weblink® account without notice and decline to offer technical support to non-Certified Technicians, noncompliant Certified Technicians or end users.

THE ART OF START™

U.S. Patent No. 8,856,780 CA 2759622
Automotive Data Solutions Inc. © 2024

REMOTE START	Supported
Data Immobilizer Bypass (no key required)	✓
Key Required for Immobilizer Bypass	
Takeover Available	✓
No Takeover Available (shutdown on unlock or door open)	
3x Lock Start from OEM Remotes	✓
Data / MUX Parking Light Control - Constant	✓
Data / MUX / Hazard Parking Light Control - Flashing	
Tach Monitoring	✓
Hood Status	✓
Brake Status	✓
E-Brake Status	✓
Glow Plug Status	
RAP Shutdown	

KEYLESS ENTRY	Supported
OEM Remotes Functional during RS	✓
OEM RFID Entry Sensors Functional during RS	
Door Lock	✓
Door Unlock	✓
Driver Door Priority Unlock	✓
Trunk/Hatch Release	
Power Liftgate	
Power Sliding Door (L)	
Power Sliding Door (R)	

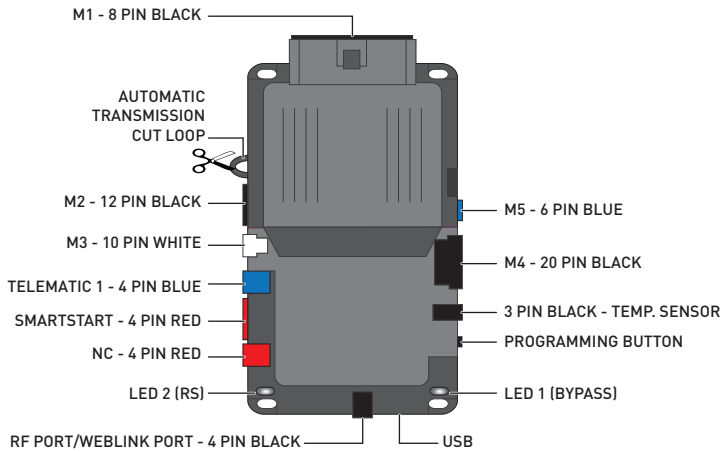
SECURITY SYSTEM	Supported
Arm OEM Alarm	✓
Disarm OEM Alarm	✓
Aftermarket Alarm Control from OEM Remotes	✓
Aftermarket Alarm Control from OEM RFID Entry Sensors	
Door Status	✓
Trunk/Hatch Status	

COMFORT	Supported
Rear Defrost Activation	
Heated Mirror Activation	
Heated Seat Activation	
Cooled Seat Activation	
Heated Steering Wheel Activation	

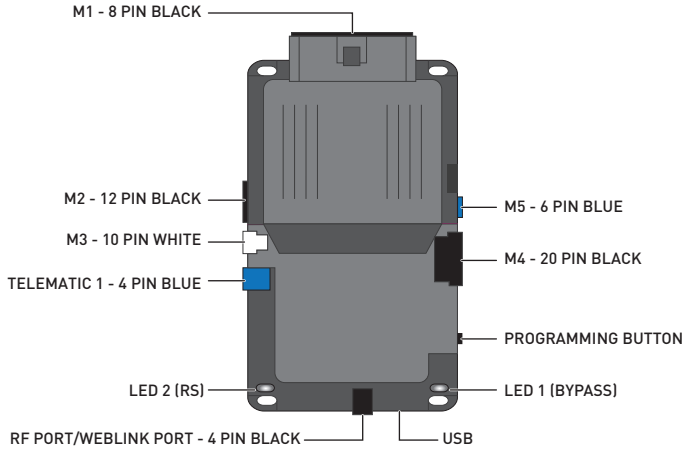
U.S. Patent No. 8,856,780 CA 2759622
Automotive Data Solutions Inc. © 2024

MODULE CONNECTORS

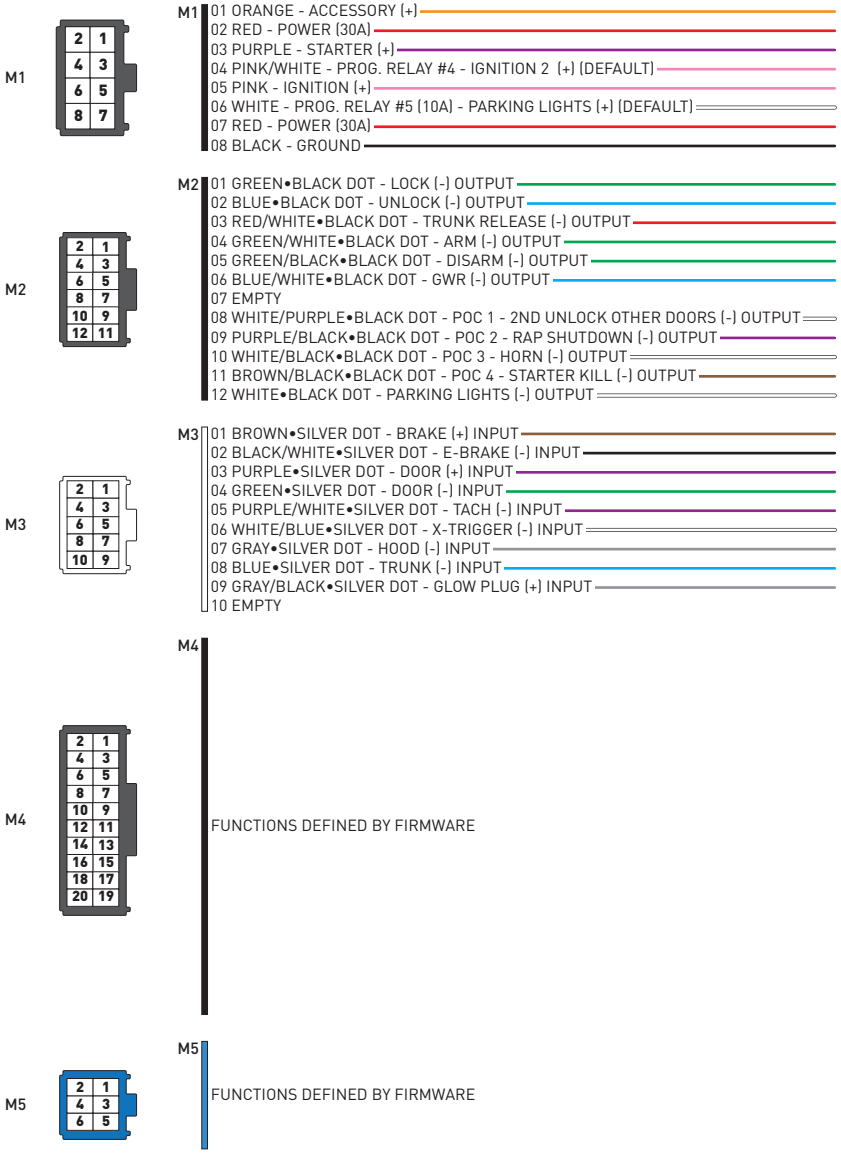
FIRST GENERATION HCx [HCX-192]

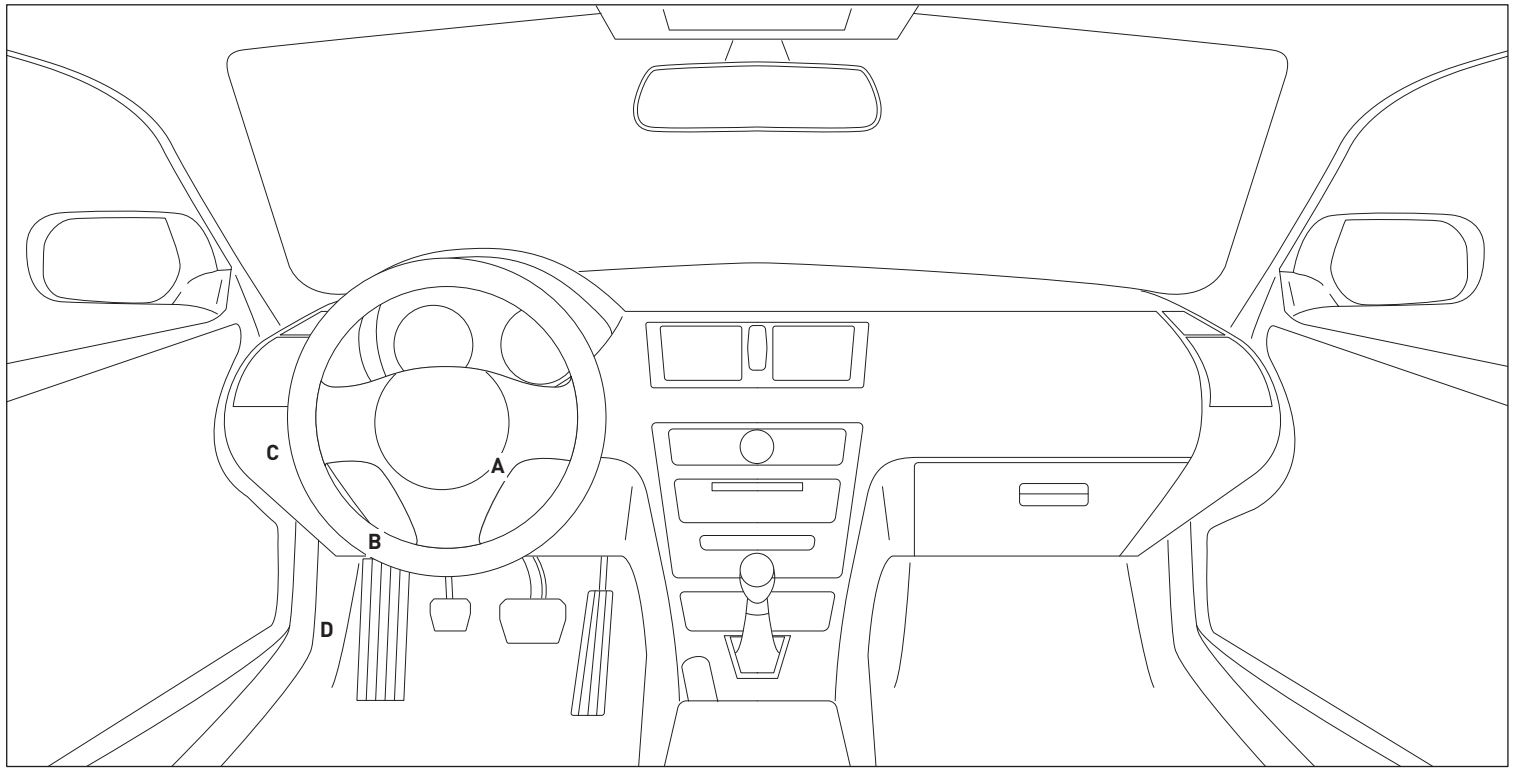


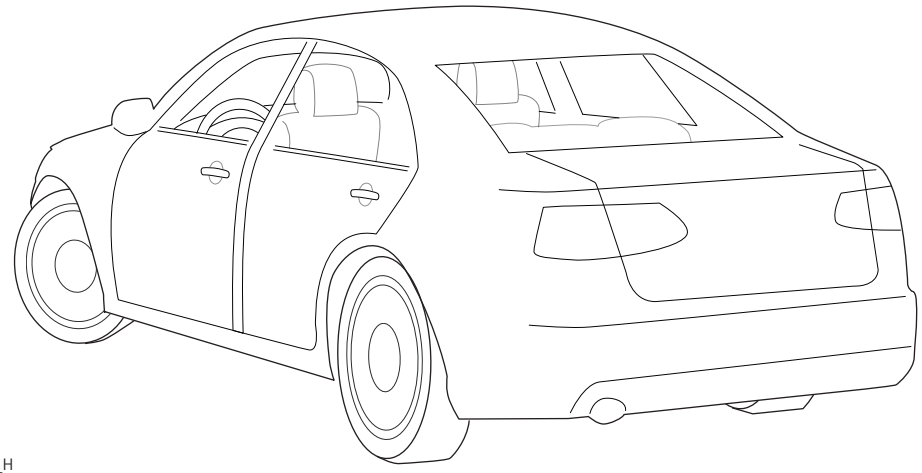
SECOND GENERATION HCx [HCA-320]

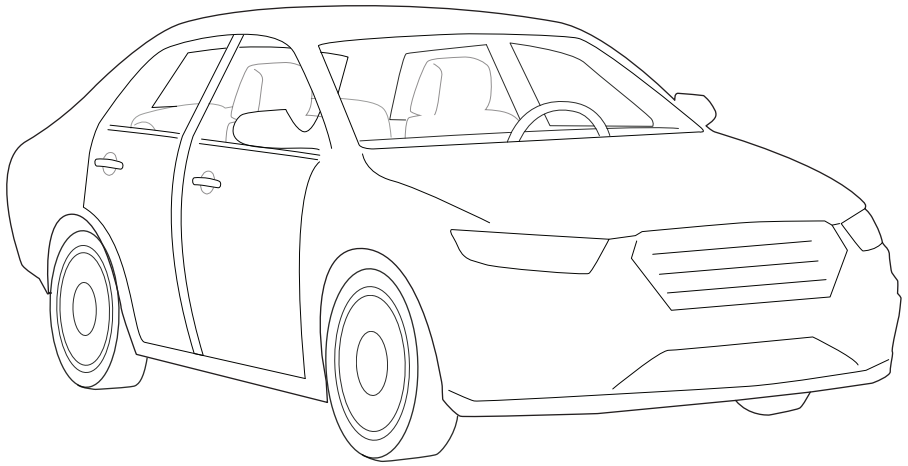


CONNECTOR PINOUT



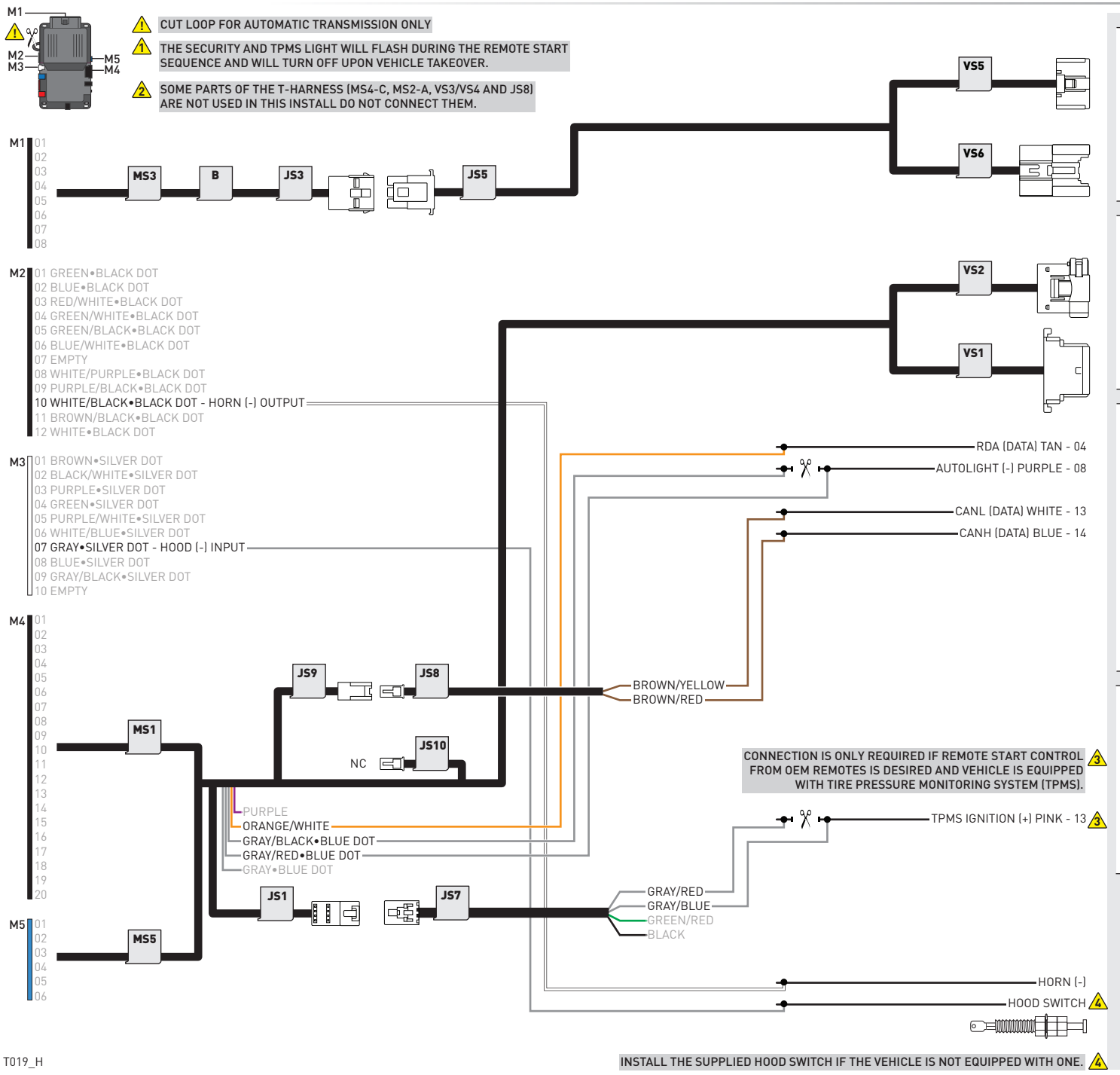






T019_H

U.S. Patent No. 8,856,780 CA 2759622
Automotive Data Solutions Inc. © 2024



IGNITION SWITCH (A)

1: IGNITION CONNECTOR

1: IGNITION HARNESS

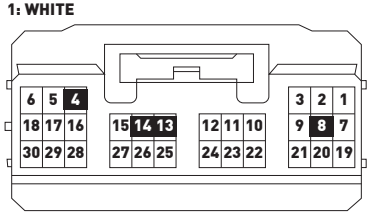
OBDII (B)

1: OBDII CONNECTOR

1: OBDII HOLDER

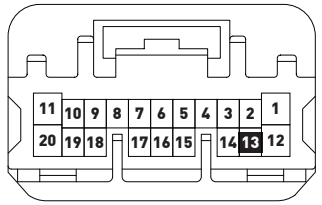
BODY ECU/DASH FUSEBOX (C)

1: WHITE

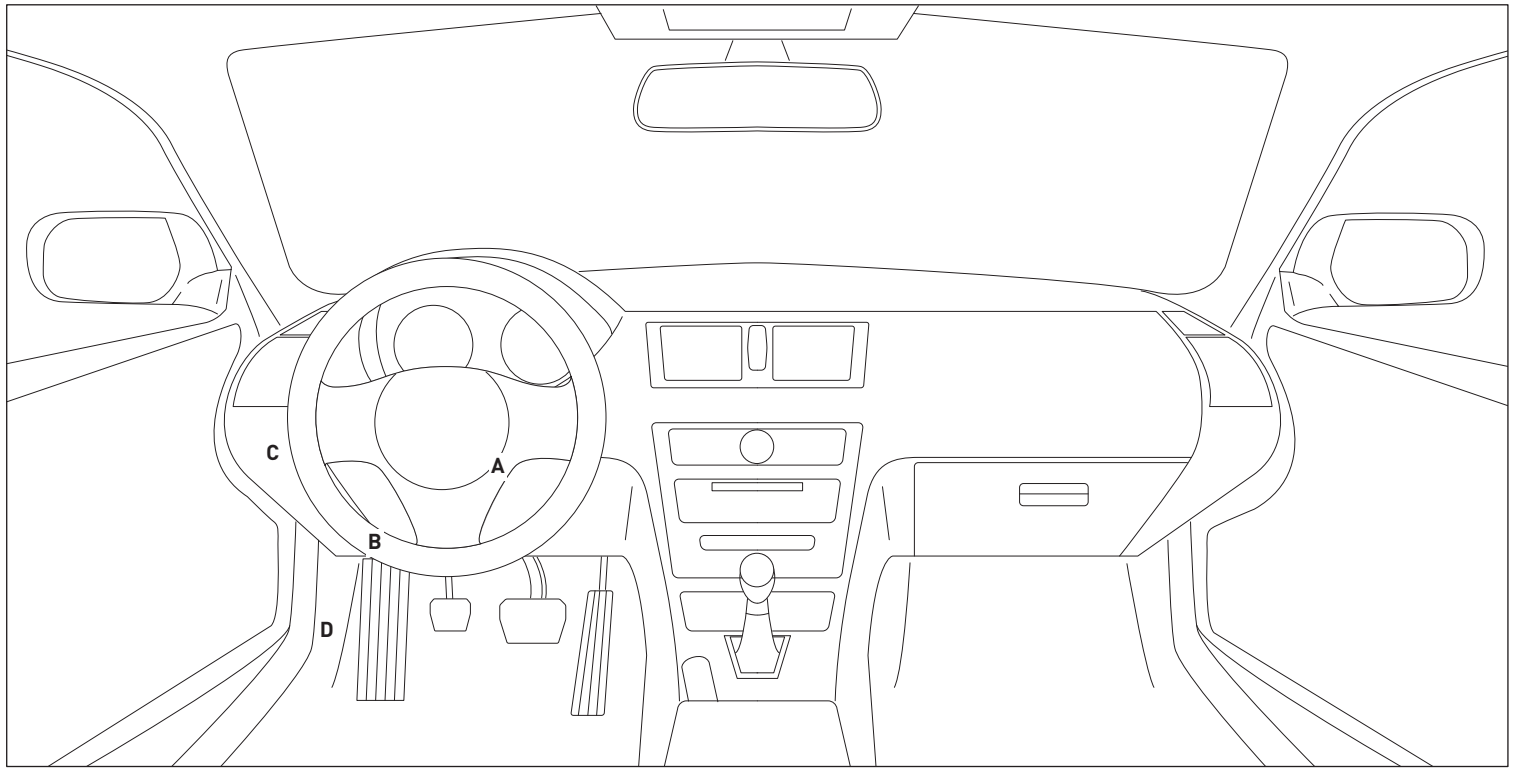


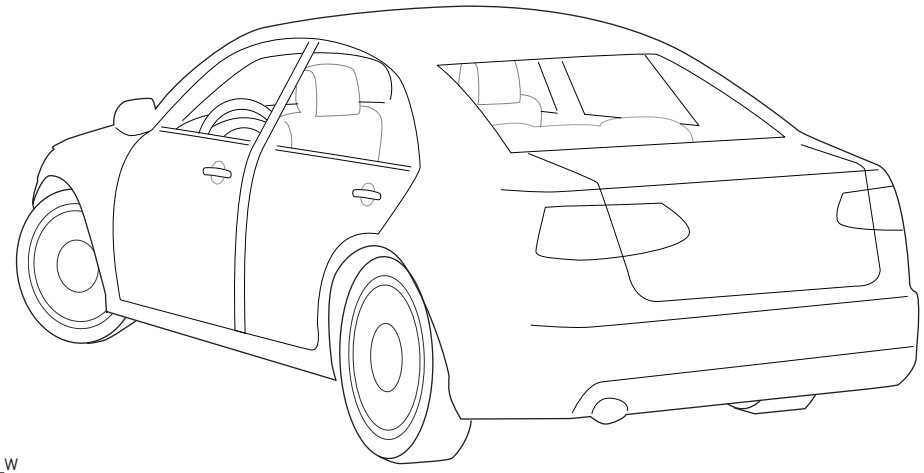
DRIVER KICK PANEL, JUNCTION BLOCK (D)

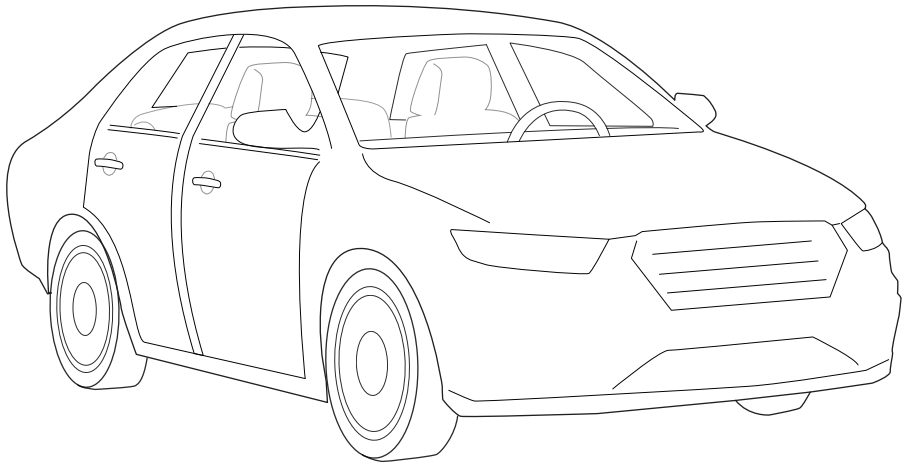
1: WHITE



U.S. Patent No. 8,856,780 CA 2759622
Automotive Data Solutions Inc. © 2024

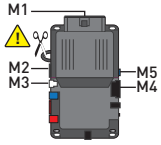






T019_W

U.S. Patent No. 8,856,780 CA 2759622
Automotive Data Solutions Inc. © 2024



⚠ CUT LOOP FOR AUTOMATIC TRANSMISSION ONLY

⚠ THE SECURITY AND TPMS LIGHT WILL FLASH DURING THE REMOTE START SEQUENCE AND WILL TURN OFF UPON VEHICLE TAKEOVER.

M1
- 01 ORANGE
- 02 RED - 12V (+)
- 03 PURPLE - STARTER (+)
- 04 PINK/WHITE - IGNITION 2 (+)
- 05 PINK - IGNITION (+)
- 06 WHITE
- 07 RED - 12V (+)
- 08 BLACK - GROUND

M2
- 01 GREEN•BLACK DOT
- 02 BLUE•BLACK DOT
- 03 RED/WHITE•BLACK DOT
- 04 GREEN/WHITE•BLACK DOT
- 05 GREEN/BLACK•BLACK DOT
- 06 BLUE/WHITE•BLACK DOT
- 07 EMPTY
- 08 WHITE/PURPLE•BLACK DOT
- 09 PURPLE/BLACK•BLACK DOT
- 10 WHITE/BLACK•BLACK DOT - HORN (-) OUTPUT
- 11 BROWN/BLACK•BLACK DOT
- 12 WHITE•BLACK DOT

M3
- 01 BROWN•SILVER DOT
- 02 BLACK/WHITE•SILVER DOT
- 03 PURPLE•SILVER DOT
- 04 GREEN•SILVER DOT
- 05 PURPLE/WHITE•SILVER DOT
- 06 WHITE/BLUE•SILVER DOT
- 07 GRAY•SILVER DOT - HOOD (-) INPUT
- 08 BLUE•SILVER DOT
- 09 GRAY/BLACK•SILVER DOT
- 10 EMPTY

M4
- 01 EMPTY
- 02 EMPTY
- 03 BROWN/RED - CANH 1
- 04 BROWN/YELLOW - CANL 1
- 05 BLUE/RED
- 06 BLUE/YELLOW
- 07 EMPTY
- 08 ORANGE
- 09 YELLOW
- 10 EMPTY
- 11 GRAY/RED
- 12 GRAY/YELLOW
- 13 GREEN/RED
- 14 ORANGE/WHITE - RDA (DATA)
- 15 BROWN
- 16 ORANGE/BLACK - SIL (DATA)
- 17 PINK
- 18 PURPLE
- 19 RED
- 20 BLACK

M5
- 01 GRAY/BLACK•BLUE DOT - AUTOLIGHT (-) VEHICLE SIDE
- 02 WHITE/BLACK•BLUE DOT - TPMS IGNITION (+) VEHICLE SIDE
- 03 GRAY/RED•BLUE DOT - AUTOLIGHT (-) CONNECTOR SIDE
- 04 WHITE/RED•BLUE DOT - TPMS IGNITION (+) CONNECTOR SIDE
- 05 GRAY•BLUE DOT
- 06 WHITE•BLUE DOT

IGNITION (+) LTGREEN - 01
12V (+) WHITE - 04
12V 2 (+) BLUE - 05
IGNITION 2 (+) BLACK - 06
STARTER (+) GREEN - 07
GROUND (-) WHITE/BLACK - 04
SIL (DATA) LTBLUE - 07
RDA (DATA) TAN - 04
AUTOLIGHT (-) PURPLE - 08
CANL (DATA) WHITE - 13
CANH (DATA) BLUE - 14
TPMS IGNITION (+) PINK - 13 2
HORN (-)
HOOD SWITCH 3

2 CONNECTION IS ONLY REQUIRED IF REMOTE START CONTROL FROM OEM REMOTES IS DESIRED AND VEHICLE IS EQUIPPED WITH TIRE PRESSURE MONITORING SYSTEM (TPMS).

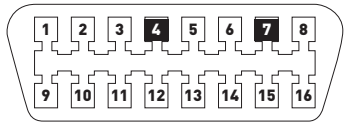
3 INSTALL THE SUPPLIED HOOD SWITCH IF THE VEHICLE IS NOT EQUIPPED WITH ONE.

IGNITION SWITCH (A)

WHITE

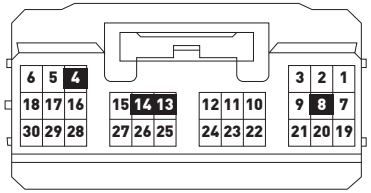
OBDII (B)

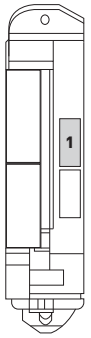
WHITE



BODY ECU/DASH FUSEBOX (C)

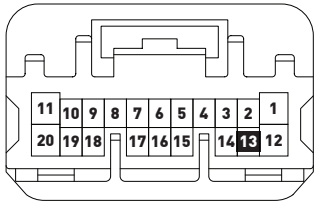
1: WHITE





DRIVER KICK PANEL, JUNCTION BLOCK (D)

1: WHITE

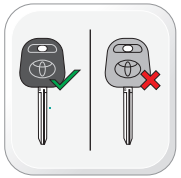


U.S. Patent No. 8,856,780 CA 2759622
Automotive Data Solutions Inc. © 2024

>>

IMPORTANT: The hood must be closed.

01



Use the BLACK key only. DO NOT use the GRAY valet key.

02

Turn key to ON position.

03

LED 1 will turn solid RED.

04

Wait, LED 1 will turn solid GREEN for 2 seconds.

05

Turn key to OFF position.

06

START vehicle for 15 seconds.

07

Press and hold the brake pedal.

08

Press and release the module's programming button.

09

Release the brake pedal.

10

Wait, LED 2 will flash GREEN.

11

Module Programming Procedure completed.

U.S. Patent No. 8,856,780 CA 2759622
Automotive Data Solutions Inc. © 2024

>>

All vehicle doors must be closed and locked prior to remote start sequence.

01

Press unlock on OEM or aftermarket remote.

02

Insert key into ignition.

03

Turn key to ON position.

04

Press and release BRAKE pedal.

05

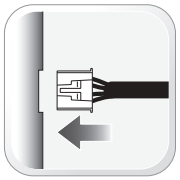
Take over procedure completed.

>>

Failure to follow procedure will result in vehicle engine shutdown.

U.S. Patent No. 8,856,780 CA 2759622
Automotive Data Solutions Inc. © 2024

>>



Plug the antenna into the RF/Weblink port of the module (4 pin black).

01

WARNING: Complete the module programming procedure and tach programming procedure before programming the remotes. A maximum of four [4x] aftermarket remotes per system.

02

Set ignition to ON position.

03

Press and release the antenna button, then press and hold the antenna button. The antenna's LEDs will turn ON solid.

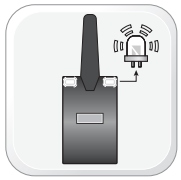
04

Parking Light will flash once [1x].

05

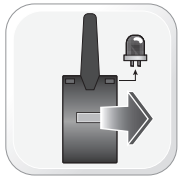
Press once [1x] on the LOCK button of each aftermarket remote.

06



The antenna's LEDs will flash once [1x] for each successful pairing.

07



Release the antenna button. The antenna's LEDs will turn OFF.

08

Set ignition to OFF position.

09

Remote Programming Procedure completed.

>>

To program an additional aftermarket remote as second vehicle mode: Follow steps 1 to 4. Press twice [2x] on the "F" button then press once [1x] on the LOCK button of the aftermarket remote. Follow steps 6 to 9.

>>

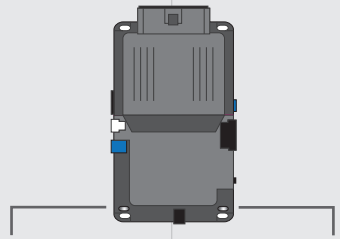
Please visit www.idataguides.com to see all of our remote user manuals

---

REMOTE STARTER ERROR CODES: NOTES	PARKING LIGHT FLASHES	DIAGNOSTIC
I WARNING: The following applies only when the parking lights are connected and supported by the system. II After a remote starter failure, the parking lights will flash three [3x] times followed by the error code. See table.	3 + 1	Tach is not programmed OR engine is already running.
	3 + 2	Key is in ignition ON position.
	3 + 3	Door is open.
	3 + 4	Trunk is open.
	3 + 5	Foot brake is ON.
	3 + 6	Hood is open.
	3 + 7	Loop is not cut.
	3 + 8	Vehicle failed to remote start.
	3 + 9	Vehicle movement detected (VSS).
	3 + 10	System is in Valet Mode.
	3 + 11	CAN communication failure
	3 + 12	RS not synchronized. Start vehicle with OEM key for 15 sec before trying a new RS sequence.
	3 + 13	Bypass problem.
	3 + 14	Idle mode or takeover is not available on this vehicle.
	3 + 15	Overheat protection.

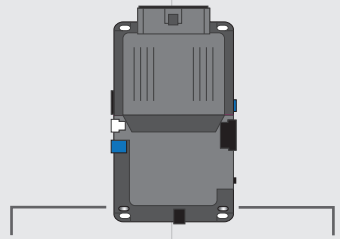
REMOTE STARTER SHUTDOWN ERROR CODES: NOTES	PARKING LIGHT FLASHES	DIAGNOSTIC
I WARNING: The following applies only when the parking lights are connected and supported by the system. II If the engine shuts down after a remote starter sequence use the query command from a compatible aftermarket remote to display the shutdown error code. The parking lights will flash four [4x] times followed by the error code. See table.	4 + 1	Engine tach signal was lost.
	4 + 2	Emergency brake signal was lost.
	4 + 3	Foot brake ON detected.
	4 + 4	Hood open detected.
	4 + 5	Tach over rev detected.
	4 + 6	Glow plug timeout error.
	4 + 7	Vehicle movement detected (VSS).
	4 + 8	Check engine light ON.
	4 + 9	Low fuel level.
	4 + 10	Open door detected.
	4 + 11	CAN communication failure during RS sequence.
	4 + 12	RS not synchronized. Start vehicle with OEM key for 15 sec before trying a new RS sequence.
	4 + 13	Bypass problem.
	4 + 14	Idle mode or takeover is not available on this vehicle.
	4 + 15	Overheat protection.

U.S. Patent No. 8,856,780 CA 2759622
Automotive Data Solutions Inc. © 2024

MODULE STATUS DURING:	 LED 2*	LED 1**	LED STATUS	DIAGNOSTIC
MODULE PROGRAMMING		🔴	Flashing RED	Missing/wrong information from firmware or vehicle. See firmware specific diagnostics, or contact technical support.
		🔴	Solid RED	Module waiting for more vehicle information. Programming incomplete.
		🟢	Flashing GREEN	Additional steps required to complete programming. Refer to install guide.
		🟢	Solid GREEN then OFF	Module programming completed successfully.
		o	OFF	No activity or module already programmed.
	🔴		1 RED flash	No firmware on module. Connect to Weblink and flash device.
	🟠		2 ORANGE flashes	Contact technical support.
	🟠		3 ORANGE flashes	Module programming not completed.
	🟠		4 ORANGE flashes	Contact technical support.
	🟠		7 ORANGE flashes	Contact technical support.
	🟠		8 ORANGE flashes	Loop not cut. Ensure loop is cut for automatic transmission. Reset and re-learn.
	🟠		9 ORANGE flashes	Loop not cut. Ensure loop is cut for automatic transmission. Reset and re-learn.
	🟠		10 ORANGE flashes	Boot loader update failed. Contact technical support.
	🟠		11 ORANGE flashes	T-harness detection does not match install type selection in Weblink.
TACH PROGRAMMING	🔴		Solid RED	Tach learn in progress.
	🟢		1 GREEN flash	Tach signal programmed in analog.
	🟢		2 GREEN flashes	Tach signal programmed in data.
	🔴		3 RED flashes	No tach signal detected
	🔴		4 RED flashes	System is in valet mode. Turn off valet mode to program tach.
	🔴		6 RED flashes	Engine sensing set for 'assumed start'. No tach programming required.
	🟠		7 ORANGE flashes	Engine sensing not configured properly. Contact technical support.

* LED 2 (RS) displays generic diagnostic codes specific to the remote start module. Orange LED flashes may appear red.
** LED 1 (Bypass) displays diagnostic codes specific to the firmware loaded on the module.
Visit the programming diagnostics page for more information.

U.S. Patent No. 8,856,780 CA 2759622
Automotive Data Solutions Inc. © 2024

MODULE STATUS DURING:	 LED 2*	LED 1**	LED STATUS	DIAGNOSTIC
REMOTE START SEQUENCE	●		Flashing rapid RED	Remote start shutdown sequence.
	●		Flashing slow RED	Remote start shutdown error code. Contact technical support.
	●		Solid RED	Remote start crank delay.
	●		Flashing rapid GREEN	Remote start cycle in progress. Working correctly.
	●		1 GREEN flash	Remote start initiated successfully.
	●		3 GREEN flashes	Idle mode cycle in progress.
	●		4 GREEN flashes	Turbo mode cycle in progress.
		●	Flashing GREEN	Remote start cycle in progress. Displays vehicle platform during runtime.
		●	Rapid GREEN flashing	Secure takeover initiated. Waiting to complete takeover after brake press.
TRANSMITTER PROGRAMMING	●		Solid RED	Remote programming in progress, waiting for remote pairing.
	●		1 GREEN flash	Remote programmed.
	●		4 RED flashes	Shutdown remote starter before attempting remote programming.
	●		5 RED flashes	Engine must be off before attempting remote programming.
	●		6 RED flashes	System must be unlocked/disarmed before attempting remote programming.
	●		7 RED flashes	Module must be learned to the vehicle before attempting remote programming.

* LED 2 (RS) displays generic diagnostic codes specific to the remote start module. Orange LED flashes may appear red.
** LED 1 (Bypass) displays diagnostic codes specific to the firmware loaded on the module.
Visit the programming diagnostics page for more information.

U.S. Patent No. 8,856,780 CA 2759622
Automotive Data Solutions Inc. © 2024