



Automotive Data Solutions Inc.

INSTALL GUIDE FLC-AL(DL)-TL9-EN

TL9

AVAILABLE FOR: FLCAN

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PATENT NO. US 8,856,780 CA 2759622

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SCION

TOYOTA

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INSTALL TYPE SELECTION

MAKE	MODEL	YEAR	INSTALL TYPE	FEATURES															
				DATA IMMOBILIZER BYPASS	PARKING LIGHT CTRL	ARM OEM ALARM	DISARM OEM ALARM	DOOR LOCK	DOOR UNLOCK	POWER SLIDING DOOR (L) *	POWER SLIDING DOOR (R) *	TRUNK/HATCH RELEASE*	DOOR STATUS OUTPUT	TRUNK STATUS OUTPUT	HOOD STATUS OUTPUT**	TACHOMETER OUTPUT	BRAKE PEDAL STATUS OUTPUT	E-BRAKE OUTPUT	A/M ALARM CTRL FROM OEM REMOTES
SCION	iM STD key (H)	16	4	•	•	•	•	•	•			•	•	•	•	•	•	•	
TOYOTA	4Runner STD key (H)	20	22	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Camry STD key (H)	15-17	1	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Camry STD key (H)	18-20	16	•	•	•	•	•	•			•	•	•	•	•	•	•	
	C-HR STD key (H)	18-19	15	•	•	•	•	•	•			•	•	•	•	•	•	•	
	C-HR STD key (H)	20	24	•		•	•	•	•			•	•	•	•	•	•	•	
	Corolla iM STD key (H)	17-18	12	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Corolla STD key (H)	14-16	4	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Corolla STD key (H)	17-20	12	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Highlander STD key (H)	14-16	2	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Highlander STD key (H)	17-18	14	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Highlander STD key (H)	19	21	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Prius C STD key (H)	15-16	3	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Prius C STD key (H)	17-19	11	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Rav4 STD key (H)	13-15	7	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Rav4 STD key (H)	16-18	6	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Sequoia STD key (H)	15-17	9	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Sequoia STD key (H)	18-19	20	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Sienna STD key (H)	15-17	10	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	Sienna STD key (H)	18-20	17	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	Tacoma STD key (H)	16-17	8	•	•	•	•	•	•				•		•	•	•	•	
	Tacoma STD key (H)	18-19	18	•	•	•	•	•	•				•		•	•	•	•	
	Tacoma STD key (H)	20	25	•		•	•	•	•				•		•	•	•	•	
	Tundra STD key (H)	18-19	19	•	•	•	•	•	•				•		•	•	•	•	
	Tundra STD key (H)	20	23	•	•	•	•	•	•				•		•	•	•	•	
	Yaris Hatchback STD key (H)	15-16	5	•	•	•	•	•	•			•	•	•	•	•	•	•	
	Yaris Hatchback STD key (H)	17-19	13	•	•	•	•	•	•			•	•	•	•	•	•	•	

* Available only when ignition is off.

** Available only if vehicle is equipped with factory hood switch.

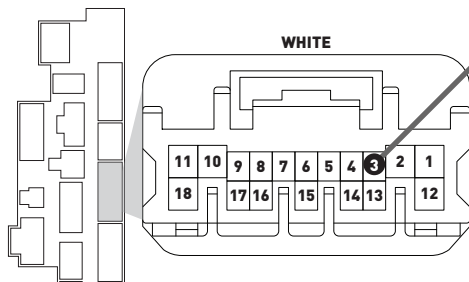
TYPE 1 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Camry STD key (H)	15-17	CanH	E13	White	16 pin	06	Blue	(DATA)	OBDII	~
			CanL	E13	White	16 pin	14	White	(DATA)	OBDII	~
			SIL	E13	White	16 pin	07	Gray	(DATA)	OBDII	~
			RDA	I13	White	30 pin	16	Blue	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	I01	White	18 pin	03	Yellow	(+)	Passenger kick panel, junction block	~
			Autolights	I13	White	30 pin	28	Green	(-)	Body ECU next to dash fuse box	~
			12V	I36	White	08 pin	05	Green	(+)	Ignition switch	~
			Ignition	I36	White	08 pin	06	Black	(+)	Ignition switch	~
			Ignition 2	I36	White	08 pin	01	Pink	(+)	Ignition switch	~
			Starter	I36	White	08 pin	07	Blue	(+)	Ignition switch	~
			Starter 2	I36	White	08 pin	03	LtGreen	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 1 - WIRING DIAGRAM - 1 OF 1

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



PASSENGER KICK PANEL

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

REMOTE STARTER

← REQUIRED	REQUIRED →	STARTER (+) OUTPUT
← REQUIRED	REQUIRED →	12V (+) INPUT
← REQUIRED	REQUIRED →	STARTER 2 (+) OUTPUT
← REQUIRED	REQUIRED →	IGNITION 2 (+) OUTPUT
← REQUIRED	REQUIRED →	IGNITION (+) OUTPUT
← REQUIRED	REQUIRED →	BRAKE (+) INPUT
← REQUIRED	REQUIRED →	HOOD STATUS (-) INPUT
← REQUIRED	OPTIONAL →	TRUNK STATUS (-) INPUT
← REQUIRED	OPTIONAL →	DOOR STATUS (-) INPUT

DATA MODE

LEGEND
N/A NOT REQUIRED IN DATA MODE (1-WAY)
- NOT REQUIRED IN DATA MODE (2-WAY)

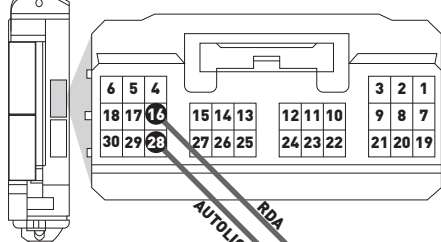
USE DATA MODE
OR HARDWIRE MODE

DATA MODE

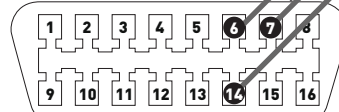
GWR (-) INPUT - BLUE/WHITE
(NC) WHITE
GROUND - BLACK
12V (+) - RED
LOCK/ARM (-) INPUT - GREEN/BLACK
UNLOCK/DISARM (-) INPUT - BLUE/BLACK
TRUNK (-) INPUT - RED/WHITE
(NC) BROWN
(NC) PURPLE/YELLOW
(NC) PURPLE/BLACK
PARKING LIGHT (+) INPUT - WHITE
(NC) BLACK/WHITE
E-BRAKE STATUS (-) OUTPUT - GREEN
TACH (AC) OUTPUT - PURPLE/WHITE

MAIN BODY ECU

WHITE CONNECTOR



WHITE CONNECTOR



WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
WHITE/RED - TPMS IGNITION (+) VEHICLE
WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
YELLOW/RED - TRUNK STATUS (-) OUTPUT
YELLOW - HOOD STATUS (-) OUTPUT

BROWN/RED - CANH
BROWN/YELLOW - CANL
ORANGE/BLACK - SIL
ORANGE/WHITE (NC)
ORANGE - BRAKE STATUS (+) OUTPUT
PINK/BLACK (NC)
PINK - IGNITION (+) INPUT

BLUE/RED (NC)
BLUE/YELLOW (NC)
GREEN/RED - RDA (DATA)
GREEN/YELLOW (NC)
GRAY/RED - GROUND (-) INPUT
GRAY/YELLOW (NC)

SEE NOTE 1

NOTE 1:
CONNECT TO GROUND
IF VEHICLE IS NOT EQUIPPED
WITH IMMOBILIZER

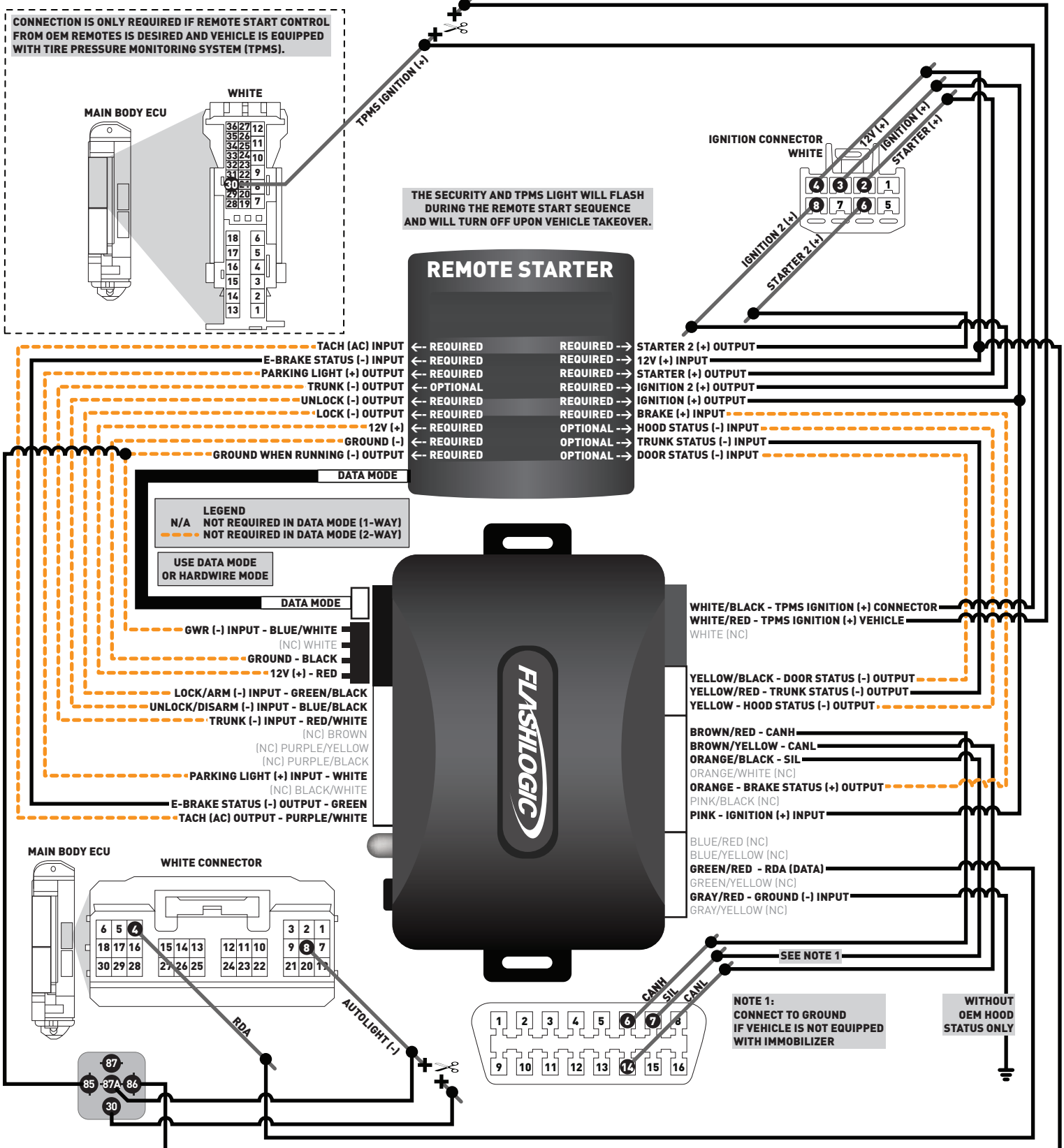
WITHOUT
OEM HOOD
STATUS ONLY

TYPE 2 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Highlander STD key (H)	14-16	CanH	E13	White	16 pin	06	Purple	(DATA)	OBDII	~
			CanL	E13	White	16 pin	14	White	(DATA)	OBDII	~
			SIL	E13	White	16 pin	07	LtBlue	(DATA)	OBDII	~
			RDA	F19	White	30 pin	04	LtGreen	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	4H	White	36 pin	30	Yellow	(+)	Dash fuse box	~
			Autolights	F19	White	30 pin	08	Black	(-)	Body ECU next to dash fuse box	~
			12V	F50	White	08 pin	04	Black	(+)	Ignition switch	~
			Ignition	F50	White	08 pin	03	Black	(+)	Ignition switch	~
			Ignition 2	F50	White	08 pin	08	Green	(+)	Ignition switch	~
			Starter	F50	White	08 pin	02	Blue	(+)	Ignition switch	~
			Starter 2	F50	White	08 pin	06	Gray	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 2 - WIRING DIAGRAM - 1 OF 1



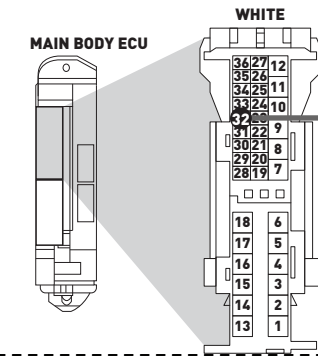
TYPE 3 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Prius C STD key (H)	15-16	CanH	~	White	16 pin	06	Gray	(DATA)	OBDII	~
			CanL	~	White	16 pin	14	White	(DATA)	OBDII	~
			SIL	E13	White	16 pin	07	Black	(DATA)	OBDII	~
			RDA	~	White	30 pin	16	LtGreen	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	3D	White	36 pin	32	Blue	(+)	Dash fuse box	~
			Autolights	~	White	30 pin	28	Red	(-)	Body ECU next to dash fuse box	~
			12V	~	White	08 pin	04	Black	(+)	Ignition switch	~
			Ignition	~	White	08 pin	06	Pink	(+)	Ignition switch	~
			Ignition 2	~	White	08 pin	01	LtBlue	(+)	Ignition switch	~
			Starter	~	White	08 pin	07	Green	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 3 - WIRING DIAGRAM - 1 OF 1

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



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

REMOTE STARTER

- ← REQUIRED → TACH (AC) INPUT
- ← REQUIRED → E-BRAKE STATUS (-) INPUT
- ← REQUIRED → PARKING LIGHT (+) OUTPUT
- ← REQUIRED → LEFT SLIDING DOOR (-) INPUT
- ← REQUIRED → RIGHT SLIDING DOOR (-) INPUT
- ← REQUIRED → TRUNK (-) OUTPUT
- ← REQUIRED → UNLOCK (-) OUTPUT
- ← REQUIRED → LOCK (-) OUTPUT
- ← REQUIRED → 12V (+)
- ← REQUIRED → GROUND (-)
- ← REQUIRED → GROUND WHEN RUNNING (-) OUTPUT

- REQUIRED → 12V (+) INPUT
- REQUIRED → STARTER (+) OUTPUT
- REQUIRED → IGNITION 2 (+) OUTPUT
- REQUIRED → IGNITION (+) OUTPUT
- REQUIRED → BRAKE (+) INPUT
- OPTIONAL → HOOD STATUS (-) INPUT
- OPTIONAL → TRUNK STATUS (-) INPUT
- OPTIONAL → DOOR STATUS (-) INPUT

LEGEND
 N/A NOT REQUIRED IN DATA MODE (1-WAY)
 - NOT REQUIRED IN DATA MODE (2-WAY)

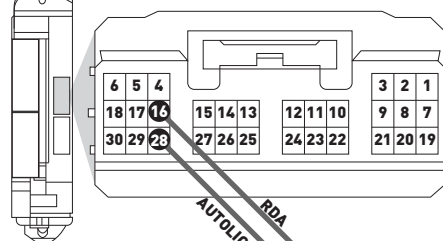
USE DATA MODE OR HARDWIRE MODE

DATA MODE

- GWR (-) INPUT - BLUE/WHITE (NC) WHITE
- GROUND - BLACK
- 12V (+) - RED
- LOCK/ARM (-) INPUT - GREEN/BLACK
- UNLOCK/DISARM (-) INPUT - BLUE/BLACK
- TRUNK (-) INPUT - RED/WHITE (NC) BROWN
- RIGHT SLIDING DOOR (-) INPUT - PURPLE/YELLOW
- LEFT SLIDING DOOR (-) INPUT - PURPLE/BLACK
- PARKING LIGHT (+) INPUT - WHITE (NC) BLACK/WHITE
- E-BRAKE STATUS (-) OUTPUT - GREEN
- TACH (AC) OUTPUT - PURPLE/WHITE

MAIN BODY ECU

WHITE CONNECTOR



WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

WHITE CONNECTOR

IGNITION CONNECTOR WHITE



- REQUIRED → 12V (+) INPUT
- REQUIRED → STARTER (+) OUTPUT
- REQUIRED → IGNITION 2 (+) OUTPUT
- REQUIRED → IGNITION (+) OUTPUT
- REQUIRED → BRAKE (+) INPUT
- OPTIONAL → HOOD STATUS (-) INPUT
- OPTIONAL → TRUNK STATUS (-) INPUT
- OPTIONAL → DOOR STATUS (-) INPUT

WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
 WHITE/RED - TPMS IGNITION (+) VEHICLE
 WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
 YELLOW/RED - TRUNK STATUS (-) OUTPUT
 YELLOW - HOOD STATUS (-) OUTPUT

BROWN/RED - CANH
 BROWN/YELLOW - CANL
 ORANGE/BLACK - SIL
 ORANGE/WHITE (NC)
 ORANGE - BRAKE STATUS (+) OUTPUT
 PINK/BLACK (NC)
 PINK - IGNITION (+) INPUT

BLUE/RED (NC)
 BLUE/YELLOW (NC)
 GREEN/RED - RDA (DATA)
 GREEN/YELLOW (NC)
 GRAY/RED - GROUND (-) INPUT
 GRAY/YELLOW (NC)

SEE NOTE 1

NOTE 1:
 CONNECT TO GROUND
 IF VEHICLE IS NOT EQUIPPED
 WITH IMMOBILIZER

WITHOUT
 OEM HOOD
 STATUS ONLY

TYPE 4 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
SCION	iM STD key (H)	16	CanH	E13	White	16 pin	06	Red	(DATA)	OBDII	~
			CanL	E13	White	16 pin	14	White	(DATA)	OBDII	~
			SIL	E13	White	16 pin	07	LtGreen	(DATA)	OBDII	~
			RDA	E31	White	30 pin	16	Green	(DATA)	Below dash junction box	~
			TPMS ignition*	3E	White	36 pin	28	Blue	(+)	Dash fuse box	
			Autolights	E31	White	30 pin	28	Purple	(-)	Below dash junction box	~
			12V	E4	White	08 pin	04	Blue	(+)	Ignition switch	~
			Ignition	E4	White	08 pin	03	Gray	(+)	Ignition switch	~
			Ignition 2	E4	White	08 pin	08	Green	(+)	Ignition switch	~
			Starter	E4	White	08 pin	02	White	(+)	Ignition switch	~
TOYOTA	Corolla STD key (H)	14-16	CanH	E13	White	16 pin	06	Red	(DATA)	OBDII	~
			CanL	E13	White	16 pin	14	White	(DATA)	OBDII	~
			SIL	E13	White	16 pin	07	LtGreen	(DATA)	OBDII	~
			RDA	E31	White	30 pin	16	Green	(DATA)	Below dash junction box	~
			TPMS ignition*	3E	White	36 pin	28	Blue	(+)	Dash fuse box	
			Autolights	E31	White	30 pin	28	Purple	(-)	Below dash junction box	~
			12V	E4	White	08 pin	04	Blue	(+)	Ignition switch	~
			Ignition	E4	White	08 pin	03	Gray	(+)	Ignition switch	~
			Ignition 2	E4	White	08 pin	08	Green	(+)	Ignition switch	~
			Starter	E4	White	08 pin	02	White	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

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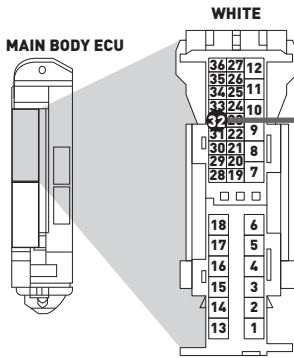
TYPE 5 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Yaris Hatchback STD key (H) w/o OEM alarm	15-16	CanH	E13	White	16 pin	06	Gray	(DATA)	OBDII	~
			CanL	E13	White	16 pin	14	White	(DATA)	OBDII	~
			SIL	E13	White	16 pin	07	Black	(DATA)	OBDII	~
			RDA	D143	White	30 pin	16	Pink	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	3D	White	36 pin	32	Blue	(+)	Dash fuse box	~
			12V	D109	White	08 pin	04	Yellow	(+)	Ignition switch	~
			Ignition	D109	White	08 pin	06	Pink	(+)	Ignition switch	~
			Ignition 2	D109	White	08 pin	01	LtBlue	(+)	Ignition switch	~
			Starter	D109	White	08 pin	07	Green	(+)	Ignition switch	~
	Yaris Hatchback STD key (H) with OEM alarm	15-16	CanH	E13	White	16 pin	06	Gray	(DATA)	OBDII	~
			CanL	E13	White	16 pin	14	White	(DATA)	OBDII	~
			SIL	E13	White	16 pin	07	Black	(DATA)	OBDII	~
			RDA	D143	White	30 pin	26	Pink	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	3D	White	36 pin	32	Blue	(+)	Dash fuse box	~
			12V	D109	White	08 pin	04	Yellow	(+)	Ignition switch	~
			Ignition	D109	White	08 pin	06	Pink	(+)	Ignition switch	~
			Ignition 2	D109	White	08 pin	01	LtBlue	(+)	Ignition switch	~
			Starter	D109	White	08 pin	07	Green	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

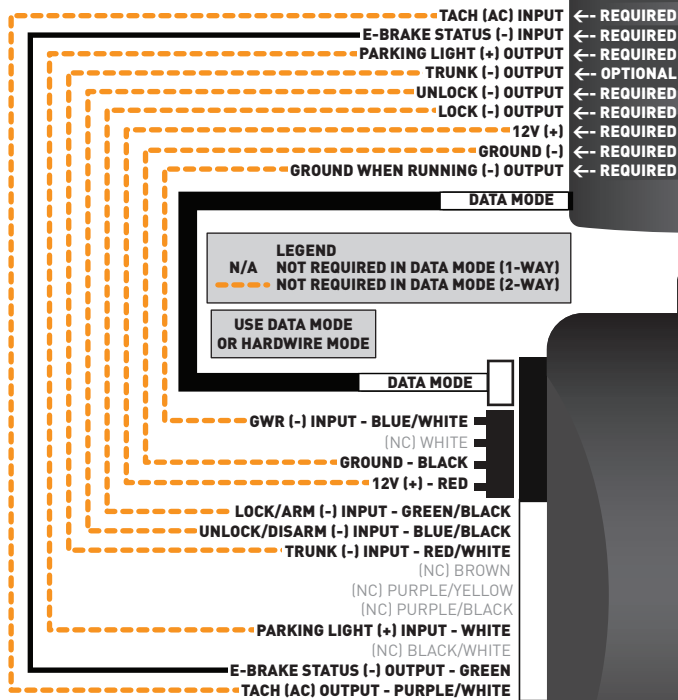
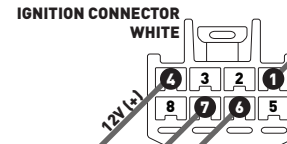
TYPE 5 - WIRING DIAGRAM - 1 OF 1

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

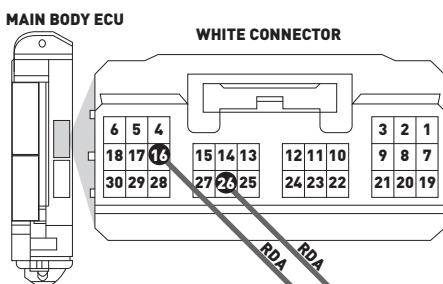


THE SECURITY AND TPMS LIGHT WILL FLASH DURING THE REMOTE START SEQUENCE AND WILL TURN OFF UPON VEHICLE TAKEOVER.

REMOTE STARTER



- REQUIRED → 12V (+) INPUT
- REQUIRED → STARTER (+) OUTPUT
- REQUIRED → IGNITION 2 (+) OUTPUT
- REQUIRED → IGNITION (+) OUTPUT
- REQUIRED → BRAKE (+) INPUT
- OPTIONAL → HOOD STATUS (-) INPUT
- OPTIONAL → TRUNK STATUS (-) INPUT
- OPTIONAL → DOOR STATUS (-) INPUT



WHITE CONNECTOR

WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
WHITE/RED - TPMS IGNITION (+) VEHICLE
WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
YELLOW/RED - TRUNK STATUS (-) OUTPUT
YELLOW - HOOD STATUS (-) OUTPUT

BROWN/RED - CANH
BROWN/YELLOW - CANL
ORANGE/BLACK - SIL
ORANGE/WHITE (NC)
ORANGE - BRAKE STATUS (+) OUTPUT
PINK/BLACK (NC)
PINK - IGNITION (+) INPUT

BLUE/RED (NC)
BLUE/YELLOW (NC)
GREEN/RED - RDA (DATA)
GREEN/YELLOW (NC)
GRAY/RED - GROUND (-) INPUT
GRAY/YELLOW (NC)

SEE NOTE 1

NOTE 1:
CONNECT TO GROUND
IF VEHICLE IS NOT EQUIPPED
WITH IMMOBILIZER

WITHOUT
OEM HOOD
STATUS ONLY

TYPE 6 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Rav4 STD key (H)	16-18	CanH	G12	Black	05 pin	03	Pink	(DATA)	Clock spring, under steering wheel	~
			CanL	G12	Black	05 pin	02	White	(DATA)	Clock spring, under steering wheel	~
			SIL	E13	White	16 pin	07	DkGreen	(DATA)	OBDII	~
			RDA	E31	White	30 pin	16	LtBlue	(DATA)	Below fuse junction box	~
			TPMS ignition*	GM2	Blue	20 pin	13	Tan	(+)	Passenger kick panel, junction block	~
			Autolights	E31	White	30 pin	28	Green	(-)	Below fuse junction box	~
			12V	G4	White	08 pin	04	White	(+)	Ignition switch	~
			Ignition	G4	White	08 pin	03	White	(+)	Ignition switch	~
			Ignition 2	G4	White	08 pin	08	Pink	(+)	Ignition switch	~
			Starter	G4	White	08 pin	02	White	(+)	Ignition switch	~

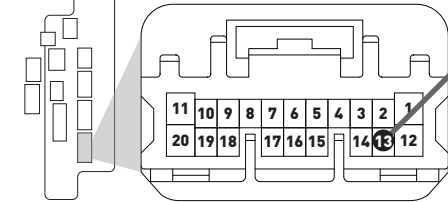
* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 6 - WIRING DIAGRAM - 1 OF 1

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

PASSENGER KICK PANEL

BLUE



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

REMOTE STARTER

- ← REQUIRED TACH (AC) INPUT
- ← REQUIRED E-BRAKE STATUS (-) INPUT
- ← REQUIRED PARKING LIGHT (+) OUTPUT
- ← REQUIRED LEFT SLIDING DOOR (-) INPUT
- ← REQUIRED RIGHT SLIDING DOOR (-) INPUT
- ← REQUIRED TRUNK (-) OUTPUT
- ← REQUIRED UNLOCK (-) OUTPUT
- ← REQUIRED LOCK (-) OUTPUT
- ← REQUIRED 12V (+)
- ← REQUIRED GROUND (-)
- ← REQUIRED GROUND WHEN RUNNING (-) OUTPUT

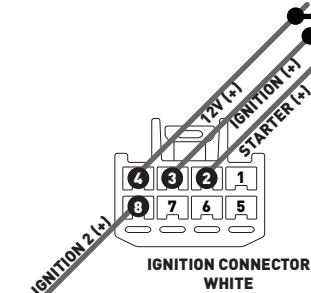
- REQUIRED → 12V (+) INPUT
- REQUIRED → STARTER (+) OUTPUT
- REQUIRED → IGNITION 2 (+) OUTPUT
- REQUIRED → IGNITION (+) OUTPUT
- REQUIRED → BRAKE (+) INPUT
- OPTIONAL → HOOD STATUS (-) INPUT
- OPTIONAL → TRUNK STATUS (-) INPUT
- OPTIONAL → DOOR STATUS (-) INPUT

LEGEND
N/A NOT REQUIRED IN DATA MODE (1-WAY)
NOT REQUIRED IN DATA MODE (2-WAY)

USE DATA MODE OR HARDWIRE MODE

DATA MODE

- GWR (-) INPUT - BLUE/WHITE (NC) WHITE
- GROUND - BLACK
- 12V (+) - RED
- LOCK/ARM (-) INPUT - GREEN/BLACK
- UNLOCK/DISARM (-) INPUT - BLUE/BLACK
- TRUNK (-) INPUT - RED/WHITE (NC) BROWN
- RIGHT SLIDING DOOR (-) INPUT - PURPLE/YELLOW
- LEFT SLIDING DOOR (-) INPUT - PURPLE/BLACK
- PARKING LIGHT (+) INPUT - WHITE (NC) BLACK/WHITE
- E-BRAKE STATUS (-) OUTPUT - GREEN
- TACH (AC) OUTPUT - PURPLE/WHITE



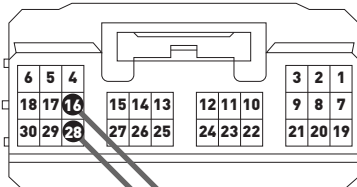
WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
WHITE/RED - TPMS IGNITION (+) VEHICLE
WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
YELLOW/RED - TRUNK STATUS (-) OUTPUT
YELLOW - HOOD STATUS (-) OUTPUT

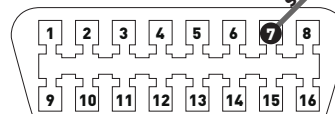
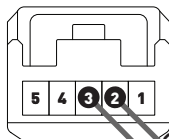
BROWN/RED - CANH
BROWN/YELLOW - CANL
ORANGE/BLACK - SIL
ORANGE/WHITE (NC)
ORANGE - BRAKE STATUS (+) OUTPUT
PINK/BLACK (NC)
PINK - IGNITION (+) INPUT

BLUE/RED (NC)
BLUE/YELLOW (NC)
GREEN/RED - RDA (DATA)
GREEN/YELLOW (NC)
GRAY/RED - GROUND (-) INPUT
GRAY/YELLOW (NC)

BELOW DASH FUSE BOX
WHITE CONNECTOR



STEERING SENSOR AT CLOCK SPRING
UNDER STEERING WHEEL
BLACK



NOTE 1:
CONNECT TO GROUND
IF VEHICLE IS NOT EQUIPPED
WITH IMMOBILIZER

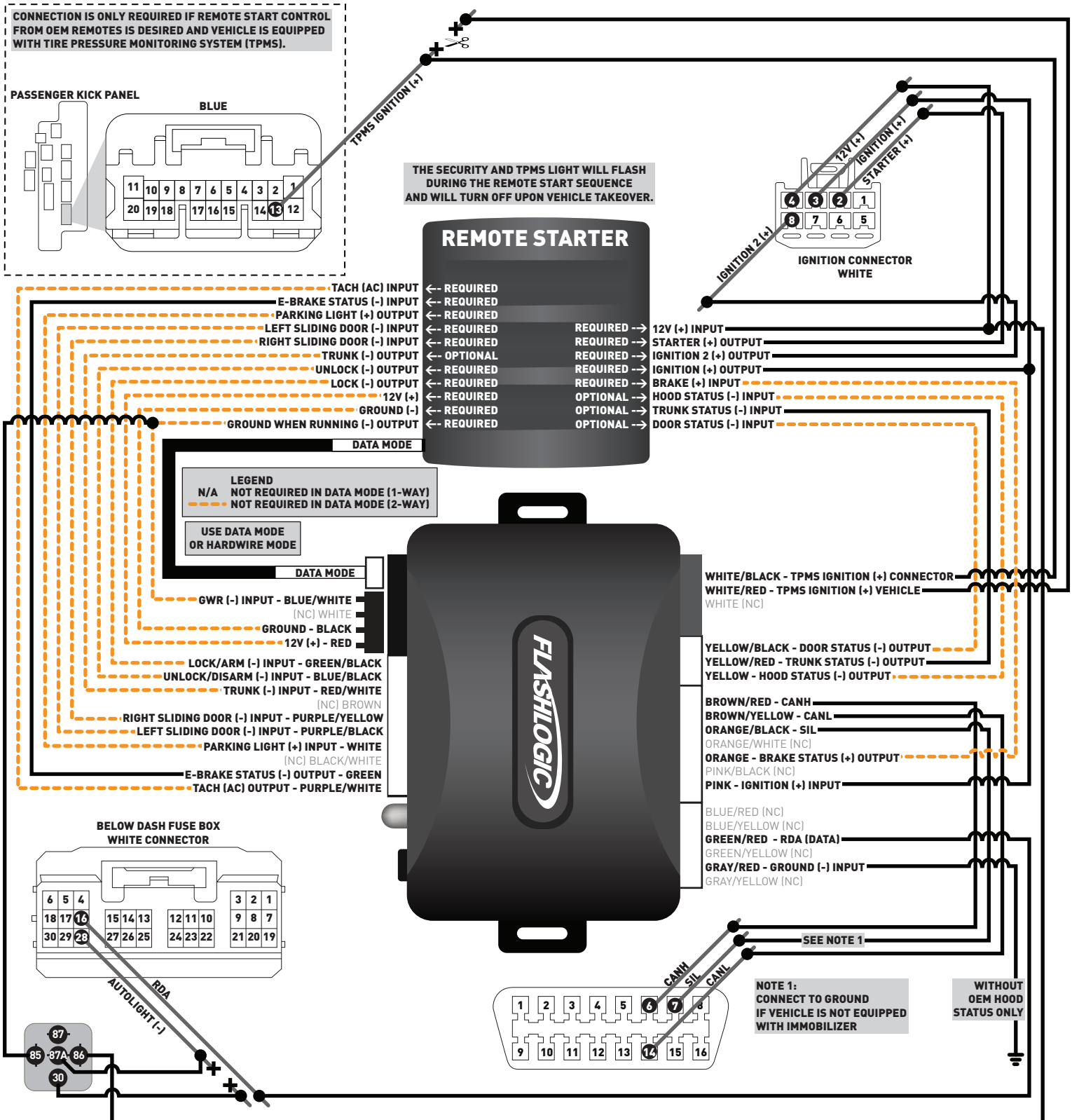
WITHOUT
OEM HOOD
STATUS ONLY

TYPE 7 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Rav4 STD key (H)	13-15	CanH	E13	White	16 pin	06	Black	(DATA)	OBDII	~
			CanL	E13	White	16 pin	14	White	(DATA)	OBDII	~
			SIL	E13	White	16 pin	07	DkGreen	(DATA)	OBDII	~
			RDA	E31	White	30 pin	16	LtBlue or Green	(DATA)	Below dash fuse box	~
			TPMS ignition*	GM2	Blue	20 pin	13	Tan	(+)	Passenger kick panel, junction block	~
			Autolights	E31	White	30 pin	28	Green	(-)	Below dash fuse box	~
			12V	G4	White	08 pin	04	White	(+)	Ignition switch	~
			Ignition	G4	White	08 pin	03	White	(+)	Ignition switch	~
			Ignition 2	G4	White	08 pin	08	Pink	(+)	Ignition switch	~
			Starter	G4	White	08 pin	02	White	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 7 - WIRING DIAGRAM - 1 OF 1



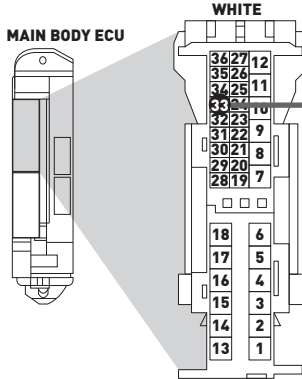
TYPE 8 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Tacoma STD key (H)	16-17	CanH	~	White	16 pin	06	Blue	(DATA)	OBDII	~
			CanL	~	White	16 pin	14	White	(DATA)	OBDII	~
			SIL	E13	White	16 pin	07	White	(DATA)	OBDII	~
			RDA	~	White	30 pin	04	Black	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	1H	White	36 pin	33	LtGreen	(+)	Dash fuse box	~
			Autolights	~	White	30 pin	08	White	(-)	Body ECU next to dash fuse box	~
			12V	~	White	08 pin	04	Red	(+)	Ignition switch	~
			Ignition	~	White	08 pin	03	Black	(+)	Ignition switch	~
			Ignition 2	~	White	08 pin	08	White	(+)	Ignition switch	~
			Starter	~	White	08 pin	02	Green	(+)	Ignition switch	~
			Starter 2	~	White	08 pin	06	Purple	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

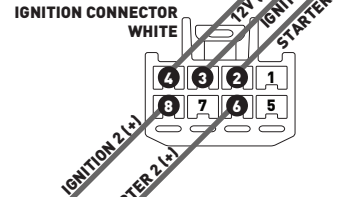
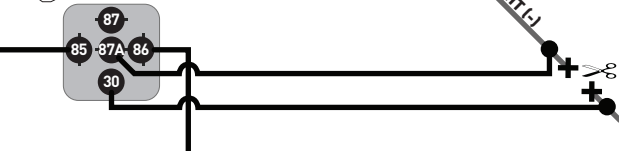
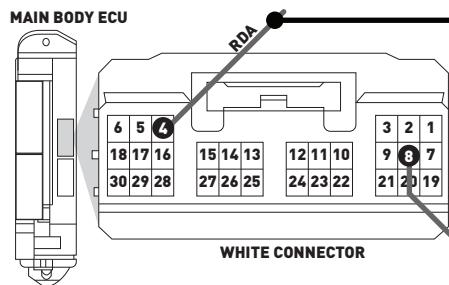
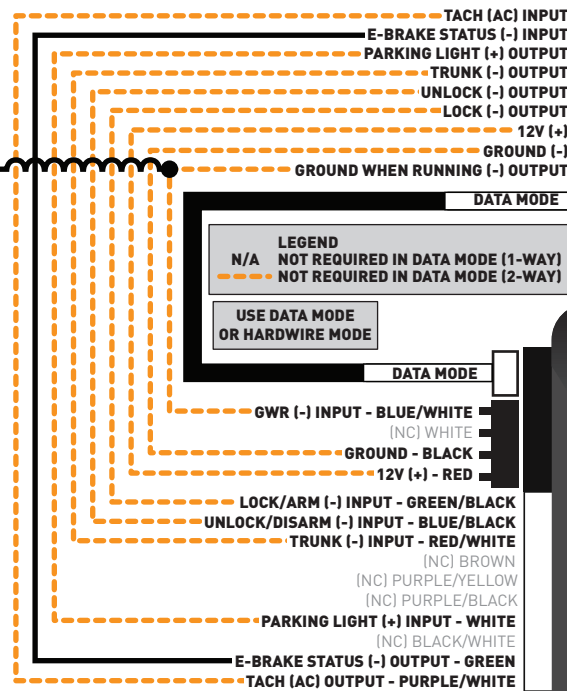
TYPE 8 - WIRING DIAGRAM - 1 OF 1

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



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

REMOTE STARTER



WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
WHITE/RED - TPMS IGNITION (+) VEHICLE
WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
YELLOW/RED - TRUNK STATUS (-) OUTPUT
YELLOW - HOOD STATUS (-) OUTPUT

BROWN/RED - CANH
BROWN/YELLOW - CANL
ORANGE/BLACK - SIL
ORANGE/WHITE (NC)
ORANGE - BRAKE STATUS (+) OUTPUT
PINK/BLACK (NC)
PINK - IGNITION (+) INPUT

BLUE/RED (NC)
BLUE/YELLOW (NC)
GREEN/RED - RDA (DATA)
GREEN/YELLOW (NC)
GRAY/RED - GROUND (-) INPUT
GRAY/YELLOW (NC)

SEE NOTE 1

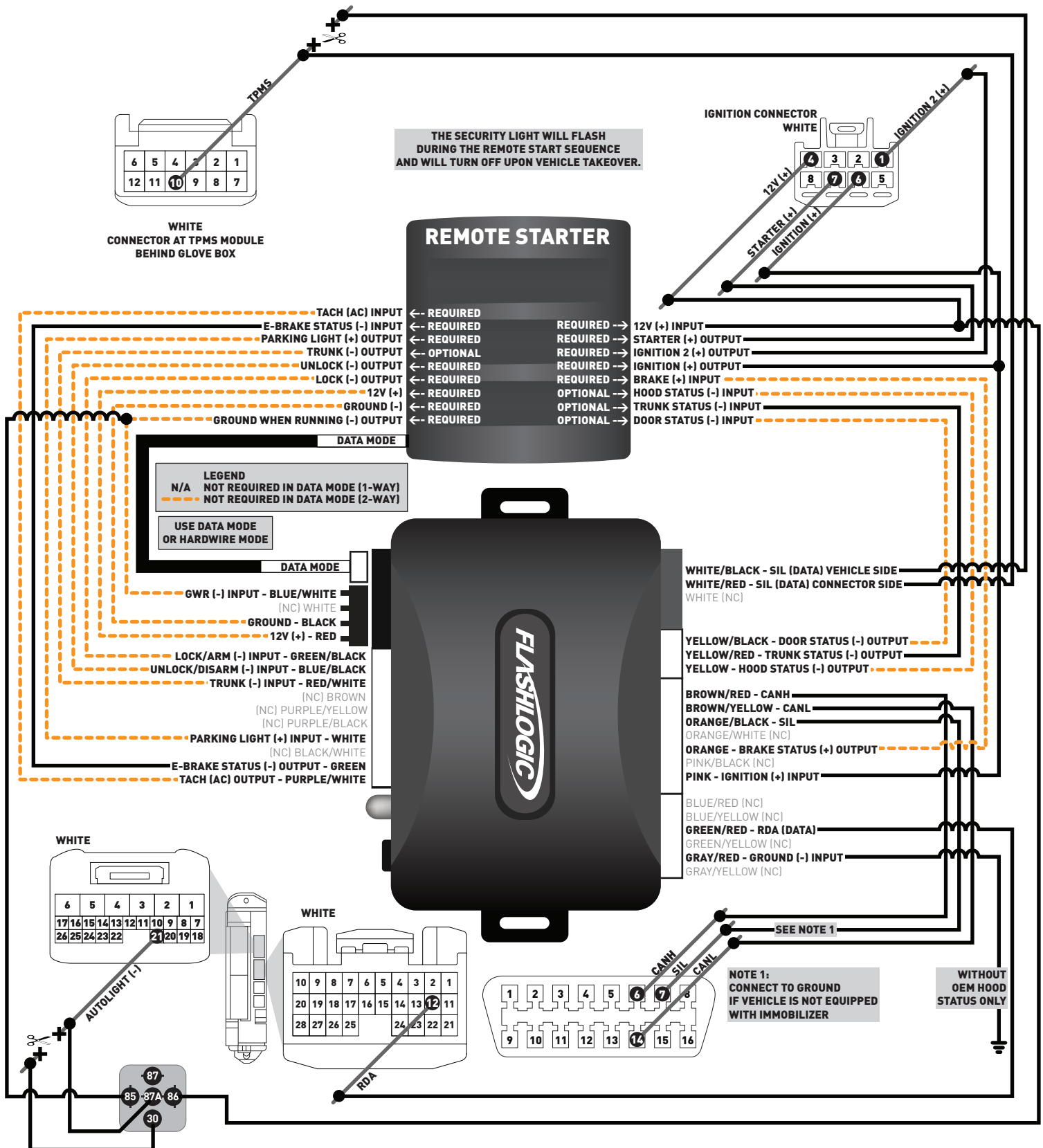
NOTE 1:
CONNECT TO GROUND
IF VEHICLE IS NOT EQUIPPED
WITH IMMOBILIZER

WITHOUT
OEM HOOD
STATUS
ONLY

TYPE 9 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Sequoia STD key (H)	15-17	CanH	E13	White	16 pin	06	Purple	(DATA)	OBDII	~
			CanL	E13	White	16 pin	14	White	(DATA)	OBDII	~
			SIL	E13	White	16 pin	07	Beige	(DATA)	OBDII	~
			TPMS	~	White	12 pin	10	Blue	(DATA)	TPMS module behind glove box	~
			RDA	H3	White	28 pin	12	Purple	(DATA)	Body ECU next to dash fuse box	~
			12V	I36	White	08 pin	04	White	(+)	Ignition switch	~
			Ignition	I36	White	08 pin	06	Black	(+)	Ignition switch	~
			Ignition 2	I36	White	08 pin	01	LtGreen	(+)	Ignition switch	~
			Starter	I36	White	08 pin	07	Green	(+)	Ignition switch	~
			Autolights	~	White	26 pin	21	Green	(-)	Body ECU next to dash fuse box	~

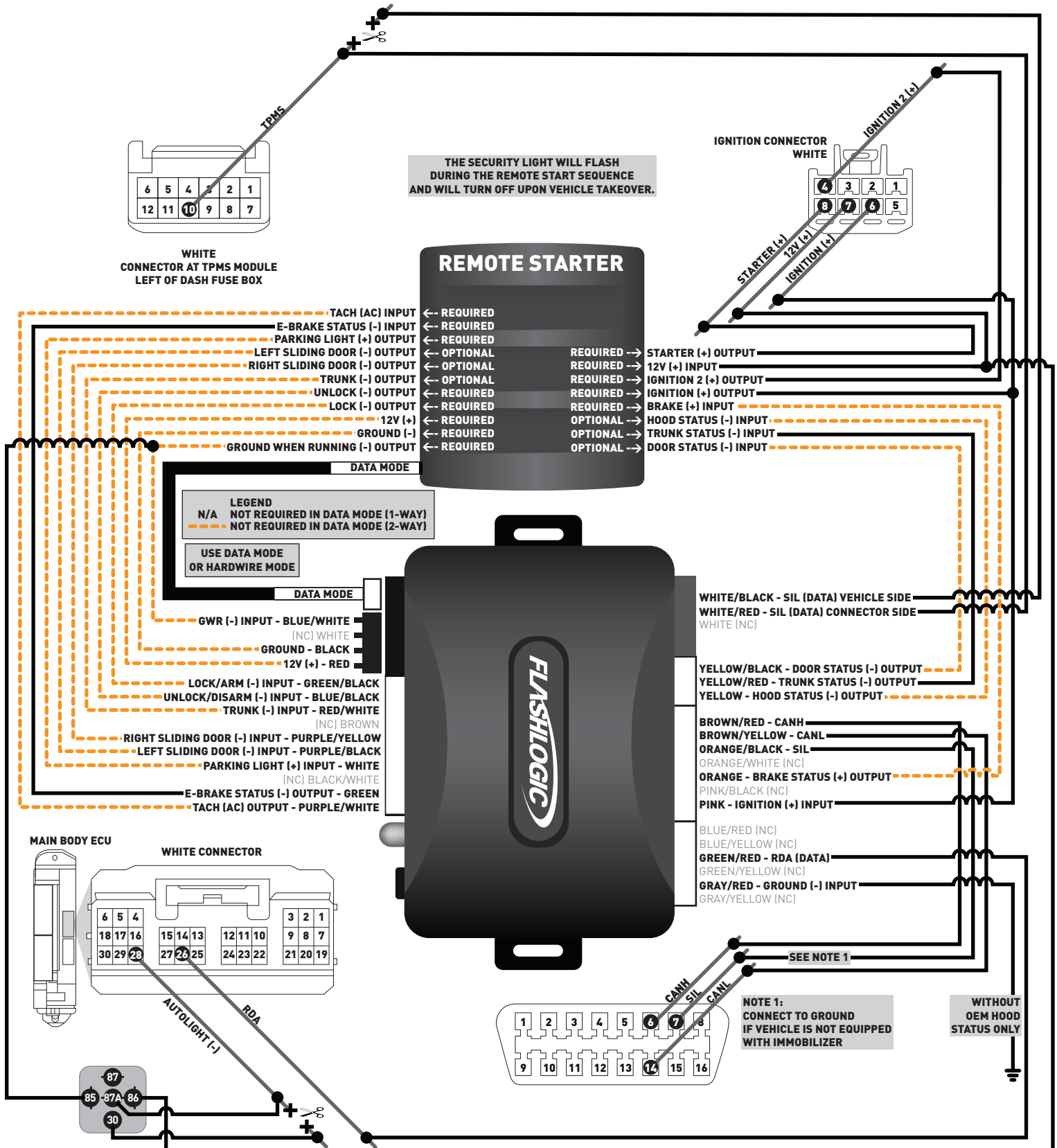
TYPE 9 - WIRING DIAGRAM - 1 OF 1



TYPE 10 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Sienna STD key (H)	15-17	CanH	E13	White	16 pin	06	Red	(DATA)	OBDII	~
			CanL	E13	White	16 pin	14	White	(DATA)	OBDII	~
			SIL	E13	White	16 pin	07	White	(DATA)	OBDII	~
			TPMS	~	White	12 pin	10	White	(DATA)	TPMS module near dash fuse box	~
			RDA	D13	White	30 pin	26	Pink	(DATA)	Body ECU next to dash fuse box	~
			12V	D27	White	08 pin	07	Red	(+)	Ignition switch	~
			Ignition	D27	White	08 pin	06	Black	(+)	Ignition switch	~
			Ignition 2	D27	White	08 pin	04	Yellow	(+)	Ignition switch	~
			Starter	D27	White	08 pin	08	Red	(+)	Ignition switch	~
			Autolights	D13	White	30 pin	28	Purple	(-)	Body ECU next to dash fuse box	~

TYPE 10 - WIRING DIAGRAM - 1 OF 1



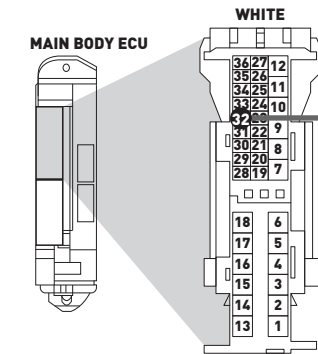
TYPE 11 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Prius C STD key (H)	17-19	CanH	~	White	30 pin	14	Tan	(DATA)	Body ECU next to dash fuse box	~
			CanL	~	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	E13	White	16 pin	07	Black	(DATA)	OBDII	~
			RDA	~	White	30 pin	16	LtGreen	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	3D	White	36 pin	32	Blue	(+)	Dash fuse box	~
			Autolights	~	White	30 pin	28	Red	(-)	Body ECU next to dash fuse box	~
			12V	~	White	08 pin	04	Black	(+)	Ignition switch	~
			Ignition	~	White	08 pin	06	Pink	(+)	Ignition switch	~
			Ignition 2	~	White	08 pin	01	LtBlue	(+)	Ignition switch	~
			Starter	~	White	08 pin	07	Green	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

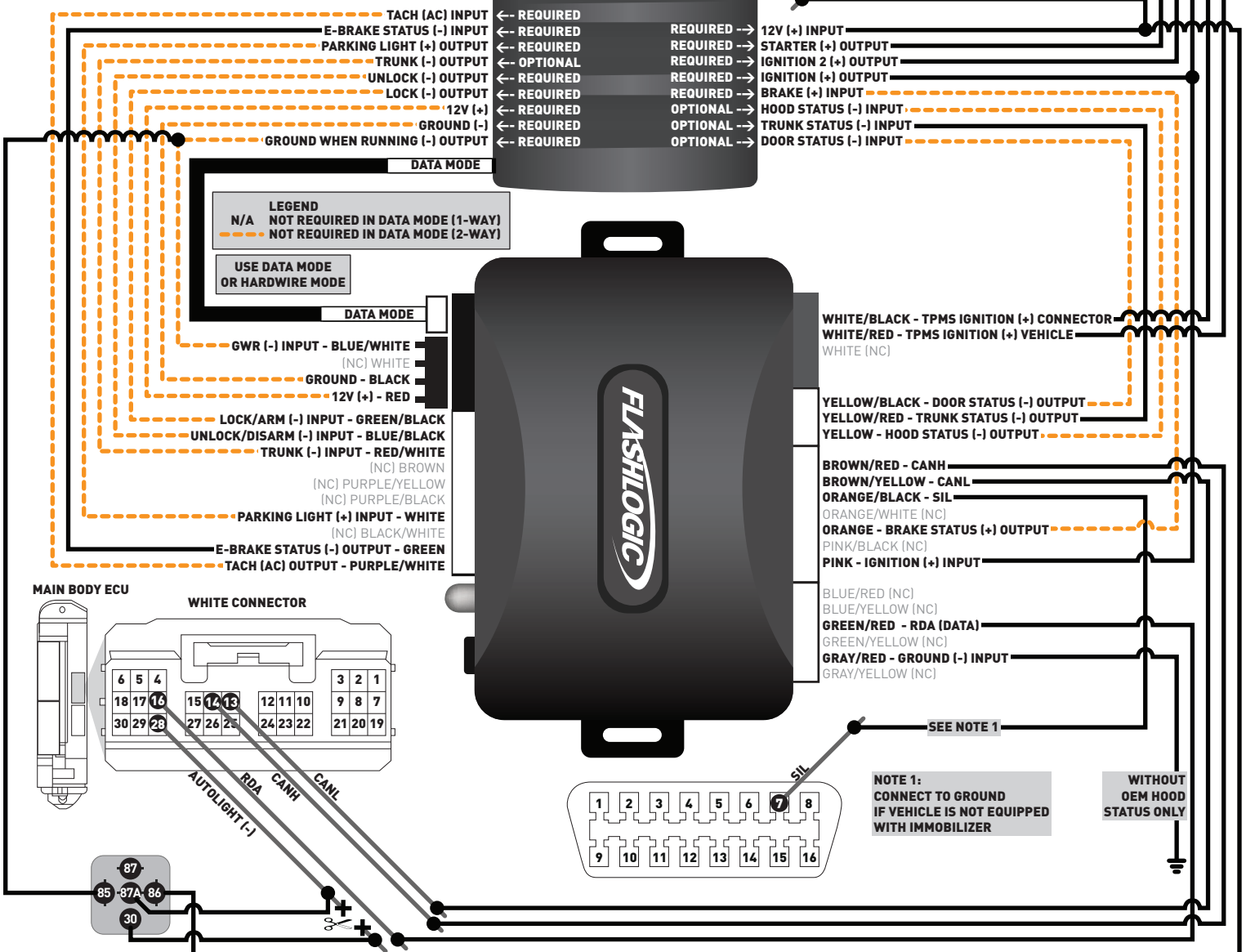
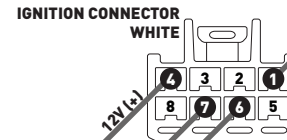
TYPE 11 - WIRING DIAGRAM - 1 OF 1

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



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

REMOTE STARTER

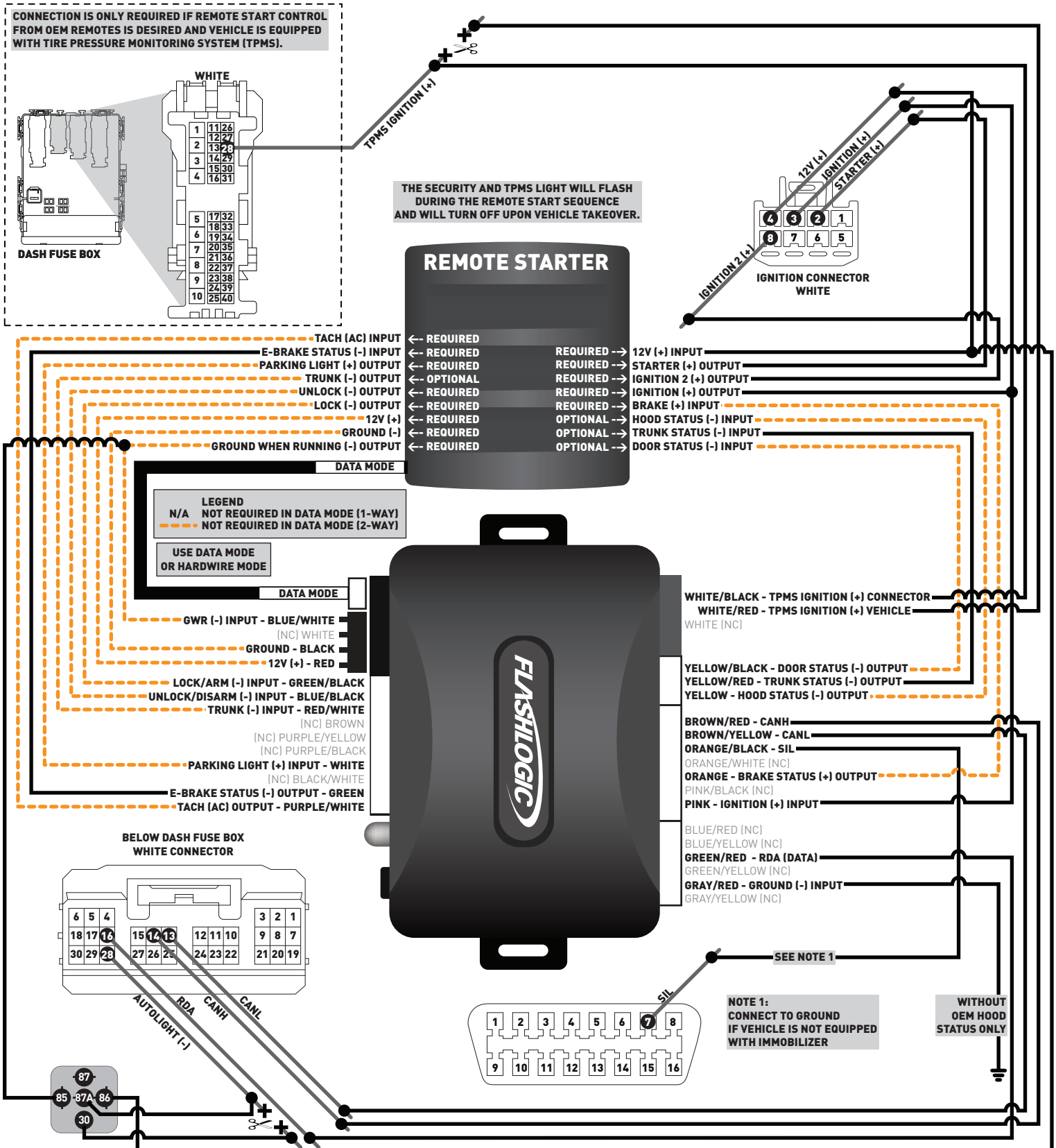


TYPE 12 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Corolla iM STD key (H)	17-18	CanH	E31	White	30 pin	14	Green	(DATA)	Below dash junction box	~
			CanL	E31	White	30 pin	13	White	(DATA)	Below dash junction box	~
			SIL	E13	White	16 pin	07	LtGreen	(DATA)	OBDII	~
			RDA	E31	White	30 pin	16	Green	(DATA)	Below dash junction box	~
			TPMS ignition*	3E	White	36 pin	28	Blue	(+)	Dash fuse box	
			Autolights	E31	White	30 pin	28	Purple	(-)	Below dash junction box	~
			12V	E4	White	08 pin	04	Blue	(+)	Ignition switch	~
			Ignition	E4	White	08 pin	03	Gray	(+)	Ignition switch	~
			Ignition 2	E4	White	08 pin	08	Green	(+)	Ignition switch	~
			Starter	E4	White	08 pin	02	White	(+)	Ignition switch	~
	Corolla STD key (H)	17-20	CanH	E31	White	30 pin	14	Black	(DATA)	Below dash junction box	~
			CanL	E31	White	30 pin	13	White	(DATA)	Below dash junction box	~
			SIL	E13	White	16 pin	07	LtGreen	(DATA)	OBDII	~
			RDA	E31	White	30 pin	16	Green	(DATA)	Below dash junction box	~
			TPMS ignition*	3E	White	36 pin	28	Blue	(+)	Dash fuse box	
			Autolights	E31	White	30 pin	28	Purple	(-)	Below dash junction box	~
			12V	E4	White	08 pin	04	Blue	(+)	Ignition switch	~
			Ignition	E4	White	08 pin	03	Gray	(+)	Ignition switch	~
			Ignition 2	E4	White	08 pin	08	Green	(+)	Ignition switch	~
			Starter	E4	White	08 pin	02	White	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 12 - WIRING DIAGRAM - 1 OF 1



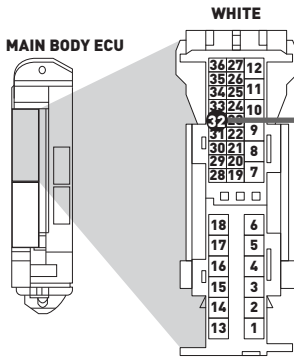
TYPE 13 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Yaris Hatchback STD key (H) w/o OEM alarm	17-19	CanH	D143	White	30 pin	14	Red	(DATA)	Body ECU next to dash fuse box	~
			CanL	D143	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	E13	White	16 pin	07	Black	(DATA)	OBDII	~
			RDA	D143	White	30 pin	16	Pink	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	3D	White	36 pin	32	Blue	(+)	Dash fuse box	~
			12V	D109	White	08 pin	04	Yellow	(+)	Ignition switch	~
			Ignition	D109	White	08 pin	06	Pink	(+)	Ignition switch	~
			Ignition 2	D109	White	08 pin	01	LtBlue	(+)	Ignition switch	~
			Starter	D109	White	08 pin	07	Green	(+)	Ignition switch	~
	Yaris Hatchback STD key (H) with OEM alarm	17-19	CanH	D143	White	30 pin	14	Red	(DATA)	Body ECU next to dash fuse box	~
			CanL	D143	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	E13	White	16 pin	07	Black	(DATA)	OBDII	~
			RDA	D143	White	30 pin	26	Pink	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	3D	White	36 pin	32	Blue	(+)	Dash fuse box	~
			12V	D109	White	08 pin	04	Yellow	(+)	Ignition switch	~
			Ignition	D109	White	08 pin	06	Pink	(+)	Ignition switch	~
			Ignition 2	D109	White	08 pin	01	LtBlue	(+)	Ignition switch	~
			Starter	D109	White	08 pin	07	Green	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

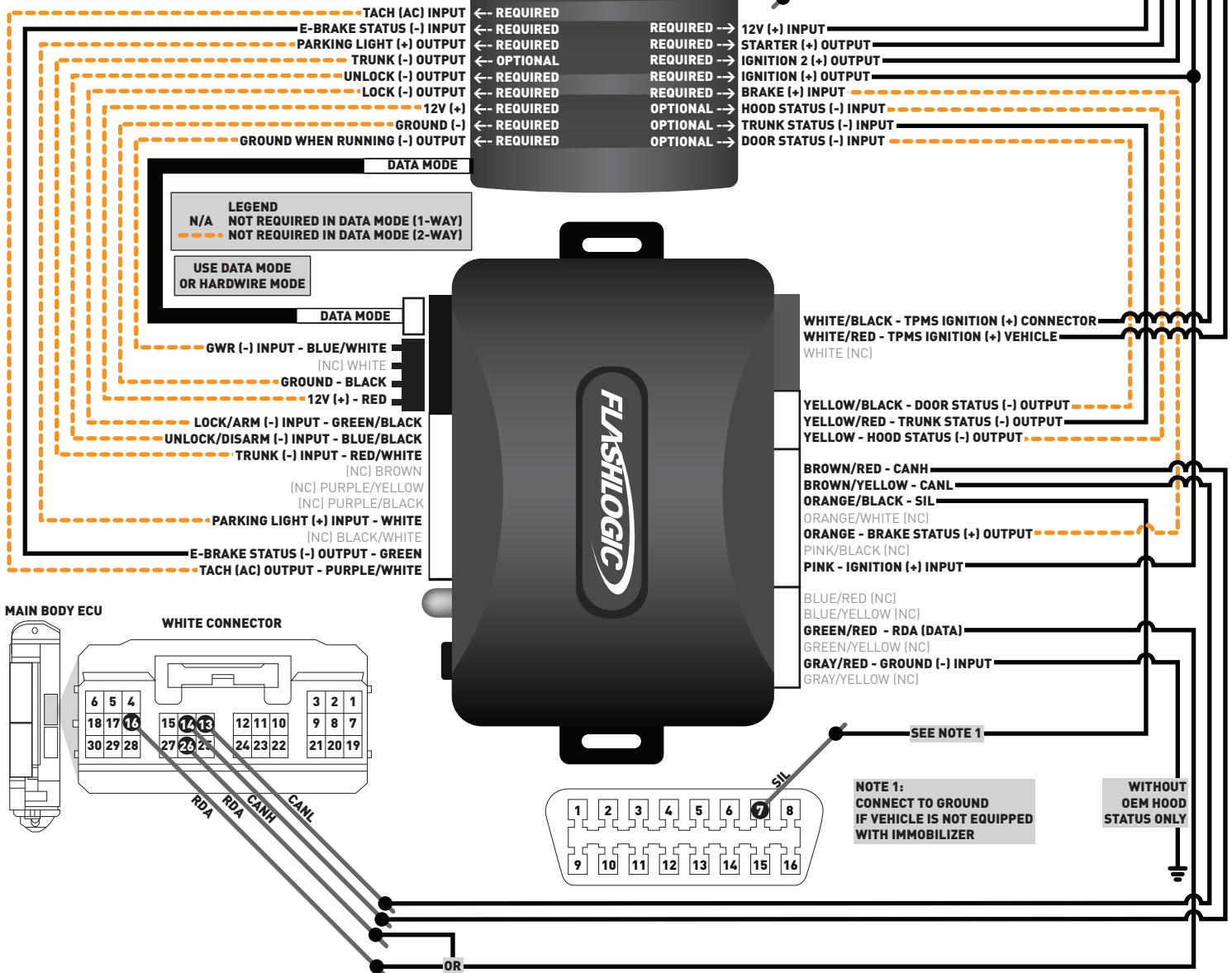
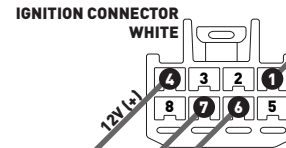
TYPE 13 - WIRING DIAGRAM - 1 OF 1

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



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

REMOTE STARTER

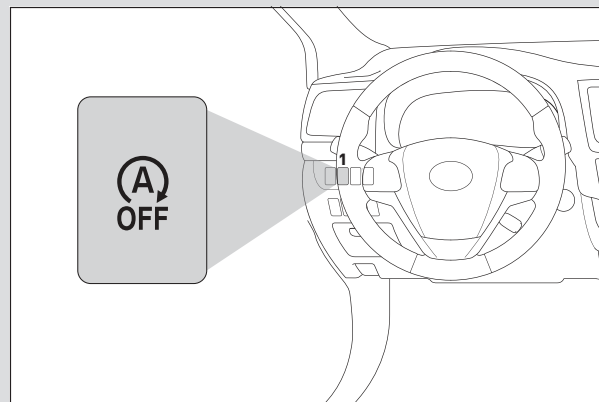


TYPE 14 - TECHNICAL NOTES - 1 OF 1

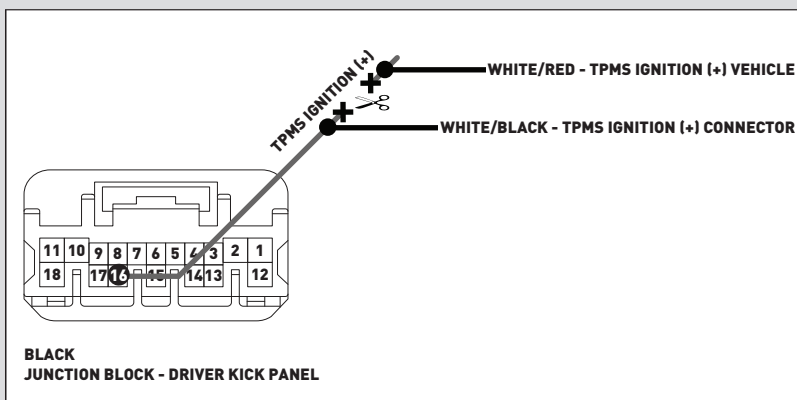
IMPORTANT

- Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (tpms).

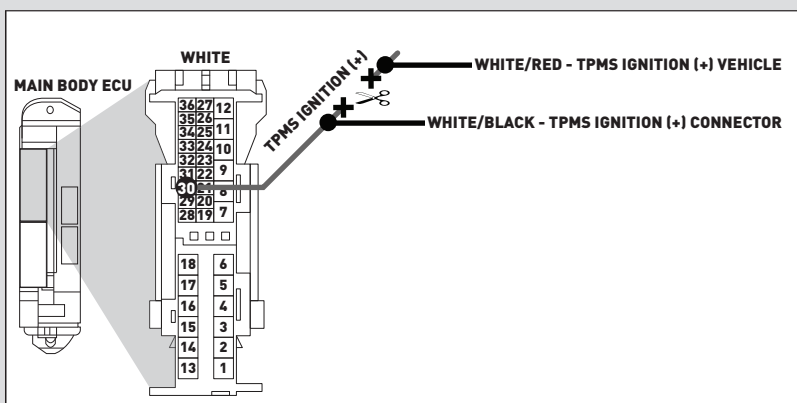
Look for this switch to determine if the vehicle is equipped with the stop & start system:



WITH STOP & START SYSTEM:



WITHOUT STOP & START SYSTEM:



TYPE 14 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Highlander STD key (H)	17-18	CanH	F19	White	30 pin	14	Red	(DATA)	Body ECU next to dash fuse box	~
			CanL	F19	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	E13	White	16 pin	07	LtBlue	(DATA)	OBDII	~
			RDA	F19	White	30 pin	04	LtGreen	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition* w/o Stop & Start	4H	White	36 pin	30	Yellow	(+)	Dash fuse box	~
			TPMS ignition* w/ Stop & Start	FM1	Black	18 pin	16	Red	(+)	Junction block, driver kick panel	~
			Autolights	F19	White	30 pin	08	Black	(-)	Body ECU next to dash fuse box	~
			12V	F50	White	08 pin	04	Black or Tan	(+)	Ignition switch	~
			Ignition 1	F50	White	08 pin	03	Black	(+)	Ignition switch	~
			Ignition 2	F50	White	08 pin	08	Green	(+)	Ignition switch	~
			Starter 2**	F50	White	08 pin	02	Blue	(+)	Ignition switch	~
			Starter 1	F50	White	08 pin	06	Gray	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS). See technical note for Stop & Start System identification.

** Wire may not be present.

TYPE 14 - WIRING DIAGRAM - 1 OF 1

REFER TO
TECHNICAL NOTE

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

REMOTE STARTER

← REQUIRED	REQUIRED →	STARTER 1 (+) OUTPUT
← REQUIRED	REQUIRED →	12V (+) INPUT
← REQUIRED	REQUIRED →	STARTER 2 (+) OUTPUT
← REQUIRED	REQUIRED →	IGNITION 2 (+) OUTPUT
← REQUIRED	REQUIRED →	IGNITION 1 (+) OUTPUT
← REQUIRED	REQUIRED →	BRAKE (+) INPUT
← REQUIRED	OPTIONAL →	HOOD STATUS (-) INPUT
← REQUIRED	OPTIONAL →	TRUNK STATUS (-) INPUT
← REQUIRED	OPTIONAL →	DOOR STATUS (-) INPUT

LEGEND
N/A NOT REQUIRED IN DATA MODE (1-WAY)
--- NOT REQUIRED IN DATA MODE (2-WAY)

USE DATA MODE
OR HARDWIRE MODE

DATA MODE

GWR (-) INPUT - BLUE/WHITE
(NC) WHITE
GROUND - BLACK
12V (+) - RED
LOCK/ARM (-) INPUT - GREEN/BLACK
UNLOCK/DISARM (-) INPUT - BLUE/BLACK
TRUNK (-) INPUT - RED/WHITE
(NC) BROWN
(NC) PURPLE/YELLOW
(NC) PURPLE/BLACK
PARKING LIGHT (+) INPUT - WHITE
(NC) BLACK/WHITE
E-BRAKE STATUS (-) OUTPUT - GREEN
TACH (AC) OUTPUT - PURPLE/WHITE

WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
WHITE/RED - TPMS IGNITION (+) VEHICLE
WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
YELLOW/RED - TRUNK STATUS (-) OUTPUT
YELLOW - HOOD STATUS (-) OUTPUT

BROWN/RED - CANH
BROWN/YELLOW - CANL
ORANGE/BLACK - SIL
ORANGE/WHITE (NC)
ORANGE - BRAKE STATUS (+) OUTPUT
PINK/BLACK (NC)
PINK - IGNITION (+) INPUT

BLUE/RED (NC)
BLUE/YELLOW (NC)
GREEN/RED - RDA (DATA)
GREEN/YELLOW (NC)
GRAY/RED - GROUND (-) INPUT
GRAY/YELLOW (NC)

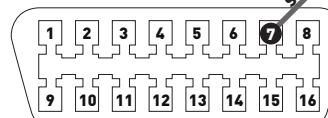
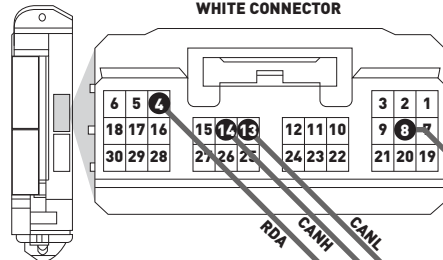
SEE NOTE 1

NOTE 1:
CONNECT TO GROUND
IF VEHICLE IS NOT EQUIPPED
WITH IMMOBILIZER

WITHOUT
OEM HOOD
STATUS ONLY

MAIN BODY ECU

WHITE CONNECTOR



TYPE 15 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	C-HR STD key (H)	18-19	CanH	~	White	30 pin	14	Green	(DATA)	Body ECU next to dash fuse box	~
			CanL	~	White	30 pin	13	LtBlue	(DATA)	Body ECU next to dash fuse box	~
			SIL	~	White	16 pin	07	LtBlue	(DATA)	OBDII	~
			RDA	~	White	30 pin	04	LtGreen	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	MF1	White	62 pin	36	LtBlue	(+)	Junction block, driver kick panel	~
			Autolights	~	White	30 pin	08	White	(-)	Body ECU next to dash fuse box	~
			12V	~	White	08 pin	05	Blue	(+)	Ignition switch	~
			Ignition	~	White	08 pin	08	Gray	(+)	Ignition switch	~
			Starter	~	White	08 pin	06	Purple	(+)	Ignition switch	~
			Accessory	~	White	08 pin	07	Green	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

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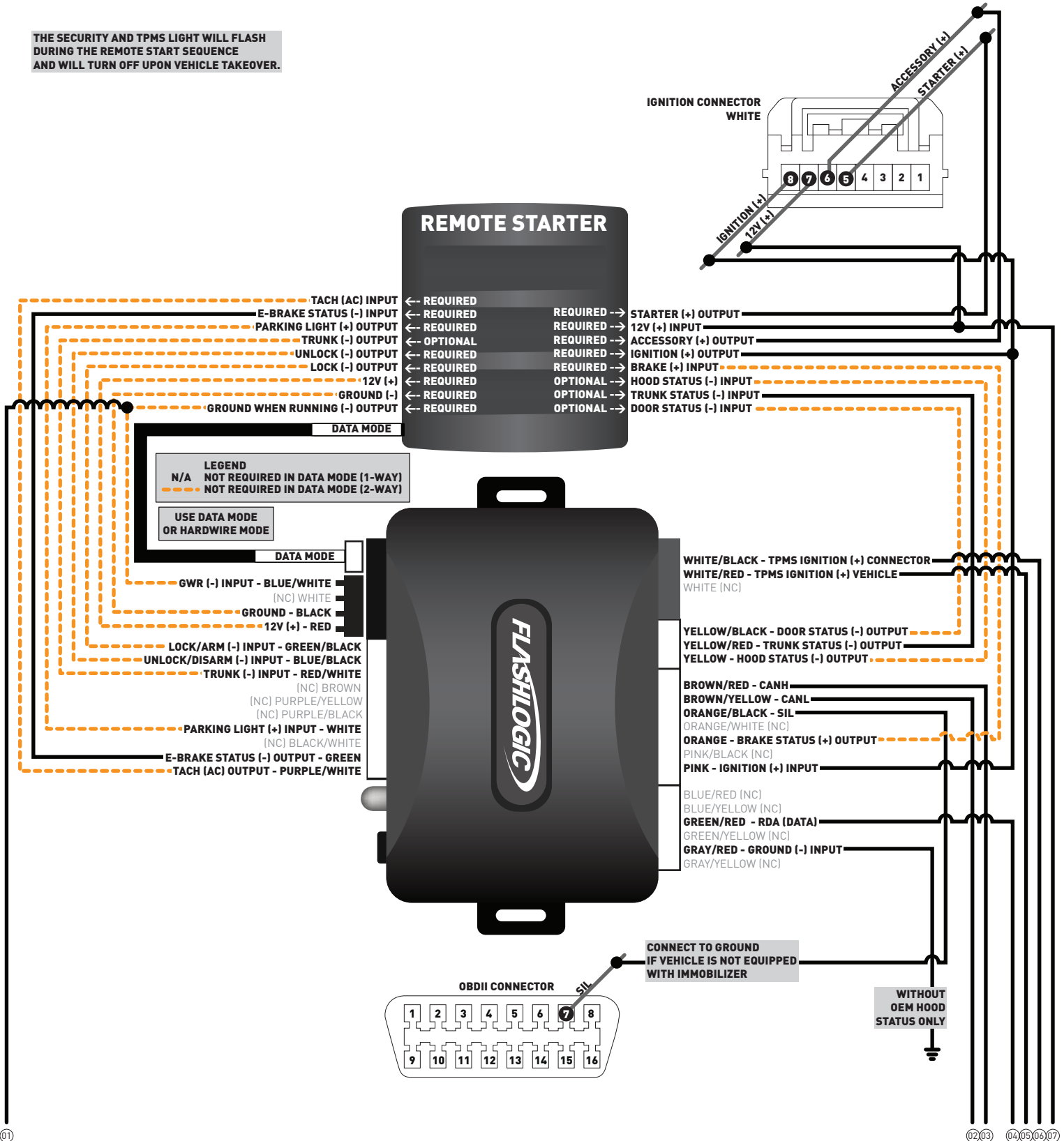
TYPE 16 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Camry STD key (H)	18-20	CanH	K52	Black	30 pin	05	Tan	(DATA)	Body ECU next to dash fuse box	~
			CanL	K52	Black	30 pin	04	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	~	White	16 pin	07	Blue	(DATA)	OBDII	~
			RDA	K53	Black	21 pin	10	Red	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	3D	White	36 pin	35	LtPurple/Black	(+)	Body ECU next to dash fuse box	~
			Autolights	~	White	40 pin	05	White or Yellow	(-)	Headlamp switch	~
			12V	K30	White	08 pin	07	LtPurple/White	(+)	Ignition switch	~
			Ignition	K30	White	08 pin	08	LtPurple/Red	(+)	Ignition switch	~
			Starter	K30	White	08 pin	05	LtPurple/Purple	(+)	Ignition switch	~
			Accessory	K30	White	08 pin	06	LtGreen	(+)	Ignition switch	~

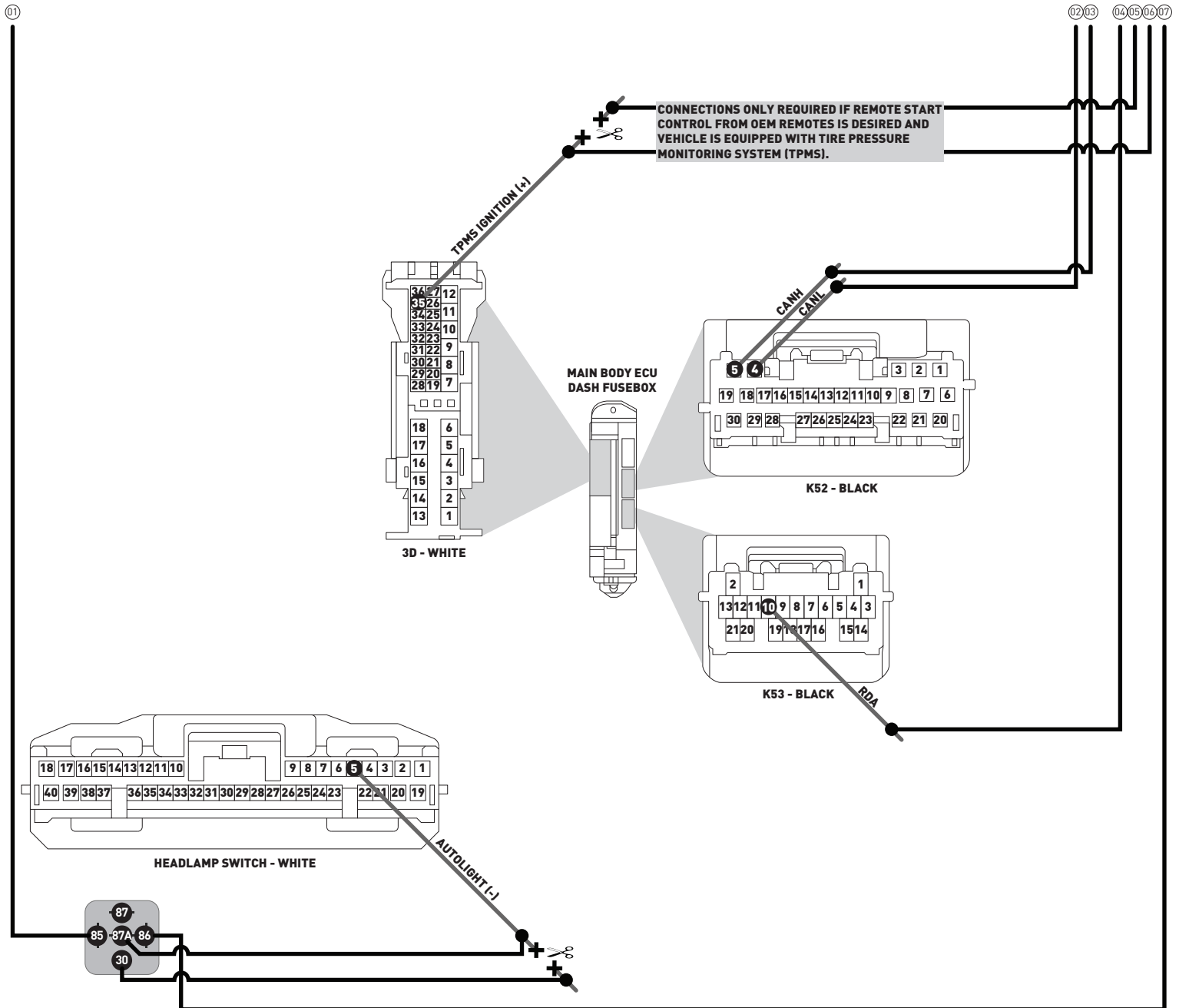
* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 16 - WIRING DIAGRAM - 1 OF 2

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



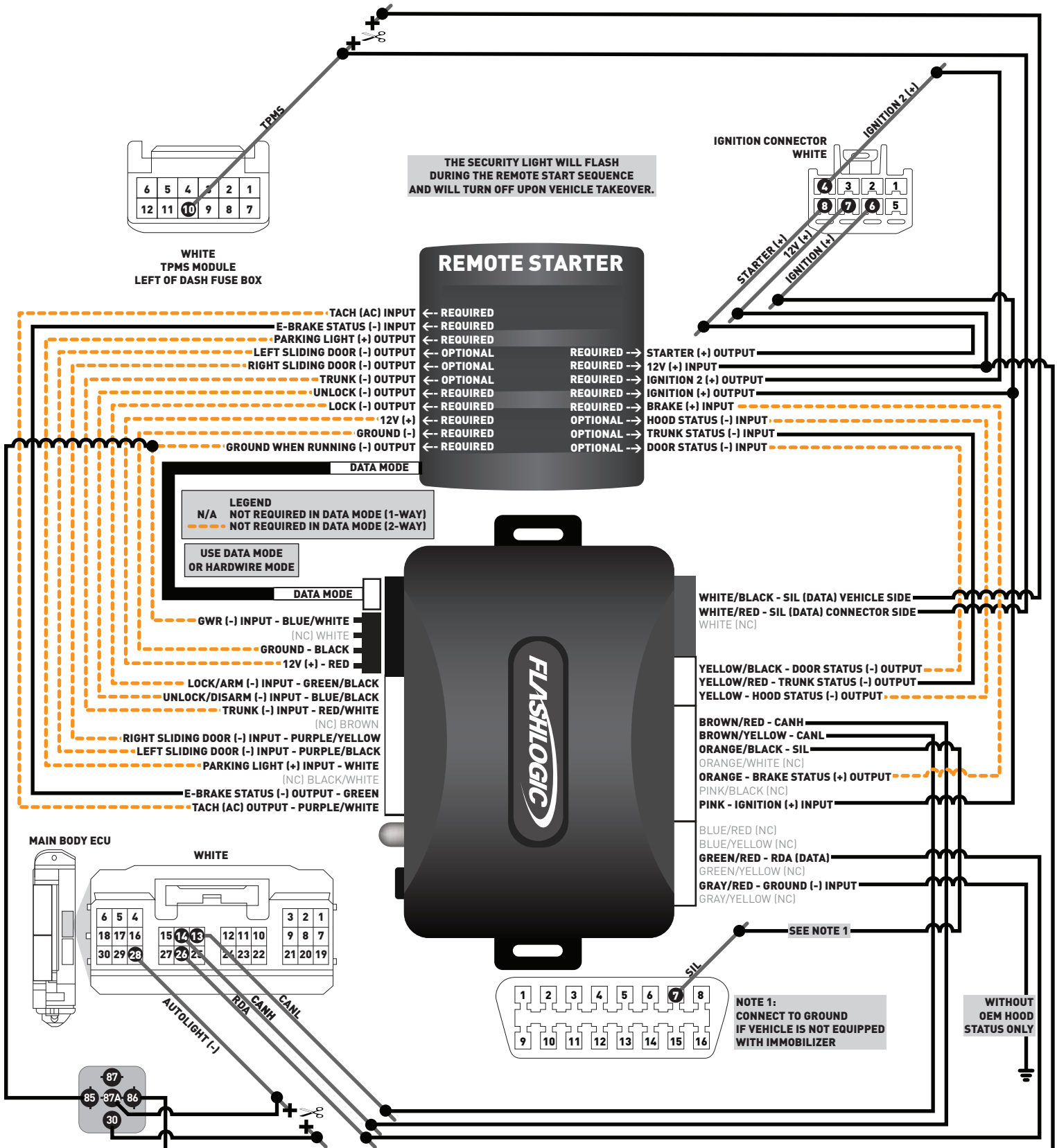
TYPE 16 - WIRING DIAGRAM - 2 OF 2



TYPE 17 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Sienna STD key (H)	18-20	CanH	D13	White	30 pin	14	Gray	(DATA)	Body ECU next to dash fuse box	~
			CanL	D13	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	E13	White	16 pin	07	White or Purple	(DATA)	OBDII	~
			TPMS	~	White	12 pin	10	White	(DATA)	TPMS module near dash fuse box	~
			RDA	D13	White	30 pin	26	Pink	(DATA)	Body ECU next to dash fuse box	~
			12V	D27	White	08 pin	07	Red	(+)	Ignition switch	~
			Ignition	D27	White	08 pin	06	Black	(+)	Ignition switch	~
			Ignition 2	D27	White	08 pin	04	Yellow	(+)	Ignition switch	~
			Starter	D27	White	08 pin	08	Red	(+)	Ignition switch	~
			Autolights	D13	White	30 pin	28	Purple	(-)	Body ECU next to dash fuse box	~

TYPE 17 - WIRING DIAGRAM - 1 OF 1



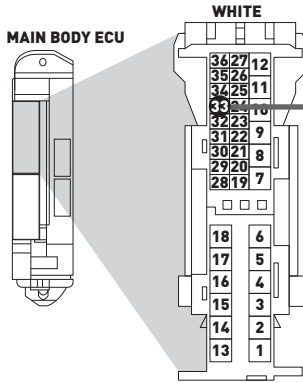
TYPE 18 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Tacoma STD key (H)	18-20	CanH	~	White	30 pin	14	Black	(DATA)	Body ECU next to dash fuse box	~
			CanL	~	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	E13	White	16 pin	07	White	(DATA)	OBDII	~
			RDA	~	White	30 pin	04	Black	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	1H	White	36 pin	33	LtGreen or Pink	(+)	Dash fuse box	~
			Autolights	~	White	30 pin	08	White	(-)	Body ECU next to dash fuse box	~
			12V	~	White	08 pin	04	Red	(+)	Ignition switch	~
			Ignition	~	White	08 pin	03	Black	(+)	Ignition switch	~
			Ignition 2	~	White	08 pin	08	White	(+)	Ignition switch	~
			Starter	~	White	08 pin	02	Green	(+)	Ignition switch	~
			Starter 2	~	White	08 pin	06	Purple	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 18 - WIRING DIAGRAM - 1 OF 1

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



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

REMOTE STARTER

← REQUIRED	REQUIRED →	STARTER 2 (+) OUTPUT
← REQUIRED	REQUIRED →	12V (+) INPUT
← REQUIRED	REQUIRED →	STARTER (+) OUTPUT
← OPTIONAL	REQUIRED →	IGNITION 2 (+) OUTPUT
← REQUIRED	REQUIRED →	IGNITION (+) OUTPUT
← REQUIRED	REQUIRED →	BRAKE (+) INPUT
← REQUIRED	OPTIONAL →	HOOD STATUS (-) INPUT
← REQUIRED	OPTIONAL →	TRUNK STATUS (-) INPUT
← REQUIRED	OPTIONAL →	DOOR STATUS (-) INPUT

LEGEND
N/A NOT REQUIRED IN DATA MODE (1-WAY)
- - - NOT REQUIRED IN DATA MODE (2-WAY)

USE DATA MODE
OR HARDWIRE MODE

DATA MODE

GWR (-) INPUT - BLUE/WHITE
(NC) WHITE
GROUND - BLACK
12V (+) - RED
LOCK/ARM (-) INPUT - GREEN/BLACK
UNLOCK/DISARM (-) INPUT - BLUE/BLACK
TRUNK (-) INPUT - RED/WHITE
(NC) BROWN
(NC) PURPLE/YELLOW
(NC) PURPLE/BLACK
PARKING LIGHT (+) INPUT - WHITE
(NC) BLACK/WHITE
E-BRAKE STATUS (-) OUTPUT - GREEN
TACH (AC) OUTPUT - PURPLE/WHITE

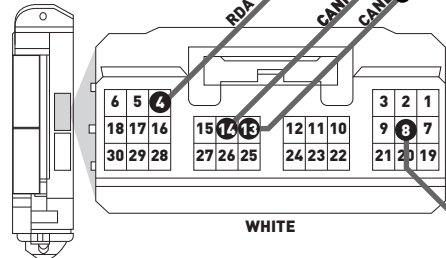
WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
WHITE/RED - TPMS IGNITION (+) VEHICLE
WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
YELLOW/RED - TRUNK STATUS (-) OUTPUT
YELLOW - HOOD STATUS (-) OUTPUT

BROWN/RED - CANH
BROWN/YELLOW - CANL
ORANGE/BLACK - SIL
ORANGE/WHITE (NC)
ORANGE - BRAKE STATUS (+) OUTPUT
PINK/BLACK (NC)
PINK - IGNITION (+) INPUT

BLUE/RED (NC)
BLUE/YELLOW (NC)
GREEN/RED - RDA (DATA)
GREEN/YELLOW (NC)
GRAY/RED - GROUND (-) INPUT
GRAY/YELLOW (NC)

MAIN BODY ECU



WHITE

AUTOLIGHT (-)

SEE NOTE 1

NOTE 1:
CONNECT TO GROUND
IF VEHICLE IS NOT EQUIPPED
WITH IMMOBILIZER

WITHOUT
OEM HOOD
STATUS
ONLY

TYPE 19 - WIRE CROSS REFERENCE CHART

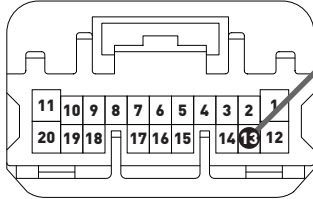
MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Tundra STD key (H)	18-19	CanH	~	White	30 pin	14	Blue	(DATA)	Body ECU next to dash fuse box	~
			CanL	~	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	~	White	16 pin	07	LtBlue	(DATA)	OBDII	~
			RDA	~	White	30 pin	04	Tan	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	PJ2	White	20 pin	13	Pink	(+)	Driver kick panel	~
			Autolights	~	White	30 pin	08	Purple	(-)	Body ECU next to dash fuse box	~
			12V	~	White	08 pin	04	White	(+)	Ignition switch	~
			12V 2	~	White	08 pin	05	Blue	(+)	Ignition switch	~
			Ignition	~	White	08 pin	01	LtGreen	(+)	Ignition switch	~
			Ignition 2	~	White	08 pin	06	Black	(+)	Ignition switch	~
			Starter	~	White	08 pin	07	Green	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 19 - WIRING DIAGRAM - 1 OF 1

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

DRIVER KICK PANEL - WHITE



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

IGNITION CONNECTOR WHITE



REMOTE STARTER

REQUIRED →	12V 2 (+) INPUT
REQUIRED →	12V (+) INPUT
REQUIRED →	STARTER (+) OUTPUT
REQUIRED →	IGNITION 2 (+) OUTPUT
REQUIRED →	IGNITION (+) OUTPUT
REQUIRED →	BRAKE (+) INPUT
OPTIONAL →	HOOD STATUS (-) INPUT
OPTIONAL →	TRUNK STATUS (-) INPUT
OPTIONAL →	DOOR STATUS (-) INPUT

LEGEND
N/A NOT REQUIRED IN DATA MODE (1-WAY)
- NOT REQUIRED IN DATA MODE (2-WAY)

USE DATA MODE OR HARDWIRE MODE

DATA MODE

GWR (-) INPUT - BLUE/WHITE
(NC) WHITE
GROUND - BLACK
12V (+) - RED
LOCK/ARM (-) INPUT - GREEN/BLACK
UNLOCK/DISARM (-) INPUT - BLUE/BLACK
(NC) RED/WHITE
(NC) BROWN
(NC) PURPLE/YELLOW
(NC) PURPLE/BLACK
PARKING LIGHT (+) INPUT - WHITE
(NC) BLACK/WHITE
E-BRAKE STATUS (-) OUTPUT - GREEN
TACH (AC) OUTPUT - PURPLE/WHITE

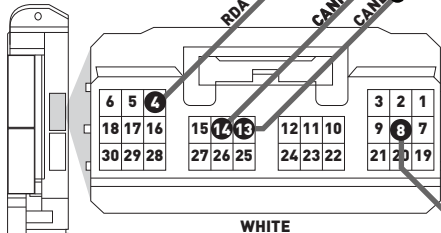
WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
WHITE/RED - TPMS IGNITION (+) VEHICLE
WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
YELLOW/RED - TRUNK STATUS (-) OUTPUT
YELLOW - HOOD STATUS (-) OUTPUT

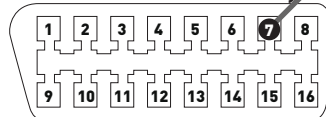
BROWN/RED - CANH
BROWN/YELLOW - CANL
ORANGE/BLACK - SIL
ORANGE/WHITE (NC)
ORANGE - BRAKE STATUS (+) OUTPUT
PINK/BLACK (NC)
PINK - IGNITION (+) INPUT

BLUE/RED (NC)
BLUE/YELLOW (NC)
GREEN/RED - RDA (DATA)
GREEN/YELLOW (NC)
GRAY/RED - GROUND (-) INPUT
GRAY/YELLOW (NC)

MAIN BODY ECU



WHITE



SEE NOTE 1

NOTE 1:
CONNECT TO GROUND
IF VEHICLE IS NOT EQUIPPED
WITH IMMOBILIZER

WITHOUT
OEM HOOD
STATUS
ONLY

TYPE 20 - WIRE CROSS REFERENCE CHART

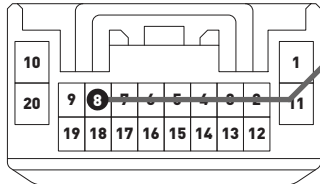
MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Sequoia STD key (H)	18-19	CanH	~	White	30 pin	14	Blue	(DATA)	Body ECU next to dash fuse box	~
			CanL	~	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	~	White	16 pin	07	Tan	(DATA)	OBDII	~
			RDA	~	White	30 pin	04	Purple	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	~	Black	20 pin	08	Blue	(+)	Driver kick panel	~
			Autolights	~	White	30 pin	08	Green	(-)	Body ECU next to dash fuse box	~
			12V	~	White	08 pin	04	White	(+)	Ignition switch	~
			12V 2	~	White	08 pin	05	Blue	(+)	Ignition switch	~
			Ignition	~	White	08 pin	01	LtGreen	(+)	Ignition switch	~
			Ignition 2	~	White	08 pin	06	Black	(+)	Ignition switch	~
			Starter	~	White	08 pin	07	Green	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 20 - WIRING DIAGRAM - 1 OF 1

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

DRIVER KICK PANEL - BLACK



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

REMOTE STARTER

REQUIRED →	12V 2 (+) INPUT
REQUIRED →	12V (+) INPUT
REQUIRED →	STARTER (+) OUTPUT
REQUIRED →	IGNITION 2 (+) OUTPUT
REQUIRED →	IGNITION (+) OUTPUT
REQUIRED →	BRAKE (+) INPUT
OPTIONAL →	HOOD STATUS (-) INPUT
OPTIONAL →	TRUNK STATUS (-) INPUT
OPTIONAL →	DOOR STATUS (-) INPUT

LEGEND
N/A NOT REQUIRED IN DATA MODE (1-WAY)
- NOT REQUIRED IN DATA MODE (2-WAY)

USE DATA MODE OR HARDWIRE MODE

DATA MODE

GWR (-) INPUT - BLUE/WHITE
(NC) WHITE
GROUND - BLACK
12V (+) - RED
LOCK/ARM (-) INPUT - GREEN/BLACK
UNLOCK/DISARM (-) INPUT - BLUE/BLACK
(NC) RED/WHITE
(NC) BROWN
(NC) PURPLE/YELLOW
(NC) PURPLE/BLACK
PARKING LIGHT (+) INPUT - WHITE
(NC) BLACK/WHITE
E-BRAKE STATUS (-) OUTPUT - GREEN
TACH (AC) OUTPUT - PURPLE/WHITE

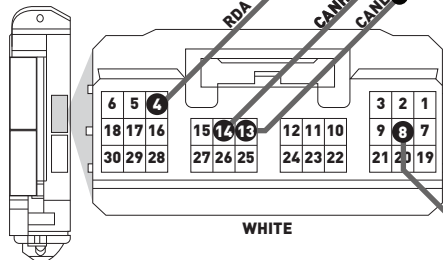
WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
WHITE/RED - TPMS IGNITION (+) VEHICLE
WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
YELLOW/RED - TRUNK STATUS (-) OUTPUT
YELLOW - HOOD STATUS (-) OUTPUT

BROWN/RED - CANH
BROWN/YELLOW - CANL
ORANGE/BLACK - SIL
ORANGE/WHITE (NC)
ORANGE - BRAKE STATUS (+) OUTPUT
PINK/BLACK (NC)
PINK - IGNITION (+) INPUT

BLUE/RED (NC)
BLUE/YELLOW (NC)
GREEN/RED - RDA (DATA)
GREEN/YELLOW (NC)
GRAY/RED - GROUND (-) INPUT
GRAY/YELLOW (NC)

MAIN BODY ECU



WHITE

AUTOLIGHT (-)

SEE NOTE 1

NOTE 1:
CONNECT TO GROUND
IF VEHICLE IS NOT EQUIPPED
WITH IMMOBILIZER

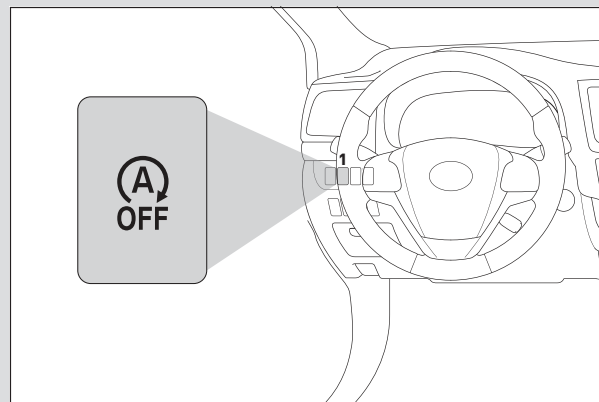
WITHOUT
OEM HOOD
STATUS
ONLY

TYPE 21 - TECHNICAL NOTES - 1 OF 1

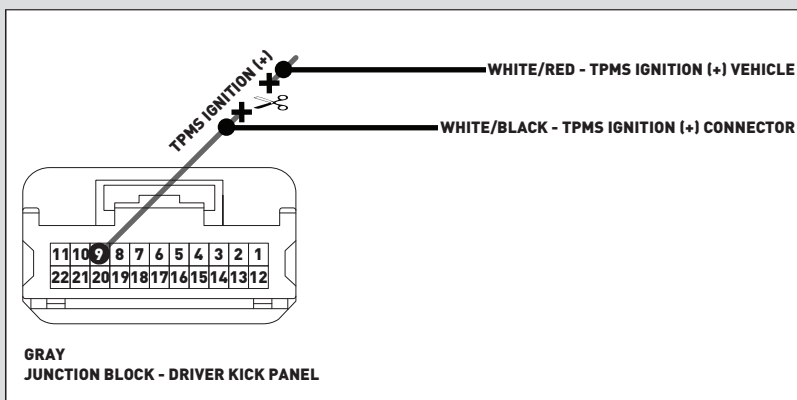
IMPORTANT

- Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (tpms).

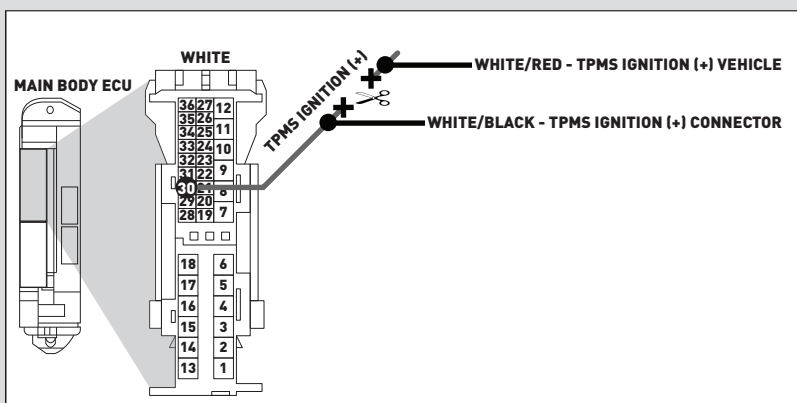
Look for this switch to determine if the vehicle is equipped with the stop & start system:



WITH STOP & START SYSTEM:



WITHOUT STOP & START SYSTEM:



TYPE 21 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Highlander STD key (H)	19	CanH	F19	White	30 pin	14	Red	(DATA)	Body ECU next to dash fuse box	~
			CanL	F19	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	E13	White	16 pin	07	LtBlue	(DATA)	OBDI	~
			RDA	F19	White	30 pin	04	LtGreen	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition* w/o Stop & Start	4H	White	36 pin	30	Yellow	(+)	Dash fuse box	~
			TPMS ignition* w/ Stop & Start	~	Gray	22 pin	09	Red	(+)	Junction block, driver kick panel	~
			Autolights	F19	White	30 pin	08	Black	(-)	Body ECU next to dash fuse box	~
			12V	F50	White	08 pin	04	Black or Tan	(+)	Ignition switch	~
			Ignition 1	F50	White	08 pin	03	Black	(+)	Ignition switch	~
			Ignition 2	F50	White	08 pin	08	Green	(+)	Ignition switch	~
			Starter 2**	F50	White	08 pin	02	Blue	(+)	Ignition switch	~
			Starter 1	F50	White	08 pin	06	Gray	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS). See technical note for Stop & Start System identification.

** Wire may not be present.

TYPE 21 - WIRING DIAGRAM - 1 OF 1

REFER TO
TECHNICAL NOTE

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

REMOTE STARTER

← REQUIRED	REQUIRED →	STARTER 1 (+) OUTPUT
← REQUIRED	REQUIRED →	12V (+) INPUT
← REQUIRED	REQUIRED →	STARTER 2 (+) OUTPUT
← REQUIRED	REQUIRED →	IGNITION 2 (+) OUTPUT
← REQUIRED	REQUIRED →	IGNITION 1 (+) OUTPUT
← REQUIRED	REQUIRED →	BRAKE (+) INPUT
← REQUIRED	OPTIONAL →	HOOD STATUS (-) INPUT
← REQUIRED	OPTIONAL →	TRUNK STATUS (-) INPUT
← REQUIRED	OPTIONAL →	DOOR STATUS (-) INPUT

LEGEND
N/A NOT REQUIRED IN DATA MODE (1-WAY)
--- NOT REQUIRED IN DATA MODE (2-WAY)

USE DATA MODE
OR HARDWIRE MODE

DATA MODE

GWR (-) INPUT - BLUE/WHITE
(NC) WHITE
GROUND - BLACK
12V (+) - RED
LOCK/ARM (-) INPUT - GREEN/BLACK
UNLOCK/DISARM (-) INPUT - BLUE/BLACK
TRUNK (-) INPUT - RED/WHITE
(NC) BROWN
(NC) PURPLE/YELLOW
(NC) PURPLE/BLACK
PARKING LIGHT (+) INPUT - WHITE
(NC) BLACK/WHITE
E-BRAKE STATUS (-) OUTPUT - GREEN
TACH (AC) OUTPUT - PURPLE/WHITE

WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
WHITE/RED - TPMS IGNITION (+) VEHICLE
WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
YELLOW/RED - TRUNK STATUS (-) OUTPUT
YELLOW - HOOD STATUS (-) OUTPUT

BROWN/RED - CANH
BROWN/YELLOW - CANL
ORANGE/BLACK - SIL
ORANGE/WHITE (NC)
ORANGE - BRAKE STATUS (+) OUTPUT
PINK/BLACK (NC)
PINK - IGNITION (+) INPUT

BLUE/RED (NC)
BLUE/YELLOW (NC)
GREEN/RED - RDA (DATA)
GREEN/YELLOW (NC)
GRAY/RED - GROUND (-) INPUT
GRAY/YELLOW (NC)

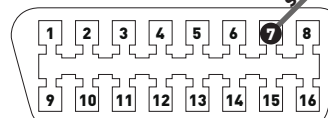
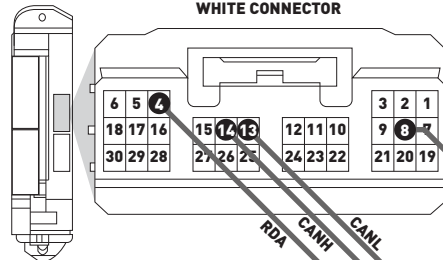
SEE NOTE 1

NOTE 1:
CONNECT TO GROUND
IF VEHICLE IS NOT EQUIPPED
WITH IMMOBILIZER

WITHOUT
OEM HOOD
STATUS ONLY

MAIN BODY ECU

WHITE CONNECTOR



TYPE 22 - WIRE CROSS REFERENCE CHART

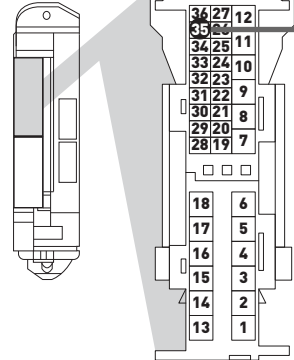
MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	4Runner STD key (H)	20	CanH	~	White	30 pin	14	Blue	(DATA)	Body ECU next to dash fuse box	~
			CanL	~	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	~	White	16 pin	07	LtBlue	(DATA)	OBDII	~
			RDA	~	White	30 pin	04	Pink	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	~	White	36 pin	35	Gray	(+)	Body ECU next to dash fuse box	~
			Autolights	~	White	30 pin	08	White	(-)	Body ECU next to dash fuse box	~
			12V	~	White	08 pin	07	Blue	(+)	Ignition switch	~
			Starter 2	~	White	08 pin	01	LtBlue	(+)	Ignition switch	~
			Ignition 1	~	White	08 pin	06	LtGreen	(+)	Ignition switch	~
			Ignition 2	~	White	08 pin	04	Yellow	(+)	Ignition switch	~
			Starter 1	~	White	08 pin	08	Red	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 22 - WIRING DIAGRAM - 1 OF 1

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

MAIN BODY ECU



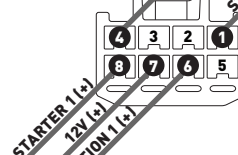
TPMS IGNITION (+)

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

REMOTE STARTER

- REQUIRED → STARTER 1 (+) OUTPUT
- REQUIRED → 12V (+) INPUT
- REQUIRED → STARTER 2 (+) OUTPUT
- REQUIRED → IGNITION 2 (+) OUTPUT
- REQUIRED → IGNITION (+) INPUT/OUTPUT
- REQUIRED → BRAKE (+) INPUT
- OPTIONAL → HOOD STATUS (-) INPUT
- OPTIONAL → TRUNK STATUS (-) INPUT
- OPTIONAL → DOOR STATUS (-) INPUT

IGNITION CONNECTOR WHITE



- ← REQUIRED TACH (AC) INPUT
- ← REQUIRED E-BRAKE STATUS (-) INPUT
- ← REQUIRED PARKING LIGHT (+) OUTPUT
- ← REQUIRED UNLOCK (-) OUTPUT
- ← REQUIRED LOCK (-) OUTPUT
- ← REQUIRED 12V (+)
- ← REQUIRED GROUND (-)
- ← REQUIRED GROUND WHEN RUNNING (-) OUTPUT

DATA MODE

LEGEND
N/A NOT REQUIRED IN DATA MODE (1-WAY)
- NOT REQUIRED IN DATA MODE (2-WAY)

USE DATA MODE OR HARDWIRE MODE

DATA MODE

- GWR (-) INPUT - BLUE/WHITE (NC) WHITE
- GROUND - BLACK
- 12V (+) - RED
- LOCK/ARM (-) INPUT - GREEN/BLACK
- UNLOCK/DISARM (-) INPUT - BLUE/BLACK (NC) RED/WHITE (NC) BROWN (NC) PURPLE/YELLOW (NC) PURPLE/BLACK
- PARKING LIGHT (+) INPUT - WHITE (NC) BLACK/WHITE
- E-BRAKE STATUS (-) OUTPUT - GREEN
- TACH (AC) OUTPUT - PURPLE/WHITE

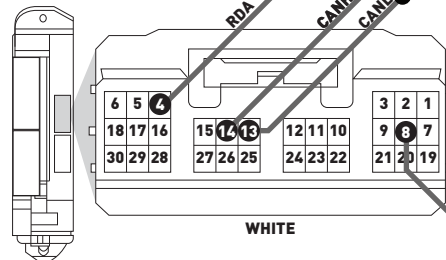
WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
WHITE/RED - TPMS IGNITION (+) VEHICLE
WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
YELLOW/RED - TRUNK STATUS (-) OUTPUT
YELLOW - HOOD STATUS (-) OUTPUT

BROWN/RED - CANH
BROWN/YELLOW - CANL
ORANGE/BLACK - SIL
ORANGE/WHITE (NC)
ORANGE - BRAKE STATUS (+) OUTPUT
PINK/BLACK (NC)
PINK - IGNITION (+) INPUT

BLUE/RED (NC)
BLUE/YELLOW (NC)
GREEN/RED - RDA (DATA)
GREEN/YELLOW (NC)
GRAY/RED - GROUND (-) INPUT
GRAY/YELLOW (NC)

MAIN BODY ECU



RDA

CANH

CANL

WHITE

AUTOLIGHT (-)

SEE NOTE 1

NOTE 1:
CONNECT TO GROUND IF VEHICLE IS NOT EQUIPPED WITH IMMOBILIZER

WITHOUT OEM HOOD STATUS ONLY

TYPE 23 - WIRE CROSS REFERENCE CHART

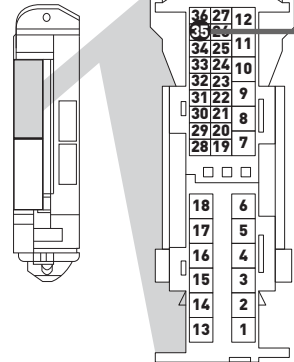
MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Tundra STD key (H)	20	CanH	~	White	30 pin	14	Blue	(DATA)	Body ECU next to dash fuse box	~
			CanL	~	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	~	White	16 pin	07	LtBlue	(DATA)	OBDII	~
			RDA	~	White	30 pin	04	Tan	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	~	White	36 pin	35	Red	(+)	Body ECU next to dash fuse box	~
			Autolights	~	White	30 pin	08	Yellow	(-)	Body ECU next to dash fuse box	~
			12V	~	White	08 pin	04	White	(+)	Ignition switch	~
			12V 2	~	White	08 pin	05	Blue	(+)	Ignition switch	~
			Ignition	~	White	08 pin	01	LtGreen	(+)	Ignition switch	~
			Ignition 2	~	White	08 pin	06	Black	(+)	Ignition switch	~
			Starter	~	White	08 pin	07	Green	(+)	Ignition switch	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 23 - WIRING DIAGRAM - 1 OF 1

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

MAIN BODY ECU



TPMS IGNITION (+)

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

REMOTE STARTER

- REQUIRED → 12V 2 (+) INPUT
- REQUIRED → 12V (+) INPUT
- REQUIRED → STARTER (+) OUTPUT
- REQUIRED → IGNITION 2 (+) OUTPUT
- REQUIRED → IGNITION (+) OUTPUT
- REQUIRED → BRAKE (+) INPUT
- OPTIONAL → HOOD STATUS (-) INPUT
- OPTIONAL → TRUNK STATUS (-) INPUT
- OPTIONAL → DOOR STATUS (-) INPUT

IGNITION CONNECTOR WHITE



12V (+)
STARTER (+)
IGNITION (+)
IGNITION 2 (+)
12V 2 (+)

- TACH (AC) INPUT
- E-BRAKE STATUS (-) INPUT
- PARKING LIGHT (+) OUTPUT
- UNLOCK (-) OUTPUT
- LOCK (-) OUTPUT
- 12V (+)
- GROUND (-)
- GROUND WHEN RUNNING (-) OUTPUT

DATA MODE

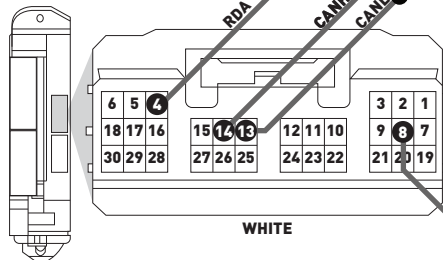
LEGEND
N/A NOT REQUIRED IN DATA MODE (1-WAY)
- NOT REQUIRED IN DATA MODE (2-WAY)

USE DATA MODE OR HARDWIRE MODE

DATA MODE

- GWR (-) INPUT - BLUE/WHITE (NC) WHITE
- GROUND - BLACK
- 12V (+) - RED
- LOCK/ARM (-) INPUT - GREEN/BLACK
- UNLOCK/DISARM (-) INPUT - BLUE/BLACK (NC) RED/WHITE (NC) BROWN (NC) PURPLE/YELLOW (NC) PURPLE/BLACK
- PARKING LIGHT (+) INPUT - WHITE (NC) BLACK/WHITE
- E-BRAKE STATUS (-) OUTPUT - GREEN
- TACH (AC) OUTPUT - PURPLE/WHITE

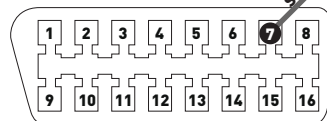
MAIN BODY ECU



WHITE

87 85 87A 86 30

AUTOLIGHT (-)



WHITE/BLACK - TPMS IGNITION (+) CONNECTOR
WHITE/RED - TPMS IGNITION (+) VEHICLE
WHITE (NC)

YELLOW/BLACK - DOOR STATUS (-) OUTPUT
YELLOW/RED - TRUNK STATUS (-) OUTPUT
YELLOW - HOOD STATUS (-) OUTPUT

BROWN/RED - CANH
BROWN/YELLOW - CANL
ORANGE/BLACK - SIL
ORANGE/WHITE (NC)
ORANGE - BRAKE STATUS (+) OUTPUT
PINK/BLACK (NC)
PINK - IGNITION (+) INPUT

BLUE/RED (NC)
BLUE/YELLOW (NC)
GREEN/RED - RDA (DATA)
GREEN/YELLOW (NC)
GRAY/RED - GROUND (-) INPUT
GRAY/YELLOW (NC)

SEE NOTE 1

NOTE 1:
CONNECT TO GROUND IF VEHICLE IS NOT EQUIPPED WITH IMMOBILIZER

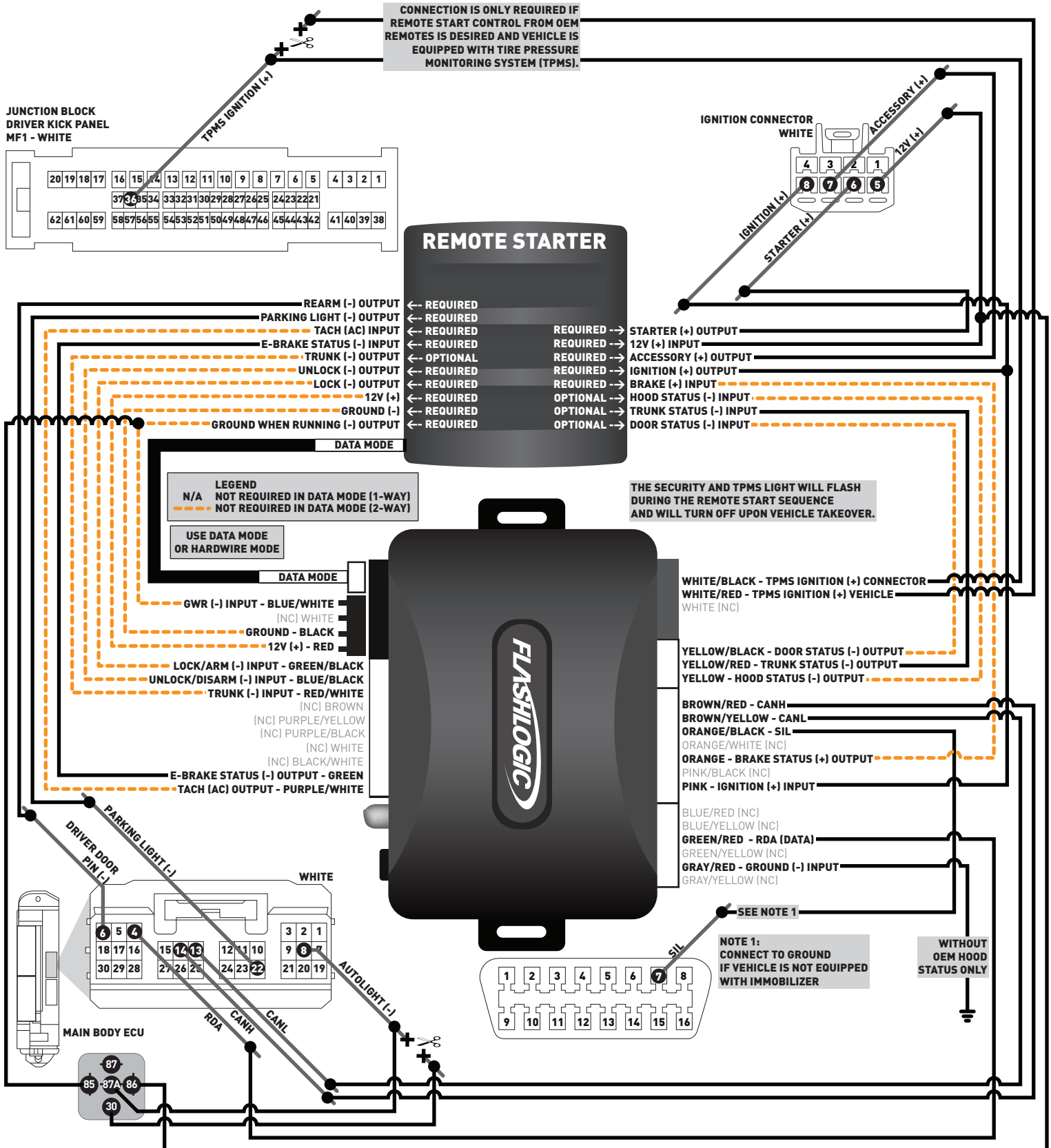
WITHOUT OEM HOOD STATUS ONLY

TYPE 24 - WIRE CROSS REFERENCE CHART

MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	C-HR STD key (H)	20	CanH	~	White	30 pin	14	Green	(DATA)	Body ECU next to dash fuse box	~
			CanL	~	White	30 pin	13	LtBlue	(DATA)	Body ECU next to dash fuse box	~
			SIL	~	White	16 pin	07	LtBlue	(DATA)	OBDII	~
			RDA	~	White	30 pin	04	LtGreen	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	MF1	White	62 pin	36	LtBlue	(+)	Junction block, driver kick panel	~
			Autolights	~	White	30 pin	08	White	(-)	Body ECU next to dash fuse box	~
			12V	~	White	08 pin	05	Blue	(+)	Ignition switch	~
			Ignition	~	White	08 pin	08	Gray	(+)	Ignition switch	~
			Starter	~	White	08 pin	06	Purple	(+)	Ignition switch	~
			Accessory	~	White	08 pin	07	Green	(+)	Ignition switch	~
			Driver Door Pin	~	White	30 pin	06	Red	(-)	Body ECU next to dash fuse box	~
			Parking Light	~	White	30 pin	22	Yellow	(-)	Body ECU next to dash fuse box	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

TYPE 24 - WIRING DIAGRAM - 1 OF 1

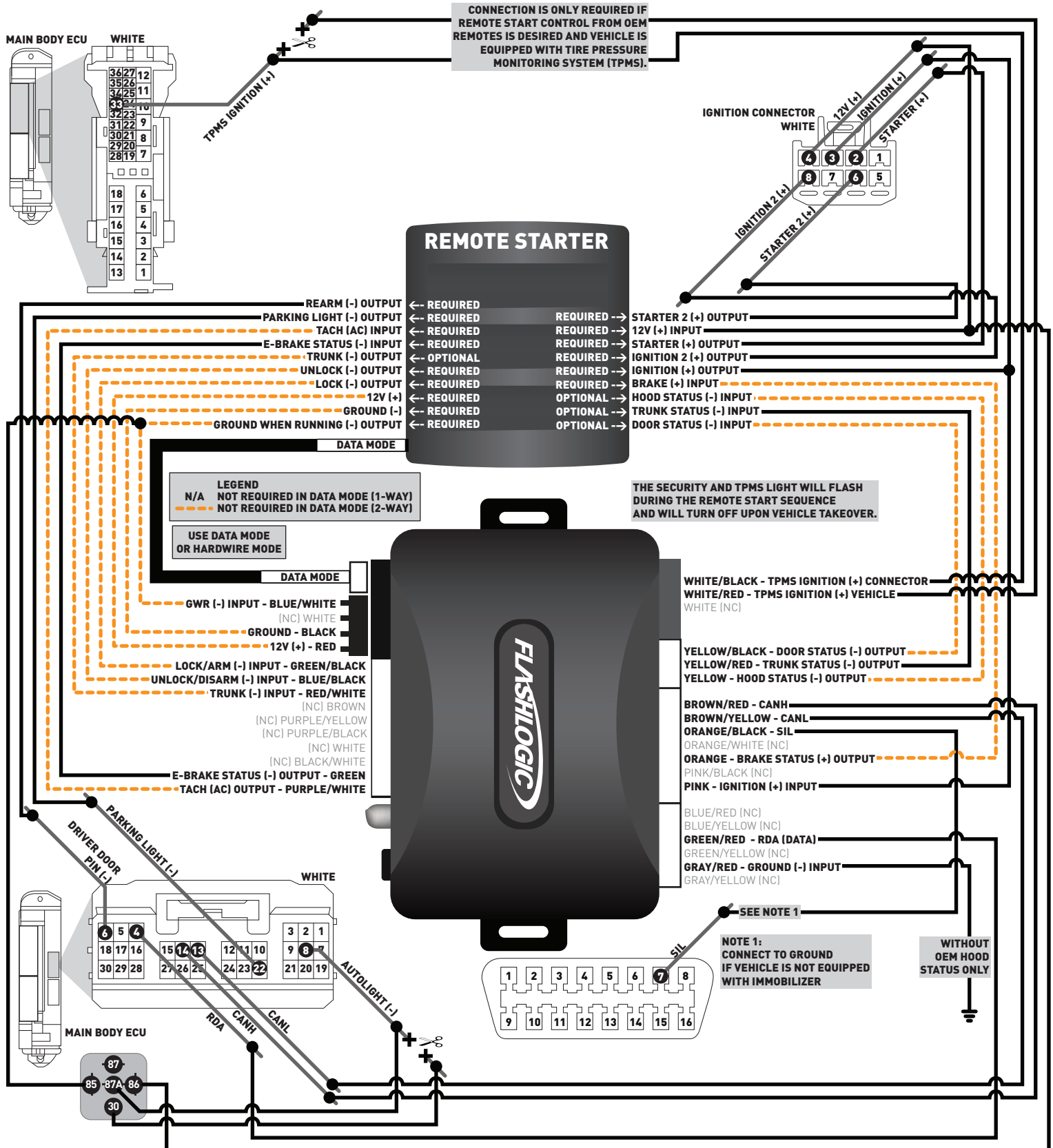


TYPE 25 - WIRE CROSS REFERENCE CHART

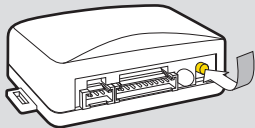
MAKE	MODEL	YEAR	WIRE DESCRIPTION	CONNECTOR NAME	CONNECTOR COLOR	CONNECTOR TYPE	POSITION	WIRE COLOR	POLARITY	MODULE LOCATION	COMPONENT LOCATOR
TOYOTA	Tacoma STD key (H)	20	CanH	~	White	30 pin	14	Black	(DATA)	Body ECU next to dash fuse box	~
			CanL	~	White	30 pin	13	White	(DATA)	Body ECU next to dash fuse box	~
			SIL	E13	White	16 pin	07	Tan or White	(DATA)	OBDII	~
			RDA	~	White	30 pin	04	Black	(DATA)	Body ECU next to dash fuse box	~
			TPMS ignition*	1H	White	36 pin	33	LtGreen or Pink	(+)	Dash fuse box	~
			Autolights	~	White	30 pin	08	White	(-)	Body ECU next to dash fuse box	~
			12V	~	White	08 pin	04	Red	(+)	Ignition switch	~
			Ignition	~	White	08 pin	03	Black	(+)	Ignition switch	~
			Ignition 2	~	White	08 pin	08	White	(+)	Ignition switch	~
			Starter	~	White	08 pin	02	Green	(+)	Ignition switch	~
			Starter 2	~	White	08 pin	06	Purple	(+)	Ignition switch	~
			Driver Door Pin	~	White	30 pin	06	Yellow	(-)	Body ECU next to dash fuse box	~
			Parking Light	~	White	30 pin	22	Green	(-)	Body ECU next to dash fuse box	~

* Connection is only required if remote start control from oem remotes is desired and vehicle is equipped with tire pressure monitoring system (TPMS).

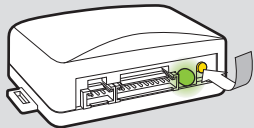
TYPE 25 - WIRING DIAGRAM - 1 OF 1



INSTALLATION MODE SELECTION

- 1**  Press and release programming button to select installation mode.

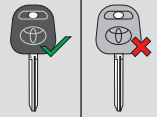
 LED flashes (1X) once = DATA MODE
LED flashes (2X) twice = STANDARD HARDWARE MODE

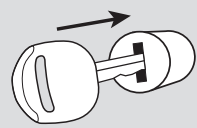
- 2**  Press and hold programming button until LED turns solid GREEN to register selection.

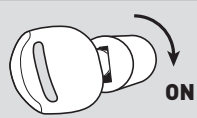


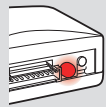
After registration, follow Factory Reset Procedure to change installation mode and restart this procedure.

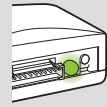
MODULE PROGRAMMING PROCEDURE

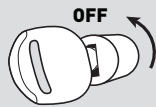
- 1**  Use the BLACK key only.
DO NOT use the GRAY valet key.

- 2**  Insert key into ignition.

- 3**  Turn key to ON position.

- 4**  LED will turn solid RED.

- 5**  Wait, LED will turn solid GREEN for **2 seconds**.

- 6**  Turn key to OFF position.

- 7** Module Programming Procedure completed.

IDENTIFY VEHICLE YEAR

1 Locate the Vehicle Identification Number (VIN), identify the 10th character then match it to its corresponding year.



A	1980	L	1990	Y	2000	A	2010	L	2020
B	1981	M	1991	1	2001	B	2011	M	2021
C	1982	N	1992	2	2002	C	2012	N	2022
D	1983	P	1993	3	2003	D	2013	P	2023
E	1984	R	1994	4	2004	E	2014	R	2024
F	1985	S	1995	5	2005	F	2015	S	2025
G	1986	T	1996	6	2006	G	2016	T	2026
H	1987	V	1997	7	2007	H	2017	V	2027
J	1988	W	1998	8	2008	J	2018	W	2028
K	1989	X	1999	9	2009	K	2019	X	2029

MODULE DIAGNOSTICS

LED STATUS	DIAGNOSTICS		
	DURING PROGRAMMING	DURING REMOTE START	WITH IGNITION OFF
Flashing RED	Missing/wrong information from firmware or vehicle	Incorrectly programmed	Incorrectly programmed or connected
Solid RED	Waiting for more vehicle information	Incorrectly programmed	Not programmed waiting for more vehicle information
Flashing GREEN	Additional steps required to complete programming	Correctly programmed and operational	False ground when running status from remote starter
Solid GREEN then OFF	Correctly programmed	Reset in progress	Reset in progress
OFF	No activity or already programmed	Invalid ground when running status from remote starter	At rest and ready for a remote start sequence

FACTORY RESET PROCEDURE

- DISCONNECT** all connectors from module **EXCEPT** the black 4-PIN standard or optional data connector.
- DISCONNECT** black 4-PIN standard or optional data connector.
- PRESS AND HOLD** programming button while connecting either 4-PIN standard or optional data connector.
- When LED flashes red, **RELEASE** programming button.

- LED will turn solid red for 2 seconds.
RESET COMPLETED.
- RECONNECT** all connectors.
- Repeat programming procedure.

! Failure to follow procedure may result with a DTC or a CHECK ENGINE error message.