Overview: The initial production release of the FTI-TLK1 harness has an issue where in some vehicles the secondary power input to the CN1 connector will overload the associated vehicle circuit, causing a fuse to blow. This issue affects the initial release of harnesses and is already being addressed in production. A field correction procedure is detailed below in Figure 1.

Issue: The secondary power circuit can overload some vehicle ignition switch circuits, causing a blown 5A/7.5A AM1 fuse, potentially disabling the vehicle and leaving the consumer stranded. Affected adapters are illustrated below in figure 2.

Corrective steps:
1.) Select the applicable CN1 adapter, isolate the RED/WHITE power wire, cut wire approximately 4" from the BLACK plug
2.) Insulate the wire still connected to the WHITE plug using heat shrink tubing, and strip the insulation on the other wire end
3.) Strip a portion of the insulation from the RED wire, attach the stripped RED/WHITE to the exposed RED wire, solder together
4.) Apply insulating tape to the soldered connection and secure the cut ends back to the bundle of wires created by the adapter
5.) Correction complete, you may safely proceed to finish your installation

Figure 1: Step by step adapter correction

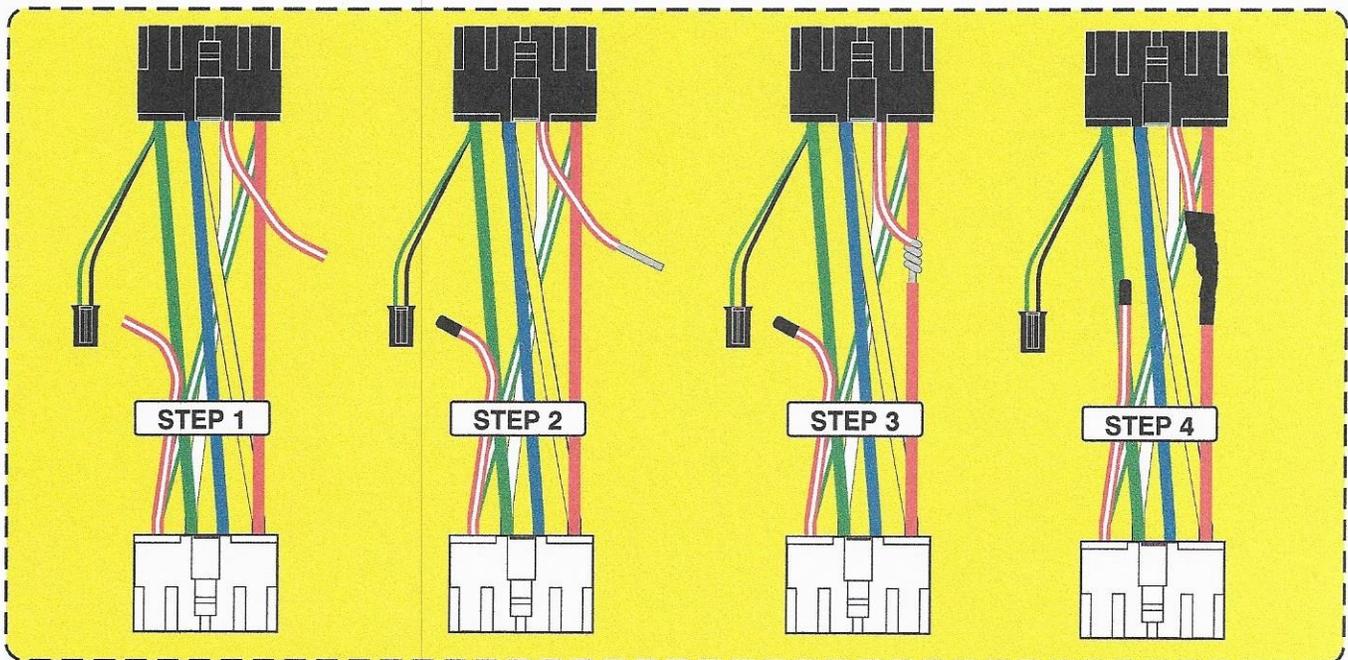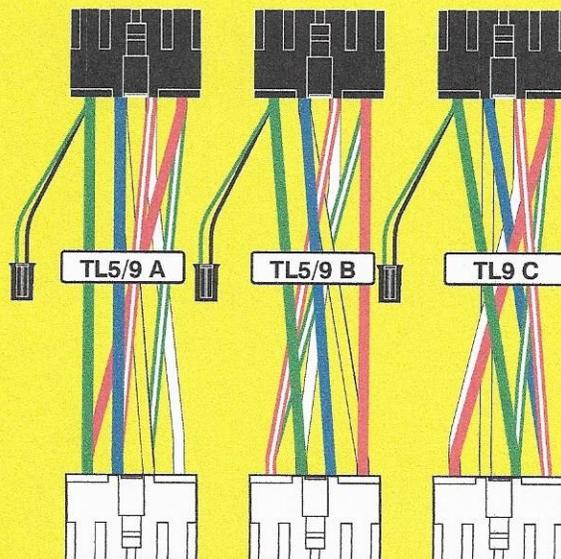STEP 1   STEP 2   STEP 3   STEP 4

Figure 2: Supplied CN1 Harness Adapters

Incorrect power provisions with the potential to overload vehicle ignition supply circuit, resulting in blown AM1 fuse.

TL5/9 A   TL5/9 B   TL9 C

FTI-TLK1 Type 1A - Vehicle Coverage & Preparation Notes

Make	Model	Year	Install	CAN	Lights	Adapter	Trunk	I/O Changes
DL-TL1					Park / Auto			Green White/Blue
Pontiac	Vibe 40 bit STD Key	2009-10	Type 1	OBD-II	SW-18	ADPT A		START 2
Scion	xB 40 bit STD Key	2008-10	Type 1	OBD-II	SW-18	ADPT A		START 2
Toyota	Corolla 40 bit STD Key	2009-10	Type 1	OBD-II	SW-18	ADPT A		START 2
Toyota	Matrix 40 bit STD Key	2009-10	Type 1	OBD-II	SW-18	ADPT A		START 2
Toyota	RAV4 40 bit STD Key	2006-10	Type 1	OBD-II	SW-18/19	ADPT A		START 2

Hey! Read this stuff before you start the installation...

Firmware: Covered vehicles use **BLADE-AL(DL)-TL1**, flash module and update the controller firmware before installing.

Install: Covered vehicles require using the TL 5/9 A CN1 adapter, using any other adapter will result in malfunction.
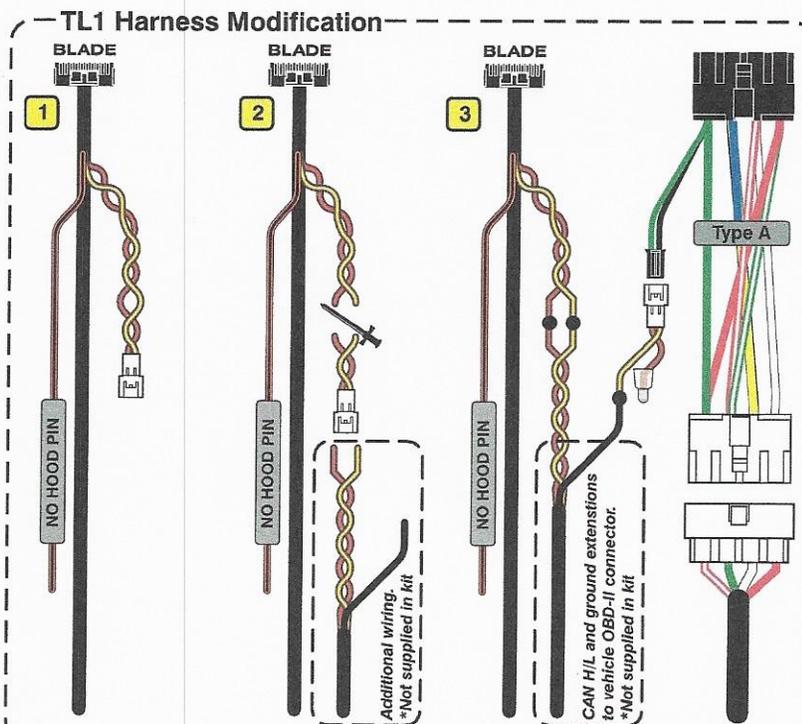
CAN: CAN data connections are located at the OBD-II connector, CANH (pin #6), CANL (pin #14), along with the ground connection at pin #4. *Please ensure solid wire to wire connections are used.*

Lights: Parking light negative is located at the parking light switch connector, pin #18 of the 20-pin connector. If vehicle is equipped with Auto-lights, additional wiring and a relay will be required.

I/O Changes: Listed vehicles require changing the controller output from **Parking Light** to **START**, CM7x00 controllers move jumpe 3 to STARTER position, CM900 controllers set feature option 1-6 to 2. If issues arise disarming the OEM alarm during remote start, set option 1-01 to 2.

Harness Modification (Pro Tip): Installation with the TL1 BLADE harness requires extending a ground and CAN connections to the OBD-II connector. A slight modification to the harness is detailed below, please refer to the step-by-step procedure illustrated.

Okay, now get to work...

TL1 Harness Modification

- **1** TL1 Blade harness as supplied, w/CAN connector attached, able to be connected to TL5/9 30-pin ECU assembly, resulting in an excessive amount of unused wiring that needs to be hidden and secured.
- **2** Remove the 2-pin CAN connector from TL1 harness, in preparation for circuit extension of CANH/L and ground to the OBD-II connector. Save the 2-pin connector for use making the ground connection.
- **3** Connect saved 2-pin connector to Type A CN1 adapter, confirm circuit alignment with ground circuit position (black wire) in adapter black 2-pin, connect extension to OBD-II pin #4 ground circuit.

FTI-TKL1 Type 1A - Installation Notes & Wiring Diagram

FIRSTECH, LLC.

A	TL 5/9 A power adapter required for use in the vehicles listed on the coverage page, using any other adapter will result it malfunction and possible damage. Hardwired CAN & ground connections required.
B	Ground connection required. Failure to connect will result in malfunction and failure to program, ensure a solid connection before installation, secure to prevent accidental disconnection.
C	If the vehicle is not equipped with a factory hood pin, ground the *orange/black* wire before module programming. If hood pin existence is unknown until after programming, ground wire and reprogram.
D	Connections to OBD-II connector, CANH, CANL, and ground are mandatory connections, please use solid wire to wire connections, do not use T-taps or Scotch Locks for making these connections.
E	Parking light connection, additional wiring required. Vehicle negative (-) parking lights are available at the switch connector in the steering column, pin #18 of the 20-pin connector.

BLADE

TL1 BLADE

PK LIGHTS (-)

TL5/9 A

NO HOOD PIN

CAN H/L and ground extenstions to vehicle OBD-II connector. *Not supplied in kit

CAN H/L

GND

-CAN Twist Detail-

1.5" max.

CANL
CANH

Ttaps

OBD-II Connector ❶

Ignition Switch ❷

Immobilizer Connector ❸

Parking light Switch ❹

10 1
20 19 18 11

Auto-Light control (if equipped)

+12V
STATUS

87a 30

87

green

FT-RLY-10A
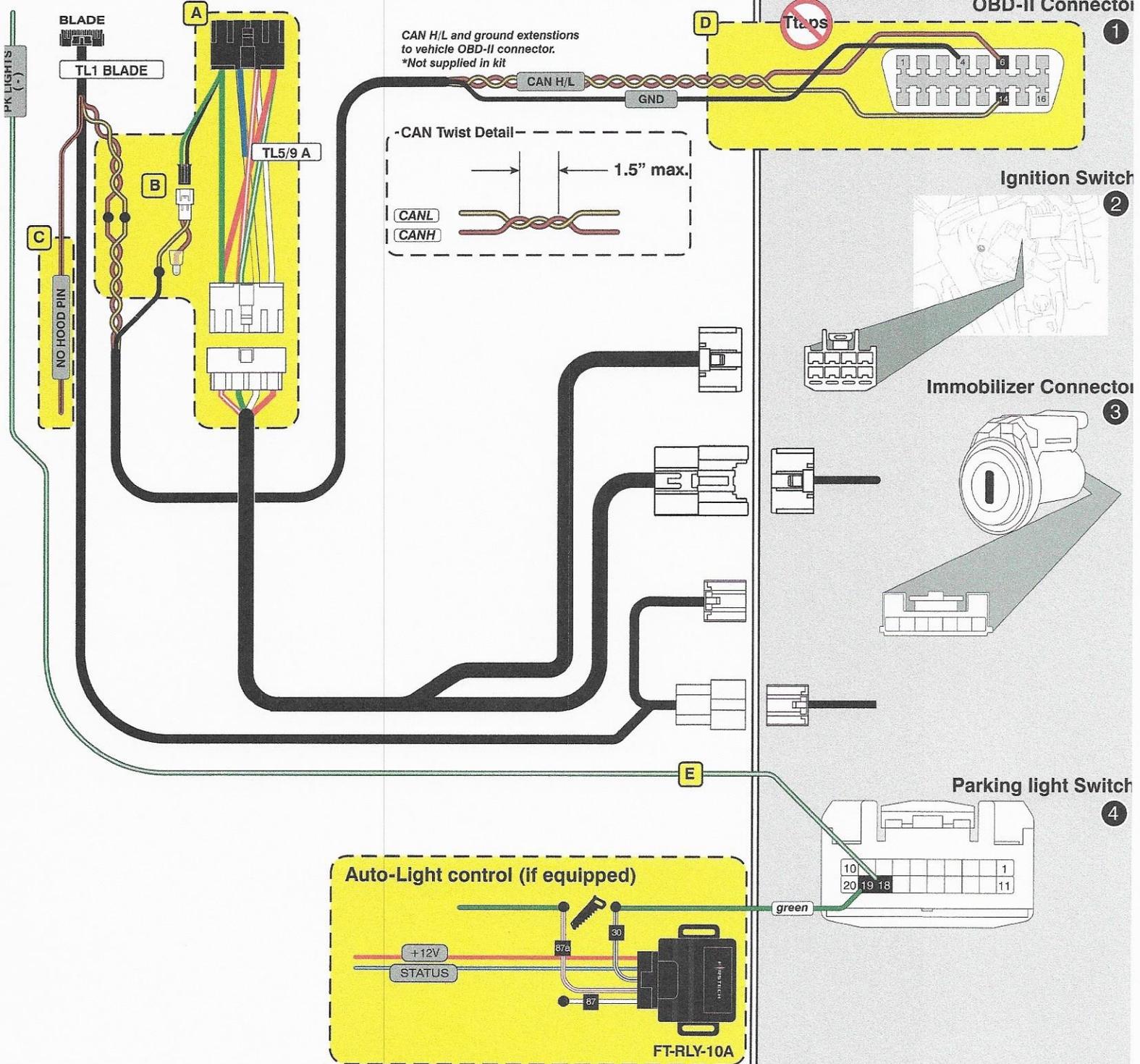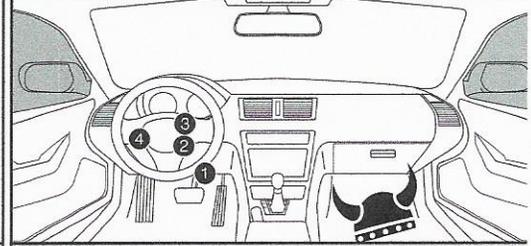
Module Programming Procedure

Step 1 - Insert key, activate IGN
Step 2 - LED will flash blue, remove key
Step 3 - Reinsert key, LED will flash green/red
Step 4 - Led will go solid blue, remove key
Step 5 - Programming complete

LED Programming Error Codes

Module LED flashing RED during programming

1x - CAN error, check connections
2x - VIN detection failure, check CAN connections
3x - VIN unknown
4x - IMMO error, check connections
5x - OEM remote starter detected, remove from vehicle
Solid red LED - TXCT/CODE error, check wiring and confirm equipment level.

FTI-TKL1 Type 1A

Overview: The initial production release of the FTI-TLK1 harness has an issue where in some vehicles the secondary power input to the CN1 connector will overload the associated vehicle circuit, causing a fuse to blow. This issue affects the initial release of harnesses and is already being addressed in production. A field correction procedure is detailed below in Figure 1.

Issue: The secondary power circuit can overload some vehicle ignition switch circuits, causing a blown 5A/7.5A AM1 fuse, potentially disabling the vehicle and leaving the consumer stranded. Affected adapters are illustrated below in figure 2.

Corrective steps:
1.) Select the applicable CN1 adapter, isolate the RED/WHITE power wire, cut wire approximately 4" from the BLACK plug
2.) Insulate the wire still connected to the WHITE plug using heat shrink tubing, and strip the insulation on the other wire end
3.) Strip a portion of the insulation from the RED wire, attach the stripped RED/WHITE to the exposed RED wire, solder together
4.) Apply insulating tape to the soldered connection and secure the cut ends back to the bundle of wires created by the adapter
5.) Correction complete, you may safely proceed to finish your installation

Figure 1: Step by step adapter correction

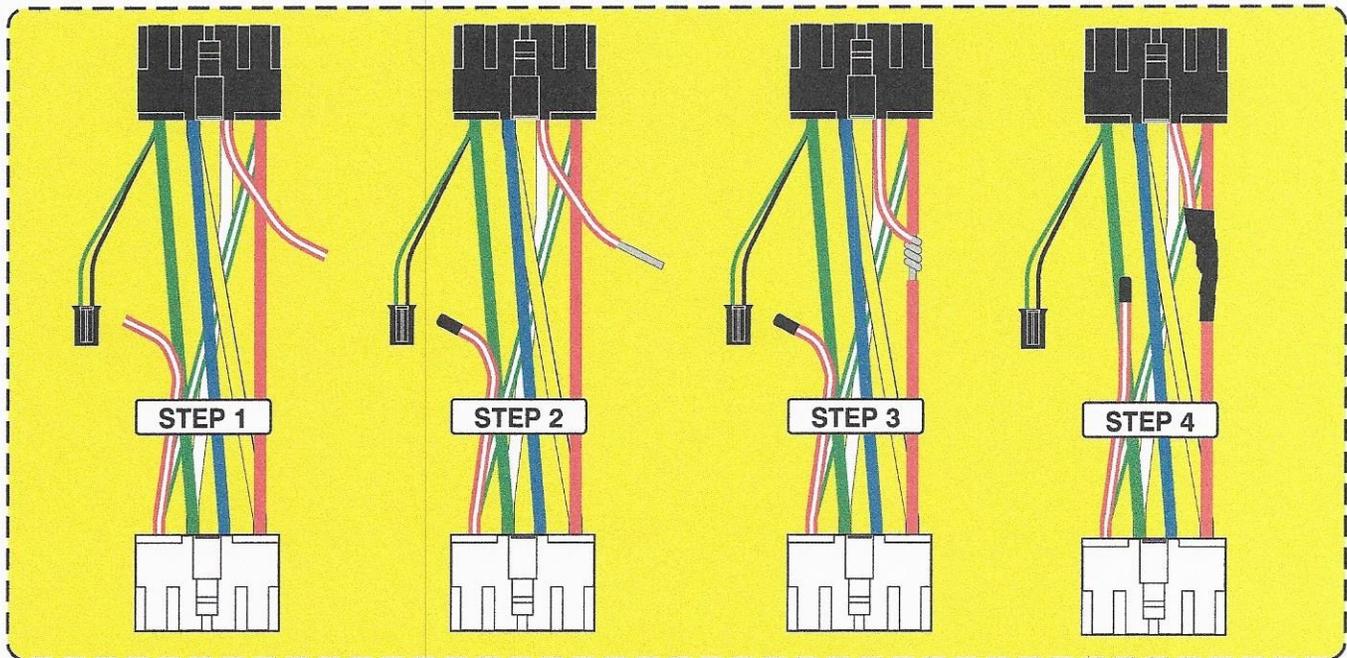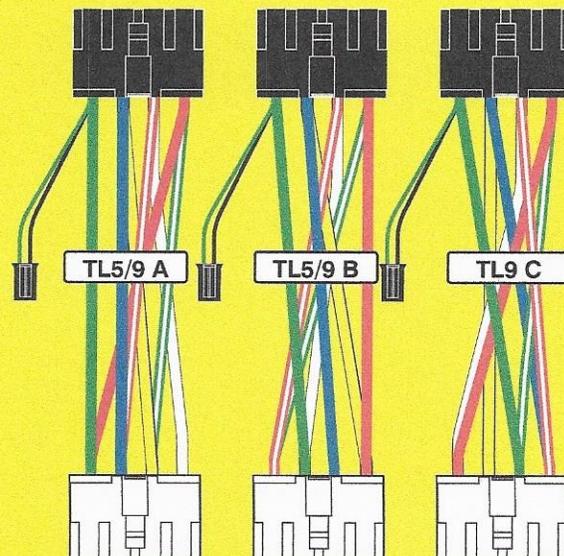STEP 1 STEP 2 STEP 3 STEP 4

Figure 2: Supplied CN1 Harness Adapters

Incorrect power provisions with the potential to overload vehicle ignition supply circuit, resulting in blown AM1 fuse.

TL5/9 A TL5/9 B TL9 C

Make	Model	Year	Install	CAN	Lights	Adapter	Trunk	I/O Changes
DL-TL1					Park / Auto			Green White/Blue
Scion	xD 40 bit STD Key	2008-10	Type 1	OBD-II	SW-13	ADPT B		START 2
Toyota	Camry 40 bit STD Key	2007-11	Type 1	OBD-II	SW-18/19	ADPT B		START 2
Toyota	Highlander 40 bit STD Key	2008-10	Type 1	OBD-II	SW-18/19	ADPT B		START 2
Toyota	Sequoia 40 bit STD Key	2008-10	Type 1	OBD-II	SW-18/19	ADPT B		START 2
Toyota	Tundra 40 bit STD Key	2007-10	Type 1	OBD-II	SW-18/19	ADPT B		START 2
Toyota	Yaris 40 bit STD Key	2006-10	Type 1	OBD-II	SW-13	ADPT B		START 2

Hey! Read this stuff before you start the installation...

Firmware: Covered vehicles use **BLADE-AL(DL)-TL1**, flash module and update the controller firmware before installing.

Install: Covered vehicles require using the **TL 5/9 B CN1 adapter,** *using any other adapter will result in malfunction.*
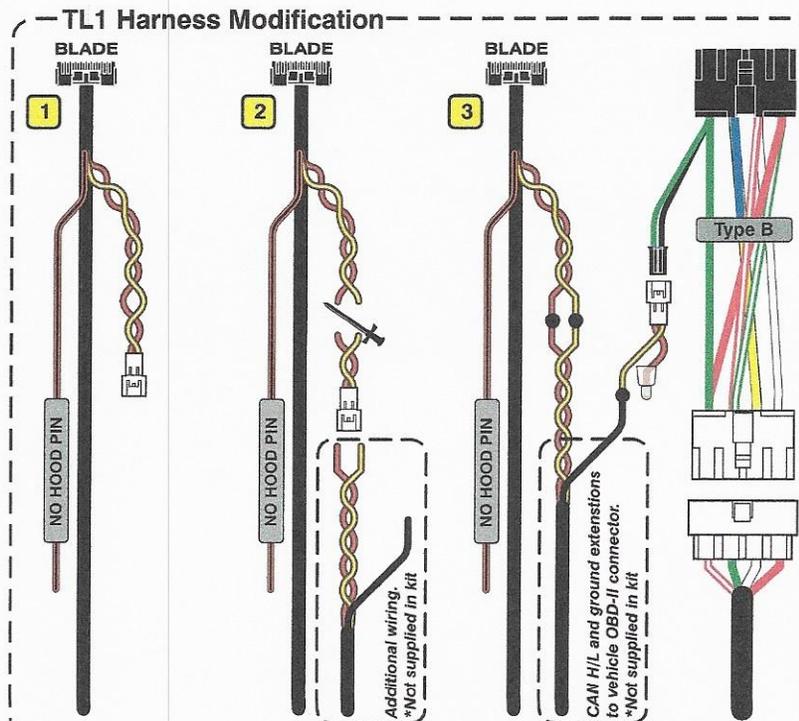
CAN: CAN data connections are located at the OBD-II connector, CANH (pin #6), CANL (pin #14), along with the ground connection at pin #4. *Please ensure solid wire to wire connections are used.*

Lights: Parking light negative is located at the parking light switch connector, pin #18 of the 20-pin connector, Scion xD & Toyota Yaris parking light is at pin #13 of the 20-pin connector. If vehicle is equipped with Auto-lights, additional wiring and a relay will be required.

I/O Changes: Listed vehicles require changing the controller output from **Parking Light** to **START**, CM7x00 controllers move 39jumper, CM900 controllers set feature option 1-6 to 2. If issues arise disarming the OEM alarm during remote start, set option 1-01 to 2.

Harness Modification (Pro Tip): Installation with the TL1 BLADE harness requires extending a ground and CAN connections to the OBD-II connector. A slight modification to the harness is detailed below, please refer to the step-by-step procedure illustrated.

Okay, now get to work...

TL1 Harness Modification

Jumper Setting

Parking Light			(+)Door Trigger In
Accessory			(-)Door Trigger In (Default)
Ignition (Default)			
Trunk			Starter
Starter			Ignition
Parking Light (Default)			Accessory (Default)

•FT-DAS Required for manual transmission.
•BOTH Red & Red/White MUST be connected with high current application.

CM7000/7200   Cut loop for A/T

CM-900S/900AS

CM900AS/900S Jumper

START ACC IGN1

1 TL1 Blade harness as supplied, w/CAN connector attached, able to be connected to TL5/9 30-pin ECU assembly, resulting in an excessive amount of unused wiring that needs to be hidden and secured.

2 Remove the 2.pin CAN connector from TL1 harness, in preparation for circuit extension of CANH/L and ground to the OBD-II connector. Save the 2-pin connector for use making the ground connection.

3 Connect saved 2-pin connector to Type A CN1 adapter, confirm circuit alignment with ground circuit position (black wire) in adapter black 2-pin, connect extension to OBD-II pin #4 ground circuit.

FIRSTECH, LLC.

A	TL 5/9 B CN1 adapter required for use in the vehicles listed on the coverage page, using any other adapter will result it malfunction and possible damage. Hardwired CAN & ground connections required.
B	Ground connection required. Failure to connect will result in malfunction and failure to program, ensure a solid connection before installation, secure to prevent accidental disconnection.
C	If the vehicle is not equipped with a factory hood pin, ground the *orange/black* wire before module programming. If hood pin existence is unknown until after programming, ground wire and reprogram.
D	Connections to OBD-II connector, CANH, CANL, and ground are mandatory connections, please use solid wire to wire connections, do not use T-taps or Scotch Locks for making these connections.
E	Parking light connection, additional wiring required. Vehicle negative (-) parking lights are available at the switch connector, pin #18 or #13 of the 20-pin connector, refer to vehicle coverage page.

OBD-II Connector ①

Ignition Switch ②

Immobilizer Connector ③

Parking light Switch ④

BLADE

TL1 BLADE

PK LIGHTS (-)

A

B

C NO HOOD PIN

TL5/9 B

*CAN H/L and ground extenstions to vehicle OBD-II connector. *Not supplied in kit*

CAN H/L   GND

D   Ttaps

— CAN Twist Detail —

1.5" max.

CANL
CANH

xD & Yaris

E

Auto-Light control (if equipped)

+12V
STATUS

87a   30

87

green

10   1
20 19 18   13   11

FT-RLY-10A
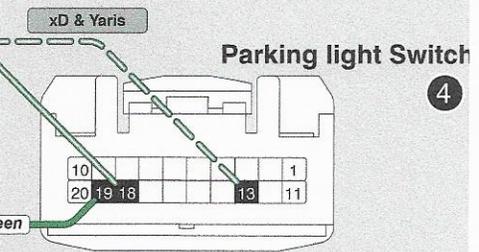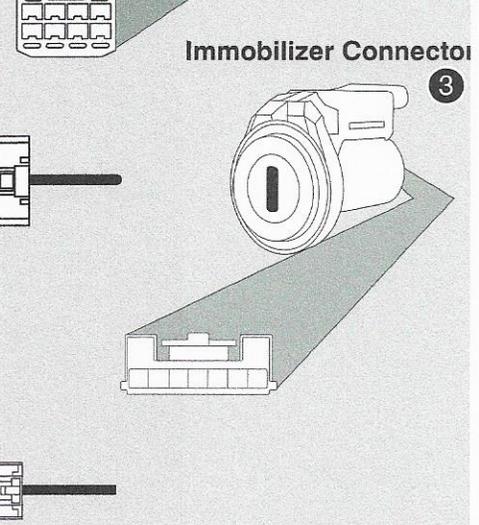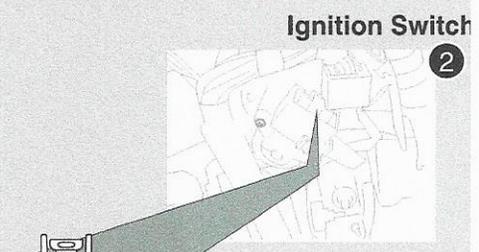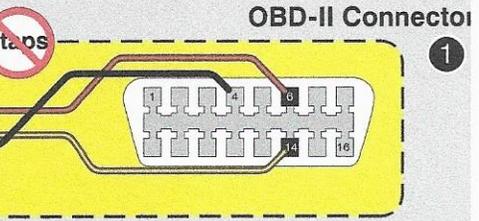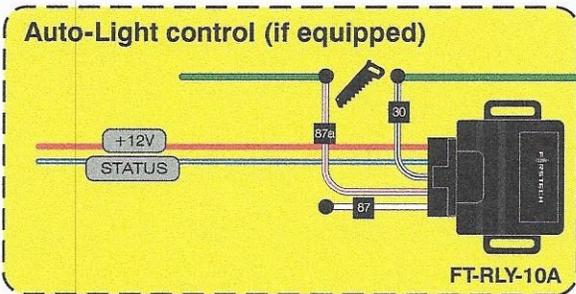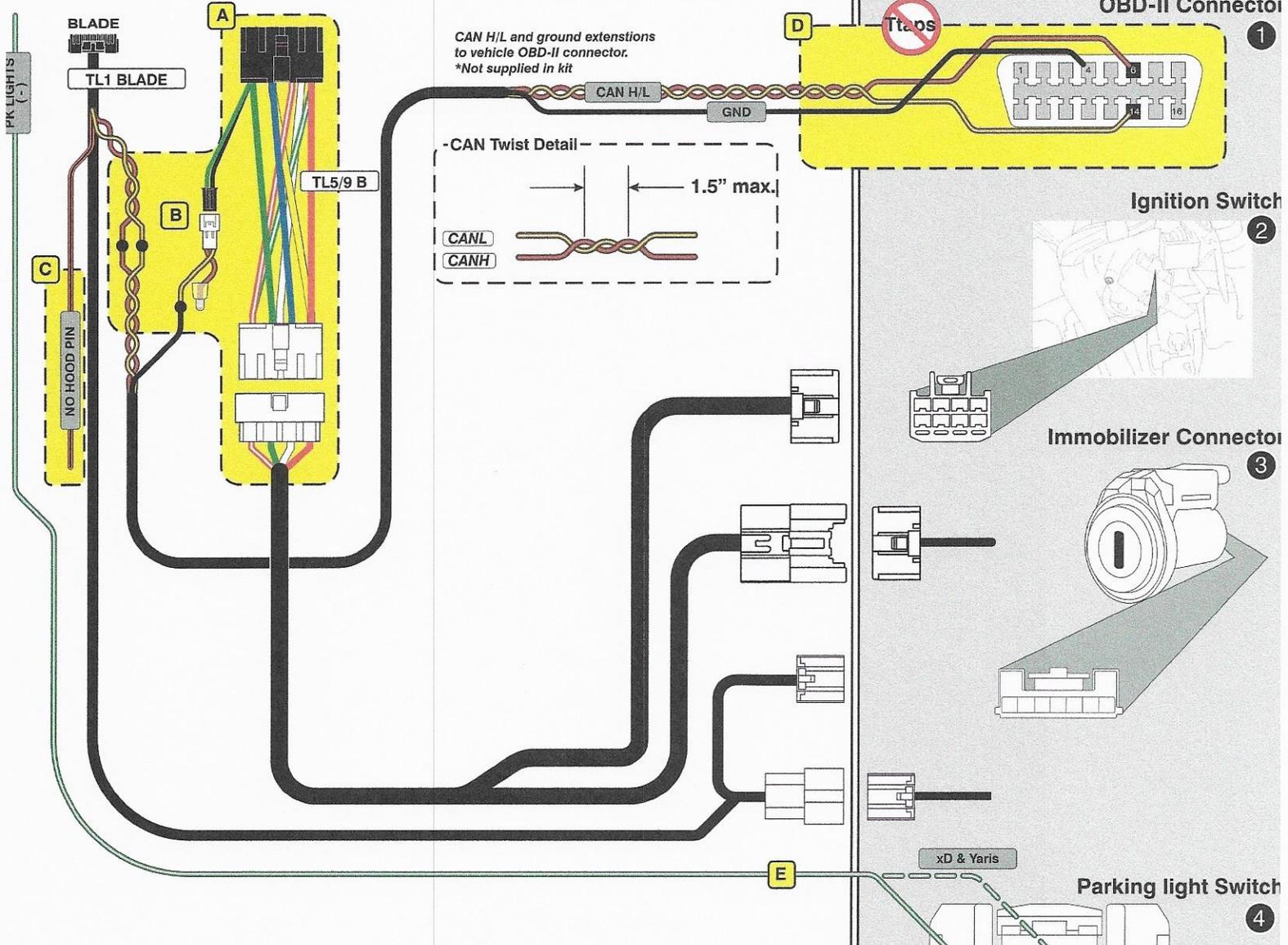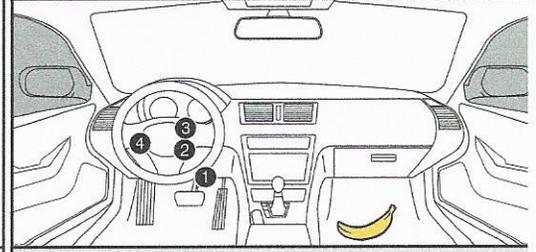
Module Programming Procedure

Step 1 - Insert key, activate IGN
Step 2 - LED will flash green, remove key
Step 3 - Reinsert key, LED will flash blue/red
Step 4 - Led will go solid blue, remove key
Step 5 - Programming complete

LED Programming Error Codes

Module LED flashing RED during programming

1x - CAN error, check connections
2x - VIN detection failure, check CAN connections
3x - VIN unknown
4x - IMMO error, check connections
5x - OEM remote starter detected, remove from vehicle
Solid red LED - TXCT/CODE error, check wiring and confirm equipment level.

FTI-TKL1 Type 1B