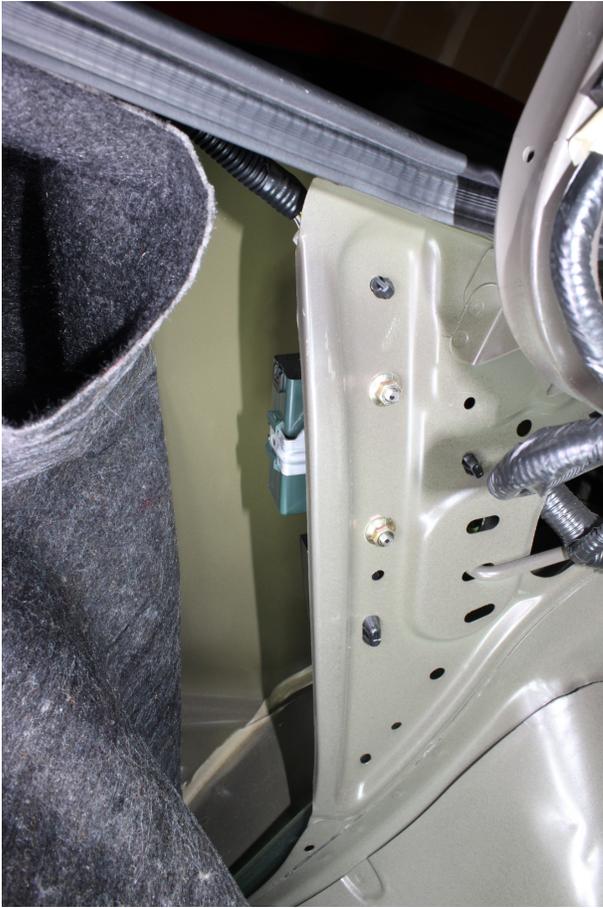


1999 Toyota Avalon Keyless Entry System

Original keyless entry system using "Wireless Door Lock Control Receiver" gradually started malfunctioning and eventually lost the function completely.

The cause was that the receiver lost the sensitivity of 315 MHz radio wave transmitted from the key remote.

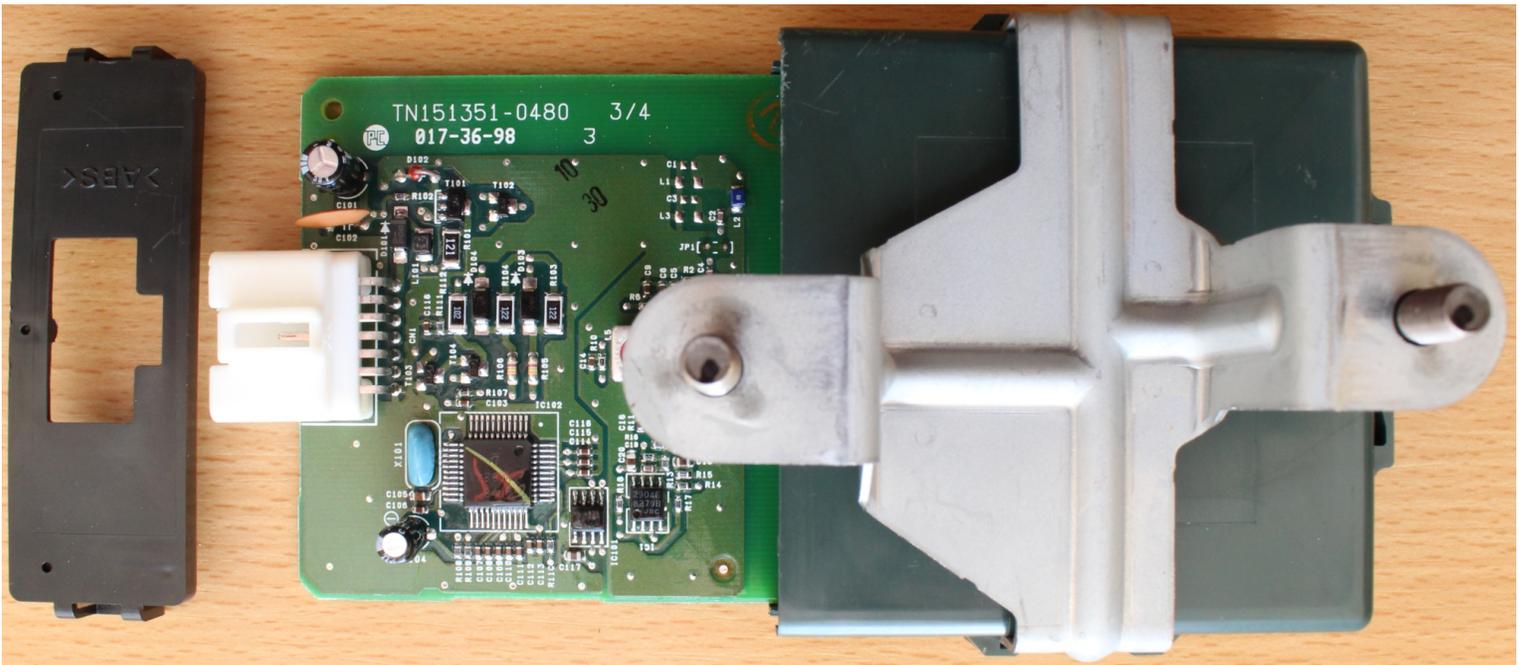
1999 Toyota Avalon installs a door control receiver module of "89741-AC020". There was no replacement parts at auto parts market place due to over 25 years old vintage model. The reliability of the receiver detached from 1999 Toyota Avalon displayed at junkyard is expected to be deteriorated as mine is.

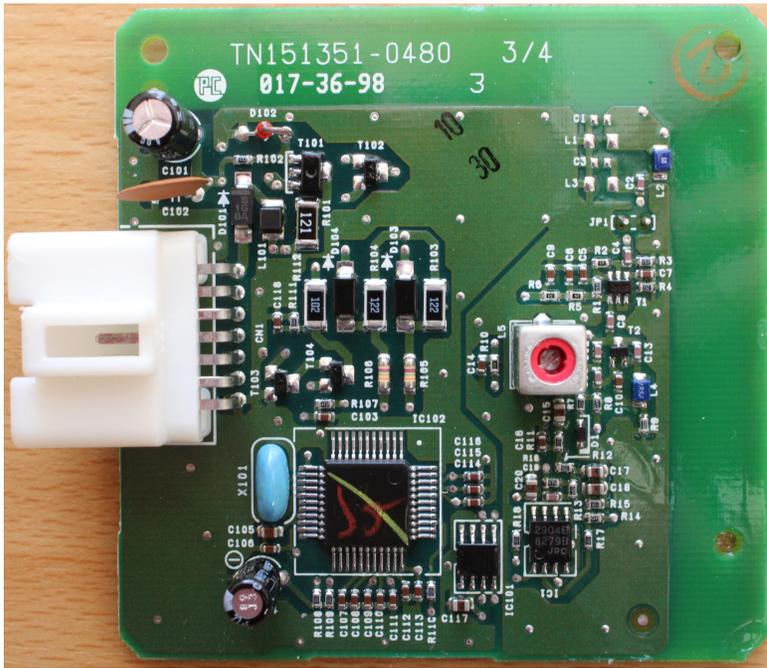


Location: Inner trunk left

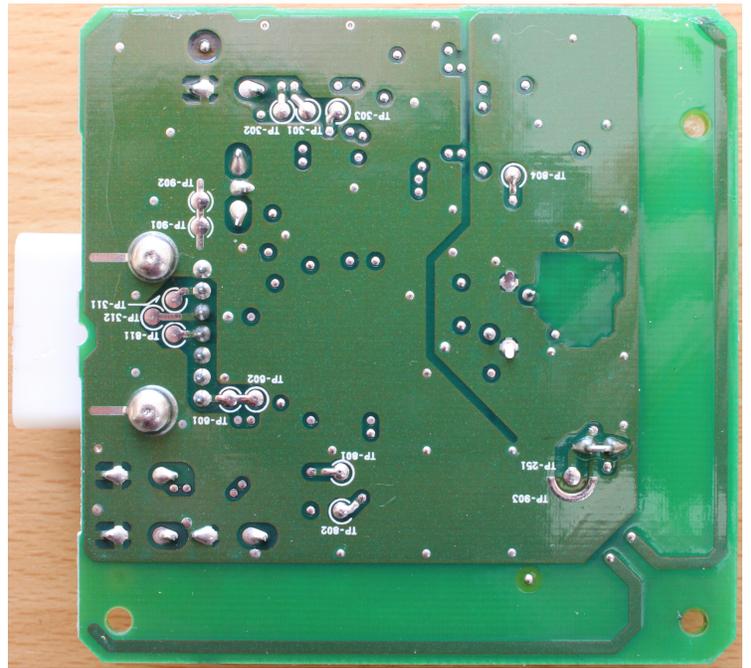


Door control receiver "89741-AC020"





Board (front)

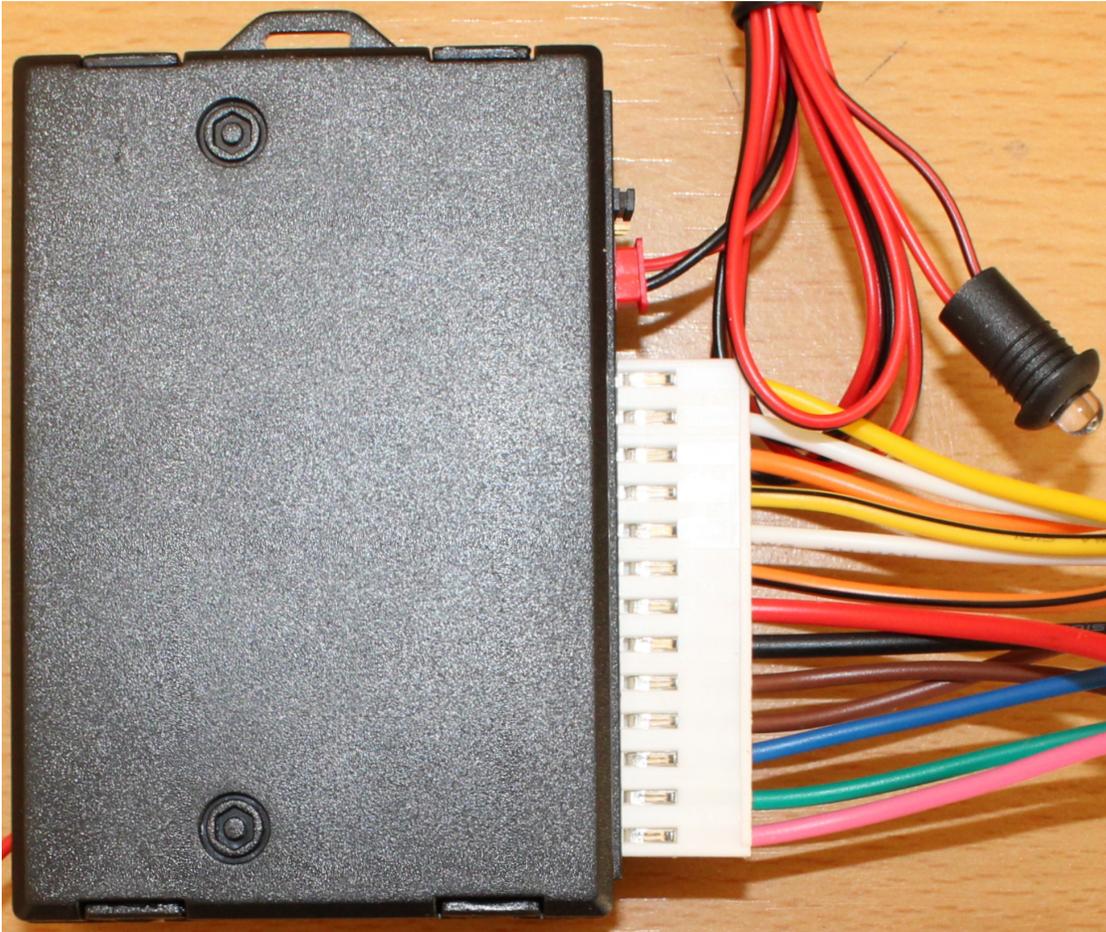


Board (rear)

General Purpose Keyless Entry System

The best way to regain the function (Power door lock and unlock as well as trunk door release) is to adopt a less expensive general purpose Keyless entry system (\$15) if you have extensive expertise established with long-term experience.

Connecting the wires as well as finding the storage space might not be difficult.



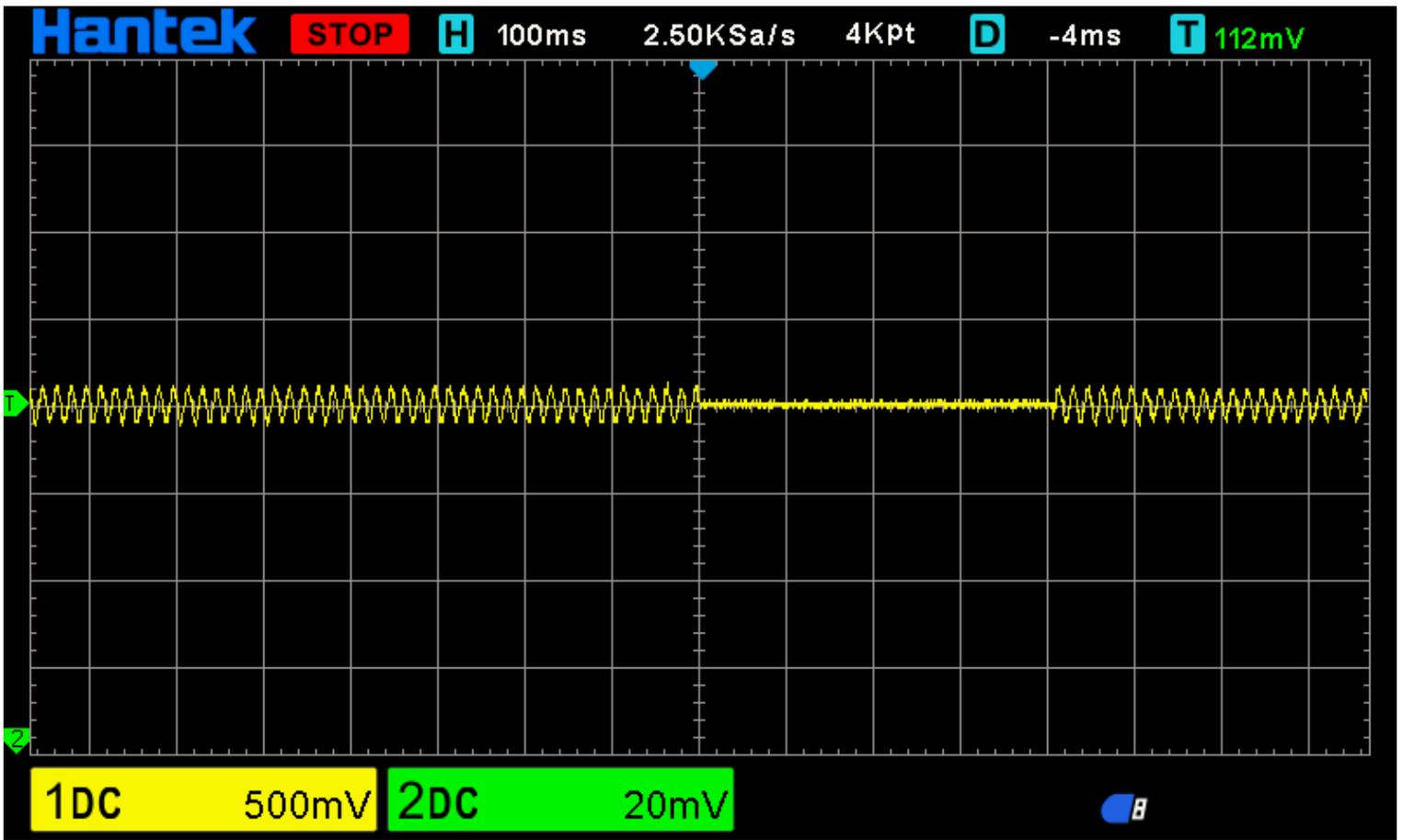
Brand new keyless entry system



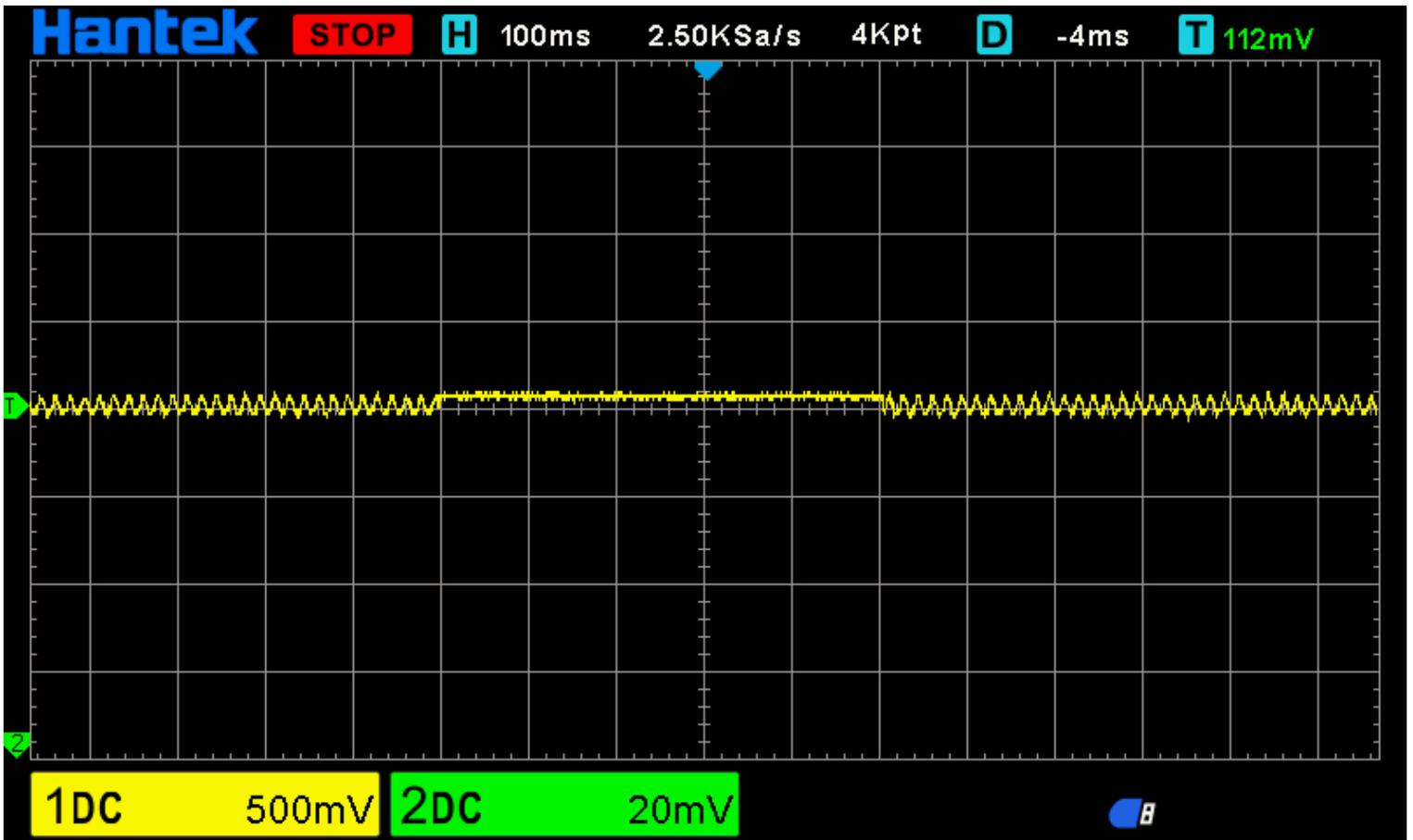
Brand new remotes



Toyota original remote



When "Lock" or "Unlock" on remote is depressed, 400 mSec ground level appears from W and W-B.



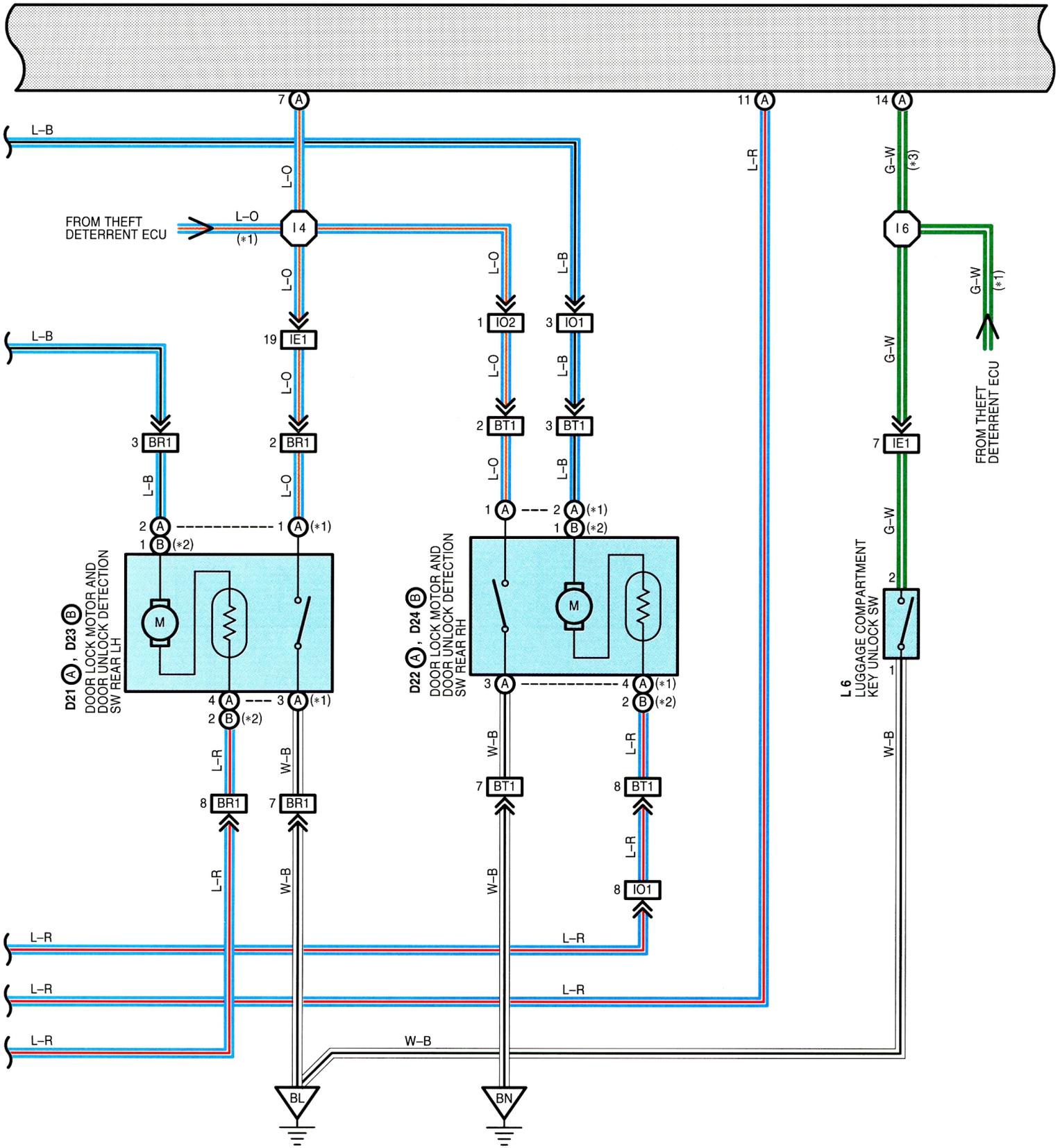
When "Trunk Release" on remote is depressed for 3 seconds, 500 mSec ground level appears from L.



D18 Door lock control switch RH ↑

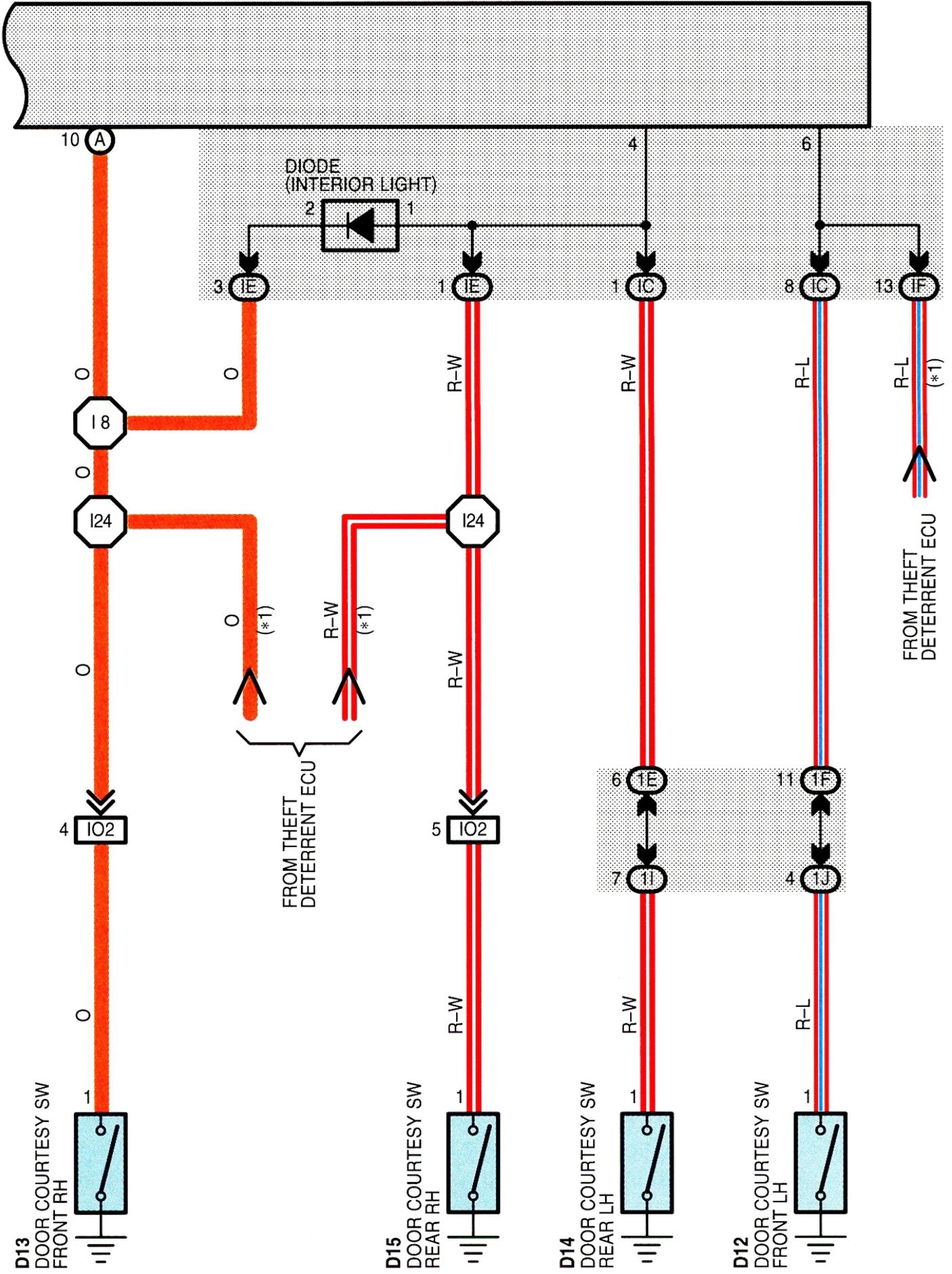


↑ **L6** Luggage compartment key unlock switch for trunk release



↑
L6 Luggage compartment key unlock switch

118 (A)
INTEGRATION RELAY



1999 Toyota Avalon Electrical Wiring Diagram

D12



D13



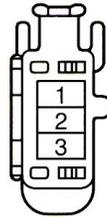
D14



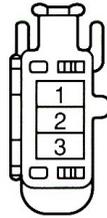
D15



D16



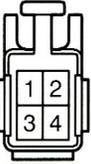
D17



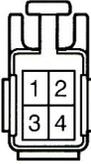
D18



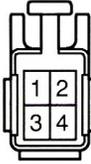
D19
GRAY



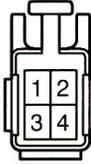
D20
GRAY



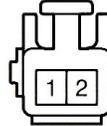
D21 (A)
GRAY



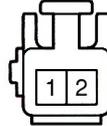
D22 (A)
GRAY



D23 (B)

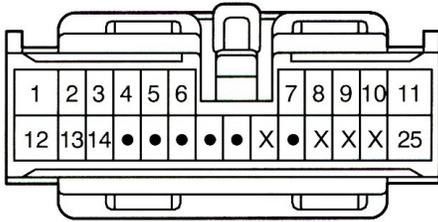


D24 (B)



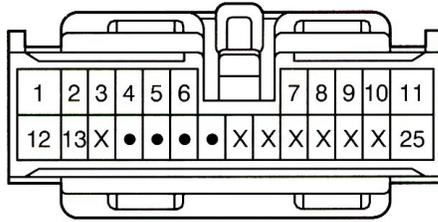
I18 (A)

(w/ Wireless Door Lock Control)

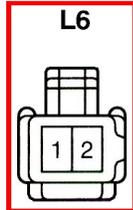


I18 (A)

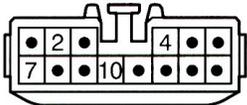
(w/o Wireless Door Lock Control)



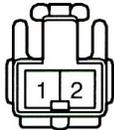
L6

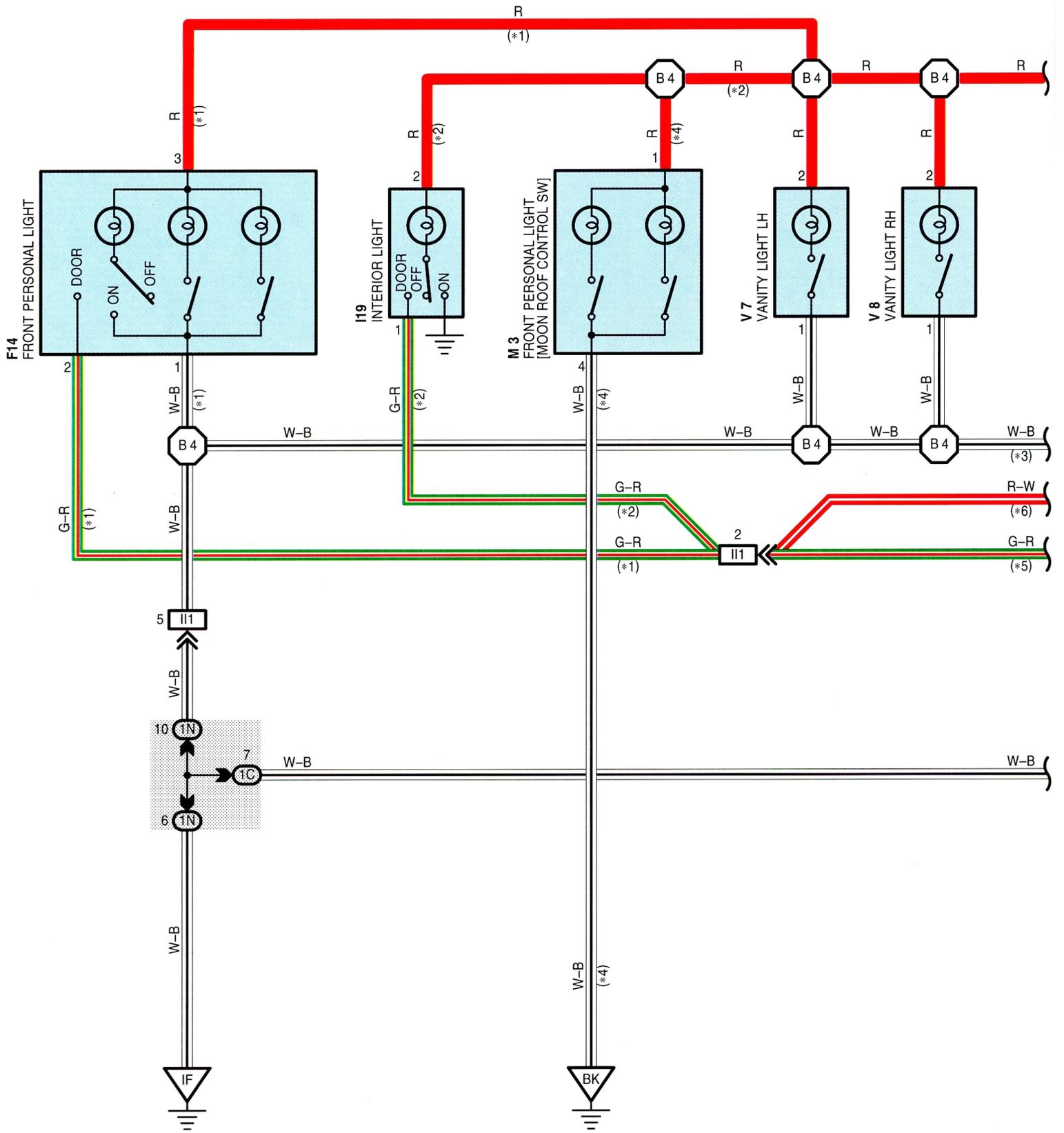


P16

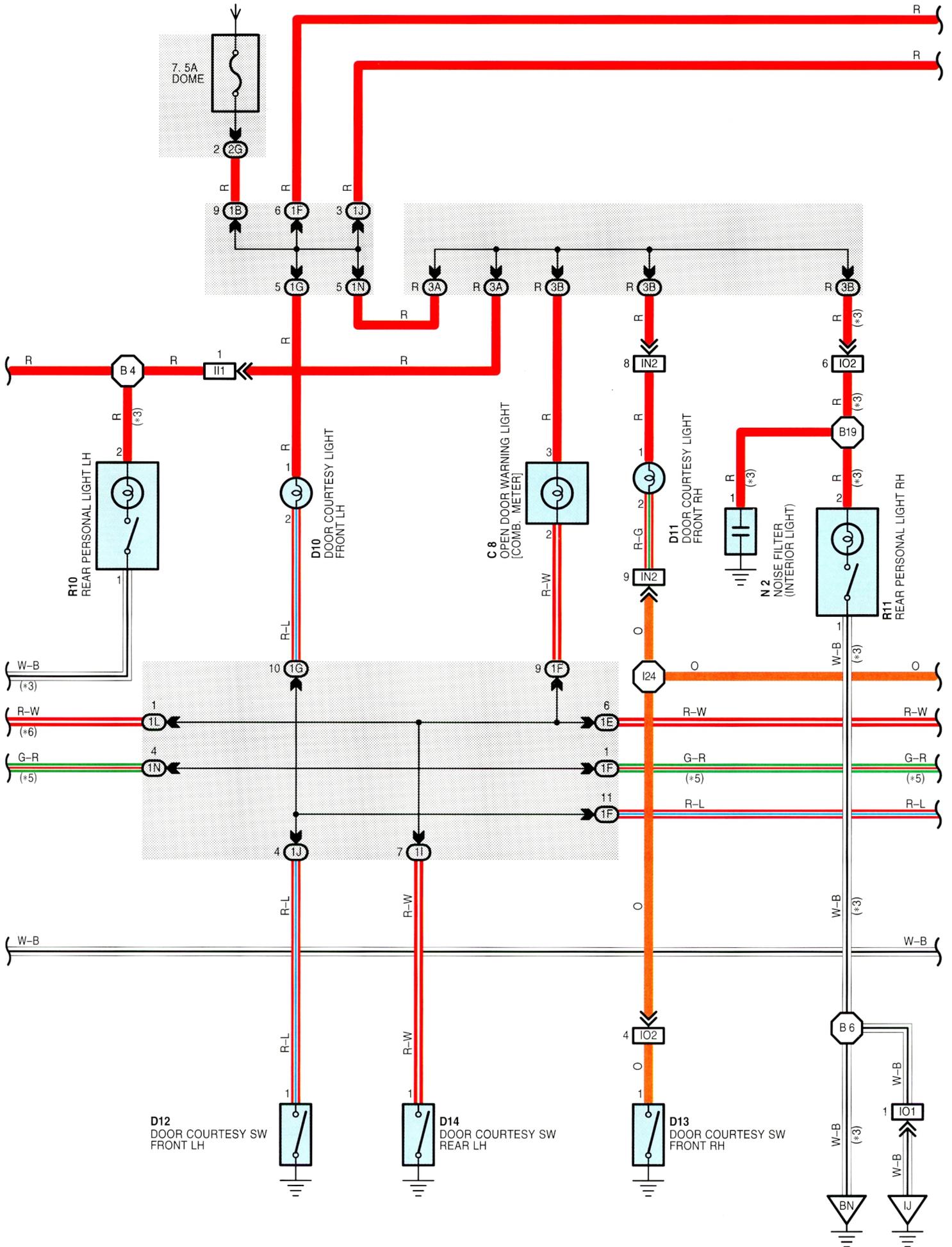


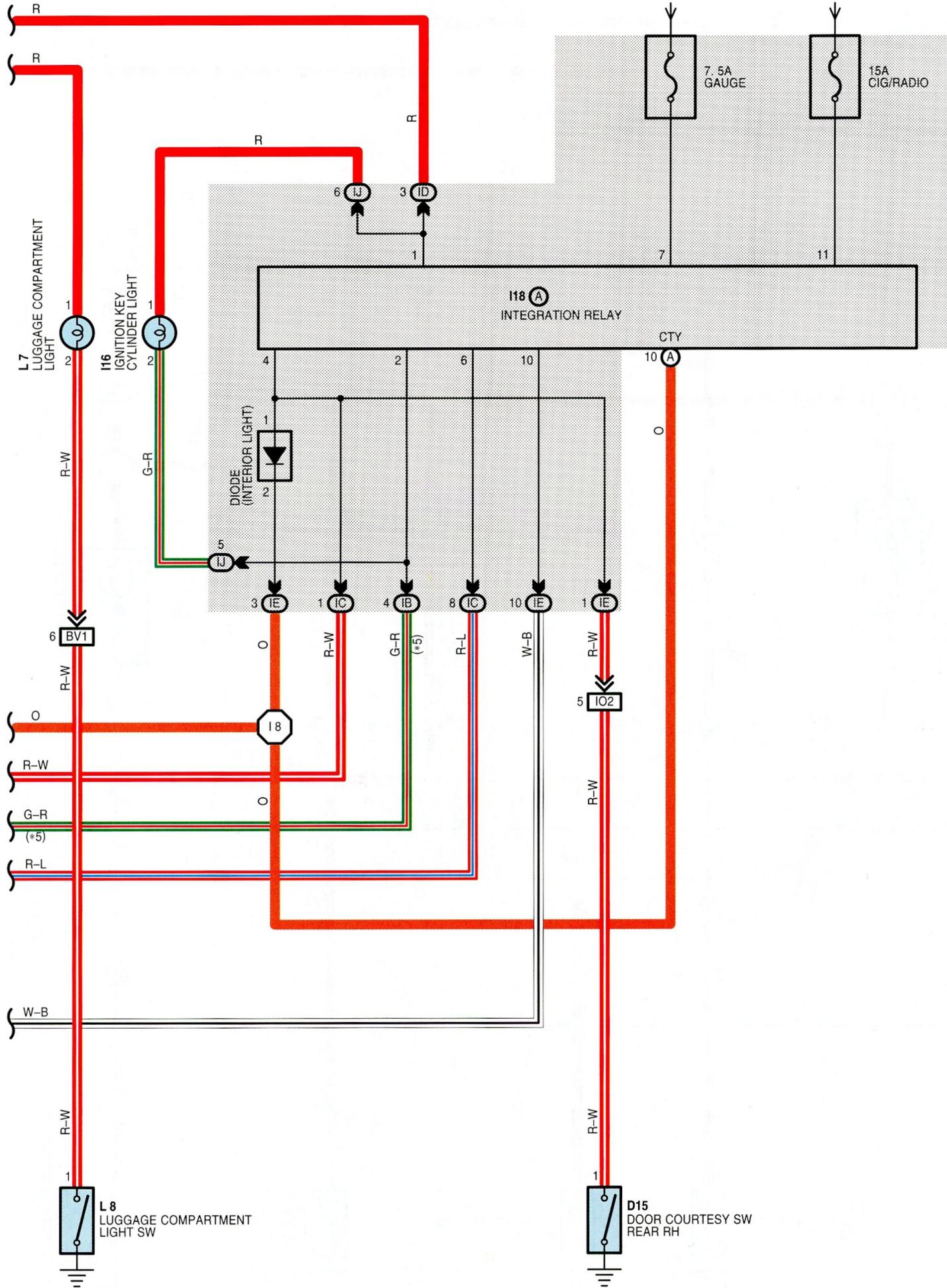
U1



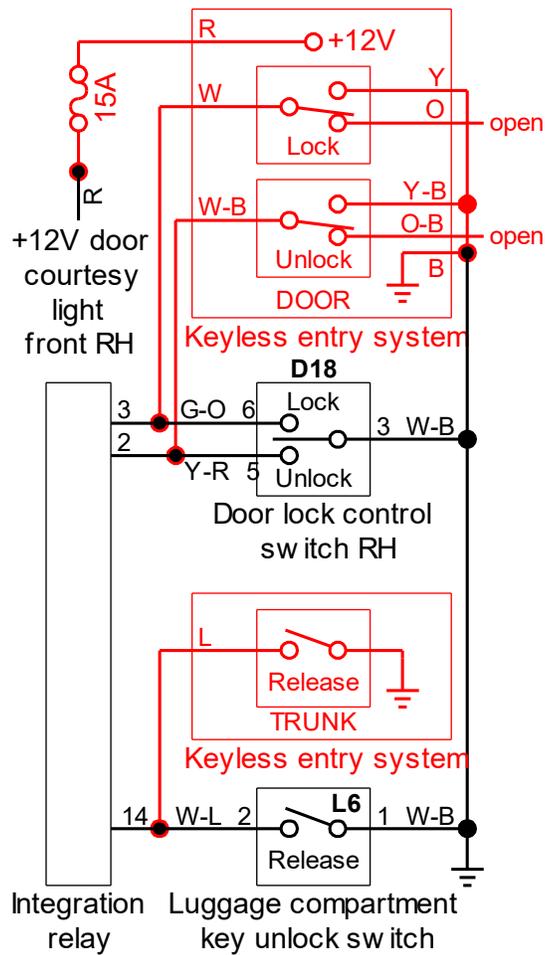


1999 Toyota Avalon Electrical Wiring Diagram

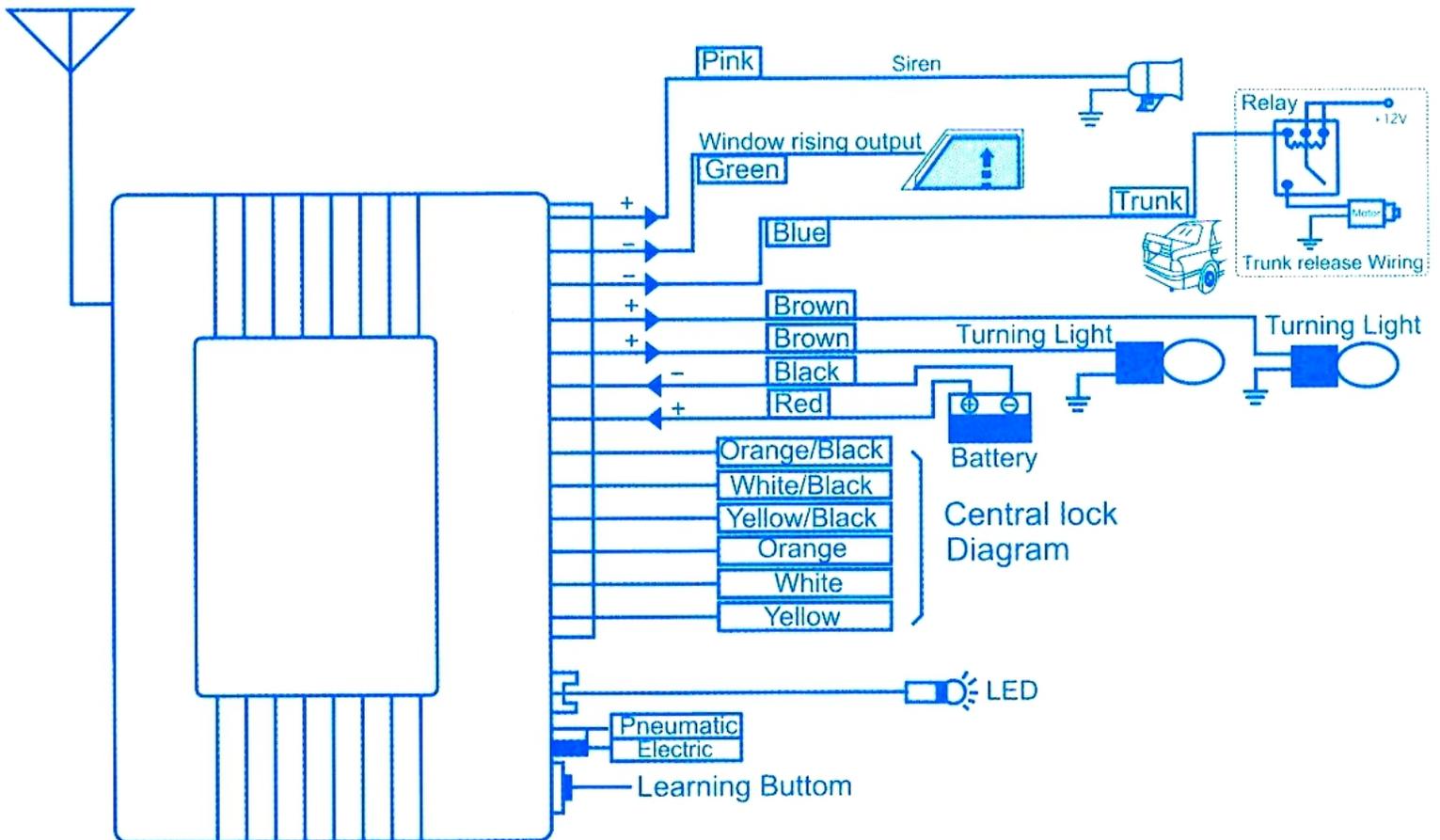




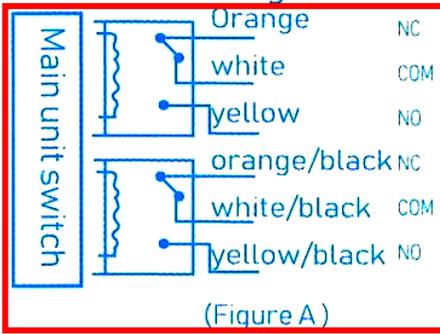
1999 Toyota Avalon Electrical Wiring Diagram



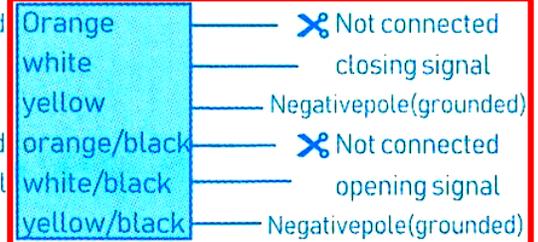
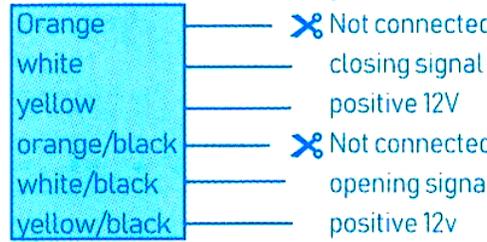
Keyless entry system works in parallel with D18 and L6 shown on "1999 Toyota Avalon Electrical Wiring Diagram"



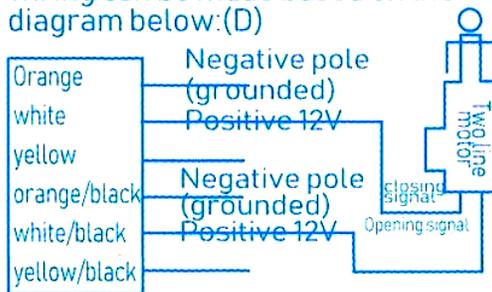
Internal working scheme for central-controlling unit



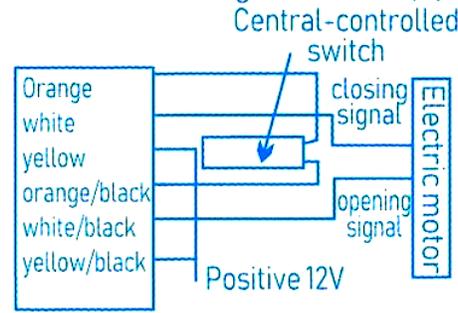
1.If the car is originally equipped with central-locking system and the driver's door has been installed with electric motor,the wiring can be made on the diagram below:(B.C)



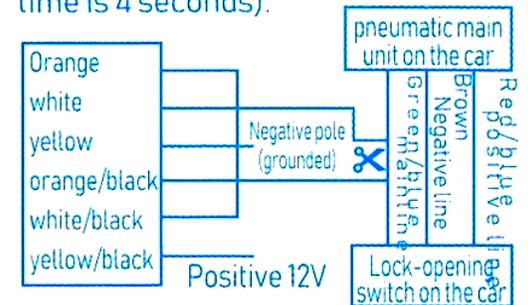
2.When the car is originally equipped with central-locking system and the driver's door is installed with only one switch,then a two wire actuator should be installed ,the wiring can be made based on the diagram below:(D)



3.When the car is originally equipped with central-locking system (including in the driver's door) ,the wiring can be made based on the diagram below:(E)



4.When the car is originally equipped with pneumatic central-locking system, the wiring can be made based on the diagram below: (when wiring as per this diagram, please cut of the jumper at the main unit, the central-controlling time is 4 seconds):



1.Lock(Every time effectively)

Press  , lock door, Turning light flash once, siren sound one times, window output. LED flashes.

2.Unlock(Every time effectively)

Press  once, turning light flash twice, siren sound twice, door unlock.

3.Trunk release(The car must have trunk motor)

In any state,press  3 seconds, trunk release automatically, turning light flash three times, siren sound three times,

In any state,press  3 seconds, trunk release automatically.

(Note:with four key remote contro  or  3 seconds, trunk release automatically, turning right flash three times)

4.Vehicle locator

Press  3 seconds, turning light flash three times, siren sound three times.

Press  once, turning light flash three times, siren sound three times.

5.learning code

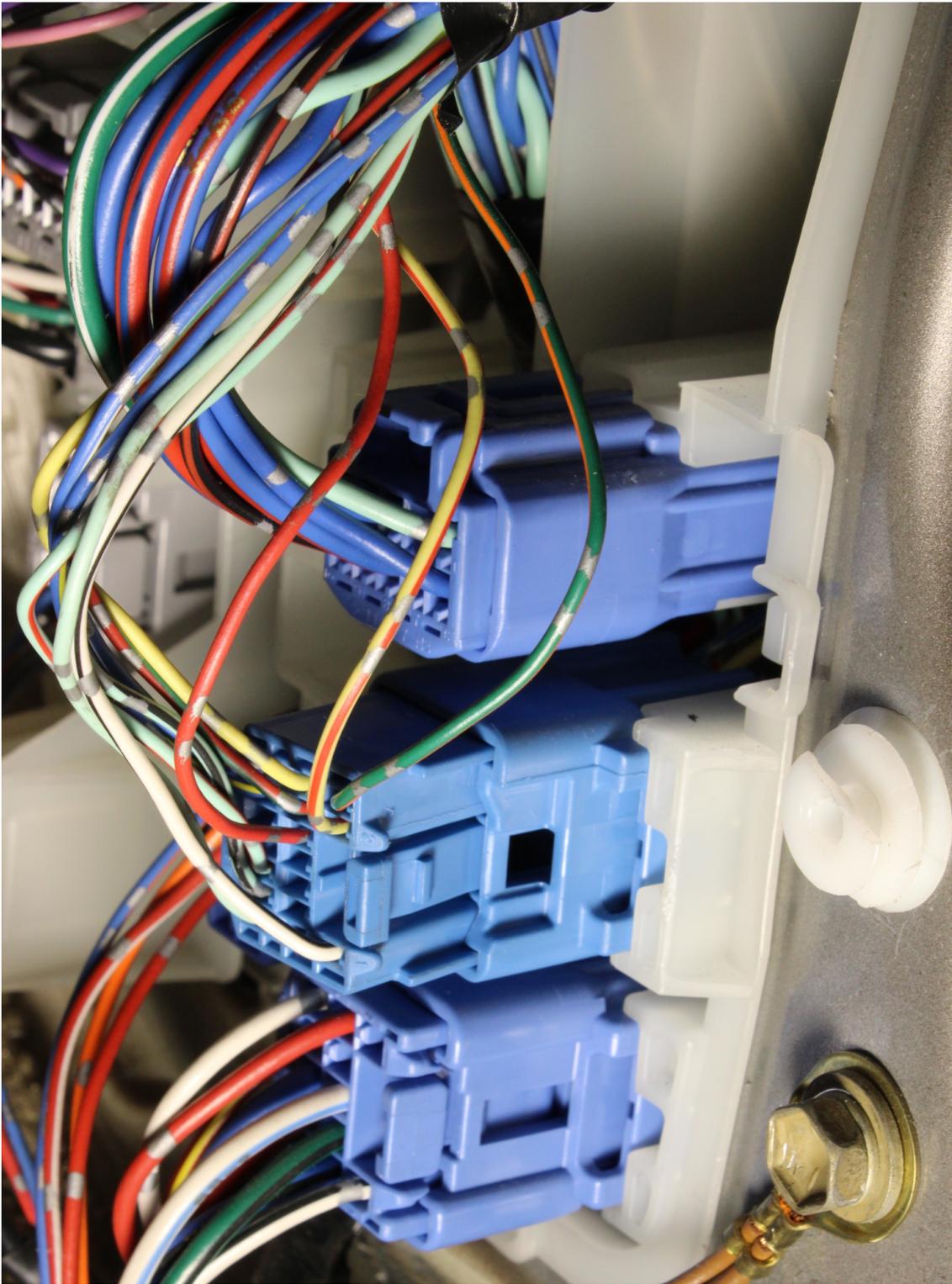
Long press learning button 3 seconds, turning light flashes for a long time, enter learning code state, in 10 seconds, press any button, turning light flash once, if learn one more, press any button, turning light flash twice, And By This Analogy, four remote control can learning at the same time.

Note: Turning light output time is 0.1 second, unlock/lock pneumatic is 3 second, Electric 0.5 sec, trunk 0.5sec,window output 30sec.LED 0.5 sec, siren 0.1sec.



Disassembling glove box

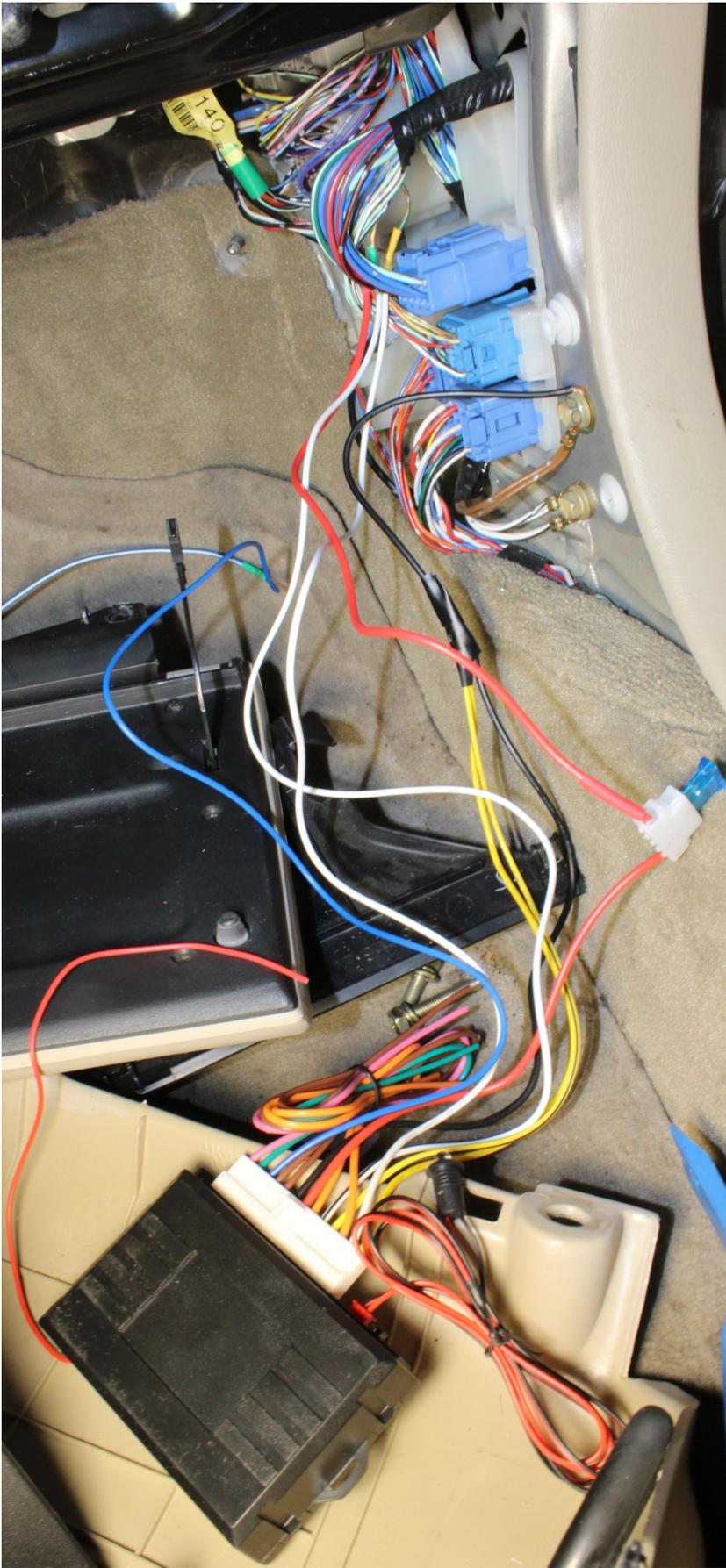
1. Trunk Opener Switch (Upper left)
2. Wires to/from passenger's side front door (Upper right, through upper two blue connectors)
3. Ground to chassis (Upper right)



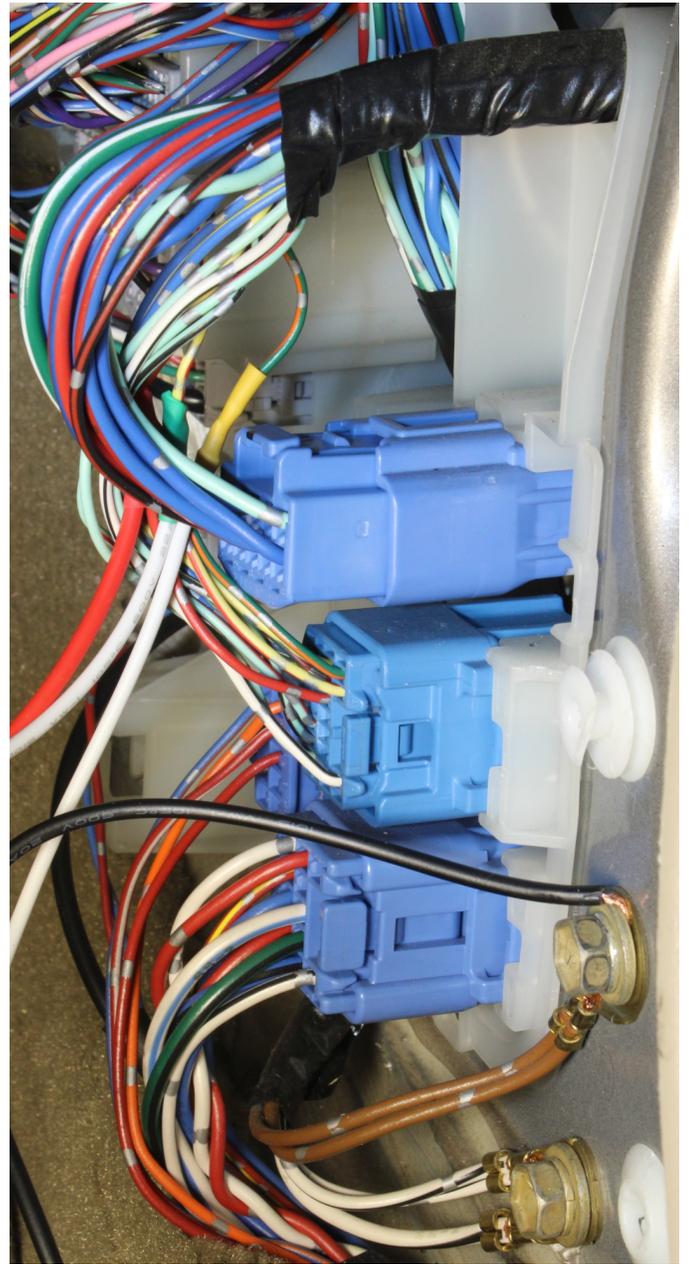
Door lock (G-O), Door unlock (Y-R), 12V always active (R), Ground (to chassis)



Trunk release (W-L)



Panorama



Lock; G-O ↔ W,
Unlock; Y-R ↔ W-B,
12V; R ↔ R,
GND; Chassis ↔ B



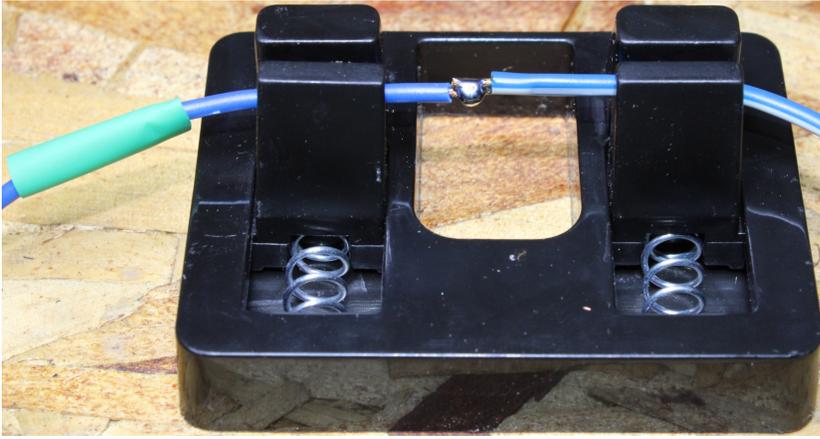
Trunk release; W-L ↔ L



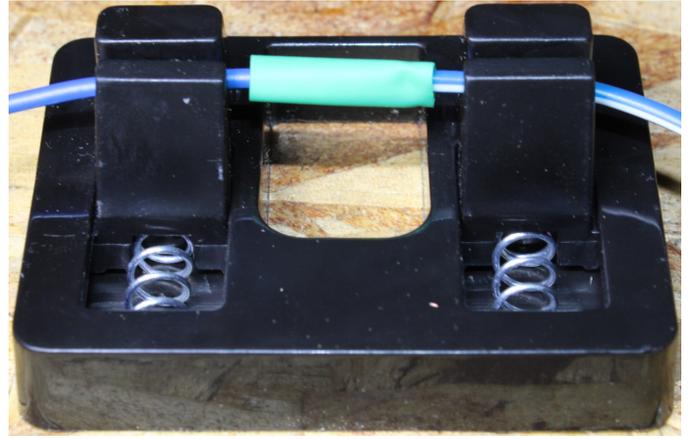
Recovered

[Short video](#) (Door unlock – Door lock – Door unlock – Trunk release)

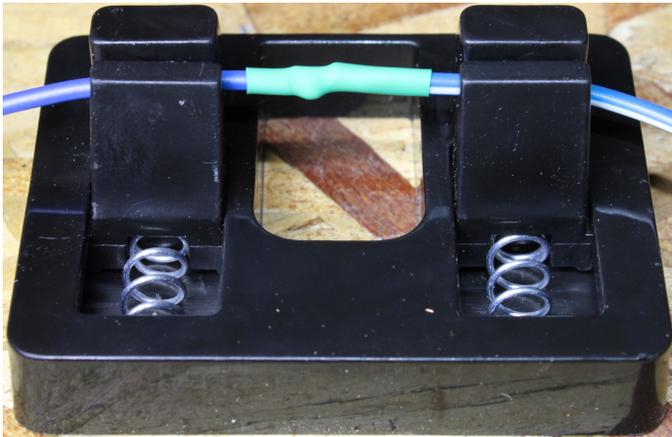
Heat Shrink Tubing



Stage 1



Stage 2



Stage 3



Heat gun