

PRODUCT OVERVIEW

RETRAX EQ



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SYSTEM COMPONENTS



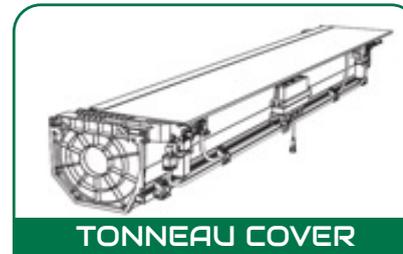
TRUCK



OEM FOB



USER APP



TONNEAU COVER



BLUETOOTH KEYPAD



INSTALLER APP



COVER MODULE



CABIN MODULE

CONNECTION DIAGRAM



KEY FEATURES



OEM FOB full integration with the system. User able to operate the cover using the FOB

- 3x lock = cover close
- 3x unlock = cover open
- 3x lock or unlock = stop cover



User APP to control the cover over Bluetooth

- Function lock, unlock, tailgate (if supported)
- Cover open/close



Keypad to control the cover over Bluetooth

- Function lock, unlock, tailgate (if supported)
- Cover open/close



Installer APP

- For an "out of the box" scenario, the pairing between the cover module and cabin module is fully automated.
- Flash Truck FW using the APP wirelessly (Bluetooth).
- Over the Air FW update of the Cover and Cabin module.
- Link to installation guides.

OTHER FEATURES

ANTI-PINCH OR COLLISION DETECTION

- This is a safety feature will stop the cover from moving towards the close position if an obstacle in the path is sensed.
- The cover will backoff 2 inches once this feature is triggered.

SNAG DETECTION

- Opposite to the collision detection, this feature will stop the cover from moving towards the open direction if an obstacle is sensed.
- The cover will back off 2 inches if this feature is triggered.

PARKING LIGHT DIAGNOSTICS

- They system will give number of parking lights flashes depending event. See page 32 for full parking light diagnostics.

FULL PLUG AND PLAY T-HARNESSES

- Majority of all installations will be full T-harness plug and play except for few exceptions.

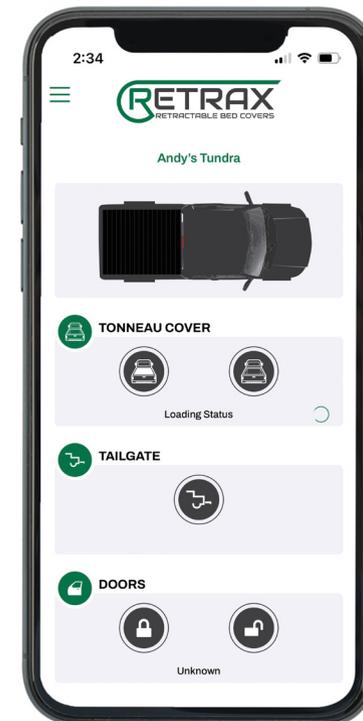
BED CARGO LIGHT

- Driver side bed light is included.
- Passenger bed light (optional accessory).

SYSTEM PROTECTION

- Low battery voltage detection. (9.5Volts and lower)
- Max temperature operating range (185F/85C).
- Inhibit cover operation if the gear shift is not PARK position.

USER APP



NOTE

- User credentials are stored locally.
- User won't be able to login with the same credential on another device.
- Clearing cache/storage or uninstalling the APP will clear the user information. The user will need to re-register. User can re-use the same account information.

KEYPAD



QUICK REFERENCE CARD

ACCESS CODE
#####

UNLOCK ALL DOORS: Press the 3/4 key within 5 seconds of entering the 5-digit access code.

LOCK ALL DOORS: Press and hold 7/8 and 9/0 buttons simultaneously for at least 2 seconds.

OPEN COVER: Press 1/2 key within 5 seconds of entering the 5-digit access code.

CLOSE COVER: Press 9/0 key within 5 seconds of entering the 5-digit access code.

OPERATE THE TAILGATE: * Press the 5/6 key within 5 seconds of entering the 5-digit access code.
**Powered tailgates only.*

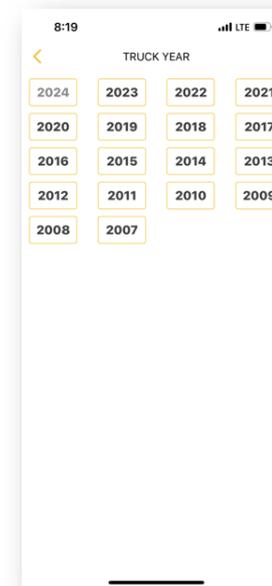
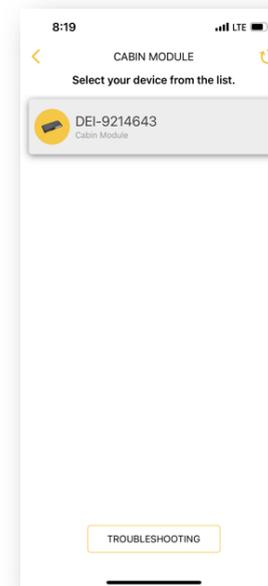
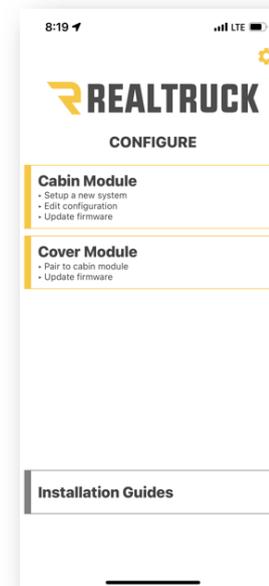
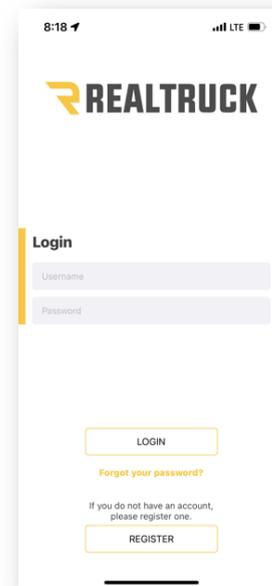
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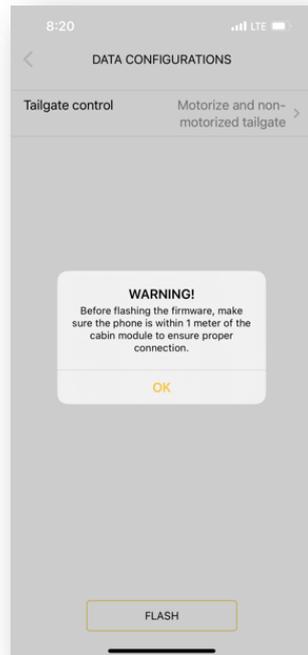
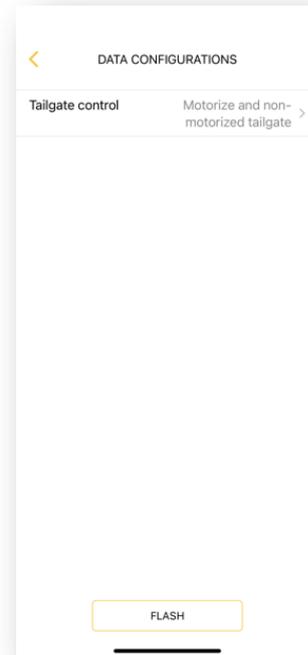
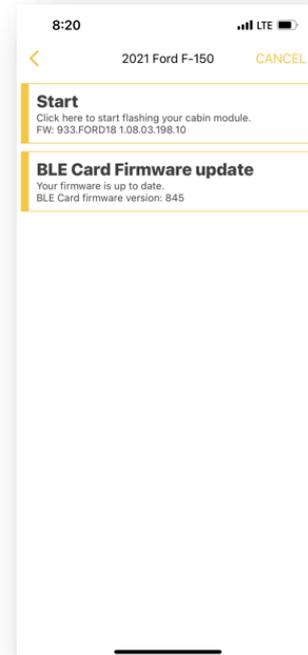
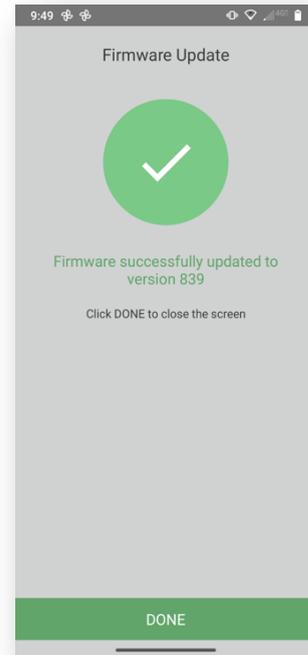
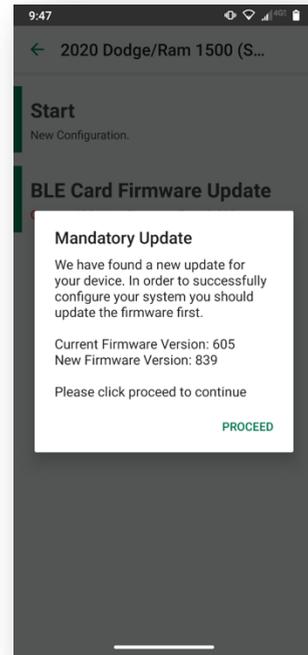
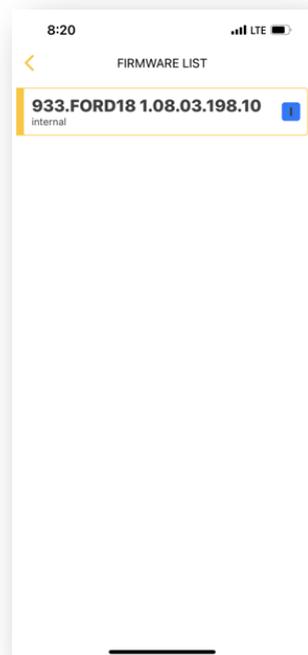
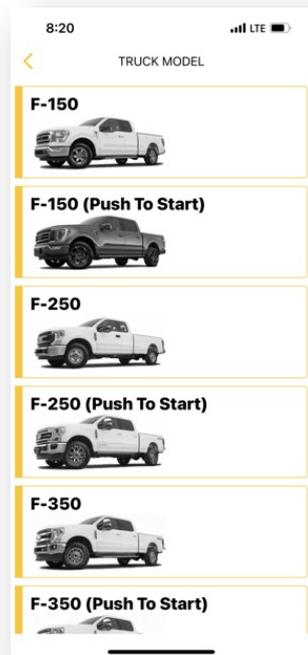
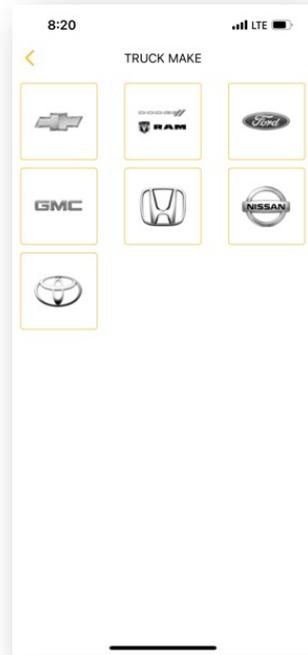
FEATURE LIST

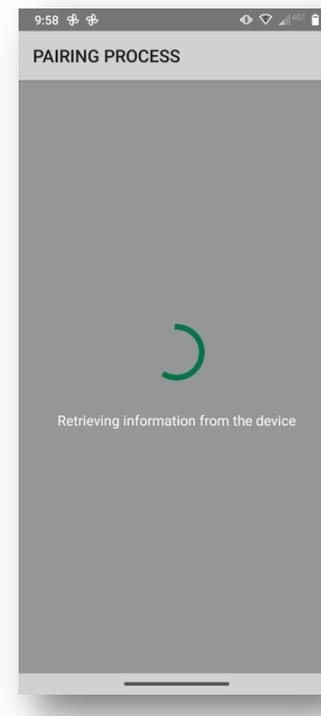
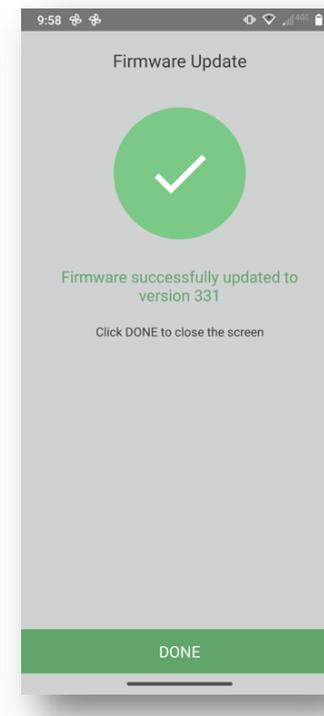
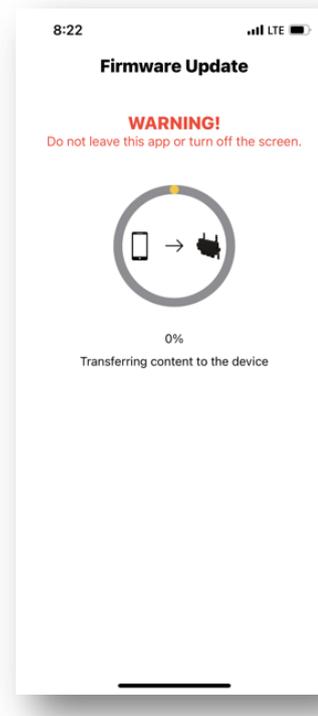
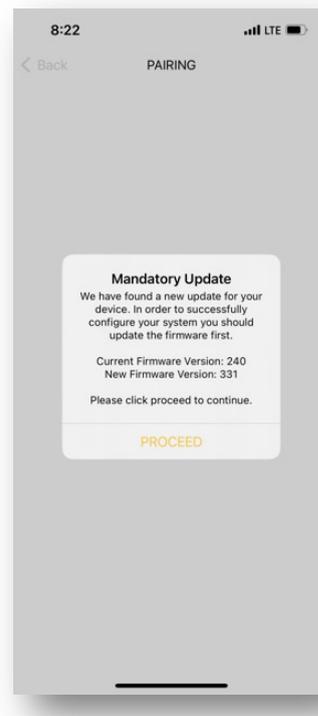
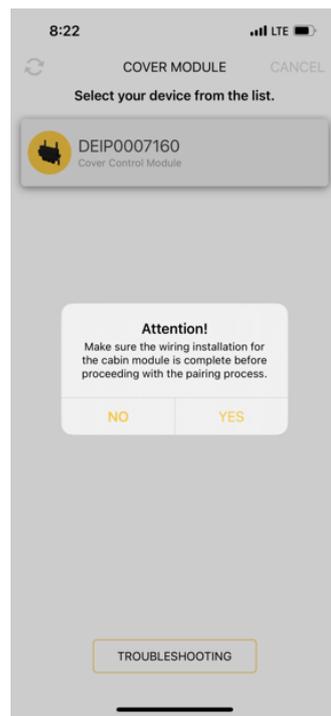
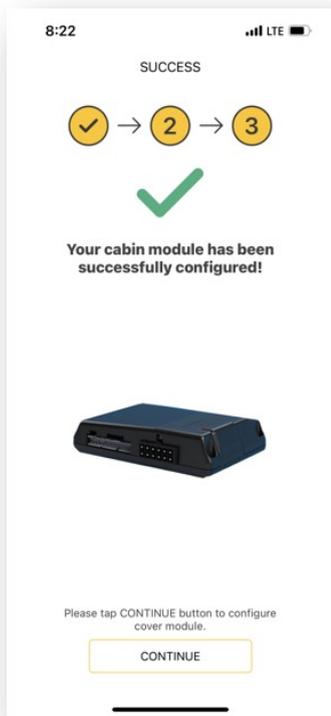
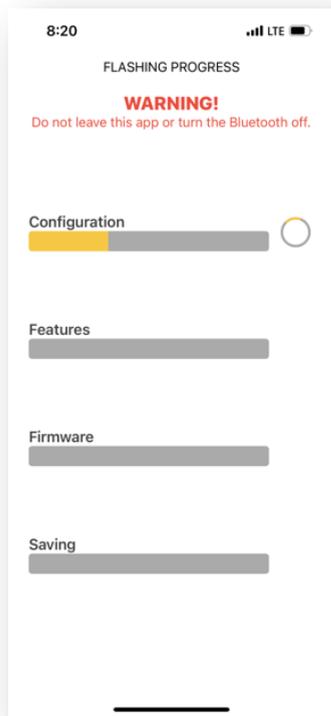
- Master passcode
 - LED flashes 3x if passcode is entered correctly
- Create or delete secondary passcode
- Anti-scan mode
 - This feature locks the keypad if several incorrect passcode attempt is detected.

INSTALLER APP “OUT OF THE BOX” PAIRING FLOW

- Tool to pair the cabin and cover module.
- User credential are stored in the server. Can log in to multiple phone using the same credentials.
- Access to installation guides.
- Edit configurations.
- Flashing Cabin module with vehicle specific FW.
- Mandatory FW updates







SYSTEM LIMITATION

MAXIMUM OF 7 DEVICES CAN BE PAIRED TO THE CABIN MODULE.

OPERATING RANGES

- Voltage: 9.5V – 18v
- Temperature: Up to 185F/80C

PHONE LIMITATION

- iOS operating system: 12 - 16*
- Android operating system: 10 – 13*
- Bluetooth (BLE 4) range of 50m/150ft



*Subject to change upon release of new iOS and Android operating systems.

1

COVER IS INSTALLED ON THE TRUCK

2

CABIN MODULE (DS4TH) AND T-HARNESS INSTALLATION

3

PAIRING BOTH MODULES USING THE REALTRUCK INSTALLER APP

4

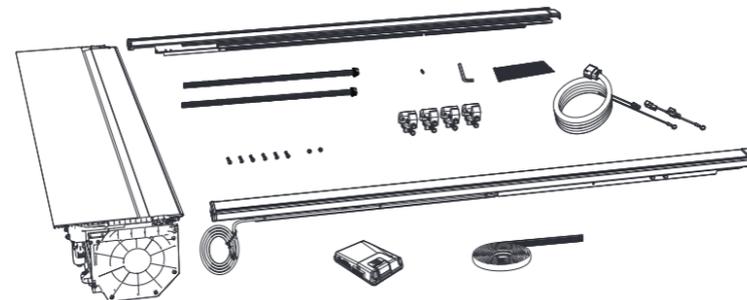
PAIR ACCESSORY CONTROLS SUCH AS USER PHONE OR KEYPAD

5

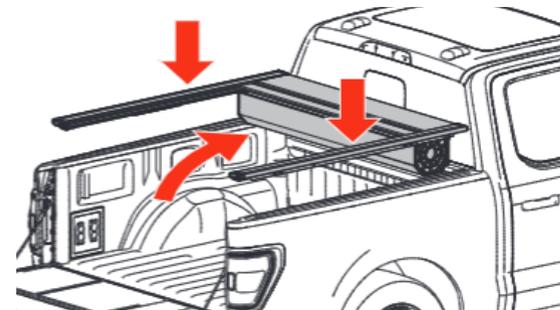
CALIBRATE TONNEAU COVER

6

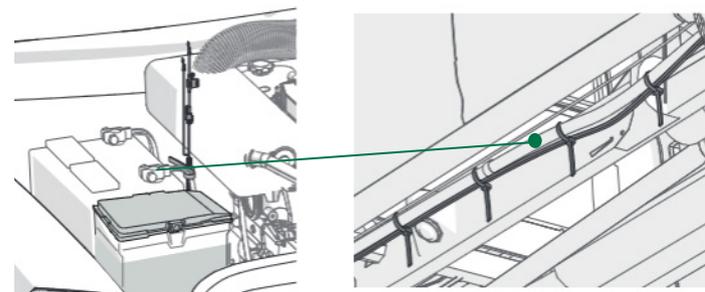
REPLACEMENT / SERVICING



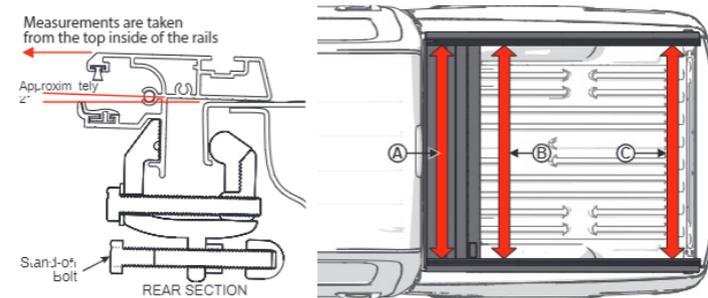
Before assembly, ensure all parts are accounted for.



Install the cover on the truck bed.



Run the power cable from the car battery to the tonneau cover location.

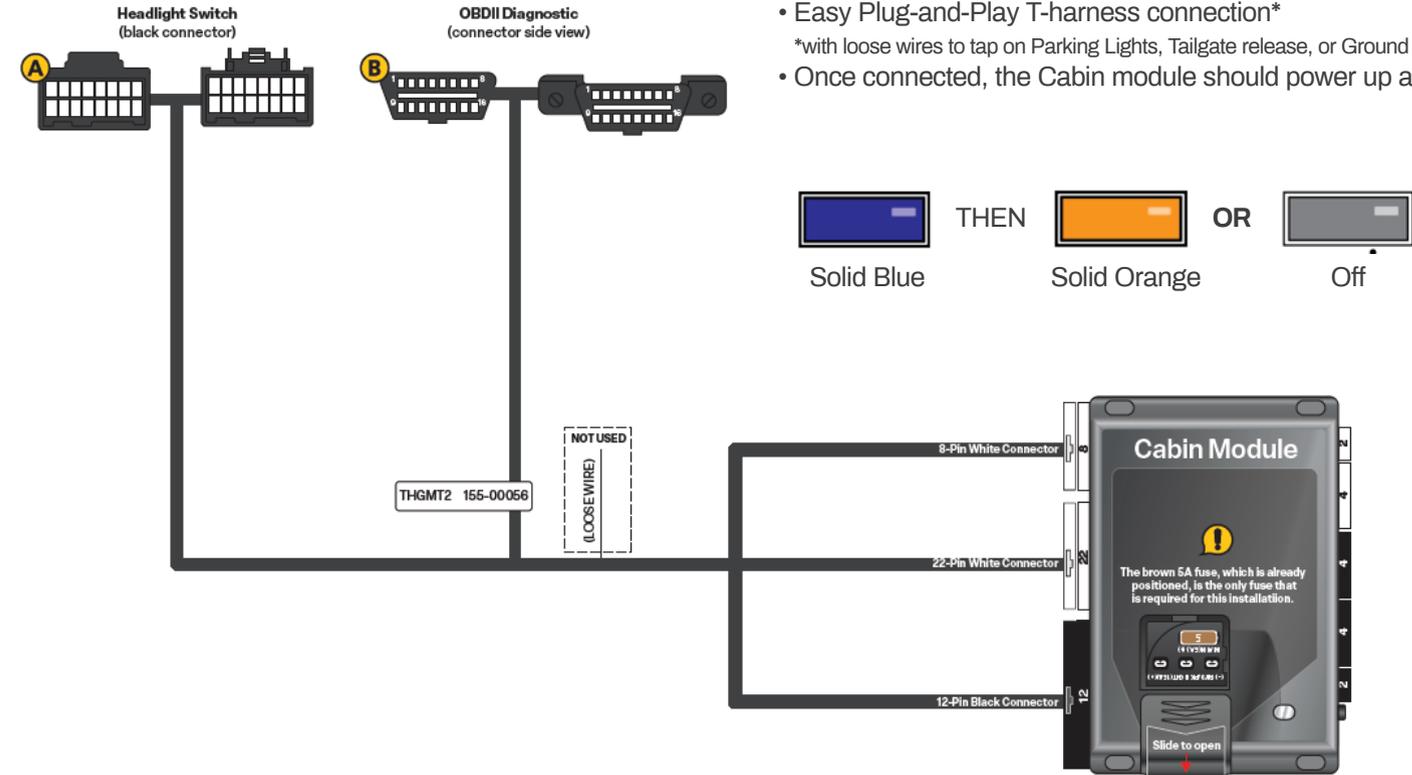
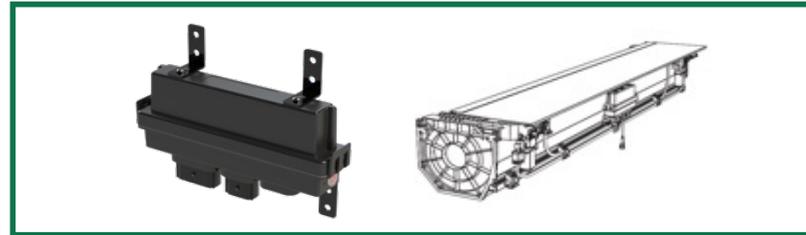


Ensure measurements of installation is correct and clamp down the cover.

CABIN MODULE (DS4TH) AND T-HARNESS INSTALLATION

STEP 1

- Tonneau cover assembled and installed.
- 2-pin power harness installed
- Cover module LED is solid RED (Installer-allowed mode).



- Easy Plug-and-Play T-harness connection*
*with loose wires to tap on Parking Lights, Tailgate release, or Ground wire.
- Once connected, the Cabin module should power up as usual:

CABIN MODULE (DS4TH)

Installer-allowed mode: The Cabin module is discoverable (or can be detected) by the Installer APP. Note that both descriptions below are indications that the Cabin module can be flashed (or re-flashed) using the Installer APP. The Cabin module's pre-flashed firmware is "Base Firmware", Out of the box mode, therefore the LED behavior is the following:



If a Factory reset was done on the Cabin module, the LED behavior is the following:



NOTE: that when the Cabin module's LED is solid orange, this is an indicator that a digital firmware was previously flashed and the configurations are set back to default and any previous devices are now unpaired.

NOTE: Reset until clear BT but not Firmware. Must walk through complete setup.

STEP 2

- T-harness installed as per Wiring Diagram.
- Cabin module is powered up and LED illuminated sequentially (Blue, then orange x3 sec OR solid orange).
- Cabin module is in Installer-allowed mode.



PAIRING BOTH MODULES USING THE REALTRUCK INSTALLER APP



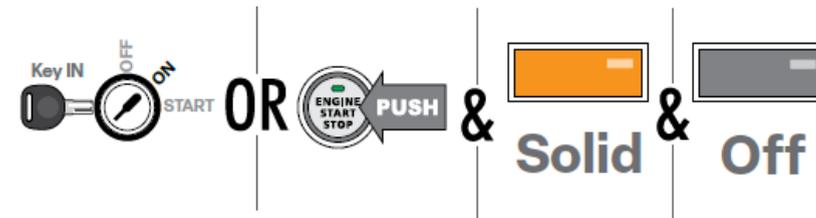
NOTE: The Cabin module is in “Out of the Box” mode. This module can be detected by the Installer app.

1. From the Main Menu screen, tap on “Cabin Module”.
2. Select your cabin module starting with “DEI-xxxxxxx”. Tap on “OK, IGNITION IS OFF” to proceed.
3. Select Year, Make, Model, then “NEXT”.
4. When prompted, update BLE card to the latest available firmware (tap on “OK” to proceed).
5. Configure the options as needed and then tap on “FLASH” (Cabin module will flash green rapidly, then solid orange to indicate flashing is complete).
6. Once the Cabin module is flashed, tap on “YES” to proceed to scan for the Cover Module.
7. Select the Cover module starting with “DEIPxxxxxxx”.
8. When prompted, update the Cover module to the latest available firmware.
9. Follow the instructions on the app and wait for the pairing to be complete. Once the pairing is complete:
 - The Cover module’s LED will flash once per second (previously was solid RED)
 - The Cabin module’s LED will turn OFF (previously was solid ORANGE)

COVER MODULE AND CABIN MODULE PAIRING IS NOW COMPLETE

10. Wait for the Cover module’s LED to turn OFF for about less than a minute to exit of pairing mode.

IMPORTANT: PROGRAM THE CABIN MODULE TO THE VEHICLE



The Cabin module’s LED is OFF after pairing the Cover module:

When “Ignition ON” CAN message is detected by the Cabin module, it will proceed with the normal module programming LED behaviors (Solid ON, then OFF).

How to verify if the Cabin module is programmed or not:

The installer can verify if the Cabin module was programmed (or not) by doing a power cycle to the module. Once the Cabin module’s power is applied, if the LED status is:

- Solid orange ON = Not programmed
- Orange ON x3 seconds = Programmed

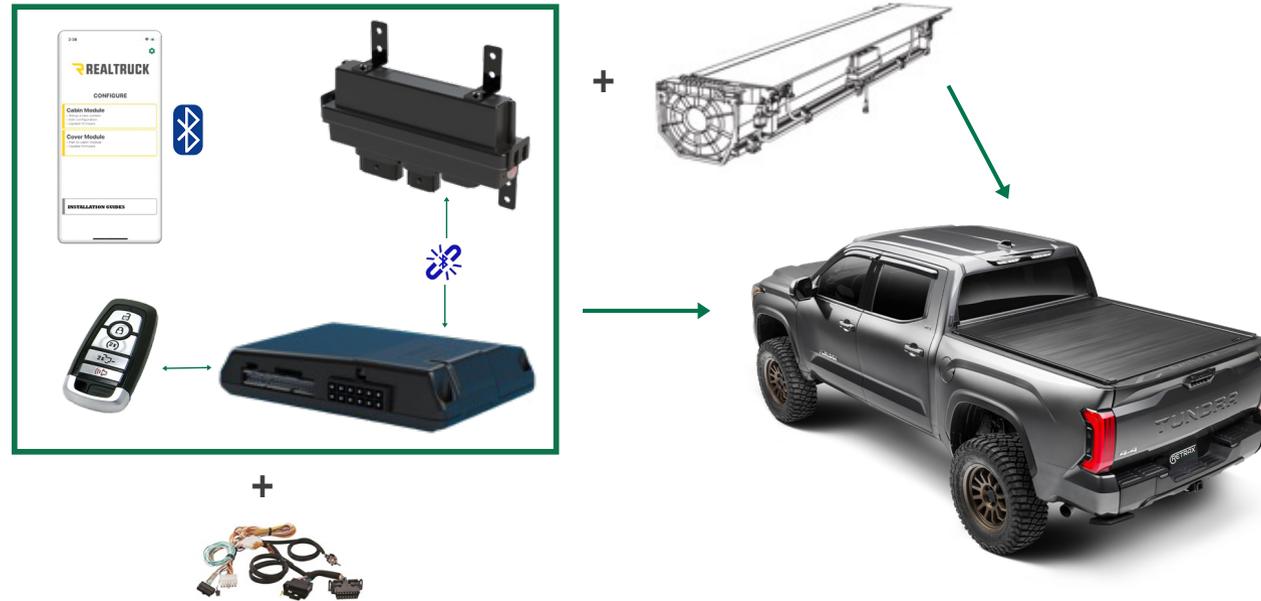
Cabin module’s Installer-allowed mode is revoked:

During the pairing process between the two modules using the Installer app, the app commanded the Cabin module to enter Pairing mode for the Cover module to be paired. This is the reason why the Cabin module’s installer-allowed feature is now invalid.

PAIR ACCESSORY CONTROLS SUCH AS USER PHONE OR KEYPAD

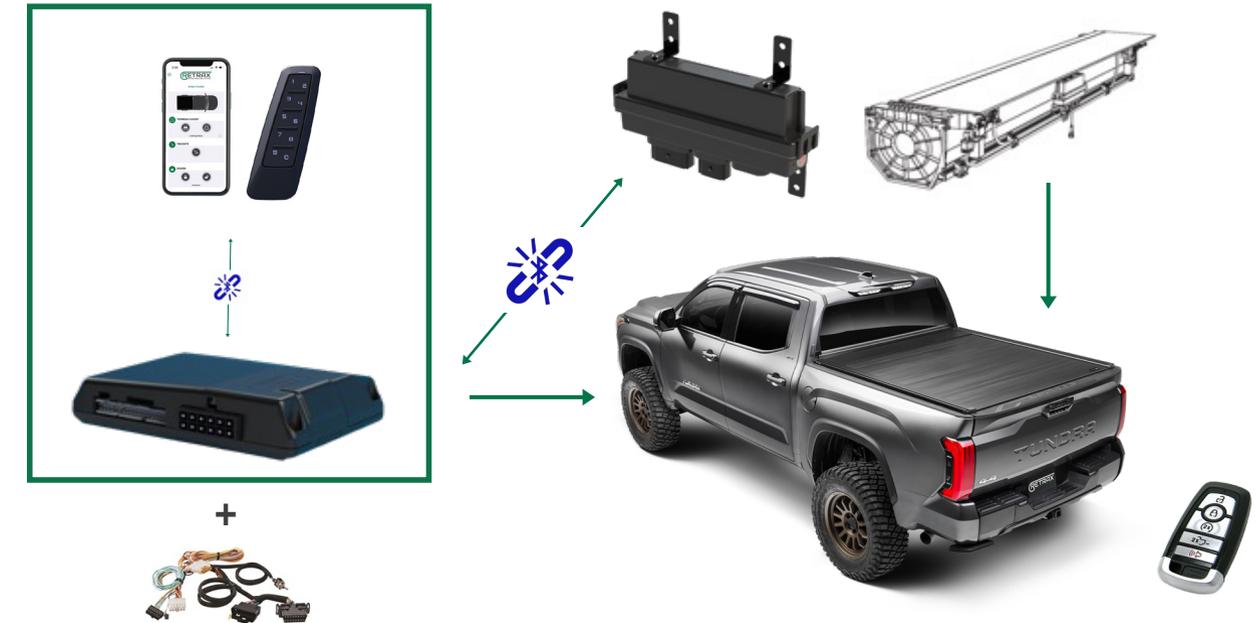
STEP 3

- Cabin module's firmware is up-to-date and flashed according to the vehicle's model.
- Cover module's firmware is up-to-date.
- Both modules are paired together using the Installer app.
- Cabin module programming is completed.



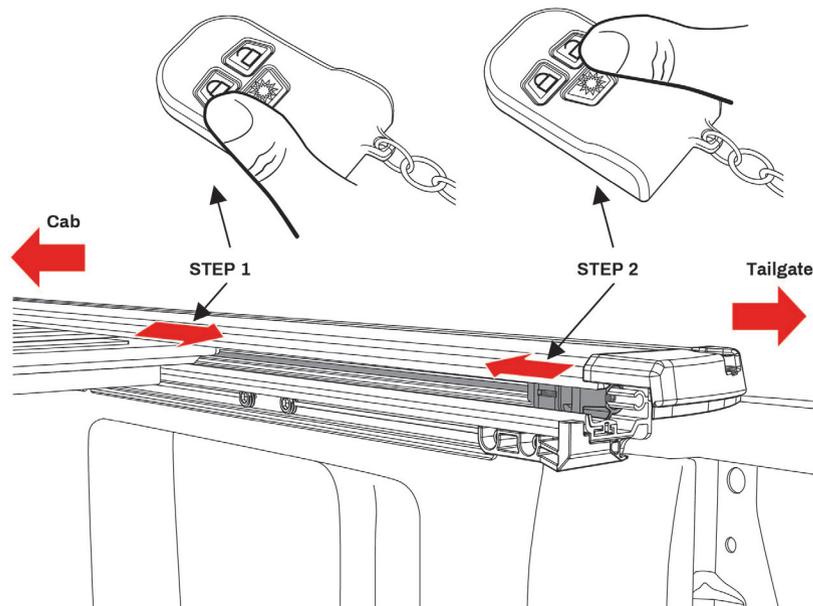
STEP 4

- Cabin module must enter pairing mode in order to pair User phone or Keypad.
- The User App contains the steps to enter pairing mode on the Cabin Module, and from there can be connected to the app.
- Keypad must enter Configure mode to pair with the Cabin module.



CALIBRATE TONNEAU COVER

IMPORTANT: CALIBRATION IS REQUIRED



- Once the tonneau cover is assembled, the cables that drive to move the cover are not aligned properly.
- **Since the Cover module does not know where the extremities are, the calibration will move at a safe speed until the cover hits one extremity and will require an operation for the other end.**
- After a power cycle was performed to the Cover module, the first uninterrupted cover operation will perform a calibration.
- If the Cabin module went in and out of pairing mode, the first uninterrupted cover operation will also be running at a safe speed to perform a calibration.
- **Calibration reached fully open position + Calibration reached fully closed position = CALIBRATION COMPLETE**
- Once calibration is complete, the cover will run at the normal operating speed.

STEP 5

- Cover module needs calibration after:
 - Cabin module went in and out of Pairing mode
 - After a power cycle on the cover module
- Calibration must reach the fully open extremity and fully close extremity of the tonneau cover.
- Once the calibration is complete, the cover module will move at the normal speed.



3x OEM Lock – Cover close command
3x OEM Unlock – Cover open command



Button 9/0 – Cover close command
Button 1/2 – Cover open command

SYSTEM INSTALLATION COMPLETE

REPLACING CABIN MODULE (DS4TH)



Set the Cover module to Factory Reset first, then re-pair this module with the new Cabin module



Delete the Vehicle on the APP, then add the new Cabin module



Enter to Configure mode to erase the pairing, then re-pair the keypad with the new Cabin module



REPLACING COVER MODULE



Pair the new Cover module to the Cabin module



Re-pair the APP to register the new Cover module



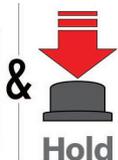
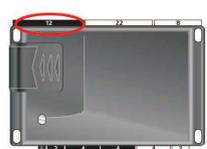
No changes required



DOING A FACTORY RESET TO THE CABIN MODULE

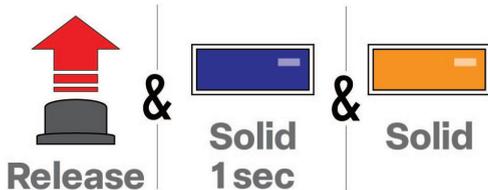
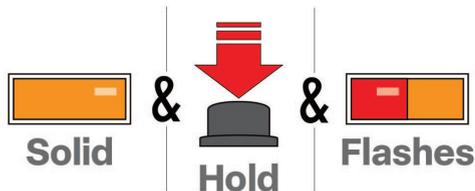
WARNING: A factory reset will revert the flashed firmware back to its default factory settings. Depending on the installation, some settings may need to be reconfigured.

Connect ALL but the 12-pin harness



- If required for your installation, connect all harnesses to the module, except the 12-pin main power harness. Then, press and hold the programming button, and connect the 12-pin harness to the cabin module.

- After three seconds, the LED turns on solid orange. Keep holding the programming button until the LED flashes red, then orange slowly.



- Release the programming button. The Cabin module's LED will illuminate Blue (BLE card initialization) and then solid orange, meaning there was a previously flashed digital firmware.



Once the Factory Reset is successful:

- All the firmware configurations will be set back to default.
- The BLE card whitelist will be cleared (all wireless peripherals will be unpaired).
- Once the Cabin module has been factory reset, the Cover module will be unpaired after a few seconds, and as well the Keypad and the User APP will be unpaired.

NOTE: the Keypad will require to delete the paired Cabin module and the APP will require to remove the previously paired Cabin module.

HOW TO ENTER INTO PAIRING MODE

- The whole sequence must be done in less than 60 seconds.

Step	Instruction
	Turn IGN ON
	Open/Close door
	Press & hold brake
	Open the door
	Release the brake

PARKING LIGHTS DIAGNOSTICS (WHEN APPLICABLE)

FLASH COUNT	DESCRIPTION	MEANING / REASONS
1x	Lock command was sent from the OEM fob, from the app or from the Keypad	<ul style="list-style-type: none"> Vehicle is locked OEM alarm is now arming (if applicable)
2x	Unlock command was sent from the OEM fob, from the app or from the Keypad	Vehicle is unlocked and disarmed
4x	<ul style="list-style-type: none"> An obstruction is preventing the cover from opening or closing Motor failed to engage to move 	<ul style="list-style-type: none"> The cover module detected an obstruction while the bedcover is moving Connection issue between the cover module harness and motor
6x	System detected an out-of-range temperature or voltage reading	<ul style="list-style-type: none"> The maximum temperature operating range (above 185F/85C) has exceeded. The vehicle's battery voltage is below 9.5V
1x every 2 seconds (if applicable)	The Cabin module entered Pairing Mode	Flashing indicates cabin module is ready and scanning to pair any additional accessories

How does Retrax EQ connect to my truck?

Retrax EQ connects to your truck by installing a DS4 (cabin module) via a T-harness to your truck's BCM (body control module). The DS4, or cabin module, reads messages sent from your key fob and sends a Bluetooth signal to the CCM (cover control module) installed on the canister of the cover that will operate the cover.

How does the phone app connect to my truck and operate the cover?

The phone app pairs to your truck and sends Bluetooth "packages" to the DS4 (cabin module) which then sends Bluetooth commands to the CCM (cover control module) installed on the canister of the cover. There are specific operating systems that your phone must be using to work with Retrax EQ:

- iOS operating system: 12 - 16
- Android operating system: 10 – 13

Can I install Retrax EQ myself?

Yes, the Retrax EQ cover is designed to be installed by anyone with basic tools. There are no cutting/splicing of wires required. Some models may require additional steps where professional installation may be preferred. (For 2011-2016 Ford Super Duty applications, the original 2 Factory Master Keys will be required for install.)

How many devices (phones/keypads/etc.) can be paired to the Retrax EQ cover?

Up to 7 devices can be paired to each Retrax EQ.

Can I have other accessories installed in my truck's electronics in conjunction with Retrax EQ?

Yes, other accessories that plug into the OBD port(s) or other areas of the CAN BUS will not interfere with Retrax EQ's installation and operation.

What happens if the cover is retracting and hits something?

Retrax EQ is equipped with anti-pinch technology. It will meet resistance and reverse its course 2-3 inches. It is also equipped with anti-snap technology so if the cover is traveling open and feels resistance (pulling something with it) it will stop and close one inch.

What is "Cinch" mode?

Cinch mode is a feature that allows for securing loose cargo between the cover and tailgate. When the cover meets resistance upon closing, it will stop and reverse 2-3". By closing (3X lock button) again, it will continue to close and stop snug up against the item.

How much weight can Retrax EQ support?

Retrax EQ can support distributed loads of 500 lbs, or a heavy snow load.

What if the truck has an aftermarket Remote starter?

If the RS system has a 3x Lock start feature, the owner must either:

- Change the option to Lock, Unlock, Lock
- Disable the 3x Lock start feature

Can I use Apple Car Play in Truck to operate the cover?

At this time, no there is no availability to use Apple Car Play to operate the cover.

Can I use my iPad for the RealTruck EQ Installer or RealTruck EQ (user) apps?

Yes, an iPad can be used for both apps. The images may be slightly distorted due to the size differences, but they will work on this platform.

Can I use my smart watch (i.e. Apple Watch) to operate the RealTruck EQ user app?

Currently we do not have our RealTruck EQ apps available as "companion" apps which is necessary for smart watches.

What range will Retrax EQ have with it's Bluetooth connections?

Bluetooth (BLE) 4, which is most commonly installed on your phone will allow for up to 150' of range. BLE 5 can extend that range up to 300'.

RETRAX EQ



PRODUCT OVERVIEW

ATTN: STATE OF CALIFORNIA CONSUMERS

⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.