



**Perimeter Plus Vehicle Security
and Remote Start Systems**

Owner's Manual

4280760
Rev P6 04/17





Contents

- Welcome.....3**
- Perimeter Plus Vehicle Security (optional)4**
 - Arming the Security System4
 - Disarming the Security System4
 - When the Security System is Armed5
 - Security LED Indicator (optional).....5
 - Shock / Impact Sensor (optional)5
 - Starter Interrupt (optional)5
 - Shock Sensor Disable6
 - Intrusion Attempt Alert6
 - Disarming the System if Your RKE Keyfob is Lost or Inoperative6
- Basic Remote Start Feature (optional)7**
 - Starting Your Vehicle with the factory RKE Transmitter.....7
 - Stopping Your Vehicle with the factory RKE Transmitter.....7
- Long-Range 1-Way and 2-Way Remote Start System (optional)..8**
 - Starting Your Vehicle with the 1-Way Transmitter8
 - Starting Your Vehicle with the 2-Way Transmitter8
 - Stopping Your Vehicle with the 1-Way and 2-Way Transmitter8
 - 2-Way Transmitter Feedback Indicators.....9
 - Car Find / Panic Mode (2-Way Transmitter Only)9
- Remote Start Operation (optional).....10**
 - Entering the Vehicle While it is Running via Remote Start.....10
 - Pre-Heating or Pre-Cooling the Interior of the Vehicle10
- Remote Start Safety Features10**
 - Remote Start Prevention and Shut down10
 - Power Window / Moon Roof Disable.....10
 - Automatic Door Locking10
- Remote Start System Maintenance.....11**
 - Changing the Remote Control Transmitter Battery11
 - Adding Remote Control Transmitters to Your System11
 - Deleting Lost or Stolen Remote Control Transmitters from Your System11
- User Selectable Options12**
 - Optional Activation Method (1-Way & 2-Way Transmitters)12
- Additional User Notes12**
 - Extending Run Time12
 - Why Your Vehicle May Not Start Via Remote.....12
- Warranty Information13**



Welcome

Congratulations on your purchase of a Ford Motor Company Perimeter Plus Vehicle Security and/or Remote Start System. This technology represents the latest in automotive convenience and protection systems. Your system, purchased today, is ready to accept tomorrow's advancements in technology.

The Ford Motor Company vehicle security and remote start system is a scalable product that can be configured based on personal preference and vehicle model. All features contained in this manual may not have been installed at time of purchase. Please consult your Ford dealer to determine which features have been configured on your vehicle and how to expand the functionality of your chosen system.

NOTE:

The Perimeter Plus vehicle security system can be upgraded to include long-range (up to 1,000 ft. range) remote start features by adding the long range 1-way or 2-way transmitters to your system.*

The 1-way and 2-way remote start system can also be upgraded to include ultra-range (up to 2,500 ft.) features.*



** Require additional components and labor, see your dealer for details.*






Perimeter Plus Vehicle Security (optional)

NOTE:

Using your factory supplied Remote Keyless Entry (RKE) keyfob is the primary method of arming and disarming your Perimeter Plus security system. The system is armed when the doors are locked with the RKE keyfob. The system is disarmed when the doors are unlocked with the RKE keyfob.

Arming the Security System:

The Vehicle Security System may be armed using any of the methods below.

1. By pressing the  (Lock Button) on the factory RKE keyfob.
2. Pressing the lock area on the door handle (intelligent access equipped vehicles only).
3. By entering the "Lock" code into the keypad located on the outside of the driver's door (if equipped).

The front and rear lights will flash and the security LED (optional) will illuminate for 10 - 20 seconds (pre-arm mode), after which the security system will arm. The security LED will begin to "blink" and all **closed** entry points will be protected.




If an entry point is left open, the security system will continue to ignore that entry point until it is closed.



Disarming the Security System:

The Vehicle Security System will be disarmed if any of the following actions are taken.

1. Pressing the  (Unlock Button) on the factory RKE keyfob.
2. Touching the inside of the exterior door handle (intelligent access equipped vehicles only).
3. Entering the "Unlock" code into the keypad located on the outside of the driver's door (if equipped).
4. Turning the ignition "On" (must have a valid key read if equipped).

If there were no vehicle intrusion attempts while the security system was armed, the security LED (optional) will turn off when the security system is disarmed. If any vehicle intrusion attempts were made while the security system was armed, the vehicle's horn will honk and the exterior lights will flash two (2) times and the security LED (optional) will flash a fast on/off sequence indicating an intrusion attempt.





Perimeter Plus Vehicle Security (optional)

When the Security System is Armed:

- All interior entry points are monitored for unauthorized entry (Note: depending on trim level, the vehicle's hood or trunk / liftgate may not be monitored);
- The shock sensor (optional) monitors for impact to the vehicle's body or glass;
- The security LED indicator (optional) flashes once every few seconds.

If any monitored entry point is opened or hard impact is detected, the system will activate an alarm cycle. During the alarm cycle:

- The horn sounds an on / off pattern;
- The front and rear lights flash;
- The security LED indicator (optional) begins to flash rapidly.

The alarm cycle (horn honks) lasts for 30 seconds (the front and rear lights may continue to flash longer). At the end of the alarm cycle, the system will pause for 10 seconds and then begin monitoring for any further alarm conditions. If another alarm condition is detected the system will go in to another alarm cycle.

Security LED Indicator (optional):

The optional security LED indicator is a high-intensity red light mounted in a visible location on the vehicle dashboard. This red light gives a visual indication of the alarm system's state of operation. Note the chart below:

If the Security LED is...

...then the Security System is

Off	Disarmed
Flashing slowly	Fully Armed
Flashing quickly	Triggered in your absence
On (not flashing)	In Pre-arm mode

Shock / Impact Sensor (optional):

While the security system is armed, the optional shock sensor monitors for impact to both the vehicle's body and glass. If a light, not-threatening, impact is detected the system will honk the horn and flash the exterior lights one (1) time to warn-away would be intruders. In the event that a hard impact is detected, the system will trip an alarm cycle. Increasing or decreasing sensitivity should be completed by a service professional. If adjustment is necessary, please contact your local dealer.

Note: By design, the shock/impact sensor will not respond to vehicle motion/rocking caused by wind or rocking vehicle with hands or feet. The sensor responds to near-damaging or dammaging impact to vehicle surfaces.

Starter Interrupt (optional):

Starter Interrupt is an optional feature that can be installed on certain model vehicles. If equipped, the starter is disabled any time the system is armed and starting of the vehicle with an invalid ignition key is attempted.





Perimeter Plus Vehicle Security (optional)

Shock Sensor Disable:

The security system has the ability to ignore the optional shock sensor while armed. This feature is useful for events that may jar your vehicle, but pose no threat, such as a loud thunder storm or heavy construction traffic passing near your parked vehicle. This feature may be activated using the procedure listed below. The vehicle's doors can be opened or closed during this process.

To Disable the Shock Sensor:

1. Turn the ignition key off and remove key.
2. Within 15 seconds, open the driver's door.
3. Within 15 seconds, press the  (Unlock Button) on your RKE Keyfob 3 times.
4. Within 5 seconds press the  (Lock Button) on your RKE Keyfob 1 time.

The horn will honk two (2) times and the security LED (optional) will illuminate for 20 seconds, after which the security system will arm with the shock sensor disabled. The shock sensor will remain disabled until the vehicle ignition is cycled ON then OFF.

Intrusion Attempt Alert:

If the horn honks two (2) times when you disarm your security system, this indicates that the alarm was tripped while you were away from your vehicle. You will also notice that the dash mounted security LED indicator (optional) is also flashing rapidly.

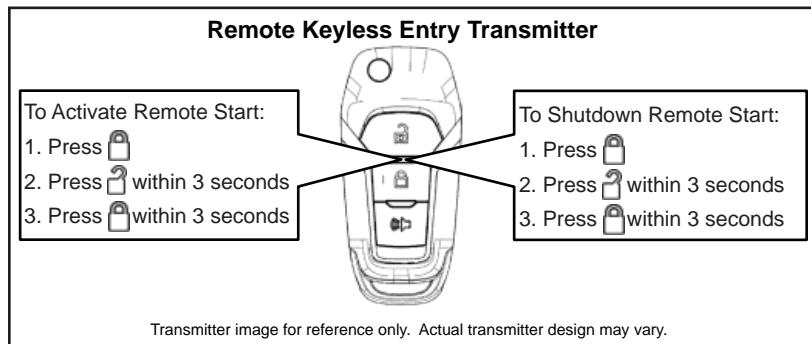
Turning the ignition to the ON position or rearming the security system will clear the intrusion attempt alert.

Disarming the System if Your RKE Keyfob is Lost:

Enter the "Unlock" code into the keypad located on the outside of the driver's door (if equipped). Your vehicle will not start without using one of the original or replacement factory fobs/keys. See your vehicle owner's manual for recommended procedures to replace lost or damaged keyfobs/keys.



Basic Remote Start Feature (optional)



Starting Your Vehicle with the factory Remote Keyless Entry (RKE) Transmitter (Basic Start):

The remote start function is activated by pressing the button then within 3 seconds, pressing the button, then within 3 seconds pressing the button on the vehicle remote keyless entry transmitter. The vehicle will ensure that it is safe to start, and if all safety parameters are correct, the engine will start within 5 seconds (diesel engines may take longer, to allow the glowplugs sufficient time in all conditions to heat up).

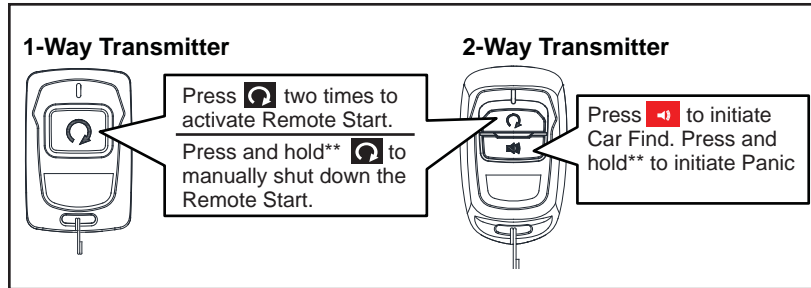
Note: See the vehicle owner's manual for further details on remote start operation.

Stopping Your Vehicle with the Factory Remote Keyless Entry (RKE) Transmitter:


Pressing the button then within 3 seconds, pressing the button, then within 3 seconds pressing the button on the vehicle remote keyless entry transmitter will cause the vehicle to shut down within 10 seconds.



Long-Range 1-Way and 2-Way Remote Start System (optional)





Starting Your Vehicle with the 1-Way Transmitter:

The remote start function is activated by pressing the  button two times* within 3 seconds on the 1-way remote control transmitter. The system will check the vehicle to ensure that it is safe to start, and if all safety parameters are correct, the engine will start within 5 seconds (diesel engines may take longer, to allow the glowplugs sufficient time in all conditions to heat up).


Note: See the vehicle owner's manual for further details on remote start operation.

Starting Your Vehicle with the 2-Way Transmitter:

The remote start function is activated by pressing the  button two times* within 3 seconds on the 2-way remote control transmitter. If you are within the operating range of the system, your transmitter will respond with one single beep and one flash of the blue LED above the  button. This response indicates that the signal to start was received by the system. Once the vehicle starts (1-3 seconds later), your 2-way transmitter will respond with 2 beeps and 2 flashes of the blue LED. While remote started, the blue LED will continue to flash every few seconds indicating the vehicle is still running via remote start.

Note: See the vehicle's owner manual for further remote start run time details.

Stopping Your Vehicle with the 1-Way and 2-way Transmitter:

Press and hold** the  button to turn off the vehicle. When the remote start is shut down by any means (run time has expired, by remote control, gear shifter actuated, hood opened), and you are within the operating range of the system, your 2-way transmitter (if equipped) will respond with 3 beeps and 3 flashes of the blue LED, indicating the remote start system has turned off. If you are out of the system operating range at the time of remote start shutdown, your 2-way transmitter (if equipped) may keep flashing the blue LED up to 15 minutes after the remote start was initiated or until vehicle is started by ignition key.


* May be activated by a "Press & Hold", refer to "User Selectable Options" in this manual.

** "Press & Hold" or "Pressing and Holding" refers to pushing the transmitter button for more than 2.5 seconds.






Long-Range 1-Way and 2-Way Remote Start System (optional)

2-Way Transmitter Feedback Indicators:

Transmitter Indicators	Remote Start Status
1 Beep/LED Flash	Vehicle has received an Initiate Start Command.
2 Beeps/LED Flashes	Vehicle has started.
Steady LED Flash	Vehicle is running.
3 Beeps/LED Flashes	Vehicle has shut down, either by pressing and holding** the  button or completing the run cycle (Transmitter must be in range of the vehicle). or Safety input triggered: - Hood opened or gear selector moved while running in remote start mode. or - Key turned in the ignition on a remote started vehicle. or Transmitter is out of range of the vehicle while trying to remote start or the vehicle did not receive the command to remote start.

Car Find / Panic Mode (2-Way Transmitter Only):

Press the  button to activate the Car Find feature. The horn will honk and parking lights will flash 6 times to assist you in finding your vehicle. Press and hold** the  button to activate the Panic feature. The horn will sound and the parking lights will flash for approximately 30 seconds or until you press or press and hold** the  button again.

* May be activated by a "Press & Hold", refer to "User Selectable Options" in this manual.

** "Press & Hold" or "Pressing and Holding" refers to pushing the transmitter button for more than 2.5 seconds.



Remote Start Operation (optional)

Entering the Vehicle While it is Running via Remote Start:

1. Enter the vehicle with the Integrated Keyhead transmitter.
2. Insert the key into the ignition and turn to the ON position.
3. Once a programmed vehicle key has been recognized, the remote start session will stop and the vehicle will operate normally.

Pre-Heating or Pre-Cooling the Interior of the Vehicle:

Most vehicles will automatically heat/cool the vehicle without presetting the HVAC controls (See the vehicle owner's manual for further details).

Remote Start Safety Features

Remote Start Prevention and Shut down:

For safety and security reasons, the system will prevent remote start activation or shut down the engine during remote start operation if any of the following occur:

- The hood is opened
- Gear selector is moved***
- Vehicle Security System is triggered

As a safety precaution, the vehicle will shut off if left unattended for 15 minutes. Default remote start runtime can be changed: Refer to Message Center in the Instrument Cluster chapter of your vehicle's owner manual for further details.

Power Window / Moonroof Disable (if factory equipped):

On certain model vehicles, each time the remote start feature is activated, all power windows and the moonroof will be disabled while the vehicle is running via remote start. The windows and moonroof will resume normal operation after the remote start is shut down, or the vehicle is being used with the vehicle key.

Automatic Door Locking:

Each time the remote start feature is activated, the power door locks will be activated prior to the vehicle starting. The doors can be unlocked at any time via the vehicle key fob.

** "Press & Hold" or "Pressing and Holding" refers to pushing the transmitter button for more than 2.5 seconds.

*** On some vehicles.

10



Remote Start System Maintenance

Changing the Remote Control Transmitter Battery (Long-Range 1-Way and 2-Way Remote Start System):

The (CR-2032 for 1-way transmitter and CR-2450 for 2-way transmitter) 3-volt lithium battery supplied in your remote control should last approximately one year, depending on usage. When the battery begins to weaken, you will notice a decrease in remote transmitter operational range (the distance from your vehicle). Follow the instructions below to change the remote transmitter battery.

1. Remove the small phillips screw (2-way transmitter only).
2. Gently pry apart the top and bottom halves of the transmitter case using a small flat tool.
3. Remove the old battery and replace with a new one. Be sure to observe the (+) sign on the battery and case.
4. Carefully snap the case halves back together. Reinstall phillips screw (2-way transmitter only), then test the remote control.


It is not necessary to re-program the remote control after changing the battery, however the first activation after changing the battery may require several button presses to allow the transmitter to “re-sync” to the system.

Adding Remote Control Transmitters to Your System (Long-Range 1-Way and 2-Way Remote Start System):

The system has the ability to operate from up to 8 remote controls. Follow these instructions to add a remote control to your system.

1. Open the driver's door and enter the vehicle (shifter in park), leaving the driver's door open throughout the remainder of the process.
2. Press and hold the brake pedal.
3. Turn the vehicle ignition key from the OFF position to the ON position 6 times, ending in the ON position (Off, On, Off, On, Off, On, Off, On, Off, On, Off, On).
Note, the brake pedal can be released after the first Off to On cycle.

The horn will honk 3 times. This indicates that the unit has entered the remote control programming mode.

4. Press & Hold** the  button on the remote control to be programmed. The horn will honk 1 time, indicating that the system has “learned” that remote control.
5. Repeat step 4 for any additional remote controls.
6. Turn the vehicle ignition off to exit the programming mode. Test all remote controls to ensure that they work properly.

Deleting Lost or Stolen Remote Control Transmitters from Your System (Long-Range 1-Way and 2-Way Remote Start System):



Lost or stolen remote control transmitters can be easily deleted by reprogramming all eight transmitter code locations. Follow the steps above and program any combination of transmitters a total of eight times.


** “Press & Hold” or “Pressing and Holding” refers to pushing the transmitter button for more than 2.5 seconds.



User Selectable Remote Start Options


Optional Activation Method (Long Range 1-Way & 2-Way Remote Start Systems):

The Remote Start System comes pre-programmed to start the vehicle when the  button on the remote control transmitter is pressed 2 times. The Remote Start System may be programmed instead to activate by pressing and holding** the  button on the remote control transmitter for more than 2.5 seconds by following these instructions.

1. Open the driver's door and enter the vehicle, close driver's door.
2. Ensure vehicle is in Park and the brake pedal is not depressed.
3. Turn the vehicle ignition to the ON position.
4. Press the  button on the remote control transmitter 3 times within 5 seconds (Pausing for 1 second between each button press).
The horn will honk 1 time and the 2-way transmitter (if equipped) will beep 1 time, indicating that the remote start system will now start with a "Press and hold".
5. Turn the vehicle ignition to the OFF position to exit the programming mode.
6. Repeat steps 1 - 5 to return the vehicle to the factory setting.
 - 1 Honk = Press and Hold to start
 - 2 Honks = Double Press to start

Additional User Notes

Extending Run Time:

The run time of the Remote Start System can be doubled while the vehicle is running via remote start (adding another 5/10/15 minutes, depending on the vehicle settings) by pressing the  button on the remote control transmitter 2 times.

Why Your Vehicle May Not Start Via Remote:

- The no-start condition may not be related to the remote start function. Verify that the vehicle starts with the ignition key or via push-button start (if equipped).
- The vehicle has already been started via the remote 2 times or a total of 30 minutes (on some models).
For environmental purposes, the vehicle can only be remote started twice in 1 hour. This restriction will be reset by waiting 1 hour, or by turning the vehicle ignition to ON then OFF.
- The hood is ajar.
- The battery in the remote start transmitter needs replacing.
- The remote start feature has been disabled in the instrument cluster menu.
- Low vehicle battery.
- An instrument cluster maintenance indicator light is illuminated.

** "Press & Hold" or "Pressing and Holding" refers to pushing the transmitter button for more than 2.5 seconds.

12



FORD VEHICLE REMOTE START SYSTEMS LIMITED WARRANTY

BASIC COVERAGE

Ford Motor Company will repair or replace any properly installed Ford Vehicle Security/Remote Start/Keyless Entry System found defective in factory-supplied material or workmanship during the warranty period, as well as any component damage by the defective accessory. The accessory will be warranted for whichever provides the greater benefit:

- ▣ 12 months or 12,000 miles (20,000 km) from your system purchase date/mileage (whichever occurs first)
- ▣ the remainder of your new vehicle limited warranty

This means that a Ford Vehicle Remote Start System purchased along with your new vehicle are covered for up to the length of the Ford or Lincoln new vehicle limited warranty.

CUSTOMER REQUIREMENTS

To receive warranty service, Purchaser must fulfill the following requirements:

- 1) Return the vehicle to the original selling dealer's place of business during regular business hours for warranty service.
- 2) Present the Dealer with the Purchaser's copy of the original invoice showing date of purchase and installation if applicable. If the Purchaser is traveling or has moved to a different location, any authorized Ford Motor Company dealer will fulfill this warranty.

EXCLUSIONS

THIS WARRANTY DOES NOT COVER PARTS THAT ARE DAMAGED BY MISUSE, NEGLIGENCE, ALTERATION, ABUSE, ACCIDENT, FIRE, FLOOD, LIGHTNING, IT DOES NOT COVER PARTS THAT HAVE BEEN IMPROPERLY SERVICED OR USED IN APPLICATIONS FOR WHICH THEY WERE NOT DESIGNED OR APPROVED BY FORD MOTOR COMPANY; IT DOES NOT COVER FAILURES CAUSED BY NON-FORD PARTS. This warranty gives you specific legal rights and you may also have other rights that may vary from state to state or province to province. Ford Motor Company does not authorize any person to create for it any other obligation or liability in connection with the Ford Vehicle Security/Keyless Entry Systems. TO THE EXTENT ALLOWED BY LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. NEITHER FORD MOTOR COMPANY NOR THE SELLING DEALER SHALL BE RESPONSIBLE FOR LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, OR CONSEQUENTIAL DAMAGES. Some states or provinces do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages so the above limitation may not apply to you.

FCC COMPLIANCE

This device complies with Part 15 of the FCC rules and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including any interference that may cause undesired operation.

Note: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment and void warranty.

To comply with RF exposure limits for general population/uncontrolled exposure, the antenna(e) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operated in conjunction with any other antenna or transmitter.

This radio transmitter has been approved by Industry Canada to operate with the antenna listed below. Antenna types not included below or having a gain greater than that indicated below are strictly prohibited for use with this device.

Approved External Antenna: Omni-directional, 3.4 dBi gain, 902-928 MHz, antenna impedance is 50 ohms.

Notice:

Do not remote start vehicle in an enclosed environment (i.e. closed garage). Prolonged operation of a motor vehicle in an enclosed environment can cause a harmful build-up of Carbon Monoxide. Carbon Monoxide is harmful to your health. Exposure to high levels of carbon monoxide can cause headaches, dizziness or in extreme cases unconsciousness and/or death.