Sentry Key Immobilizer System

Beginning in 1998, selected Chrysler products began rolling off the assembly lines with a new advanced security system known as the Sentry Key Immobilizer System (SKIS). Many newer Cherokees are equipped with this feature.

When you attempt to start a vehicle with this feature, the onboard computer sends out a RF signal that is read up by the electronic transponder chip embedded in the key. The transponder then returns a unique signal back to the vehicle's computer, giving it the ok for the vehicle to start and continue to run. This all happens in under a second, and is completely transparent to the vehicle driver. For additional security, two pre-programmed keys are needed in order to register additional keys into the system. In the event of the loss of all keys, special programming equipment is needed to register new keys into the system.

It is highly recommended that you get a spare third key made and programmed for your Jeep. It's a good idea to do this while you still have your two original keys. If you were to ever lose one of those keys, it's a lot more costly to have a replacement made as you must go to the dealer or a specialty locksmith to have the programming done. With your own pair of original keys, you can easily program a new key yourself.

The Sentry Key Immobilizer Module (SKIM) can be programmed to recognize up to a total of eight Sentry Keys. There are two possible methods to program the SKIM to recognize a new or additional valid key, the *Customer Learn Method* and the dealer-performed *Secured Access Method*. The Customer Learn programming feature is available only on U.S. vehicles and is detailed below. Note that once a Sentry Key has been programmed as a valid key to a given vehicle, it cannot be programmed as a valid key for use on any other vehicle.

Blank keys can be typically found from a few different vendors on the eBay auction site for around $20 plus shipping. Any key shop or hardware store can cut the keys.

Programing Sentry keys:

1. **Dealer-Programming additional Sentry Keys (requires ONE original key)**

   In situations where only one key is available, keys must be programmed by the dealer via the *Secured Access Method*. The Secured Access method applies to all vehicles. This method requires the use of a DRBIIIt scan tool and will also require that you have access to the unique four-digit PIN code that was assigned to the original SKIM. The PIN code must be used to enter the Secured Access Mode in the SKIM. This PIN number may be obtained from the vehicle owner, from the original vehicle invoice, or from the DaimlerChrysler Customer Center. Refer to the appropriate diagnostic information for the proper Secured Access method programming procedures.

2. **Self-Programming additional Sentry Keys (requires TWO original keys)**

   "A" through "G" below is a quick summary of the steps that are required for programming. Following this list, "1" through "6" takes you through the same process in greater detail.

Quick Steps:

1. Purchase a blank key and have it cut
2. Insert original key #1 into ignition and turn to On
3. Wait 5 seconds and turn key to off
4. Immediately insert original key # 2 into ignition and turn to on
5. Wait 10 seconds for SKIS indicator in dash starts to flash
6. Turn ignition off, insert new blank key and turn ignition back on
7. Once SKIS light stops flashing and turns off, your new key is programmed

Detailed steps:

1. The first step of course is to acquire a blank transponder key. These can be purchased from your Jeep dealer or bought online. Online prices are usually around $20.00. You can then take the blank key along with one of your original keys to any key maker or locksmith and have it cut to match, just like with any other key.

2. Insert one of the two valid Sentry Keys into the ignition switch and turn the ignition switch to the On position.

3. After the ignition switch has been in the On position for longer than three seconds, but no more than fifteen seconds, cycle the ignition switch back to the Off position. Replace the first valid Sentry Key in the ignition switch lock cylinder with the second valid Sentry Key and turn the ignition switch back to the On position. The second valid Sentry Key must be inserted in the lock cylinder within fifteen seconds of removing the first valid key.

4. About ten seconds after the completion of Step 3, the SKIS indicator in the instrument cluster will start to flash and a single audible chime tone will sound to indicate that the system has entered the Customer Learn programming mode.

5. Within sixty seconds of entering the Customer Learn programming mode, turn the ignition switch to the Off position, replace the valid Sentry Key with a blank Sentry Key transponder, and turn the ignition switch back to the On position.

6. About ten seconds after the completion of Step 5, a single audible chime tone will sound and the SKIS indicator will stop flashing, stay on solid for three seconds, then turn off to indicate that the blank Sentry Key has been successfully programmed. The SKIS will immediately exit the Customer Learn programming mode and the vehicle may now be started using the newly programmed valid Sentry Key.

Each of these steps must be repeated and completed in their entirety for each additional Sentry Key that is to be programmed. If the above steps are not completed in the given sequence, or within the allotted time, the SKIS will exit the Customer Learn programming mode and the programming will be unsuccessful. The SKIS will also automatically exit the Customer Learn programming mode if it sees a non-blank Sentry Key transponder when it should see a blank, if it has already programmed eight (8) valid Sentry Keys, or if the ignition switch is turned to the Off position for more than about fifty seconds.

NOTE: If an attempt is made to start the vehicle while in the Customer Learn mode (SKIS indicator flashing), the SKIS will respond as though the vehicle were being started with an invalid key. In other words, the engine will stall after about two seconds of operation.

NOTE: Once a Sentry Key has been programmed as a valid key to a vehicle, it cannot be programmed as a valid key for use on any other vehicle.

Remote Keyless Entry Transmitter

The Remote Keyless Entry (RKE) system transmitter is equipped with three buttons, labeled Lock, Unlock, and Panic. The operating range of the transmitter radio signal is up to 30 feet from the receiver. Each transmitter has a different vehicle access code, which must be programmed into the memory of the receiver in the vehicle in order to operate the system. Two transmitters are provided with the vehicle, but the receiver can store the access codes of up to four transmitters.

Transmitters for vehicles equipped with the optional Memory System are color-coded and have a number "1" or "2" molded into the case to coincide with the "Driver 1 (Black)" and "Driver 2 (Gray)" buttons of the memory switch on the driver side front door. These transmitters must also have their access codes programmed into the receiver so that they coincide with their matching buttons.

> **Programming:**
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> Programming the RKE transmitter access codes requires the use of a DRBIII$^{®}$ scan tool, so if you need ro replace one or want a spare you'll need to visit your local dealer to have this done.
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> **Battery replacement:**
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> To replace the RKE transmitter batteries, use a thin coin to gently pry at the notch in the center seam of the transmitter case halves near the key ring until they pop apart. Replace both batteries with Panasonic model CR2016 (or equivalent). Be certain of course that the batteries are installed with their polarity correctly oriented.

NOTE: The RKE system uses rolling code security. This requires that synchronization be maintained between the transmitter and the receiver. Transmitter battery removal or replacement can cause a loss of sync. If the receiver fails to respond to the transmitter after battery removal or replacement, depress and release the RKE transmitter Unlock button repeatedly while listening carefully for the power door locks in the vehicle to cycle. After between five and eight presses of the Unlock button, the power door locks should cycle, indicating that re-synchronization has occurred.