

Duramax ECM Install Security Key Relearn Process

Important: Read Before Starting Your ECM Replacement

The security key relearn process is required by GM after installing a replacement ECM. This procedure syncs the new ECM to your vehicle's immobilizer system, enabling proper engine start. Failure to complete the full process will result in a "no-start" or ongoing security warning.

STEP-BY-STEP SECURITY KEY RELEARN

1. Preparation:

- Install New ECM.
- Make sure both batteries are fully charged.
- Connect a battery maintainer during the entire procedure for best results.
- **Turn off all lights, radio, and accessories.**
- Always use the original master ignition key.

2. Security Relearn Sequence:

- Insert the master key and turn ignition to **ON** (but do not crank).
- Wait ~10 minutes until the **security light turns off**.
- Turn **key OFF** for 2 seconds.
- Repeat: Turn ignition **ON** (again, do not crank) and wait ~10 minutes for the security light to go out.
- Turn **key OFF** for 2 seconds.
- Repeat one more time: Turn ignition **ON** for ~10 minutes until the security light goes out.
- Turn **key OFF** for 2 seconds.

3. Final Step:

- Turn key **ON**. The security light should go out in just a few seconds.
- **Start the truck**. The ECM and security system are now synchronized.

Total time: About 30 minutes.

Additional Tips & Troubleshooting

- Make sure ALL doors are closed during the process.
- Do NOT use remote starters or additional key fobs for this relearn—use the original vehicle key only.
- If the **security light does not go out after 10 minutes**, check battery voltage and rest for 2 minutes before trying again.
- On some models, completing the relearn may also clear security-related DTCs; clear them with a scan tool if needed.
- If issues persist after successful relearn, verify battery health, key integrity, and check for loss of communication codes.
- This process is required even if the ECM is pre-programmed or cloned.