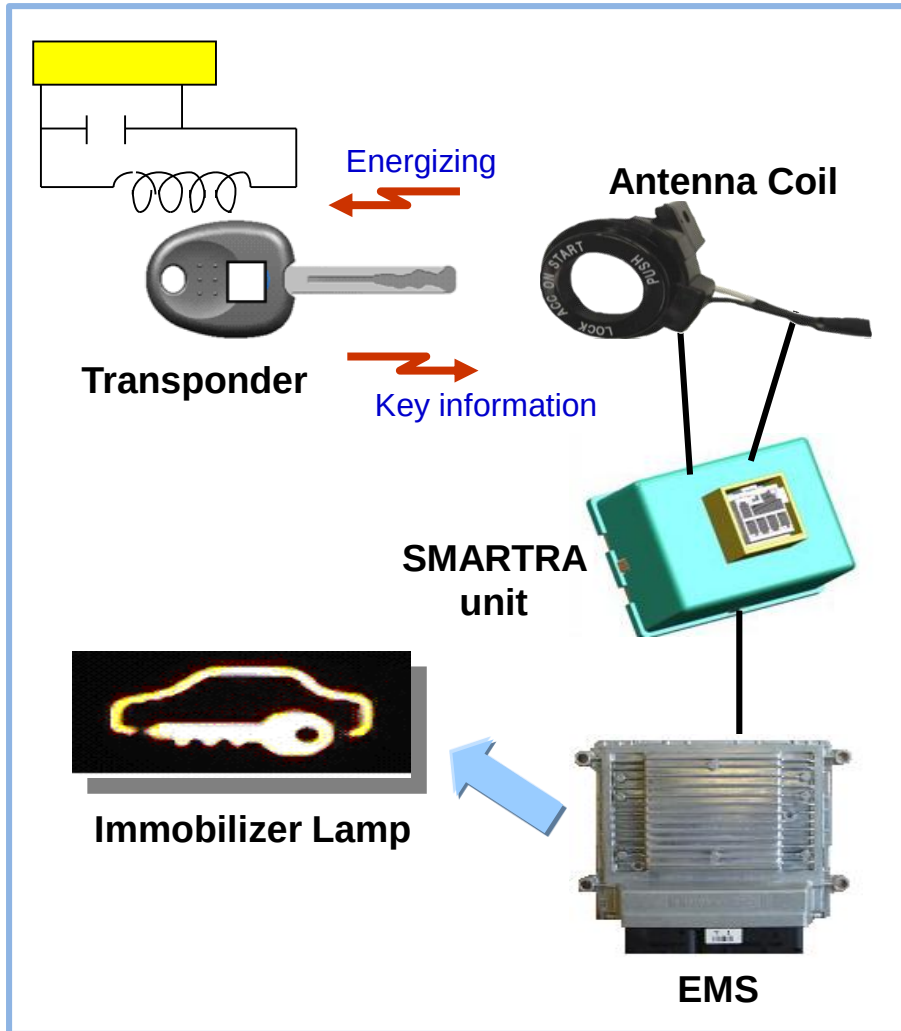
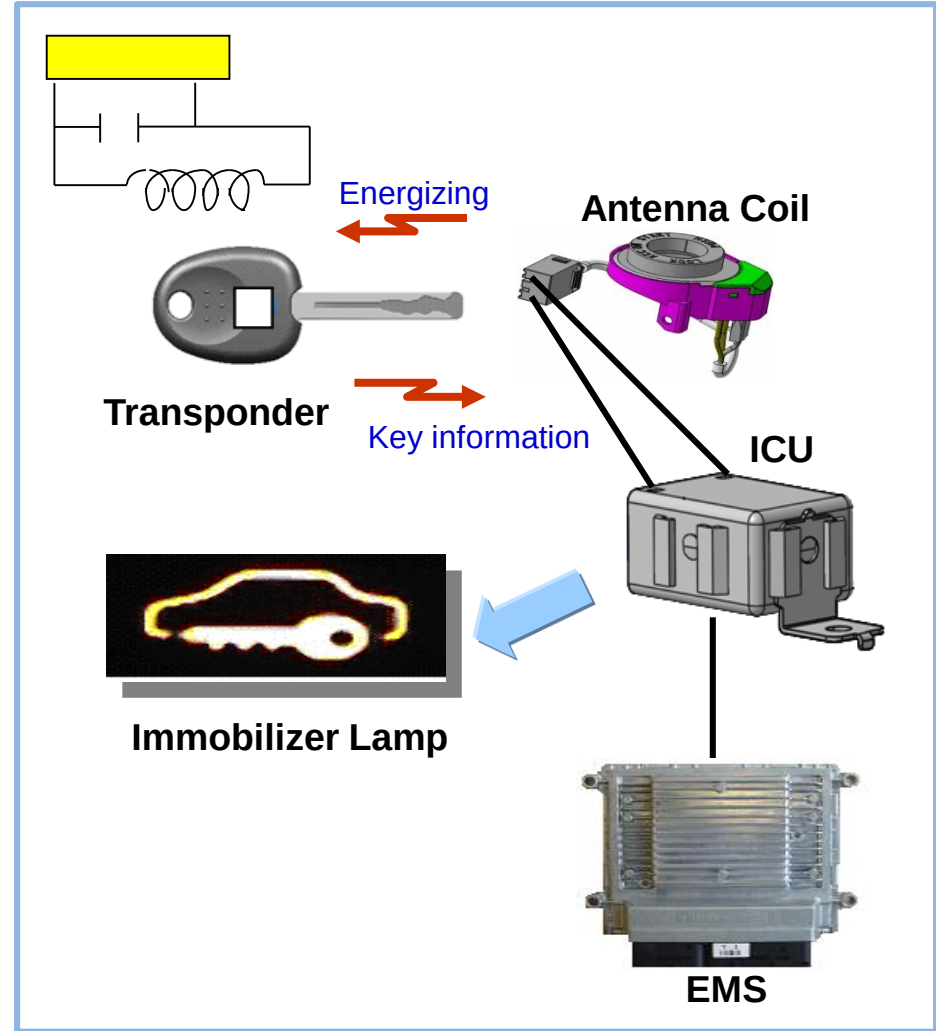


System layout

■ SMARTRA 3 Version

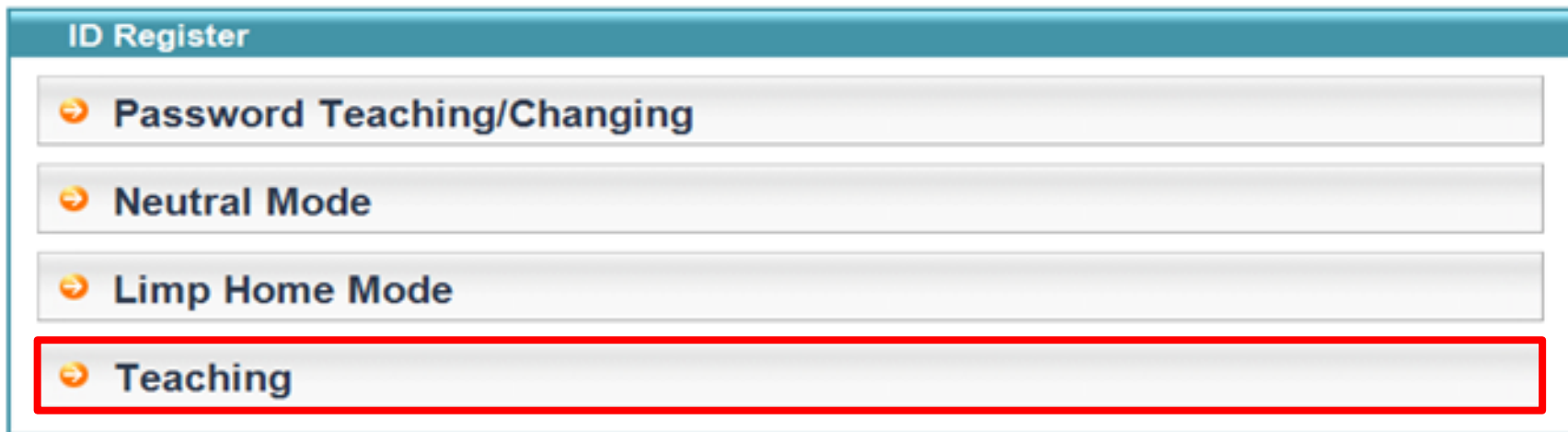


■ SHINCHANG Version



Service Procedure

- ID Register



Teaching

- ✓ The stage at which a transponder key is registered in the engine EMS and immobilizer ECU
- ✓ PIN code required
- ✓ Key registration requirements: EMS=Virgin/Neutral, Immobilizer ECU=Virgin/Learnt/Neutral
- ✓ One-hour lock timer enabled and ignition kept on if more than three PIN code errors occur
- ✓ Invalid keys cannot be registered



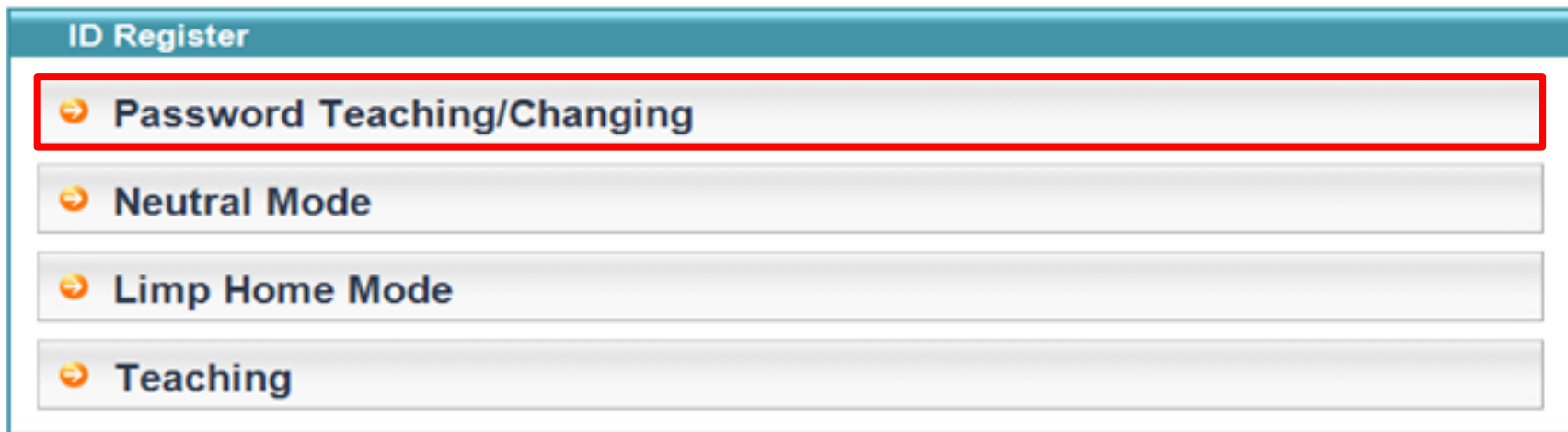
The Power to Surprise

Immobilizer System



Service Procedure

- ID Register

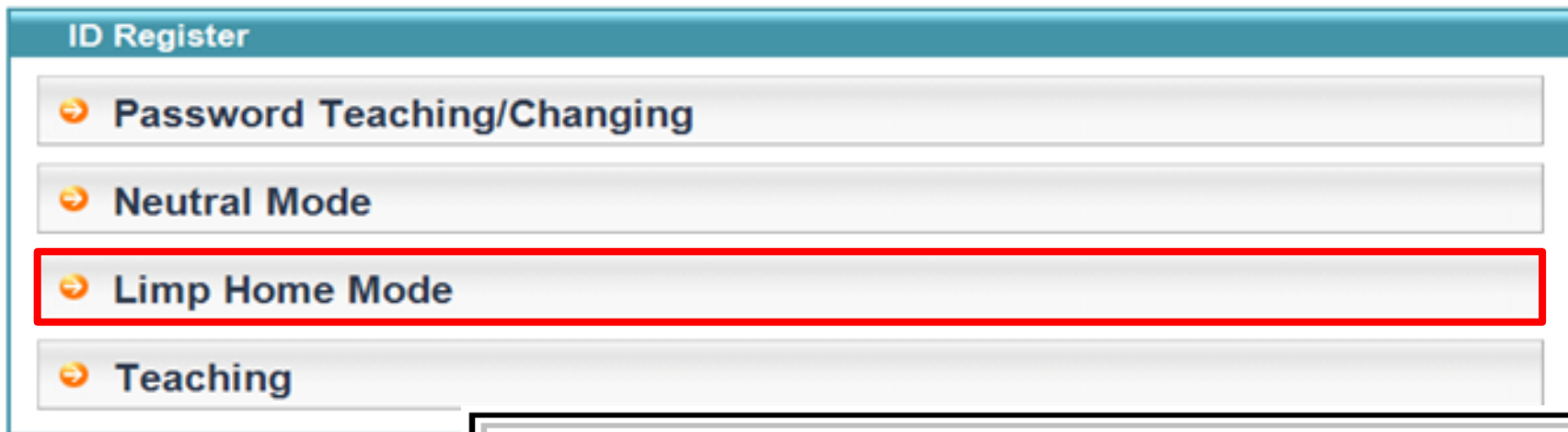


Password Teaching Changing

- ✓ Sets or edits a four-digit password
- ✓ Required for an emergency start-up (limp home) when immobilizer system is down
- ✓ Forgotten password can be initialized and reset in neutral mode
- ✓ Password setting/change requirements: EMS=Learnt, Immobilizer ECU=Learnt, KEY=Learnt
- ✓ Password change: One-hour lock timer enabled and ignition kept on if current password verification fails three times
- ✓ Limp home cannot take place without a password

Service Procedure

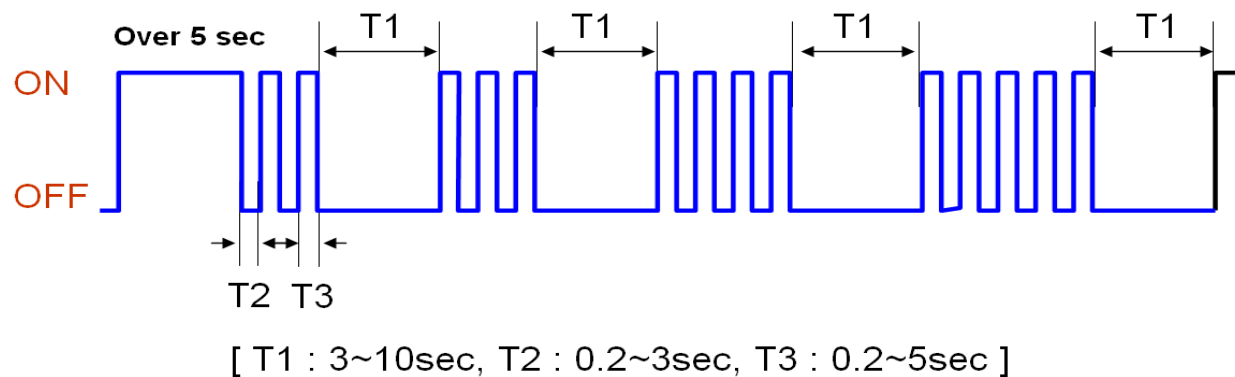
■ ID Register



Limp Home Mode

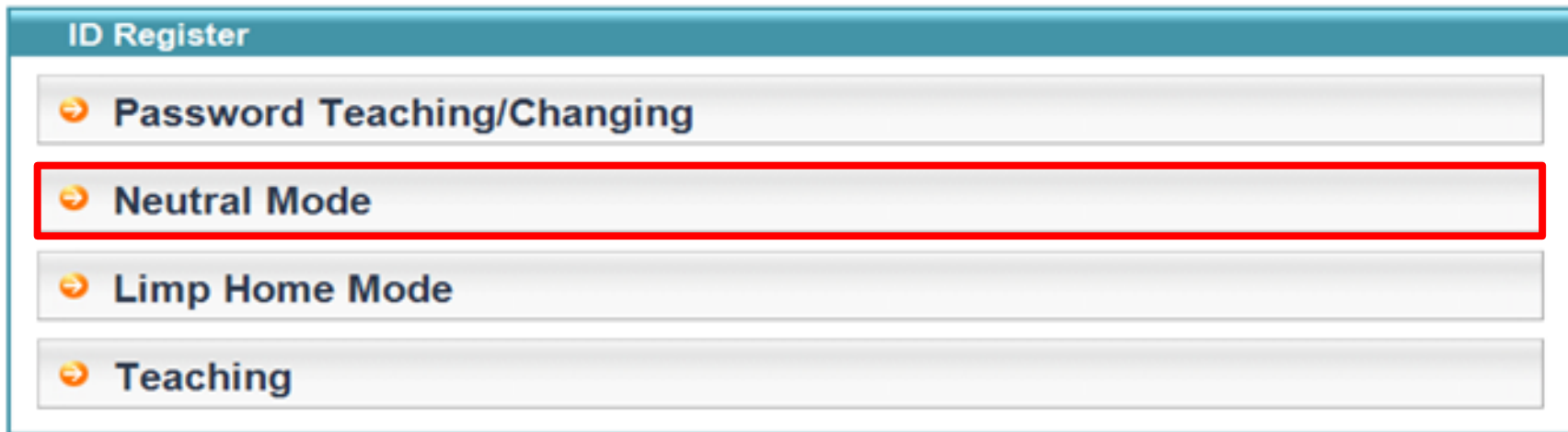
- ✓ An
- fail
- ✓ Use
- ✓ Lim
- Pa
- ✓ Cal

Ex) Password : 2345



Service Procedure

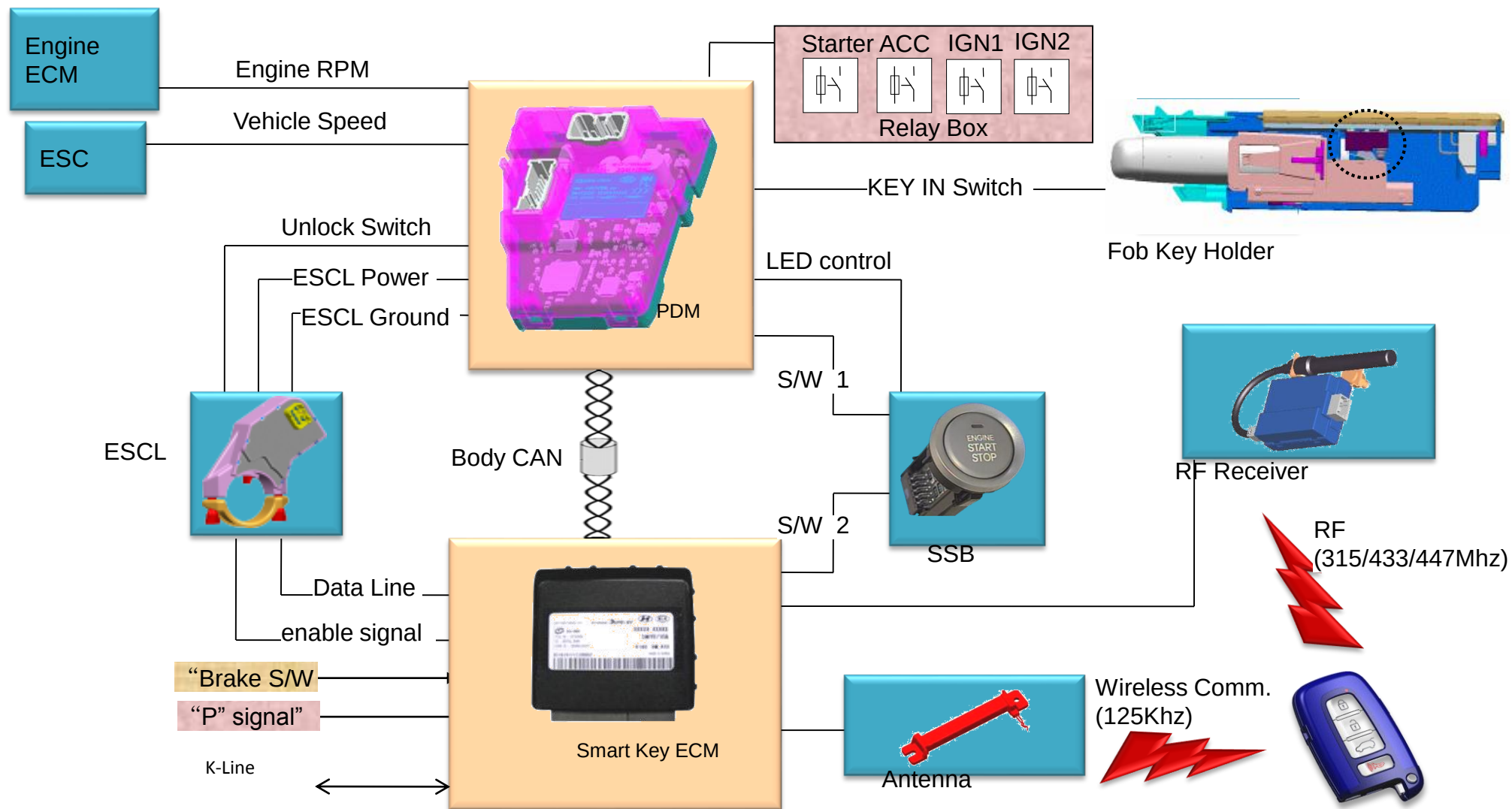
- ID Register



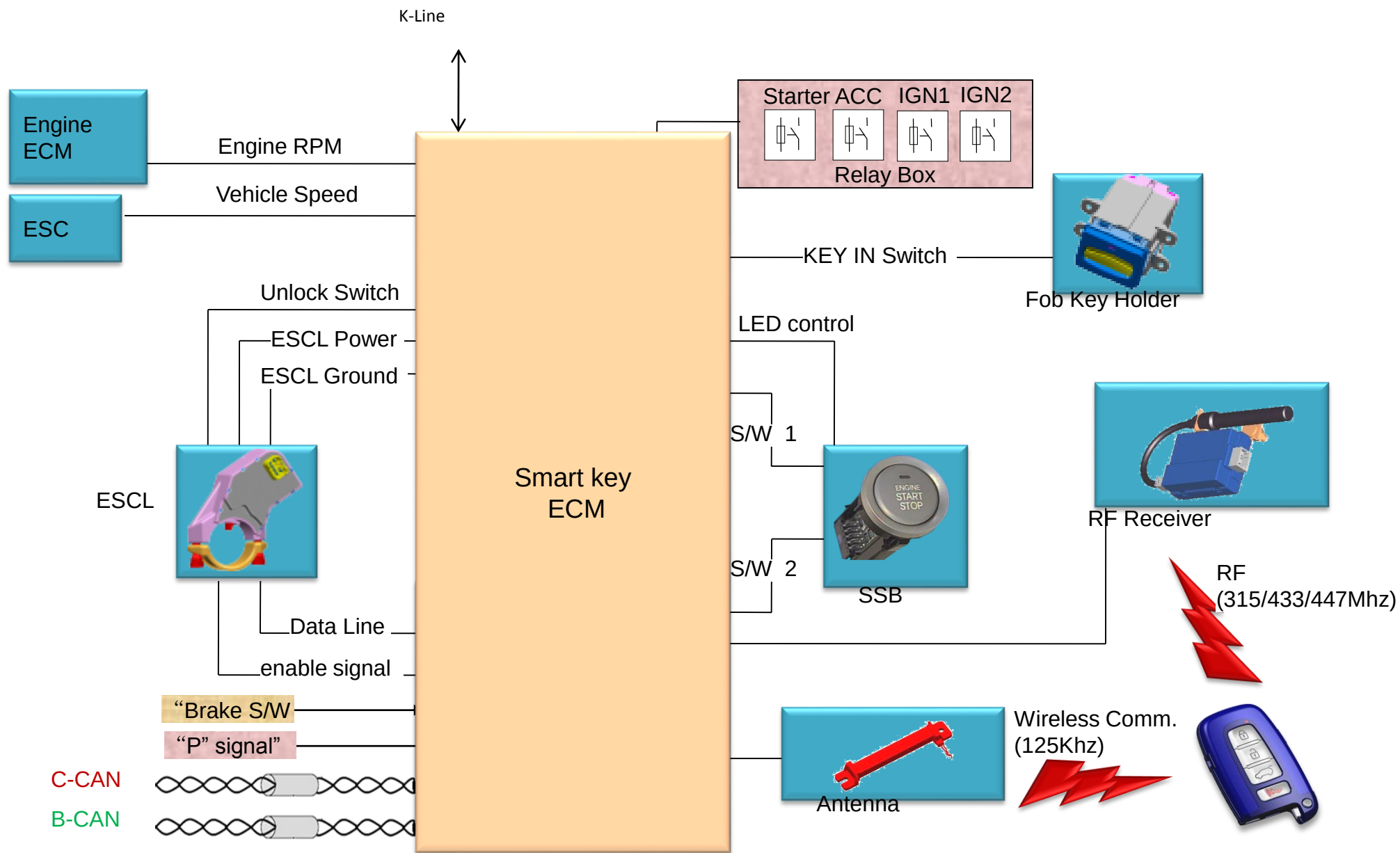
Neutral Mode

- ✓ Initializes key data and password saved in the engine ECU and immobilizer unit
- ✓ Neutral mode activation requirements: EMS=Learnt/Neutral/Vergin, Immobilizer ECU=Learnt
- ✓ Neutral mode execution of SMARTRA3 and STF is different
 - SMARTRA 3 Version: IG off after PIN code input → ON after 10 sec
 - STF: IG OFF after PIN code input → ON repeated three times (10 sec or less between OFF and ON)

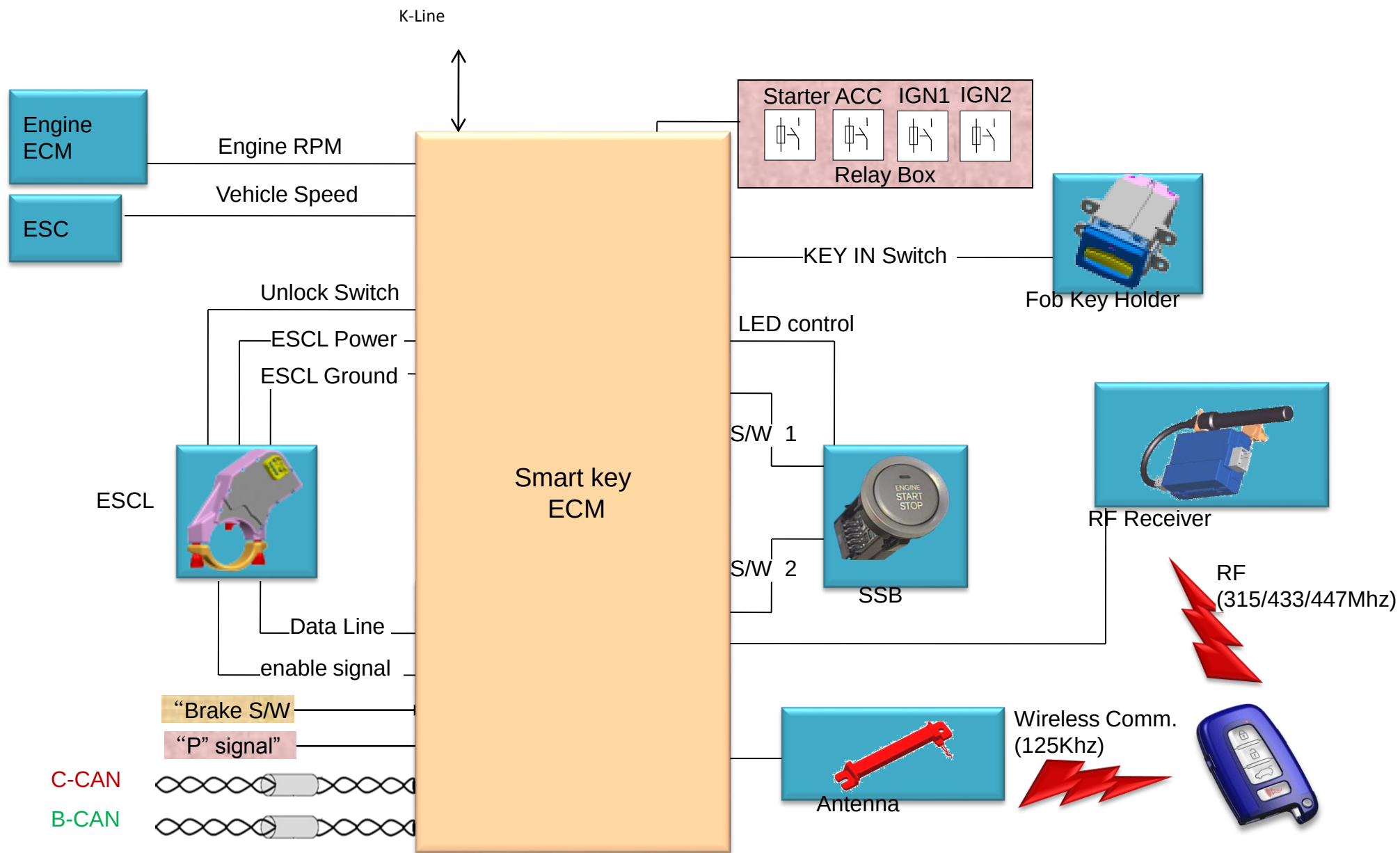
Block Diagram- (SMK1.0)



Block Diagram- (SMK2.0)



Block Diagram- (SMK2.5)



Introduction

