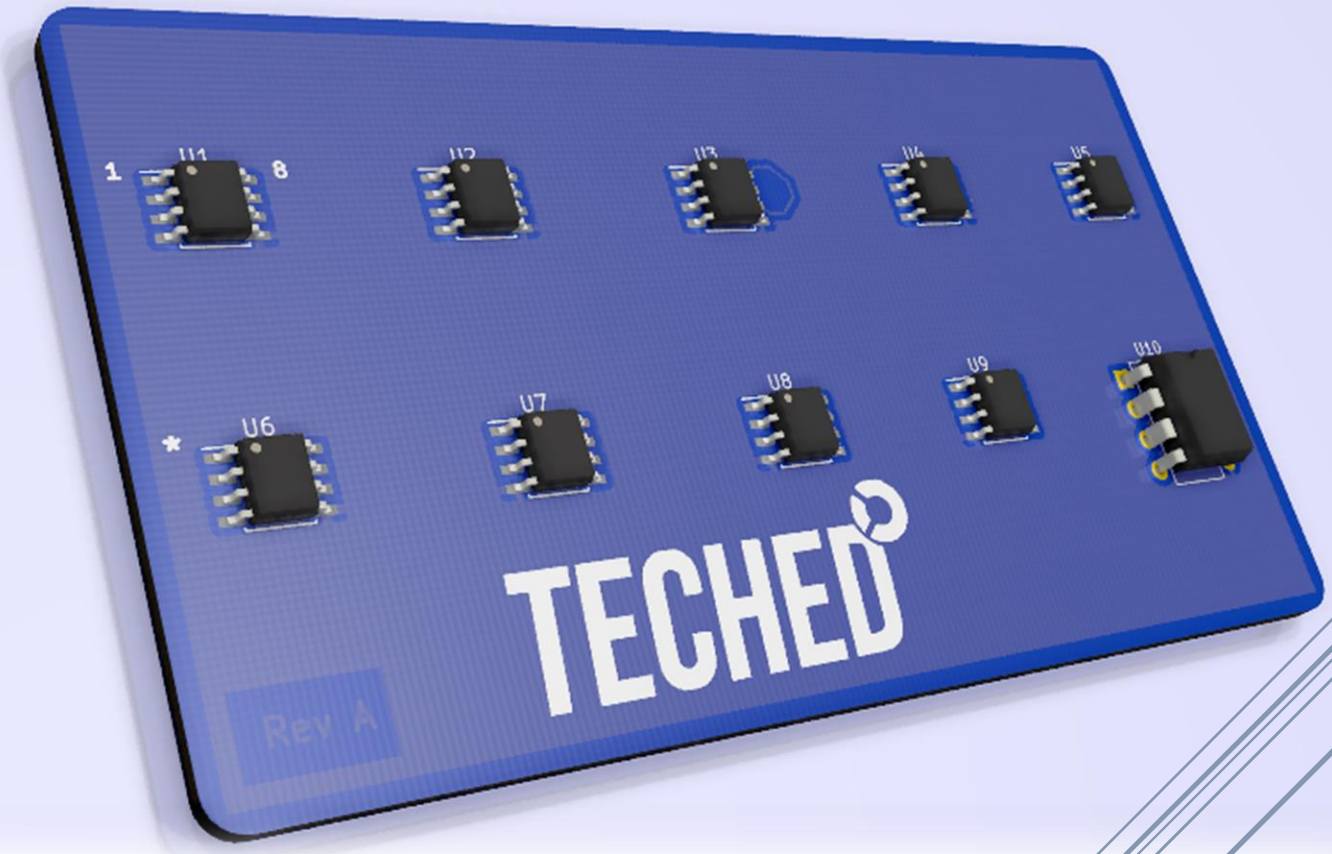
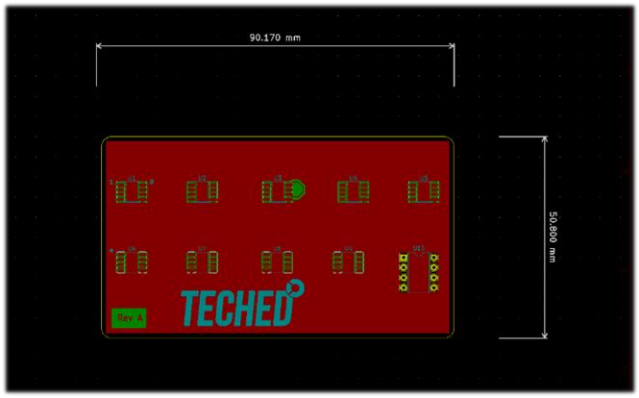
EEPROM TRAINING BOARD

Quick guide



REV A

Introduction and purpose of the training board



The EEPROM training board was developed in house by our Tech Support Unit and manufactured locally in Australia for the purpose of continued commitment to supporting our customers. This EEPROM training board is to help out experienced and new to the field users with identifying, reading, and writing to EEPROM devices. Like any skill it always helps to practice.

If you are performing in house training of a new employee this board will provide a risk-free way of getting them up to speed in the workflow involved with performing a key making job via EEPROM.
This board can also be used to verify that your EEPROM programmer and wiring harness are in working order.

Each board has been fully tested to ensure read and write functions of each device is verified.
The data on these devices are your only copy. We encourage you to back up the data on each EEPROM as you read them to ensure you have a copy in case the data becomes corrupt through misreading/writing.
As this is a self-training or workplace training device no tech support will offered for the purposes of training an individual through our Tech Support hotline.
LSC offers an introductory course on the applications of EEPROM in automotive immobilisers if you wish to further your skills.

PCB layout and contents

The board contains 10 EEPROM devices of differing size and protocol.

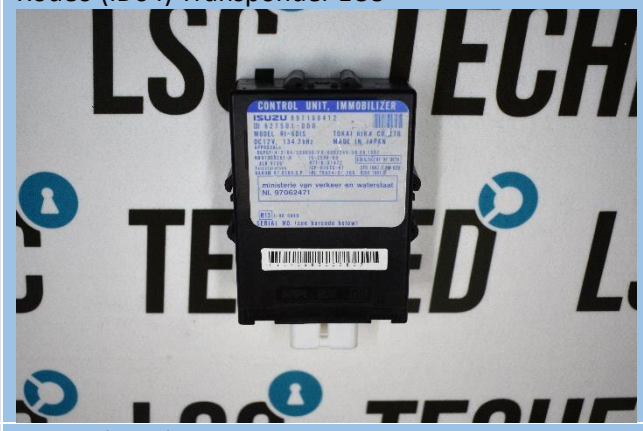
The most common EEPROM found in the field uses to the Microwire protocol so we have ensured that the entire 93cxx family is covered with both 8 and 16bit variants included.
Other protocols including I2C, and SPI are also included which make up the rest of the commonly used external memory in automotive applications.

Each EEPROM comes preprogrammed with data, some contain a simple ASCII message confirming that you have read it correctly, while others contain actual Immo data from example vehicles. These examples can be used to train users in conjunction with transponder tools to create working keys for those files. As some of the examples are from simple Toyota 4c systems practice in manually editing the data is also possible.

However it must be noted that due to the complexity of many immobilizer systems it is not recommended that the data on these EEPROMS be used to overwrite data in real vehicles as this may lead to the vehicle still not starting as other data often kept in EEPROM relating to engine ECU linkages, odometer, pin codes, VIN etc.

Each EEPROM on the board is designated U1 through to U10. While its best practice to read the etched label in order to ascertain the part number and so on, below is a table that explains what each EEPROM is and what information is contained on it.
While all care is taken to ensure that this PCB simulates a typical job, there are some parameters that may need to be changed on a real job, such as voltages etc.

With ongoing revisions of this board new features and devices will be added to better simulate a real job by introducing interference from other components, as well as including devices in TSSOP an SOT23 packaging standards.

	EEPROM	File written to EEPROM
U1	93c66a	Congratulations message
U2	93c66b	Congratulations message
U3	93c66c	Rodeo (ID64) Transponder ECU 
U4	93c46c	Honda (ID13) red key transponder ECU 
U5	93c56c	Hyundai (ID60) ShingChang immo 

U6	93c86b	VAG (ID46) Kessy ECU 
U7	24c02	Congratulations message
U8	25040	Toyota Echo (4C) engine ECU 
U9	95320	VW Passat (ID48) Comfort ECU 
U10	93c66a	Toyota Corolla (4C) Transponder ECU