



# TOYOTA SCL emulator , LIN

for TOYOTA / SUBARU, 2-byte system.

## Description :

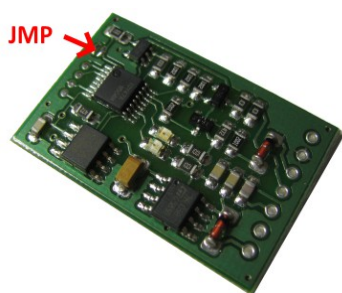
Plug & Play for most systems, although manual alignment may be necessary (using any LIN logger in master mode). Coverage: 2008 and up, SCL with 7 pin connector, TOYOTA 2-byte system.

## Installation on car:

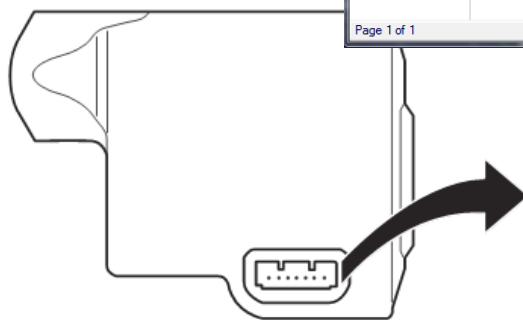
Pinout is 1:1 and match original SCL pinout, although not a simple task to use original connector because it is very specific and designed specially for SCL. You can use standard pin header with 2.54mm pitch and slightly bend pins to match SCL plug.

First launch: if engine runs everything is OK, correct code is calculated and stored into emulator. Switch ignition off, wait until LIN sleeps (status LEDs both must go off), place solder joint (JMP) to disable further SYNC updates.

If starter is ON but no engine start allowed must store SYNC manually using any LIN logger in master mode. Communication parameters: 9600baud, checksum = classic. JMP must be open. For connection "on table" must connect +12v to pin 7, GND to pin 2, LIN to pin5. LIN frame looks like : **BF (8) DA BD AB 00 xx xx yy yy** where xx xx is a SYNC, yy yy is inverted SYNC (XOR 0xFFFF). Example: SYNC from SCL dump: **61E5**, frame is **BF (8) DA BD AB 00 61 E5 9E 1A**. If SYNC stored, both LEDs must go on for 1/2 second. **Don't forget to place solder joint (JMP) to disable SYNC updates!**



Offset	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
00000000	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
00000016	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
00000032	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
00000048	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
00000064	FE	FF	FE	FF	FE	FF	FE	FF	FE	FF	FE	FF	FE	FF	FE	FF
00000080	FF	FF	FF	FF	E5	61	E5	61	E5	61	E5	61	E5	61	FF	FF
00000096	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	00	00
00000112	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF



- Pin 1: chassis **GND**
- pin 2: signal **GND**
- pin 3: **SLR**
- pin 4: **SLP**
- pin 5: **LIN**
- pin 6: **IGN**
- pin 7: **+BAT**

## LED on emulator board:

- **YELLOW** or **RED**: SCL is in **LOCKED** state, **LIN** active
- **GREEN**: SCL is in **UNLOCKED** state, **LIN** active
- If there is activity on **LIN** (car enters sleep mode), both LEDs go off.
- Both LEDs ON: **SYNC** stored (acknowledge, config mode only – JMP open).

