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| Document Number | | RG_SPEC_0036 | |
| Title | | Generation II GSXR 1000 Adaptor Board | |
| Revision | Date | Prepared By | Change History |
| 1.0 | 5/6/2013 | Hannah Westbrook | Initial release. |
| 1.1 | 11/14/2014 | Hannah Westbrook | Updated description section |

Introduction

The RaceGrade adaptor is used to interface a Suzuki Generation II GSXR 1000 (2007-2008) factory harness with a MoTeC M130 ECU. The adaptor box plugs directly in to the factory harness replacing the factory ECU.

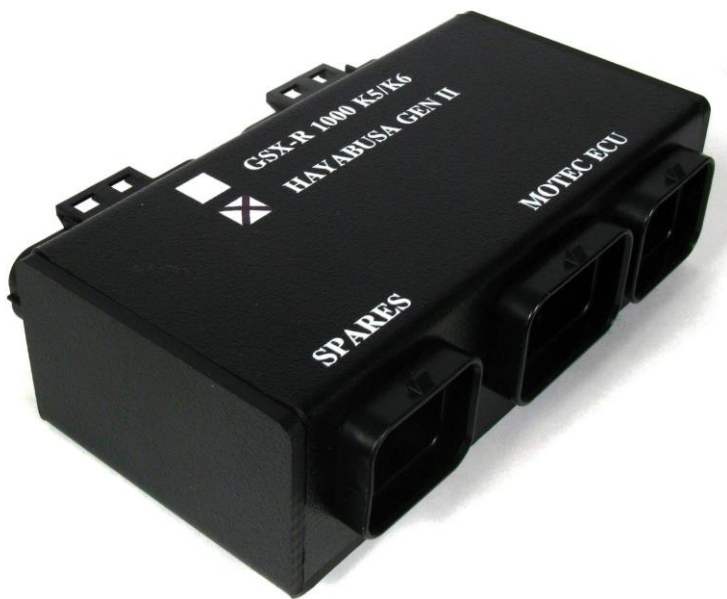


Figure 1: Adaptor Box

Specifications:

- Weight: 7.072 ounces
- Dimensions: 4.70 L x 1.972 W x 1.14 H in (119.4 x 50.1 x 29.0 mm)
- Key and Thumb switch power voltage supply through 30A fuse and 30A Relay
- Spares power supplied through 15A fuse
- 1 kΩ pull-up resistor to 12V on Tachometer (pin 11)
- 1 kΩ pull-up resistor to 5v on Gear (pin 22)

Connection:

- GEN II GSXR 1000 Stock wiring harness
- MoTeC ECU
M130 Adaptor Loom
M H 130PNP 401A
- Spares
M PNP 26P Kit
26 Pin Header with alternate Keyway

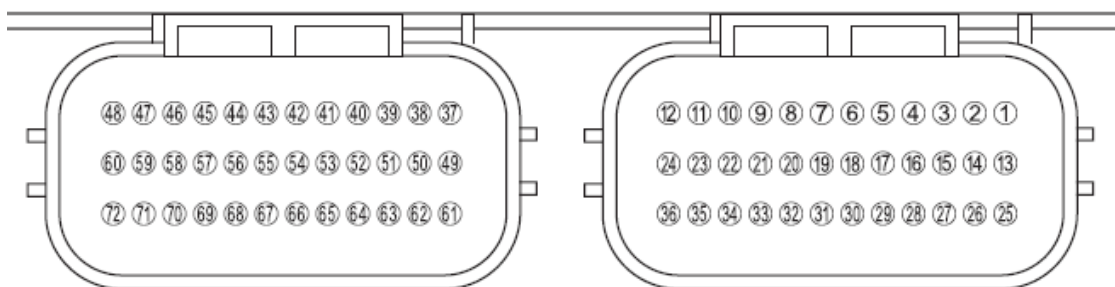


Figure 2: Generation II GSXR 1000 Adaptor Box Connector Pin out
Connector Mating View (wire entry view on harness)

Generation II GSXR 1000 pin-out

| PIN NO. | GSXR 1000 Parameter |
|---------|---------------------|
| 1 | N/A |
| 2 | SPEED |
| 3 | N/A |
| 4 | N/A |
| 5 | N/A |
| 6 | TPS |
| 7 | 5V |
| 8 | SYNC |
| 9 | REF |
| 10 | N/A |
| 11 | TACHO |
| 12 | 12V |
| 13 | N/A |
| 14 | N/A |
| 15 | N/A |
| 16 | N/A |
| 17 | 12V |
| 18 | N/A |
| 19 | MAP |
| 20 | BARO |
| 21 | 0V |
| 22 | GEAR |
| 23 | N/A |
| 24 | N/A |
| 25 | N/A |
| 26 | STEERING DAMPER |
| 27 | N/A |
| 28 | N/A |
| 29 | N/A |
| 30 | N/A |
| 31 | TIP OVER |
| 32 | COOLANT |
| 33 | AIT TEMP |
| 34 | N/A |
| 35 | 0V |
| 36 | GROUND |

| PIN NO. | GSXR 1000 Parameter |
|---------|---------------------|
| 37 | N/A |
| 38 | N/A |
| 39 | N/A |
| 40 | FUEL PUMP |
| 41 | N/A |
| 42 | FAN |
| 43 | INJ #4 |
| 44 | INJ #3 |
| 45 | INJ #2 |
| 46 | INJ #1 |
| 47 | IGN #2 |
| 48 | IGN #1 |
| 49 | N/A |
| 50 | DMS 2 |
| 51 | N/A |
| 52 | N/A |
| 53 | N/A |
| 54 | STARTER |
| 55 | N/A |
| 56 | INJ #8 |
| 57 | INJ #7 |
| 58 | INJ #6 |
| 59 | INJ #5 |
| 60 | IGN #3 |
| 61 | N/A |
| 62 | N/A |
| 63 | DMS 1 |
| 64 | N/A |
| 65 | N/A |
| 66 | N/A |
| 67 | NEUTRAL |
| 68 | GROUND |
| 69 | CLUTCH |
| 70 | N/A |
| 71 | GROUND |
| 72 | IGN #4 |

MoTeC Spares Connector

Not all of the M130 ECU channels are used on the Generation II GSXR 1000 harness. A spares connector is included with all other ECU resources for expansion. See MoTeC M130 manual for I/O specifications.

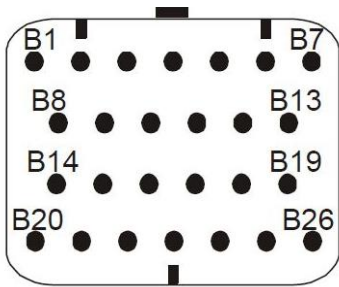


Figure 3: Spares Connector Pin out

Connector Mating View (wire entry view on harness)

Note: The following factory controls are not available in the Adaptor Box kit:

- Exhaust control valve actuator (EXCVA)
- Subthrottle throttle valve actuator (STVA) and secondary throttle position sensor (STP)
- Idle speed control (ISC)
- PAIR control solenoid
- EVAP system

| PIN NO. | SPARES CONNECTOR |
|---------|------------------|
| 1 | 5V |
| 2 | 5V |
| 3 | OUT_HB2 |
| 4 | -- |
| 5 | OUT_HB6 |
| 6 | 0V |
| 7 | 0V |
| 8 | AV #6 |
| 9 | AV #5 |
| 10 | 12V |
| 11 | GROUND |
| 12 | OUT_LS2 |
| 13 | OUT_HB1 |
| 14 | U_DIG6 |
| 15 | U_DIG7 |
| 16 | 12V |
| 17 | GROUND |
| 18 | KNOCK 2 |
| 19 | BATTERY BACKUP |
| 20 | AT #3 |
| 21 | AV #8 |
| 22 | AT #4 |
| 23 | ECU 6.3 V |
| 24 | SWITCH/DMS2 |
| 25 | CAN LO |
| 26 | CAN HI |