



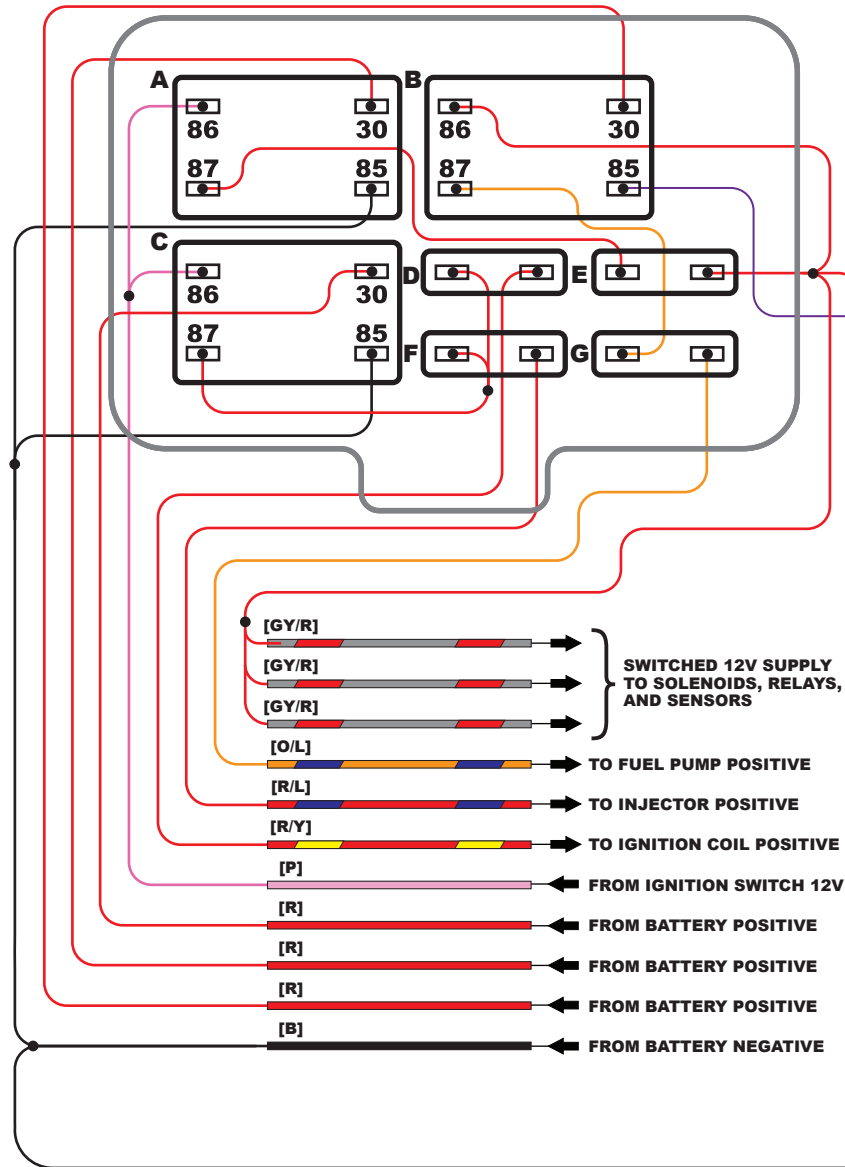
NEXUS T2 T1 PREMIUM UNIVERSAL WIRE-IN HARNESS

NOTES

HT-030103 HALTECH MINI FUSE RELAY BOX (TOP VIEW)

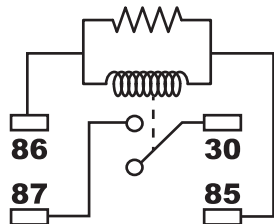
- (A) ECU RELAY
- (B) FUEL PUMP RELAY
- (C) IGN / INJ RELAY
- (D) IGN FUSE 15A
- (E) ECU FUSE 10A
- (F) INJ FUSE 15A
- (G) FUEL PUMP FUSE 30A

TOP VIEW



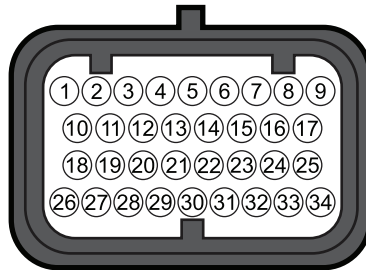
HT-030205 MICRO RELAY PINOUT AND SCHEMATIC

TOP VIEW



CONNECTOR A 34 PIN KEYWAY 1

LOOKING INTO
CONNECTOR ON
NEXUS T2 OR
NEXUS T1 ECU



WIRE COLOUR LEGEND

B = BLACK, BR = BROWN, R = RED, O = ORANGE, Y = YELLOW,
G = GREEN, L = BLUE, V = VIOLET, GY = GREY, LL = LIGHT BLUE,
LG = LIGHT GREEN, LY = LIGHT YELLOW, P = PINK, W = WHITE

WHEN TWO COLOURS ARE USED IN A WIRE'S COLOUR CODE, THE
FIRST LETTER INDICATES THE BASE WIRE COLOUR, AND THE
SECOND INDICATES THE STRIPE COLOUR.

NOTES

IGNITION

6X IGNITION OUTPUTS
(4X IF USING NEXUS T1)

- 3A MAX CURRENT
- OVERCURRENT PROTECTED
- FLYBACK PROTECTED
- GLOBAL 12V OR 5V PULL-UP VOLTAGE
- PER OUTPUT 270R PULL-UP ENABLE
- VOLTAGE MONITORED

WIRE IGNITION OUTPUT TO CYLINDER NUMBER FOR DIRECT FIRE

UNUSED IGNITION OUTPUTS CAN BE USED AS GENERIC DPOs WITH 3A MAX OUTPUT OR 0-12V DIGITAL SWITCH INPUTS

WIRE GAUGE: 20 AWG

OUTPUT: GROUND

DPO

- 6X DIGITAL PULSED OUTPUTS
- LOW SIDE DRIVE
- 3A MAX CURRENT
- 10kHz SWITCHING SPEED
- OVERCURRENT PROTECTED
- FLYBACK PROTECTED
- INDIVIDUAL 4K7 PULL-UP TO 5V OR 12V OR DISABLE

UNUSED DPOs CAN BE USED AS 0-12V DIGITAL SWITCH INPUTS WITH PULL-UP ENABLE

WIRE GAUGE: 20 AWG

OUTPUT: GROUND

SPI

- SYNCHRONISED PULSED INPUT
- SUPPORTS RELUCTOR AND DIGITAL SENSORS
- SUPPORTS 0-5V ANALOGUE INPUTS
- 22.5kHz MAX FREQUENCY
- 25V MAX INPUT VOLTAGE
- SWITCHABLE 1K PULL-UP

WIRE GAUGE: 22 AWG

MEASUREMENT RANGE: -10V TO +10V

ECU POWER SUPPLY

MUST BE FUSED AND RELAY-SWITCHED

CAN 1 (ISO 11898)

SUPPORTS SPEEDS UP TO 1Mbit/s

HALTECH CAN

• SUPPORTS ALL HALTECH EXPANSION PRODUCTS

OR

VEHICLE CAN

• SELECTABLE PRECONFIGURED VEHICLE CAN PROTOCOL

• OBDII COMPLIANT

ECU POWER GROUND

INJECTOR

6X INJECTOR OUTPUTS
(4X IF USING NEXUS T1)

- CURRENT CONTROLLED
- 0 - 8A PEAK CURRENT
- 0 - 2A HOLD CURRENT

WIRE INJECTOR OUTPUT TO CYLINDER NUMBER

UNUSED INJECTOR OUTPUTS CAN BE USED AS GENERIC DPOs WITH 2A MAX OUTPUT OR 0-12V DIGITAL SWITCH INPUTS

WIRE GAUGE: 20 AWG

OUTPUT: GROUND

AVI

5X ANALOGUE VOLTAGE INPUTS

- INDIVIDUAL SOFTWARE SELECTABLE 1K PULL-UP TO 5V
- USER DEFINABLE INPUTS CAN BE ALLOCATED TO AVAILABLE FUNCTIONS IN THE SOFTWARE
- 30V MAX INPUT VOLTAGE
- 1000 SAMPLES/SECOND
- 1.5kHz MAX INPUT FREQUENCY
- ALL AVIs CAN BE USED FOR NARROWBAND O2

WIRE GAUGE: 22 AWG

INPUT: -10V TO +30V

SHIELDED 4-CORE CABLE [GY]

TRIGGER +

TRIGGER -

TRIGGER / HOME INPUTS

- SUPPORTS RELUCTOR AND DIGITAL INPUTS
- SELECTABLE GROUND REFERENCE AND PULL-UP TO 5V
- 48kHz MAX SIGNAL FREQUENCY

HOME +

HOME -

SHIELDED 4-CORE CABLE [GY/B]

KNOCK / SPI 2

KNOCK INPUT

- -2.5V TO +2.5V AC INPUT ONLY
- 160Hz TO 48kHz SIGNAL FREQUENCY

SHIELDED 2-CORE CABLE [B/L]

+5V SENSOR SUPPLY

• 200mA MAX OUTPUT CURRENT

5V

SENSOR GROUND

• 500mA MAX OUTPUT CURRENT

• DO NOT CONNECT TO ENGINE, CHASSIS OR BATTERY GROUND

NOTE: INJECTOR OUTPUTS 5-6 ARE NOT AVAILABLE ON A NEXUS T1 ECU.

NOTE: SHIELDED CABLES SHOULD BE EARTHED AT ONE END OF CABLE ONLY

NOTE: IF NOT USED WITH A KNOCK SENSOR, THIS NEXUS T2/T1 KNOCK INPUT CAN BE USED AS SPI 2 AND WILL OPERATE AS PER SPI SPECIFICATIONS.



NEXUS T2 T1 PREMIUM UNIVERSAL WIRE-IN HARNESS

DOCUMENT REVISION: 2.0

HT-181201 REV C

DATE: AUGUST 2026

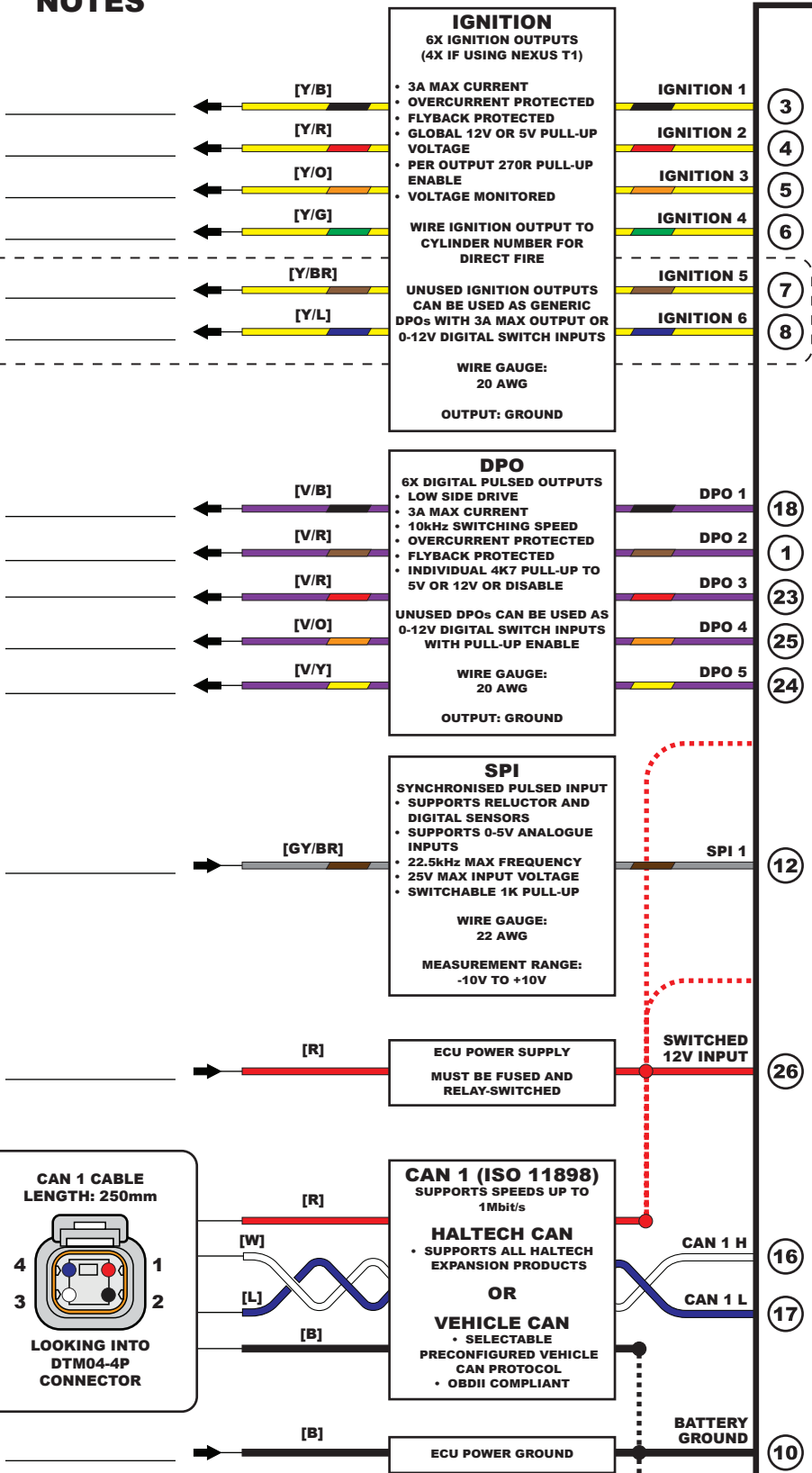
SHEET 1 OF 1



NEXUS T2 T1 BASIC UNIVERSAL WIRE-IN HARNESS

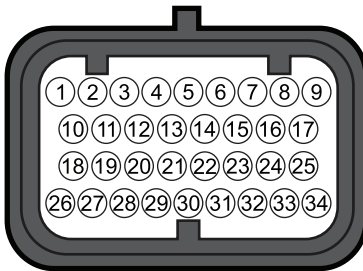
NOTES

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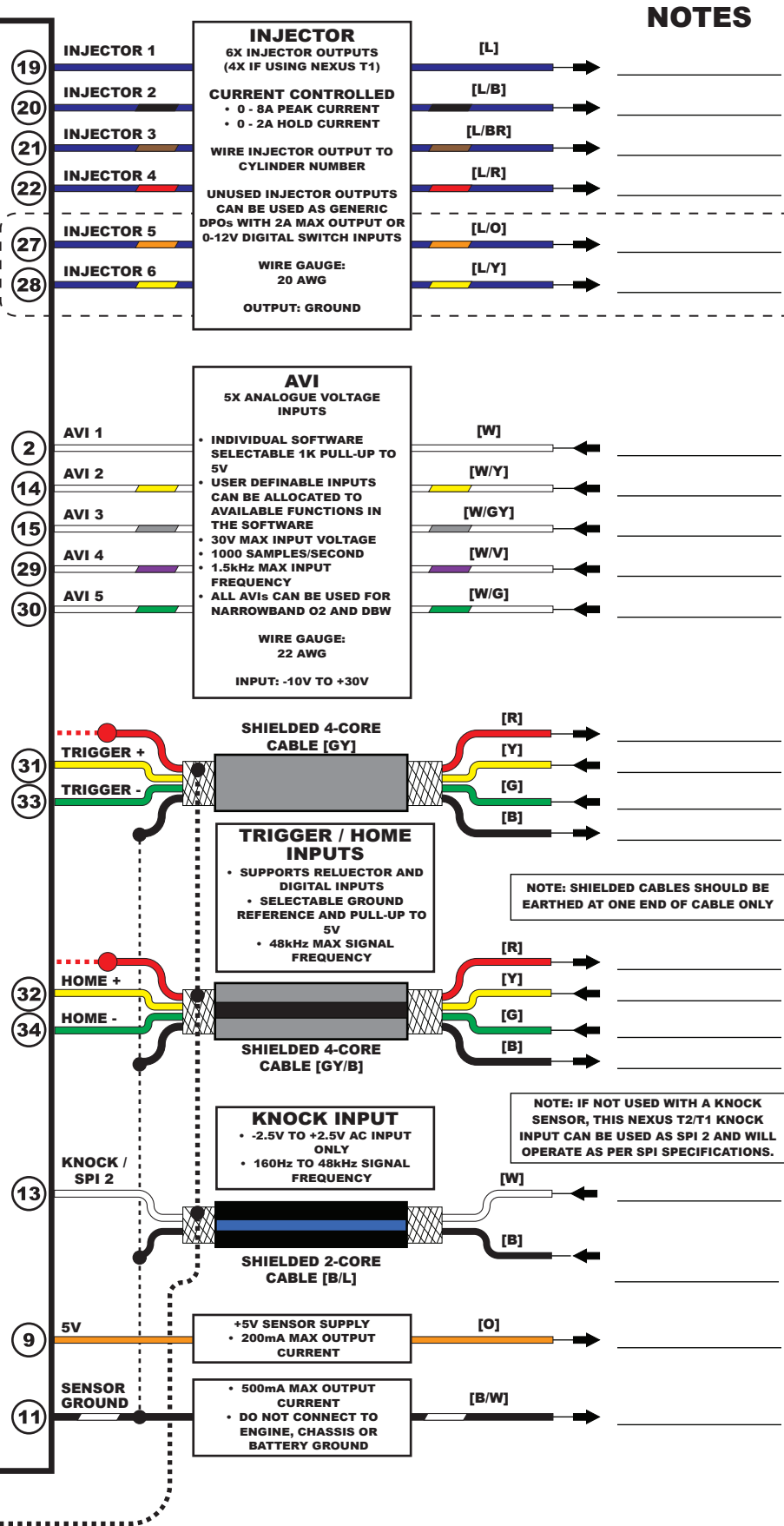


CONNECTOR A 34 PIN KEYWAY 1

LOOKING INTO
CONNECTOR ON
NEXUS T2 OR
NEXUS T1 ECU



34 PIN CONNECTOR (A)



NOTES

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INPUT CAN BE USED AS SPI 2 AND WILL
OPERATE AS PER SPI SPECIFICATIONS.

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Haltech	
NEXUS T2 T1 BASIC UNIVERSAL WIRE-IN HARNESS	
DOCUMENT REVISION: 2.0	HT-181200 REV A
DATE: AUGUST 2026	SHEET 1 OF 1