



MOTORSPORT SOUTH AFRICA

Groupe / Group

R2B

Homologation N°

A143/12

Extension N°

03/03 VO

FICHE D'EXTENSION D'HOMOLOGATION HOMOLOGATION EXTENSION FORM

Homologation valable à partir du
Homologation valid as from

10 SEPTEMBER 2013

- | | | | | | |
|--------------------------|-----------|--|-------------------------------------|-----------|--|
| <input type="checkbox"/> | ER | Erratum / <i>Erratum</i> | <input type="checkbox"/> | VF | Variante de fourniture / <i>Supply variant</i> |
| <input type="checkbox"/> | ET | Evolution du type / <i>Evolution of the type</i> | <input checked="" type="checkbox"/> | VO | Variante option / <i>Option variant</i> |
| | | | <input type="checkbox"/> | VP | Variante de Production / <i>Production variant</i> |

101. CONSTRUCTEUR DU VEHICULE / MANUFACTURER OF THE VEHICLE

VOLKSWAGEN SOUTH AFRICA

102. MODÈLE ET TYPE DE VEHICULE / MODEL AND TYPE OF THE VEHICLE

a) Modèle et type
Model and type

POLO TRENDLINE 1.4

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Marque **VOLKSWAGEN**
Make

Modèle **POLO R2**
Model

Homologation N°

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EFI TECHNOLOGY EURO-4 ECU FRONT VIEW



PHOTO 1(A)

EFI TECHNOLOGY EURO-4 ECU REAR VIEW



PHOTO 1(B)

ECU PINOUT INFORMATION :

C100	EURO 4 ECU CONNECTOR BLACK	
	PIN	FUNCTION
A1	DGND	
A2	DGND - for CAN (PC COMMS)	
A3	DGND - for EM3 & EM4 (EXH CAM 0V)	NOT USED
A4	ANA GND (PPS1, PPS2, GEAR POT 0V)	
B1	GEARBOX TEMP SIGNAL	NOT USED
B2	LAMBDA (-VS/-IP)	
B3	SENSOR 5V (FUEL & OIL PRESS)	
B4	ANA SENSOR GND (FUEL & OIL PRESS)	NOT USED
C1	FUEL GAUGE	NOT USED
C2	Write enable (WREN) CAN 1 & 2 (PC COMMS)	
C3	LAMBDA (VS)	
C4	CAN 1L (PC COMMS)	
D1	IGN SW INPUT (COMMAND FOR RL J1)	
D2	Spare ANA SENS 7	NOT USED
D3	SENSOR 5V (PPS + GEAR POT)	
D4	CAN 1H (PC COMMS)	
E1	PPS2 SIGNAL	
E2	FUEL PRESSURE SIGNAL	
E3	LAMBDA (RC)	
E4	CAN 2L (CAR CAN)	
F1	Lambda Input (via module)	NOT USED
F2	PPS1 SIGNAL	
F3	CAN 2H (CAR CAN)	NOT USED
F4	LAMBDA (IP)	
G1	GEAR POT SIGNAL	
G2	LOAD CELL SIGNAL	NOT USED
G3	Spare ANA SENS 6	NOT USED
G4	Spare ANA SENS 5	NOT USED
H1	ANA SENS 2	NOT USED
H2	ANA SENS 1	
H3	EXH CAM SIGNAL	NOT USED
H4	Digital Input (EM4)	NOT USED
J1	TRIGGER FOR MAIN RELAY (OUTPUT)	
J2	LAMBDA HEATER (PWM)	
J3	Digital Input - HE4 (L REAR WSP SIGNAL)	NOT USED
J4	Digital Input - HE5 (MANUAL REV LIMITER SW)	NOT USED
K1	RAD FAN TRIGGER - (OUT L10)	NOT USED
K2	FUEL PUMP TRIGGER - (OUT L9)	
K3	Digital Input - HE6 (STEER W SPARE)	NOT USED
K4	Digital Input - HE7 (MAP SW INPUT)	NOT USED
L1	Driver Out H8 (VVTI)	
L2	Driver Out H7 (VVTE)	NOT USED
L3	Battery Power Supply (12v)	
L4	Battery Power Supply (12v)	
M1	Stepper Motor Driver, Step C	NOT USED
M2	Stepper Motor Driver, Step B	NOT USED
M3	Stepper Motor Driver, Step A	NOT USED
M4	Stepper Motor Driver, Step D	NOT USED

ECU PINOUT INFORMATION :

C200	EURO 4 ECU CONNECTOR BROWN	
	PIN	FUNCTION
A1	ANA GND	
A2	ANA GND (OIL T, WAT T, AIR T)	
A3	AIR TEMP SIGNAL	
A4	TPS2 SIGNAL	
B1	ANA GND - for sensors (TPS)	
B2	Digital Input - HE1 (RF WSP)	NOT USED
B3	SENSOR 5V (TPS & 3 X WSP)	
B4	MAP SENSOR SIGNAL	NOT USED
C1	SENSOR 5V (CRANK & CAM)	
C2	Digital Input - HE2 (LF WSP)	
C3	Digital Input - HE3 (RR WSP)	NOT USED
C4	TPS1 SIGNAL	
D1	Driver Out H5 (PWM)	NOT USED
D2	Driver Out H6 (PWM)	NOT USED
D3	Knock Sens GND	NOT USED
D4	Knock Sens 2 Input	NOT USED
E1	ELECTRIC THROTTLE MOTOR (M-)	
E2	ELECTRIC THROTTLE MOTOR (M+)	
E3	WATER TEMP SIGNAL	
E4	Knock Sens 1 Input	NOT USED
F1	Switch OUT L11 (Universal OUT 2)	NOT USED
F2	Switch OUT L12	NOT USED
F3	OIL PRESSURE SIGNAL	
F4	OIL TEMP SIGNAL	
G1	INJ 5	NOT USED
G2	INJ 6	NOT USED
G3	DGND for EM1 & EM2 (CRANK)	
G4	DGND for Hall Sensors (ICAM SENSOR)	
H1	INJ 7	NOT USED
H2	INJ 8	NOT USED
H3	CRANK SENSOR SIGNAL	
H4	INLET CAN SIGNAL	
J1	INJECTOR 1	
J2	INJECTOR 4	
J3	COIL 3 (Logic Coils)	
J4	COIL 4 (Logic Coils)	
K1	INJECTOR 3	
K2	INJECTOR 2	
K3	COIL 1 (Logic Coils)	
K4	COIL 2 (Logic Coils)	
L1	Power GND on Engine	
L2	Power GND on Engine	
L3	Power GND on Engine	
L4	Power GND on Engine	
M1	COIL 4 (Inductive Coils)	NOT USED
M2	COIL 1 (Inductive Coils)	NOT USED
M3	COIL 2 (Inductive Coils)	NOT USED
M4	COIL 3 (Inductive Coils)	NOT USED

ECU (INTERIOR ENGINE) HARNESS PHOTO

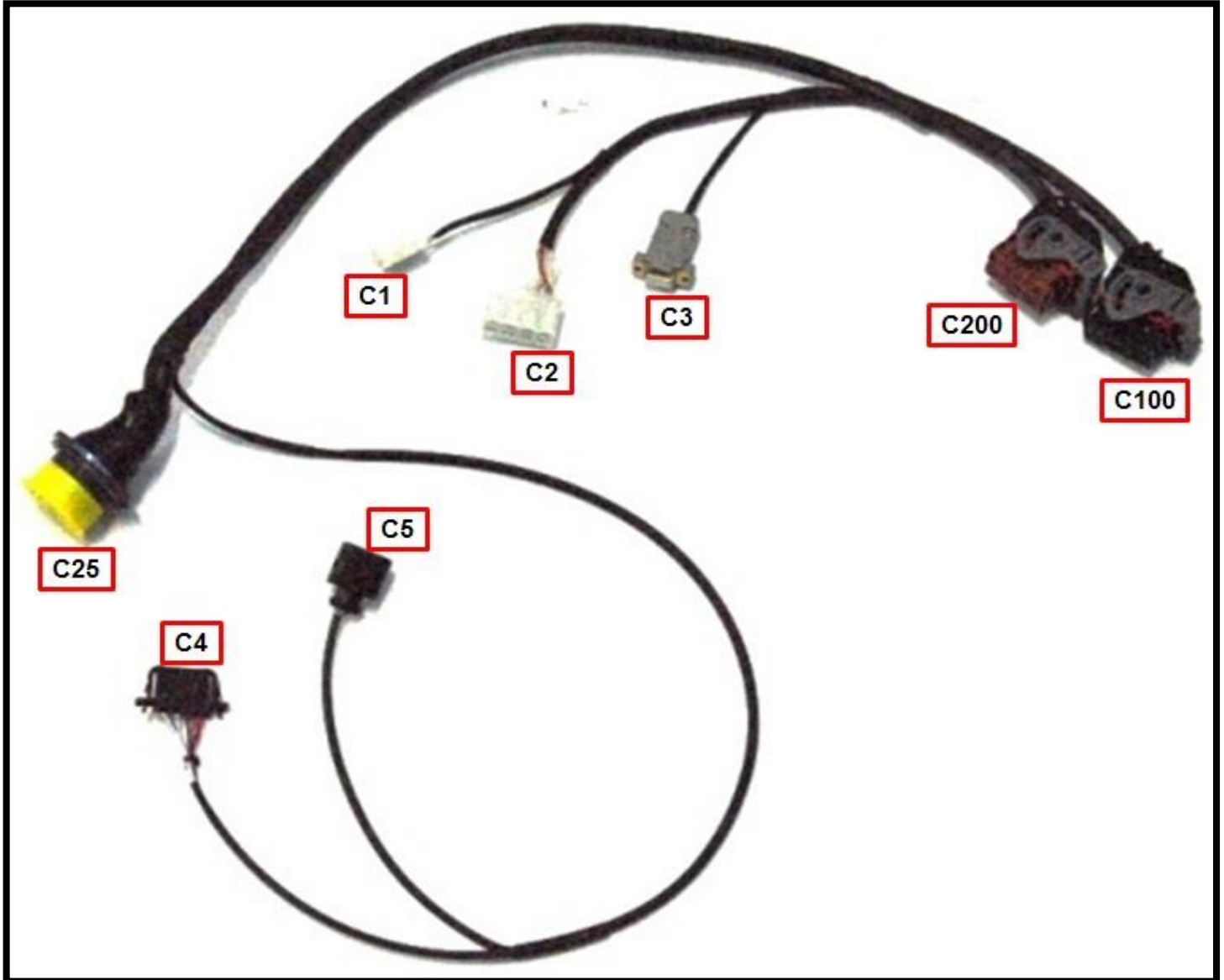


PHOTO 2(A)

ECU (INTERIOR ENGINE) HARNESS CONNECTOR IDENTIFICATION

<u>NUMBER</u>	<u>CONNECTOR DESCRIPTION</u>
C100	ECU CONNECTOR 1 (BLACK)
C200	ECU CONNECTOR 2 (BROWN)
C25	ENGINE HARNESS BULK CONNECTOR (FIREWALL)
C1	ENGINE HARNESS INTERFACE 1
C2	ENGINE HARNESS INTERFACE 2
C3	DIAGNOSTIC CONNECTOR
C4	PEDAL POSITION CONNECTOR
C5	FUEL PRESSURE CONNECTOR

CENTRAL CHASSIS HARNESS (CONTROL PANEL, ECU & ELECTRICAL BRKT) PHOTO

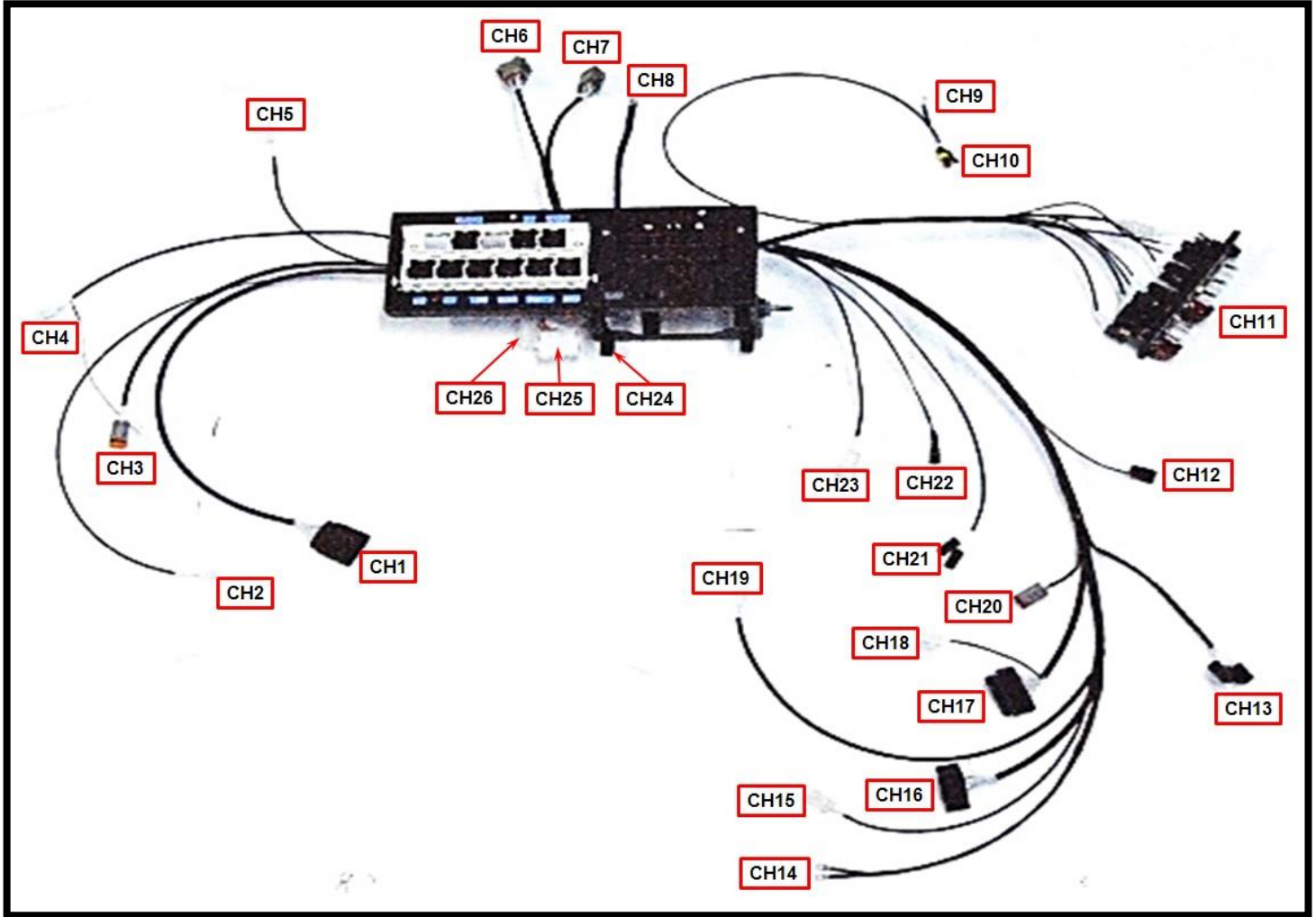


PHOTO 3(A)

CENTRAL CHASSIS HARNESS CONNECTOR IDENTIFICATION

<u>NUMBER</u>	<u>CONNECTOR DESCRIPTION</u>	<u>NUMBER</u>	<u>CONNECTOR DESCRIPTION</u>
CH1	SP / REAR	CH14	STARTER BUTTON CONNECTION
CH2	NAVIGATOR LIGHT	CH15	SP / DOOR RIGHT
CH3	ODO METER	CH16	HEADLIGHT SWITCH
CH4	HEATED SCREEN LEFT	CH17	RIGHT COLLUMN SWITCH
CH5	SP / DOOR LEFT	CH18	LAUNCH CONTROL CONNECTOR
CH6	SP / FRONT 1	CH19	HEATED SCREEN RIGHT
CH7	SP / FRONT 2	CH20	DASH CONNECTOR
CH8	GND GROUND LUG	CH21	BRAKE LIGHT CONNECTOR
CH9	POSITIVE MAIN RELAY	CH22	POWERSHIFT CONNECTOR
CH10	MAIN RELAY CONNECT	CH23	AUX 12VOLT
CH11	SWITCH PANEL	CH24	DIAGNOSTIC CONNECTOR 2
CH12	POWERSTEERING CONNECT	CH25	SP / ENGINE 1
CH13	LEFT COLLUMN SWITCH	CH26	SP / ENGINE 2

ENGINE HARNESS PHOTO

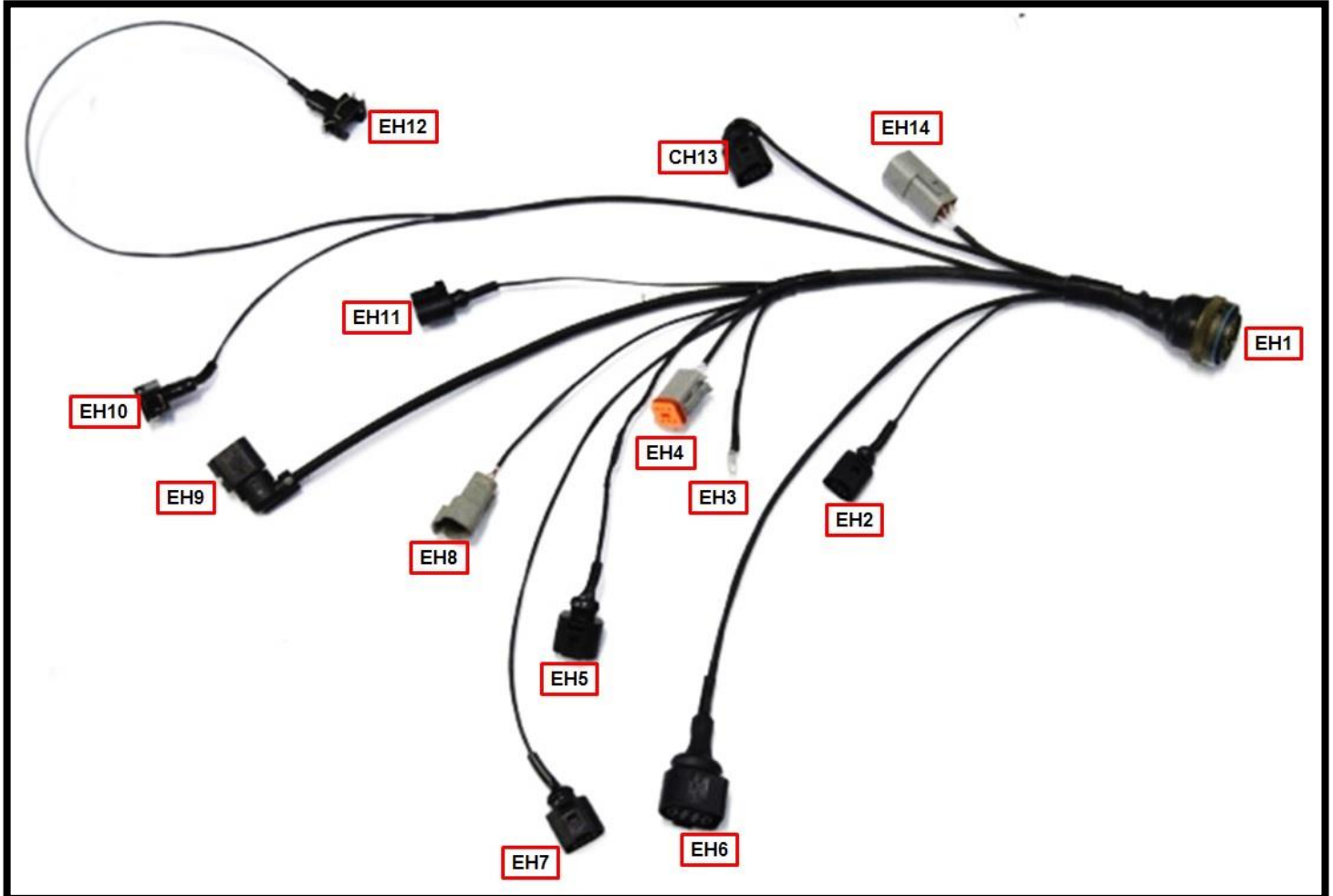


PHOTO 4(A)

ENGINE HARNESS CONNECTOR IDENTIFICATION

<u>NUMBER</u>	<u>CONNECTOR DESCRIPTION</u>
EH1	SP / ENGINE
EH2	WHEEL SPEED CONNECTOR
EH3	GROUND LUG
EH4	SP / COILS
EH5	CAM CONNECTOR
EH6	LAMBDA CONNECTOR
EH7	OIL PRESSURE CONNECTOR
EH8	GEAR POSITION CONNECTOR
EH9	CRANK POSITION CONNECTOR
EH10	AIR TEMPERATURE CONNECTOR
EH11	WATER TEMPERATURE CONNECTOR
EH12	OIL TEMPERATURE CONNECTOR
EH13	THROTTLE POSITION SENSOR
EH14	SP / INJECTORS

COIL LOOM PHOTO

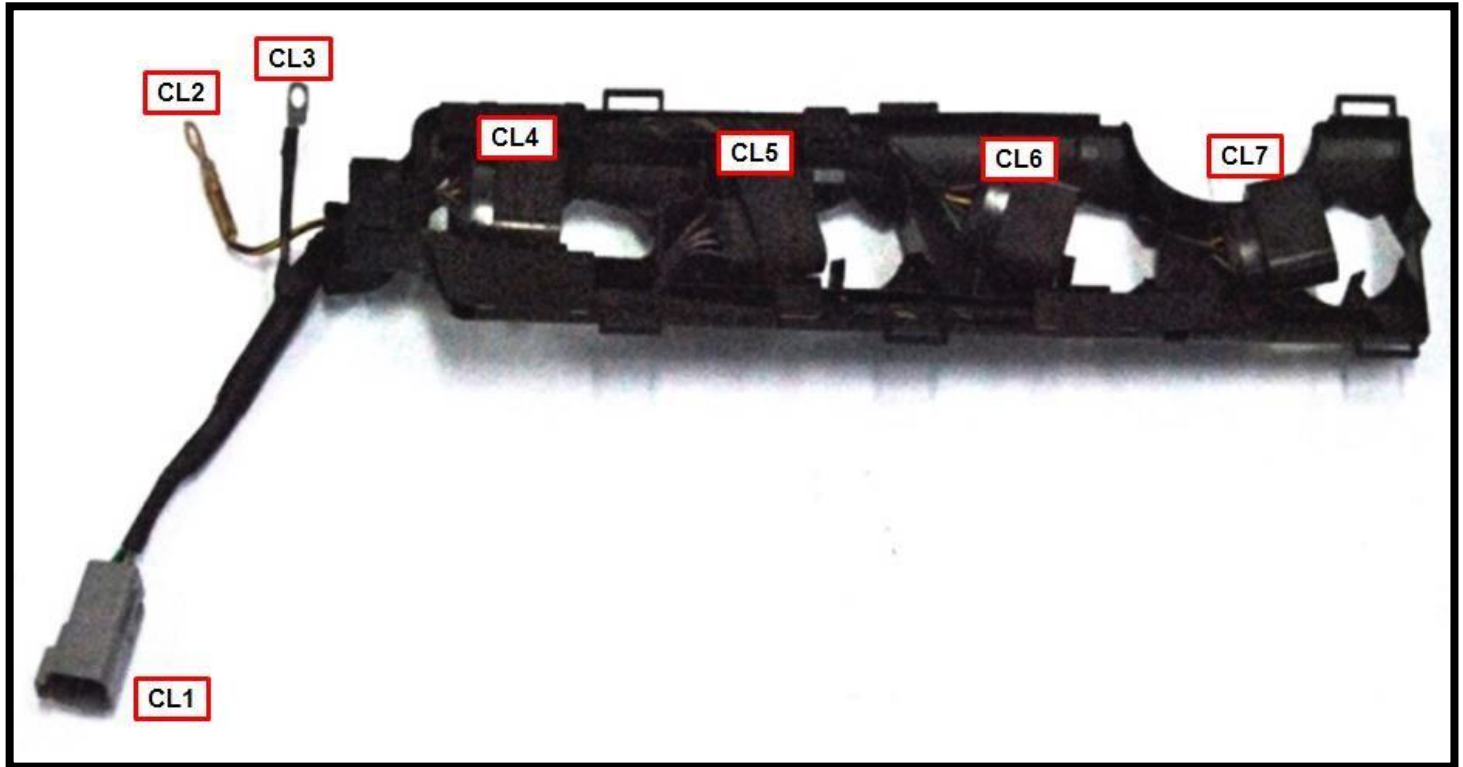


PHOTO 5(A)

COIL LOOM CONNECTOR IDENTIFICATION

<u>NUMBER</u>	<u>CONNECTOR DESCRIPTION</u>
CL1	SP / COILS
CL2	GROUND LUG 1
CL3	GROUND LUG 2
CL4	COIL CYLINDER 4 CONNECTOR
CL5	COIL CYLINDER 3 CONNECTOR
CL6	COIL CYLINDER 2 CONNECTOR
CL7	COIL CYLINDER 1 CONNECTOR

FR LIGHT LOOM PHOTO

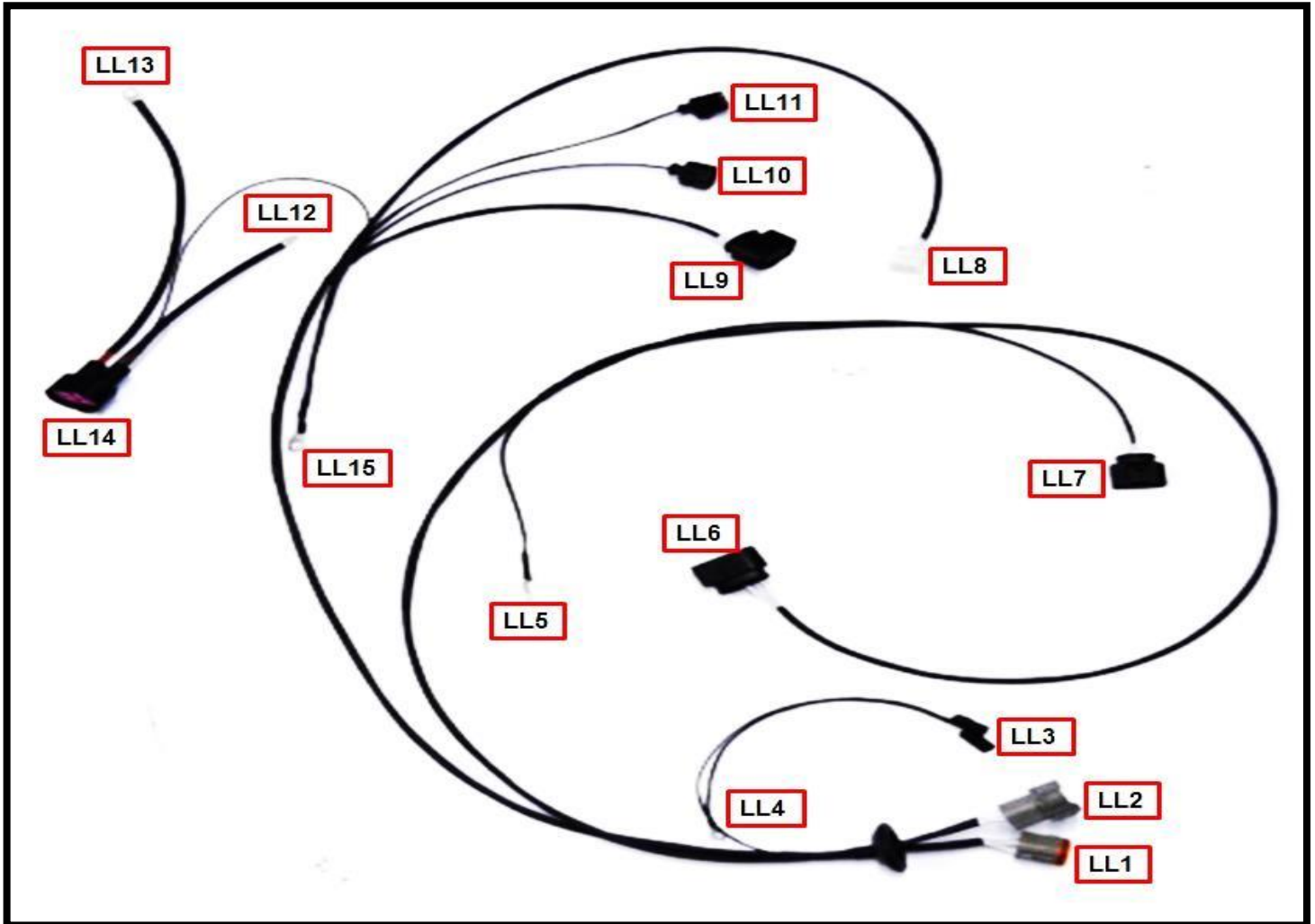


PHOTO 6(A)

FR LIGHT LOOM CONNECTOR IDENTIFICATION

NUMBER	CONNECTOR DESCRIPTION
LL1	SP / FRONT 1
LL2	SP / FRONT 2
LL3	MASTER SWITCH CONNECTION
LL4	GROUND LUG A
LL5	GROUND LUG B
LL6	HEADLIGHT RIGHT
LL7	WIPER MOTOR
LL8	SP / SPOTS
LL9	HEADLIGHT LEFT
LL10	STARTER MOTOR
LL11	HOOTER
LL12	GROUND LUG C
LL13	POSITIVE LUG
LL14	RADIATOR FAN CONNECTOR
LL15	GROUND LUG D

DOOR LOOM PHOTO

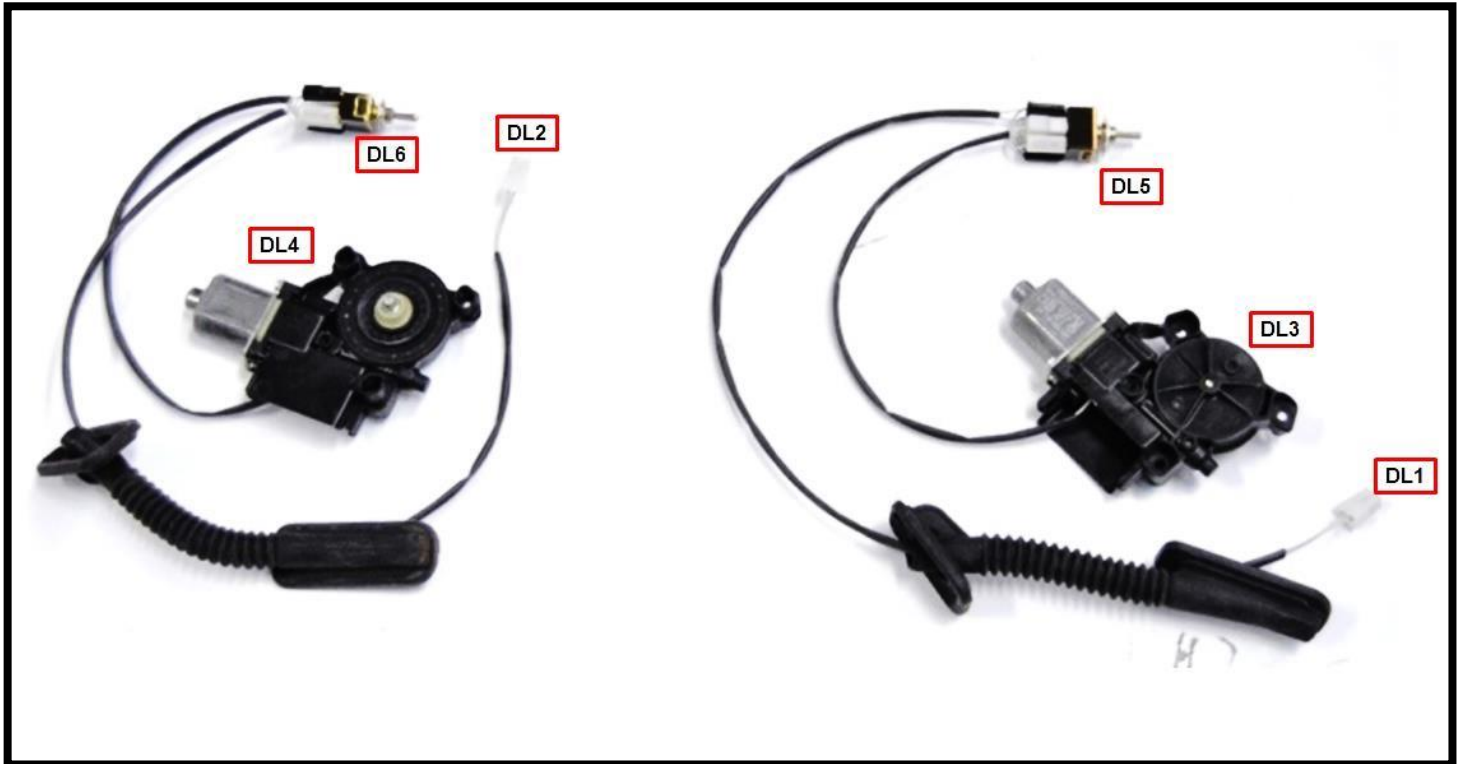


PHOTO 7(A)

DOOR LOOM CONNECTOR IDENTIFICATION

<u>NUMBER</u>	<u>CONNECTOR DESCRIPTION</u>
DL1	SP / DOOR LEFT
DL2	SP / DOOR RIGHT
DL3	LEFT WINDOW MOTOR
DL4	RIGHT WINDOW MOTOR
DL5	LEFT WINDOW MOTOR SWITCH
DL6	RIGHT WINDOW MOTOR SWITCH

ELECTRIC POWERSTEERING POWER CABLE PHOTO

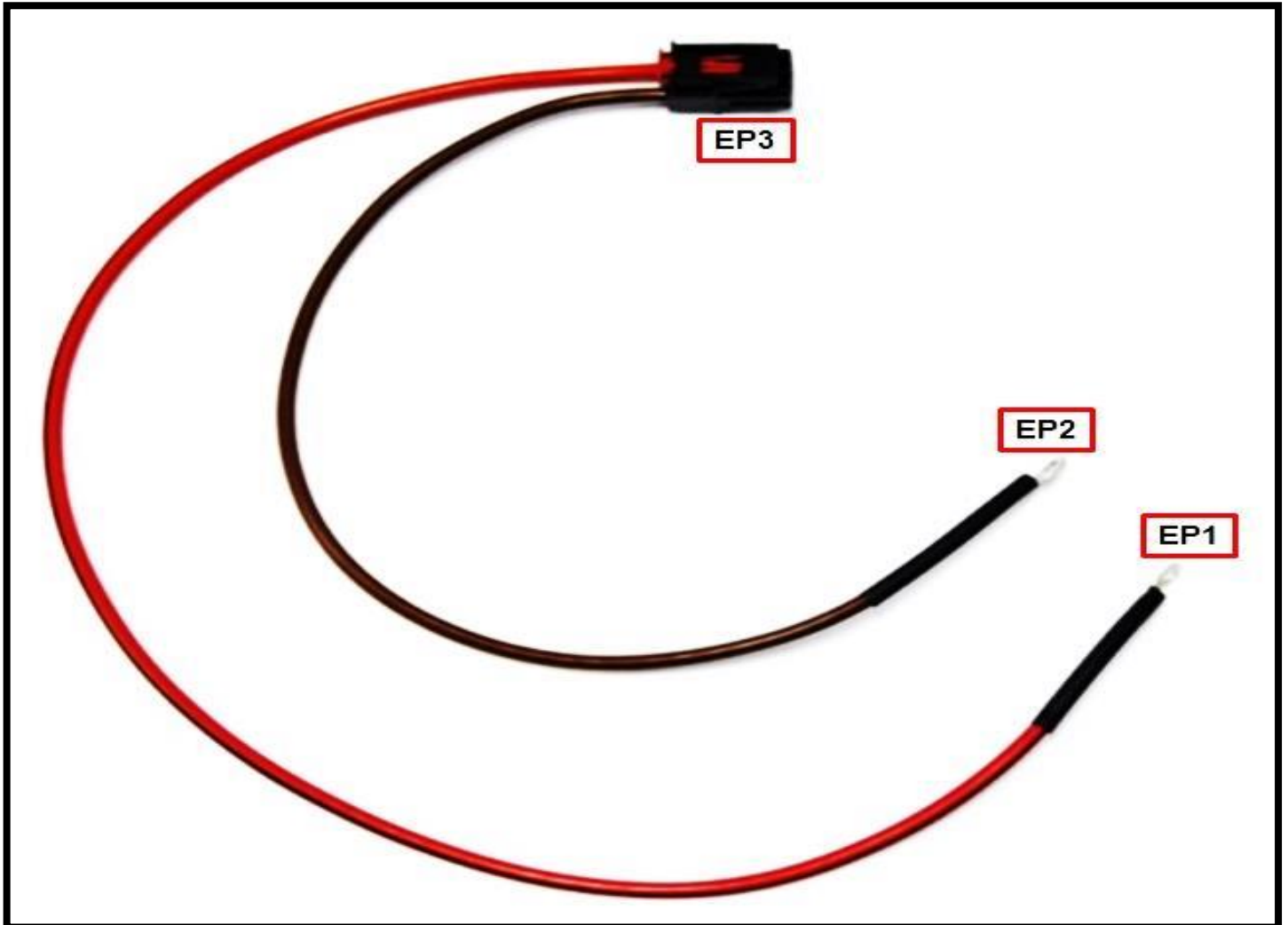


PHOTO 8(A)

ELECTRIC POWERSTEERING POWER CABLE CONNECTOR IDENTIFICATION

<u>NUMBER</u>	<u>CONNECTOR DESCRIPTION</u>
EP1	POSITIVE LUG
EP2	NEGATIVE LUG
EP3	SP / POWERSTEERING

SP REAR HARNESS PHOTO

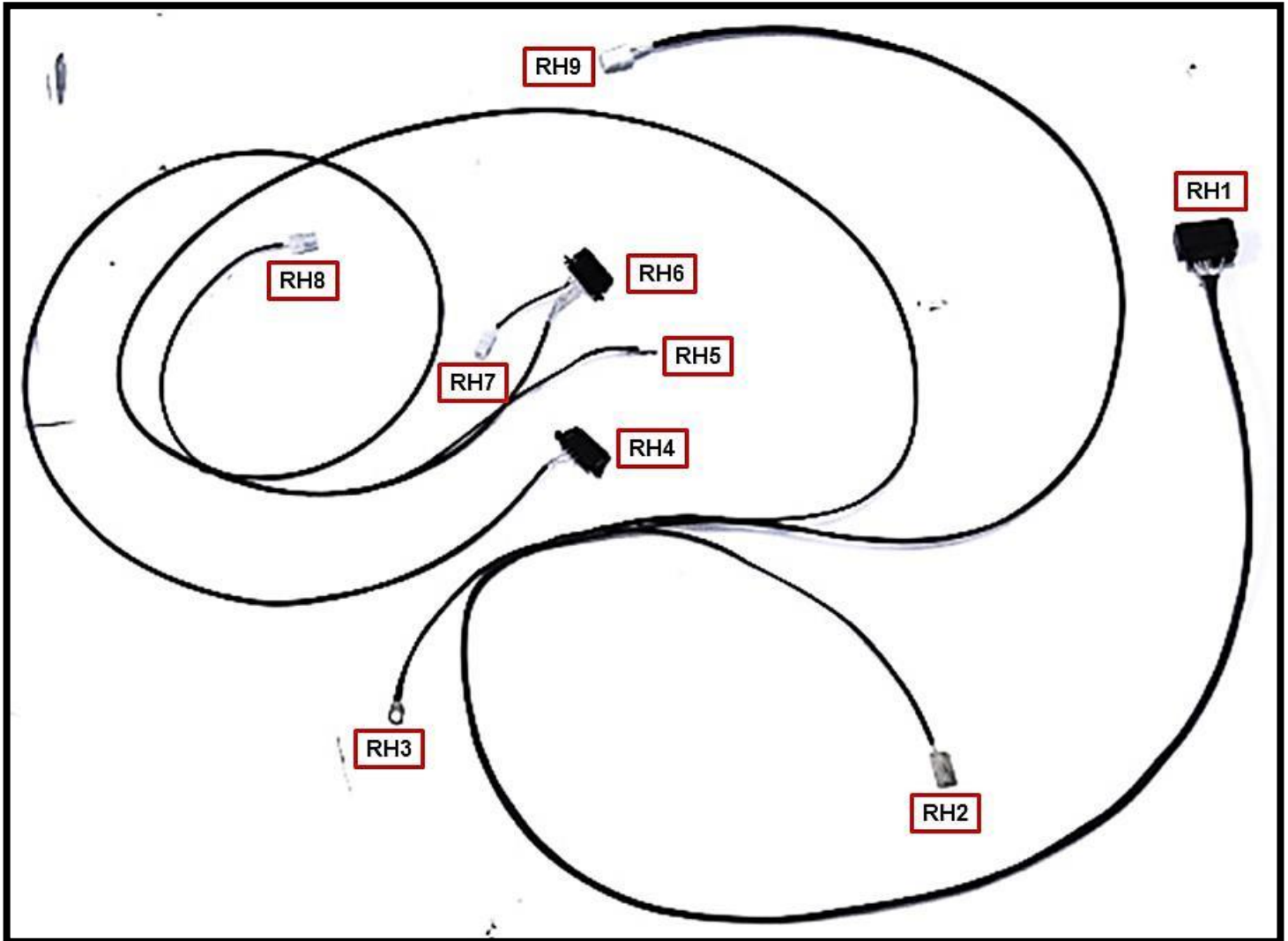


PHOTO 9(A)

SP REAR HARNESS CONNECTOR IDENTIFICATION

<u>NUMBER</u>	<u>CONNECTOR DESCRIPTION</u>
RH1	SP / REAR
RH2	WINDOW WASH BOTTLE
RH3	GROUND LUG A
RH4	RIGHT TAIL LIGHT CONNECTOR
RH5	GROUND LUG B
RH6	LEFT TAIL LIGHT CONNECTOR
RH7	HIGH LEVEL BRAKE LIGHT CONNECTOR
RH8	NUMBER PLATE LIGHT CONNECTOR
RH9	SP / FUEL TANK

FUEL PUMP LOOM PHOTO

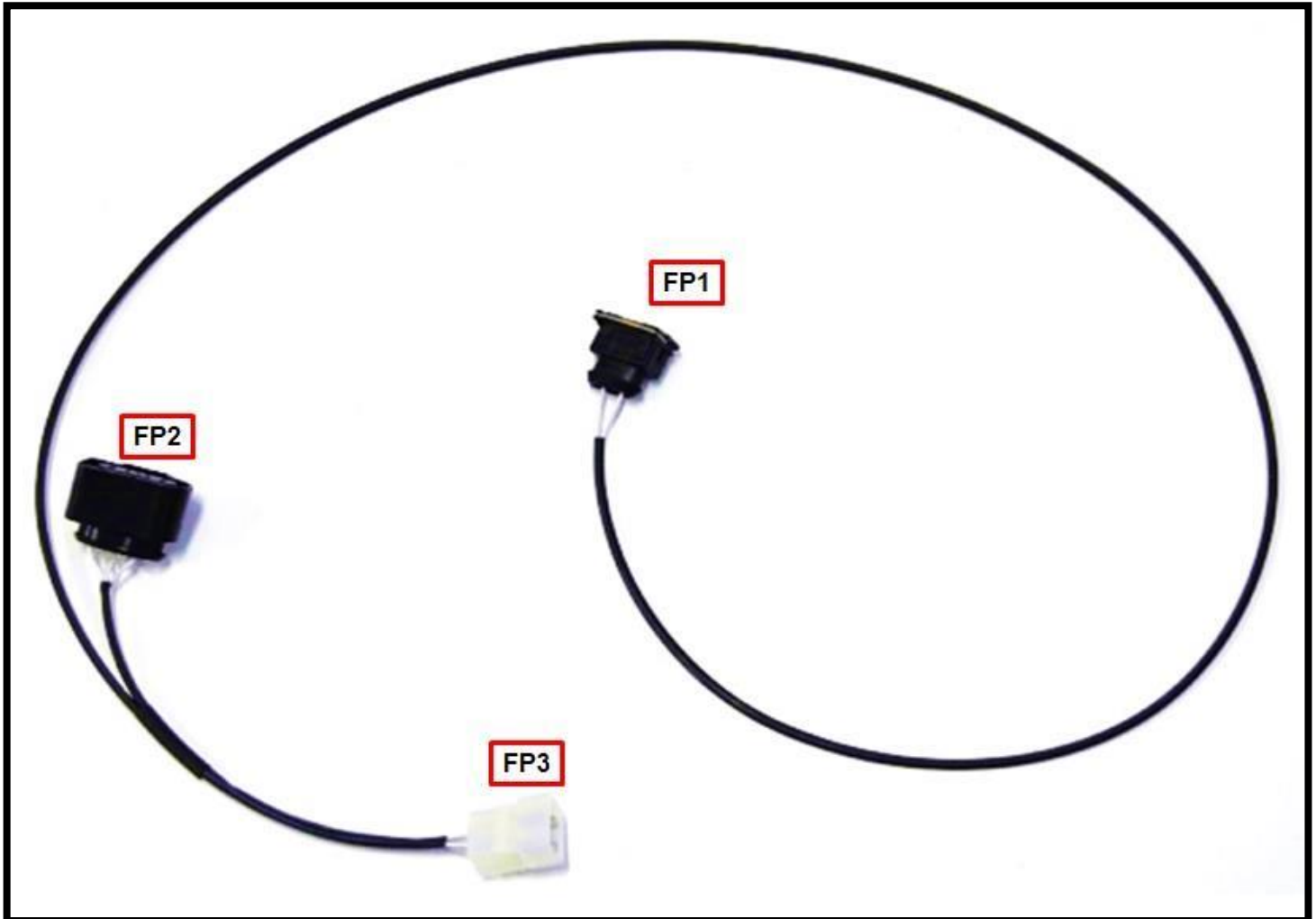


PHOTO 10(A)

FUEL PUMP LOOM CONNECTOR IDENTIFICATION

<u>NUMBER</u>	<u>CONNECTOR DESCRIPTION</u>
FP1	MAIN PUMP CONNECTOR
FP2	LIFT PUMP CONNECTOR
FP3	SP / FUEL TANK

Marque
Make **VOLKSWAGEN**

Modèle
Model **POLO R2**

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HIGH LEVEL BRAKE LIGHT LOOM PHOTO

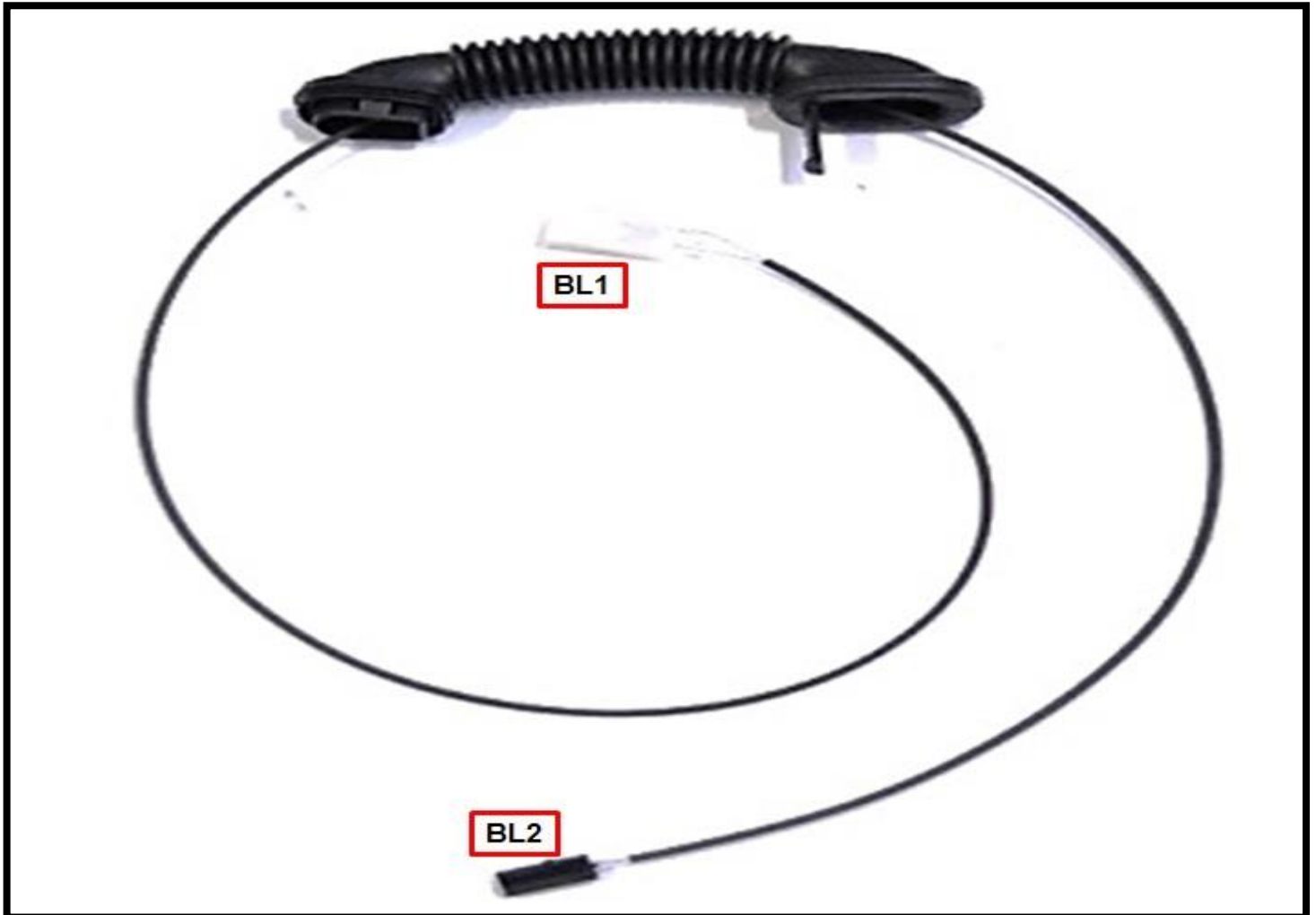


PHOTO 11(A)

HIGH LEVEL BRAKE LIGHT LOOM CONNECTOR IDENTIFICATION

<u>NUMBER</u>	<u>CONNECTOR DESCRIPTION</u>
BL1	SP / HIGH LEVEL BRAKE LIGHT
BL2	HIGH LEVEL BRAKE LIGHT CONNECTOR

NUMBER PLATE LOOM PHOTO



PHOTO 12(A)

NUMBER PLATE LOOM CONNECTOR IDENTIFICATION

<u>NUMBER</u>	<u>CONNECTOR DESCRIPTION</u>
NP1	SP / NUMBER PLATE
NP2	NUMBER PLATE LIGHT CONNECTOR 1
NP3	NUMBER PLATE LIGHT CONNECTOR 2

Marque
Make **VOLKSWAGEN**

Modèle
Model **POLO R2**

Homologation N°

A143/12

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03/03 VO

BATTERY CABLE SET PHOTO

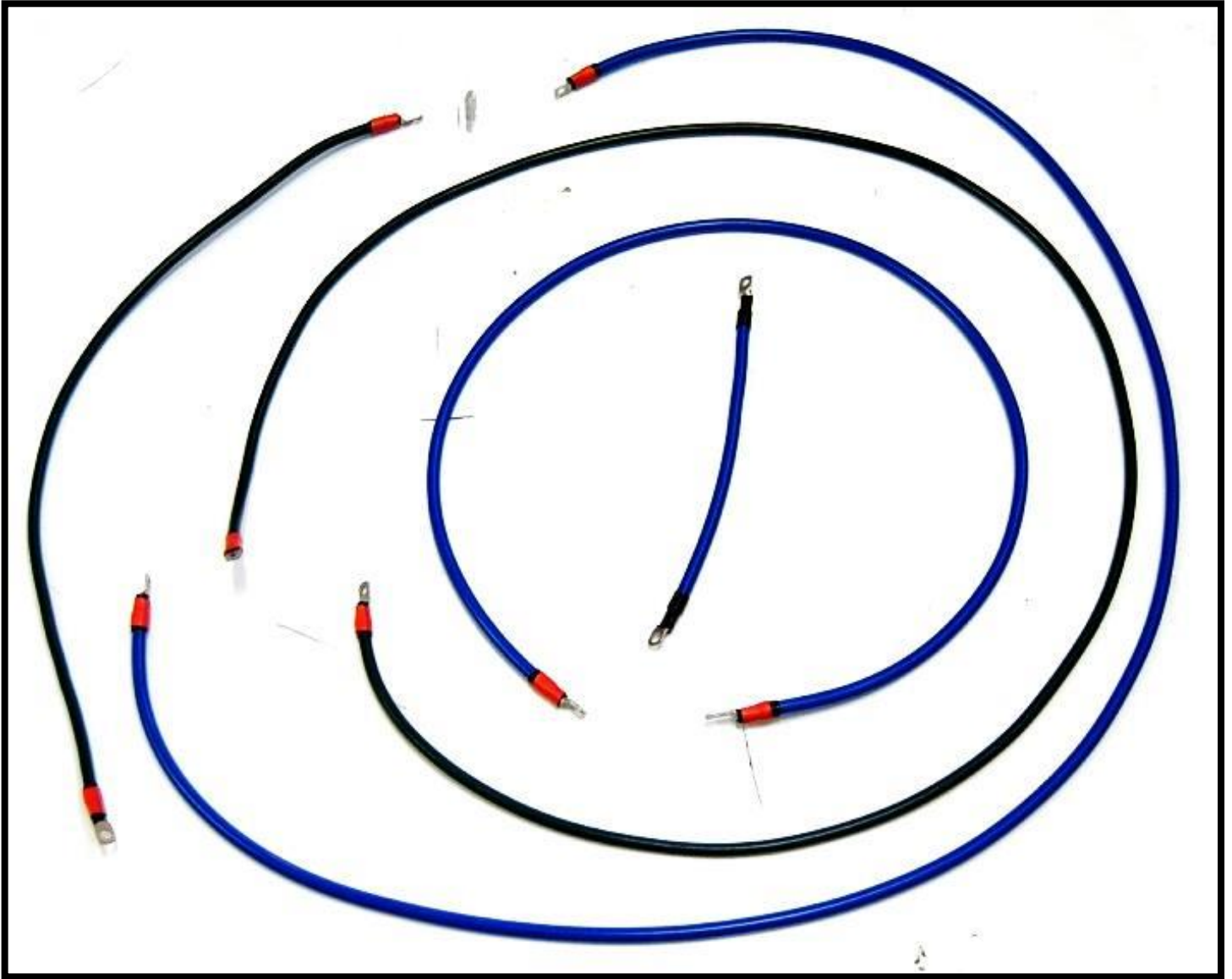


PHOTO 13(A)

CONTROL PANEL PHOTO



PHOTO 14(A)

ELECTRICAL DEVICES MOUNT BRKT



PHOTO 14(B)

CONTROL PANEL DESCRIPTION

1. The Control Panel is a bespoke Switch Panel assembly which is custom made for the car.
2. The Control Panel houses the Electrical Switches for the Ignition, Horn, Spots, Fuel Pumps etc.

ELECTRICAL DEVICES MOUNT BRKT

1. The Mount Bracket is a bespoke Electromechanical assembly which is custom made for the car.
2. The Bracket is mounted underneath the dashboard on the Navigator side.
3. The Mount Bracket main functions are Power Distribution, Circuit Switching and Electrical Over Current Protection.
4. Main components are Switches, Circuit Breakers, Fuses, Relays & the ECU.

COMPLIMENTARY INFORMATION

1. Looms are custom made and no specific material specifications are prescribed.
2. The addition of wiring to incorporate accessories, which are free by regulation, is permitted.
3. The addition of Interface Connectors, to split looms into smaller sub-looms, is permitted as long as the electrical interconnection and functionality is not altered.
4. The addition of sensors and devices for data logging purposes, which are free by regulation, is permitted.
5. Provision is made in the wiring loom for the addition of a 2D CAN Datalogger, which is optional only and does not have to be installed.