

SERVICE MANUAL

VM3080PLUS / VM3090PLUS / VL5060PLUS VL5080PLUS / VL5090PLUS Grape Harvester

Part number 47698613A
English
July 2013



Product: New Holland VM3080PLUS / VM3090PLUS / VL5060PLUS / VL5080PLUS / VL5090PLUS Grape Harvester Service
Full Download: <https://www.arespairmanual.com/downloads/new-holland-vm3080plus-vm3090plus-vl5060plus-vl5080plus-vl5090plus-grape-harvester-service-repair-manual/>



SERVICE MANUAL



VL 5000 PLUS
VM 3000 PLUS

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47698613A 01/04/2014

EN

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SERVICE MANUAL

Electrical systems



**VL 5000 PLUS
VM 3000 PLUS**

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Electrical systems - 55

Electrical system - 000

**VL 5000 PLUS
VM 3000 PLUS**

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Electrical system - Electrical standard

WIRES

Each page (Electrical schematic frame) contains a part of the complete wiring diagram, not necessarily a complete group.

Color code

Coloured wires are used on the machine, each color has its specific signification.

- Red **(RD)** :+ **12 V** which doesn't passes the ignition switch
- Black **(BK)**: directly earthed to the frame
- White **(WH)**: connected with the pin of a switch which engages a system that increases something (e.g. fuel pump)
- Grey **(GY)**: connected with the pin of a switch which disengages a system that decreases something
- Blue **(BL)**: earth of sensors through the monitor
- Green **(GN)**: CAN 1 low
- Orange **(OR)**: **+12 V** which passes the ignition switch
- Yellow **(YE)**: signal, input or output or CAN 1 high
- Purple **(PU)**: lighting
- Pink **(PK)**: reference voltage
- Brown **(BR)**: **24 V** circuit

SYMBOLS

All symbols used in the wiring diagram are drawn according to the DIN 40719 standard and are marked with a letter and a number.

Each letter represents a group of similar components.

The letters used can be found in following list:

Letter	Component	Example
A	Monitors, prints	Radio, CB, displays
B	Commutator from non-electrical into electrical signals, and vice versa	Sensor, horn, sender elements of water, air, oil temperature and pressure, buzzer
C	Condensers	
D	Accumulator equipment	Accumulators
E	Lighting	All lamps, except warning lights, dashboard lights
F	Safety components	All fuses
G	Generators	Battery, alternator
H	Control components	All control lamps
K	Relays	All relays, flasher unit
L	Inductive components	Coils in relays Motors
M	Motors	Variator motors, ventilator, actuators
N	Amplifier, controller	Voltage controller
P	Measuring instrument	Clock, fuel and water temperature gauge
R	Resistances	Potentiometer, preheating
S	Switch	All switches
T	Transformer	Ignition coils
U	Commutator from electrical signals into other electrical signals	Frequence commutator, converter
V	Semi-conductors	Diodes, transistors, thyristors
W	Wiring looms, antennas	CB and radio antenna, coax wires
X	Connectors	All connectors, plugs
Y	Mechanical components electrically energized	Hydraulic valve, electromagnetic clutches, electrical valve on injection pump.
Z	Electrical filter	Suppressor

The letters used can be found in following list:

SYMBOL	DESCRIPTION
	Electrical motor, actuator
	Lamp
	Double-acting lamp
	Diode
	Led (light emitting diode)
	Fuse
	Socket (female)

Electrical systems - Electrical system

SYMBOL	DESCRIPTION
	Plug in (male)
	Automatic fuse
	Buzzer
	Inductive sensor
	Horn
	Ignition switch
	Flashing unit
	Solenoid for control valves
	Battery
	Gauge
	Electromagnetic clutch
	Adjustable resistance
	Bipolar switch
	Loudspeaker
	Alternator
	Wiper motor
	Electrical starter motor
	Normally closed switch, manually controlled
	Normally open switch, mechanical control by pedal
	Normally open switch, mechanically controlled
	Normally open switch, mechanically controlled

SYMBOL	DESCRIPTION
	Normally closed switch, mechanically controlled
	Normally open switch, controlled by a pressure sender
	Normally closed switch, controlled by under-pressure
	Normally closed switch, controlled by over-pressure
	Normally open switch, controlled by a temperature sender
	Normally closed switch, controlled by a level indicator
	Normally open switch, controlled by the grain level indicator
	Relay
	Air conditioning ventilation motor
	Mirror motor

The switches are drawn in the position as they are removed from the machine.

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Harnesses and connectors - 100

**VL 5000 PLUS
VM 3000 PLUS**

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Harnesses and connectors - 100

FUNCTIONAL DATA

Wire harnesses

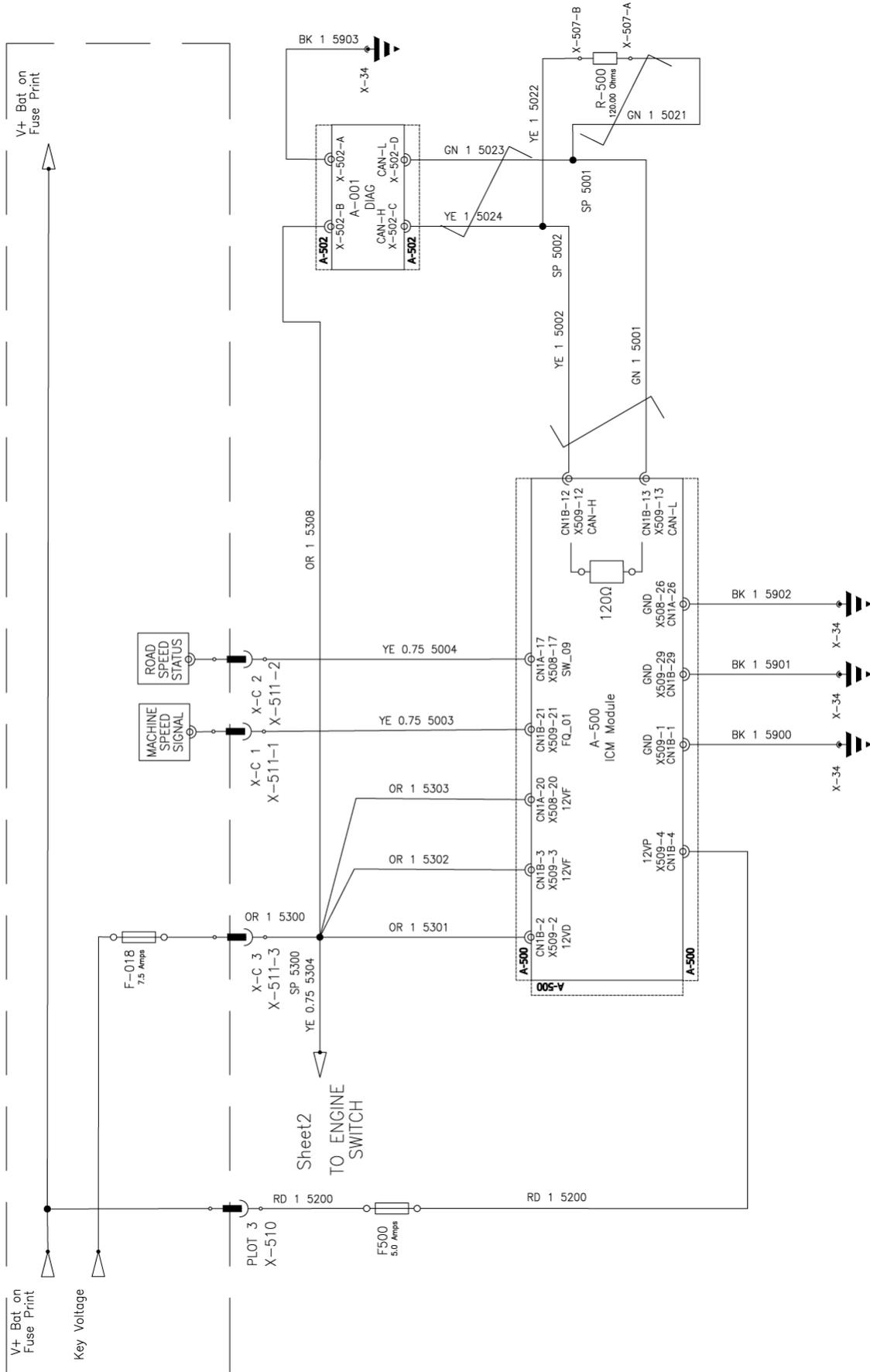
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Wire connectors

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Wire harnesses - Electrical schematic sheet 01

Compo- nents	Description
F-500	Permanent voltage fuse 5 A
F-018	Key voltage fuse 7,5 A
A-500	ICM control module
R-500	Can terminaison resistor 120 Ohm
J-500	Diagnostic outlet

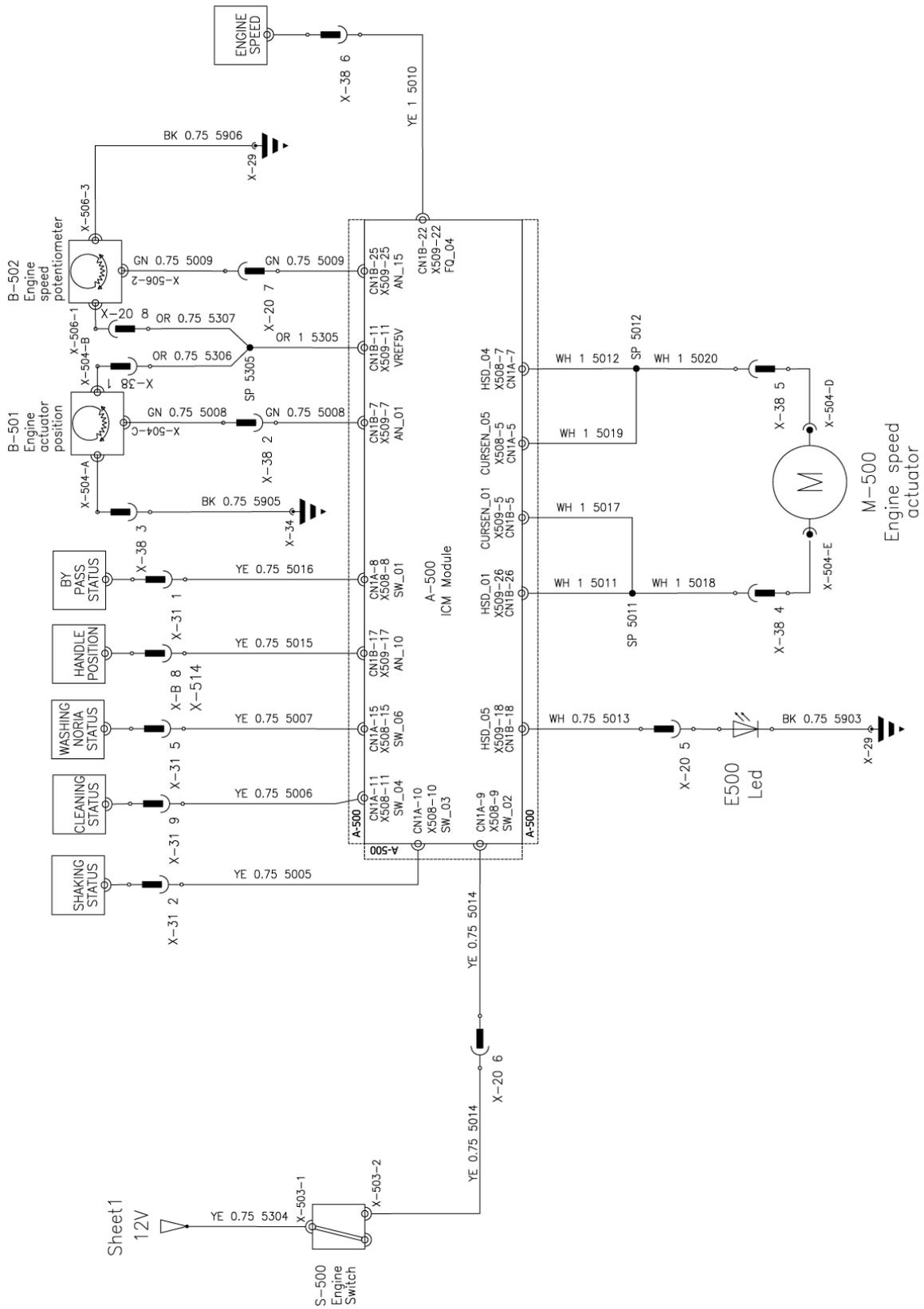


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Wire harnesses - Electrical schematic sheet 02

Compo- nents	Description
E500	Fonctional light
M-500	Engine speed motor
A-500	ICM control module
S-500	Engine switch
B-501	Engine actuator position
B-502	Engine speed potentiometer

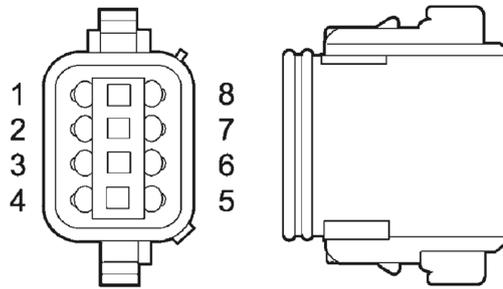


Wire connectors - Component diagram 02

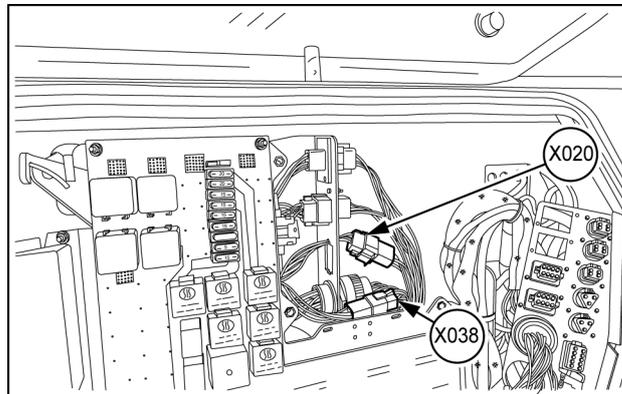
CONNECTOR X020 - JONCTION 2

CONNECTOR X020 - JONCTION 2			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
1	PLUG		
2	PLUG		
3	F225 F9 (RD)		
4	5304 (OR)		Wire harnesses - Electrical schematic sheet 02 (55.100)
5	5013 (WH)		Wire harnesses - Electrical schematic sheet 02 (55.100)
6	5014 (YE)		Wire harnesses - Electrical schematic sheet 02 (55.100)
7	5009 (GN)		Wire harnesses - Electrical schematic sheet 02 (55.100)
8	5307 (OR)		Wire harnesses - Electrical schematic sheet 02 (55.100)

NOTE: For the wiring colour code refer to *Electrical system - Electrical standard (55.000)*.



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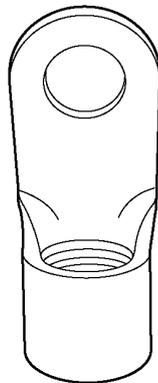
CONNECTOR X020 - JONCTION 2

CONNECTOR X029 - GROUND

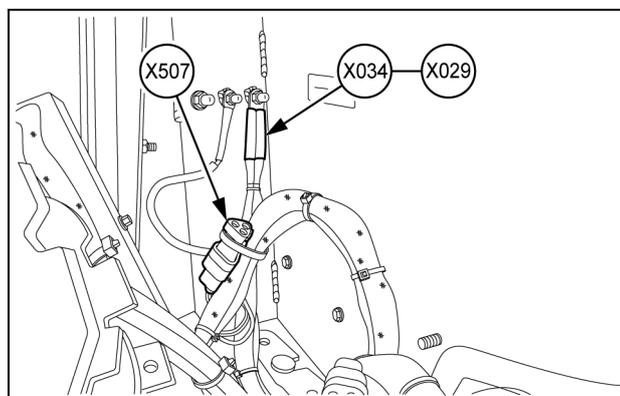
CONNECTOR X029 - GROUND			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
1	F99_E2 (WH)		
1	F99_E3 (WH)		
1	F99_F1 (WH)		

CONNECTOR X029 - GROUND			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
1	F99_G2 (WH)		
1	F99_G3 (WH)		
1	F99_H2 (WH)		
1	F99_H7 (WH)		
1	F99_H8 (WH)		
1	F99_H9 (WH)		
1	F99_I (WH)		
1	F99_I1 (WH)		
1	F99_I2 (WH)		
1	F99_I3 (WH)		
1	F99_I4 (WH)		
1	F99_I5 (WH)		
1	F99_J2 (WH)		
1	F99_J4 (WH)		
1	F99_K4 (WH)		
1	5903 (WH)		Wire harnesses - Electrical schematic sheet 02 (55.100)
1	5906 (WH)		Wire harnesses - Electrical schematic sheet 02 (55.100)

NOTE: For the wiring colour code refer to *Electrical system - Electrical standard (55.000)*.



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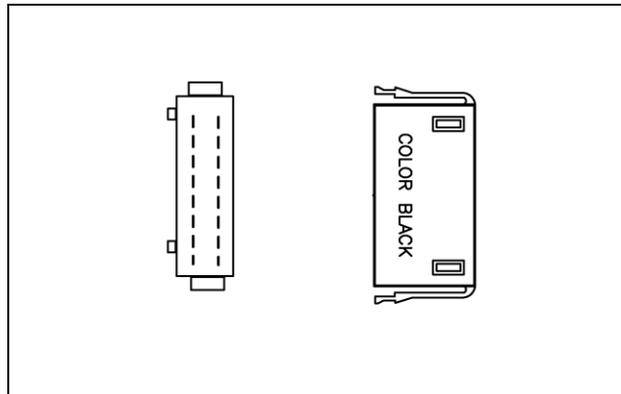
CONNECTOR X029 - GROUND

Wire connectors - Component diagram 03

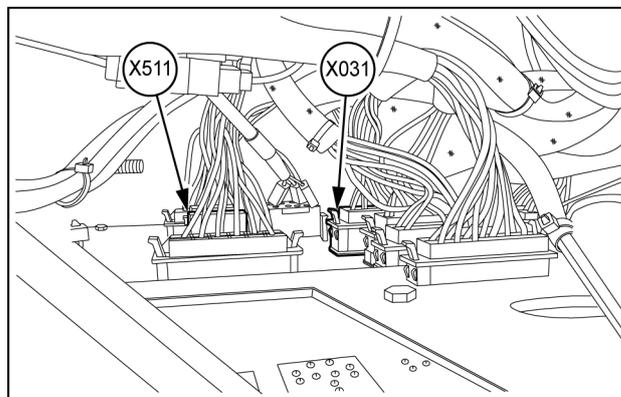
CONNECTOR X031 - ENGINE

CONNECTOR X031 - ENGINE			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
1	5016 (YE)		Wire harnesses - Electrical schematic sheet 02 (55.100)
2	C29_Y8 (RD)		Wire harnesses - Electrical schematic sheet 02 (55.100)
3	C20_Z (RD)		
4	F34_Z6 (OR)		
5	C46_Y9 (YE)		Wire harnesses - Electrical schematic sheet 02 (55.100)
6	F34_Z5 (OR)		
7	C110_Q (BR)		
8	F16C_T5 (BR)		
9	5006 (YE)		Wire harnesses - Electrical schematic sheet 02 (55.100)
10	F16A_T4 (BR)		
11	C111_Q1 (BR)		
12	F16G_Z3 (BR)		

NOTE: For the wiring colour code refer to *Electrical system - Electrical standard (55.000)*.



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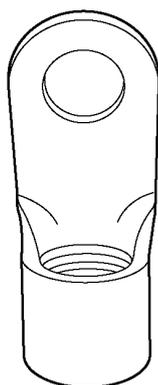
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CONNECTEUR X031 - ENGINE

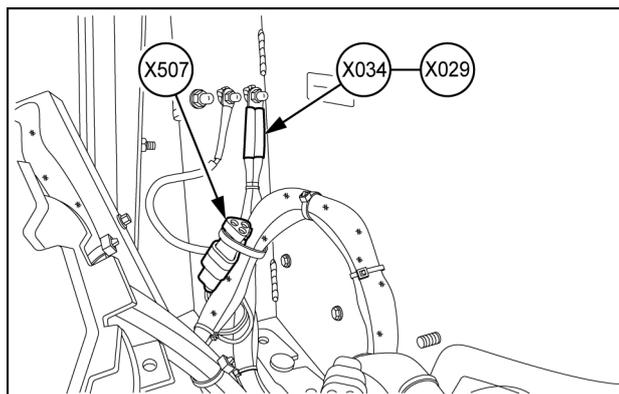
CONNECTOR X034 - GROUND

CONNECTOR X034 - GROUND			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
1	F99_L8 (WH)		
1	F99_L9 (WH)		
1	F99_M (WH)		
1	F99_M1 (WH)		
1	F99_M6 (WH)		
1	F99_M7 (WH)		
1	F99_M8 (WH)		
1	F99_M9 (WH)		
1	F99_N3 (WH)		
1	F99_N5 (WH)		
1	F99_N6 (WH)		
1	F99_N9 (WH)		
1	F99_Z7 (WH)		
1	5900 (WH)	GROUND	Wire harnesses - Electrical schematic sheet 01 (55.100)
1	5901 (WH)	GROUND	Wire harnesses - Electrical schematic sheet 01 (55.100)
1	5902 (WH)	GROUND	Wire harnesses - Electrical schematic sheet 01 (55.100)
1	5903 (WH)	GROUND	Wire harnesses - Electrical schematic sheet 01 (55.100)
1	5905 (WH)	GROUND	Wire harnesses - Electrical schematic sheet 02 (55.100)

NOTE: For the wiring colour code refer to *Electrical system - Electrical standard (55.000)*.



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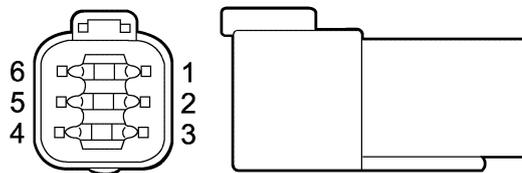
COIL13GR00122AB 4

CONNECTEUR X034 - GROUND

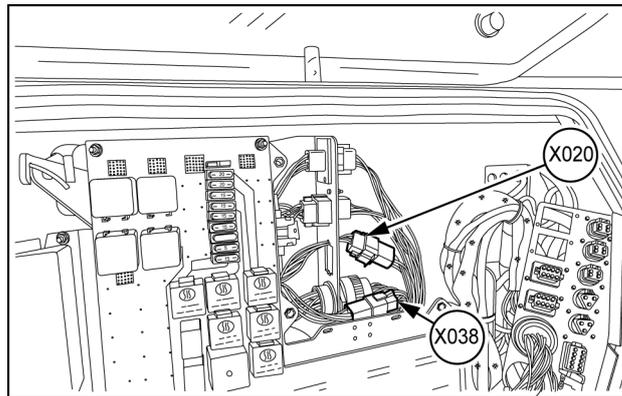
CONNECTOR X038 - ENGINE

CONNECTOR X038 - ENGINE			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
1	5306 (OR)		Wire harnesses - Electrical schematic sheet 02 (55.100)
2	5008 (GN)		Wire harnesses - Electrical schematic sheet 02 (55.100)
3	5905 (BK)		Wire harnesses - Electrical schematic sheet 02 (55.100)
4	5018 (WH)		Wire harnesses - Electrical schematic sheet 02 (55.100)
5	5020 (WH)		Wire harnesses - Electrical schematic sheet 02 (55.100)
6	5010 (YE)		Wire harnesses - Electrical schematic sheet 02 (55.100)

NOTE: For the wiring colour code refer to *Electrical system - Electrical standard (55.000)*.



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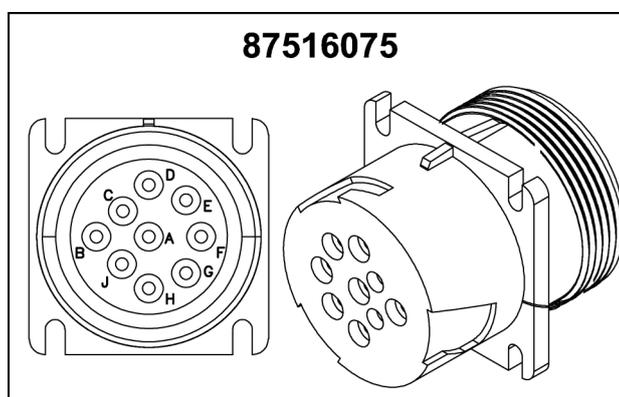
CONNECTEUR X038 - ENGINE

Wire connectors - Component diagram 50

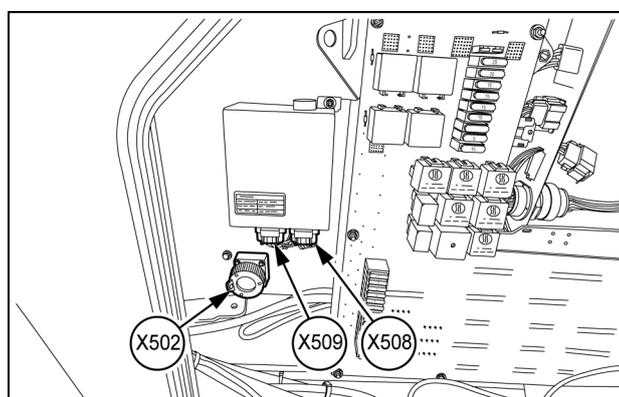
CONNECTOR X502 - ENGINE

CONNECTOR X502 - ENGINE			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
A	5903 (BK)		Wire harnesses - Electrical schematic sheet 01 (55.100)
B	5308 (OR)		Wire harnesses - Electrical schematic sheet 01 (55.100)
C	5024 (YE)		Wire harnesses - Electrical schematic sheet 01 (55.100)
D	5023 (GN)		Wire harnesses - Electrical schematic sheet 01 (55.100)
E	PLUG		
F	PLUG		
G	PLUG		
H	PLUG		
J	PLUG		

NOTE: For the wiring colour code refer to *Electrical system - Electrical standard (55.000)*.



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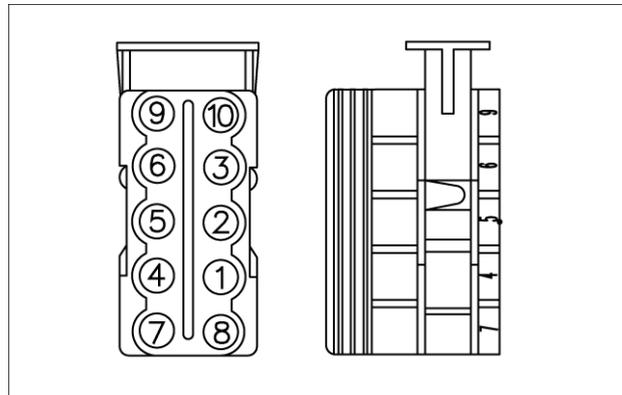
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CONNECTEUR X502 - ENGINE

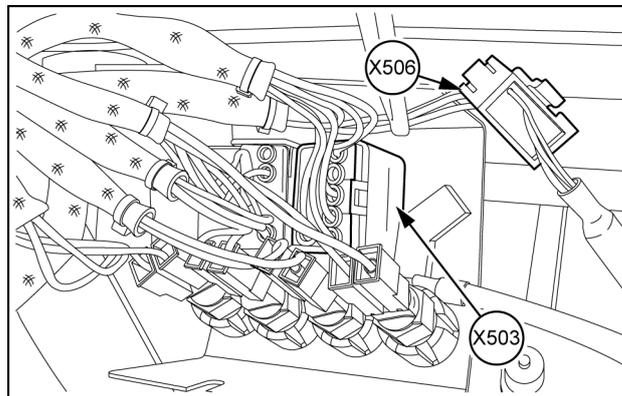
CONNECTOR X503 - SWITCH ENGINE

CONNECTOR X503 - SWITCH ENGINE			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
1	PLUG		
2	PLUG		
3	PLUG		
4	PLUG		
5	5304 (OR)		Wire harnesses - Electrical schematic sheet 02 (55.100)
6	5014 (YE)		Wire harnesses - Electrical schematic sheet 02 (55.100)
7	F99_K4 (WH)		
8	F11_K3 (BR)		
9	5903 (BK)		Wire harnesses - Electrical schematic sheet 02 (55.100)
10	5013 (WH)		Wire harnesses - Electrical schematic sheet 02 (55.100)

NOTE: For the wiring colour code refer to *Electrical system - Electrical standard (55.000)*.



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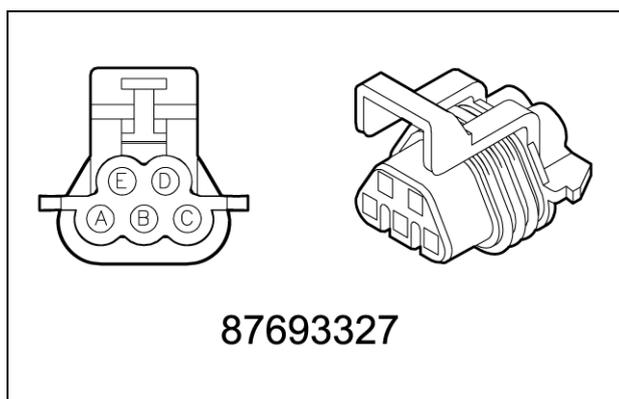
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CONNECTEUR X503 - SWITCH ENGINE

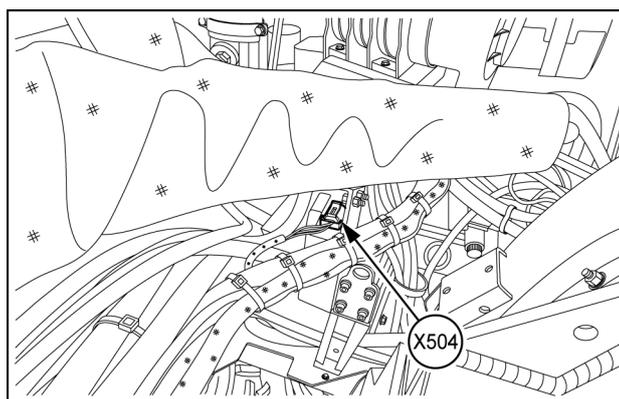
CONNECTOR X504 - ENGINE SPEED MOTOR + ENGINE ACTUATOR POSITION

CONNECTOR X504 - ENGINE SPEED MOTOR + ENGINE ACTUATOR POSITION			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
A	5306 (OR)		Wire harnesses - Electrical schematic sheet 02 (55.100)
B	5905 (BK)		Wire harnesses - Electrical schematic sheet 02 (55.100)
C	5008 (GN)		Wire harnesses - Electrical schematic sheet 02 (55.100)
D	5018 (WH)		Wire harnesses - Electrical schematic sheet 02 (55.100)
E	5020 (WH)		Wire harnesses - Electrical schematic sheet 02 (55.100)

NOTE: For the wiring colour code refer to *Electrical system - Electrical standard (55.000)*.



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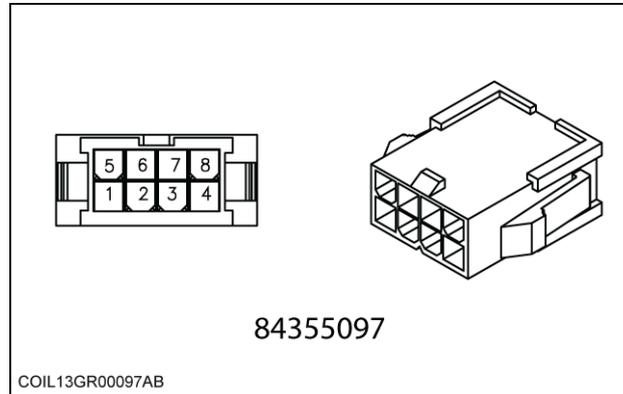
CONNECTEUR X504 - ENGINE SPEED MOTOR + ENGINE ACTUATOR POSITION

CONNECTOR X506 - ENGINE SPEED POTENTIOMETER

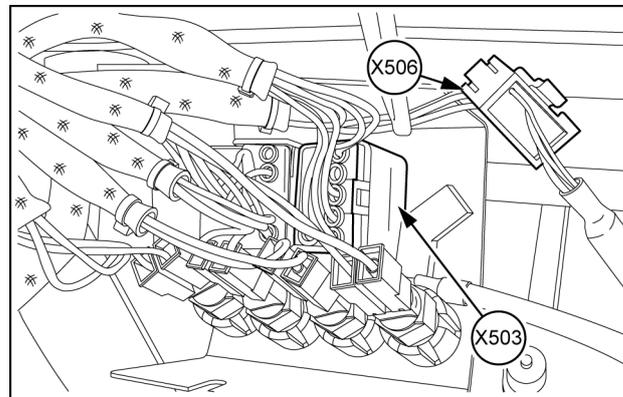
CONNECTOR X506 - ENGINE SPEED POTENTIOMETER			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
1	5009 (GN)		Wire harnesses - Electrical schematic sheet 02 (55.100)
2			
3			
4			
5			
6			

CONNECTOR X506 - ENGINE SPEED POTENTIOMETER			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
7	5906 (BK)		Wire harnesses - Electrical schematic sheet 02 (55.100)
8	5307 (OR)		Wire harnesses - Electrical schematic sheet 02 (55.100)

NOTE: For the wiring colour code refer to *Electrical system - Electrical standard (55.000)*.



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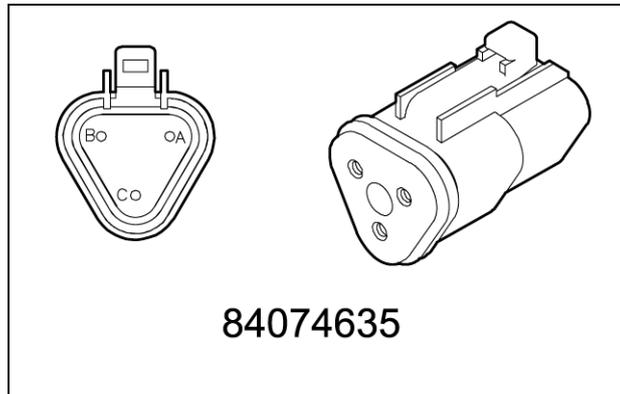
COIL13GR00123AB 8

CONNECTOR X506 - ENGINE SPEED POTENTIOMETER

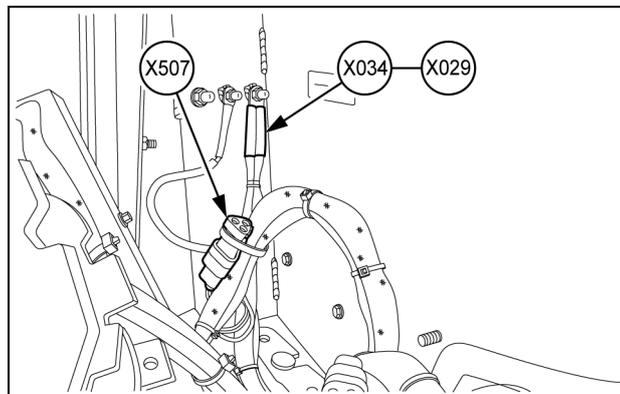
CONNECTOR X507 - CAN TERMINAISON RESISTOR 120 OHM

CONNECTOR X507 - CAN TERMINAISON RESISTOR 120 OHM			
PIN NUMBER	WIRE NUMBER	CIRCUIT REFERENCE	ELECTRICAL SCHEMATIC FRAME
A	5021 (GN)		Wire harnesses - Electrical schematic sheet 01 (55.100)
B	5022 (YE)		Wire harnesses - Electrical schematic sheet 01 (55.100)
C	PLUG		

NOTE: For the wiring colour code refer to *Electrical system - Electrical standard (55.000)*.



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CONNECTOR X507 - CAN TERMINAISON RESISTOR 120 OHM