SERVICE MANUAL

H8060 / H8080

Self-Propelled Windrower

from PIN YCG667001 and above

Part number 47487696
1st edition English
January 2013

MidWestTech | New Holland H8060, H8080 Self-Propelled Windrower Service Manual | Publication 47487696

Order the manual at mid-west-tech.com >

Contents

INTRODUCTION

Engine 10

[10.001] Engine and crankcase 10.1

[10.202] Air cleaners and lines 10.2

[10.206] Fuel filters 10.3

[10.216] Fuel tanks 10.4

[10.218] Fuel injection system 10.5

[10.254] Intake and exhaust manifolds and muffler 10.6

[10.400] Engine cooling system 10.7

Front axle system 25

[25.310] Final drives 25.1

Rear axle system 27

[27.550] Non-powered rear axle 27.1

Hydrostatic drive 29

[29.100] Transmission and steering hydrostatic control 29.1

[29.202] Hydrostatic transmission 29.2

[29.218] Pump and motor components 29.3

Power Take-Off (PTO) 31

[31.226] Hydraulic pump drive 31.1

Brakes and controls 33

[33.110] Parking brake / Parking lock 33.1

Hydraulic systems 35

[35.000] Hydraulic systems 35.1

[35.102] Pump control valves 35.2

[35.104] Fixed displacement pump 35.3

[35.105] Charge pump 35.4

MidWestTech | New Holland H8060, H8080 Self-Propelled Windrower Service Manual |... Order the manual at mid-west-tech.com >

[35.300] Reservoir, cooler, and filters 35.5
[35.565] Cutter control circuit 35.6
[35.910] Draper header hydraulic drive 35.7
Steering 41
[41.101] Steering control 41.1
Wheels 44
[44.520] Rear wheels 44.1
Cab climate control 50
[50.100] Heating 50.1
[50.104] Ventilation 50.2
[50.200] Air conditioning 50.3
Electrical systems 55
[55.000] Electrical system 55.1
[55.010] Fuel injection system 55.2
[55.013] Engine oil system 55.3
[55.014] Engine intake and exhaust system 55.4
[55.015] Engine control system 55.5
[55.019] Hydrostatic drive control system 55.6
[55.031] Parking brake electrical system 55.7
[55.050] Heating, Ventilation, and Air-Conditioning (HVAC) control system 55.8
[55.051] Cab Heating, Ventilation, and Air-Conditioning (HVAC) controls 55.9
[55.100] Harnesses and connectors 55.10
[55.201] Engine starting system 55.11
[55.202] Cold start aid 55.12
[55.404] External lighting 55.13
[55.512] Cab controls 55.14
[55.518] Wiper/Washer system 55.15
[55.520] Cab harvesting controls 55.16

MidWestTech | New Holland H8060, H8080 Self-Propelled Windrower Service Manual |... Order the manual at mid-west-tech.com >

[55.634] Merger electrical control system 55.17
[55.661] Cab header controls..... 55.18
[55.662] Header height control 55.19
[55.830] Rotary screen drive and cleaning 55.20
[55.DTC] FAULT CODES..... 55.21
Attachments/Headers..... 58
[58.110] Attachment/Header cutting mechanism 58.1
[58.130] Attachment/Header frame..... 58.2
Platform, cab, bodywork, and decals 90
[90.124] Pneumatically-adjusted operator seat..... 90.1
[90.150] Cab..... 90.2
[90.151] Cab interior..... 90.3
[90.154] Cab doors and hatches 90.4

MidWestTech | New Holland H8060, H8080 Self-Propelled Windrower Service Manual |... Order the manual at mid-west-tech.com >

S-042

Topic	Reference
Name	Hazard switch
Frame	**Wire harnesses - Electrical schematic frame 37 - Lighting & Horn System (55.100)**
Connector	X-259
Technical	
Functional	
Diagnostic	
Service	

S-043

Topic	Reference
Name	Fuel door light switch
Frame	**Wire harnesses - Electrical schematic frame 42 - Lighting System (55.100)**
Connector	**X-196, X-345**
Technical	
Functional	
Diagnostic	
Service	

S-049

Topic	Reference
Name	Multi-function handle (MFH) NH
Frame	**Wire harnesses - Electrical schematic frame 38 - Hydraulic Monitoring & MFH System (55.100)**
Connector	**X-066**
Technical	
Functional	
Diagnostic	
Service	

S-050

Topic	Reference
Name	Draper speed switch
Frame	**Wire harnesses - Electrical schematic frame 14 - Draper Header System (55.100)**
Connector	**X-121**
Technical	
Functional	
Diagnostic	
Service	

S-051

Topic	Reference
Name	Multifunction handle (MFH) CIH
Frame	**Wire harnesses - Electrical schematic frame 38 - Hydraulic Monitoring & MFH System (55.100)**
Connector	**X-066**
Technical	
Functional	
Diagnostic	
Service	

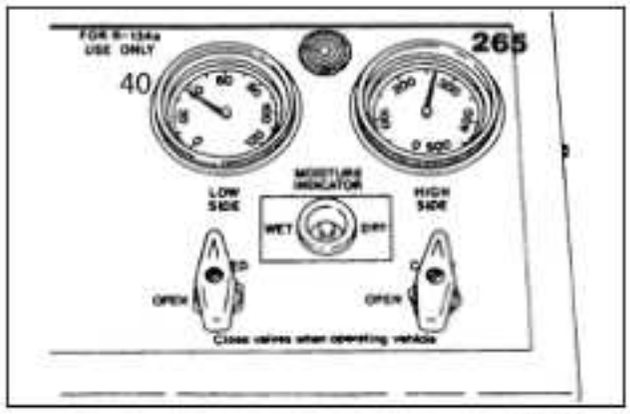
MidWestTech | New Holland H8060, H8080 Self-Propelled Windrower Service Manual |... Order the manual at mid-west-tech.com >

Air-conditioning switch panel - Test Manifold Gauge Reading and Interpretations

EXAMPLE 7

Symptoms

1. Insufficient or no cooling.
2. Low side pressure is too high. The gauge should read **21 - 207 kPa (3 - 30 psi)**.
3. High side pressure is too high. See the pressure-temperature chart for the correct gauge readings.



DIAGNOSIS: Air in system. This, and the moisture in the air, contaminates the refrigerant, causing the system to malfunction.

Corrective Procedures

1. Extract the refrigerant from the system.
2. Replace the receiver/drier.
3. Evacuate the system.
4. Charge the system.
5. Performance test the system.

NOTE: *Test procedure based upon ambient temperature of* ***35 °C (95 °F)****. For proper high side gauge reading for other ambient temperatures, refer to the pressure-temperature chart.*

Ambient Temperature* °C (°F)	High-Pressure Gauge Reading kpa (psi)
21 °C (70 °F)	786 - 924 kPa (114 - 134 psi)
24 °C (75 °F)	869 - 1007 kPa (126 - 146 psi)
26 °C (80 °F)	972 - 1110 kPa (141 - 161 psi)
29.5 °C (85 °F)	1096 - 1234 kPa (159 - 179 psi)
32 °C (90 °F)	1158 - 1296 kPa (168 - 188 psi)
35 °C (95 °F)	1248 - 1386 kPa (181 - 201 psi)
38 °C (100 °F)	1386 - 1524 kPa (201 - 221 psi)
40.5 °C (105 °F)	1503 - 1641 kPa (218 - 238 psi)
43 °C (110 °F)	1696 - 1834 kPa (246 - 266 psi)
46 °C (115 °F)	1910 - 2048 kPa (277 - 297 psi)
49 °C (120 °F)	2117 - 2255 kPa (307 - 327 psi)

MidWestTech | New Holland H8060, H8080 Self-Propelled Windrower Service Manual |... Order the manual at mid-west-tech.com >

E0559-03- Torque Limitation Due to Engine Protection (Against Excessive Torque, Engine Overspeed & Overheat) - Shorted to high source

[YCG667001-], [YCG667001-]

Control Module : ECU

Context:
The engine fault code indicates that the Engine Control Module **A-003** has detected an active power reduction due to engine mechanics protection.

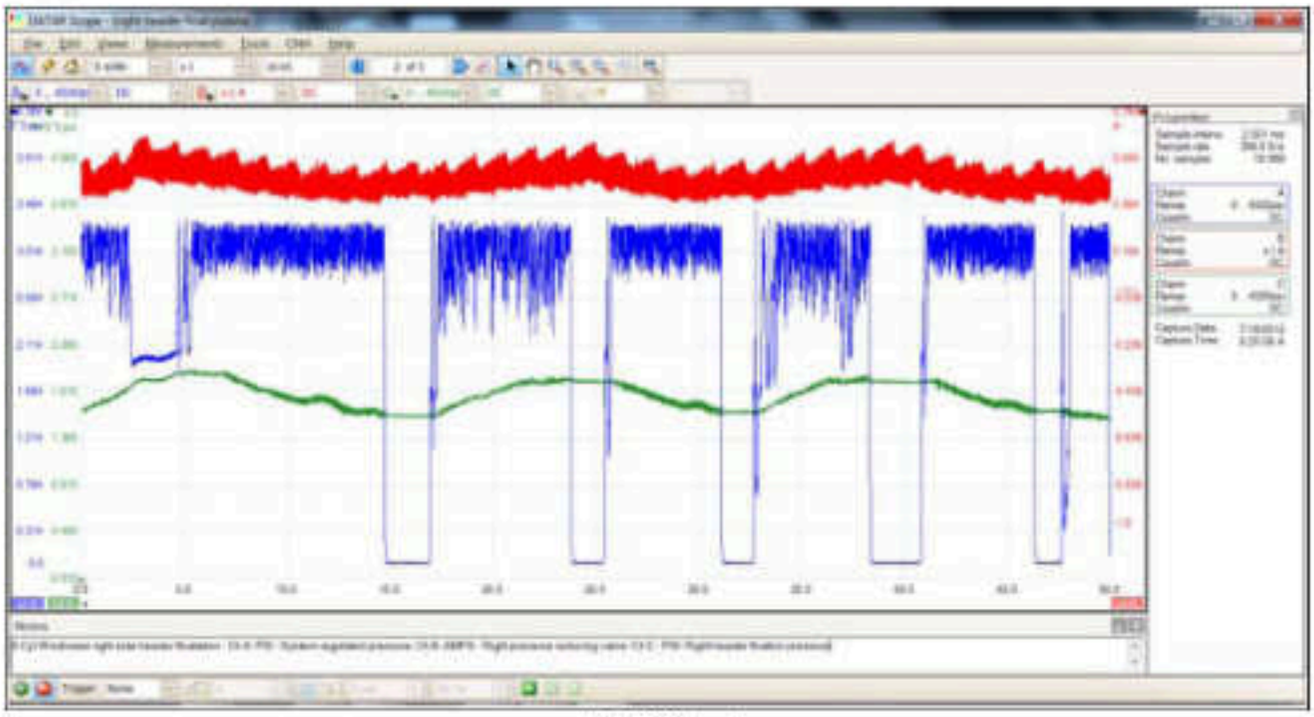
Cause:
This error is for informational purposes and is initiated by a power reduction due to engine mechanics protection being active causing a torque limitation greater than **25 %** of the desired torque for longer than **60 s** and is reset once the torque limitation due to engine mechanics protection is less than **25 %** of the desired torque over **10 s**.

Solution:

1. Though no action is necessary due to this error, if the power reduction occurred due to an actual defect, the error triggering the torque limitation should also be in fault memory. Follow the troubleshooting procedure for that error.

MidWestTech | New Holland H8060, H8080 Self-Propelled Windrower Service Manual |... Order the manual at mid-west-tech.com >

Results:



NHL12WRC1054AA 4

Figure A

- The amp reading varies from **0.3 - 0.5 A** as the pressure on the right flotation circuit varies from approximately **1400 - 1900 psi**.

  NOTE: *These results will vary with the type of header and the width of the header being used.*

- The system pressure cycles to high pressure standby of **3200 psi** back to **0 psi** as the adjustments are made. This pressure is controlled by a master valve that must activate to provide oil to the right header flotation solenoid Y-001 (**L-01**).

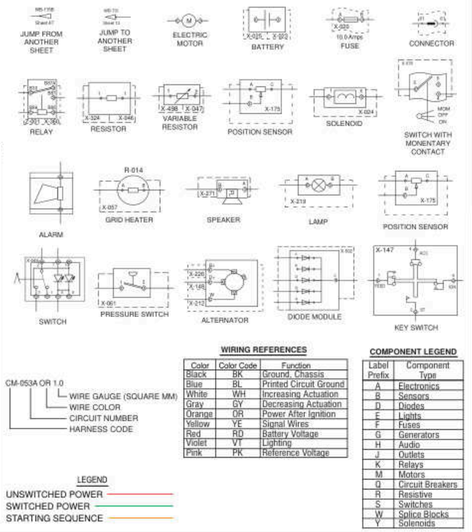
MidWestTech | New Holland H8060, H8080 Self-Propelled Windrower Service Manual |... Order the manual at mid-west-tech.com >

H8060 and H8080 DRAPER EQUIPPED SELF-PROPELLED WINDROWERS
47484284
ELECTRICAL SCHEMATIC, NORTH AMERICA
MODEL YEAR 2013 PRODUCTION

Page 5 of 8

SCHEMATIC SHEET INDEX

Component	Page/Sheet	Component	Page/Sheet
STARTING	Page 1, Sheet 1	GROUNDS	Page 4, Sheet 32
STARTING	Page 1, Sheet 2	GROUNDS	Page 4, Sheet 33
POWER DISTRIBUTION	Page 1, Sheet 3	SIGNAL DISTRIBUTION	Page 4, Sheet 35
ENGINE MONITORING	Page 1, Sheet 4	DRIVELINE - PROPULSION	Page 4, Sheet 36
ENGINE MONITORING	Page 1, Sheet 5	LIGHTS AND HORN	Page 4, Sheet 37
DRIVELINE - PROPULSION	Page 1, Sheet 7	HYDRAULIC MONITORING AND MFH	Page 4, Sheet 39
DRIVELINE - PROPULSION	Page 1, Sheet 8	LIGHTING	Page 5, Sheet 40
DRIVELINE - PROPULSION	Page 1, Sheet 9	LIGHTING	Page 5, Sheet 41
HEADER PTO	Page 2, Sheet 10	LIGHTING	Page 5, Sheet 42
DRAPER HEADER	Page 2, Sheet 11	LIGHTING	Page 5, Sheet 43
WINDROW MERGER	Page 2, Sheet 12	LIGHTING AND CAB DOOR	Page 5, Sheet 44
COLD START - GRID HEATER	Page 2, Sheet 13	ATC TEMPERATURE CONTROL	Page 5, Sheet 45
DRAPER HEADER	Page 2, Sheet 14	MANUAL TEMPERATURE CONTROL	Page 5, Sheet 46
HEADER REEL	Page 2, Sheet 15	INTAKE AIR PRESSURIZATION	Page 5, Sheet 47
DRAPER REEL	Page 2, Sheet 17	HVAC	Page 6, Sheet 48
HEADER TILT	Page 2, Sheet 18	HEADER	Page 6, Sheet 49
HEADER TILT	Page 2, Sheet 19	SIGNAL DISTRIBUTION	Page 6, Sheet 50
COMMUNICATION NETWORK	Page 3, Sheet 20	HEADER FLOTATION	Page 6, Sheet 52
WINDSHIELD WASHER AND MIRRORS	Page 3, Sheet 21	ENGINE MONITORING	Page 8, Sheet 53
WINDROW SHIELDS	Page 3, Sheet 22	POWER-TAKE OFF (PTO)	Page 6, Sheet 54
SCREEN CLEANER AND SEAT	Page 3, Sheet 23	POWER DISTRIBUTION	Page 6, Sheet 55
RADIO	Page 3, Sheet 24	POWER DISTRIBUTION	Page 6, Sheet 56
WINDSHIELD WIPER, POWER JACKS & BEACON	Page 3, Sheet 25	POWER DISTRIBUTION	Page 6, Sheet 57
POWER JACKS	Page 3, Sheet 26	POWER DISTRIBUTION	Page 7, Sheet 58
WINDSHIELD WIPER	Page 3, Sheet 27	POWER DISTRIBUTION	Page 7, Sheet 59
SIGNAL DISTRIBUTION	Page 3, Sheet 28	POWER DISTRIBUTION	Page 7, Sheet 60
GROUNDS	Page 4, Sheet 29	POWER DISTRIBUTION	Page 7, Sheet 61
GROUNDS	Page 4, Sheet 30	POWER DISTRIBUTION	Page 7, Sheet 62
GROUNDS	Page 4, Sheet 31		

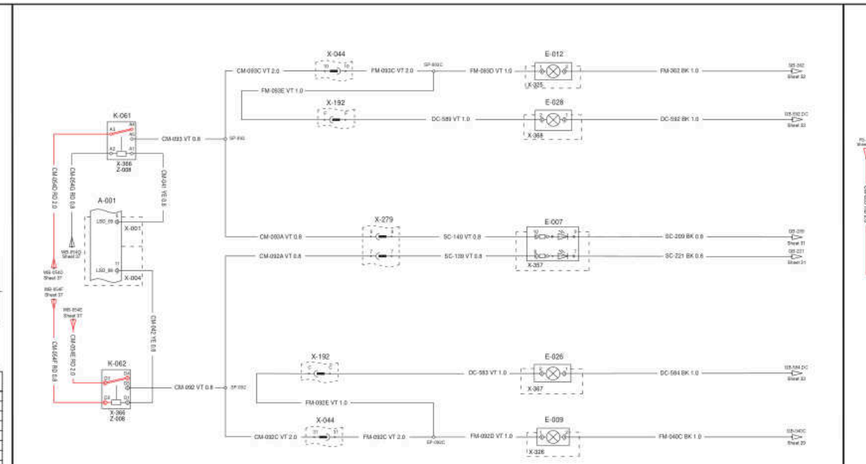


WIRING REFERENCES

Color	Color Code	Function
Black	BK	Ground, Chassis
Blue	BL	Printed Circuit Ground
White	WH	Increasing Actuation
Gray	GY	Decreasing Actuation
Orange	OR	Power After Ignition
Yellow	YE	Signal Wires
Red	RD	Battery Voltage
Violet	VT	Lighting
Pink	PK	Reference Voltage

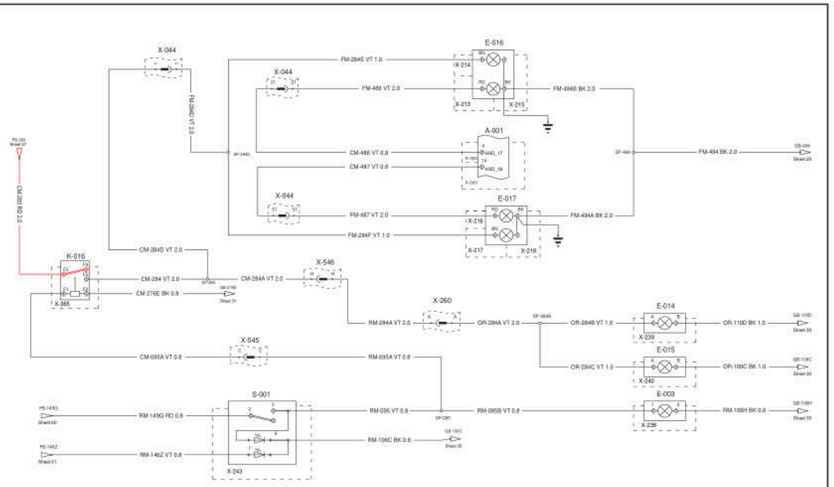
COMPONENT LEGEND

Label Prefix	Component Type
A	Electronics
B	Sensors
D	Diodes
E	Lights
F	Fuses
G	Generators
H	Audio
J	Outlets
K	Relays
M	Motors
Q	Circuit Breakers
R	Resistive
S	Switches
W	Splice Blocks
Y	Solenoids



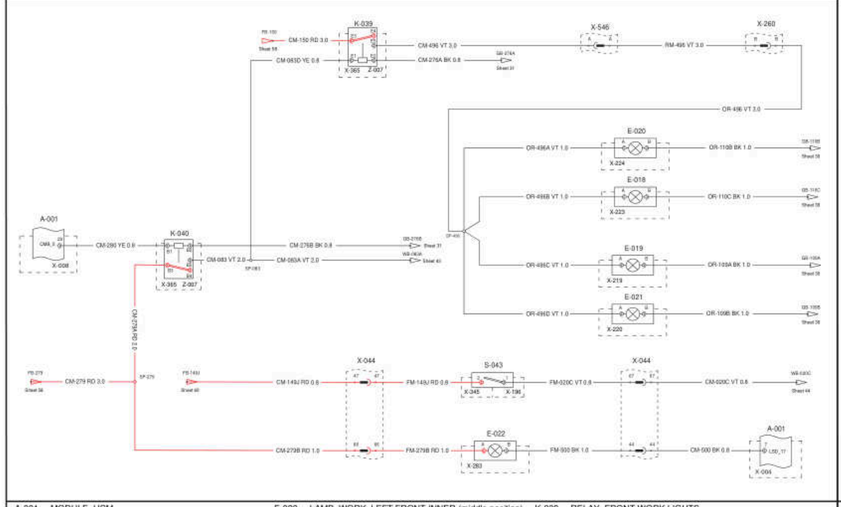
E-007 LAMP, INDICATOR, FLASHING
E-009 LAMP, BASE UNIT, FLASHING, LEFT
E-012 LAMP, BASE UNIT, FLASHING, RIGHT
E-026 LAMP, HEADER, FLASHING, LEFT
E-028 LAMP, HEADER, FLASHING, RIGHT
K-062 RELAY, FLASHING LIGHT, LH
K-061 RELAY, FLASHING LIGHT, RH

SHEET 40 - LIGHTING



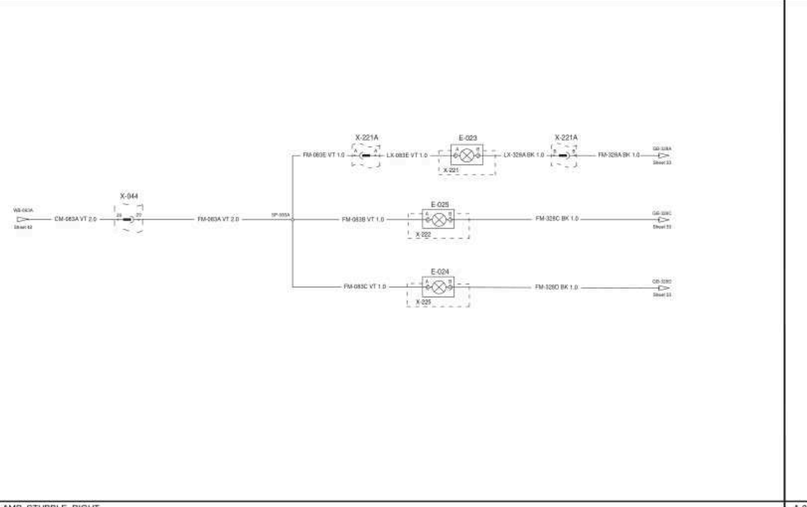
A-001 MODULE, UCM
E-003 LAMP, CONSOLE
E-014 LAMP, ROAD, LEFT (inner position)
E-015 LAMP, ROAD, RIGHT (inner position)
E-016 LAMP, BASE UNIT TAIL, LEFT
E-017 LAMP, BASE UNIT TAIL, RIGHT
K-016 RELAY, ROAD LIGHTS
S-001 SWITCH, LIGHTS, ROAD

SHEET 41 - LIGHTING



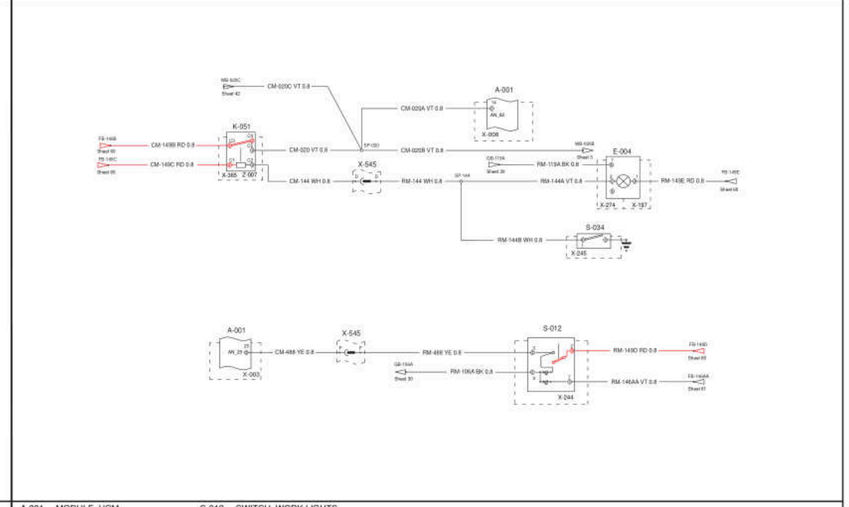
A-001 MODULE, UCM
E-018 LAMP, WORK, LEFT FRONT OUTER (outer position)
E-019 LAMP, WORK, RIGHT FRONT OUTER (outer position)
E-020 LAMP, WORK, LEFT FRONT INNER (middle position)
E-021 LAMP, WORK, RIGHT FRONT INNER (middle position)
E-022 LAMP, STUBBLE, LEFT
K-039 RELAY, FRONT WORK LIGHTS
K-040 RELAY, REAR WORK LIGHTS
S-043 SWITCH, FUEL DOOR LIGHT

SHEET 42 - LIGHTING



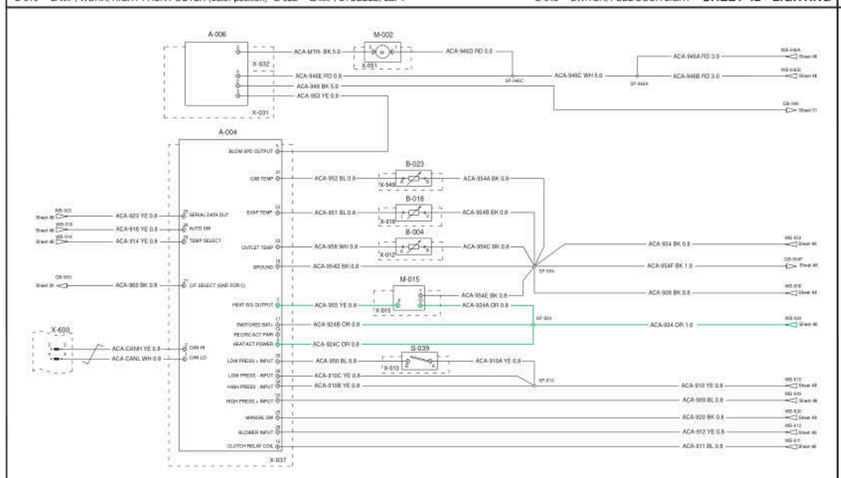
E-023 LAMP, STUBBLE, RIGHT
E-024 LAMP, WORK, LEFT REAR
E-025 LAMP, WORK, RIGHT REAR

SHEET 43 - LIGHTING



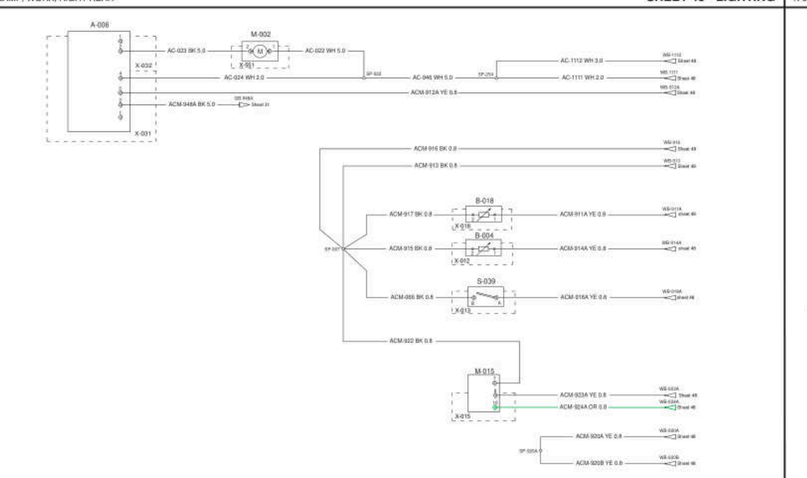
A-001 MODULE, UCM
E-004 LAMP, DOME
K-051 RELAY, DOOR SWITCH
S-012 SWITCH, WORK LIGHTS
S-034 SWITCH, CAB DOOR

SHEET 44 - LIGHTING & CAB DOOR



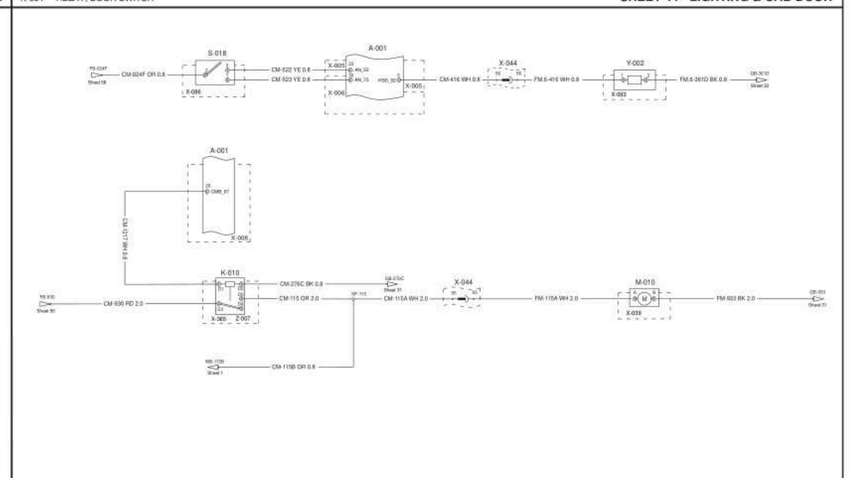
A-004 MODULE, ATC
A-006 MODULE, BLOWER SPEED
B-004 SENSOR, TEMPERATURE, OUTLET
B-018 SENSOR, TEMPERATURE, EVAPORATOR
B-023 SENSOR, TEMPERATURE, CAB
M-002 MOTOR, BLOWER
M-015 MOTOR, ATC WATER VALVE
S-039 SWITCH, LOW PRESSURE, ATC

SHEET 45 - ATC TEMPERATURE CONTROL



A-006 MODULE, BLOWER SPEED
B-004 SENSOR, TEMPERATURE, OUTLET
B-018 SENSOR, TEMPERATURE, EVAPORATOR
M-002 MOTOR, BLOWER
M-015 MOTOR, ATC WATER VALVE
S-039 SWITCH, LOW PRESSURE, ATC

SHEET 46 - MANUAL TEMPERATURE CONTROL



A-001 MODULE, UCM
K-010 RELAY, PRESSURIZATION FAN
M-010 MOTOR, INTAKE AIR PRESSURIZATION
S-018 SWITCH, HEADER TRIM, LEFT
Y-002 SOLENOID, HEADER FLOTATION, LEFT

SHEET 47 - INTAKE AIR PRESSURIZATION

Order the manual at mid-west-tech.com >