SERVICE MANUAL

P2070

Precision Air Hoe Drill

Part number 84425026
2nd edition English
April 2011
Replaces part number 87492450

MidWestTech | New Holland P2070 Precision Air Hoe Drill Service Manual | Publication 84425026

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

Contents

INTRODUCTION

HYDRAULIC, PNEUMATIC, ELECTRICAL, ELECTRONIC SYSTEMS A

PRIMARY HYDRAULIC POWER SYSTEM A.10.A

LIGHTING SYSTEM A.40.A

ELECTRONIC SYSTEM A.50.A

FAULT CODES A.50.A

AXLES, BRAKES AND STEERING ..... D

FRONT AXLE D.10.A

WHEELS AND TRACKS Wheels D.50.C

FRAME AND CAB ..... E

FRAME Primary frame E.10.B

FRAME POSITIONING ..... F

TRAVELLING Folding F.10.E

FRAME LEVELLING F.30.A

FIELD PROCESSING L

SEEDING Mechanical system L.10.B

SEEDING Electronic system L.10.C

SEEDING Air system L.10.E

SOIL PREPARATION Planting L.50.D

MidWestTech | New Holland P2070 Precision Air Hoe Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

Contents

INTRODUCTION

Advice 3
Foreword 4
FRAME - Safety signs 8
Basic instructions 16
Torque 18
Torque – Hydraulic Tubes and Fittings 20
Dimension 21
Weight 23
Product identification 24
Product identification 25

MidWestTech | New Holland P2070 Precision Air Hoe Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

Contents

HYDRAULIC, PNEUMATIC, ELECTRICAL, ELECTRONIC SYSTEMS - A

PRIMARY HYDRAULIC POWER SYSTEM A.10.A
P2070

LIGHTING SYSTEM A.40.A
P2070

ELECTRONIC SYSTEM A.50.A
P2070

FAULT CODES A.50.A
P2070

MidWestTech | New Holland P2070 Precision Air Hoe Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

Air Drill Dimensions

Metric Dimensions (meters)

	25.4 cm Spacing		30 cm Spacing	
BASE MACHINE	# of Openers	Width of Cut	# of Oeners	Width of Cut
15.3 m	60	15.3 m	50	15.3 m
18.3 m	72	18.3 m	60	18.3 m
21.3 m	84	21.3 m	70	21.3 m

BASE MACHINE	Transport Height (1)	Transport Width (2)	Air Drill Length (3) *
15.3 m	5.03 m	5.60 m	12.2 m
18.3 m	5.03 m	5.60 m	13.7 m
21.3 m	5.03 m	5.60 m	15.1 m

*Length is the machine length without any field hitches in transport position.

Dimensions (feet)

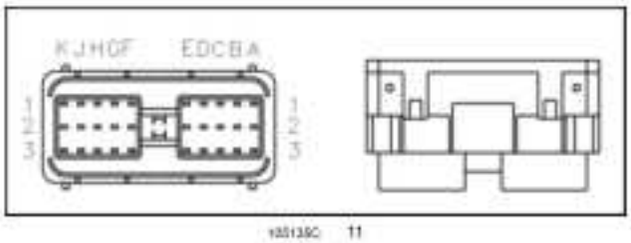
	10 in Spacing		12 in Spacing	
BASE MACHINE	# of Openers	Width of Cut	# of Openers	Width of Cut
50 ft	60	50 ft	50	50 ft
60 ft	72	60 ft	60	60 ft
70 ft	84	70 ft	70	70 ft

BASE MACHINE	Transport Height (1)	Transport Width (2)	Air Drill Length (3) *
50 ft	16 ft 6 in	18 ft 4 in	40 ft 2 in
60 ft	16 ft 6 in	18 ft 4 in	45 ft 1 in
70 ft	16 ft 6 in	18 ft 4 in	49 ft 5 in

*Length is the machine length without any field hitches in transport position.

MidWestTech | New Holland P2070 Precision Air Hoe Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

X-110 - Rate ECU A



ELECTRONIC SYSTEM - Electrical schematic frame 05 (A.50.A)
ELECTRONIC SYSTEM - Electrical schematic frame 07 (A.50.A)
ELECTRONIC SYSTEM - Electrical schematic frame 08 (A.50.A)
ELECTRONIC SYSTEM - Electrical schematic frame 09 (A.50.A)
ELECTRONIC SYSTEM - Electrical schematic frame 10 (A.50.A)
ELECTRONIC SYSTEM - Electrical schematic frame 11 (A.50.A)

Cavity/Pin	Circuit ID	Circuit Description	Next Connection
A1	39A U-1.0	VALVE 3A CNTL	
A2	PLUG	OPEN	
A3	20A R-0.75	+5V_EXT	
B1	40A U-1.0	VALVE 3B CNTL	
B2	30A G-.0.75	HYD PRESSURE 2 SIG	
B3	29A G-0.75	HYD PRESSURE 1 SIG	
C1	41A U-1.0	VALVE 3C CNTL	
C2	31A G-0.75	HYD PRESSURE 3 SIG	
C3	PLUG	OPEN	
D1	42A U-1.0	VALVE 3D CNTL	
D2	PLUG	OPEN	
D3	PLUG	OPEN	
E1	PLUG	OPEN	
E2	PLUG	OPEN	
E3	PLUG	OPEN	
F1	PLUG	OPEN	
F2	19A B-1.0	SEN_GND	
F3	PLUG	OPEN	
G1	PLUG	OPEN	
G2	PLUG	OPEN	
G3	PLUG	OPEN	
H1	PLUG	OPEN	
H2	PLUG	OPEN	
H3	PLUG	OPEN	
J1	PLUG	OPEN	
J2	PLUG	OPEN	
J3	PLUG	OPEN	
K1	38A U-1.0	VALVE 2E CNTL	
K2	PLUG	OPEN	
K3	PLUG	OPEN	

MidWestTech | New Holland P2070 Precision Air Hoe Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

520197-03-Internal 8V, Voltage above normal, or shorted to high source

Control Module : Precision Hoe Drill Rate ECU

Context:
Internal 8V is a power supply internal to the PHD Rate ECU. Internal 8V obtains power from the ISOBUS ECU_PWR circuit. Internal 8V is not physically accessible and cannot be measured.

Cause:
(see above)

Possible failure modes:

1. Faulty Rate ECU.

Solution:

1. Determine if the fault code is still active:

   Cycle system power or reset the PHD Rate ECU.

   Select UTIL > FAULT and check both ACTIVE and INACTIVE faults. Refer to **SEEDING Electronic system - Check Faults (L.10.C)**.
   Review: Fault Count, First Time, Last Time

   Also view the Internal 8V voltage as measured by the PHD Rate ECU.
   Select DIAGN > MONTR and choose Internal 8V. Refer to **SEEDING Electronic system - Check Diagnostics - Monitor (L.10.C)**.

   A. Fault 520197-3 is active. Go to Step **2**.

   B. Fault 520197-3 is inactive. Continue operation and monitor for recurring fault.
2. Replace PHD Rate ECU.

   Turn system power off.

   Remove and replace the PHD Rate ECU.

   Turn system power on.

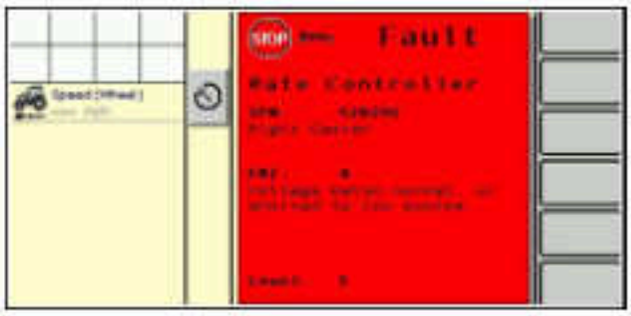
   A. Fault 520197-3 is active. Reinstall the original PHD Rate ECU. Submit a concern through ASIST.

   B. Fault 520197-3 is inactive. Write the fault code on the failed PHD Rate ECU. Continue operation.

MidWestTech | New Holland P2070 Precision Air Hoe Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

TRAVELLING Folding - Dynamic description

At any time, if you lose a frame position sensor you will receive a red fault screen.



2058903 1

If one or more frame position sensors experience a fault during the fold/unfold sequence or when powering up with the seed tool frame in transition, you will receive the Frame Transition with Frame Monitor Malfunction alarm.

Acknowledge the alarm.

NOTICE: *DO NOT move the drill if in field position. You MUST use Manual frame control to energize the valve solenoids for field operation. If you do not, the cylinders will not be allowed to trade oil and machine damage WILL result.*



2058855 2

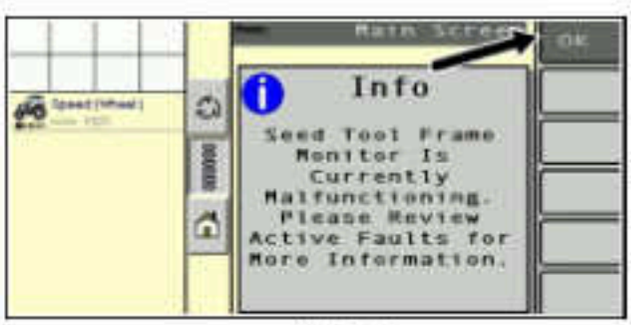
The Main Screen will be shown with the indication that the frame fold control is disabled **(1)**.

This will be indicated by a red **(X)** over the fold direction icon.



2058726 3

If you press the frame control disabled key, an Info pop-up will be shown. Pressing OK will take you back to the main screen.



2058845 4

From the main screen press UTIL.



2058738 5

MidWestTech | New Holland P2070 Precision Air Hoe Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

SEEDING Electronic system - Check Diagnostics - Monitor

1. From the Main Screen select DIAGN for 'diagnostics'.

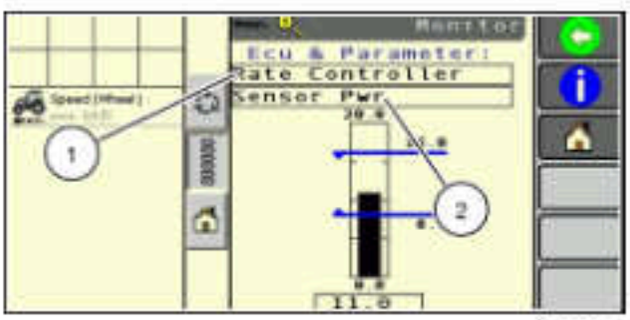


2. Select MONTR for 'monitor'.

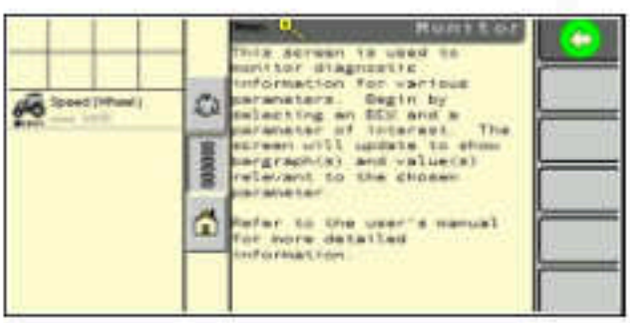
   The Monitor screen will be displayed



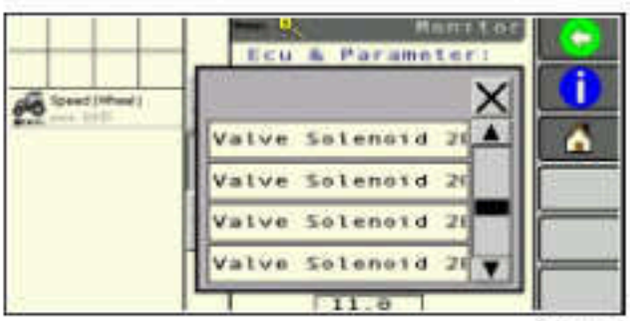
3. You can select the ECU. This will be Rate Controller **(1)**. Select the component you wish to view from the selection list **(2)**.



4. Choose i for extra information on the current screen at any time.

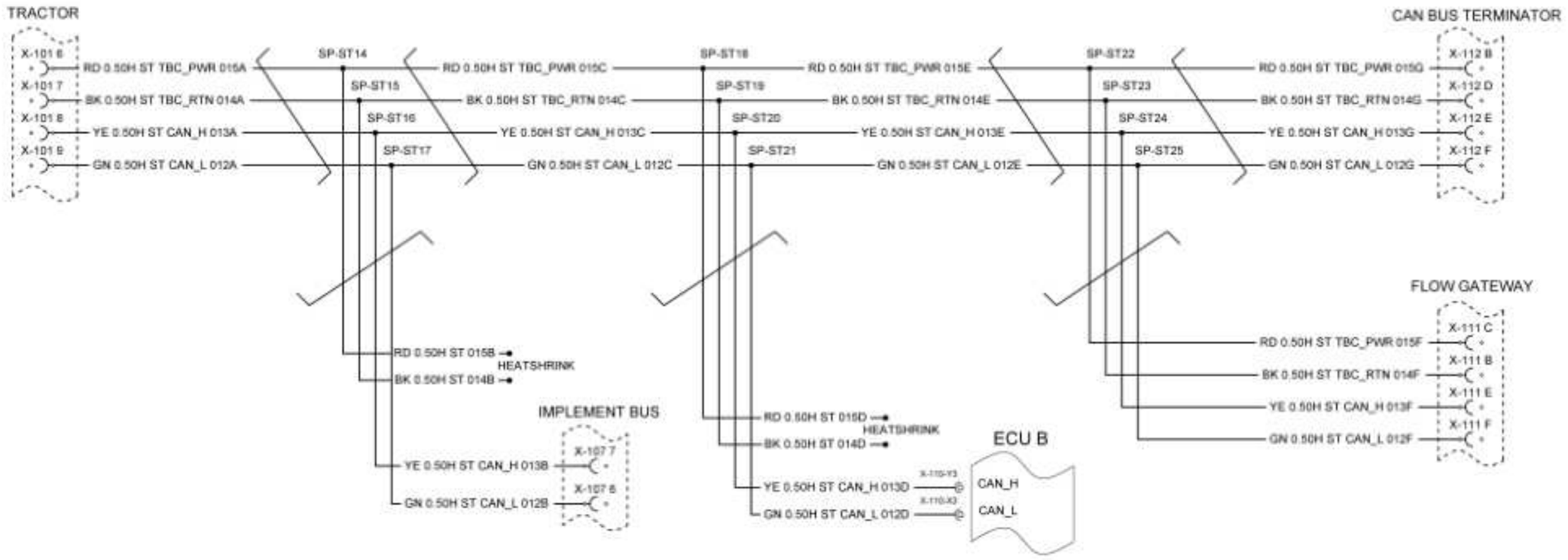


5. Pick the desired item from the scroll list.

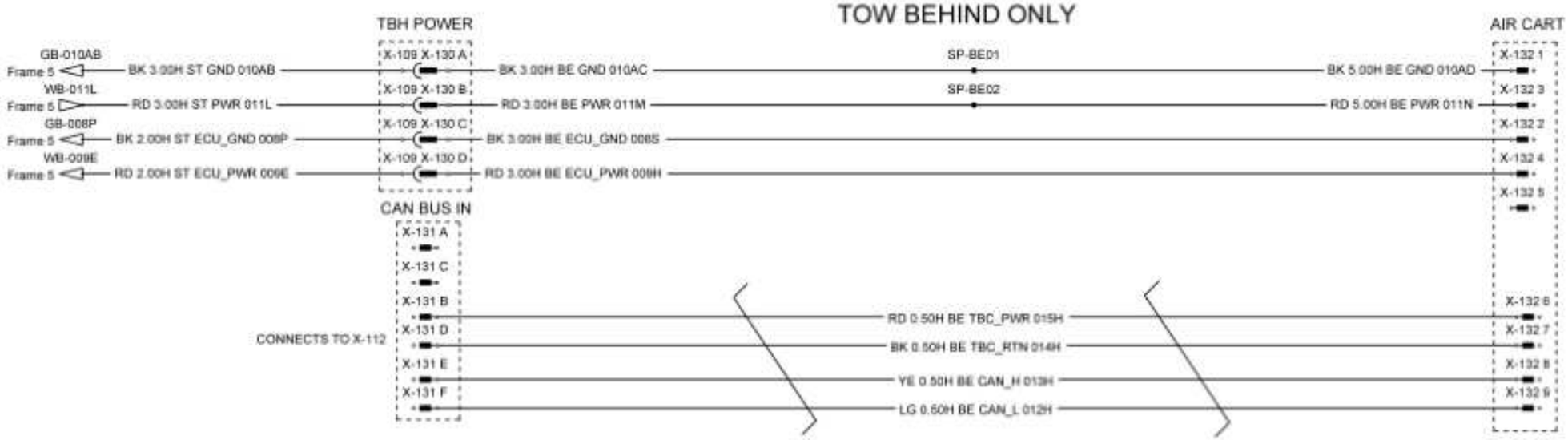


MidWestTech | New Holland P2070 Precision Air Hoe Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

CAN BUS / TOW BEHIND EXTENSION



TOW BEHIND ONLY



FRAME 11

210226C 1

MidWestTech | New Holland P2070 Precision Air Hoe Drill Service Manual | Publication 84425026
Order the manual at mid-west-tech.com >