Universal Display
Operating Instructions

Software Version 8.1.*.*

For 1200 Pivot-Transport Planters

12 and 16 Row
12/23 and 16/31 Split Row
24 Row 20

87542230
1st Printing

CASE IH

MidWestTech | Case Universal Display for 1200 Pivot-Transport Planter Operator's Manual | Publication 87542230
Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

1 – INTRODUCTION, DISPLAY MENUS AND CHART **1**
DISPLAY 1
Display Installation and Removal 2
DataCard Storage 2
DataCard Clean up 2
Screen Care 3
Storage Case 3
Display Problems 4
DESKTOP SOFTWARE 5
DISPLAY MENUS 6
Screen Layout 6
Main Menu 6
Navigation Bar 9
Menu Screen Memory 9
MENU NAVIGATION CHART 10
Status Bar 11
Buttons in the Status Bar Area 13

2 – USER SCREEN SETUP **17**
USER SCREENS 17
User Screen Overview 17
USER SCREEN OPERATION: RUN SCREENS 19
USER SCREEN SETUP 20

3 – USER SCREEN MODULES **25**
USER SCREEN MODULES 25
Application Rate Control Modules: Per Planter, Per Side or Per Section 25
Seed Application 27
Liquid Fertilizer Application 43
Master Control and Section Control 53
Vacuum Fan Operation 55
Bulk Fill Fan Operation 58
Prime Control 60
Ground Speed 62
Seed Hopper Level 63
Granular Chemical Hopper Level 64
Seed Bar Graphs 66
Area Counters 68
Marker Control and Marker Advancing 69
Obstacle Control 71
Inner Marker 73
Outer Marker 73
Free Card Space 74
GPS Coordinates 74
As Applied or Prescription Maps 75
Map Field Marks 86

4 – PIVOTING THE PLANTER/CONTROLLING MARKERS **89**
PIVOTING THE PLANTER – THREE SECTION HYDRAULIC TONGUE 91
Pivoting the Planter to Transport Position 91
Pivoting the Planter From Transport Position 94
PIVOTING THE PLANTER – TWO SECTION MECHANICAL TONGUE 99
Pivoting the Planter to Transport Position 99
Pivoting the Planter From Transport Position 103
Setting Toolbar Raise Height 107

MidWestTech | Case Universal Display for 1200 Pivot-Transport Planter Operator's Manual... Order the manual at mid-west-tech.com >

CONTROLLING MARKERS (IF EQUIPPED) 109
Marker Operation 109
Automatic Alternating of Outer Markers Only 114
Automatic Alternating of Both Outer and Inner Markers 116
Lowering Both Outer Markers to Open a Field 117
Switching to Outer Marker Alternating Only 118

5 – PLANTING WITH HYDRAULIC DRIVE PLANTERS 119
PLANTING WITH HYDRAULIC DRIVE PLANTERS 119

6 – TIME/UNITS, PLANTER, PRODUCT AND ROW SETUP 121
DATE, TIME AND UNITS 121
ADJUSTING THE DISPLAY: PLANTER SETUP SCREEN 125
Options Installed 125
Section Setup 126
Row Setup 129
Seed Bar Graph 131
Fertilizer Boost 133
Speed Sensor Options 134
GPS Receiver 135
Miscellaneous 138
ADJUSTING SEED, FERTILIZER AND FANS: PRODUCT SETUP SCREEN 141
Seed Applied Rate 141
Liquid Fertilizer Applied Rate 145
Vacuum Fan 148
Bulk Fan 150
ADJUSTING ACTIVE SENSORS AND ROW UNITS: ROW SETUP SCREEN 152
Disabling Row Units: Custom Planting 155

7 – DISTANCE AND FRAME CALIBRATION 157
DISTANCE CALIBRATION 157
Overview 157
Distance Calibration Procedure 158
Manually Adjusting Distance Cal Values 162
FRAME CALIBRATION 163
Limited Raise 164
Wing Drop 165
Start Plant 165
Stop Plant 166

8 – SEED AND LIQUID FERTILIZER CALIBRATION 167
PRODUCT APPLICATION CALIBRATION 167
Seed Calibration Overview 167
Seed Calibration Procedure 168
Seed Count Procedure 177
Granular Chemical Calibration 179
Liquid Fertilizer Calibration Overview 182
Orifice/Injector Selection 183
Liquid Fertilizer Calibration Procedure 186
Manually Changing Liquid Sensor Value 192

9 – SAVING AND RESTORING SETUPS 193
SAVING AND RESTORING SETUPS: CROP CHANGEOVER 193
Saving Planter Setups 195
Restoring Planter Setups 197
Recovery Situations 199

MidWestTech | Case Universal Display for 1200 Pivot-Transport Planter Operator's Manual... Order the manual at mid-west-tech.com >

10 – AS APPLIED AND PRESCRIPTION MAPS **201**
FILE MANAGEMENT FOR MAPPING 201
Farm and Field Relationship 201
Understanding Default, Desktop and Planter ID 201
Simplified Operation 203
Preventing Data Loss 203
MAPS: AS APPLIED AND PRESCRIPTION 204
Prescription Planting/Fertilizing Guidelines 204
Recording As Applied Seed and/or Fertilizer Data 205
Renaming a Farm or a Field 210
Opening a Prescription Map (Seed and/or Fertilizer) 211
Prescription Map Planting or Fertilizing 213

11 – FIELD TAGS **221**
ADDING TAGS TO FIELD FILES 221
Customizing Tags 222
Modifying Tag Selections 223

12 – FIELD MARKS **227**
SELECTING MARKS FOR FIELDS 227

13 – DATACARD MANAGEMENT **233**
MANAGING DATACARD SPACE 233
Farm and Field Limits 233
Deleting Data from the Datacard 233
UNDERSTANDING DEFAULT, DESKTOP AND PLANTER ID 247
IMPORTING DEFAULT, DESKTOP OR PLANTER ID SETTINGS 249

14 – FAULT SCREENS AND POP UP MESSAGES **255**
UTILITY SCREENS 255
Checking Controller Status: Status Screen 256
Reviewing Fault Codes: Fault Screen 257
Checking Seed Sensors: Sensor Screen 259
Seed Sensor Status Indicator Lamps 260
Tuning a Controller: Gain Screen 266
INFORMATIONAL AND FAULT MESSAGES 268
Information Messages 268
Fault Messages 270

15 – WARNING MESSAGES/FAULT CODES **271**
FAULTS, ALARMS AND TROUBLESHOOTING 271
Universal Display Faults 271
MIU Fault Codes 278
MCC1 and MCC2 Fault Codes 291

APPENDIX – USER SCREEN MODULES GUIDE **301**
USER SCREEN MODULE GUIDE 301
USER SCREEN WORKSHEETS 308
Universal Display Plus 309
Universal Display 311

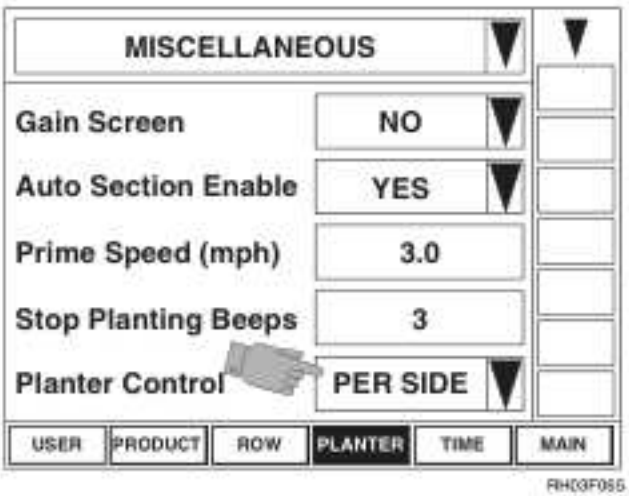
DETAIL INDEX **314**

MidWestTech | Case Universal Display for 1200 Pivot-Transport Planter Operator's Manual... Order the manual at mid-west-tech.com >

With **per side control**, two control modules govern seed application rate; one controls the rate for the left hand side of the planter, the other the rate for the right hand side of the planter. Two control modules also govern liquid fertilizer application for the left and right hand sides of the planter.

With per side control, application rates for the left and right planter sides are independent of each other and may or may not share the same values.

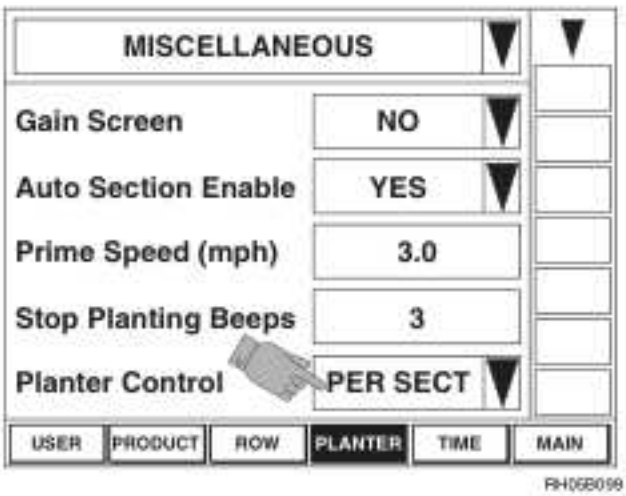
When prescription planting, the map controls two application rates for seed and two for liquid fertilizer.



With **per section control**, four control modules govern seed application rate; an individual module controls the rate for each section on the planter. Four control modules also govern liquid fertilizer application for all sections on the planter.

With per section control, application rates for each section are independent of each other and may or may not share the same values.

When prescription planting, the maps control four application rates for seed and four application rates for liquid fertilizer.



MidWestTech | Case Universal Display for 1200 Pivot-Transport Planter Operator's Manual... Order the manual at mid-west-tech.com >

STEP 11 – OPTIONAL

When calibration is successful, the collected sample can be measured to check physical planter setup. This is optional.

The measurement can be by weight or volume OR by actual seed count. Results can be checked by row unit, by section or for the entire planter.

Weight or Volume

If standard containers are used to collect the sample for all row units, visually comparing the quantity gathered may identify the under or over performing row unit. Individual row units can then be inspected for a pinched or plugged vacuum line, incorrect singulator settings, unseated brush interfering with the seed disk, etc.

Container contents may be weighed by row unit, section or the entire planter, then multiplied by the suppliers estimated seeds per pound/kilogram to approximate applied rate.

Actual Seed Count

Actual seed counts can be performed by row unit, by section, or for the entire planter:

By Row Unit

Since the collected sample depends on the Default Rate and Distance entered, use a formula below to determine how many seeds to expect in your sample:

Formula USA Units

$$\frac{(\text{Row Spacing} \div 12)}{\text{Square Feet Per Acre}} \times \text{Simulated Distance} \times \text{Default Rate} = \textbf{Expected Seed Count}$$

Row Spacing Value in Inches
Square Feet Per Acre = 43,560
Simulated Distance in Feet
Default Rate in 1000 seeds/acre

Example USA Units

$$\frac{(30 \text{ Inches} \div 12)}{43{,}560} \times 174 \text{ Ft} \times 30{,}000 \text{ seeds/acre} = \textbf{300 Expected Seed Count}$$

Formula Metric Units

$$\frac{(\text{Row Spacing} \div 1000)}{\text{Square Meters Per Hectare}} \times \text{Simulated Distance} \times \text{Default Rate} = \textbf{Expected Seed Count}$$

Row Spacing Value in Millimeters
Square Meters Per Acre = 10,000
Simulated Distance in Meters
Default Rate in 1000 seeds/hectare

Example Metric Units

$$\frac{(762 \text{ mm} \div 1000)}{10{,}000} \times 131 \text{ Meters} \times 74{,}000 \text{ seeds/hectare} = \textbf{739 Expected Seed Count}$$

By Section

The collected sample from all row units on one section divided by the number of rows in the Section is the average sample. Compare this value to the seed expected value from the formula above.

By Planter

The collected sample from all row units divided by the number of rows on the planter is the average sample. Compare this value to the seed expected value from the formula above.

MidWestTech | Case Universal Display for 1200 Pivot-Transport Planter Operator's Manual... Order the manual at mid-west-tech.com >