Eagle Monitor Training
Module 1 : Monitor Setup

Change the Monitor Display Units

1. Hold the reset button while turning on the power switch. (do not release the reset button until you see the General Config. Screen appear)

2. Press enter on General Config.

Change the Monitor Display Units

3. Press the top arrow and select **Console Units**

4. Press enter, a* will now appear. Toggle to CAN IMP.

5. Press menu and then you can turn the monitor off, once you power the monitor, the units will be imperial format

Setup Menu

The setup menu allows the operator to setup all of the parameters required to control and monitor the TPA Air Seeder.

Work through the manual to ensure all values and alarms are set correctly

Press **Menu** to enter **Setup Menu** screen. Start from the working screen and ensure that the Master Switch is in the off position

Setup Menu

1. Press **Menu**

2. Press **Enter** to advance to the **Seeder Setup Screen**

Bin Setup

1. Press **Menu**

2. Press **Enter** to advance to the **Seeder Setup** screen.

3. Press **Line 1** to highlight **Bin Setup**

4. Press **Enter** to advance to **Bin Setup**

Bin Setup

1. Press **Menu**
2. Press **Enter** to advance to the **Seeder Setup** screen.
3. Press **Line 1** to highlight **Bin Setup**
4. Press **Enter** to advance to **Bin Setup Menu**

Set the Number of Bins

- This option sets the number of bins the console is monitoring. The number of bins selected will be reflected on the Bin Setup screen and the Working Screen. This also disables alarms for the bins that are not selected.

Bin Setup

1. Press **Menu**
2. Press **Enter** to advance to the **Seeder Setup** screen.
3. Press **Enter** to advance to **Bin Setup**
4. Press **Enter** to edit 'No of Bins' (an asterisk * should appear)
5. Use inc/dec buttons to set the number of bins
6. Press **Enter** to accept any changes

Set the Bin Volume

- This option allows the input of the bin volume for each bin, in litres (l). The Bin Volume and the Product Density will determine the Bin Weight in Kilograms (kg) for each product selected

Set the Bin Volume

1. From the **Bins Setup** screen,

2. Press **Line 2** to highlight **Bin Volumes**

3. Press **Line 2** repeatedly, to cycle through to the bin to be edited

4. Press **Enter** to edit the volume of the bin. (An asterisk * should appear)

5. Use inc/dec buttons to set bin capacity

6. **Note: Capacity changes in 10 litre increments**

7. Press **Enter** to accept changes
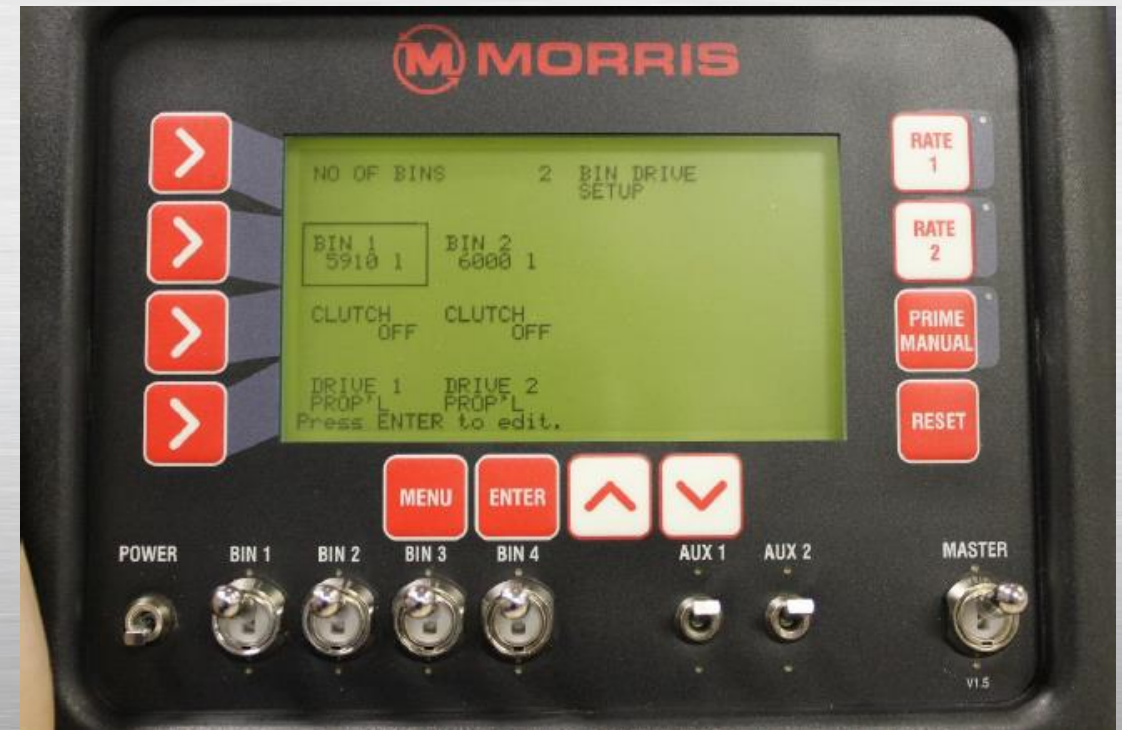
Change the Drive Type

- The E15 Console can be set up to control any of the allowable drive types with each of the bins that are enabled. There are 5 different drive types available, 3 for granular products and 2 for liquid products.

- The only drive type available for granular products used for Morris will be the **PROP'L – Proportional valve (hydraulic) control of granular product**
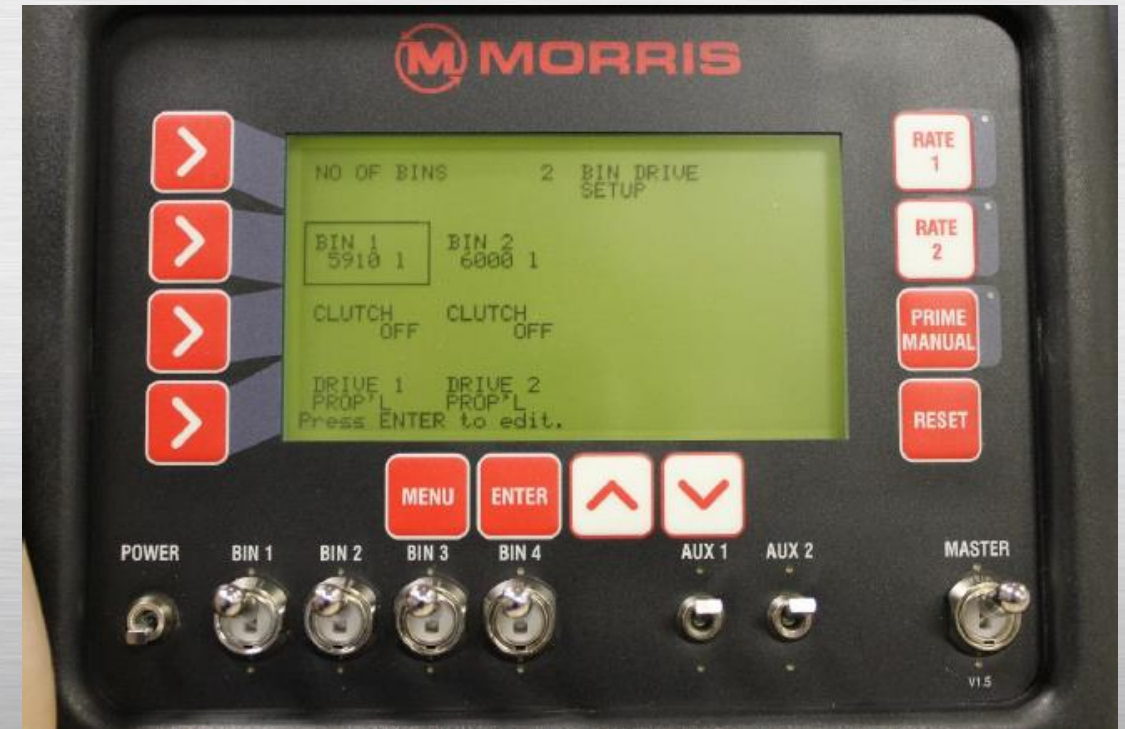
Proportional Valve Setup – Add Dither

- **Note: ADD DITHER should be selected ON when connected to a standard proportional valve**

- From the **Bins Setup** screen,

- Press **Line 1** twice to highlight **Bin Drive Setup**

- Press **Enter** to advance to **Bin Drive Setup**

- Press **Reset** to cycle through the settings for each of the enabled bins until the desired bin settings are displayed

- Press **Line 1** to highlight **ADD DITHER**

- Press **Enter** to change the **ADD DITHER** (* should appear)

- Use inc/dec buttons to select either On/Off

- Press **Enter** to accept the value

Proportional Valve Setup – Enable Dump

1. **Note: ENABLE DUMP should be selected OFF when connected to a standard proportional valve**

2. From the **Bins Setup** screen,

3. Press **Line 1** twice to highlight **Bin Drive Setup**

4. Press **Enter** to advance to **Bin Drive Setup**

5. Press **Reset** to cycle through the settings for each of the enabled bins until the desired bin settings are displayed

6. Press **Line 2** to highlight **ENABLE DUMP**

7. Press **Enter** to change the **ENABLE DUMP**(* should appear)

8. Use inc/dec buttons to select either On/Off

9. Press **Enter** to accept the value

Proportional Valve Setup – Reverse Dump

- **Note: REVERSE DUMP is set at the factory and there should be NO reason to change this setting from the factory.**

Proportional Valve Setup – Minimum PWM

1. From the **Bins Setup** screen,

2. Press **Line 1** twice to highlight **Bin Drive Setup**

3. Press **Enter** to advance to **Bin Drive Setup**

4. Press **Reset** to cycle through the settings for each of the enabled bins until the desired bin settings are displayed

5. Press **Line 3** to highlight **Minimum PWN**

6. Press **Enter** to change the **Minimum PWM**(* should appear)

7. Use inc/dec buttons to select between different % values

8. For Morris, the value to select will be **15%**

9. Press **Enter** to accept the value

Proportional Valve Setup – Maximum PWM

- From the **Bins Setup** screen,

- Press **Line 1** twice to highlight **Bin Drive Setup**

- Press **Enter** to advance to **Bin Drive Setup**

- Press **Reset** to cycle through the settings for each of the enabled bins until the desired bin settings are displayed

- Press **Line 3 TWICE** to highlight **Maximum PWN**

- Press **Enter** to change the **Maximum PWM**(* should appear)

- Use inc/dec buttons to select between different % values

- For Morris, the value to select will be **100%**

- Press **Enter** to accept the value

Proportional Valve Setup – Control Response

1. From the **Bins Setup** screen,

2. Press **Line 1** twice to highlight **Bin Drive Setup**

3. Press **Enter** to advance to **Bin Drive Setup**

4. Press **Reset** to cycle through the settings for each of the enabled bins until the desired bin settings are displayed

5. Press **Line 1 TWICE** to highlight **Control Response**

6. Press **Enter** to set the **Control Response**(* should appear)

7. Use inc/dec buttons to select between fastest, med-fast, med-slow or slowest

8. For Morris, the value to select will be **FASTEST**

9. Press **Enter** to accept the value

Wheel Calibration Factor

1. Press **Menu**

2. Press **Enter** to advance to **Seeder Setup** screen

3. Press **Line 2** to highlight **Wheel Factor**

4. Press **Enter** to advance to wheel factor screen

Wheel Calibration Factor – Speed Source

- **External** is the default setting and cannot be changed, which means that the speed source is taken from the wheel sensor on the Air Seeder.

- The wheel sensor is normally connected to the plug marked **Ground Speed** on the **Tank Harness**, on the air seeder.

- This wheel factor value is the distance travelled by the air seeder per pulse from the wheel (speed) sensor.

- For Morris, the value will vary considerably between models, with a typical value starting at **0.5 feet per pulse.**

Wheel Calibration Factor – GPS Speed Source

- An optional GPS receiver may be fitted, which enables the console to use GPS speed as a source.

- If a GPS receiver is connected to the console and working, then no setup or settings are required to be entered into the console.

- If the console detects valid GPS data, then the console will automatically display the GPS speed and will override the speed reading from the wheel sensor.

- **GPS** will be displayed in the speed readout window, when the speed source being used is the GPS.

Set the Wheel Factor Calibration

1. Press **Menu**

2. Press **Enter** to advance to **Seeder Setup** screen

3. Press **Line 2** to highlight **Wheel Factor**

4. Press **Enter** to advance to wheel factor screen

5. Press **Enter** to begin wheel factor calibration

6. Drive forward a measured distance of 400ft. The pulses count will accumulate as you travel forward. The **Distance value and Estimated value** will accumulate in feet as you travel forward. These values will accumulate reflecting the current wheel factor value.

Set the Wheel Factor Calibration

1. Once the known distance is reached, press **ENTER**. Focus will automatically jump to the **Distance** line of the screen

2. Use the inc/dec buttons to change the **Distance** value to reflect the actual distance travelled

3. Press **Enter** to accept the value. Wheel factor will be automatically calculated and displayed on the **Wheel Factor** line

Fan Setup

1. Press **Menu**

2. Press **Enter** to advance to **Seeder Setup** screen

3. Press **Line 2 Twice** to highlight **Fan Setup**

4. Press **Enter** to advance to Fan setup screen

5. Press **Line 2** and proceed to edit the **Fan Magnets**.

6. Press **Enter** (* should appear)

7. Use inc/dec buttons to edit the number of fan magnets.

8. For Morris Units, use 2 magnets

9. Leave the Fan Pressure Gain set at 1x

Width, Speed & Prime Duration Setup

1. Press **Menu**
2. Press **Enter** to advance to **Seeder Setup** screen
3. Press **Line 3** to highlight **Width, Speed and Prime Duration**
4. Press **Enter** to advance to the **WS & P** screen
5. Press **Enter** to edit the **Width** (*should appear)
6. Use inc/dec buttons to set the width of the air seeder bar. Width changes are in 0.01 feet.
7. Press **Enter to accept the value**

Setting the Manual Speed

- During calibrations, the **Manual Speed** is set into the controller to simulate ground speed when the seeder is stationary.

- The Manual speed can be used to operate the system if the speed sensor fails. This value is normally set to the speed used for normal seeding operations (**4.5 mph**).

- This is one of the factors that must be present to enable correct motor operation during calibration.

Setting the Manual Speed

1. Press **Menu**
2. Press **Enter** to advance to **Seeder Setup** screen
3. Press **Line 3** to highlight **Width, Speed and Prime Duration**
4. Press **Enter** to advance to the **WS & P** screen
5. Press **Line 2** to highlight **Manual Speed**
6. Press **Enter** to edit the **Manual Speed** (*should appear)
7. Use inc/dec buttons to set the manual speed
8. Press **Enter** to accept the value

Setting the Prime Duration

- Prime function now only operates bins with electric motor or proportional value drives. If the seeder begins moving during the **Prime Timer**, bins that aren't being primed begin normal operation and bins that are being primed continue with the prime operation.

- When the **Prime Timer** finishes, all bins resume normal operation.

- It allows the air seeder's metering rollers to operate prior to moving off and starting to sow, it takes several seconds to convey seed/fertilizer from the bins to the seeding boots.

- The default is 7 seconds and this will suit most air seeder models

Setting the Prime Duration

1. Press **Menu**
2. Press **Enter** to advance to **Seeder Setup** screen
3. Press **Line 3** to highlight **Width, Speed and Prime Duration**
4. Press **Enter** to advance to the **WS & P** screen
5. Press **Line 3** to highlight **Prime Time**
6. Press **Enter** to edit the **Prime Time**(*should appear)
7. Use inc/dec buttons to set the prime time, increment changes by 1 second
8. Press **Enter** to accept the value

Set the Auto-Prime

- If **Auto Prime** is enabled ON and the master switch is ON and the ground speed is below a default speed of 2 mph, the unit will operate in **Prime** mode.

Setting the Auto-Prime

1. Press **Menu**
2. Press **Enter** to advance to **Seeder Setup** screen
3. Press **Line 3** to highlight **Width, Speed and Prime Duration**
4. Press **Enter** to advance to the **WS & P** screen
5. Press **Line 4** to highlight **Auto Prime**
6. Press **Enter** to edit the **Auto Prime**(*should appear)
7. Use inc/dec buttons to set the Auto Prime On/Off
8. Press **Enter** to accept the value

Setting External Options

1. Press **Menu**
2. Press **Enter** to advance to **Seeder Setup** screen
3. Press **Line 1 Twice** to highlight **External Options**
4. Press **Enter** to advance to the **External Options Screen**
5. Press **Any Line** to highlight **the specific option you have**
6. Press **Enter** to edit each option(*should appear)
7. Use inc/dec buttons to set the optionOn/Off
8. Press **Enter** to accept the value
9. Toggle each option ON/OFF using the same process depending on which options you have.

Alarms – Fan Alarms

1. Press **Menu**

2. Press Line 4 to highlight **Alarm Setup**

3. Press **Enter** to advance to the **Alarm Setup Screen**

4. Press **Line 1** to highlight Fan Alarms

5. Press **Enter** proceed and edit each fan alarm option (*should appear)

6. For turning **alarms on/off**, use inc/dec buttons to set the fans On/Off

7. For setting **alarm low or high points**, use inc/dec buttons to change psi/rpm point. Intervals are by 1 psi and 100 rpm.

8. Press **Enter** to accept the value

Alarms – Shaft Alarms

1. Press **Menu**

2. Press **Line 4** to highlight **Alarm Setup**

3. Press **Enter** to advance to the **Alarm Setup Screen**

4. Press **Line 2** to highlight **Shaft Alarms**

5. Press **Enter** proceed and edit each Shaft alarm option (*should appear)

6. For turning **alarms on/off**, use inc/dec buttons to set the fans On/Off

7. Press **Enter** to accept the value

Alarms – Bin Alarms

- Press **Menu**
- Press **Line 4** to highlight **Alarm Setup**
- Press **Enter** to advance to the **Alarm Setup Screen**
- Press **Line 3** to highlight **Bin Alarms**
- Press **Enter** proceed and edit each Bin alarm option (*should appear)
- Remember to press Line buttons twice to move to the right side
- For turning **alarms on/off**, use inc/dec buttons to set the fans On/Off
- Press **Enter** to accept the value