DM510 Quick Guide

Modes of Operation:

Local: The discharge rate is set from the dryer panel. The **Remote** light is **OFF.**

Manual: The discharge rate is set manually from the DM510 Panel. The **Remote** light is ON.

Automatic: The discharge rate is set automatically by the DM510 Panel. The **Remote** light is ON.

Note: The **Learn** *light is always on when the dryer is running and the DM510 is receiving valid data.*

Conditions to go Ready for Automatic

1. No alarms (red lights).
2. Less than 2% difference between actual moisture and the moisture setpoint.
3. Less than 2% difference between the predicted moisture and the actual moisture.

Start-up:

Start the dryer as you normally would.

Select **Manual Mode** at the DM510 panel and set the desired speed.

You can select **Automatic Mode** when the green **Ready** light is on.

-Always double check that the suggested rate on the screen is reasonable before changing to Automatic mode.
-You can also see the suggested rate by pressing *Support, (1) Diagnostics, then the UP arrow twice.*

Changing Modes:

Press **Mode.**

Use arrow keys to highlight new mode.

Press **Enter** to accept.

For **Manual** mode press **Cancel** to accept the current discharge **rate** or type in a new value and press **Enter.**

For **Automatic** mode press **Cancel** to accept the **Moisture Setpoint** OR type in a new value and press **Enter**.

Changing the Rate:

(In Manual Mode)

Press **Setpoint**.

Use arrow keys to select **(1) Discharge Rate.**

Press **Enter** to accept.

Enter a new discharge rate.

Press **Enter** to accept.

Changing the Moisture Setpoint: (In Automatic Mode)

Press **Setpoint**.

Use arrow keys to select **(2) Moisture Setpoint** (target moisture), press **Enter.**

Enter a new value and press **Enter**.

Auto First Load:

"**Auto First Load**": If the dryer has been off for a time and drying conditions are stable the DM510 uses the inlet moisture and the existing drying model for the first full dryer load. The model resumes updating once the first dryer load has gone through the dryer, and it again has new valid drying information.

For Predicted Moisture

Press **Mode**

Press **(4) Controller Status** to see the current model predicted moisture.

To View History

Press **View.** You will have access to scrollable 10 minutes averages. Use the Up and Down arrows to scroll.

DRYER MASTER

If you have any questions: please call us at 1-888-318-0009

Outlet Sensor Calibration:

Tips: 1. <u>After start-up, wait at least a dryer load before calibrating.</u> 2. Do not calibrate if you are far from your normal operating moisture range.

Press calibration button at the sensor.

Take a gradual sample while the green light is flashing. Mix the sample and test using your bench top tester. Use an average of three tests from the sample for the most accurate result.

Press **Calibrate** on the DM510 panel.

Use the arrow keys to highlight "outlet sensor".

Press **Enter** to select.

Type in the bench top value.

Press **Enter**.

Once the new value has been entered you may notice a slight change in the outlet moisture reading on the main screen. Readings that have been entered can not be removed so always take care when doing calibrations. The calibration will adjust 1/2 of the difference between the manual and DM510 readings with a maximum 0.5% change from any one calibration.

<u>To cancel a test already in progress:</u>

Press **Calibrate.** Then use the arrow keys to highlight the sensor with the sample waiting message.

Press **Enter**.

Press Cancel to accept the 0 value

(Entering a "0" value cancels the calibration.)

Inlet Sensor Calibration

The inlet sensor calibration does not need to be as precise as the outlet sensor calibration. As long as the inlet sensor is reading within 1-2% of the actual moisture, then it does not need calibration. This is because the DM510 uses the <u>change</u> in the inlet moisture value from minute to minute, not the actual moisture value.

Take a moisture sample.

Estimate the time for product to reach the inlet sensor from where you took the sample. Do your bench top test.

Press **Calibrate** when you think the product has reached the sensor. Use arrows to highlight "inlet sensor." Press **Enter** to accept.

Press **Enter** to start the calibration.

When the bench top icon appears on screen enter your manual test result:

Press **Calibrate** and use arrows to highlight the sensor with the "sample waiting" message.

Press **Enter** to select.

Enter your bench top test value and press **Enter** to accept.

Once the new value has been entered you may notice a slight change in the inlet moisture reading on the main screen. The maximum change the DM510 will make with each calibration is 0.5%. If there is a still a large difference after the calibration it may be necessary to do additional samples to bring the moisture readings into line.

You Tube Full training videos are on the **Dryer Master Media** channel

Alarms & Alarm Limits

Alarms provide an indication of something requiring attention. Critical alarms will cause Automatic Operation to be disabled immediately or after a period of time. Some alarm conditions will place the system into Local mode for safety reasons. Select alarm limits carefully.

Press **Alarms** and then "**1**" to Set Limits

Use the arrow keys to highlight the item

Press **Enter** to accept

Use the arrow keys to highlight the limit to change. Type in the new value.

Press **Enter** to accept.

REPEAT as needed for all alarm limits

Press **Alarms** from the main screen, then "**2**" to View Alarms

Use the arrow keys to scroll through the alarm history.

Press Cancel to cancel the alarm sound

End of Season Checklist

If you have a printer, unplug the printer cable, turn off the printer, and unplug the cord (place in a clean location).

Turn off the DM510 (switch at bottom).

Leave the DM510 plugged in to provide a continued connection to ground.