



FIELD MATE® **3**

Volumetric Displacement Fertilizer Control System



Users Guide
and
Installation Manual

FIELD MATE[™] USER MANUAL

If you Need to Call Customer Service
Please complete the following information for future
reference:

Field Mate Model* :.....
Serial Number * :.....
Date Purchased :.....
Place of Purchase:.....

* The Serial/Model Number is displayed in the
Information Screens of the meter.

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user's guide may not be , in whole or in part, be copied,
photocopied, reproduced, stored, or reduced to any
electronic medium or machine readable form, without
permission from G-Tech NZ Ltd.

Warranty :

1 Year return to factory Warranty on Electric Drive components, sensors and Downloading support hardware. Please ensure you agree to the warranty conditions before proceeding to purchase this product, read the warranty form at the end of this user guide. Installation wiring to sensors and wear and tear on connectors not covered.

NOTE: Gtech New Zealand Limited is in no way liable or responsible for any mishaps, planting irregularities that result from using this product.

It is the sole responsibility of the operator or dealer to set the Electric drive system up correctly and to monitor the system to ensure it is operating without issue.

The operator should understand the system and if needed drill test runs with a bag on the metering system to ensure the correct amount is being released by the system.

We are here to help. Call your dealer support 'Anytime' if you have even the smallest question.

EMI Emission Certification:

Electro magnetic interference emission certification are a series of tests that required to be passed before an electronic device can be sold. These tests are related to how much electromagnetic radiation is emitted by an electronic device.

The Area meter has the following certifications and is suitable for sale in the following countries:

Certification	Countries
C-Tick Z874 Class B	New Zealand, Australia
CE	Europe

SPECIFICATIONS

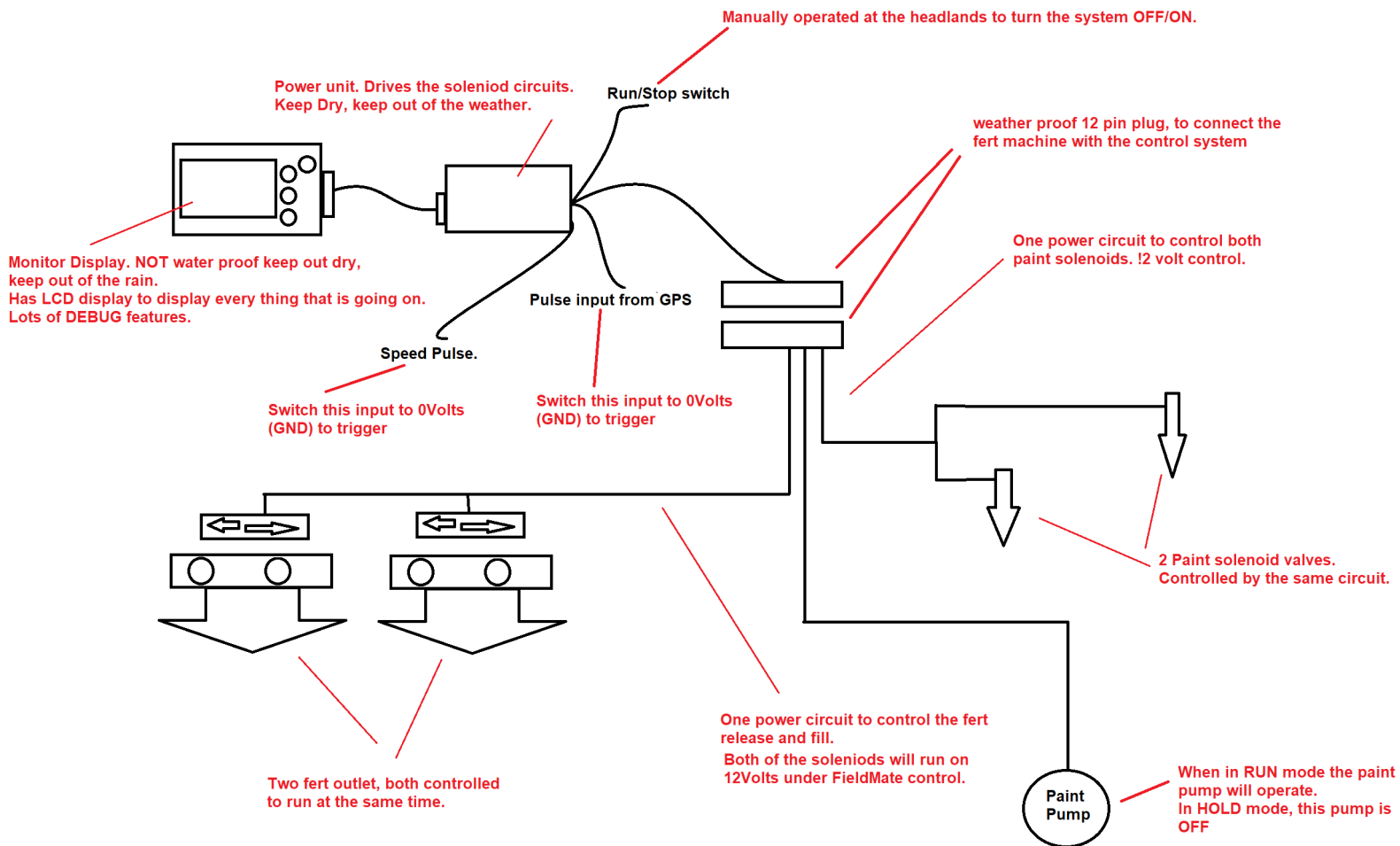
Specifications:

Supply volts	:	5 – 15 Volts
Monitor Current	:	75ma
Temperature	:	-5 to 55 degree/C
Input voltages	:	0 to 30 Volts
Max Width	:	99.99 Meters
Distance	:	999.99 km
Max Speed	:	20 km/Hr
Wheel Size	:	999.9 cm
Max Motor Amps	:	20 amps per motor

Features:

- Up to 4 metering unit motors
- Fan speed monitoring
- Hardware fault monitors on all motor channels
- Real time motor RPM displayed to give real world performance measurement to the users.
- Fast drill calibration
- Instant feed back on system operation when setting the drilling rate
- Can be set up to work in KG/Hect mode or precision seeder control mode.
- Prestart mode available for air seeder
- Low bin feature available
- Auto greaser control available
- All information retained on monitor.
- Report feature available
- All inputs high voltage protected.

Fert Dispenser System Overview

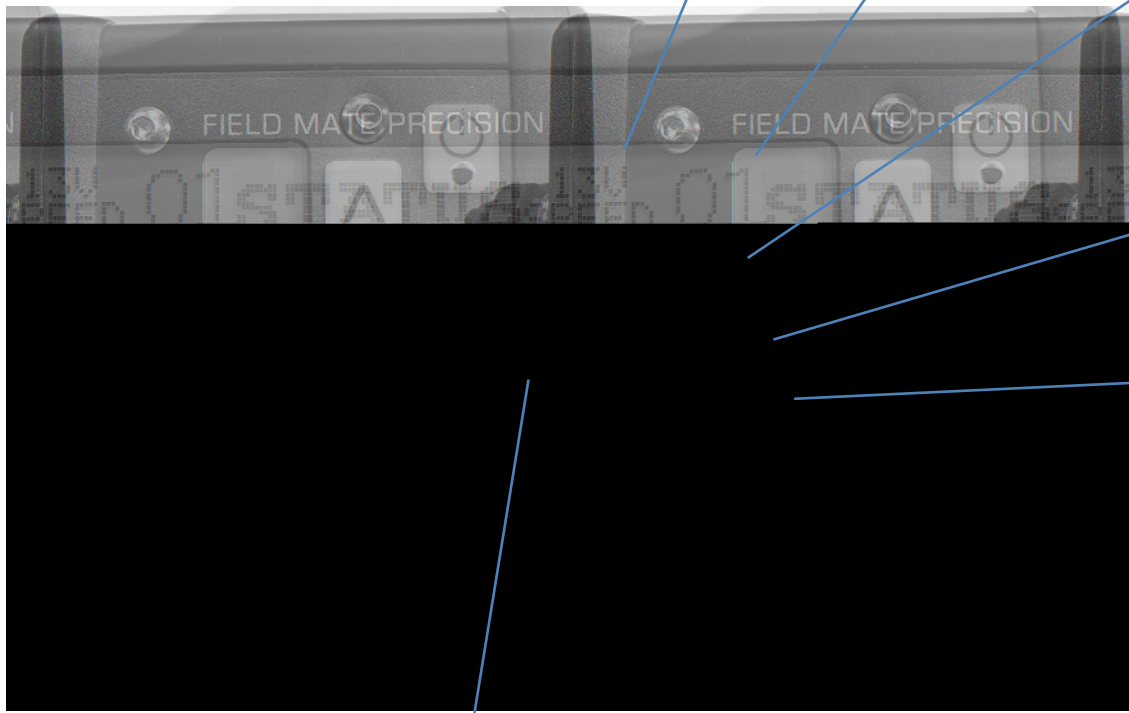


Wiring Connections:

12 Pin Connector

1- Ground Speed	Black	Ground signal to all sensors
6- Speed	Yellow	Speed pulse (Switch to GND to trigger)
5- Hold	White	Hold signal (Switch to GND to trigger)
3- GPS Distance Sync	Green	GPS Sync Pulse (Switch to GND to trigger)
2-	Brown	
7-	Red	
4-	Blue	
8- Drive Paint Pump	Brown Green	Paint Pump Power Supply
9- Drive Paint Solenoid	White Blue	Paint Solenoid power
10- Drive Displace Solenoid	Black Yellow	Displacement solenoid Power
11-	Brown Red	
12- Power Ground	Black	Solenoid/Pump Motor Gnd

Main Screen



system voltage

Ground speed

State machine status.
Rejects fert release
function control

Current distance
travelled from sync
pulse

Sync pulse spacing

Last distance travelled from sync pulse



plant counter

The fert distance counts
down here.

paint pump status

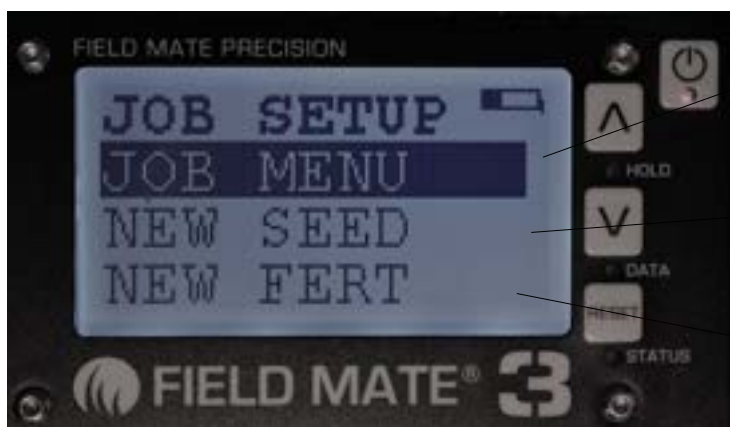
paint solenoid
time in milli
seconds

Job Screen details

(Enter the JOB screens by Quick pressing the POWER key)



Inside the JOB menu...



Change the job
Hold ARROW key to select

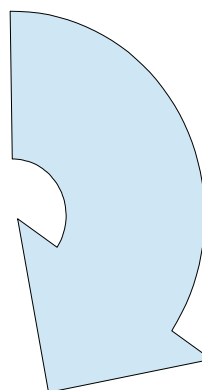
Bin1 library select .
Currently set to 1

Bin2 library select .
Currently set to 1

Move to new job if
required



Current JOB. To reset
or view details hold any
ARROW key.



RESET Job1

Start Job1

View Job1 Report

Option Screen details

(Enter the OPERATE screens by Quick pressing the POWER key)



Quick Press the POWER key to enter the OPERATE mode.

Inside the OPERATE menu...

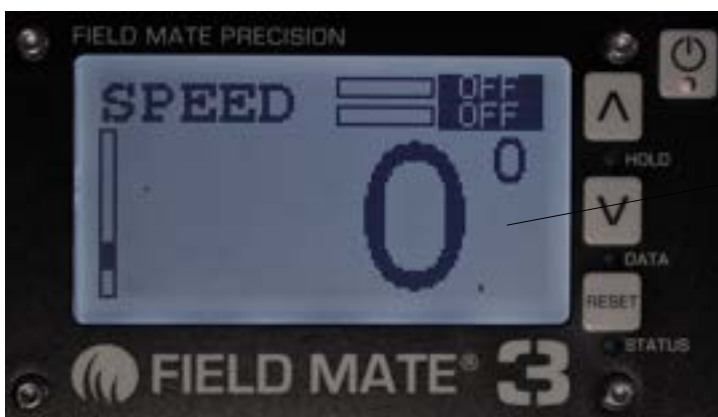
(Move through the OPERATE screens using the ARROW keys - Quick Press!)



Area Drill for the current job



SUB AREA drilled for this job. This total can be cleared by holding down any ARROW key. If reset no other totals are effected.



Speed of the drill in KM/HR.

NOTE!! get this number right so the true speed of teh drill is seen here!!

If the monitor is not displaying the true ground speed then the drilling rates will not be as expected.

IT IS THE SOLE RESPONSIBILTY OF THE USER TO GET THIS RIGHT!!

FIELDMATE SUPPORT IS HERE TO HELP, CONTACT US ANYTIME FOR SETUP SUPPORT.

Inside the OPERATE menu. More..



Working RATE of the Drill. Displayed in Hectare/Hour.

Setup Screen details

(Enter the SETUP screens by Quick pressing the POWER key)

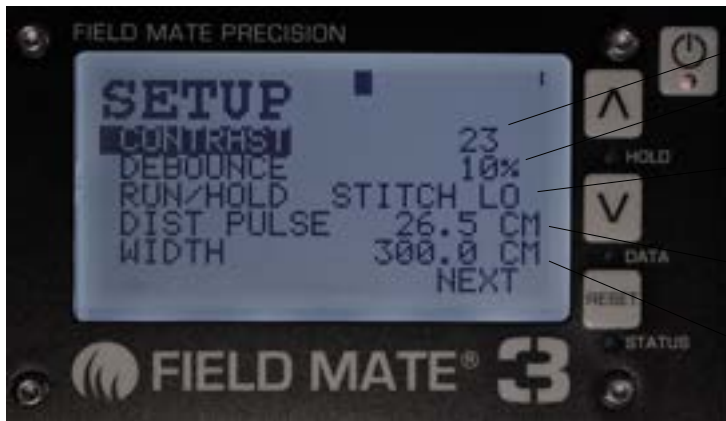


Quick Press the POWER key to enter the SETUP mode.

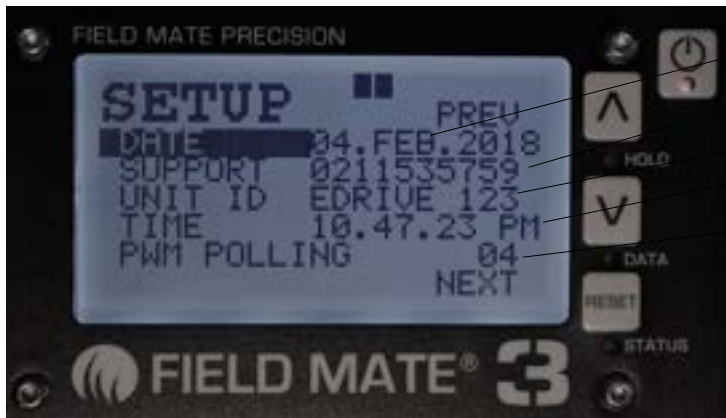
NOTE: When exiting SETUP turn the monitor OFF then ON. If not done "CYCLE POWER" will flash and the motors will not run.

Inside the SETUP menu...

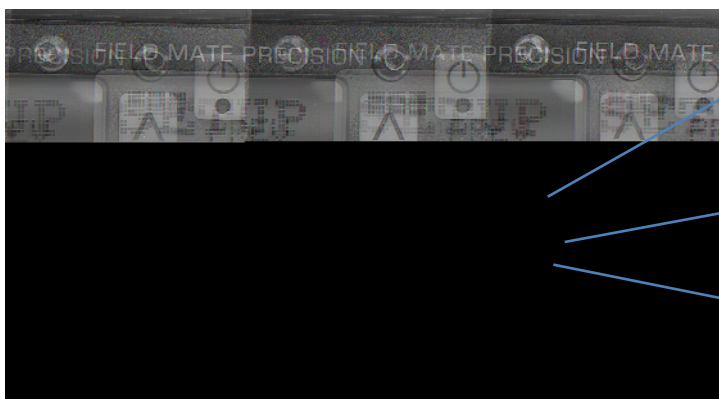
(Move through the SETUP screens using the ARROW keys - Quick Press!)



- Set the LCD Contrast
- Set the Debounce for the Speed sensor.
- HOLD Mode. Extern LOW for Lift switch. Use STITCH LO when using the rate Reducer.
- The distance travelled for ever Speed sensor pulse.
- Working width of the drill.



- Set Date used by REPORTS
- Support Phone number.
- Unit ID for REPORTS
- Set Time used by REPORTS
- PWM POLLING is the power update rate for Motors. Setting '04' is recommended



- Fert release distance from SYNC pulse
- Paint solenoid on time. Activates when SYNC pulse occurs
- Distance travell between each SYNC pulse

REPORT Screen details

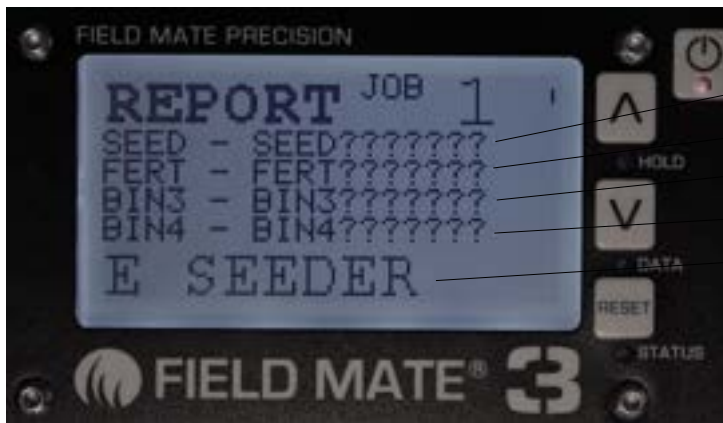
(Enter the REPORT screens by Quick pressing the POWER key)



Quick Press the POWER key to enter the REPORT mode.

Inside the REPORT menu...

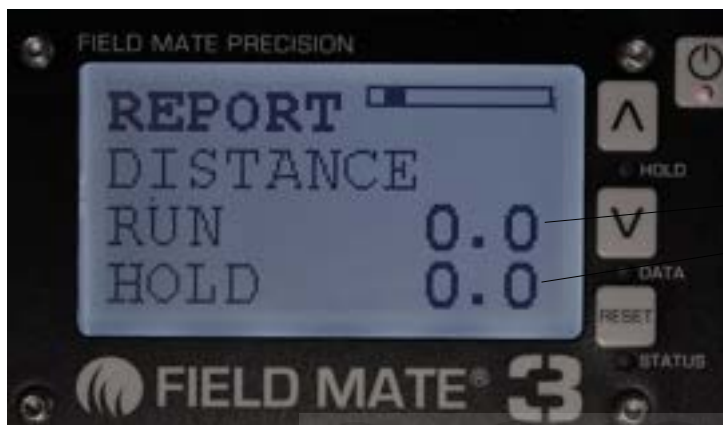
(Move through the REPORT screens using the ARROW keys - Quick Press!)



- Name of BIN1
- Name of BIN2
- Name of BIN3
- Name of BIN4
- Name of this monitor



- Area Drilled in Hectares



- Distance drilled
- Distance travelled in HOLD mode (Not Drilling)

Inside the REPORT menu. More..



- Time with the drill in RUN mode and Drilling.
- Time with the drill in RUN mode and stationary.



- Time with the drill in HOLD Mode, with the drill moving.
- Time with the drill in HOLD Mode, the drill is stopped.

Inside the REPORT menu. More..



- Total time spent drilling. This time includes all times, moving and stopped.



- Number of Speed pulses counted while drilling.
- Number of speed pulses counted while not drilling, in HOLD mode.



- Size of the DISTANCE PULSE number used to calc the area for this job.
- Size of the DRILL WIDTH number used to calc the area for this job.



- Date that the current Drilling Job was started
- Time the current Drilling job was started.

INFO Screen

(Enter the INFO screen by quick pressing the POWER key)



Quick Press the POWER key to enter the INFO screen.

Inside the INFO menu...

(Move through the INFO screens using the ARROW keys - Quick Press!)



LOGO

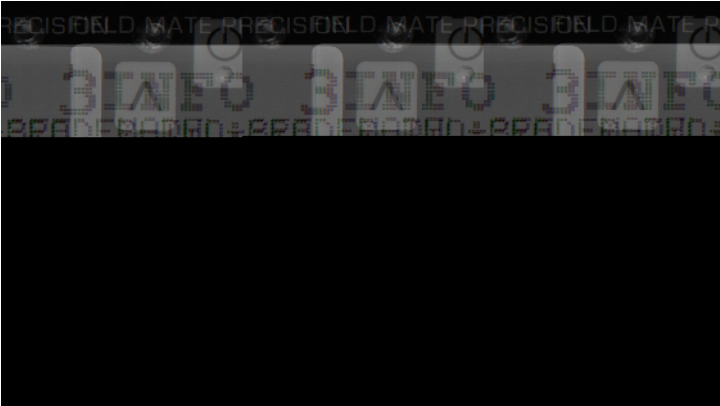


HELP DESK phone number.
Direct dial with in New Zealand.
International callers use
0064211535759

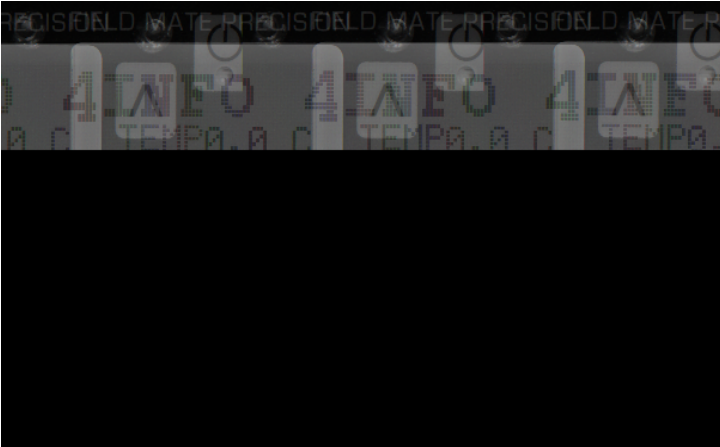


Back ground number to calculation
ground speed of drill.

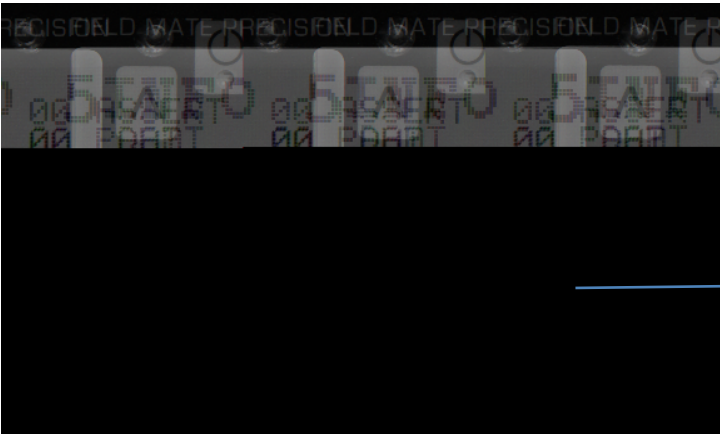
Inside the INFO menu... more



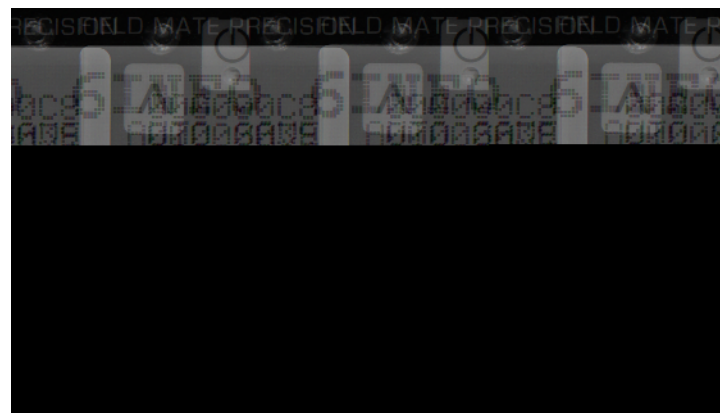
- Monitor Model
- Firmware version
- Time monitor has been powered up
- Time monitor has been drilling
- Life time hectare drilled
- Backlight voltage and status



- Monitor temperature
- Measurement units
- Battery voltage into monitor
- Serial number
- Low bin sensor status
- Reduced drill rate % of drilling rate applied



- Software error detection system. These counter will increment every time the software vectors to these error detection or system performance metrics.
- Power on/off counter.



Background calculation numbers for back timer and distance measurement

