

Section 20: Controls

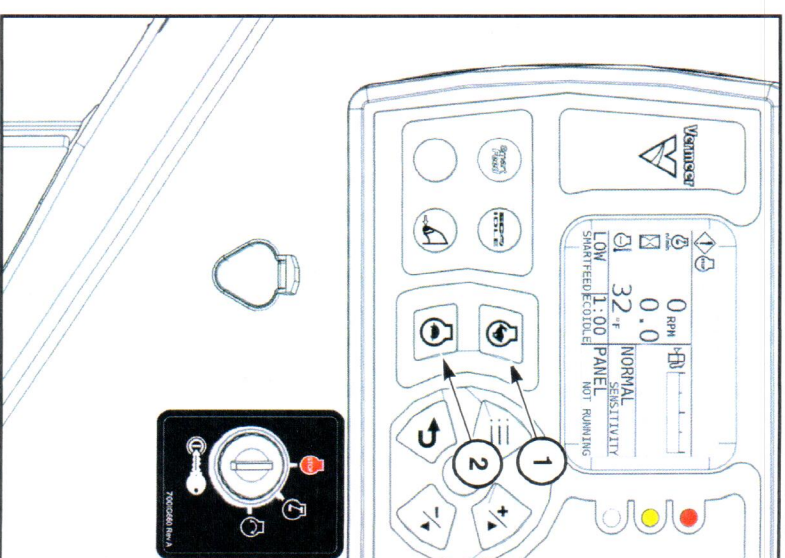
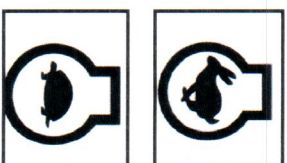
ENGINE MONITORS (DEUTZ PETROL/DEUTZ DIESEL/PSI)

(1) Throttle Up Button

Press to set throttle to high rpm

(2) Throttle Down Button

Press to set throttle to low rpm



(3) **EcolIdle™ Engine Control System Delay Button**

EcolIdle™ system is a fuel-saving technology that drops the engine speed to 1,500 rpm when the control system determines there has been no material chipped for either 1 minute or 5 minutes.

When the EcolIdle system button is pressed, the setting cycles through the OFF, 01:00, 05:00 delay options. The lower center of the main display screen shows the currently selected EcolIdle system setting.

(4) **Red Engine Shutdown Lamp**

When Ignition Switch is ON and engine shutdown fault is detected, red indicator lamp will show.

NOTICE: Serious derate will occur if machine is not shut down. Service engine as soon as possible.

(5) **Amber Engine Indicator Lamp**

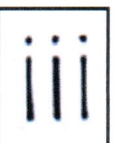
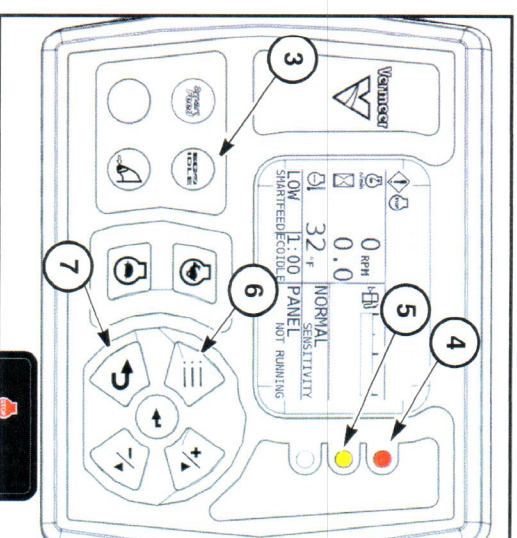
Amber indicator lamp signals the presence of an engine warning diagnostic code.

(6) **Menu Button**

Press to view Menu from main screen or engine information screen, or view main screen from a menu or sub menu.

(7) **Return Button**

Press to exit a screen or go back to the previous screen.



(8) Enter Button

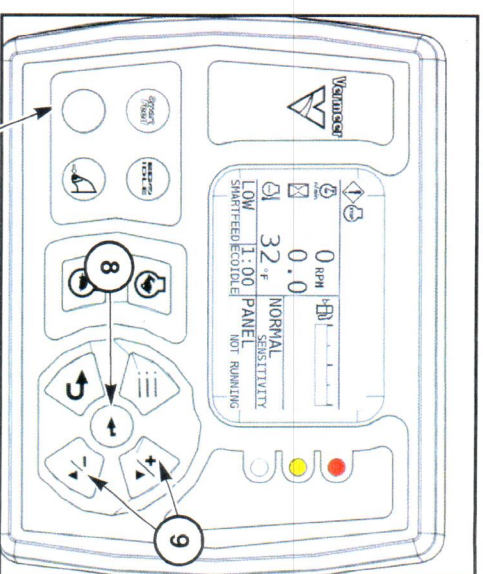
Press to enter a selected sub menu or perform an action corresponding to the current screen.



(9) Scroll Buttons

Scroll Buttons

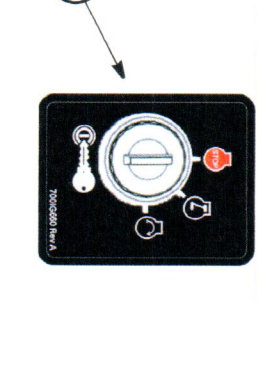
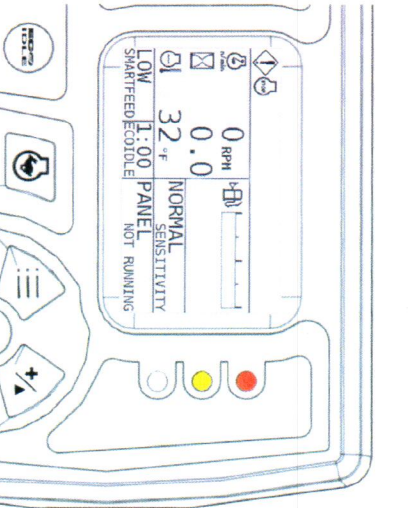
Press top button to scroll up through a menu or increase a value and bottom button to scroll down or decrease a value.



Not Used

A line graph showing the number of people with a college degree from 1980 to 2000. The x-axis represents years from 1980 to 2000 in 5-year increments. The y-axis represents the number of people in millions, ranging from 0 to 100 in increments of 20. The line starts at approximately 20 million in 1980, rises sharply to about 60 million in 1990, peaks at approximately 70 million in 1995, and then declines to about 65 million in 2000.

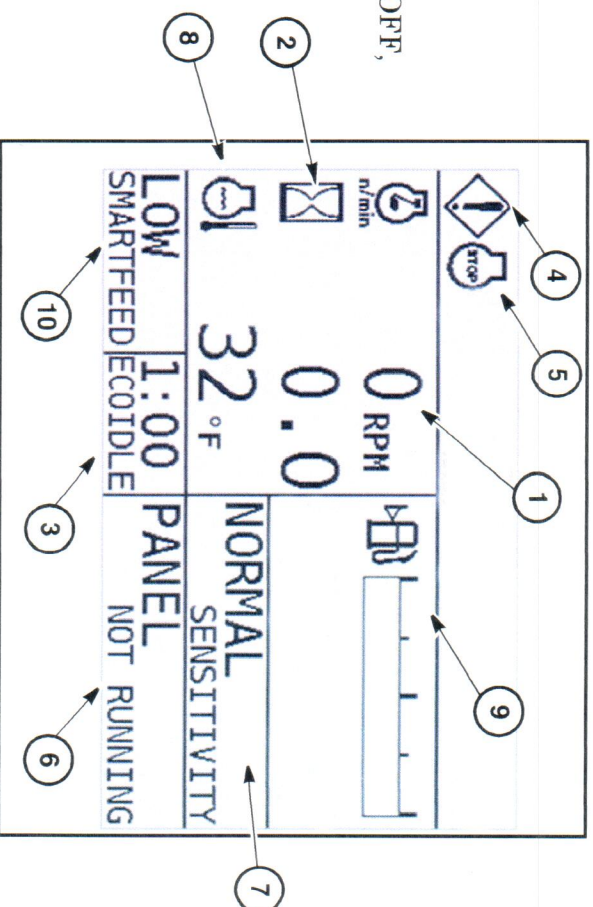
NORMAL SENSITIVITY



MPC12 CONTROLLER DISPLAY (DEUTZ PETROL/DEUTZ DIESEL/PSI)

All engine options are equipped with the MPC12 controller with uniform displays and icons.

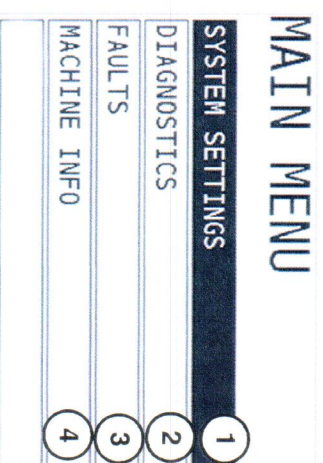
- (1) **Engine RPM**
Displays the current engine rpm
- (2) **Hourmeter**
Displays the total engine hours
- (3) **Ecoldle System Delay Setting**
Displays the current Ecoldle system delay setting, either OFF, 01:00, or 05:00
 - Refer to "Ecoldle RPM Control Option (Deutz Petrol/Deutz Diesel/PSI)," [page 50-6](#).
- (4) **Active Fault Graphic**
Indicates a fault is active
- (5) **Engine Stop Graphic**
Indicates engine is in a shutdown state.
- (6) **Control Mode**
Only PANEL available.
- (7) **Sensitivity Mode**
 - Refer to "Sensitivity Levels," [page 50-4](#).
- (8) **Engine Coolant Temperature**
- (9) **Fuel Gauge**
- (10) **SmartFeed**
Displays droop settings of LOW, MED or HIGH.



Main Menu Screen

To access the Main Menu, press the Menu Button and use the Scroll Buttons to navigate. The menu options are as follows:

- (1) System Settings
- (2) Diagnostics
- (3) Faults
- (4) Machine Info



(1) **System Settings**

This selection contains the following options:

- Units - All unit displays can be changed between Imperial and Metric units.
- Backlight Control - The backlight can be enabled or disabled.
- Set Time - Set the system time here, which will apply to fault stored in the Event History.
- Factory Reset - This will apply the default settings to the above options: English, Metric units and backlight enabled. Reset is inhibited when the engine is running. Performing a factory reset will reboot the controller.

SYSTEM SETTINGS ①

UNITS	
BACKLIGHT	
SET TIME	
FACTORY RESET	

(2) **Diagnostics**

The diagnostics functions available for all engine options are input status, output status and application status.

DIAGNOSTICS ②	
INPUT STATUS	
OUTPUT STATUS	
APPLICATION STATUS	

(2a) **Input Status**

INPUT STATUS ②a	
DIN1. NOT IN USE	
DIN2. NOT IN USE	
DIN3. CONTROL STOP	OFF
DIN4. CONTROL FORWARD	OFF
DIN5. CONTROL REVERSE	OFF
DIN6. NOT IN USE	
DIN7. CLUTCH DISENGAGED	OFF
DIN8. CLUTCH ENGAGED	OFF
DIN9. HOLD TO RUN	OFF

(2b) Output Status

OUTPUT STATUS	
DIG1. REVERSE COIL	OFF
DIG2. FORWARD COIL	OFF
DIG3. NOT IN USE	
DIG4. INFO LAMP	OFF

(2b)

(2c) Application Info

APPLICATION INFO	
THROTTLE STATE	LOW IDLE
FEED STATE	STOP
CLUTCH STATE	DISENGAGED
FEED CONTROL BAR	REVERSE
LOWER FEED STOP	NEUTRAL

(2c)

(3) ECU Fault Codes

Access the active and stored fault codes. The Up/Down buttons will scroll through the list of faults. When a new fault is detected, the Active Faults screen will be displayed until the operator acknowledges all new active faults by pressing the Enter button. During the fault popup screen, throttle controls are inhibited.

FAULTS	
(3)	
ACTIVE FAULTS	
STORED FAULTS	
EVENT HISTORY	
CLEAR HISTORY	

(4) **Machine/System Info**

This is a general information screen. Displayed values are machine model, engine model, engine hours, system time, and installed software information. The remaining information on this screen may be valuable to service when troubleshooting the machine.

MACHINE INFO ④			
MODEL INFO		BC1000	
DEUTZ D2.9 L4	49HP	HRS:	0000.0
00 JAN 2000	SUNDAY	00:	00
SOFTWARE INFO			
VER:	000.000.000	BUILD:	000000000

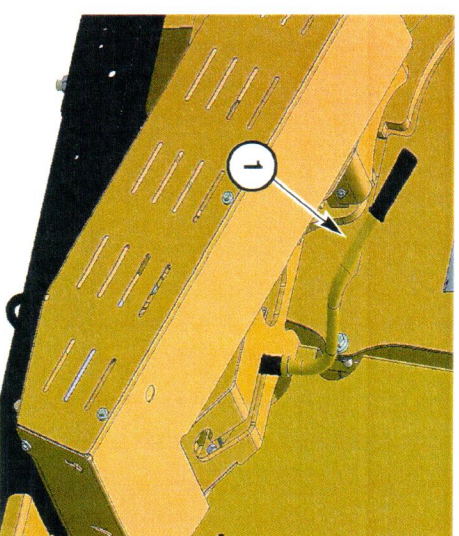
CUTTER ENGAGE (DEUTZ PETROL/DEUTZ DIESEL/PSI)

(1) Cutter Engage

(A) Left.....disengaged



(B) Right engaged



FEED ROLLER CONTROLS

(1) Upper Feed Control Bar

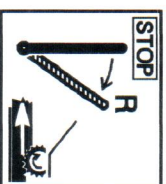
Rear positionfeed roller emergency STOP



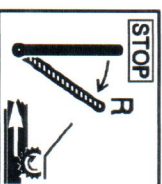
Second position from rearfeed roller FORWARD



Top/Third position from rearfeed roller STOP



Forward positionfeed roller REVERSE



Upper Feed Control Bar is spring-returned from REVERSE to STOP position and must be held to operate feed roller in REVERSE.



Feed roller will not move forward unless:

- Engine speed is at high RPM.
- *Lower Feed Stop Bar* is reset (*Infeed Warning Light* **not** blinking).
- *Cutter Engage* is set to ENGAGED.
- *Upper Feed Control Bar* is in FORWARD feeding position.
- *Hold-to-Run / Reset Button* is pressed.

NOTICE: SmartFeed control is always ON, and is activated automatically.

(2) Lower Feed Stop Bar

Bar pressed feed roller stops

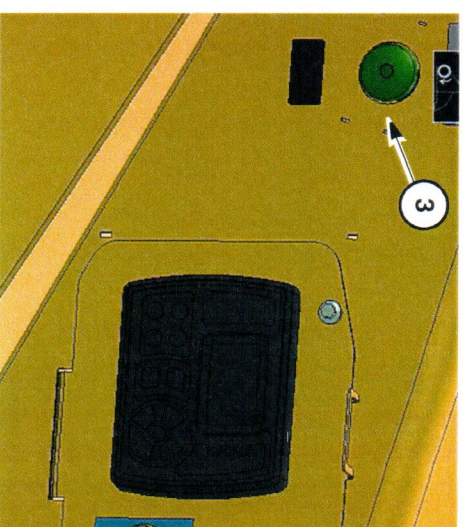
To reset: Briefly press *Hold-to-Run / Reset Button* (see (3) on next page).



(3) Hold-to-Run/Reset Button (Located on both sides of feed table)

Press briefly..... feed roller operates and *Lower Feed Stop Bar* is ignored for one second. Feed roller will automatically restart when engine speed exceeds a preset speed.

Press and hold..... feed roller operates for 30 sec. maximum regardless of position of *Upper Feed Control Bar* (1) and *Lower Feed Stop Bar* (2). After 30 seconds, feed roller stops.



Deutz/PSI Panel Shown

(4) **Infeed Warning Light - Center**

Normal sensitivity setting selected *Infeed Warning Light* OFF
Reduced sensitivity setting selected *Infeed Warning Light* ON

Infeed Warning Light flashes quickly when feed roller needs to be restarted after pressing *Lower Feed Stop Bar* or pulling *Upper Feed Control Bar*.

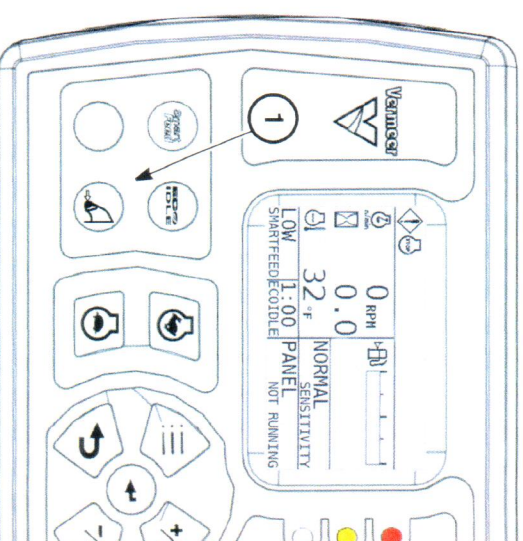
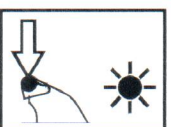
When the *Infeed Warning Light* flashes quickly, the *Hold-to-Run / Reset Button* (3) must be pushed to reset stop system and stop *Infeed Warning Light* (4) from flashing.



LOWER FEED STOP BAR SENSITIVITY BUTTON (DEUTZ PETROL/DEUTZ DIESEL/PSI)

(1) Lower Feed Stop Bar Sensitivity Button

Press button to toggle between normal or reduced sensitivity.

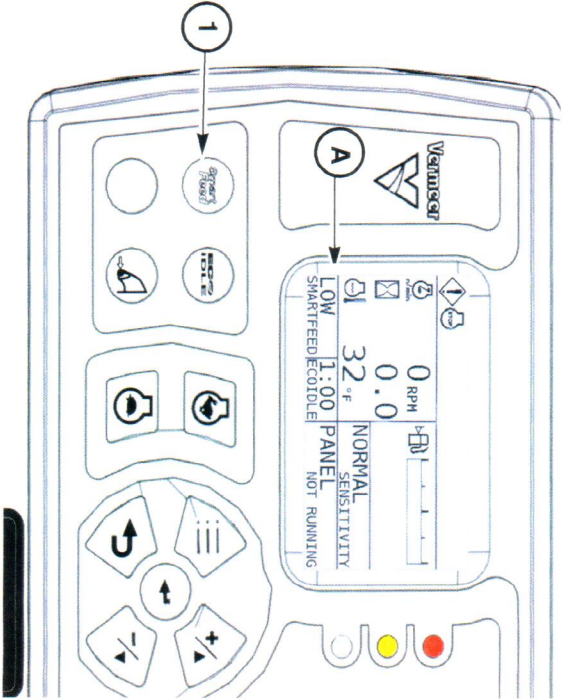


SmartFeed/Droop Set Button (Deutz Petrol/ Deutz Diesel/PSI)

With SmartFeed control operation, the feed roller will stop reverse feeding material when the engine RPM drops below a preset speed, referred to as droop speed. Feed roller will automatically restart when engine speed increases to a preset speed.

Droop speed can be adjusted to high, medium or low speed using *SmartFeed Button (1)*. Current droop selection is shown in the lower left corner (A) of the display.

- HIGH..... high-speed droop (large limbs and trunks)
- MED medium-speed droop (small limbs)
- LOW low-speed droop (brush)



DISCHARGE CHUTE CONTROLS

(1) Chute Rotation Handles

Push handles clockwise chute rotates left
Push handles counterclockwise chute rotates right

(2) Transport Lock Pin

Rotate to center position and release lock pin
so pin engages hole. locked
Rotate lock pin to left or right unlocked

(3) Chute Deflector

Controls the distance chipped material is discharged.
Up farther
Down closer

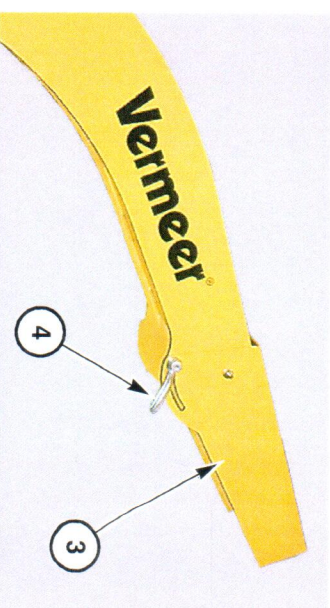
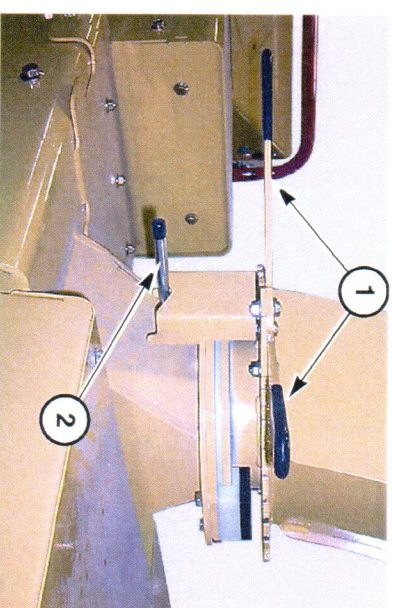
(4) Chute Deflector Lock

Loosen to change deflector position.

Use step on right front corner of machine to aid in reaching chute deflector lock.

(5) Chute Deflector Lock - Deluxe (Option)

Pull down to unlock and adjust deflector position.



FUSES (DEUTZ PETROL/DEUTZ DIESEL)

The fusebox is located inside the engine compartment next to the radiator.

FUSES (CUMMINS/CAT/PSI)

Remove two screws and rear shield cover from rear shield (1).

One fuse is for the engine/control panel and one is for the feed roller; both are attached to harness and require a 20-amp fuse (only) for replacement.

Replace with 20-amp fuses, or electrical damage to system may result. If the fuse needs to be replaced, often an electrical issue may exist. Contact your Vermeer servicing dealer.

