TMC™ CONTROL SYSTEM

OPERATOR'S MANUAL
TMC™ Control System Harvesters ver 1.05/2.16

OMF069452 Issue 15JUL07 (ENGLISH)

CALIFORNIA
Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

If this product contains a gasoline engine:

⚠ WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

The State of California requires the above two warnings.

Worldwide Construction And Forestry Division
LITHO IN FINLAND

Window configuration

NOTE: The window's display and the module generation differ depends on the machine model, differences do not effect to the system function.

From the basic window you can access:

- the boom settings
- the base machine settings
- the operator settings
- the settings of the controls and pedals
- the calibrations
- the measurement window
- the active alarms
- the service window.

These windows are called the settings windows.

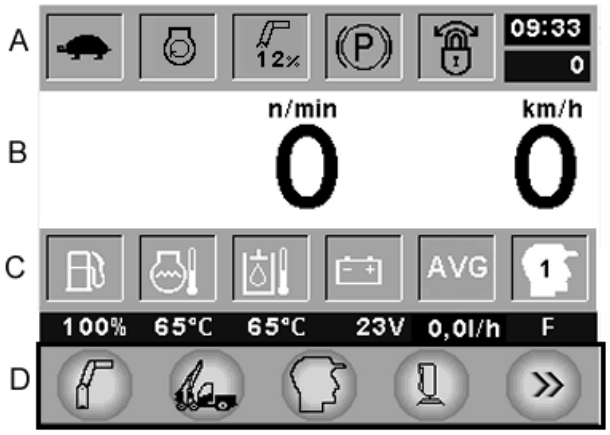
When the boom is engaged and the driving direction is engaged, the settings window changes to the run-time window.

The basic window contains information on the status of the machine and possible alarms. See group Information on the status of the machine.

EK01662,0000090 –19–11JUN02–1/1

D. Submenus

The bottom line of the basic window contains the menu buttons, where you can access the operation mode windows from.



T157716 –UN–12NOV02

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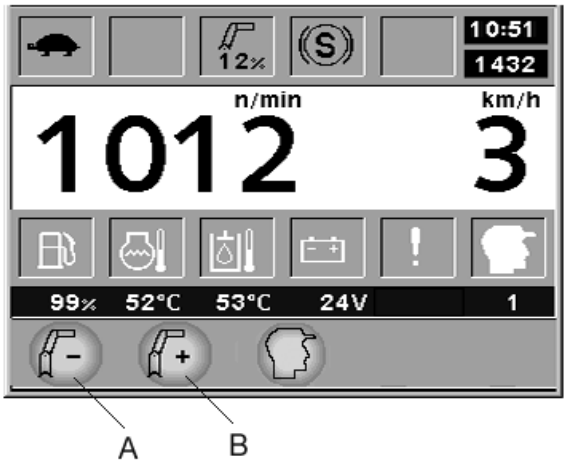
Quick adjustment of boom

When the boom is engaged, you can use the mouse on the basic window to adjust the percentage value of the boom movement in relation to the movement of the control lever. The lower bar of the basic window will then display pictures of a boom to decrease or increase the percentage value (A = decrease the value and B = increase the value).

The percentage value determines how boom speed is proportional to the movement of boom control lever.



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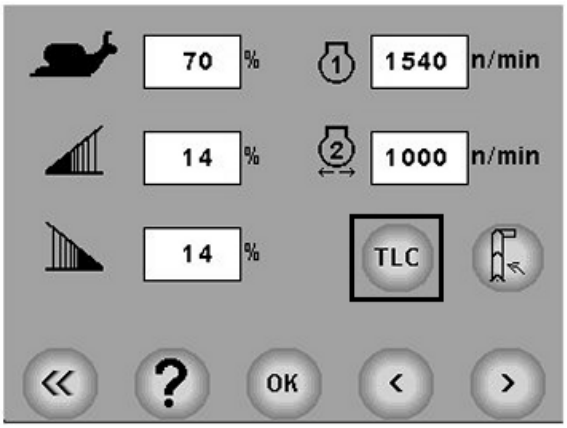
EK01662,00000B9 –22–08NOV02–1/1

Cabin levelling (optional) (1270,1470)

The settings for the cabin levelling are entered by pressing the TLC symbol. The cabin levelling function is optional. System's instructions for use are in the base machine manual.

TLC and boom levelling buttons are available only if those functions are activated from MCH window.



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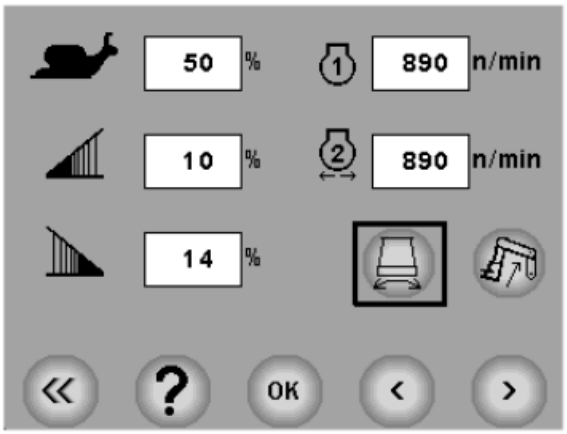
The window looks for 1070 as follows:

See section Cabin sideways levelling (optional).



T157746 –UN–28MAY03

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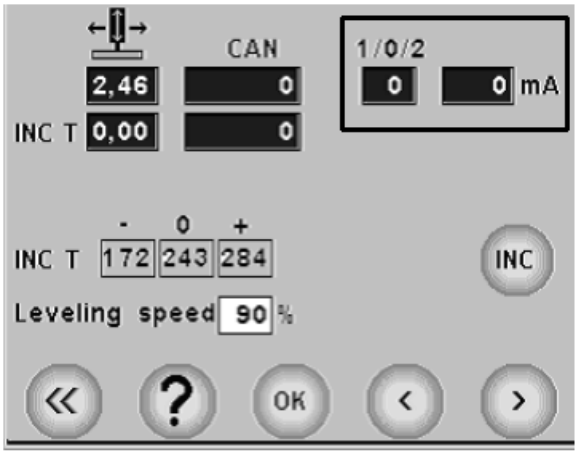
The direction of boom roll

- 0 = center position / no roll
- 1 = roll to the right
- 2 = roll to the left



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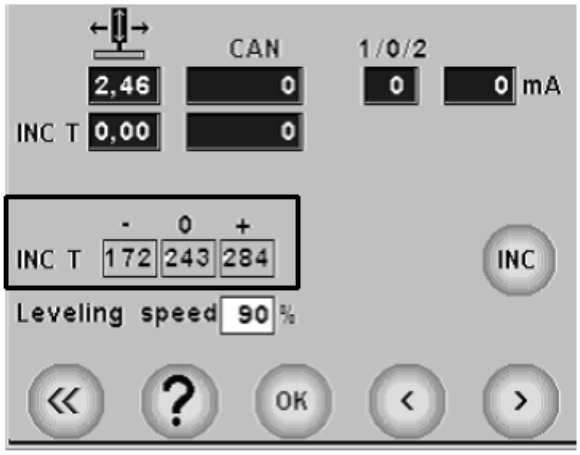
Calibration values for the boom leveler.



T157786 –UN–11DEC03

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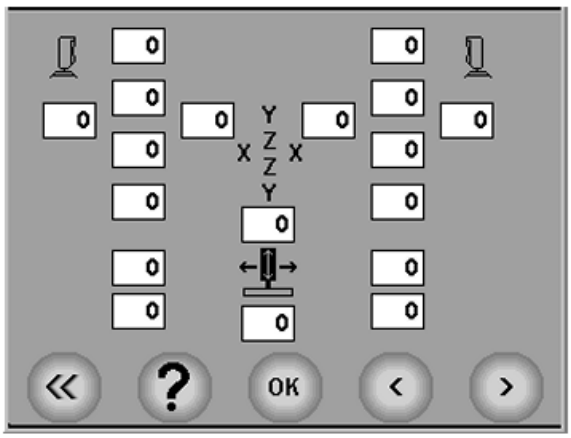
In this window, the progression of the control levers can be adjusted in X, Y and Z directions.



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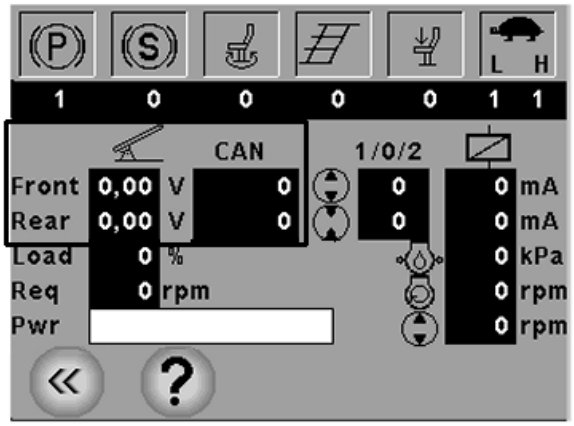
Middle rows:

- **Front**: front pedal

Voltage (0,3 - 4,7 V) given by the front pedal and the corresponding CAN message (0 - 65536).



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EK01662,00000AA –19–13JUN02–3/6

Information on direction of the drive pump:

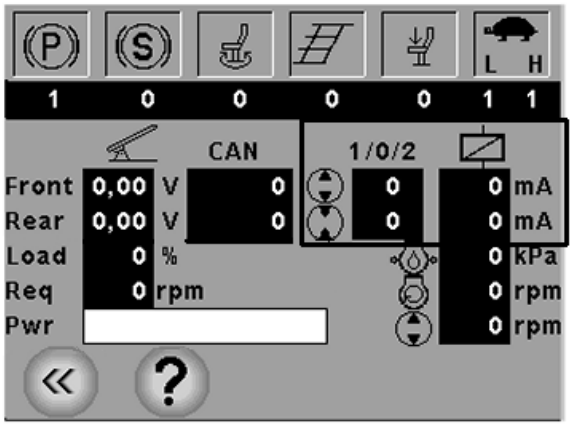
- 1 = rear
- 0 = neutral
- 2 = front

and feedback current from solenoid to module.

Information on status of the drive motor:

- 1 = ON
- 0 = OFF

and feedback current from solenoid to module.



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105.04	On		Manifold Air Temperature.	Manifold air temperature input voltage low.	Manifold air temperature sensor signal shorted to ground Manifold air temperature sensor failed. Refers to Mixed temperature.
105.15	On		Manifold Air Temperature.	Manifold air temperature above normal .	Cooling system performance has degraded or failed. Occurs at 120°C. Refers to Mixed temperature.
105.16	On		Manifold Air Temperature.	Manifold air temperature moderately high.	Cooling system performance has degraded or failed. See Engine Protection for derate information. Refers to Mixed temperature. Power Tech Plus Engines: 121 °C.
107.00	On		Air Filter 1 Differential Pressure.	Air filter clogged.	Air filter restricted. Change filter. See Engine Protection for derate information.
108.02	On		Barometric Pressure.	Barometric pressure signal incorrect.	Sensor is in range but incorrect based on MAP and Exhaust Pressure calculations.
110.00		On	Engine Coolant Temperature.	Engine coolant temperature extremely high.	Cooling system performance has degrades or failed. See Engine Protection for derate information.
110.03	On		Engine Coolant Temperature.	Engine coolant temperature input voltage high.	Open circuit in the harness, either signal or ground Coolant temperature sensor failure.
110.04	On		Engine Coolant Temperature.	Engine coolant temperature input voltage low.	Coolant temperature sensor signal shorted to ground Coolant temperature sensor failed.
110.15	On		Engine Coolant Temperature.	Engine coolant temperature above normal.	Cooling system performance has degraded or failed. Occurs at 110°C.
110.16	On		Engine Coolant Temperature.	Engine coolant temperature moderately high.	Cooling system performance has degraded or failed. See Engine Protection for derate information.
111.01		On	Coolant Level.	Coolant level low.	Loss of coolant detected in the overflow. Add coolant and check for leaks. See Engine Protection for derate information.
157.03		On	Injector Metering Rail Pressure #1 Pressure.	Rail pressure sensor voltage high.	An open in the ground circuit of the rail pressure sensor. Short in the harness to high voltage Rail pressure sensor failure.

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2791.07	On		Exhaust Gas Recirculation (EGR) Valve Control.	EGR valve not responding or out of adjustment.	EGR valve control has been degraded due to a failure to learn a valid Open, Close or Delta position over 15 learn cycles. EGR will run Open-Loop.
2791.13	On		Exhaust Gas Recirculation (EGR) Valve Control.	EGR valve out of calibration.	EGR valve has an invalid position signal. Valve position has exceeded Fully Open or Fully Closed limits. Limit values have shifted significantly from learned limits over a short period of time. A new valve has been installed without clearing the stops. See Engine Protection for derate information.
2791.14		On	Exhaust Gas Recirculation (EGR) Valve Control.	EGR valve off.	EGR actuator has been turned off due to learn cycle error with no valid learn limits stored in the ECU. See Engine Protection for derate information. DISABLED UNTIL FURTHER NOTICE.
2791.31		On	Exhaust Gas Recirculation (EGR) Valve Control.	EGR valve position.	Previous learned values not cleared in ECU after valve changed. Obstruction to open or close valve completely. Position values changing over a long period due to extensive valve wear.
2795.07	On		VGT 1 Actuator Position.	VGT actuator not responding or out of adjustment.	Vane position feedback and desired vane position mismatch. See Engine Protection for derate information.
2795.12	On		VGT 1 Actuator Position.	VGT actuator bad intelligent device.	Turbo Actuator internal fault. No response from turbo or learn stop span error due to inadequate learn band. DISABLED UNTIL FURTHER NOTICE.
3509.03		On	Sensor Supply Voltage 1.	Sensor supply 1 voltage +5V high	The rail pressure sensor supply connection is shorted to a higher voltage. Was SPN 1080.
3509.04		On	Sensor Supply Voltage 1.	Sensor supply 1 voltage +5V high.	The rail pressure sensor supply connection is shorted to ground. Was SPN 1080.
3510.03	On		Sensor Supply Voltage 2.	Sensor supply 2 voltage +5V high.	5V supply shorted to battery voltage. Was SPN 620.

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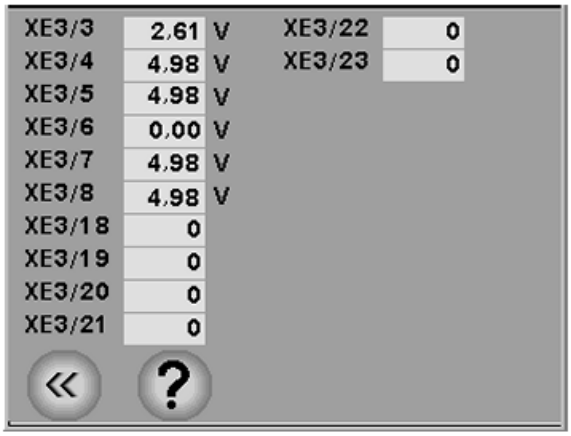
21 — Boom drop (FlashCut) (current)
22 — Reserve
23 — Reserve

EK01662,00000B0 –19–14JUN02–5/11

Connector XE3

3 — Temperature sensor (optional)
4 — Reserve
5 — Outer boom, stop position damper signal
6 — Main boom, stop position damper signal
7 — Cabin sideways level, left stop position damper signal
8 — Cabin sideways level, right stop position damper signal
- — -
18 — Reserve
19 — Reserve
20 — Reserve
21 — Reserve
22 — Brake charging pressure sensor
23 — Reserve



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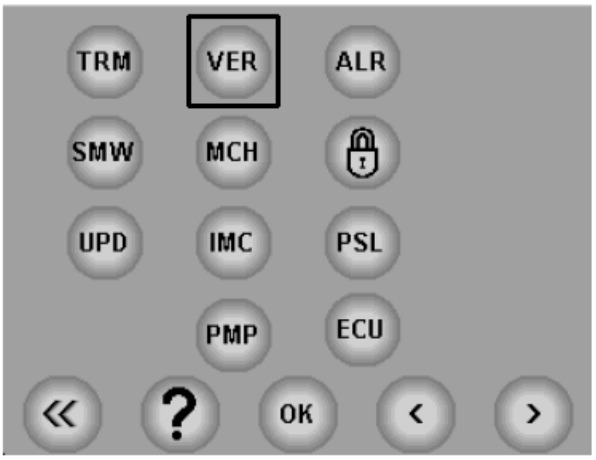
Module program versions

Module program versions and their in to use month and year appear on the service window after the VER button is pressed:

The information in the module program versions window cannot be changed, because the system reads information directly from the modules.



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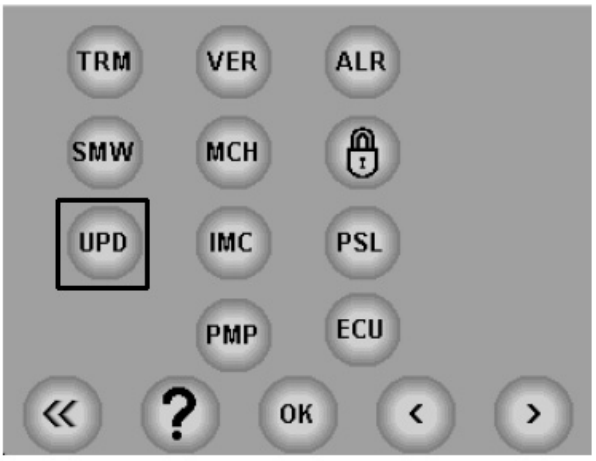
Automatic module program updating button

UPD to open the window for updating module programs. This window is for authorized service personnel only.



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