

# **TMC™ CONTROL SYSTEM**

**OPERATOR'S MANUAL  
TMC™ Control System  
Slash Bundler 1490D ver. 1.03**

**OMF069570 Issue 01.06.2005 (ENGLISH)**

**Worldwide Construction  
And Forestry Division**  
LITHO IN FINLAND

# Introduction

## Introduction

The information contained in this manual is comprised of instructions which will assist the operator to operate the machine in a safe and efficient manner. Make sure this manual is always close at hand and available to all who work on the machine. Should this manual be lost or should it deteriorate to an unintelligible state, contact John Deere or your nearest John Deere dealer for a replacement manual.

If you sell the machine, be sure to give this manual to the new owners.

Continuing product improvement made by John Deere may result in changes to the machine which are not covered in this manual. Should you need up-to-date information about your machine or should you have questions in regards to this manual, please contact John Deere or your John Deere dealer.



**CAUTION: Only persons whose training has been approved by John Deere are permitted to operate John Deere machinery.**

**Improper operation and maintenance of this machine can be hazardous and could result in serious injury or death.**

**Therefore, it is of paramount importance that all the instructions given in this manual and during training be followed when the machine is operated or serviced.**

TMC™ (Total Machine Control) is a digital control system designed for use in forest machinery. The system makes use of contemporary bus technology and distributed control.

The TMC™ system consists of independent, intelligent modules capable of communicating with each other via a CAN bus. Thanks to the modular configuration of the system it is possible to easily modify the system according to the needs of different machines. Likewise, the intelligent modules allow the use of versatile diagnostics under a variety of operating conditions.

The distributed system and the use of bus technology make it simple to install and wire the equipment, which translates into added reliability.

The TMC™ system is equipped with a graphical user interface which makes it easy to put the system into use and full utilization.

The system controls the diesel engine, the hydrostatic power transmission and the boom as well as all related auxiliary functions.

### Trade marks:

TMC™ is a registered trade mark.

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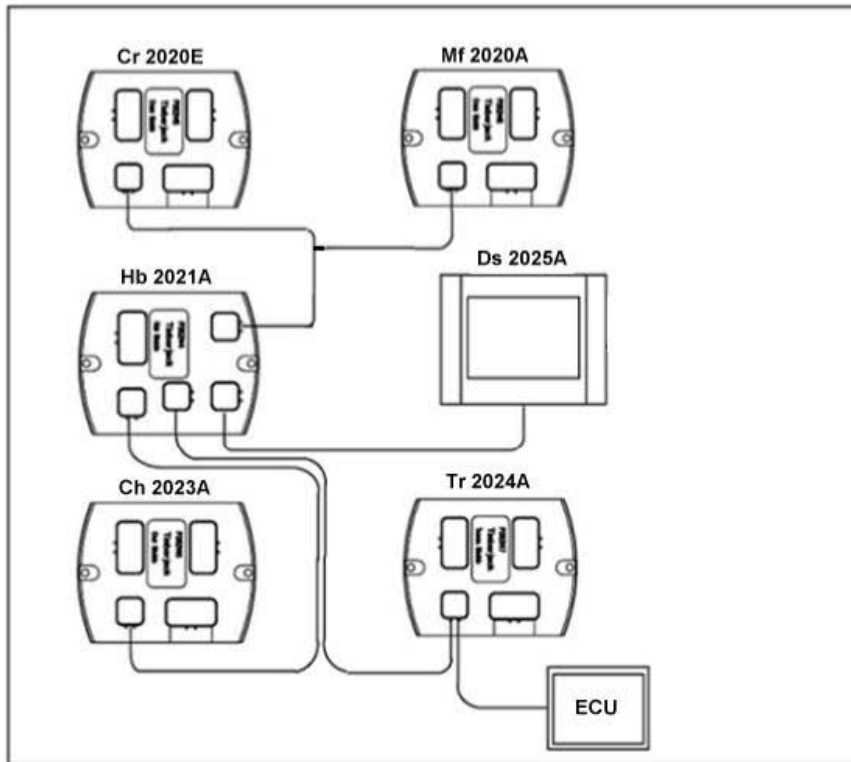
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*All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.*

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# Overview

## TMC™ System



### Modules names:

**Cr** = Crane module

**Hb** = Hub-module

**Ch** = Chair module

**Mf** = Multi-function module

**Ds** = Display module

**Tr** = Transmission module

**ECU** = Motor control module

The TMC™ system consists of 6 different modules: HUB, Chair, Display, Crane, Multi-function and Transmission module.

The HUB-module functions as a distribution controller. It also has some inputs and outputs that facilitate wiring and functions.

Most of the controls and switches are installed to the Chair-module.

Display module works as a graphical user interface, but it doesn't take any part in machine control.

The Crane module takes care of the control of the boom valve and some of the sensors.

The Transmission module takes care of the control of the hydrostatic transmission, the diesel engine and all related auxiliary functions.

ECU is the motor control module, which is not a part of the TMC™. TMC™ sends the motor control information to the ECU and receives sensor information.

The Multi-function module controls the functions of the Slash Bundler.

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## Overview

*NOTE: The TMC™ system differs, if the Timbermatic™ 900 PC control system is assembled on the base machine. Instructions for the*

*Timbermatic™ 900 are provided in a separate manual. Timbermatic™ 900 is optional equipment.*

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### General

The X and Y movements of the boom control lever are used for shifting the cursor arrow on the display, and the Z movement (toggle-switch) allows you to choose the function desired or to increase/decrease the parameter being adjusted.

Adjust contrast if needed.

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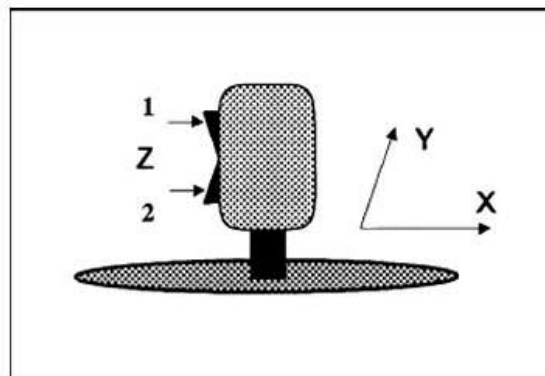
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### Boom Control Lever Movements

1 = to increase the value

2 = to decrease the value

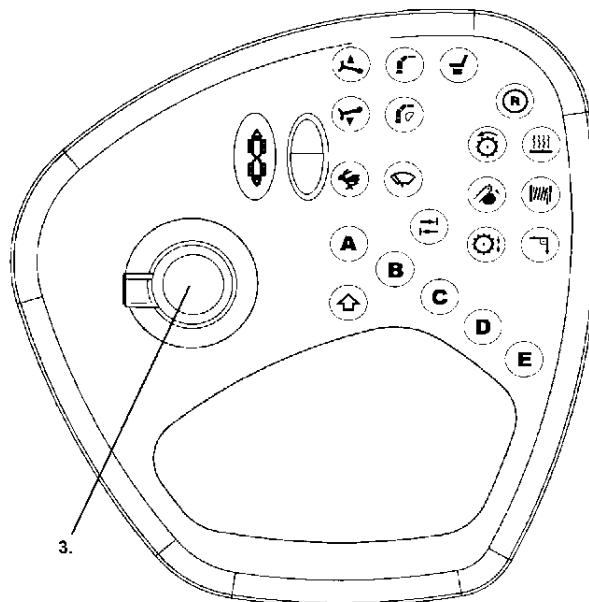
The cursor arrow appears on the display when the boom is not engaged and the switch for driving direction is in the center position.



### Arm-Rest Control Panels

In the user interface you can alternatively also move by using the keys on the arm-rest. On the right-hand-side arm-rest, the keys are related to the buttons on the display. You can use A, B, C, D and E multifunction keys in diagonal rows to move through the menu in the display and to adjust the values.

*NOTE: During adjustments it is recommended to keep on doing only in one way. The system works better if you do not switch from the control lever (3) to the keys on the arm rest panel (A-E) and vice versa when adjusting parameters.*



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### Display's Symbols

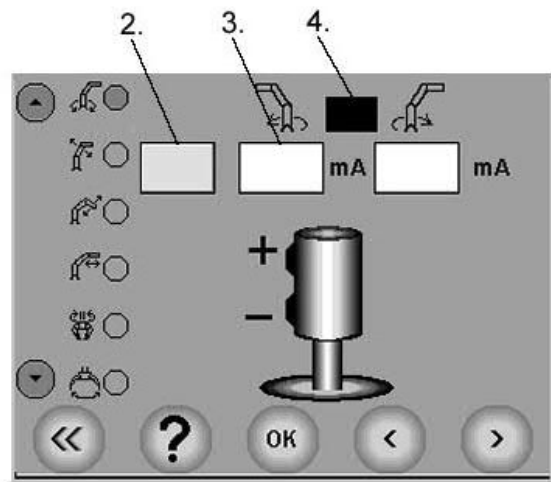
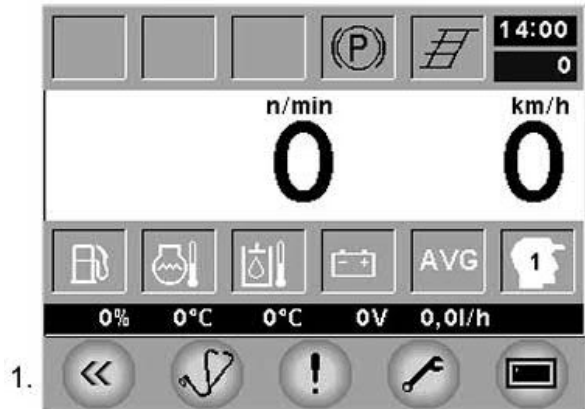
On the window, there appear two types of symbols: functional and descriptive. By clicking the functional keys you enter the following windows or you can change and confirm the machine settings.

On the window, the descriptive symbols detect an activated function, functions being measured or an alarm.

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1. The round, shaded buttons are functional buttons and they enter the next window. If you use the control lever to move the cursor and then click the button you move directly to the next window. If you use the D or E multifunction keys to click the < or button, you can move through the window and the chosen functional button is highlighted with a lighter frame around the button. You then use the C multifunction key to click OK and move to the next window. You then use the same methods to select what you want to adjust.
2. Parts inside a rectangular frame on light gray background are information for the user.
3. The values you can choose and modify in the window are equipped with a frame and have a white background. If there is a number in the window you can change it by employing the right control lever to shift the cursor on top of the number to be changed. The number can be increased by pressing down on the upper half of the Z toggle switch of the control lever, and it can be decreased by pressing down the lower half of the Z toggle switch.
4. When the window is chosen the colour turns to black and the text turns white. The colour will turn back to white after the settings have been confirmed with the OK-button or when you move to another window that can be chosen.



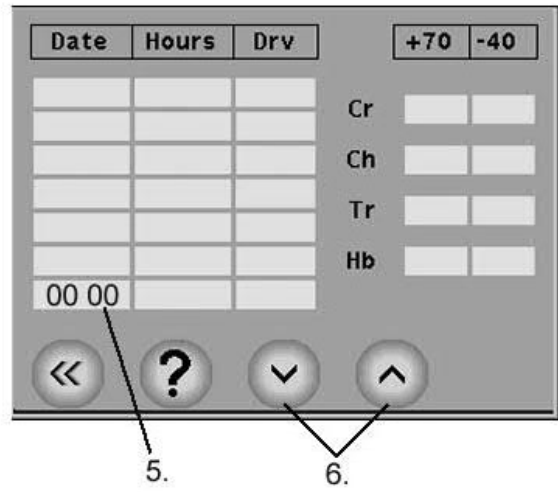
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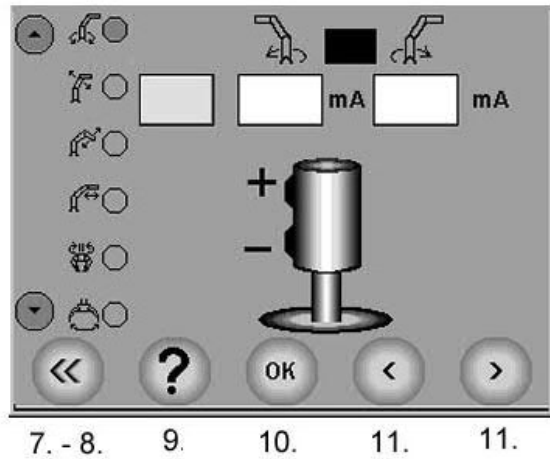
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5. Inside the frame on light gray background the numeric values are measured values for the machine. They are information for the user and cannot be changed.
6. In the alarm log, you can move by using the following arrows.
7. By clicking the Arrow to the right-button another window of the basic window will enter with more submenus.
8. By clicking the Arrow to the left-button you can open the previous window or the first window of the basic window will appear on the screen.
9. By clicking the Question mark-button you can read the system helps. The contents of the helps varies from one window to another.
10. Press the OK-button to confirm the choice of adjustable parameters and also to save adjusted values.
11. You can move by means of the Arrow-buttons in the settings window to choose a value to be adjusted.



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