

This document is meant to be a reference work to allow only those users who are authorised to do so to safely operate and maintain the product mentioned on the cover of this document. Keep this manual in a safe place, for example, with the other documents for your tractor. If this manual is lost, you can order a copy from your supplier.

This manual provides information relating to safety, technical specifications, operation and maintenance. Please take the time to read this document carefully before using the front PTO system.

This manual supplements the existing front PTO system user manual and replaces sections 6.1 and 6.2.

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Zuidberg Frontline Systems B.V. reserves the right to change components at any time without prior or direct notification to the customer. The contents of this manual may also be amended without prior notice.

Please contact your supplier for information relating to maintenance work or repairs not provided in this manual.

This manual has been compiled with the utmost care, but Zuidberg Frontline Systems B.V. cannot take responsibility for any errors in this document or the associated consequences.

Translation of the original manual

1 Controller

A controller is supplied with the front PTO system. This is used for the safe and correct engagement of the PTO. There are 3 types of controllers.

- PTO Controller 3-pin
- PTO Controller 4-pin
- PTO Controller 8-pin

The controller can be configured using a tablet or a smartphone. Download the free Zuidberg App from the App Store or Google Play Store. Follow the instructions in the app



Before putting the PTO into operation, check that the controller cables are connected to the PTO and the tractor's wiring! The dealer must configure the controller before use. (For the correct connection, see the installation instructions as supplied for the installation of the front PTO system)

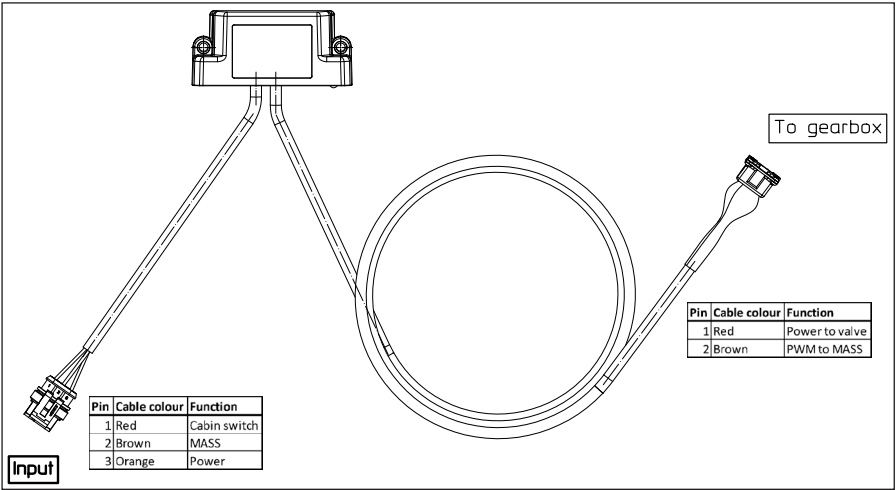


Figure 1 3-pin controller, item number 8002006

This controller is interchangeable with the controllers with the following item numbers:
8001914 0/A 8001272 0/A
8000012 A/A 8000019A
For other variants, please contact your dealer.

To configure the controller or set the engagement time; see section 1.1

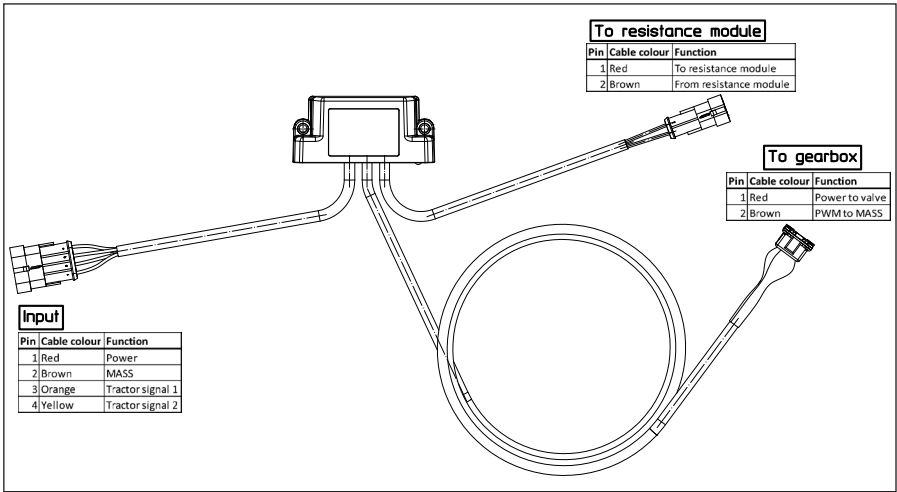


Figure 2 4-pin controller, item number 8002007

This controller is suitable to be controlled by tractor hardware and software.
A resistor module must be installed with the controller.
To configure the controller or set the engagement time; see section 1.1



- The resistor module may become hot during PTO operation, avoid direct contact at all times.
- Always ensure that the resistor module is mounted in the open air and in the airflow of the cooling assembly.
- Ensure that the resistor module is free from dust/grass/dirt at all times. Clean it regularly!

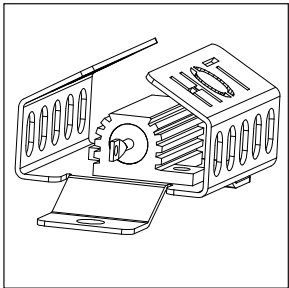
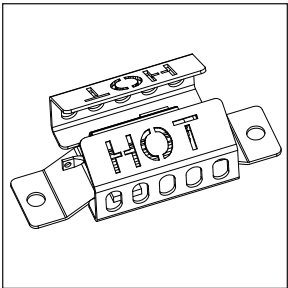


Figure 3



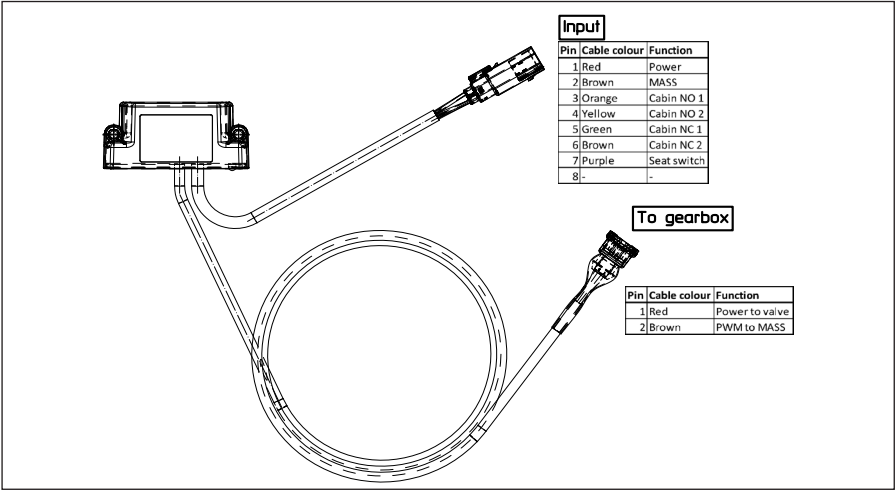


Figure 4 8-pin controller, item number 8002008

This controller can only be used with a dedicated wiring harness and switches. For switch operation, see section 1.3.
To configure the controller or set the engagement time; see section 1.1

1.1 Configuring the controller

The tractor ignition must be switched on in order to configure the controller.

The controller can be configured by the dealer using the free downloadable Zuidberg App. Scan the QR code to download the app.
Once end users download the Zuidberg App, they can adjust the clutch engagement time themselves. End users can also see the total number of running hours of the tractor and of the PTO in the app.
When connected to the controller via Bluetooth, the PIN code found on the controller (see Fig. 5) must be entered. Only then is it possible to configure the controller by following the steps in the app.

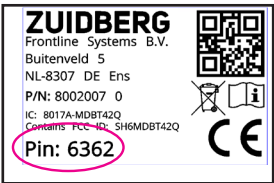


Figure 5



The engagement time can be set in the app. If the front PTO system is used to drive a very light implement, the engagement time should be long so that the system engages less abruptly. In the case of heavy drive loads, the engagement time should be set as short as possible in connection with the wear of the coupling.

After setting the engagement speed, the Bluetooth connection to the controller can be disconnected.

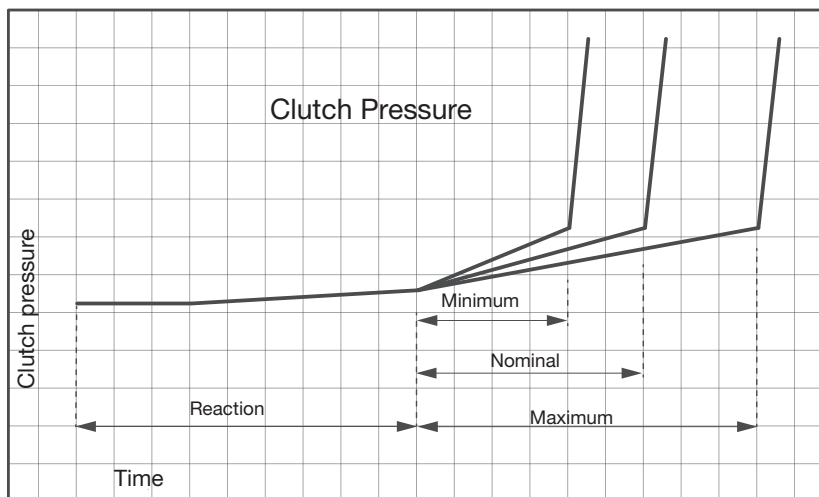


Figure 6

1.2 LED Status

The controller has a status LED. It can be green, yellow or red.

The table below indicates the status of the LED.

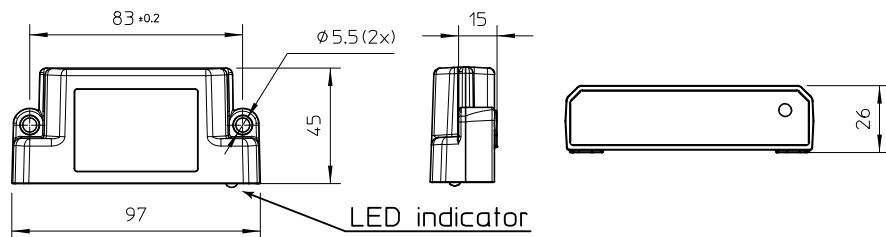


Figure 7

LED	Controller status	Meaning
Red/green flashing	Bluetooth connected	Bluetooth connection is established.
Green flickering	Standby	The controller is configured and ready for use.
Green constant	Active	The PTO is engaged.
Red constant	Not configured	The controller is not configured. Use the app to program the controller.
Red flashing	Fault	A fault has occurred. Open the app and see which fault code is displayed. Follow further instructions.
Yellow flashing	Start protection	Start protection engaged. Disengage the PTO. After 3 seconds, you can engage the PTO again.
Yellow constant	Service required	Contact your dealer.

1.3 Engaging and disengaging front PTO system

The front PTO system can be engaged with the switch provided. The position and type of the switch depend on the type of tractor the front PTO system is installed on.



The start protection of the front PTO system is integrated into the controller. The front PTO system will not operate automatically if the tractor engine is started while the front PTO system switch is engaged. To engage the front PTO system, first, turn off the switch and turn it back on after 3 seconds.



*The front PTO system must **NEVER** be engaged before the front linkage system has been placed in the correct (working) position, this is to avoid any damage to the PTO shaft among other things. Always consult the instructions of the implement and the PTO being used regarding the working position of the implement and the engagement of the front PTO system.*

When engaging and disengaging the system, the following guidelines should be followed:

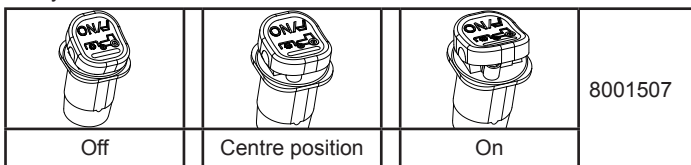
- Engage the front PTO system at a tractor engine speed of approx. 1000 [rpm]
- Do **NOT** engage the front PTO system at a tractor engine speed above 1200 [rpm]
- While engaging the front PTO system, do **NOT** increase the tractor engine speed.
- **NEVER** try to loosen a stuck implement by switching the front PTO system on and off
- Always switch off the PTO system (and allow the implement to stop) before operating the front linkage in order to avoid damage, for example, to the PTO shaft (also see specific instructions of the PTO shaft and/or the instructions of the implement being used)
- Always allow the implement to come up to speed before starting your work

The points below apply only when using the 8-pin controller.

1.3.1 Enable the 8-pin controller.

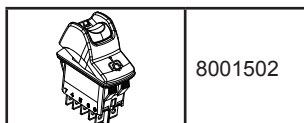
For the switch with item number 8001507, the first time the front PTO system is switched on after starting the tractor, the switch must be pressed one time into 'ON' in order to put the front PTO system into 'standby'. At a 2nd time in the "ON" position, the PTO engages.

After this first time, the switch only needs to be pressed to the 'ON' position once to engage the front PTO system.



This procedure is for safety reasons so that the PTO cannot be started unintentionally.

When using the switch with item number 8001502, this engagement procedure does not apply. The extra safety is provided here by the hardware. After starting the tractor, if the switch is operated 1 x, the PTO will immediately engage.



1.3.2 Seat switch

The front PTO system can only be switched on if the user is seated on the driver's seat. If the cab switch is operated without the user on the driver's seat, the cab switch must first be turned off again for 3 seconds.

If the front PTO system is switched on and the user leaves the driver's seat, the front PTO system will automatically switch off after 6 seconds!

If the seat is occupied again within these 6 seconds, the front PTO system remains engaged.

If the seat is occupied again outside of these 6 seconds, the front PTO system remains switched off, and the cabin switch must first be switched off again for 3 seconds.

These safety measures are required by European law.

It is possible to operate the front PTO system without the user on the driver's seat. In this case, the front PTO system must first be engaged with the user on the driver's seat. Once engaged, the cab switch must be turned to the 'on' position again while seated to disable the seat safety. The user must leave the seat within 30 seconds; otherwise, the seat safety will automatically activate again.

If the user now leaves the driver's seat, the front PTO system remains engaged. When the user is back on the driver's seat, the seat safety is activated again.

The different statuses are visible in the illumination of the switch:

LED	Controller status
Constant	Front PTO engaged
Flashing quickly	Fault
Flashing slowly	Driver's seat override is activated
Flashing intermittently	The front PTO system switches off automatically.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.