




#### 4. Calibration - Final position for Black Type Potentiometers

Carry out calibration no. 3. If machine does not work in auto, recalibrate steps 1 and 2, and calibrate final positions as follows.


Final positions are calibrated opposite way round than for Grey Type Potentiometer.

Press and hold the -key



Switch on the device using the -key



The control lamp in the ON/OFF-key  turns on. When the control lamps in -key


and -key turn off, release the -key. The control lamp in -key is now



on. Press the -key again. When this control lamp flashes, the system can be fed with


data on the final positions:

Turn the manual control turn key  slowly to the right. Steering now moves to the final position of the right side. When steering is in the utmost final position press the -key.

Turn the manual control turn key  slowly to the left. Steering now moves to the final position of the left side. When the steering is in the utmost final position press the -key.

























Turn steering to centre position using the manual control turn key .

Press the -key to escape from tuning mode. The control lamp in -key is now continuously on.

Switch off the device using the -key.

#### Electrical connection of the potentiometers

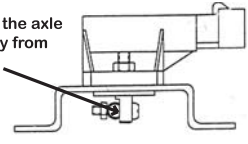
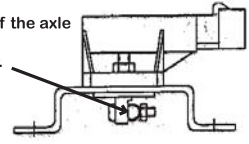
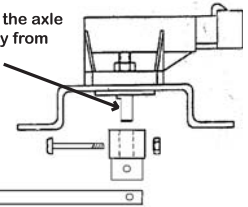
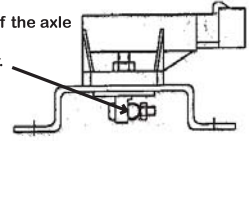
 **Caution! The polarity of the potentiometers is very important. If the wires are mixed up the potentiometers may be destroyed. Correct polarity is shown here:**

											
											
<b>Ventil A</b>	<b>Ventil B</b>	<b>Spritzen Verteiler</b>	<b>Rad</b>	<b>Verriegelung</b>	<b>(connected)</b>	<b>Potentiometer Deichsel (= Drawbar)</b>	<b>Potentiometer Schlepper (= Tractor)</b>	<b>Reserve</b>			

#### Colour codes:

Colour	Alternative colour
+12V	br: brown br: brown
Signal	gn: green gn: green g/y: green/yellow
Ground	ws: white ws: white bl: blue

#### Location of potentiometers

All views from side	Tractor	Sprayer
<b>High Drawbar</b>	The flat side of the axle must point away from the connector. 	The flat side of the axle must point to the connector. 
<b>Low Drawbar</b>	The flat side of the axle must point away from the connector. 	The flat side of the axle must point to the connector. 

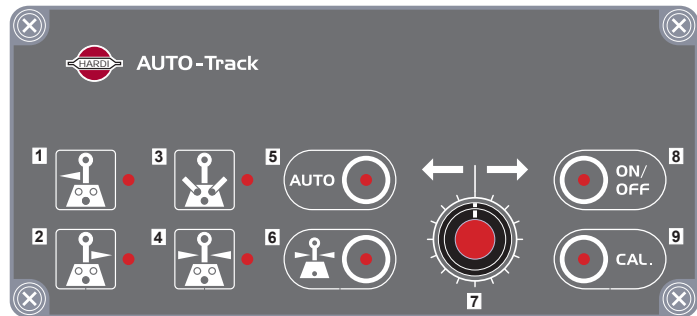
#### DIP Switches

DIP Switches	Speed
ON 1 2 3 4 5 6 7 8 ↑ 	Slow
ON 1 2 3 4 5 6 7 8 ↑ 	Fast
DIP Switches	Length of tractor coupler *
ON 1 2 3 4 5 6 7 8 ↑ 	450 m m
ON 1 2 3 4 5 6 7 8 ↑ 	600 m m
ON 1 2 3 4 5 6 7 8 ↑ 	750 m m
ON 1 2 3 4 5 6 7 8 ↑ 	900 m m
DIP Switches	Draw bar
ON 1 2 3 4 5 6 7 8 ↑ 	Long drawbar - CM 3200/4200
ON 1 2 3 4 5 6 7 8 ↑ 	Short drawbar - CM 3200/4200
ON 1 2 3 4 5 6 7 8 ↑ 	Long drawbar - CM 2200/2800
ON 1 2 3 4 5 6 7 8 ↑ 	Short drawbar - CM 2200/2800
ON 1 2 3 4 5 6 7 8 ↑ 	High drawbar - COMMANDER
ON 1 2 3 4 5 6 7 8 ↑ 	Low drawbar - COMMANDER

\* Length from rear axle to centre of towing ring

Dip 5 Not used. For detailed information please refer to user's instruction book

**Overview - Control box**



- 1 - Control LEFT lamp
- 2 - Control RIGHT lamp
- 3 - Lock indication lamp
- 4 - Centre position lamp
- 5 - Automatic key
- 6 - Centre position key
- 7 - Manual control turn key
- 8 - ON/OFF key
- 9 - Calibration key

Control lamp

**Installation - Power supply**

The power supply of the control box is fitted directly to the tractor battery. A 25 Amp. fuse must be fitted to its wire; connect fuse holder to the plus side of the battery

**Colour codes:** Brown: +12 volt (V), Blue: Ground

**Calibration**

**It is of essential importance that the drawbar is correctly fixed and free of slack when calibration is carried out.**

**Note! The system has to be restarted before a calibration takes effect.**

**1. Returning to basic tuning**

**When using this command all altered data will be over written and the system returns to basic tuning.**

Press and hold the -key while switching on the device using the -key.

Control lamp in -key turns on

When the control lamps in -key and -key turn off, release the -key.

The control lamp in will now start to flash.

Press the -key again and the control lamp in will turn off.

The device switches off automatically.

**2. Calibration - Centre position**

Press and hold the -key and the -key while switching on the device using

the -key. Control lamp in -key turns on.

continues ...

When the control lamp in -key turns off, release the -key and the -key.

Control lamps in -key and -key will turn on.

Drive straight ahead with the tractor and trailer - if possible along a line - and use the manual control turn key to adjust the steering until the trailer follows the tractor exactly in its trail.

When the control lamp for centre position turns on, press the -key. The control lamp in the -key will now turn off.

Switch of the device using the -key.

**3. Calibration - Final positions for Grey Type Potentiometer**

Press and hold the -key

Switch on the device using the -key

The control lamp in the ON/OFF-key turns on. When the control lamps in -key and -key turn off, release the -key. The control lamp in -key is now on. Press the -key again. When this control lamp flashes, the system can be fed with data on the final positions:

Turn the manual control turn key slowly to the right. Steering now moves to the final position of the right side. When steering is in the utmost final position press the -key.

Turn the manual control turn key slowly to the left. Steering now moves to the final position of the left side. When the steering is in the utmost final position press the -key.

Turn steering to centre position using the manual control turn key Press the -key to escape from tuning mode. The control lamp in -key is now continuously on.

Switch off the device using the -key.