"Section Control" for crop protection orientation aid

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1. General information

- Use of this document requires that the **operating manuals** for the implement and the software have been **read** and **understood**. The corresponding documents are shown on the right side.

- For this reason, it is **necessary** to take additional information from the operating manual. The **operating manual** must **always be kept at hand**.

- The **"Section Control" orientation aid** document serves as a guideline for the user to correctly set the switch points of the implement on the field. This document is based on the AmaTron 4 **NW242- J** software version, but is applicable for any other terminal.

Original operating manual

Control terminal

AmaTron 4

This operating manual is valid as of software version NW216-I

www.amazone.de

Operating Instructions

ISOBUS software

Field sprayer

UF 02 / UX01 / Pantera / FT-P

MG6004
BAG0171.15 06.24
Printed in Germany

en

Please read this operating manual before initial operation. Keep it in a safe place for future use!
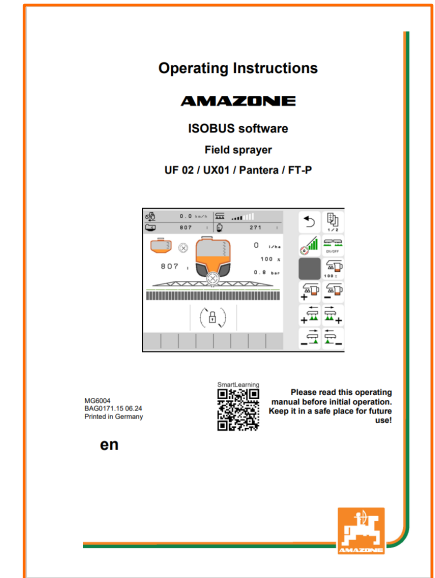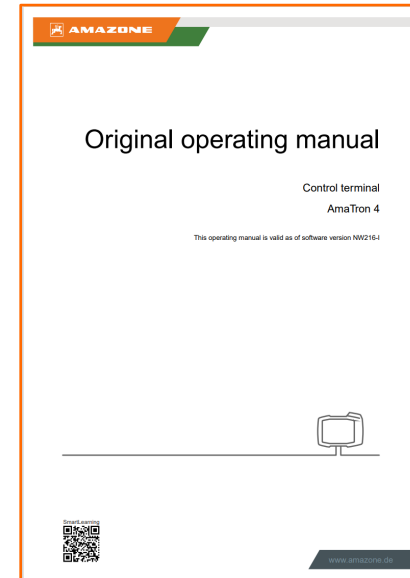
2. Overview

Setting of the **switch points** is essential for optimal operation of an implement with Section Control!

General:

*   GPS-related *switching on* of the implement when reaching the unworked area.

*   GPS-related *switching off* of the implement when reaching the already worked area.

*   The switch points consist of two important factors. The **implement geometry** and the **switching delay**, i.e. the time between the command and the application. The two factors are set separately from one another. Setting of the two factors is explained on the following pages.
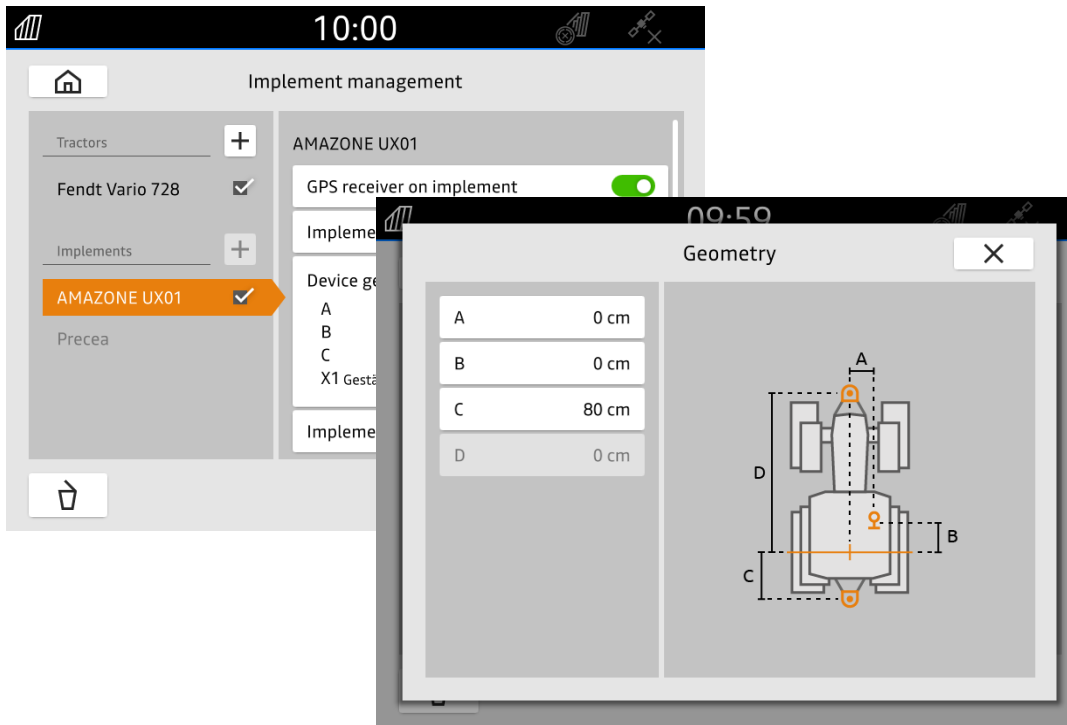
Requirements:

*   Suitable geometry of the tractor and the implement.

*   Set sensor signals, such as the speed, etc.

*   RTK (DGPS with reservations, with lower accuracy).

NOTE

The switching delay is set based on the time and not on the distance!

3. Preparations

Manufacturer	Antenna position
AGCO	Position projected onto the centre of the rear axle
Claas	Position projected onto the centre of the rear axle
JohnDeere	Actual antenna position
Deutz-Fahr (TOPCON)	Position projected onto the centre of the rear axle
CNH (Trimble steering system)	Position projected onto the centre of the rear axle
CNH (Trimble manual steering)	Actual antenna position

- The geometry data for the tractor and mounted implement must be correctly entered.

- For precise setting, "RTK" GPS accuracy is recommended. If this is not available, "DGPS" accuracy is required as a minimum.

NOTE

Some third-party GPS systems do not emit the GPS position for the actual antenna position in the NMEA ouput, but rather project the position of the antenna onto the centre of the rear axle of the tractor. In such cases, the offset of the GPS antenna must be set at 0 cm
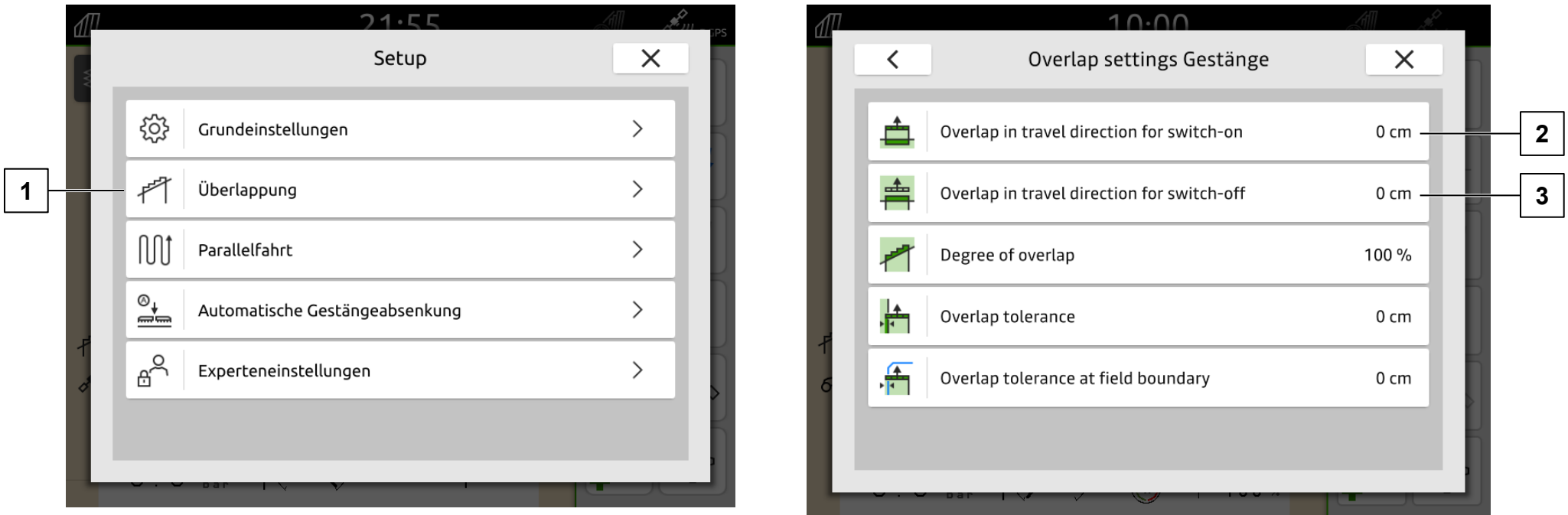for value B. The table lists the known systems.

3. Preparations
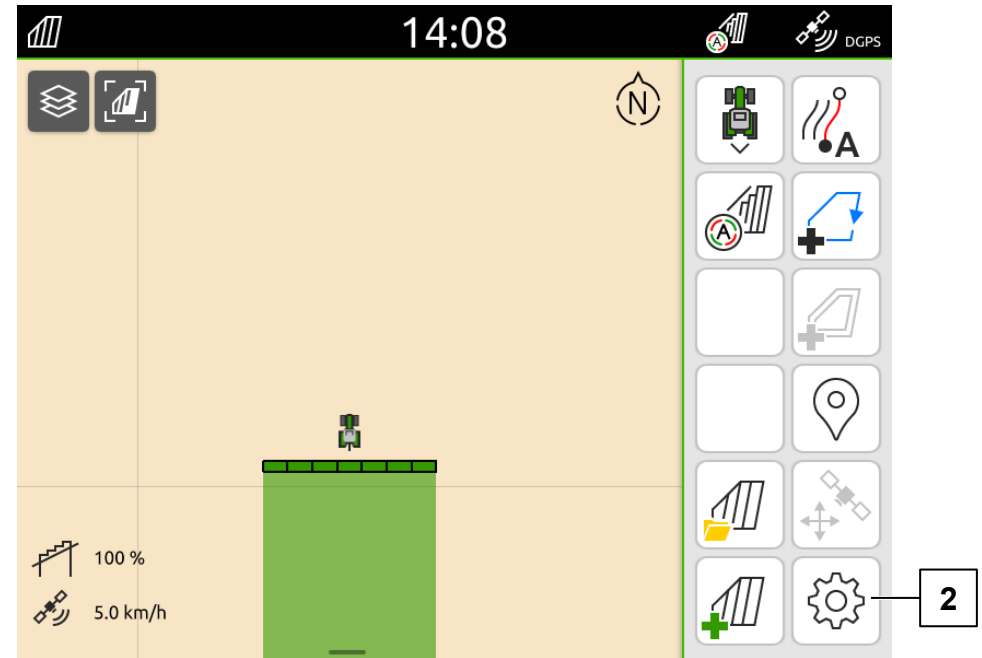
Set the overlap settings on the terminal to the default settings.

1.   Press the "Map view" button (**1**) to access the map view.

2.   Press the "Settings" button (**2**).

3. Preparations

3. Press the "Overlap settings" button (**1**).

4. Set the "Overlap in the direction of travel when switching on" (**2**) and "Overlap in the direction of travel when switching off" (**3**) to the default setting (0 cm).

NOTE

A desired overlap can be set in cm with the values "Overlap in the direction of travel when switching on and switching off". The switch points of the implement are set using the switching delay in the implement software!

4. Setting the switch points

The following animations are based on the actual worked area on the field!
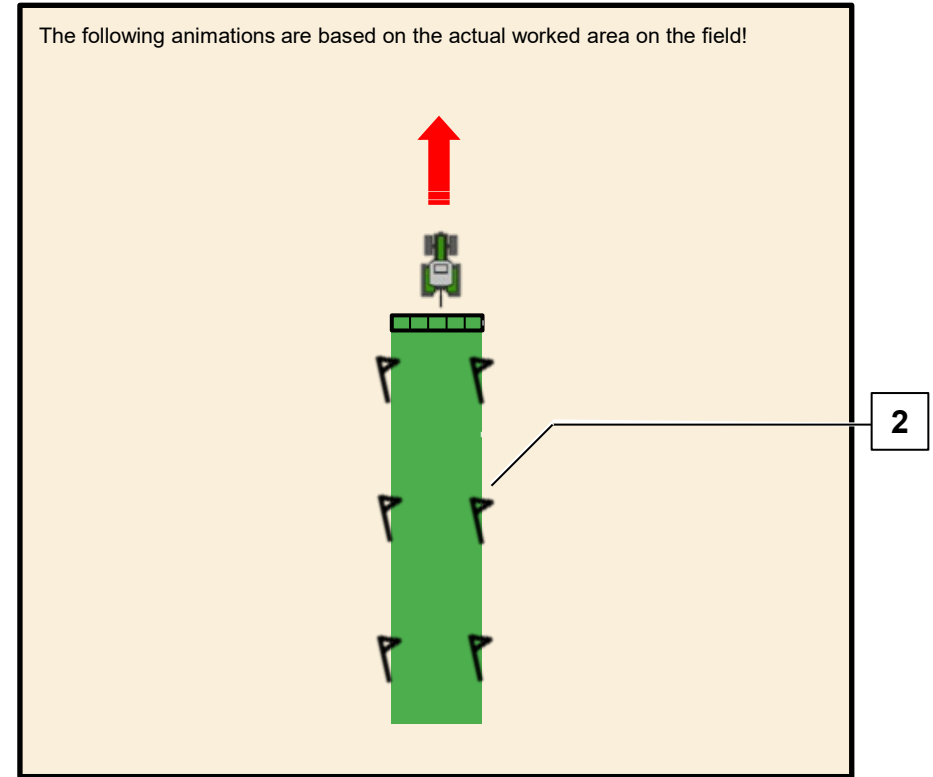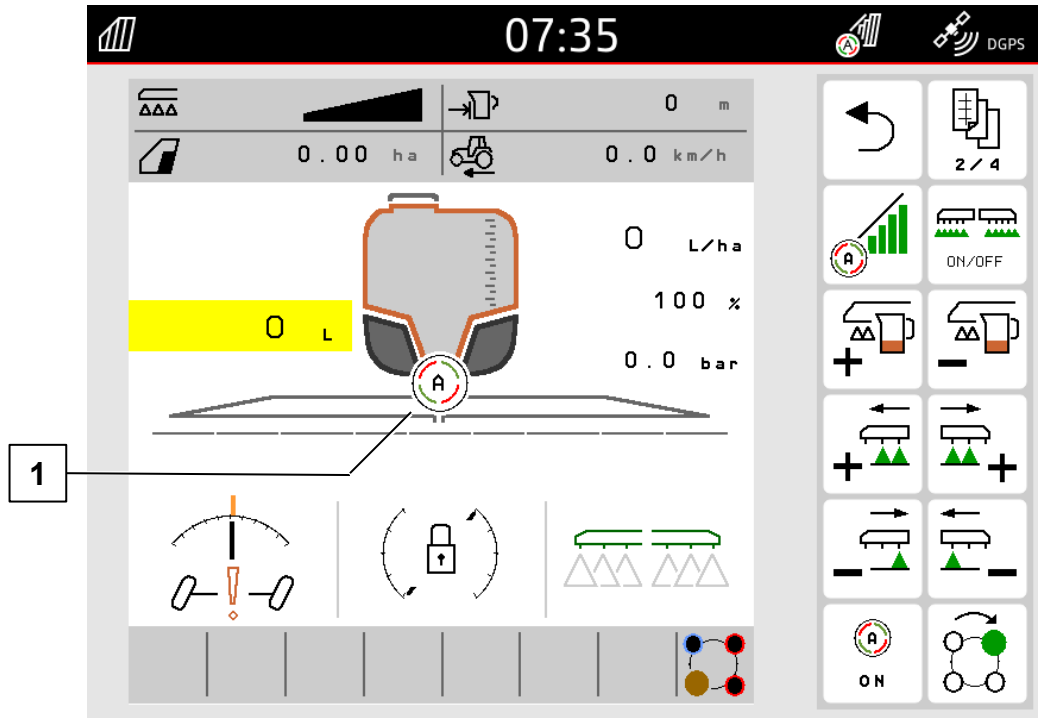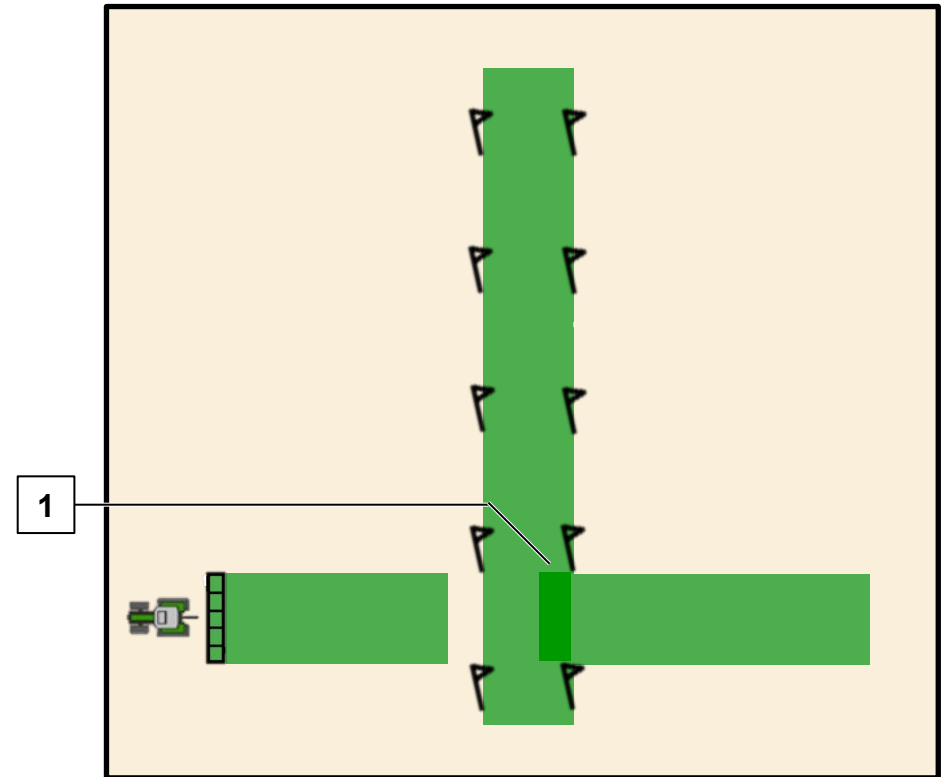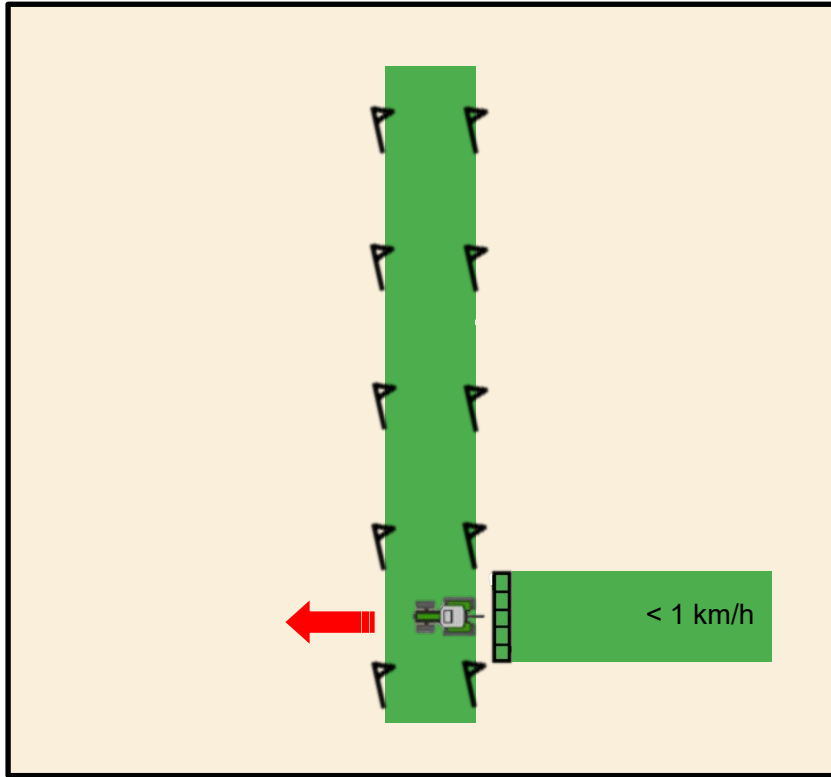
1. Move the implement into working position on the field.

2. Activate Section Control (**1**).

3. Drive a straight line with the implement on the field and mark the width of the worked area (**2**).

NOTE

For implements with large working widths, the part-width sections up to the track can be switched off to achieve a mark with the track.
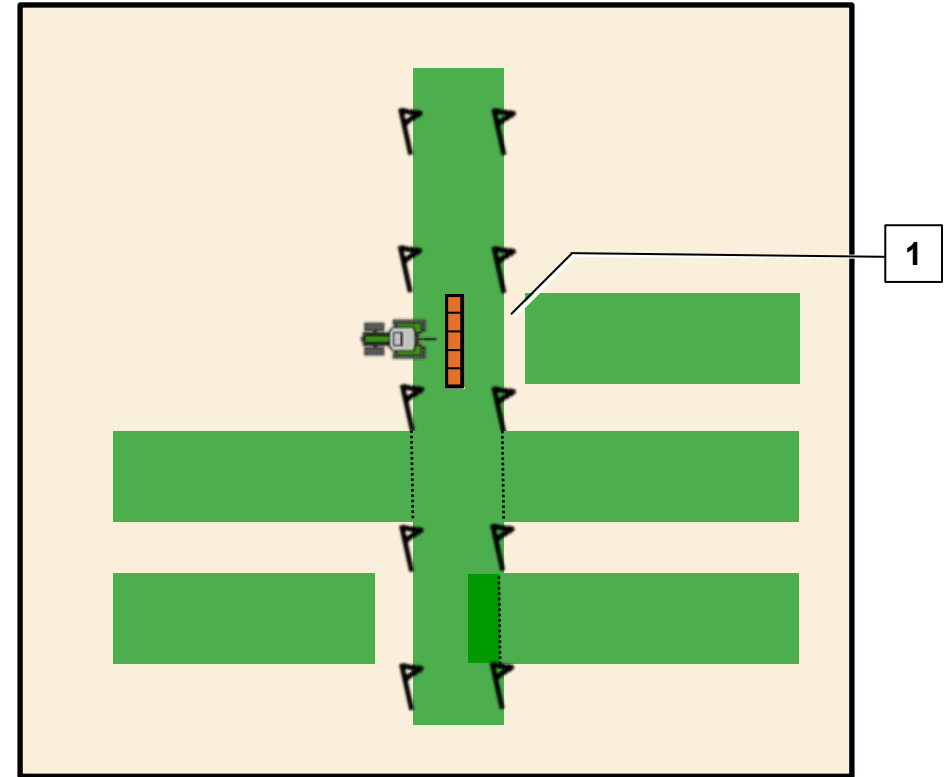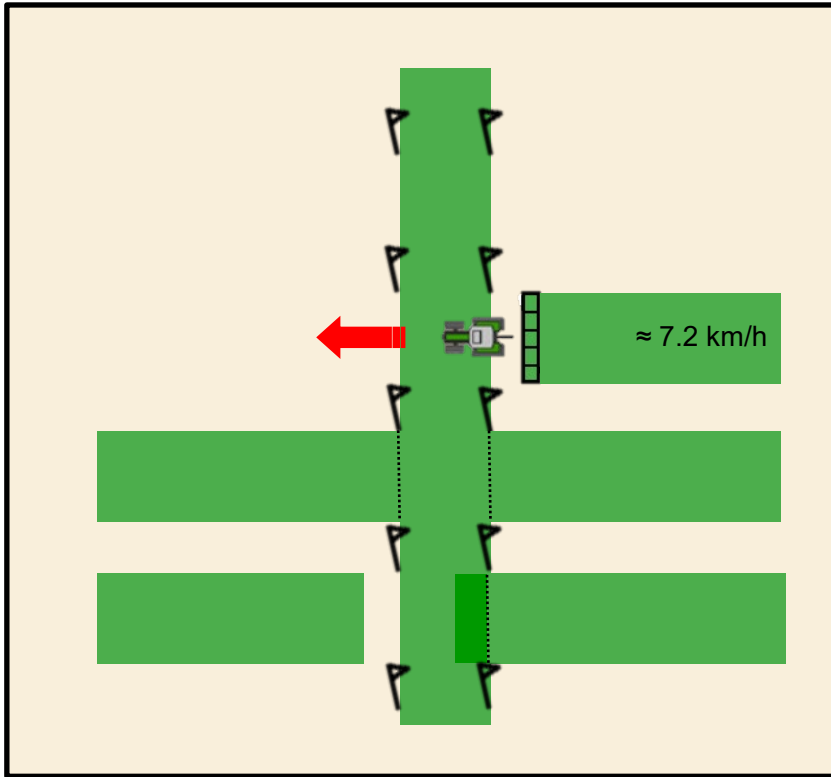
4. Setting the switch points

4.   Drive over the worked area with the implement **offset by 90 degrees** at **< 1 km/h**.

5.   If the implement is switched off too early or too late at the worked area, the **geometry** of the implement must be adjusted.

- Implement switches too <u>early</u>   →   <u>Extend</u> the geometry between the GPS receiver and the placement point
- Implement switches too <u>late</u> (**1**) →   <u>Shorten</u> the geometry between the GPS receiver and the placement point

4. Setting the switch points
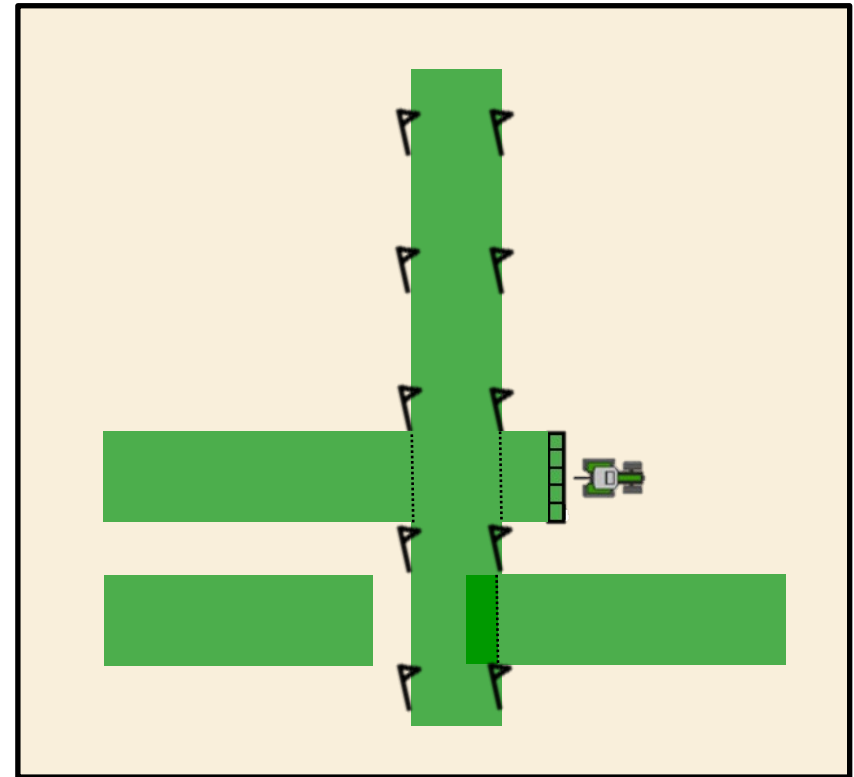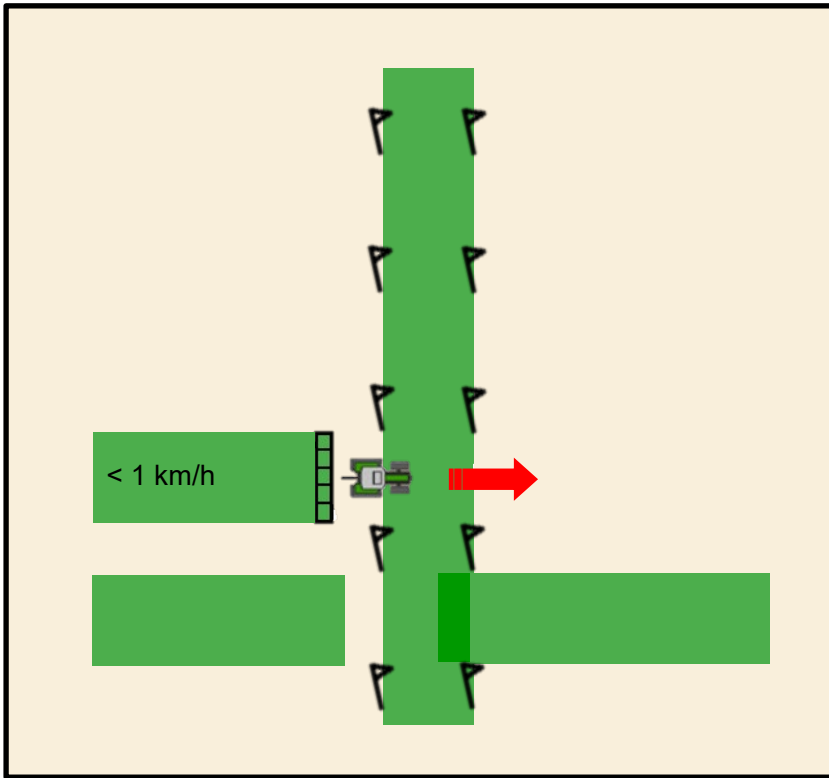
6. To **check**, turn the implement around and drive over the worked area again offset by 90 degrees and at **< 1 km/h**.

7. The implement should now be switched on or off at the worked area. If not, repeat the procedure from step 3.
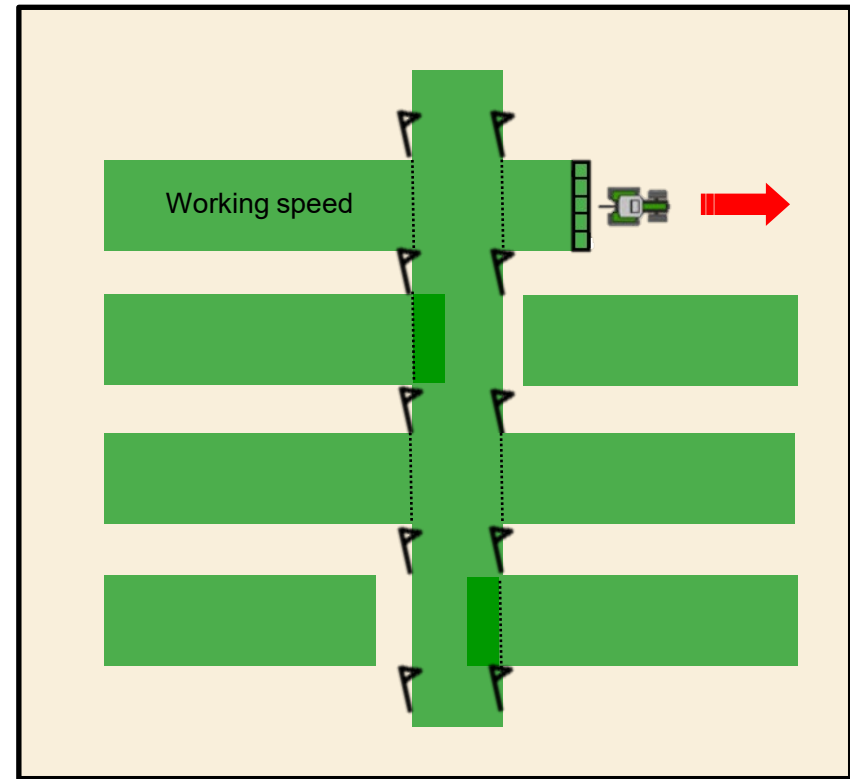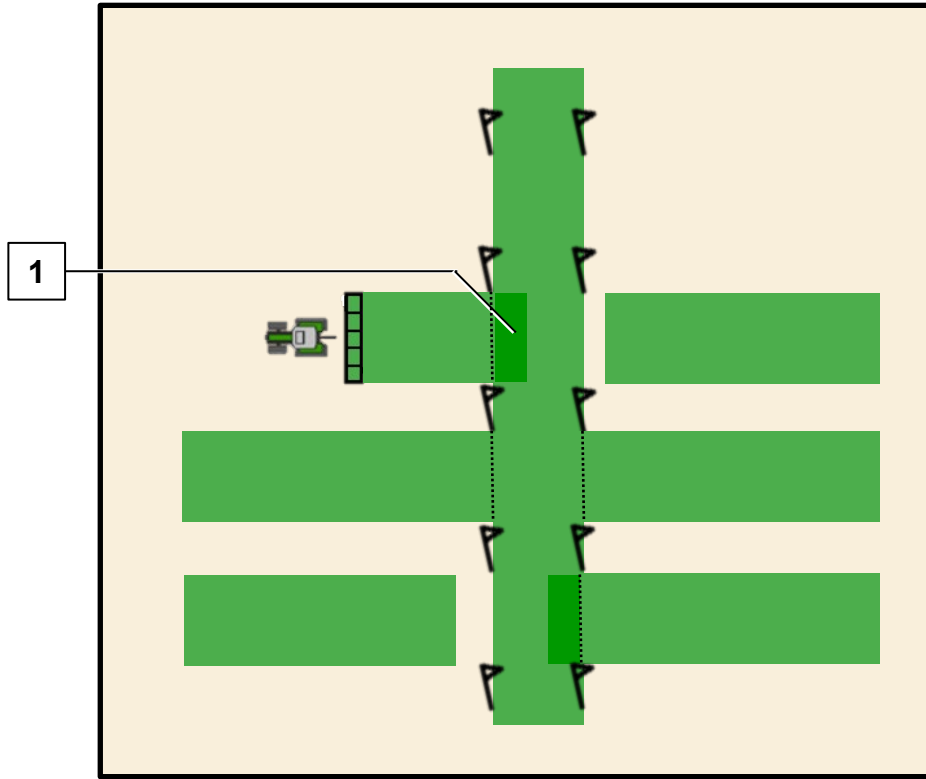
4. Setting the switch points

8.   Turn the implement around and drive over the worked area offset by 90 degrees at **≈ 7.2 km/h**.

9.   If the implement is switched **off** too early or too late at the worked area, the **switch-off delay** of the implement must be adjusted.

   •   Implement is switched <u>off too early</u> (**1**) →   <u>Reduce</u> the on/off point delay for switching off

   •   Implement is switched <u>off too late</u>   →   <u>Increase</u> the on/off point delay for switching off

NOTE

The on/off point delay can be easily measured. At a forward speed of 7.2 km/h, **20 cm** correspond to ≙ **100 ms.**

4. Setting the switch points

10. If the implement is switched **on too early** or **too late** after the worked area, the **switch-on delay** of the implement must be adjusted.

- Implement is switched <u>on too early</u> (**1**) →   <u>Reduce</u> the on/off point delay for switching on
- Implement is switched <u>on too late</u>   →   <u>Increase</u> the on/off point delay for switching on

11. To **check**, turn the implement around and drive over the worked area at **working speed** offset by 90 degrees. The implement should now be correctly switched on or off at the worked area. If not, repeat the procedure from step 3.

<u>*Note*</u>

If the implements is switched on or off too <u>early</u>, the switching delay must be <u>reduced</u>!

SmartLearning app

The AMAZONE SmartLearning app offers video training courses for the operation of Amazone implements. The video training courses can be downloaded onto your smartphone if necessary, and are therefore available offline. Simply select the desired implement for which you want to watch a video training course.

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