



Installation Manual for John Deere EL4 Controllers

CENTERLINE 230BP

This installation manual covers installation of CenterLine 230BP with John Deere EL4 controllers. We have endeavoured to deliver a fault free product. To ensure optimal use of the equipment, we ask you to pay great attention when reading this manual. Regarding responsibility for use of the product, we refer to our sales and delivery terms - especially paragraph 7, which follows:

7. Product usage.

7.1 Any use of the product is at the sole risk of the buyer. The buyer is therefore not entitled to any form for compensation caused by, for example, any of the following:

- Disturbance to/from any electronic services or products that do not confirm to the standards for CE marking,
- Missing or poor signal coverage or a succession hereof from external transmitters/receivers, used by the buyer,
- Functional faults, which apply to or from a PC-program or PC-equipment, not delivered by the seller.
- Faults that may arise from the buyers negligence to react to warnings and fault messages from the product, or which can be traced to negligence and/or absent constant control of the work carried out in comparison to the planned job.

7.2 When implementing any new equipment the buyer must take great care and pay attention. Any doubts as to correct operation/use should result in contacting TeeJet Technologies.

Enjoy work with CenterLine 230BP!

Kind regards,



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INTRODUCTION TO CENTERLINE 230BP

The Centerline 230BP is a combined Guidance and Automatic Boom Section Control (ABSC) device that features control of up to 15 boom sections. CenterLine 230BP connects in parallel to the existing wiring loom to the section valves.

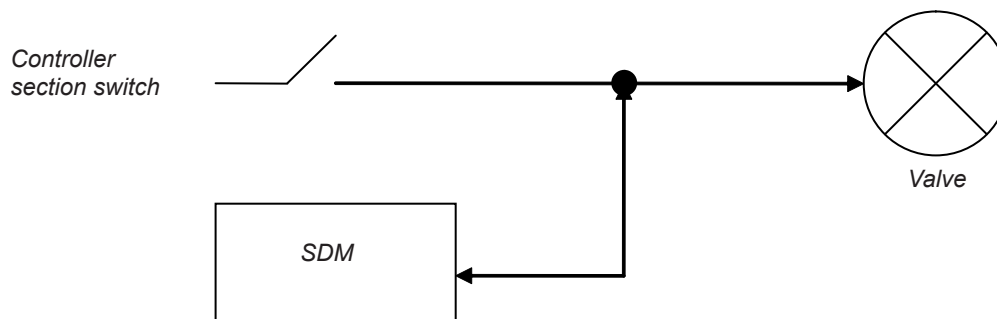
PRINCIPLE OF OPERATION

The Centerline 230BP system controls the sections valves according to the GPS position and the GPS guidance makes it possible to avoid overlaps or skips.

The Section Driver Module (SDM) is designed for switching active high when spraying. This means that a 12V signal is issued to control the corresponding section valve. The SDM is to be connected in parallel with the controller section switches.

The Centerline 230BP controls the section valves in automatic mode, and the controller section switches should be set to *off* unless the operator wants to override the auto mode and thus force spraying.

The Centerline 230BP monitors the controller section switches that controls the valves in manual mode. The the Master switch can be used both in automatic mode as well as in manual mode.



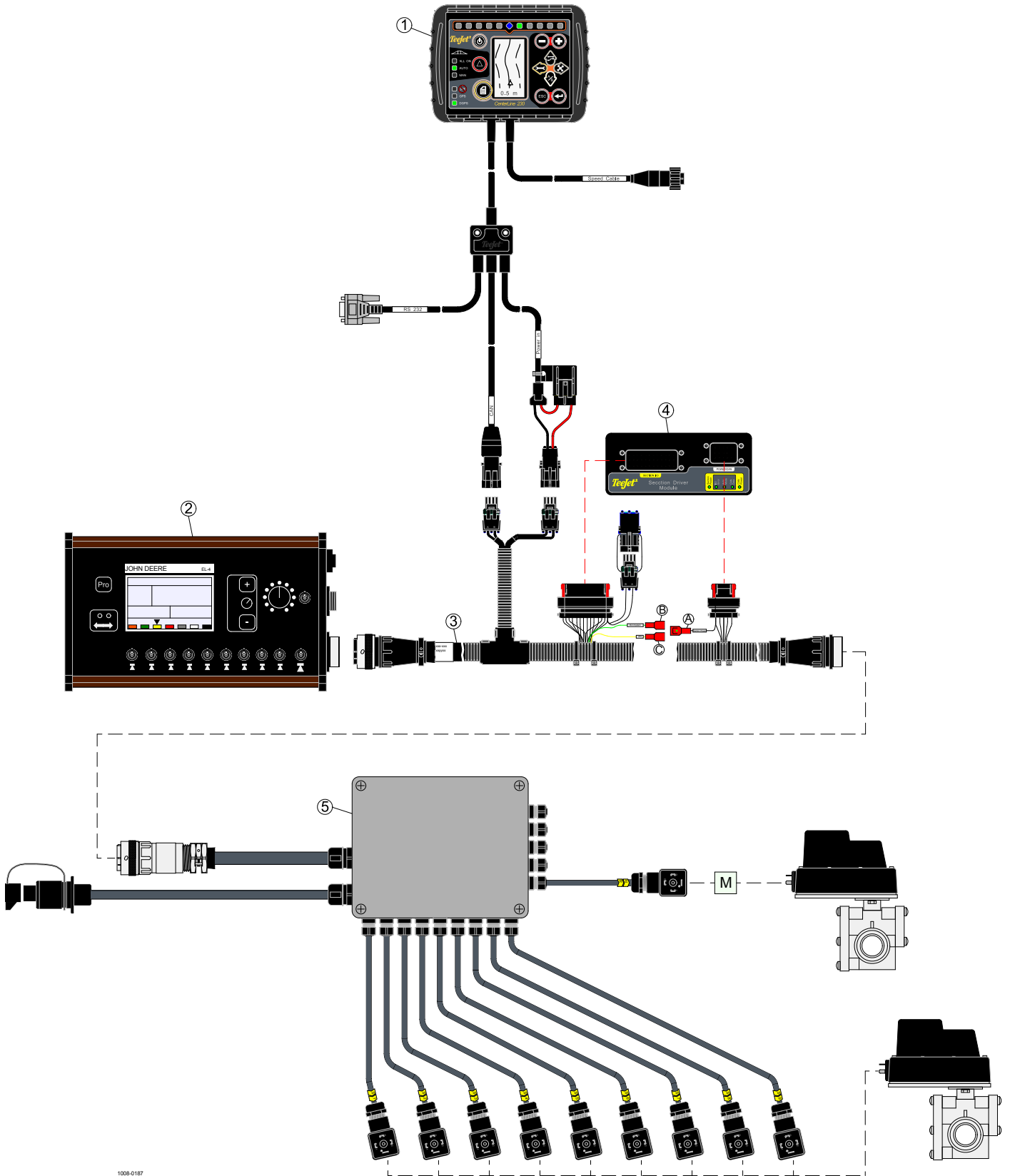
Required Parts

The parts listed in the table below are required for the CenterLine 230BP.

Part No.	Description
90-02483-xx*	CenterLine 230BP
78-05072	Section Driver Module
198-398	BoomPilot SDM harness, John Deere Sprayers

*Specifies the required manual language; e.g. 90-02483-UK

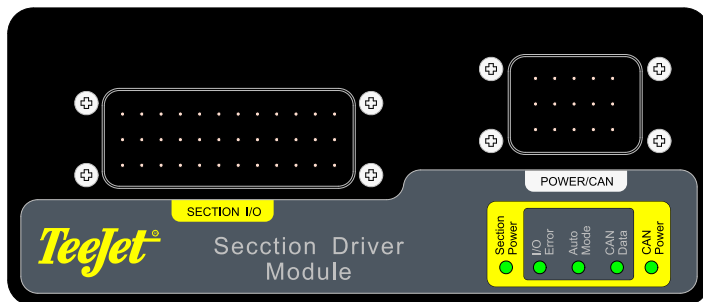
SYSTEM OVERVIEW:



1008-0187

Note: CenterLine 230 is powered by the EL4 main cable and therefore not additional power connection is required.

SECTION DRIVER MODULE (SDM):



Description.

An SDM module includes two connectors:

- ▶ SECTION I/O: connection to the sprayer
- ▶ POWER CAN: connection to the CenterLine 230

It also features five LEDs:

- ▶ Section Power: ON when power is available for the section drivers
- ▶ I/O error: should normally be OFF
- ▶ Auto Mode: ON when automatic boom switching is active
- ▶ CAN Data: ON is flashing when it communicates with the CenterLine 230
- ▶ CAN Power: ON when power is applied to the CenterLine 230 and the SDM

SETTING POSITION A-B-C ON THE ADAPTER CABLE:

The adapter cable PN 198-398 covers two different John Deere Sprayer types:

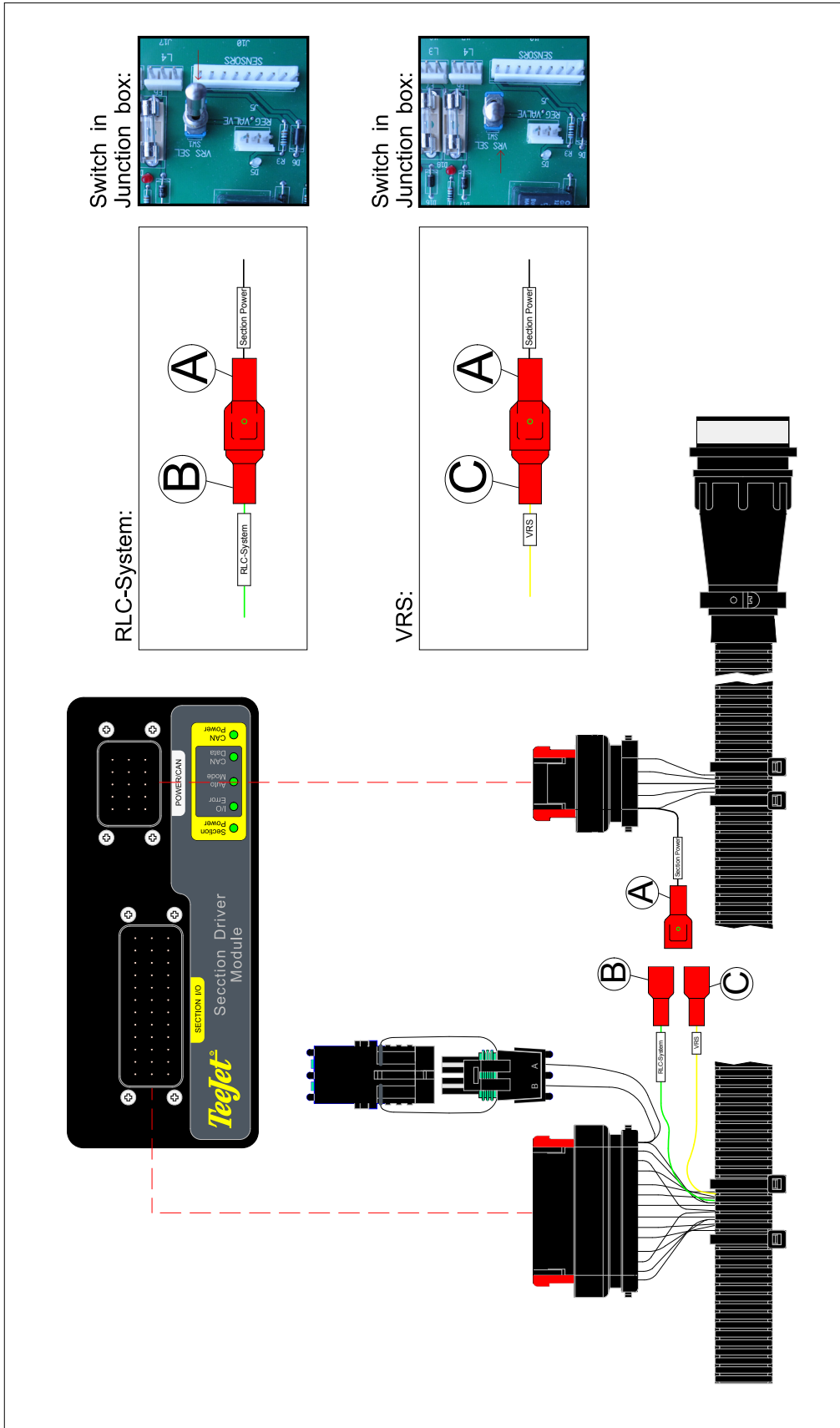
- ▶ Sprayers with **Ring Line Circulation System** (RLC-System).
- ▶ Sprayers with **Vacuum Re-circulation System** (VRS).

Connect position A-B-C on the adapter cable (See illustration next page), as described below:

Ring Line Circulation System: Connect A to B (Section Power to RLC-System) 'VRS Switch' in position 'Non VRS'.

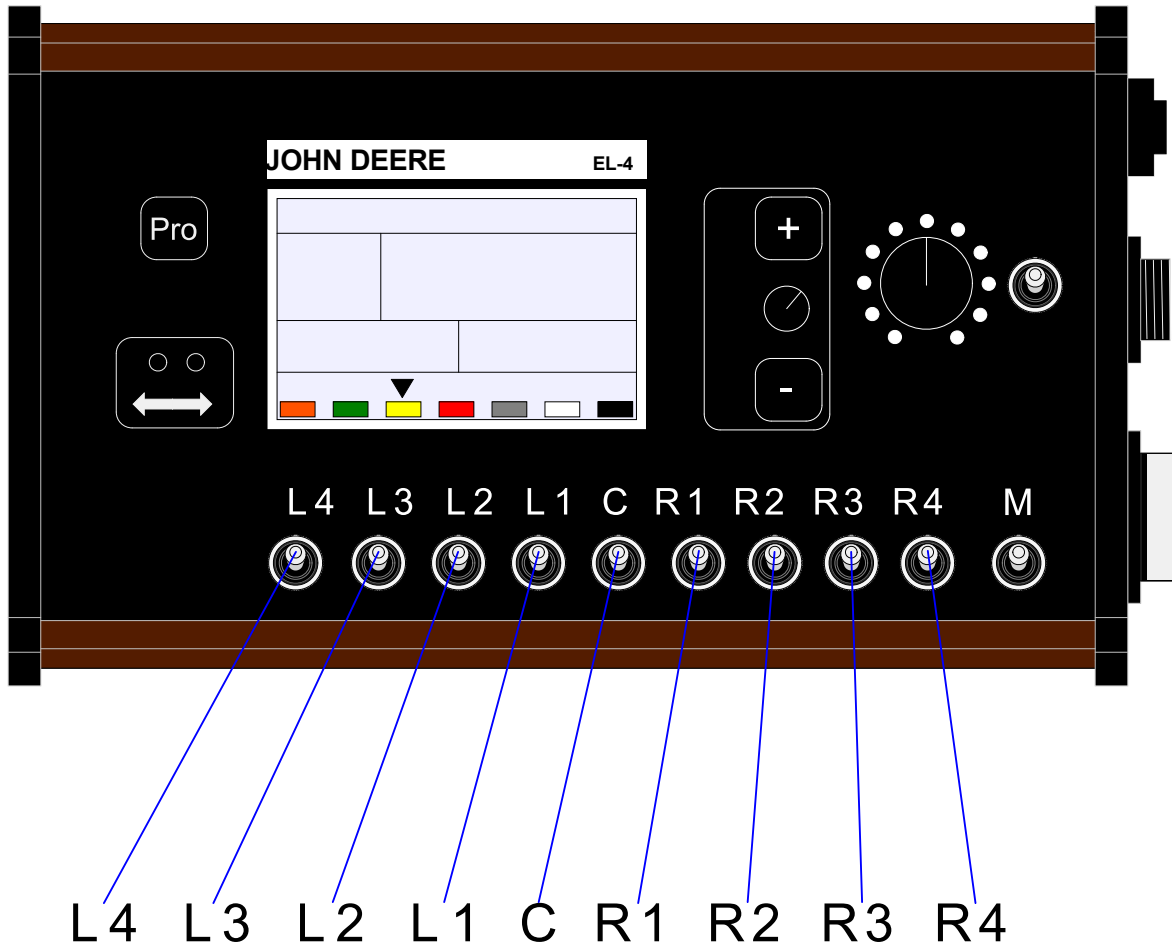
Vacuum Re-circulation System: Connect A to C (Section Power to VRS). VRS switch in position 'VRS'

Preparing the adapter cable and the setting of the switch in the junction box, to fit the right sprayer type.



ENCODE THE SECTION WIDTH IN THE CL230:

The John Deere EL4 controller is always equipped with 9 section switches, but the number of sections on the sprayer boom will vary. This combined with the fixed 'Center section' on the EL4 controller will influence on how the number of section and the width's are encoded in the CL230.



Example.

The sprayer has 7 sections - each 4 meter. Encode the CL230 as shown below:

CL230	John Deere EL4	Width
Sec. 1	L4	0,0
Sec. 2	L3	4,0
Sec. 3	L2	4,0
Sec. 4	L1	4,0
Sec. 5	C	4,0
Sec. 6	R1	4,0
Sec. 7	R2	4,0
Sec. 8	R3	4,0
Sec. 9	R4	0,0