

MATRIX™

INSTALLATION MANUAL



**AUTO BOOM SECTION CONTROL
SPRAY CONTROL S / DUBEX**

TeeJet®
TECHNOLOGIES

A Subsidiary of  Spraying Systems Co.®

This installation manual covers installation of MATRIX™ or CenterLine 230BP with SPRAY CONTROL S controllers / DUBEX switch box. 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:

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.

Kind regards,



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INTRODUCTION TO MATRIX™ AND CL230

The MATRIX™ and Centerline 230BP are combined Guidance and Automatic Boom Section Control (ABSC) devices that features control of up to 15 boom sections. The MATRIX™ or the Centerline 230BP connects in parallel to the existing wiring loom to the section valves.

Principle of Operation

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

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

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

Required Parts

To add Automatically Boom Section Control to a SPRAY CONTROL S / DUBEX switch box the following part numbers are required:

MATRIX™:

Part no.	Description
* xxx-xxx	MATRIX™ Guidance controller kit
903-338	ABSC box, Dubex Spray Control S, up to 11 sections
45-05626	Power/CAN/Data cable for MATRIX™

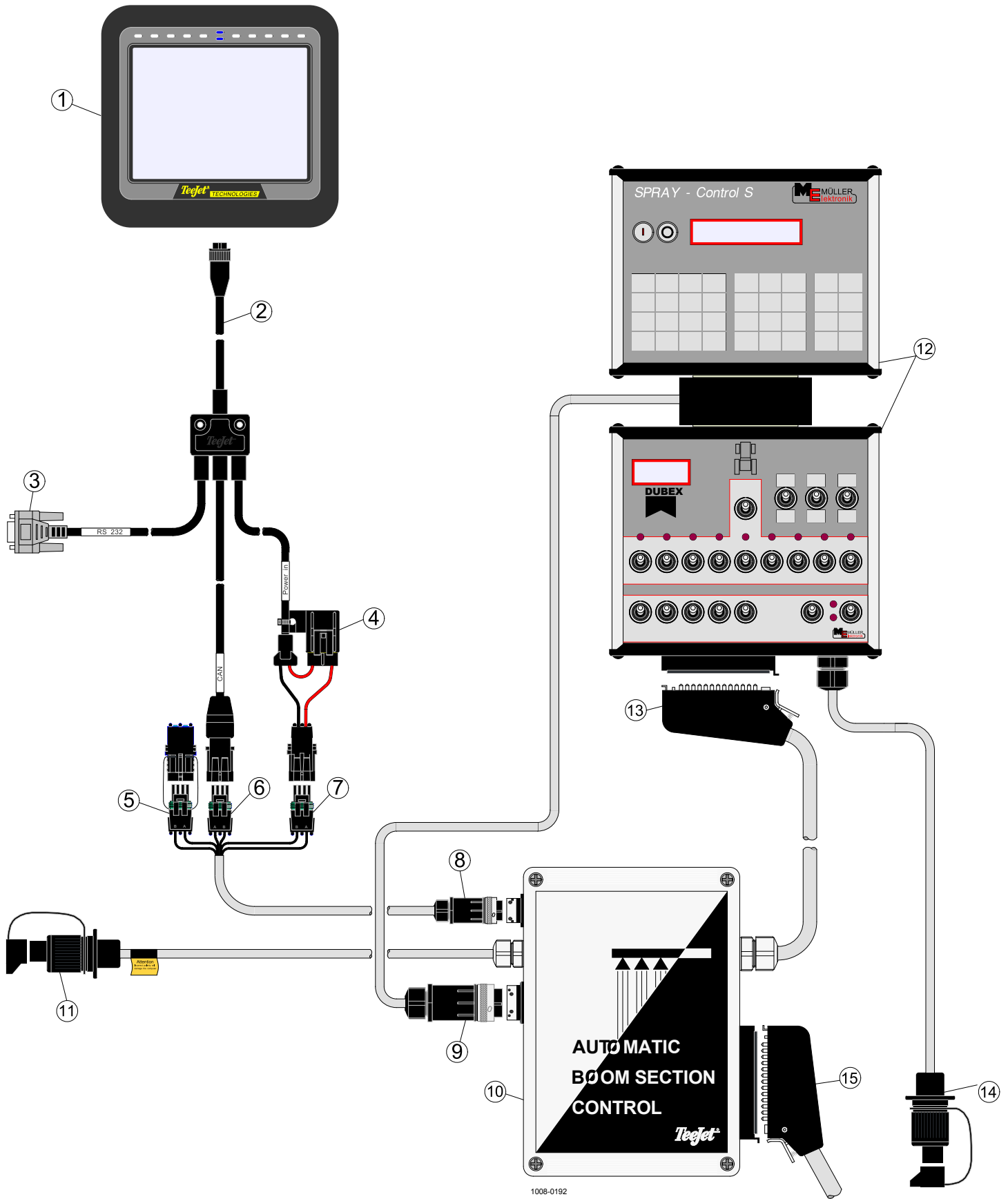
* Refer to the MATRIX™ pricelist

CL230:

Part no.	Description
* xxx-xxx	CL230 Guidance controller kit
903-338	ABSC box, Dubex Spray Control S, up to 11 sections

* Refer to the CL230BP pricelist

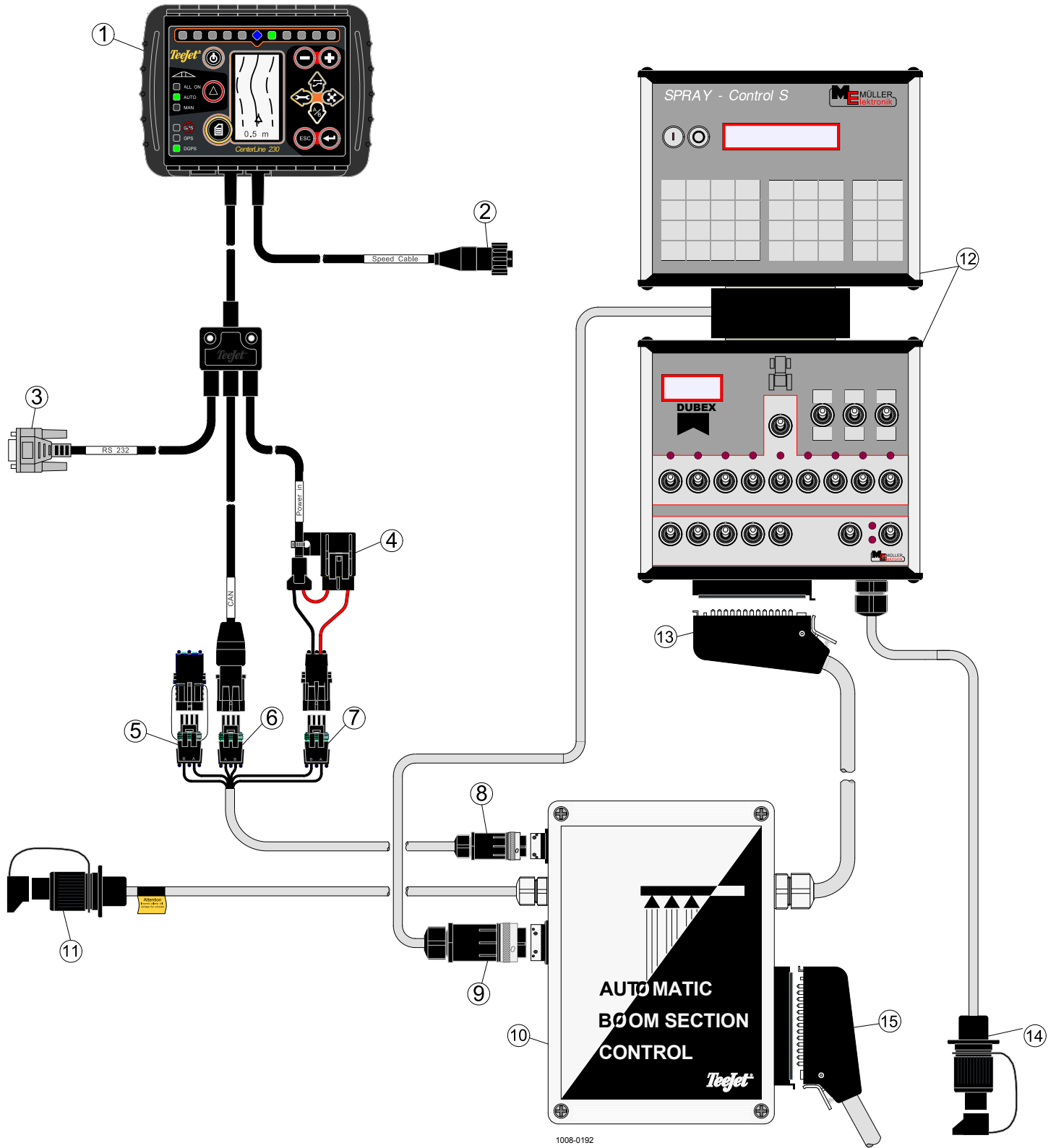
SYSTEM OVERVIEW, MATRIX™



SYSTEM DESCRIPTION, MATRIX™

POS	DESCRIPTION
1	Matrix
2	Power/CAN/Data Cable, MATRIX™, PN 45-05626
3	RS232 port (Programming and GPS input)
4	Fuse 3A, PN 166-603
5	Foot switch connector 2P (Foot switch is optional)
6	CAN connector 4P
7	Power connector 2P
8	BoomPilot adapter cable, PN 199-263
9	Müller SPRAY-Control S / DUBEX adapter cable, PN 198-136
10	ABSC adapter box, PN 902-368
11	Power connector, ABSC adapter box
12	SPRAY-Control S controller/Dubex Switch box
13	Machine connector from ABSC box
14	Power connector, Müller SPRAY-Control S / Dubex
15	Machine connector from Sprayer

SYSTEM OVERVIEW, CL230



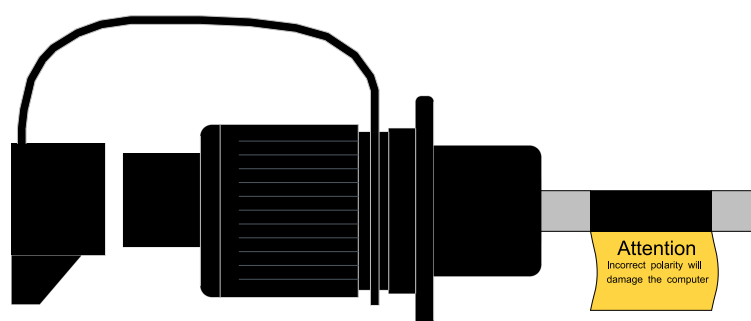
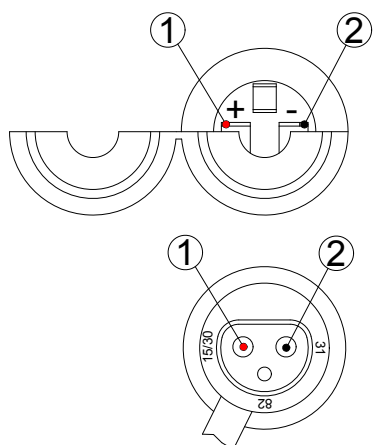
SYSTEM DESCRIPTION, CL230

POS	DESCRIPTION
1	CenterLine 230BP
2	Speed output connector
3	RS232 port (Programming and GPS input)
4	Fuse 3A, PN 166-603
5	Foot switch connector 2P (Foot switch is optional)
6	CAN connector 4P
7	Power connector 2P
8	BoomPilot adapter cable, PN 199-263
9	Müller SPRAY-Control S / DUBEX adapter cable, PN 198-136
10	ABSC adapter box, PN 902-368
11	Power connector, ABSC adapter box
12	SPRAY-Control S controller/Switch box
13	Machine connector from ABSC box
14	Power connector, Müller SPRAY-Control S
15	Machine connector from Sprayer

INSTALLING THE SPRAY-Control S / DUBEX KIT

Connect the Automatic Boom section kit as show on the system overview drawing. The kit includes all necessary connectors to get electrical contact with the Müller SPRAY-Control S/Dubex system.

CONNECTING POS. 11 & 14 TO POWER:



POS	DESCRIPTION
1	+12V (15/30)
2	Ground (31)

BATTERY CABLE (OPTION)

The power supply must be strong enough to operate the Section and Master valves. The total current will depend on the used valve type.

If a power connector (Socket) isn't available in the tractor cabin, a optional battery cable can be used (PN 96ET14).



SYSTEM CHECK

After connecting the power connector, it's time to make a system check. To check the system it's necessary to have full GPS signal so the vehicle must be placed outside.

Check AUTO mode:

Spray Control S/Dubex switch box

- Section switches should be in OFF position when working in Automatic mode.
- The Master switch will control the sprayer and should be ON to enable automatic switching of the sections.”

MATRIX™ or CL230:

- Turn the Guidance controller on
- Encode the number of sections and the width of each (Refer to the MATRIX™ or CL230 user manual)
- Wait for GPS signal
- Set the mode to AUTO
- Drive forward (> 2 km/h)
- Observe that all sections and the master valve open.
- Check that the Master valve closes when the Master switch is set off.
- Check hectare counter in the MATRIX™ or CL230 against the Spray Control S controller.

Check MANUAL mode:

MATRIX™ or CL230:

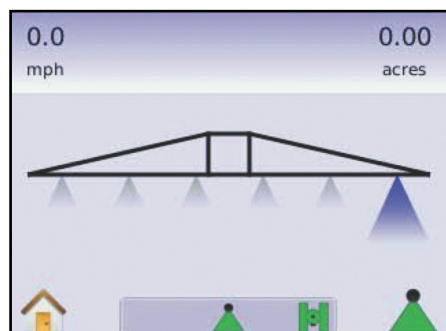
- Set the ABSC mode to MANUAL

Check in the ‘Boom Section Control Screen’ (Matrix or CL230) that the section icons turn off and on according to the valve/switch status.

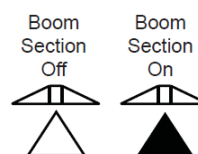
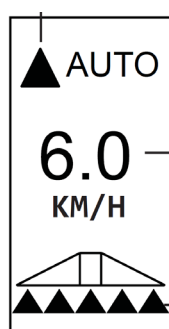
Switch Box:

- Set the section switch's on
- Set the Master switch on
- Observe that all sections and the master valve open.

MATRIX™:



CL230:



MATRIX™

I N S T A L L A T I O N M A N U A L

Matrix Guidance: Exclusive Features

- RealView™ Guidance Over Video
Guidance Superimposed Over Video
Guidance Only
Video Only
- Bright Daylight Readable Screen
- Easy-to-Use 3D Graphical Guidance
- Coverage Mapping/Data Export



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