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# **HxGN AgrOn Sprayer/Fertilization with Hydraulic Auto Steering Control Pulverjet ECUv4**

**New Product Release - 012/2022**

2nd March 2023 - Rev. 3

## Introduction

Aiming to release HxGN AgrOn Sprayer/Fertilization with Hydraulic Auto Steering Control Pulverjet structures that use the ECU version 4.x. (07875 - HxGN AgrOn ECU Piloto Automatico Hidraulico v4.x).

The ECUv4 will be used in place of the ECU 04140 - HxGN AgrOn ECU Piloto Automatico Hidraulico v3.3.X and, for that, new structures were created based on the current structures for Sprayer/Fertilization with Hydraulic Auto Steering Control.

Current structure	New structure	Description
05588	07893	HxGN AgrOn Controle de Pulverizacao e PH Pulverjet ECUv4
05978	07894	HxGN AgrOn Ti7+ Controle de Pulverizacao e PH Pulverjet 10S ECUv4
06197	07895	HxGN AgrOn Ti7+ Controle de Pulverizacao 4G e PH Pulverjet ECUv4
06198	07896	HxGN AgrOn Ti7+ Controle de Pulverizacao 4G e PH Pulverjet 10S ECUv4
07025	07897	HxGN AgrOn Controle de Pulverizacao e PH Pulverjet Ti10 ECUv4
07298	07899	HxGN AgrOn Ti7+ PH Pulverjet + Esteira e Disco e Desligamento de Secoes ECUv4
07299	07900	HxGN AgrOn Ti10 PH Pulverjet + Esteira e Disco e Desligamento de Secoes ECUv4
07386	07903	HxGN AgrOn Ti10 Controle de Pulverizacao e PH Pulverjet 10S ECUv4
07387	07904	HxGN AgrOn Ti10 Controle de Pulverizacao 4G e PH Pulverjet ECUv4
07388	07905	HxGN AgrOn Ti10 Controle de Pulverizacao 4G e PH Pulverjet 10S ECUv4

Both structures can be marketed, depending on the ECU available. The differences between the structures are the ECU (version 3 or 4) and the cables that are connected to the ECU.

Some ECUv3 cables are not compatible with the ECUv4 due to the differences in the pinout of the ECUs. Those differences will be detailed following.

## Pinout and Cables

The pinout of the ECUv3 and ECUv4 are different in some pins, and for this reason, new cables need to be created on demand with Pulverjet and Hexagon engineering team.

The pinout of CAN and External Power supply (Connector A) are the same in both ECU. However, on the ECUv3 some harnesses don't have a short-circuit between pins 1 and 3, and it is required on the ECUv4. Also, if other pins are used, it is necessary to check the compatibility.



Connector A			
Pin	ECUv3	ECUv4	Compatibility
1	V BAT-	V BAT-	✓
2	CAN HIGH	CAN HIGH	✓
3 <sup>1</sup>	V AUX-	V AUX-	✓
4	GND	CAN 2 HIGH	✗
5	Analog Input 2	Analog Input 2	✓
6	GND	GND	✓
7	5/12V OUT	5/12V OUT	✓
8	Analog Input 1	Analog Input 1	✓
9	5/12V OUT	CAN 2 LOW	✗
10	V AUX +	V_AUX+	✓
11	CAN LOW	CAN LOW	✓
12	V BAT +	V BAT +	✓

In Connector B, the differences are in pins 10, 11 and 12. These pins on the ECUv3 are connected to DRV+, but on the ECUv4 only pin 12 is connected to DRV+. For this reason, all cables connected to connector B need to be duplicated (new codes will be created for ECUv4) to adjust the DRV+ outputs.

Connector B			
Pin	ECUv3	ECUv4	Compatibility
1	OUTPUT 1	OUTPUT 1	✓
2	OUTPUT 2	OUTPUT 2	✓
3	OUTPUT 3	OUTPUT 3	✓
4	5/12V OUT	5/12V OUT	✓
5	Digital Input C	Digital Input C	✓
6	Digital Input B	Digital Input B	✓
7	Digital Input A	Digital Input A	✓
8	Digital Input D	Digital Input D	✓
9	GND	GND	✓
10	V DRV+	OUTPUT 6	✗
11	V DRV+	OUTPUT 7	✗
12	V DRV+	V DRV+	✓

**The cables created for ECUv4 will be compatible with the ECUv3, but otherwise may not be compatible (needs to be evaluated).**

Below is the list of the cables on each new structure (only the cable connected to ECUv4).

<sup>1</sup> This pin (3) must be short-circuited on pin (1) when there is no external power supply.

Structure	ECUv4 Connector	Cable code	Description	New <sup>2</sup>
07893	Connector A	08046	Chicote Adaptador DTM06-12SA CAN + Sensor de Pressao ECUv4	✓
	Connector B	07830	Chicote Piloto Hidraulico ECU ISOBUS - Aacionamento das Valvulas	✓
07894	Connector A	08046	Chicote Adaptador DTM06-12SA CAN + Sensor de Pressao ECUv4	✓
	Connector B	07830	Chicote Piloto Hidraulico ECU ISOBUS - Aacionamento das Valvulas	✓
07895	Connector A	08046	Chicote Adaptador DTM06-12SA CAN + Sensor de Pressao ECUv4	✓
	Connector B	07830	Chicote Piloto Hidraulico ECU ISOBUS - Aacionamento das Valvulas	✓
07896	Connector A	08046	Chicote Adaptador DTM06-12SA CAN + Sensor de Pressao ECUv4	✓
	Connector B	07830	Chicote Piloto Hidraulico ECU ISOBUS - Aacionamento das Valvulas	✓
07897	Connector A	08046	Chicote Adaptador DTM06-12SA CAN + Sensor de Pressao ECUv4	✓
	Connector B	07830	Chicote Piloto Hidraulico ECU ISOBUS - Aacionamento das Valvulas	✓
07899	Connector A	08046	Chicote Adaptador DTM06-12SA CAN + Sensor de Pressao ECUv4	✓
	Connector B	07830	Chicote Piloto Hidraulico ECU ISOBUS - Aacionamento das Valvulas	✓
07900	Connector A	08046	Chicote Adaptador DTM06-12SA CAN + Sensor de Pressao ECUv4	✓
	Connector B	07830	Chicote Piloto Hidraulico ECU ISOBUS - Aacionamento das Valvulas	✓
07903	Connector A	08046	Chicote Adaptador DTM06-12SA CAN + Sensor de Pressao ECUv4	✓
	Connector B	07830	Chicote Piloto Hidraulico ECU ISOBUS - Aacionamento das Valvulas	✓
07904	Connector A	08046	Chicote Adaptador DTM06-12SA CAN + Sensor de Pressao ECUv4	✓
	Connector B	07830	Chicote Piloto Hidraulico ECU ISOBUS - Aacionamento das Valvulas	✓
07905	Connector A	08046	Chicote Adaptador DTM06-12SA CAN + Sensor de Pressao ECUv4	✓
	Connector B	07830	Chicote Piloto Hidraulico ECU ISOBUS - Aacionamento das Valvulas	✓

## Installation

The installation is the same for both versions.

## Software compatibility

The software of the ECUv3 and ECUv4 are different. The ECU bootloader and Ti firmware update manages this update automatically.

**Creation date:** 05/12/2022

**Revision date:** 02/03/2023

For more information, contact your Hexagon Agriculture sales or technical support.

<sup>2</sup> New cable meaning the cable was created to use with ECUv4. If the cable is not new, meaning the cable is the same used with ECUv3.