



# **PLUS+1<sup>®</sup> Compliance OX12-x10 HWD 10104547v215**

## **Revision History**

This file contains important supplementary and late-breaking information that may not appear in the main product documentation. We recommend that you read this file in its entirety.

## **Version 2.15 (March 2019)**

### **What is Included**

- PLUS+1 GUIDE Function Block (In HWD)
- User Manual (In HWD)
- Recommended Machine Startup Procedures (In HWD)
- Data Sheet (In HWD)
- 10103684V150.hex Firmware (In HWD)
- 70096625v170.hex Firmware (In HWD)
- PLUS+1 IO Module Communications (In HWD)
- OX12-x10 Diagnostic File (In HWD)
- Release Notes (this document)

### **What is New**

- Fixed an issue where the software would use an old CRC for calculations.
- Fixed an issue where the software would get stuck transmitting the protocol version request message.
- The block will now configure CurChgLim correctly for output channels.
- Increased the robustness of the block, if a power cycle is detected, then timing messages will be resent.
- Renamed the block from OX12-10 to OX12-x10 to indicate support for old and new hardware.

### **Known issues**

- None

### **Minimum Requirements**

- PLUS+1 GUIDE 10.1 or greater
- PLUS+1 Service Tool 10.1 or greater

## **Version 2.10 (January 2011)**

### **What is Included**

- Function block
- User Manual
- Data Sheet
- 10103684v150.hex Firmware
- PLUS+1 IO Module Communications
- OX12-10 Diagnostic
- Release Notes (this document)

### **What is New**

- The IO Protocol mask has been set to 0. Previous versions incorrectly set the mask to 7, creating a potential for unintended commands when used in the presence of other CAN communication protocols.
- The multifunction output configuration blocks now have the PinConfig and DefPinConfig signals connected by default.
- Added extra level of pin configuration validation during initialization to eliminate possible configuration change caused by previous firmware versions.

### **Minimum Requirements**

- PLUS+1 GUIDE 4.1 or greater
- OX012-010 with 10103684v110 or newer firmware.

### **Known issues**

- None

## **Version 2.01 (July 2009)**

### **What is Included**

- Function block
- User Manual
- Data Sheet
- 10103684v140.hex Firmware
- PLUS+1 IO Module Communications
- OX12-10 Diagnostic
- Release Notes (this document)

### **What is New**

- IO Protocol initialization now processes Protocol Response before other messages. This addresses issue of longer initialization time required for master devices with OS.ExecTime about 10 ms or greater.

### **Minimum Requirements**

- PLUS+1 GUIDE 4.1 or greater
- OX012-010 with 10103684v110 or newer firmware.

### **Known issues**

- None

## **Version 2.00 (June 2009)**

### **What is Included**

- Function block
- User Manual
- Data Sheet
- 10103684v140.hex Firmware
- PLUS+1 IO Module Communications
- OX12-10 Diagnostic
- Release Notes (this document)

### **What is New**

- Added Separate **Updated** signals for Frequency and Analog MF inputs.
- Added Enable signal.
- Added Current Change Limit, Bus Recovery Time, and Driver Recovery Time signals. Maintains backwards compatibility with version 2.00 of the IO Protocol.
- Non volatile parameters are only sent on startup if device's CRC is incorrect.
- Protocol Request is now triggered by receiving a CAN message from the IO module.
- The timeout for a Protocol Response is now 1 second.
- Added option to detect if the IO module power is cycled. This then triggers all volatile parameters to be resent.

### **Minimum Requirements**

- PLUS+1 GUIDE 4.1 or greater
- OX012-010 with 10103684v110 or newer firmware.

### **Known issues**

- None

# Support

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