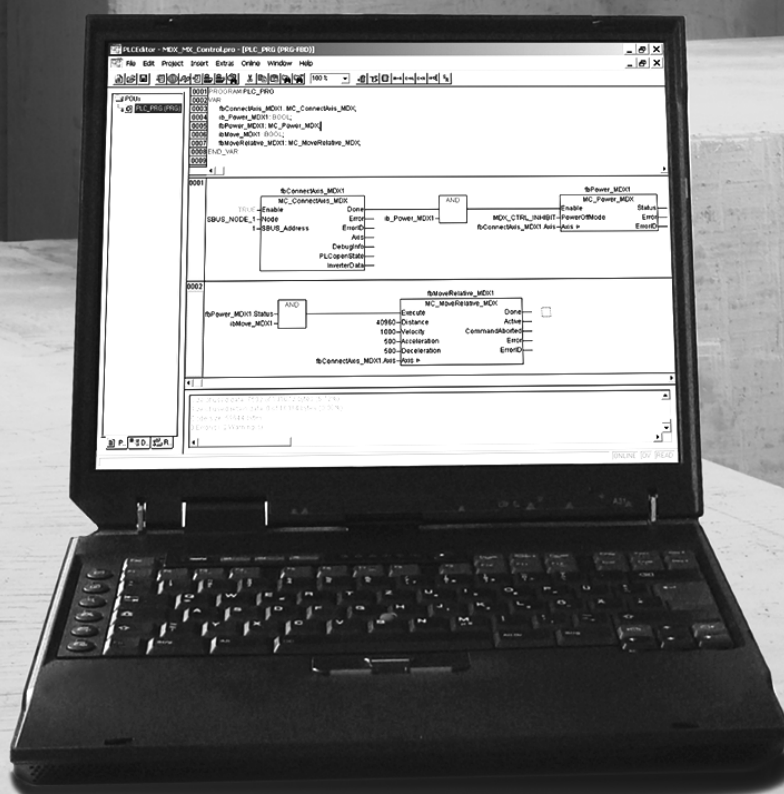


**SEW**
EURODRIVE

Revision



Brake Diagnostics for Controllers (V170.100 or Later)

1 Revision

This revision applies to the "Brake Diagnostics for Controllers (V170.100 or Later)" manual, part number 22752250, edition 05/2016.

Replacement

The entire chapter "2.4 Bus systems" is replaced.

Corrections

The following chapters are amended:

- Chapter "5.5.2 Controller in CCU design".
- Chapter "5.5.4 Synchronized axes", section "Controller in CCU design".
- Chapter "6.1.5 Process data assignment", section "Cycle diagram".

1.1 Bus systems

A bus system makes it possible to adapt electronic drive components to the particulars of the machinery within wide limits. There is a risk that a change of parameters that cannot be detected externally may result in unexpected (but not uncontrolled) system behavior and may have a negative impact on operational safety, system availability, or data security.

Especially in Ethernet-based networked systems and with engineering interfaces, make sure that unauthorized access is prevented.

Use IT-specific safety standards to increase access protection to the ports. For a port overview, refer to the respective technical data of the used device.

1.2 Controller

1.2.1 Controller in CCU design

Applications can be easily programmed with controllers in CCU design. The Application Configurator software interface, that is integrated in the MOVITOOLS® MotionStudio engineering software, can be used for configuring standardized application modules.

Brake diagnostics enhances the functionality of the respective application module. After the configuration of the MOVIDRIVE® B or a MOVIAxis® axis with a compatible application module, the "Brake diagnostics" function module can be selected via "Functions" and can be configured.

Compatible application modules/technology modules (from 6 PD on):

- Application modules (single-axis applications)
 - Bus positioning 6 PD
 - Universal module (6 PD – 10 PD)
 - Universal module technology 10 PD

The latest version of the "Application Configurator" software can be downloaded from the SEW-EURODRIVE website www.sew-eurodrive.com.

- Technology module (multi-axis application)
 - Energy-efficient storage/retrieval system (energy-efficient SRS)

The technology module enhances the Application Configurator with the functionality "Energy-efficient SRS (effiSRS)". The latest version of the "Energy-efficient SRS" technology module can be downloaded from the SEW-EURODRIVE website www.sew-eurodrive.com.

1.2.2 Synchronized axes

Controller in CCU design

The "Universal module technology 10 PD" application module and the "Energy-efficient SRS" technology module are equipped with functions for synchronized operation of several axes.

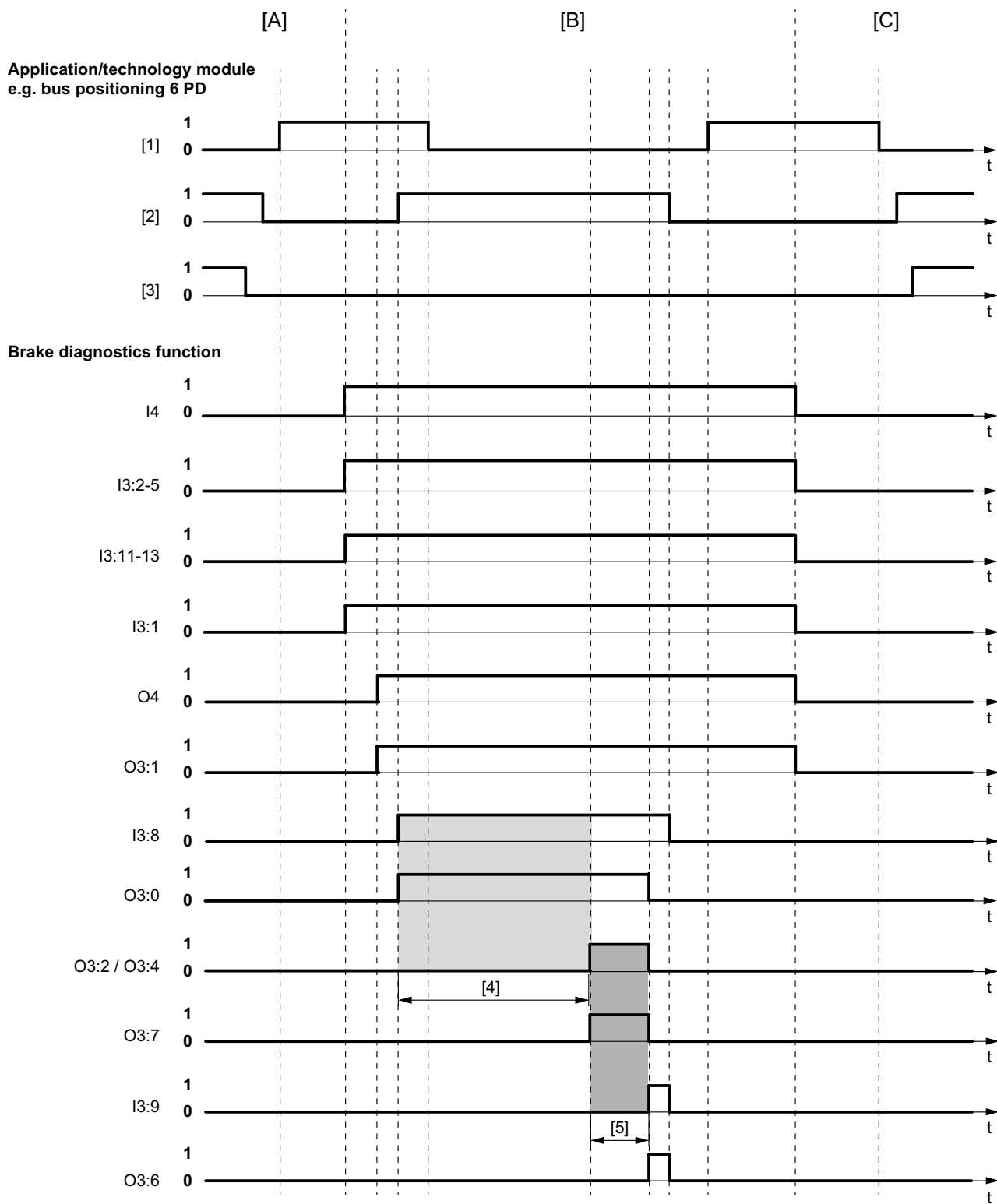
Synchronous operation is deactivated during active brake diagnostics. Only the axis on which brake diagnostics is executed is moving. The functionalities in the application modules are available without restrictions if brake diagnostics is deactivated.

1.3 Process data assignment

1.3.1 Cycle diagram

The following changes have been made:

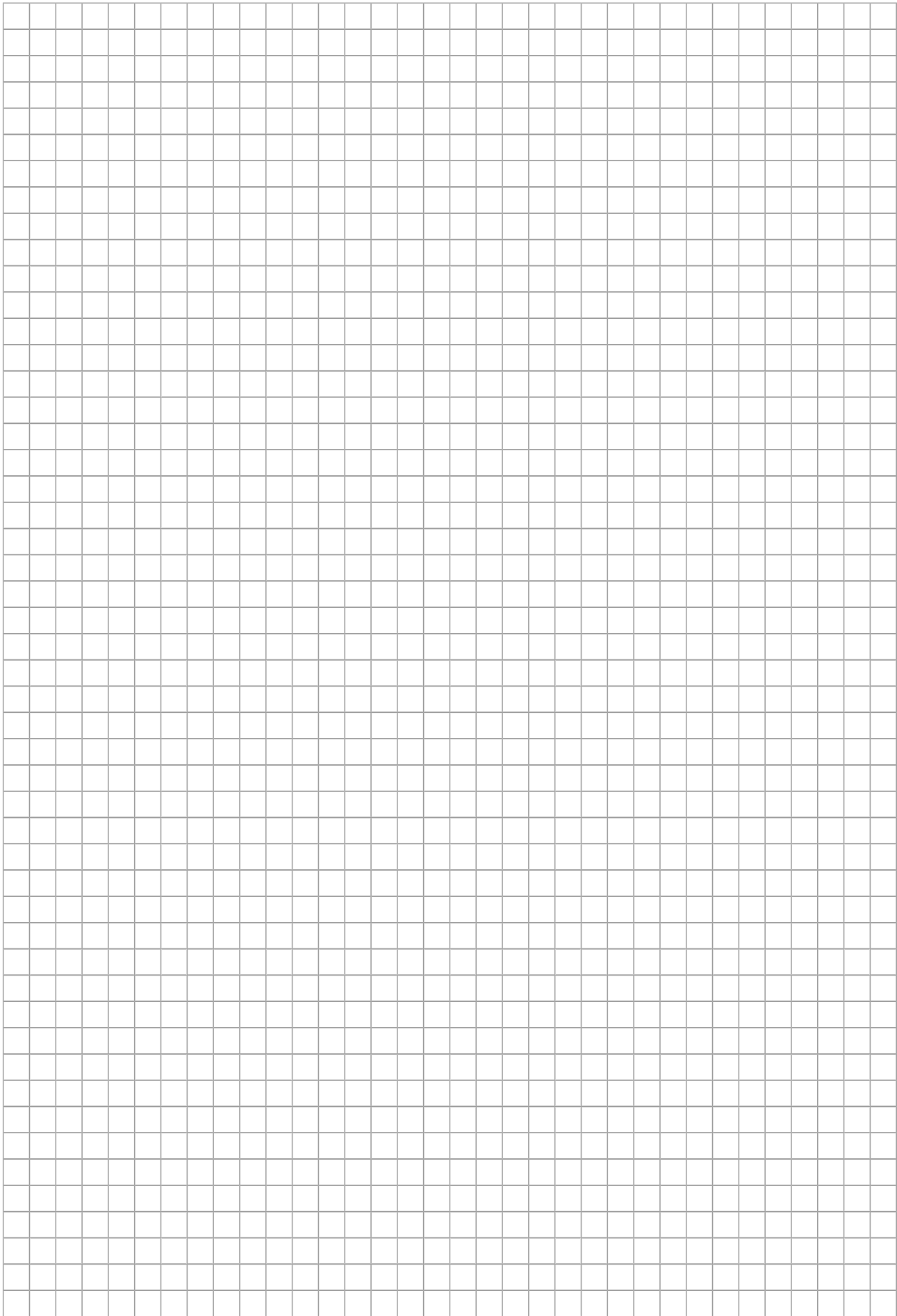
1. The signal [2] of the cycle diagram (see the following figure) has been adjusted.
2. The signal [3] of the cycle diagram (see the following figure) has been adjusted.
3. The signal descriptions have been adjusted according to the following table.



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...	...
[1]	<p>State of the axis: "/Controller inhibit".</p> <ul style="list-style-type: none"> • 0 = Enable • 1 = Controller inhibit <p>For the "Energy-efficient SRS" technology module, all bits have to be deactivated in the "control word application module". The state "/Controller inhibit" refers to the axis on which the brake diagnostics is to be executed (control word "horizontal drive" or "vertical drive").</p>
[2]	<p>State of the axis: "Enable".</p> <p>Observe the ramp times set in the application between the enable and the controller inhibit.</p> <ul style="list-style-type: none"> • 0 = Rapid stop/stop • 1 = Enable <p>For the "Energy-efficient SRS" technology module, all bits have to be deactivated in the "control word application module". The state "Enable" refers to the axis on which the brake diagnostics is to be executed (control word "horizontal drive" or "vertical drive").</p>
[3]	<p>Mode of the application module/technology module:</p> <ul style="list-style-type: none"> • 0 = Mode 0 (default mode) • 1 = Mode > 0 (e.g. positioning mode) <p>For the "Energy-efficient SRS" technology module with MOVIAXIS®, all bits have to be deactivated in the "control word application module". The mode refers to the axis on which the brake diagnostics is to be executed (control word "horizontal drive" or "vertical drive").</p>
...	...







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