AX4xx and AV4xx series transmitters

Display driver selection

LCD display module (AX400/0295)

Measurement made easy

AX4xx and AV4xx series wall-mount and panel-mount transmitters

Introduction

The LCD display module (AX400/0295) fitted to AX4xx and AV4xx series transmitters has been supplied with a number of display driver versions installed. To accommodate different versions, the firmware for the transmitters was modified enabling the operator to select the display type within the configuration.

This document details how to set the compatible display type to ensure correct operation.

⚠ WARNING

Bodily injury

Installation, operation, maintenance and servicing must be performed:

- by suitably trained personnel only
- in accordance with the information provided in this Instruction and User Guides IM/AX4CO, IM/AX4CO4, IM/AX4DO, IM/AX4PH, IM/AV4ORG and IM/AVNIT.
- in accordance with relevant local regulations

For more information

Publications for the associated transmitters are available for free download from:

www.abb.com/measurement

or by scanning this code:

Search for or click on:	
User Guide AX410, AX411, AX413, AX416, AX418, AX450, AX455 and AX456 | Single and dual input analyzers for low level conductivity	IM/AX4CO
User Guide AX413, AX430, AX433, AX436 and AX438 Single and dual input analyzers for high level conductivity	IM/AX4CO4
User Guide AX418, AX438, AX480, AX468 and AX488 Single and dual input analyzers for dissolved oxygen	IM/AX4DO
User Guide AX416, AX436, AX460, AX466 and AX468 Single and dual input analyzers for pH/Redox (ORP)	IM/AX4PH
User Guide AV410, AV411, AV412, AV420 and AV422 Single and dual input dissolved organics monitor	IM/AV4ORG
User Guide AV450 and AV455 Single and dual input uv nitrate monitor	IM/AV4NIT

1 Safety

Potential safety hazards

Transmitter – electrical

⚠ WARNING

Bodily injury

To ensure safe use when operating this equipment, the following points must be observed:

- Up to 240 V AC may be present. Be sure to isolate the supply before removing the terminal cover.

Safety advice concerning the use of the equipment described in this Instruction or any relevant Material Safety Data Sheets (where applicable) can be obtained from the Company, together with servicing and spares information.

Product recycling and disposal (Europe only)

ABB is committed to ensuring that the risk of any environmental damage or pollution caused by any of its products is minimized as far as possible. The European Waste Electrical and Electronic Equipment (WEEE) Directive that initially came into force on August 13 2005 aims to reduce the waste arising from electrical and electronic equipment; and improve the environmental performance of all those involved in the life cycle of electrical and electronic equipment. In conformity with European local and national regulations, electrical equipment marked with the above symbol may not be disposed of in European public disposal systems after 12 August 2005.

NOTICE

For return for recycling, please contact the equipment manufacturer or supplier for instructions on how to return end-of-life equipment for proper disposal.

End-of-life battery disposal

The transmitter contains a small lithium battery (located on the processor/display board) that must be removed and disposed of responsibly in accordance with local environmental regulations.

Information on ROHS Directive 2011/65/EU (RoHS II)

ABB, Industrial Automation, Measurement & Analytics, UK, fully supports the objectives of the ROHS II directive. All in-scope products placed on the market by IAMA UK on and following the 22nd of July 2017 and without any specific exemption, will be compliant to the ROHS II directive, 2011/65/EU.

2 Identifying the display module version number

⚠ WARNING

Bodily injury

Up to 240 V AC may be present. Isolate the supply before removing the terminal and enclosure covers.

AX4xx and AV4xx wall-mount transmitter

Referring to Figure 1, page 3:

1. Remove and retain 2 terminal cover securing screws (A).
2. Remove and retain 6 enclosure cover securing screws (B).
3. Support enclosure cover (C) and carefully pull it away from enclosure body (D) keeping the ribbon connected at both ends.
4. Tilt enclosure cover (C) to one side until the display module (E) on the center rear of the display is visible.
5. Identify and record the last 4 digits of the part number printed on the display driver IC (in the example these are shown as ‘5C-15’, refer to page 6 for all possible variants).
6. Re-assemble the transmitter in reverse order of dismantling.
7. Power up the transmitter ready for normal operation.
8. Proceed to page 6 to configure the display driver for this transmitter.

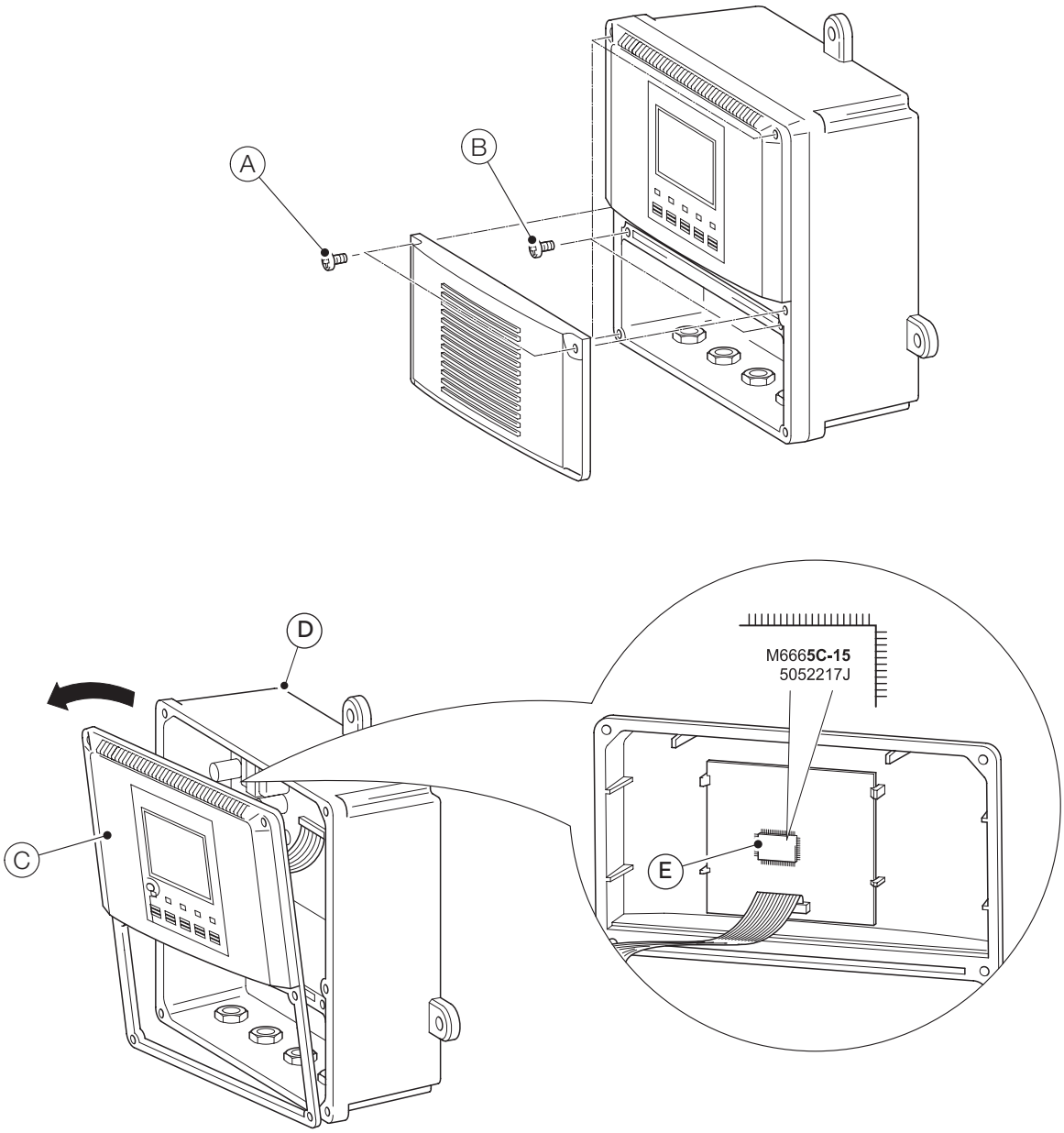


Figure 1 Wall-mount transmitter display module part number

...1 Identifying the module number

AX4xx panel-mount transmitter

Referring to Figure 2, page 5:

1. Loosen transmitter panel-mount securing screw (A).
2. Carefully withdraw transmitter display mounting (B) from enclosure (C).
3. Carefully remove boards (D) from transmitter display mounting (B).

   Note. If an option board has been fitted, 3 boards are installed.
4. Place boards (D) to the side to reveal display module (E) on the center rear of the display.
5. Identify and record the last 4 digits of the part number printed on the display driver IC (in the example shown these as '5C-15', refer to page 6 for all possible variants).
6. Re-assemble the transmitter in reverse order of dismantling.
7. Power up the transmitter ready for normal operation.
8. Proceed to page 6 to configure the display driver for this transmitter.

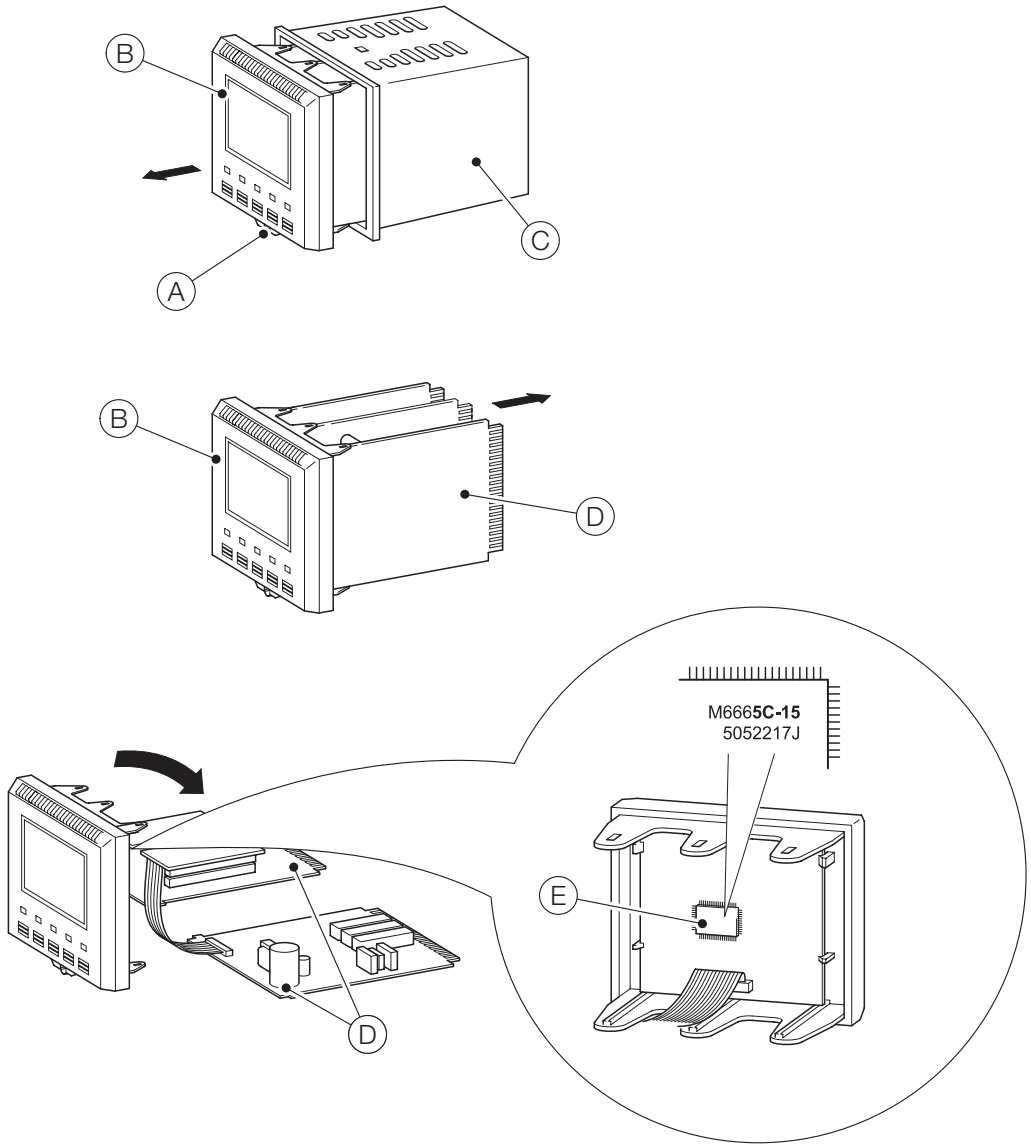


Figure 2 Panel-mount transmitter display module part number

3 Configuring the display driver

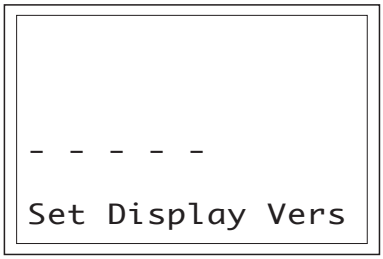
Configuration procedure

Note
This procedure requires configuration of the version of the display driver IC fitted to the display module. The last four digits only (including the hyphen) are required.

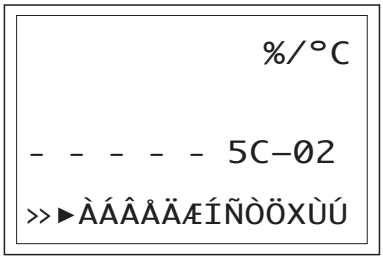
Use the front panel keys to configure the display driver for the transmitter as follows:

1 Press [✱] continually to navigate to the CONFIG DISPLAY menu:

2 Press [⮌] continually to navigate to the **Set Display Vers** menu:



3 Press [⮍] continually to navigate to the display selection menu:



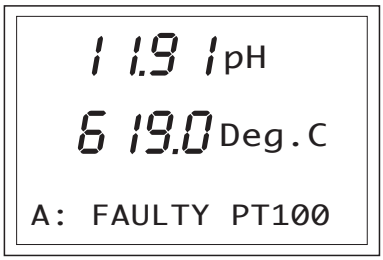
4 Referring to Figure 3, use [▲] to scroll through the display versions, 5C-02, 5C-07 etc until the number shown matches the last 4 digits on the display module for this transmitter.

Note
The symbols shown at the top and bottom of the display show the special characters – displayed characters vary between display types.

Figure 3 Display versions – module dependent

5 Press [⏎] to return to the **Set Display Vers** menu:

6 Press [✱] to return to the main operator page:

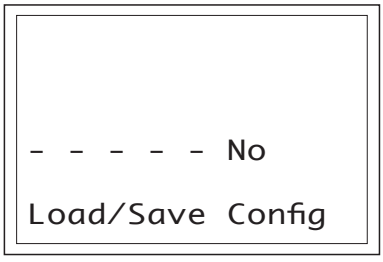


Configuration check

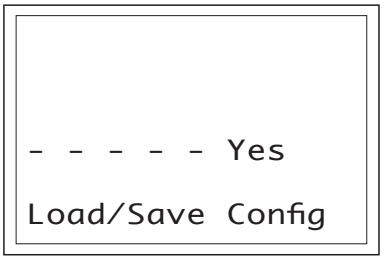
To check the display driver has been configured correctly this procedure saves the current configuration and checks the symbols appear correctly.

1 Press [✱] to navigate to the **TEST/MAINTENANCE** menu:

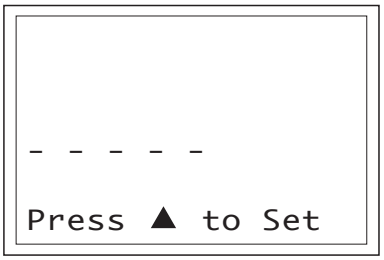
2 Press [↩] continually to navigate to the **Load/Save Config** menu, with **No** displayed:



3 Press [▲] to change the option to **Yes**:



4 Press [⏎] to navigate to the options setting menu:



Ensure the correct raise and lower symbols are displayed. These vary between display types but should be as follows:

Set:

▲ to Set or ↑ to Set

Abort:

▼ to Abort or ↓ to Abort

5 Press [▲] to save the current configuration.

Procedure complete.

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