

Endura AZ20, AZ25, AZ30

Reference air pump

Pump unit replacement



Measurement made easy

Endura AZ20
reference air pump

Introduction

This publication details replacement of the pump unit contained in the Endura AZ20, AZ25 and AZ30 reference air pump. It also includes backboard/pump unit upgrade instructions. For pump user/safety information, refer to Information publication [INF09/027](#).

Tools required

- Small Philips-head screwdriver
- Medium Philips-head screwdriver

WARNING

These procedures must be carried out by suitably trained personnel and in accordance with the information given.

For more information

Publications for Endura AZ20, AZ25 and AZ30 combustion oxygen monitors are available for free download from:

www.abb.com/measurement

or by scanning this code:



Search for or click on:

Data Sheet [DS/AZ20-EN](#)
Endura AZ20 oxygen monitor
Combustion gas analysis

User Guide [IM/AZ20E-EN](#)
Endura AZ20 series integral and remote
transmitter
Combustion oxygen monitor

User Guide [IM/AZ20P-EN](#)
Endura AZ20 oxygen monitor
Combustion oxygen monitor

Maintenance Guide [IM/AZ20M-EN](#)
Endura AZ20 oxygen monitor
Combustion oxygen monitor

Data Sheet [DS/AZ25-EN](#)
Endura AZ25 oxygen monitor
Combustion gas analysis

User Guide [OI/AZ25P-EN](#)
Endura AZ25 oxygen monitor
Combustion oxygen monitor

Data Sheet [DS/AZ30-EN](#)
Endura AZ30 oxygen monitor
Combustion gas analysis

User Guide [IM/AZ30P-EN](#)
Endura AZ30 oxygen monitor
Combustion oxygen monitor

1 Safety

WARNING

- Isolate electrical supplies to the system and reference air pump enclosure before proceeding with pump replacement.
- Isolate the air supply to the reference air pump (part numbers AZ200 770/AZ200 771/AZ200 772/AZ200 773) before replacing the pump unit.
- Observe all relevant health and safety procedures for equipment maintenance.
- Refer to [INF09/027](#) for electrical safety procedures.

2 Disposal

WARNING

Dispose of the old pump assembly in accordance with the information contained in [INF09/027](#).

3 Identifying the pump units

230 V, 60 Hz (part number: AZ200 768)

Can be fitted to reference air pump versions: AZ200 770/AZ200 772 only.

115 V, 60 Hz (part number: AZ200 769)

Can be fitted to reference air pump versions: AZ200 771/AZ200 773 only.

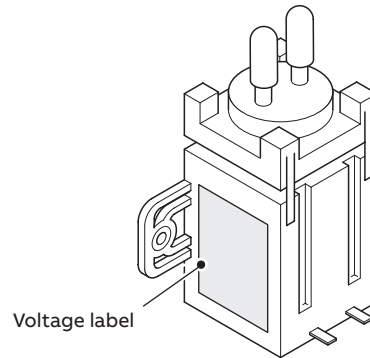


Figure 1 Replacement pump unit – AZ200 768 and AZ200 769

230 V, 60 Hz (part number: AZ200 755)

Can be fitted to reference air pump versions: AZ200 770/AZ200 772 only.

115 V, 60 Hz (part number: AZ200 756)

Can be fitted to reference air pump versions: AZ200 771/AZ200 773 only.

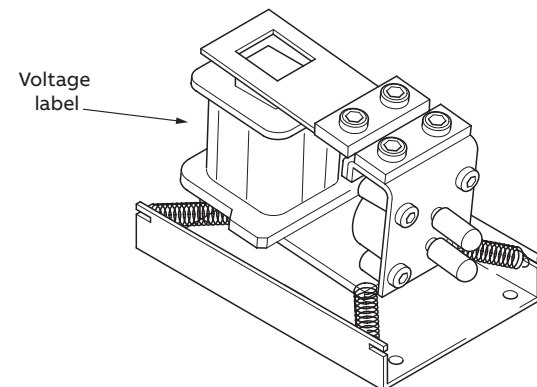


Figure 2 Replacement pump unit – AZ200 755/AZ200 756

4 Pump replacement – pump types AZ200 768/AZ200 769

WARNING

Ensure the new pump unit is of the correct voltage by checking that the voltage rating on the new pump unit's voltage label matches the voltage rating on the pump enclosure label – see Figure 1, page 3.

Referring to Figure 3, page 5:

- 1 Unscrew 4 captive reference air pump cover retaining screws (A) and remove enclosure cover (B).
- 2 Disconnect the neutral (blue/right) and live (brown/left) connections (C) from the pump unit.
- 3 Unscrew, remove and retain 3 screws and lockwashers (D) that attach the pump mounting plate to the pump enclosure.
- 4 Carefully pull the pump mounting plate away from the enclosure taking care not to stretch the incoming airline or disturb the filter.
- 5 Carefully remove 2 air tubes (E) from the pump unit (air in = left connection, air out = right connection).
- 6 Tilt the pump mounting plate forward to access 2 pump unit retaining bolts (F) at the rear of the pump mounting plate.
- 7 Unscrew, remove and retain the 2 pump unit retaining bolts and lock washers (F) at the rear of the pump mounting plate and discard the old pump unit.
- 8 Check that the voltage rating on the new pump unit's voltage label (G) matches the voltage rating on the pump enclosure label (H).
- 9 Remove 2 dust covers (I) from new pump unit (J) and fit the new pump unit to the pump mounting plate using the 2 pump unit retaining bolts retained at step 7.
- 10 Refit 2 air tubes (E) to new pump unit (J) ensuring tubes are fitted correctly for the direction of flow (an arrow on the air filter indicates direction of incoming air).
- 11 Place the pump mounting plate in the correct position within the enclosure and refit 3 pump mounting plate screws and lockwashers (D).
- 12 Connect the neutral (blue/right) and live (brown/left) connections (C) to the pump unit connections.
- 13 Ensure the enclosure cover seal is located correctly in its groove and refit enclosure cover (B) by tightening 4 captive reference air pump cover retaining screws (A).

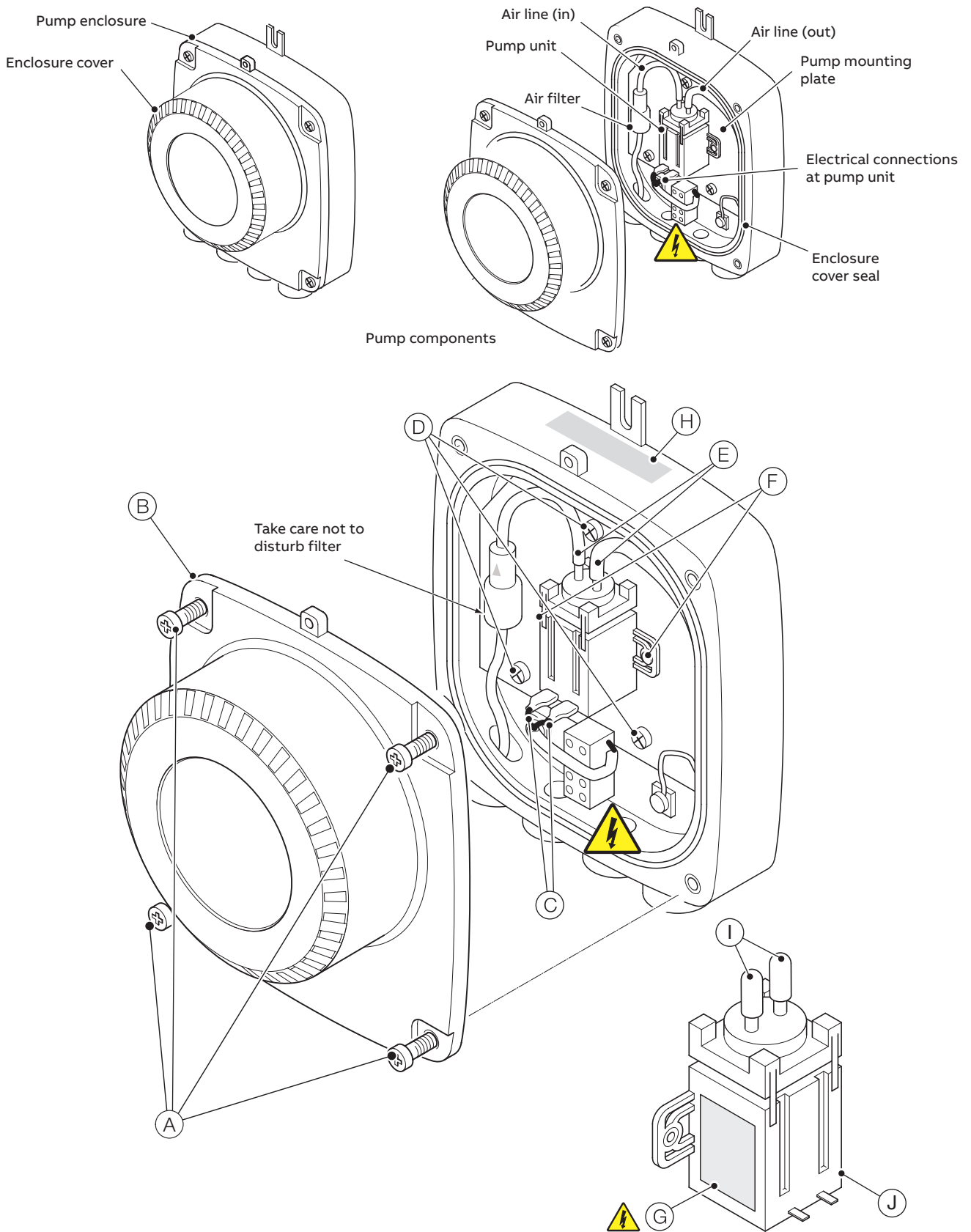


Figure 3 Replacing the AZ20 reference air pump (part numbers AZ200 768/AZ200 769)

5 Pump replacement – pump types AZ200 755/AZ200 756

WARNING

Ensure the new pump unit is of the correct voltage by checking that the voltage rating on the new pump unit's voltage label matches the voltage rating on the pump enclosure label – see Figure 2, page 3.

Referring to Figure 4, page 7:

- 1 Unscrew 4 captive reference air pump cover retaining screws (A) and remove enclosure cover (B).
- 2 Disconnect the neutral (blue), live (brown) and earth connections from terminal block (C).
- 3 Unscrew, remove and retain 4 screws and lockwashers (D) that attach the pump to the pump mounting plate.
- 4 Carefully pull the pump away from the mounting plate taking care not to stretch the incoming airline or disturb the filter.
- 5 Carefully remove 2 air tubes (E) from the pump unit (air in = right connection, air out = left connection).
- 6 Check that the voltage rating on the new pump unit's voltage label (F) matches the voltage rating on the pump enclosure label (G).
- 7 Remove 2 dust covers (H) from new pump unit (I) and refit 2 air tubes (E) to the new pump unit ensuring tubes are fitted correctly for the direction of flow (an arrow on the air filter indicates direction of incoming air).
- 8 Fit new pump unit (I) to the pump mounting plate using 4 screws and lockwashers retained at step 3.
- 9 Connect the neutral (blue), live (brown) and earth connections (C) to the terminal block.
- 10 Ensure the enclosure cover seal is located correctly in its groove and refit enclosure cover (B) by tightening 4 captive reference air pump cover retaining screws (A).

6 Pump upgrade procedure – upgrade kits AZ200 748/AZ200 749

WARNING

Ensure the new pump unit is of the correct voltage by checking that the voltage rating on the new pump unit's voltage label matches the voltage rating on the pump enclosure label – see Figure 2, page 3.

Referring to Figure 4, page 7:

- 1 Unscrew 4 captive reference air pump cover retaining screws (A) and remove enclosure cover (B).
- 2 Disconnect all existing connections to terminal block (C).

Referring to Figure 3, page 5:

- 3 Unscrew, remove and retain 3 screws and lockwashers (D) that attach the pump mounting plate to the enclosure.
- 4 Carefully remove 2 air tubes (E) from the air in and air out (inlet and outlet) ports.
- 5 Tilt the pump mounting plate forward, remove complete assembly and discard safely.

Referring to Figure 4, page 7:

- 6 Fit the new mounting plate assembly using 3 screws and lockwashers retained at step 3.
- 7 Check that the voltage rating on the new pump unit's voltage label (F) matches the voltage rating on the pump enclosure label (G).
- 8 Refit 2 air tubes (E) to the air in and air out (inlet and outlet) ports.
- 9 Connect the neutral (blue), live (brown) and earth connections (C) to the terminal block.
- 10 Ensure the enclosure cover seal is located correctly in its groove and refit enclosure cover (B) by tightening 4 captive reference air pump cover retaining screws (A).

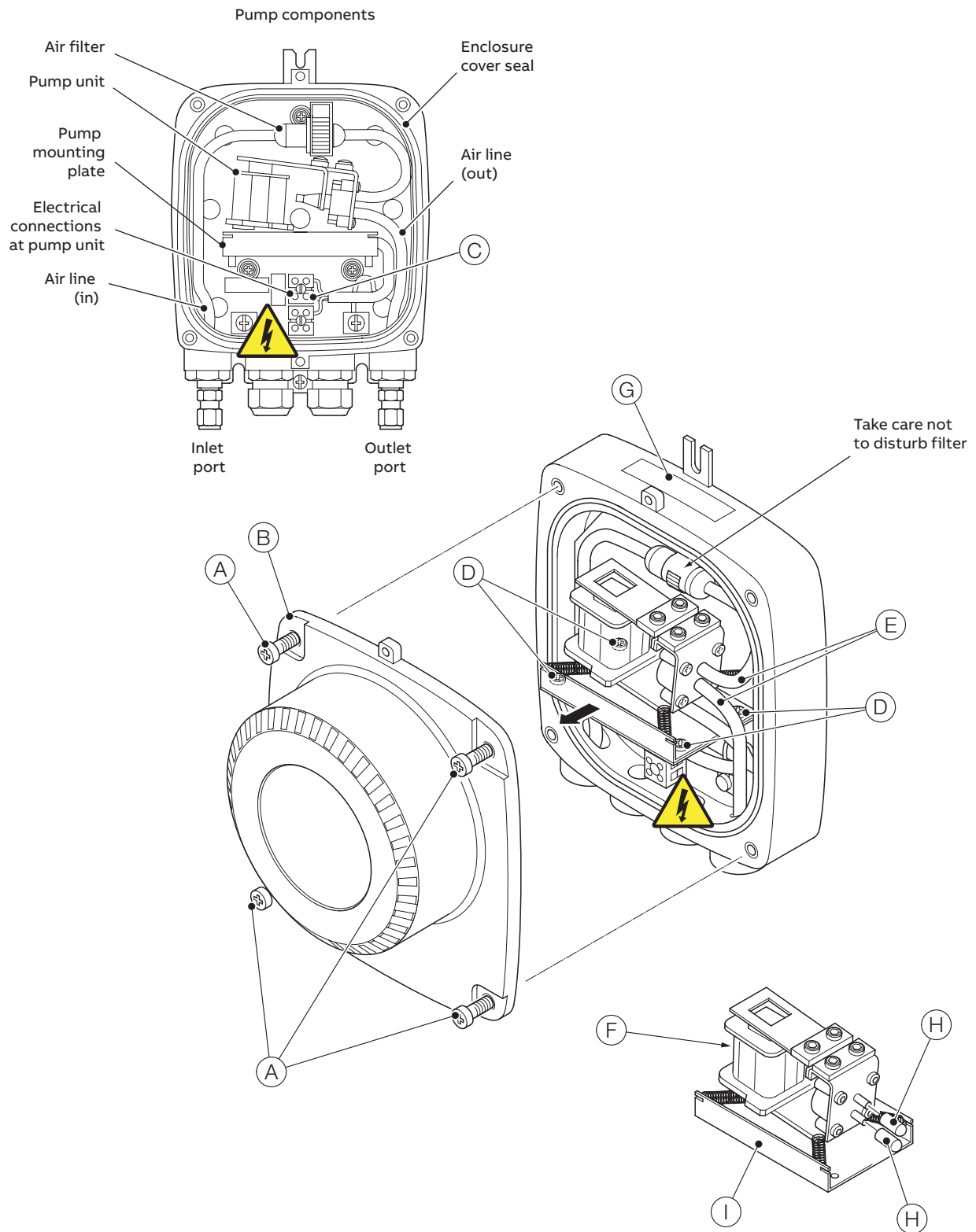


Figure 4 Replacing/upgrading the AZ20 reference air pump (part numbers AZ200 755/AZ200 756)

ABB Limited

Measurement & Analytics

Oldends Lane

Stonehouse

Gloucestershire

GL10 3TA

UK

Tel: +44 (0)1453 826661

Fax: +44 (0)1453 829671

Email: instrumentation@gb.abb.com

ABB Inc.

Measurement & Analytics

125 E. County Line Road

Warminster

PA 18974

USA

Tel: +1 215 674 6000

Fax: +1 215 674 7183

www.abb.com/measurement



We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB.

© ABB 2019