

## Replacing the main PCBA

### Preparation

#### Scope of delivery:

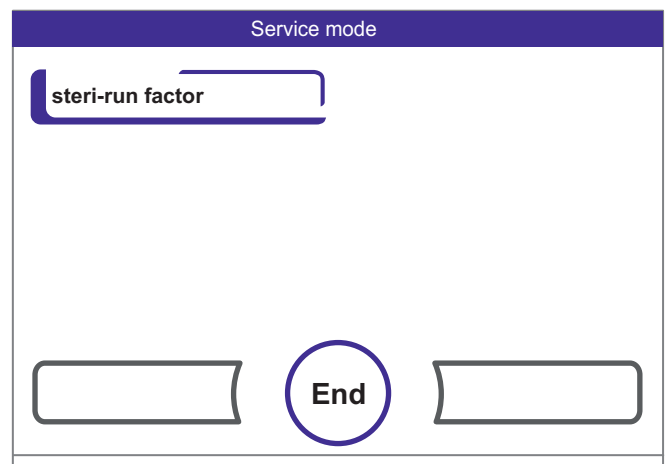
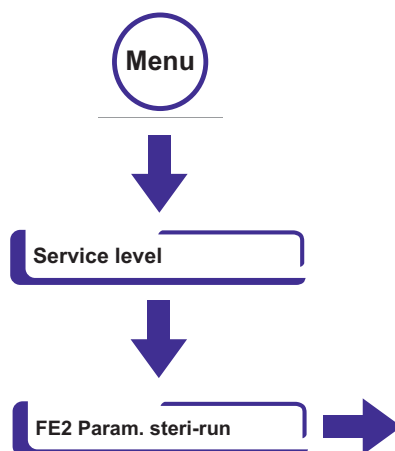
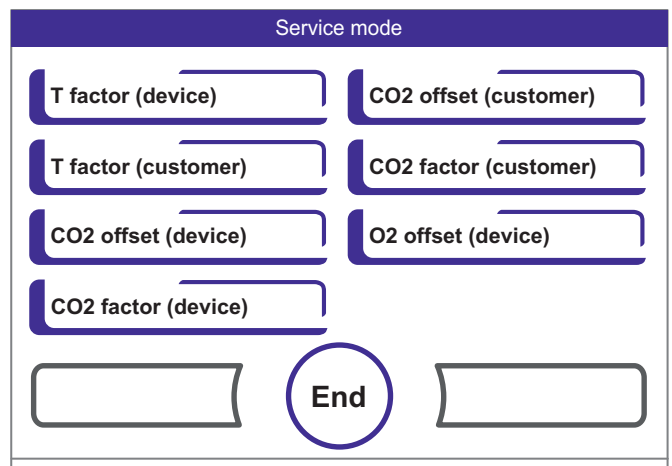
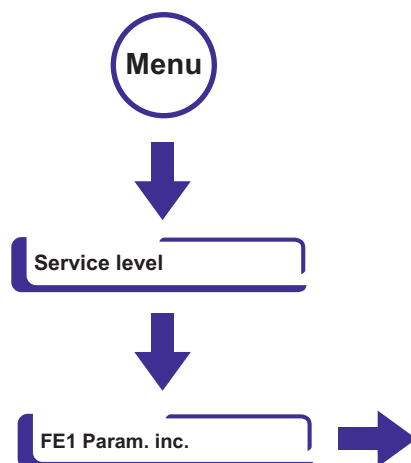
1 x Main-board

#### Required Tools:

Operating manual

If the main board parameter levels are still accessible, record the configuration settings of the device prior to repair works.

- Enter service mode and write down the calibration values from the service menu Function level 1 (FE 1 Param. Inc.) and the steri-run factor in FE 2 (if applicable). Note that the displayed data are depending on installed options.



- Check all user-specific and device-specific settings:
  - Settings / Setup;
  - Data Logging;
  - Options.
- Disconnect power and remove supply cable.
- If the USB port or alarm contacts were in use, disconnect cables accordingly.
- Shut down the gas supplies and disconnect the tubings for safety reasons.
- Prepare ESD protection for mainboard handling.

**Note** The references in the following sections are part of the Service or Operating Manual.

Get access to the main PCB by opening the electronic cabinet.



- Disconnect all connecting cables from the main board. Refer to the electrical schematics from the Service or User Manual for details. It is advisable to tag the connecting cables accordingly for easier re-installation.
- Remove the 8 retaining screws which hold the mainboard.
- Remove the mainboard from the rear panel of the device or out of the drawer.
- Place the main board onto the screw bases on the rear panel of the device or inside the drawer and secure it using the 8 retaining screws.
- Re-install the connecting cable to the main board (refer to the electrical schematics from the Service or User Manual).

**Note** Make sure that the connecting cable for the grounding of the main board is connected.

- Re-install the control box cover;
- Re-install power supply cable (USB and alarm contact cables if applicable);
- Re-connect the gas supply.

**Installing /  
Removing the  
mainboard**

**Removing the  
mainboard**

**Installing the  
new  
mainboard**

**Re-installation and  
start-up**

## Device configuration

The start-up of the device after the main board has been replaced requires adjustment work as described in the following instructions:

- Perform a power reset by switching the device on;
- Configure the main board in the submenu **FE21 DEVICE CONFIGURATION** in **SERVICE MODE** (see “[Hardware configuration: FE21 Device configuratio](#)”).

Check all user-specific and device-specific settings in the submenus of the user menu **OPTIONS** and adjust them as required (see operating instructions):

- In the submenu **DATE/TIME** of the user menu **SETTINGS**:
  - set date and time in settings,
- In the submenu **INTERFACE**:
  - check the data exchange transmission speed baud rate and adjust it as required (see operating instructions).
- In the submenu **LOGGING CYCLE TIME** of the user menu **DATA LOGGING**,
  - check the data logging interval and adjust it as required (see operating instructions).

Re-store the calibration factors:

- In **FE1 PARAMETERS INCUBATION** and **FE2 STERI-RUN FACTOR** (if applicable) enter the values from the read-out in step 1.

## Start-up

Start up the device with an auto-start routine. After the auto-start routine has been completed:

- Perform temperature test field calibration.
- Perform CO<sub>2</sub> calibration.

**Note** This step is not needed, if the parameters in FE1 were read and entered again manually.

- Perform a test run and start the device up.

If the display shows the actual values of the control loops after the heat-up stage has been completed, the main board is operative.