EN - Service Note

Cross Over Prevention
NoMix / MultiSeal
Softwareupdate

FMC Technologies

Content

}

1   General

1.1   How to Use this Manual

This manual contains multiple information. In order to help you find the information you need, the following orientation aids have been used:

- Icons

  The information in this manual ranges from absolutely required protective measures and standardised requirements to concrete operating steps and good advice. For easy reference the different types of information are marked by pictographs.

  The intention is not only to increase the reader's attention, but also to help to identify the desired information quickly. For this reason the respective icon symbols are closely related to the contents of the text .

  In this manual you will find the following icons:

⚠️ **Danger!** In this case: Danger of explosion.

✗ **Threat of disruption.** Action that may damage the equipment.

§ **Legal hint.** Action that may have legal consequences

☞ **Operation step**, concrete handling instruction

☺ **Feed-back positive**, e.g. "Now the main menu appears"

☹ **Feed-back negative**, e.g. "If an error message appears … "

✍ **Additional information, advice, tip**, e.g. "Further details in chapter XX"

⊠ **Optional or special case**

⸬ **Function / Functional description**

- Key word register at the end of the documentation helps to locate the various topics.

- **Fehler! Textmarke nicht definiert.**

1.2   Initial Remarks

When updating the software of the MultiSeal / NoMix 200 the following documents should be at hand, or have been printed out beforehand:

- Parameter list print-out

- Tour report and event report, if available

2 Software replacement

2.1 Main Unit

Prior to each software replacement, the tank truck setup must be recorded or printed, so that during re-commissioning with the new software all vehicle-specific parameters can be reproduced in the setup.

The EPROM (contains software) can be found in the main unit on the main CPU board (drawing no. 51.351371 and no. E51.351675).

It has a 32-PIN "PLCC" housing (rectangular housing with one bevelled corner) and a sticker showing the software version number (e.g. 1.00). One of the corners of the socket on the board is also bevelled. A special, commercially available "PLCC removal tool" is required for removing the EPROM from the socket, in order to avoid damaging the EPROM during removal. A detailed description of the procedure you will find in the next chapter.

Prior to inserting the new EPROM, its connection contacts should be checked for damage ("bent connection legs"?).

After an EPROM on the main CPU board has been replaced, the complete SETUP menu has to be reset / checked.

2.2 Interface modules

The software for all interface modules is integrated into the microprocessor. The microprocessor has to be replaced if software needs replacing. As an example, drawing no. E51.351372 shows the SPD sensor interface. The procedure is identical to that described in Chapter 2.1.

� **Attention: If it is necessary to replace the processor of the SPD sensor interface in-to which the software is integrated, the "dip switch no . 4 on the CPU board must be switched to "OFF" before removing the processor, in order to interrupt the supply from the internal battery (see also drawing no. E51.351372)!**

3   Software Update

by Exchanging the EPROM Chip

This chapter explains, step by step, the procedure to change an existing EPROM against an EPROM with newer software. Please follow the explanation very carefully to avoid damage to the EPROM as well as the electronics.

☞   Check correct functioning of the system.

☞   Print out or note all parameters.

☞   Switch off the voltage of MultiSeal / NoMix 2000 system and printer.

☞   Open main unit / display or any other box where software needs to be changed.

☞   To identify the location of the EPROM please refer to the appropriate drawing (see annex).
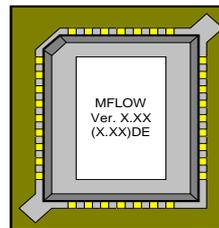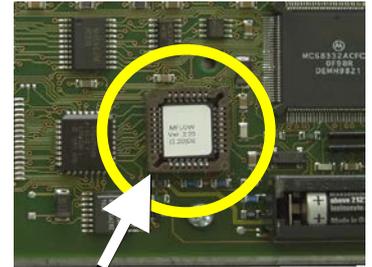
☞   Remove old EPROM by using adequate tool only, e.g. EPROM extractor supplied by
    RS Components **- part. no. 404-727**
or
    F.A. Sening Part No. 7351002

☞   Place both claws of the extractor into the socket, press EPROM extractor slightly against the socket and push the legs of the EPROM extractor with your thumb and index finger (see picture). By means of the self-acting leverage effect the EPROM will then be pulled out automatically.
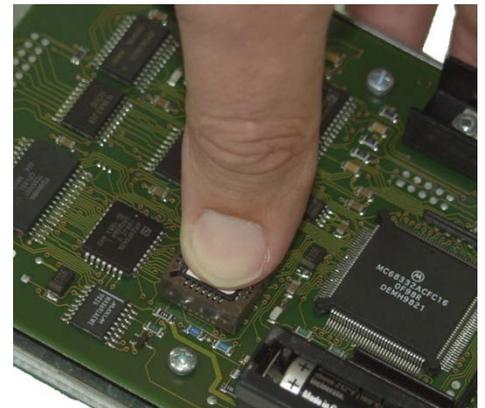
    Note: Do not pull the legs of the tool to remove the EPROM!
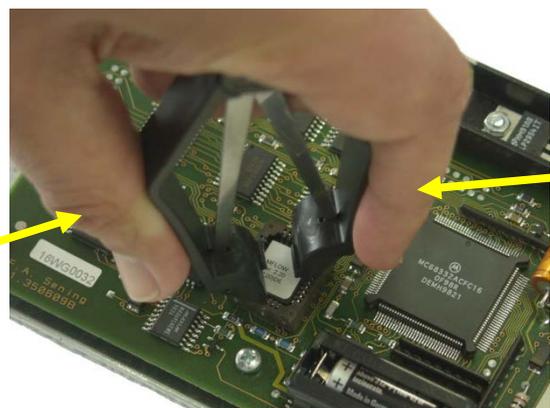
☞ Insert the new EPROM in the socket.

✖ Note the positioning of the flattened corner (bevelling):

MFLOW
Ver. X.XX
(X.XX)DE
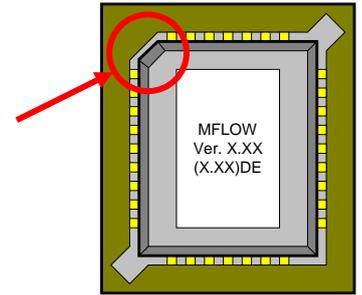
☞ Push EPROM into the socket with a slight and steady movement.

✖ Do not execute any special force!

☞ Re-assemble the devices (grease threads!).

☞ Switch on and initialise MultiSeal / NoMix 2000.

☞ Print out new parameter list and compare with old one.

☞ Correct parameter if necessary.

4　Warranty and Service

In addition to the dealer's legal warranty in the purchase agreement we give the end user a warranty for this device on the following conditions:

1. The warranty period is twelve months and starts at the time of delivery of the device by F. A. Sening. With electronic products the registration form must have been received at Sening fully completed and signed by the installation department.

2. The warranty includes the rectification of all device damage or defects occurring within the warranty period and which can be shown to be due to material or production faults.

The warranty does not include:

- slight deviations from the intended quality which are insignificant for the value or usefulness of the device,

- damage or defects due to connection other than as specified, improper handling or nonobservance of the installation guidelines and instructions for use,

- damage from the chemical and electrochemical effects of water or other liquids, electrical or electromagnetic influences and generally from abnormal ambient conditions,

- damage due to external effects such as damage in shipment, damage due to shock or impact, the effects of the weather or other natural phenomena.

3. The right to claim under warranty becomes invalid if repairs or tampering have been carried out by persons not authorised by us for the work or if our devices have been fitted with supplementary parts or accessories which are not suitable for our devices and not released by us for that purpose.

4. The warranty service is carried out free of charge and, at our choice, by either repairing defective parts or replacing them by perfect parts. Replaced parts become our property.

5. During the first six months of the warranty period the warranty service is carried out without billing. Thereafter, travelling times, travelling costs and working time for the service staff and any transport costs occurred are billed or not reimbursed.

6. Work under warranty does not imply any lengthening of the warranty period nor does it initiate a further period of warranty. The warranty period for installed replacement parts terminates with the end of the warranty period for the complete device.

7. More far-reaching or additional claims, in particular those for compensation of losses or consequential losses outside of the device are expressly excluded, provided no liability is deemed mandatory in law.

5   Address and contact details

Our service department will be happy to assist and can be contacted as follows:

FMC Technologies

Measurement Solutions

F. A. Sening GmbH

Regentstrasse 1
D-25474 Ellerbek

Tel.:	+49 (0)4101 304 - 0	(Switchboard)
Fax:	+49 (0)4101 304 - 152	(Service)
Fax:	+49 (0)4101 304 - 133	(Sales)
Fax:	+49 (0)4101 304 - 255	(Order processing)

E-Mail: info.ellerbek@fmcti.com
Web: www.fmctechnologies.com/seningttp

6   Drawings

Designation	Drawing no.
MultiSeal Main Unit	E51.351371
NoMix 2000 / MultiSeal Main Unit – Display	E51.351675
SPD Sensor Interface	E51.351372

CPU-Circuit,
Connection to
Power Supply, EEx ia IIB

EPROM
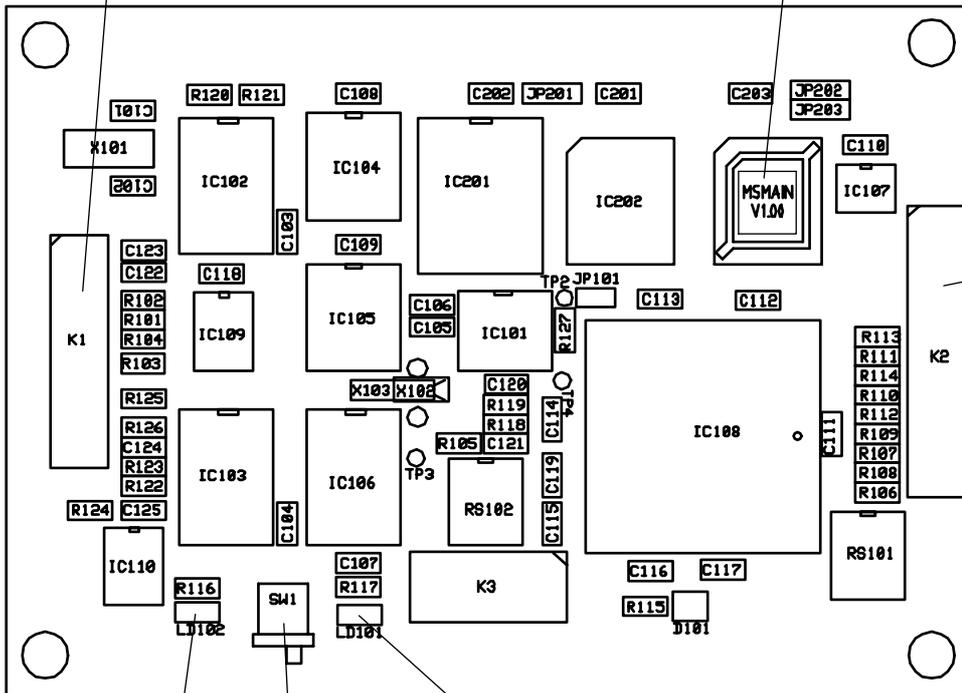
Connector for
Extension

SETUP-
Switch

Power Supply
Indication

SETUP-LED: lighting = SETUP
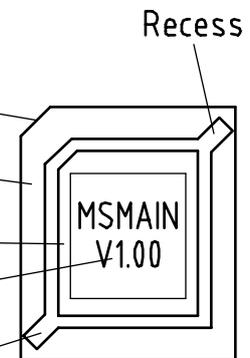released
not lighting = SETUP
not released

Recess

Beleved edge

EPROM-Socket

EPROM

Label

Recess

MSMAIN
V1.00

CAUTION: To remove the EPROM from the base, a special PLCC removal
tool must be used (see also instruction).

MultiSeal Main Unit	FMC EnergySystems	F.A. Sening GmbH
FMC Measurement Solutions	Ellerbek, Germany
EPROM-Removal / SETUP-Switch		
Main CPU-Board		
- Instruction manual -		

| Geänd. am : | Datum : 31.08.2000 | Name : M. Kracht |
| | Zeichnungs-Nr. E51.351371 | Rev. |
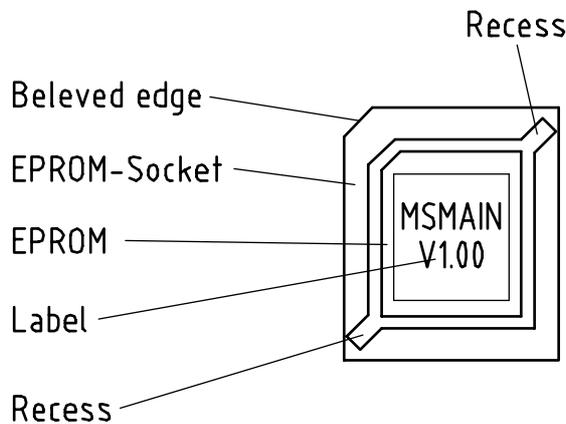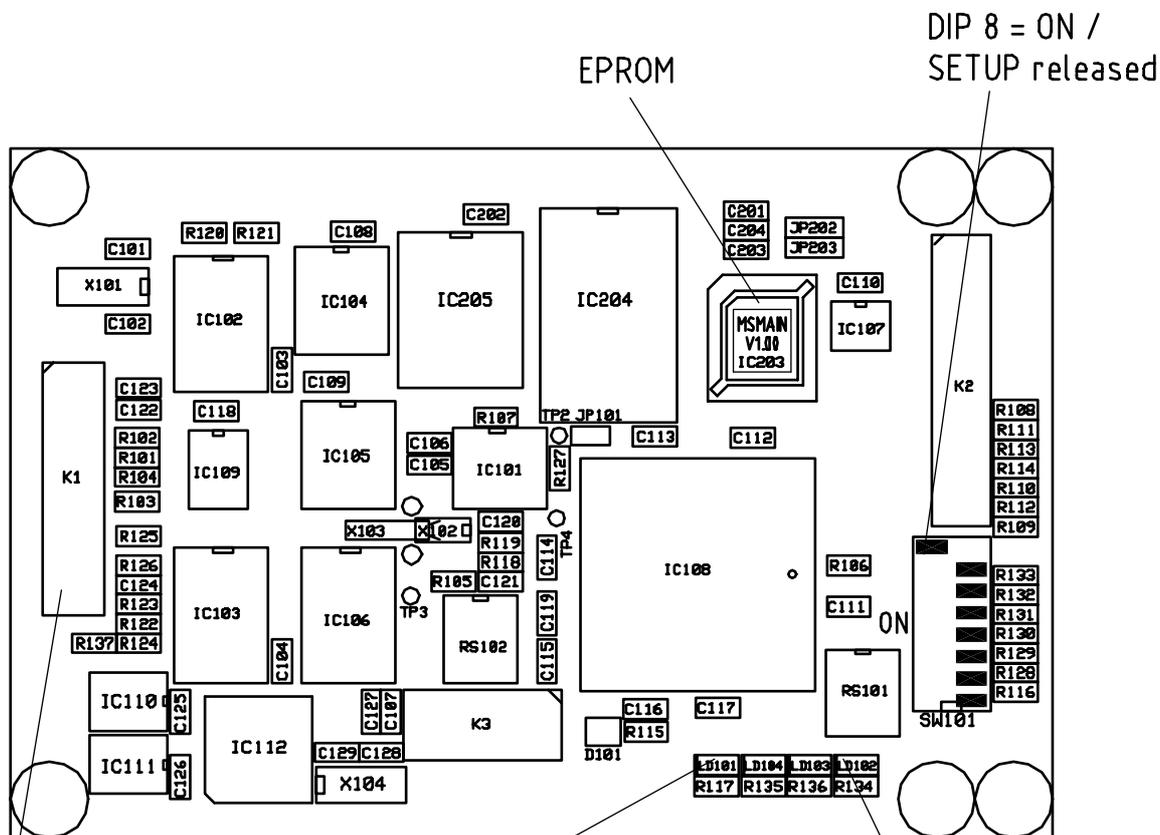
EPROM

DIP 8 = ON /
SETUP released

CPU-Circuit,
Connection to
Power Supply, EEx ia IIB

LED + 5V
Power Supply
Indication

LED 1 (red)
lights
SETUP released

Recess

Beleved edge

EPROM-Socket

EPROM

Label

Recess

MSMAIN
V1.00

CAUTION: To remove the EPROM from the base, a special PLCC removal
tool must be used (see also instruction DOK-415E and DOK-416E).

NoMix 2000/MultiSeal Main Unit / Display	FMC EnergySystems FMC Measurement Solutions	F.A. Sening GmbH D-25474 Ellerbek, Germany	
EPROM-Removal / SETUP-Switch	Changes :	Date : 29.01.2003	Name : Benthack
Main CPU-Board		Drawing No. E51.351675	Rev.
- Instruction Manual -			

DIP-Switch

Processor / Software
integrated

CPU-Circuit,
Connection to
Power Supply
EEx ia IIB

Recess

EPROM-Socket

EPROM

SPD
V1.00

Label (Example)

Beleved edge

Recess

DIP-Switch
ON

1 2 3 4

OFF
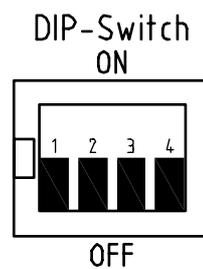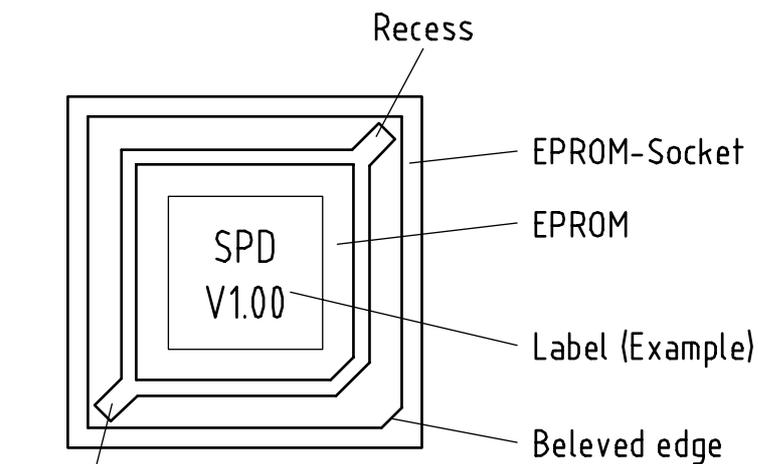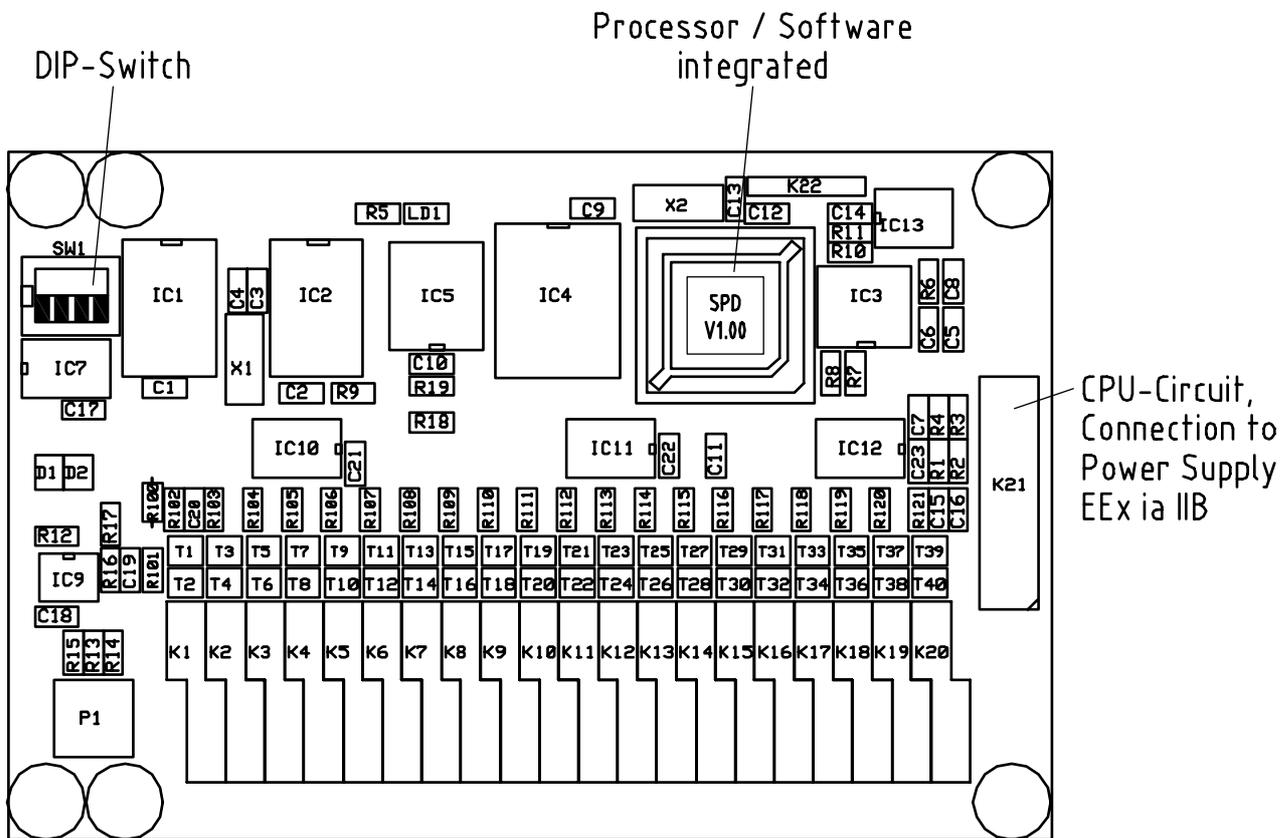
1-3: SPD-Sensor-Interface
Adress
4 : Battery switch
4 = ON : Internal Battery is
switched <u>On</u>
4 = OFF : Internal Battery is
switched <u>Off</u>

<u>IMPORTANT</u>: Before removal of the processor the Dipswitch 4 must be moved
to "OFF" (Internal Battery switched off).

<u>CAUTION</u>: To remove the EPROM from the base, a special PLCC removal
tool must be used (see also instruction).

MultiSeal Interfaces	FMC EnergySystems	F.A. Sening GmbH
	FMC Measurement Solutions	Ellerbek, Germany
Processor / Software-Removal	Geänd. am :	Datum : 31.08.2000	Name : M. Kracht
CPU-Boards		Zeichnungs-Nr. E51.351372	Rev.
- Instruction manual -			