



Operating Manual SUPREMA Calibration

Software for Fire and Gas Warning Units



MSA**safety**.com



MSA Europe GmbH Schlüsselstrasse 12 8645 Rapperswil-Jona Switzerland info.ch@MSAsafety.com www.MSAsafety.com

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1 Safety Regulations

1.1 Correct Use

The program SUPREMA Calibration can be used for calibrating measuring points with passive detectors connected to a SUPREMA system.

This operating manual describes SUPREMA Calibration version 2.4.0.x.

WARNING!

Use of SUPREMA Calibration is only approved for SUPREMATouch systems with firmware 3.01.06, 3.02.01 and higher and SUPREMA systems with firmware 2.06.04.

It is imperative that this operating manual be read and observed when using the product. In particular, the safety instructions, as well as the information for the use and operation of the product, must be carefully read and observed. Furthermore, the national regulations applicable in the user's country must be taken into account for a safe use.

WARNING!

Only trained individuals should use SUPREMA Calibration. Before taking over calibrations from the SUPREMA Calibration on a SUPREMA the data needs to be checked.

DANGER!

This product is supporting life and health. Inappropriate use, maintenance or servicing may affect the function of the device and thereby seriously compromise the user's life.

Before use the product operability must be verified. The product must not be used if the function test is unsuccessful, it is damaged, a competent servicing/maintenance has not been made, genuine MSA spare parts have not been used.

Alternative use, or use outside this specification will be considered as non-compliance. This also applies especially to unauthorised alterations to the product and to commissioning work that has not been carried out by MSA or authorised persons.

1.2 Liability Information

MSA accepts no liability in cases where the product has been used inappropriately or not as intended. The selection and use of the product are the exclusive responsibility of the individual operator.

Product liability claims, warranties also as guarantees made by MSA with respect to the product are voided, if it is not used, serviced or maintained in accordance with the instructions in this manual.

1.3 Safety and Precautionary Measures

- All calibrations made with a PC must be checked for correctness on the SUPREMA system, or they must be checked for correctness on the PC after they have been read back to the PC.
- Ensure that no unauthorised persons have access to a computer running SUPREMA Calibration.
- If an error message appears and the cause of the error is unclear or the error cannot be fixed, contact MSA.
- · It is the responsibility of the user to check all data entered with SUPREMA Calibration.

WARNING!

Because the calculation of the relative sensitivity is based on the most recent *First calibration* before the calibration is carried out, incorrect values could result from a *First calibration* carried out directly on the SUPREMA.

WARNING!

Only applicable for firmware versions lower than 3.02.01:

No calibration data from calibrations carried out directly on the SUPREMA are stored in the database used by SUPREMA Calibration. This is why no reports are available for calibrations and *First calibrations* carried out directly on the SUPREMA.

2 Hardware and System Requirements

2.1 System Requirements

Supported Operating Systems

- Windows 7 x86/x64
- Windows 10 x86/x64

Hardware Requirements

Recommended Minimum: Pentium 1,5 GHz or higher with 2 GB RAM Minimum disk space:

- x86 2 GB
- x64 4 GB

Minimum screen resolution: 1024x768 Recommended screen resolution: 1280x1024

2.2 Interfaces

The PC must be equipped with:

- USB port or
- Serial port



2.3 Supported SUPREMA versions

- SUPREMATouch firmware 3.02.01 and higher
- SUPREMATouch firmware 3.01.06
- SUPREMA 2.06.04



For SUPREMATouch firmware or SUPREMA with a firmware version lower than 3.02.01 some functions of SUPREMA Calibration are not available. Where applicable, the reduced functional range is mentioned in this manual.



The SUPREMA manual referred to in this manual is the SUPREMATouch manual, 10121863, rev. 03. While the references will not work, the relevant content can be found in the SUPREMA manual as well.

2.4 Software Requirements

The following software has to be installed to use SUPREMA Calibration:

• SUPREMA Manager, version 2.4.0.x or higher

To use SUPREMA Calibration, a database has to be created with SUPREMA Manager. This database must include the dataset for the SUPREMA to be calibrated.

3 Installation

Administration rights are required for installation.

3.1 Installation Process

(1) Insert data carrier.

Run the setup file on the data carrier to install both MSA-App and SUPREMA Calibration. Follow the instructions of the installation wizard.

(2) Start the SUPREMA App on the PC.

To start SUPREMA Calibration, use the following path: *Start/Programs/MSA/MSA-App/MSAApp*



If the software PrimaX Manager is installed on the PC there will be two entries under MSA: "MSA-App" and "MSAApp". For running SUPREMA Calibration start the "MSA-App" entry.

(3) After completing the setup start the software once with administrator rights/permission.

1

4 **MSA-App**

SUPREMA Calibration and other software programs from MSA run as plug-ins inside the host application MSA-App. When SUPREMA Calibration is installed, MSA-App is part of this installation.

The screen of the MSA-App has the following layout:

	۲	1		MSA The Safety Company
3		francias Reserves Antes proprietos Antes proprietos Antes proprietos Antes proprietos Antes proprietos Antes proprietos		The Sofety Component
E Anno 1990	8 100 DF	1.1 1. 1	-	

Fig. 1 MSA-App Screen Layout

- 1 Menu area
 - Toolbar

- 2 Plug-in selection Content area
- 4



3

(1) Use this button to change between plug-ins. The active plug-in is shown (name and icon). (2) Choose SUPREMA Calibration from the list of plug-ins. *The plug-in version is shown.*

Telling, Sale, 166	Ċ	SUPREMA Manager	2 (-]		The Safety Company
Local SUPPLIER default	Plug-in ov	erview			
Martin Santa	Fixed instrument	5			
a con		SUPREMA Calibration		MSA-App plug-in for calibrating me	asuring points with pa
Sufficient association		SUPREMA Manager	114.98	MSA-App plug-in for configuration and ser	vicing of the gas warni
A					
· Internet					
Contra Co					
* Collection					
* Sector					
If management					
E http://phil					
Si také tapé					
H trap	<				>
· Satis	A (Jnsaved data of the current p	lug-in will be	e lost, when switching to another one.	✓ Start plug-in
· · · · · · · · · · · · · · · · · · ·					× Close

Fig. 2 Choosing a plug-in

(3) Activate the chosen plug-in with the *Start plug-in* button *The chosen plug-in is active.*

Every window with a Close button has to be closed with this button to continue.

Menu area

The menu has three entries, the first one is specific to the active plug-in and appears after a plugin has been chosen, in case of SUPREMA Calibration, it is *Settings* (see chapter 6 "Settings"). The settings and the language for the MSA-App can be changed with *Extra*. Changing the language will take effect after restarting the application.

MSA-App + SUPREMA Calibration		
Settings Extra Info		libration 🐔
Local SUPREMA dataset	MSA-App settings	
New location	Status message bar	
Change	Messages: Show messages for 5 seconds	Defines how long a status message will be shown.
Connect	Warnings:	Defines how long a status warning will be shown. When
Configurations	Show warnings for 10 seconds	'Permanent' is checked, warning messages will not disappear automatically.
Calibration groups	General behavior	
Calibrations Cali	🕅 Load last plug-in at startup	Defines how MSA-App behaves at startup if at least 2 plug-ins were found. The default behavior (unchecked) shows the plug-in selection page at startup. When checked, the last loaded plug-in will be started automatically. In case only 1 plug-in was found at startup it will be started automatically.
 First calibrations 		
 with pre-adjustment without pre-adjustment 		
Bridge current adjustments IBR adjustment		
▼ Reports		
Calibration		× Close

Fig. 3 MSA-App settings

5 Overview

	8	arran here 2			The Safety Company
Local SUPREMA dataset	typeran antique	Dearstee			
Gas Warning Controller 1	Parameters	100 0 10 aug	configuration has	nd laser darage	
SUPREMA connection 2	8 1. m				4
3	o	Ration properties Frenze orden	100	100210	
* tadquata	Same Station	Senar Atabase services Operation mode			
· Annalise	a second	Spal 7 188844		-	
Contraction of the second		tan .			
T father		Colompi	configurate		
¥	·	a new local at	Trap and seale		na 🖌 144

Fig. 4 SUPREMA Calibration

- 1 Local SUPREMA dataset
- 2 SUPREMA connection

- 3 Function nodes
- 4 Content area

5.1 Markings and Symbols

The status bar colours are shown using SUPREMA Manager screenshots, for SUPREMA Calibration the same colours are used.

Status Bar Colors

0	Enter a new SUPREMA name and apply to copy the SUPREMA data!	×
Fig. 5	Information: blue	
	Reading basic configuration data	×
Fig. 6	Status: green	
<u> </u>	Wrong password entered!	
Fig. 7	Warning: orange	
0	Error on connection (COM7) to SUPREMA	×
Fig. 8	Error: red	

Info and Warning Symbols



Info fields show information about data entries and button functions.

 a

Attention fields advice against possible user errors.

Data Transfer Feedback

Download status		
Configuration + Parameters		~
Calibration data		and the second sec
System events		
	V Ok	

Fig. 9 Green check mark: Transfer successful

Download status		
Configuration + Parameters		×
Calibration data		×
System events		
	V Ok	

Fig. 10 Red cross: Transfer unsuccessful

Entry Feedback

:[415	9
:	240	Value must be within 240 - 350!

Fig. 11 Wrong entry plus tooltip

5.2 Local SUPREMA Dataset

Here the current local SUPREMA dataset is shown. Pressing *Change* opens the data management screen to select a different local dataset (see section 7 "Data Management").

5.3 SUPREMA Connection

To establish a connection between SUPREMA Calibration and SUPREMA, click on *Connect*. The connection settings set according to section 7 "Data Management" or section 6.1 "General Communication Settings" are used. When connected, the access authorisation area and the *Synchronise* button are shown.

Access Authorisation

Functions that are changing settings (e.g. parameters etc.) require access authorization by entering the password required for the level. Functions not available for the user logged in are disabled. Any change on the connected SUPREMA requires the appropriate access level. For the login the access level can be chosen:

SUPREMA connection			
<u>_</u>		Disconnect	
.	Access level:	- M P C A Notset	
	(synchronise	

Fig. 12 Access level

The necessary password has then to be entered.

SUPR	EMA connection
4	Disconnect
.	Enter 'Configuration' password
	Synchronise

Fig. 13 Enter password

Five user groups with different access levels are defined:

- Read only (no password necessary)
- Maintenance (M)
- Parameterization (P)
- Configuration (C)
- Administration (for MSA use only) (A)

The passwords are saved on the SUPREMA system.

Not applicable for firmware versions lower than 3.02.01: If a user with modification authorization is logged in and there has not been any communication between the SUPREMA and the SUPREMA Calibration system for more than 5 minutes, password authorization will automatically expire.

The SUPREMA system is delivered with the default password "AUER" for all three accessible password levels.

When connecting to a SUPREMA, the default access level is *Read only*. If a key switch is used, the default access level is *Parameterization*.

Synchronise

Use *Synchronise* to synchronise the local dataset with the data of the connected SUPREMA. See chapter 8 "Synchronise Data" for details.

5.4 Function Nodes

Clicking on a node opens a list of all subnodes. Clicking on a subnode opens this subnode in the content area.

SUPREMA Calibration has the following nodes:

- Calibrations, to carry out different calibration procedures
- First calibrations
- Bridge current adjustments
- *Reports*, containing calibration reports and status reports

For firmware versions lower than 3.02.01, SUPREMA Calibration has the following nodes:

- Configurations, for grouping measuring points for calibration
- · Calibrations, to carry out different calibration procedures
- Reports, containing calibration reports and status reports
- First calibrations
- Bridge current adjustments

Subnodes that can only be accessed while a SUPREMA is connected are disabled when no SUPREMA is connected or the required access level is not set.

6 Settings

When starting SUPREMA Calibration for the first time the following screen is shown:

🚳 MSA-App +	 SUPREMA Calibration 					-	
Settin	ngs Extra Info	SU	PREMA Calibration 🌊 🔽				MSA The Safety Company
Local SUPREI	MA dataset ning Controller 1	SUPREMA Calibration setting General communication setting Use the following COM port set	ngs ettings for all connections				
SUPREMA co	nnection	COM port: Baud rate: Timeout: Database location	COM1 v 19200 bits/s 10 seconds				
 Calibration Calibration Single Group First calibra 	s	Database file path:	C:\Data\SUPREMAManager.sdf			🔁 Select	database
 with pr without Bridge curr IBR adj 	e-adjustment t pre-adjustment ent adjustments ustment						
 Reports Calibra Status (tion						
				5 Undo	✓ Save	×	Close

Fig. 14 Settings

To edit these settings later, click on Settings in the MSA-App menu area.

6.1 General Communication Settings Here the connection settings for

- COM port settings
- Baud rate
- Timeout

can be edited. To edit these settings later, click on Settings in the MSA-App menu area.

(1) Make all necessary changes and save entries by clicking on Save.

If the checkbox is checked the communication settings entered here will overwrite the individual communication settings for each SUPREMA dataset.

6.2 Database Location

SUPREMA Calibration uses the database file (.sdf) created with SUPREMA Manager. When starting SUPREMA Calibration for the first time, it is necessary to select the location of the database used by SUPREMA Manager to read and store data. Before calibrations can be carried out, an existing database file path must be chosen.

- (1) Select an existing database on the PC with Select Database.
- (2) Make all necessary changes and save entries by clicking on Save.

Databases opened with newer versions of SUPREMA Calibration are not downward compatible to older versions of SUPREMA Calibration/SUPREMA Manager.

7 Data Management

At least one dataset is required for SUPREMA Calibration. As long as no *Local SUPREMA dataset* has been entered, the button *Change* is marked red. In this case a new SUPREMA dataset has to be added using SUPREMA Manager.

Loca	Local SUPREMA dataset						
₼	MSA						
***	Berlin						
	Gas Warning Controller 1						
	n Change						

Fig. 15 SUPREMA dataset

(1) Click on Change to open Data Management.

The following screen is shown:

MSA-App + SUPREMA Calibration				_	
Settings Extra Info	SUPREMA Calibration 🌊 🕻				MSA The Safety Company
Local SUPREMA dataset	Dataset management				
Berlin	and Customer				
	MSA	Name	MSA		
		Info			
SUPREMA connection					
Connect	Location				
	Berlin	Name	Berlin		
Calibrations		Info			
Single					
Group					
First calibrations	B SUPREMA				
* with pre-adjustment	Gas Warning Controller 1	Name	Gas Warning Contro	oller 1	
T without pre-adjustment	Gas warning Controller old My SUPREMA	Info			
 Bridge current adjustments 		COM port	COM4	COM4	~
😓 IBR adjustment		Baud rate		115200	v bits/s
▼ Reports		Timeout		10	* seconds
Calibration		Firmware	3.02.01RC70	3.02.01_RC70	×
Status report		Language	English	English	¥
				+	Back

Fig. 16 Data Management

After closing, the SUPREMA dataset selected here will be the *Local SUPREMA dataset* shown at the top of the Toolbar.

8 Synchronise Data

The local SUPREMA dataset can only be changed by downloading data from a connected SUPREMA or with SUPREMA Manager. Changing the system configuration of a SUPREMA system can only be performed using SUPREMA Manager.

Use SUPREMA Manager to download the complete calibration logbook data. This way, data from calibrations carried out directly on the SUPREMA will be entered into the database used by SUPREMA Calibration.

For firmware versions lower than 3.02.01 no calibration logbook data can be synchronized.

8.1 Download

When downloading an existing configuration, both configuration and parameterisation data are downloaded.

WARNING! Downloading configuration and parameters will override the current local system configuration!

MSA-App + SUPREMA Calibration			_	
Settings Extra Info	S s	UPREMA Calibra	ation 🌊 🗖 🗾 🎢	The Safety Company
Local SUPREMA dataset	Synchronise data	a		
🛗 Berlin 🖀 Gas Warning Controller 1 Change	Download	<u> </u>	lownload will overwrite the data of the current local dataset!	
SUPREMA connection				
Access P C A	Connected SUPREMA prop	erties:		
Synchronise	Firmware version: Sensor database version:	3.02.01 6		
▼ Calibrations	Operation mode:	Standard		
Single	Redundancy:	Redundant		
Group	Signal if inhibited:	pass		
	Measuring points c	onfigured: 256		
with pro-adjuctment	Relay outputs c	onfigured: 512		
without pre-adjustment	Analogue outputs c	onfigured: 48		
▼ Bridge current adjustments	Switch inputs c	onfigured: 8		
😓 IBR adjustment				
▼ Reports			×	Close
Calibration				

Fig. 17 Synchronise data dialog

During the download a status dialog is shown.

Downl	oad status	
Configu	ation and parameterisation	~
	🖌 ОК	

Fig. 18 Download status

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9 Only for firmware versions lower than 3.02.01: Configurations

For current firmware versions, measuring point groups are created and edited via SUPREMA Manager or directly with SUPREMATouch.

Measuring points can be grouped here to be calibrated in one session. To calibrate preconfigured groups of measuring points, use the *Group* subnode in *Calibrations*.

🚳 MSA-App + SUPREN	/A Calibration												-		×
Settings Ext	ra Info		;	🕃 su	PREMA	Calibr	ation	2 [-		7				The Safety	Company
Local SUPREMA dat	aset	Y <mark>1</mark> 1	Configura	itions >	Calibrat	ion g	roups								
Berlin	trollor old	Gro	ups					+	<i>"</i>	1 1				V	′ ×
	Change	Group1 Group2 Info													
SUPREMA connectio	on	Group3													
	Connect	Availab	le measuring	points											
▼ Configurations	<u>^</u>	Only me	asuring point	s with passi	ve detector	rs are sh	nown								
Calibration gro	ups	No.	Tag Markin	g Sensor:	serial no.	Install	. area	Sensor h	ead	Range	Dimension	Measure gas	Zero gas	Test	gas
▼ Calibrations		13	47k				S	eries 47K	-PRP	100	% LEL	Methane	Air	Meth	ane 🔿
Single		14 <	47k				S	eries 47K	C-PRP	100		Methane	Air	Meth	ane 🗸
Group															
 First calibrations 		Measur	ing points of	the selecte	d group										
with pre-adjust	ment	No.	Measure gas	Zero gas	Zero gas	conc.	Test ga	s Test g	jas con	ic. Tag	Marking	Sensor serial no	. Install	. area	Sens
I. without pre-au		10	Methane	Air	0		Methan	e	0	S47k	:				Series
 Bridge current adju 	stments	11	Methane	Air	0		Methan	e	0	S47k	:		_		Series
IBR adjustment		12	Methane	Air	0		Methan	e	0	S47k	:				Series
▼ Reports		<													\rightarrow
Calibration													4		
Status report													-	Back	

Fig. 19 Configuration

(1) Create new groups or edit/delete existing ones.

Symbol	Action
+	Add new
	Edit
1	Delete
✓	Apply the changes
×	Cancel editing

(2) Move measuring points to or from a group by double-clicking on the respective line or move measuring points using the arrow buttons.

Changes to the measuring points of a group are saved with Apply the changes or ignored with Cancel editing.

A measuring point can belong to several groups.

(3) Finish with Close.

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10 Calibration

The following calibrations are possible:

- Single
- Group
- First calibration with pre-adjustment
- First calibration without pre-adjustment
- Bridge current adjustment (IBR)

WARNING!

No calibration data from calibrations carried out directly on the SUPREMA are stored in the database used by SUPREMA Calibration.

Because the calculation of the relative sensitivity is based on the most recent *First calibration* before the calibration is carried out, incorrect values could result from a *First calibration* carried out directly on the SUPREMA.

To prevent this, synchronize the calibration logbook before calibrating. Refer to chapter 8 "Synchronise Data"

For firmware versions lower than 3.02.01, calibration data cannot be synchronized.

10.1 General Calibration Description

Only measuring points with passive detectors can be calibrated with the software.

To calibrate measuring points, the SUPREMA has to be connected and the minimum access level has to be *Maintenance*. With connecting to the SUPREMA the relevant measuring point parameters are downloaded from the SUPREMA.

Selecting Measuring Points For Calibration

The selection of a measuring point for calibration as described in this chapter can be applied for standard calibration as well as for First calibration with or without pre-adjustment and for Bridge current adjustment.

A selection of several measuring points in this node is not saved as a group for later uses. For newer firmware versions, groups can be created with SUPREMA Manager or directly on the SUPREMATouch. For firmware versions lower than 3.02.01, save measuring points in groups using *Calibration groups*.

	Settings Extra Info			SU SU	PREMA Calib	ration 2	-	2			The Safety	Company
Lo	Local SUPREMA dataset MSA Calibrations > Single											
	Berlin Gas Warning Controller 1	Availa	Available measuring points Show all available measuring points Hide measuring points with active transmitters									
		No.	Tag	Marking Se	ensor serial no.	Install. area	Sensor head	Range	Dimension	Measure gas	Zero gas	Te
Su	PREMA connection	1	WT100-1.1	1			Series 47K-ST	100	% LEL	Methane	Air	Pr
4	Disconnect	< 5	WT100.15	5		8	Cariar A7K.DR	100	9/ 1 1	Mathana	Air	NA.
	level: Parameterization	weas	iring points	to be calibrat	eu							
	Synchronise	No.	Measure g	as Zero gas	Zero gas conc	. Test gas	Test gas conc.	Tag	Marking	Sensor serial n	o. Install.	an
		2	Methane	Air	0	Propane	0	WT100-1.2	2 2			~
▼	Calibrations	3	Methane	Air	0	Methane	0	WT100-1.3	3 3			
	Single	4	Methane	Δir	0	Methane	0	WT100-14	1 4		I	~
	Group											_
	First calibrations	Mea	suring poi	nt 2			 Apply to ed 	qual	 Apply 	•	Hide details	
Ť		Mod	ify calibratic	on values								
	1. with pre-adjustment	7		in values	Constantion			Jser define	d text :			
	• without pre-adjustment	Zero	gas Air		Concentration							
▼	Bridge current adjustments	Test	gas Propar	ne Y	Concentration		0 ULEL					
	😓 IBR adjustment											
▼	Reports											
	Calibration v										Contin	ue

Fig. 20 Measuring points

The upper list contains all measuring points available for calibration.

(1) Select one or more measuring points and move them to the list *Measuring points to be calibrated* by double-clicking or with the cursor button.

If values for a chosen measuring point need to be adjusted, the line is outlined red. Doubleclicking on the line opens the details, there the values can be adjusted.

(2) Adjust values if necessary, confirm with Apply.

If no first calibration data is stored for a selected measuring point, a dialogue pops up.

No first calibration data stored							
For measuring point(s) "2, 3, 4" no first calibration data are stored. Do you want to handle the calibration for those measuring points as a first calibration?							
Note: If you want to perform a first calibration with pre-adjustment you have to abort the calibration and select a first calibration with pre-adjustment.							
	Yes No Cancel						

Fig. 21 No first calibration data available

- (3) If applicable, choose an option to continue.
- (4) Start calibration with the *Start* button.

If for the selected measuring point no first calibration is available, *Zero point adjustment* is not available and a warning is shown.

Next, the calibration procedure is selected and calibration durations can be entered. The following screen shows a Single calibration, the screens differ slightly for the different calibrations.

🚳 MSA-App + SUPREMA Calibration	– 🗆 X
Settings Extra Info	SUPREMA Calibration 🕿 💷
Local SUPREMA dataset MSA Berlin Gas Warning Controller 1 Change	Calibrations > Single Calibration procedure This calibration algorithm allows the standard calibration of measuring points with passive distraton of measuring points with passive distributions of the standard distribution of the standard distribu
SUPREMA connection SUPREMA connection Disconnect Disconnect Disconnect Disconnect P C A Parameterization	2-man
Image: Synchronise ▼ Calibrations Image: Single Image: Single	Calibration durations Zero gas time: O s Test gas time: O s Purge gas time: O s O s Calibration durations Calibration durations Cero gas time: Cero gas time
¶ without pre-adjustment ♥ Bridge current adjustment ♥ IBR adjustment ♥ Reports ♥ Calibration	🔶 Back 🗸 Ok

Fig. 22 Calibration procedure

Calibration Procedures

Which one-man calibration procedure is used depends on the firmware version, SUPREMA Calibration automatically chooses the appropriate version.

One-Man Calibration (SUPREMA)

PC	At the sensor
(1) Start the calibration with Start calibration.	
The Progress field shows:	
Starting	
	(2) Apply Zero Gas.
The Progress field shows:	(3) Wait before applying test gas
Zero gas time	(5) Wait before apprying test gas.
	(4) Apply test gas.
The Progress field shows:	
Test gas time	
Confirm	
(5) Click on <i>Confirm</i> .	
(6) Confirm the calibration values with <i>Accept</i> or dismiss the calibration with <i>Reject</i> .	(7) Apply zero gas again.



Fig. 23 One-man calibration (SUPREMA)

PC	At the sensor
(1) Start the calibration with Start calibration.	
The Progress field shows:	
Starting	
	(2) Apply Zero Gas.
The Progress field shows:	(3) Wait at least as long as configured
Zero gas time	under Zero gas time before
	applying test gas.
The Progress field shows:	(4) Apply lest gas.
The Frogress field shows.	
• Test gas time x s (counts the conligured time down to	(5) Walt at least as long as configured
U)	under <i>Test gas time</i> before applying
	purge gas.
Apply purge gas	(6) Start purging
The Progress field shows if purge gas time is configured	(6) Start purging.
= 0.	
Purge gas applied	
Stop purce gas	
Stop purge gas	
(7) Click on Stop.	(8) Wait at least as long as configured
The Progress field shows Confirm.	under <i>Purge gas time</i> before stop-
The Progress field shows if purge gas time is configured	ping purge gas application.
> 0:	
• Purge gas time x s (counts the configured time down	
to 0)	
Purge gas stopped	
Confirm	
	(9) Stop purging.
(10) Click on <i>Confirm</i> .	
(11) Confirm the calibration values with Accept or	
dismiss the calibration with Reject.	

One-Man Calibration (SUPREMA Calibration, for firmware versions below 3.02.01)



Fig. 24 One-man calibration

Two-Man Calibration

(1) Start the calibration with Start Calibration.	
The Progress field shows:	
Starting	
Apply zero gas	
	(2) Apply Zero Gas.
Zero gas applied	
(3) Confirm zero gas	
Zero Gas confirmed	
Apply test gas	
	(4) Apply test gas.
Test gas applied	
(5) Confirm test gas.	
Test Gas confirmed	
Apply Purge Gas	
	(6) Apply purge gas.
Purge Gas applied	
Stop purge gas	
	(7) Stop purge gas.
Purge gas stopped	
Confirm	
(8) Click on <i>Confirm</i> .	
(9) Confirm the calibration values with <i>Accept</i> or dismiss the calibration with <i>Reject</i> .	



Fig. 25 Two-man calibration

The times necessary for Calibration Durations are different for one-man or two-man calibration.

One-Man Calibration

After the start of the calibration, the system is waiting for a stabilization of the signal. If the signal is stable, this value is taken over as zero gas value. If the signal decreases, each lower stable value is taken over as zero gas value and replaces the zero gas value stored before in this calibration cycle.

If a zero value is stored, and the signal stabilized at more than 200 mV above the stored zero value, this value is stored as test gas value. If the signal increases, each higher stable value is taken over as test gas value and replaces the test gas value stored before in this calibration cycle. The calibration cycle has to be finished manually after an educated check of the stored values.

In contrast to the two-man calibration several sensors are set inhibited with starting the session. The calibration is finished for all selected sensors when the user returns to the PC. The calibration for all selected sensors can be individually set valid or be dismissed.

WARNING!

During a calibration, the sensors that are being calibrated are set to inhibit. During calibration the sensors cannot send any signals, therefore a safe operation of the area usually monitored by the now inhibited sensors must be ensured by other means.

WARNING!

For one-man calibration the user interface is disabled 3 minutes after starting the calibration. The user interface can be reenabled by selecting a sufficient access level and entering the correct password. If the calibration is not finished within 4 hours it is canceled (for all selected sensors). If more than 8 senors are selected for calibration, a message box warns about the risk of inhibiting sensors for a longer period of time.

MSA recommends to avoid using sleep mode or screen savers and to avoid running any other programs and applications while running SUPREMA Calibration.

In Addition for Firmware version lower than 3.02.10

During a one-man calibration, the switch between zero gas calibration and test gas calibration is carried out automatically, controlled by the *Calibration Durations* specified by the user.

 Zero gas time: Time to go back in the measure recordings when test gas is detected. The recorded value is taken automatically as the zero point value.
 Test gas time: Time after test gas detection to take

the sensitivity automatically.

 Purge gas time: Time to wait after purge gas detection to purge the sensor. If that time is assigned with "0 s" the purging has to be stopped manually.



Two-Man Calibration

For a two-man calibration, this switch has to be carried out manually. Therefore it is necessary to have one person operating the PC and one person handling the sensors.



Fig. 27 Gas times

Calibration Process

The following example shows the screenshots for a two-man calibration. Only the software interactions are shown, see the tables in the previous section for the required actions at the sensor. If user interaction is required, the field *User Action* shows the required action.

All values shown during calibration are the current values from the SUPREMA.

The following screen shows a Single calibrations, the screens differ slightly for the different calibrations.

For each sensor a *Start calibration* button is displayed to start the calibration for that sensor (except for *Bridge current adjustment* or when calibrating only one measuring point). If the *Cancel* button is pressed, already finished calibrations are not affected.

MSA-App + SUPREMA Calibration										-		×
Settings Extra Info			SUPREMA Calib	ration	2 🖳	<i>)</i> /					The Safety	Company
Local SUPREMA dataset	Calibrations > Single											
🛗 Berlin 🔚 Gas Warning Controller 1	roller 1 Calibration progress											
📚 Change	Status	Status No. Progress User action Ua Conc. Zero gas										Test
SUPREMA connection								Ua	Conc. nom.	Conc.	Ua	Conc. I
Disconnect		2	Confirm zero gas	1	Confirm	399 mV	0 % LEL	0 mV	0 % LEL	0 % LEL	0 mV	50 °
		3		V	Start calibration	402 mV	0 % LEL	0 mV	0 % LEL	0 % LEL	0 mV	50 1
Access P C A		4		V	Start calibration	403 mV	0 % LEL	0 mV	0 % LEL	0 % LEL	0 mV	50
level: Parameterization								;	K Cano	el calibrat	ion(s)	
▼ Calibrations												
Single												
 First calibrations 												
🏋 with pre-adjustment												
1. without pre-adjustment												
 Bridge current adjustments 												
😓 IBR adjustment												
▼ Reports												
Calibration V												

Fig. 28 Calibration progress

(1) Start the calibration with *Start calibration*.

The Progress field shows the progress of the calibration:

- Starting...
- Apply Zero Gas
- · Zero Gas applied
- · Confirm zero gas
- If Zero gas time configured >0: Zero gas time x s (counts the configured time down to 0)

To take over the signals for zero point and sensitivity for each measuring point, press *Confirm* in the *User action column*. As long as the signal is rated as unstable, an hourglass is shown on the button. The user can still confirm the signal, since there may be conditions under which the signal will not be rated stable even after a longer time period. The values have to be verifyed when accepting the calibration.

When the signal is rated stable, a check mark is shown on the button.

If insufficiently stable signals for zero point and sensitivity are taken over, incoherent calibrations can occur.

User action								
X	Confirm							

Fig. 29 Waiting for stable signal

ι	Jser action	
1	Confirm	

Fig. 30 Stable signal

Additionally a green rating bar is shown on the button.

User action											
\checkmark	Confirm										
\checkmark	Confirm										

Fig. 31 Bar showing signal stability

Ca	Calibration progress													
S	tatus	No.	Progress		User action	Ua	Conc.		Zero gas			Test		
Г								Ua	Conc. nom.	Conc.	Ua	Conc. I		
		2	Confirm zero gas	y	Confirm	399 mV	0 % LEL	0 mV	0 % LEL	0 % LEL	0 mV	50 °		
		3		v	Start calibration	402 mV	0 % LEL	0 mV	0 % LEL	0 % LEL	0 mV	50 %		
		4		v	Start calibration	403 mV	0 % LEL	0 mV	0 % LEL	0 % LEL	0 mV	50 \$		
<												>		
									K Cano	el calibrat	ion(s)			

Fig. 32 Confirm zero gas

(2) Click on Confirm.

The Progress field shows:

- Zero Gas confirmed
- · Apply test gas
- Test Gas applied
- Confirm test gas
- If *Test gas time* configured >0: Test gas time x s (counts the configured time down to 0)

26

Status	No.	Progress	User action	Ua	Conc.		Zero gas		
						Ua	Conc. nom.	Conc.	Ua
	2	Test gas time 9s		1278 mV	50 % LEL	399 mV	0 % LEL	0 % LEL	0 mV
	3	Confirm zero gas	🖌 Confirm	400 mV	0 % LEL	0 mV	0 % LEL	0 % LEL	0 mV
	4	Confirm zero gas	V Confirm	402 mV	0 % LEL	0 mV	0 % LEL	0 % LEL	0 mV

Fig. 33 Test gas time countdown

(3) Click on Confirm.

The Progress field shows:

- Test Gas confirmed
- Apply Purge Gas
- Purge Gas applied
- If *Purge gas time* configured >0: Purge gas time x s (counts the configured time down to 0)
- If *Purge gas time* configured = 0:Stop purge gas

	Calibration progress													
	Status	No.	Progress		User action	Ua	Conc.	Zero gas						
								Ua	Conc. nom.	Conc.	Ua			
		2	Stop purge gas	V	Stop	399 mV	0 % LEL	399 mV	0 % LEL	0 % LEL	1279 m			
		3	Confirm zero gas	V	Confirm	402 mV	0 % LEL	0 mV	0 % LEL	0 % LEL	0 m			
		4		\checkmark	Start calibration	403 mV	0 % LEL	0 mV	0 % LEL	0 % LEL	0 m			
<											>			
× Cancel calibration(s)														

Fig. 34 Stop purge gas

(4) Click on *Stop* if applicable.

The *Progress* field shows:

- Purge gas stopped
- Confirm

	Calibrat	ion pro	gress										
	Status	No.	Progress		User action	Ua	Conc.		Zero gas				
								Ua	Conc. nom.	Conc.	Ua		
		2	Confirm	\checkmark	Confirm	399 mV	0 % LEL	399 mV	0 % LEL	0 % LEL	1279 m		
		3	Apply test gas			402 mV	0 % LEL	402 mV	0 % LEL	0 % LEL	0 m		
		4		V	Start calibration	403 mV	0 % LEL	0 mV	0 % LEL	0 % LEL	0 m		
<											>		
	Cancel calibration(s)												

Fig. 35 Confirm

(5) Click on *Confirm*.

The calibration values that will be sent to the SUPREMA are displayed in a pop-up window.

Confirm calibration values											
0	Please confirm	n the calibratio	on values for me	asuring point: 2							
	Ua	Uy	Conc. nom.	Conc.							
Zero	399 mV	2000 mV	0 % LEL	0 % LEL							
Span	1278 mV	1708 mV	50 % LEL	49.9 % LEL							
First U	x difference	52.79 mV									
Previo	us Ux difference	52.79 mV									
Curren	t Ux difference	52.61 mV									
		v	Accept	× Reject							

Fig. 36 Confirm calibration values

- (6) Check the values, click on Accept to save as a valid calibration.
 With Reject, the values are rejected, the previous calibration values stay valid.
 With Accept, the calibration values will be send to the SUPREMA as valid calibration data.
- (7) After all selected sensors have been calibrated the calibration session ends automatically. The calibration values are read back from the SUPREMA. If at least one of the calibration has ended with warning or error the calibration session has to be ended manually with Continue. The calibration status is shown in the Status column.
- (8) Ensure that the data matches. After the calibration values are read back from the SUPREMA, they have to be checked by the user to ensure the sent and the readback data are the same. If the data matches, the calibration has been successful.

WARNING!

If the data does not match, the calibration has to be repeated.

Status	
✓	OK (green checkmark) confirms a valid calibration
A	Warning shows that the calibration is valid, but with a warning.
0	Error signals an invalid calibration.
-	Calibration is not started yet, is canceled or the values are rejected.

🚳 MSA-App + SUPREMA Calibration										_		×
Settings Extra Info			۲	SUPREM	A Calibrati	on 🌊 [1			The Safety	Company
Local SUPREMA dataset	Local SUPREMA dataset Calibrations > Single Calibrations > Single											
Berlin Gas Warning Controller 1 	Valid c	Valid calibrations										
n Change	0	After th	e calibra	tion the val	ues Ua and	Uy are read	back from	the SUPREM	A			
SUPREMA connection												
Please check the values - if they differ the calibration should be repeated!												
Access P C A	Status	No.	Ua	zero	Uy	zero	Ua	test	Uy	test		
level: Parameterization			sent	readback	sent	readback	sent	readback	sent	readback		
Synchronise	V	2	399 mV	399 mV	2000 mV	2000 mV	1278 mV	1278 mV	1708 mV	1708 mV		
Calibrations	v	4	403 mV	403 mV	1998 mV	1998 mV	1282 mV	1282 mV	1722 mV	1722 mV		
* Calibrations	Not su	ccessf	ul									
Group	Status	No.		Remark	s							
▼ First calibrations	-	3	Calibrat	ion results re	jected by use	r						
🏠 with pre-adjustment												
1. without pre-adjustment												
Bridge current adjustments												
Sector 18 Adjustment												
▼ Reports										Calibration	report	
Lalibration V										Calibration	report	



The calibration report for the calibration just finished can now be shown by clicking on *Calibration Report*.

MSA-App + SUPREMA Calibration											-		×
Settings Extra Info		۲	SUPR	EMA Cali	bratio	n 🌊 🛄		1				The So	5A fety Company
Local SUPREMA dataset	Calibration > Calibration reports												
Berlin Gas Warning Controller 1 Change	14	1 of 1 ▶	₩ +	8 🕲 🖨	1	🗋 🔍 = 10	0%	•		Find	Next		^
SUPREMA connection	Cus Loca SUP	tomer: MS ation: Be REMA: Ga	6A rlin s Warnin	g Control	ler 1								
	MP	Tag /	Date	Calibr.		Zero g	as			Test g	as		UxL
Access P C A		Marking /		type	Ua	Conc (Nom)	Varia	nce	Ua	Conc (Nom)	Varia	nce	
level: Parameterization		Sensor serial no.					Value	norm.			Value	norm.	
.	2	WT100-1.2	old			Air				Propan	e		
Synchronise		2	06 Apr 17 11:01:31	Calibration 2-man	399	0 (0) % I FI	0 % I FI	0	1278	50 (50) % I FI	0 % Fl	0 %	52.0
^		WT100-1.2	new			Air				Propan	e		
▼ Calibrations P Single		2	06 Apr 17 11:03:55	First calibration 2-man	399	-0.06 (0) % LEL	-0.06 % LEL	-0.06 %	1279	50 (50) % LEL	0 % LEL	0 %	52.:
Group	4	WT100-1.4	old			Air				Propan	e		_
First calibrations		4	06 Apr 17 11:01:39	Calibration 2-man	402	-0.06 (0) % LEL	-0.06 % LEL	-0.06 %	1282	50 (50) % LEL	0 % LEL	0 %	49.1
🏋 with pre-adjustment		WT100-1.4	new			Air				Propan	e		
• without pre-adjustment		4	06 Apr 17 11:03:58	First calibration 2-man	403	0.17 (0) % LEL	0.17 % LEL	0.17 %	1282	50.2 (50) % LEL	0.2 % LEL	0.4 %	49.
Bridge current adjustments													
SIBR adjustment	Gas V ≺	/aming Controller 1								Page: 1-1			>
▼ Reports			_										
Calibration v													

Fig. 38 Calibration report

10.2 Troubleshooting

A new calibration can not be started if the measuring point is still in calibration mode. This can be the case if a measuring point is still in calibration state because of still pending alarming conditions due to a continued test gas application.

10.3 Single

Here it is possible to calibrate a single measuring point or to select several measuring points to be calibrated at once.

(1) Select measuring point for calibration (see chapter 10.1 "General Calibration Description"). If no first calibration data is stored for measuring points to be calibrated, the following message box appears:

No first ca	No first calibration data stored						
?	For measuring point(s) "2, 3, 4" no first calibration data are stored. Do you want to handle the calibration for those measuring points as a first calibration? Note: If you want to perform a first calibration with pre-adjustment you have to abort the calibration and select a first calibration with pre-adjustment.						
	Yes No Cancel						

Fig. 39 No first calibration data

(2) If applicable, choose an option to continue.

Select Calibration Procedure

Calibration procedure	This calibration algorithm allows the standard calibration of measuring points with passive detectors either as a one-man or two-man procedure!
	For measuring point(s) "2, 3, 4" ZeroPoint adjustment is not possible because no first calibration data are stored.
Calibration durations Zero gas time: 0 s Test gas time: 0 s Purge gas time: 0 s	 Zero gas time: Time to wait after zero gas detection to get stable measure values. Test gas time: Time to wait after test gas detection to get stable measure values. Purge gas time: Time to wait after purge gas detection to purge the sensor. If that time is assigned with "0 s" the purging has to be stopped manually.

Fig. 40 Select calibration procedure

30

(1) Choose *Calibration Procedure* and adjust *Calibration Durations* if necessary.

The times necessary for Calibration Durations are different for one-man or two-man calibration, the default times and the information text on the screen are therefore also different.

For two-man calibration it is possible to check *Zero point adjustment only*. In this case the calibration is finished after the zero gas adjustment.

If for one of the selected measuring points no first calibration has been carried out, *Zero point adjustment only* is not available and a warning will pop up.

(2) Run the calibration (see chapter "Calibration Procedures").

10.4 Group

A group of measuring points can be selected for calibration at the same time.

The only difference of calibrating measuring points in *Group* compared to *Single* is the selection of measuring points to be calibrated:

(1) Choose the group of measuring points to be calibrated from the drop-down list.

MSA-App + SUPREMA Calibration									-	
Settings Extra Info		;	SU SU	PREMA Calibr	ation	•	1			MSA The Safety Company
Local SUPREMA dataset MSA Berlin Gas Warning Controller 1	Cali	ibrations > Group to calibra uring points to	Group Ite: 2: Poir be calibrat	nt 1+2 ed	v					
SUPREMA connection	No.	Measure gas	Zero gas	Zero gas conc.	Test gas	Test gas conc.	Tag	Marking	Sensor serial no.	Install. area
Disconnect	2	Methane	Air	0	Propane	50	WT100-1.1 WT100-1.2	2		
Access P C A Parameterization Calibrations										
IBR adjustment	<									>
▼ Reports Calibration ∨									→	Continue

Fig. 41 Group calibration

10.5 First Calibration with Pre-Adjustment

WARNING!

Only carry out this calibration for new sensors. Using *First Calibration* for sensors already in use makes it impossible to track the sensitivity changes over the lifetime of the sensor.

The calibration for the next sensor cannot be started before the running calibration is finished.

This node is used for a first calibration with preadjustment. A first calibration can be carried out as a two man or one man calibration (for firmware versions lower than 3.02.01 only two man calibration is possible).

The selected measuring points are calibrated one by one. The process is similar to the standard calibration process, described in detail in the previous section. There is one difference: The preadjusting phases for zero and test gas cannot be canceled immediately. The current preadjusting process controlled by the SUPREMA must be finished first.

Afterwards the calibration will be canceled normally.

WARNING!

If the calibration has been canceled for one measuring point, the calibration was not completed, although pre-adjustment was performed at least partially. The calibration for the affected measuring point(s) must be restarted to have valid calibrations stored in the SUPREMA!

WARNING!

As soon as a first calibration is started, all existing calibration data for a measuring point is deleted. It is not possible to save the data by interrupting or canceling a first calibration.

MSA-App + SUPREMA Calibration		- 🗆 X
Settings Extra Info	SUPREMA Calibration 🔁	The Select Company
Local SUPREMA dataset	First calibrations > with pre-adjustment	
Berlin Gas Warning Controller 1 Change SUPREMA connection Disconnect	Calibration procedure	This calibration algorithm allows the standard calibration of measuring points with passive detectors either as a one-man or two-man procedure!
Access P C A Parameterization	Calibration durations Zero gas time: 0 Test gas time: 0 Purge gas time: 0 s	 Zero gas time: Time to wait after zero gas detection to get stable measure values. Test gas time: Time to wait after test gas detection to get stable measure values. Purge gas time: Time to wait after purge gas detection to purge the sensor. If that time is assigned with "0 s" the purging has to be stopped manually.
●m Group ▼ First calibrations ↑* with pre-adjustment ●1. without pre-adjustment ▼ Bridge current adjustments ↓* IBR adjustment		
▼ Reports		🔶 Back 🗸 Ok

(1) Select measuring point for calibration (see chapter 10.1 "General Calibration Description").

Fig. 42 First calibration with pre-adjustment

- (2) Adjust Calibration Durations if necessary.
- (3) Run the calibration (see chapter "Calibration Procedures").

10.6 First Calibration without Pre-Adjustment

WARNING!

Only carry out this calibration for new sensors. Using *First Calibration* for sensors already in use makes it impossible to track the sensitivity changes over the lifetime of the sensor.

This node is used for a first calibration if the hardware does not support pre-adjustment. A first calibration can be carried out as a two man or one man calibration (for firmware versions lower than 3.02.01 only two man calibration is possible).

The process is the same as for the standard calibration process (see chapter "Calibration Procedures"). The calibration is stored as a first calibration and therefore all existing calibration data of the appropriate measuring point are deleted in the SUPREMA.

WARNING!

If the cancel button is pressed, only the measuring points where the calibration is not finished yet will be affected. For them the calibration data in the SUPREMA remain unchanged.

10.7 Bridge Current Adjustment

This node is used for adjusting the bridge current (IBR).

WARNING!

When a bridge current adjustment is carried out, all existing calibration data for the selected measuring points is deleted.

WARNING!

It is not possible to cancel a running bridge current adjustment.

MSA-App + SUPREMA Calibration											_		×
												_	
Settings Extra Info			۹ چ	SUPREMA C	Calibrat	tion 🌊		1//				The Safet	Company
Local SUPREMA dataset	Brid	lge currei	nt adjust	ments > l	BR ad	ljustmer	nt						
Berlin Gas Warning Controller 1 Change	Berlin Available measuring points Gas Warning Controller 1 O Show all available measuring points Change Hide measuring points												
	No.	Tag	Marking	Sensor serial	l no. In	nstall. area	Senso	r head	Range	Dimension	Measure gas	Zero gas	Te
SUPREMA connection	1	WT100-1.1	1				Series 4	47K-ST	100	% LEL	Methane	Air	Pr ^
Lisconnect	5	WT100-1.5	5				Series 4	7K-PRP	100	% LEL	Methane	Air	M
	6	WT100-1.6	6				Series 4	47K-ST	100	% LEL	Methane	Air	M
Access P C A	7	WT100-1.7	7				Series 4	7K-PRP	100	% LEL	Methane	Air	M
Parameterization	8						Series 4	7K-PRP	100	% LEL	Methane	Air	M
	0	W/T100_21	1				Sariar A	7K-DRD	100	94 I FI	Mathana	Air	M. Y
Synchronise	×					-							-
▼ Calibrations	Measu	iring points	to be calibr	rated									
Single	No.	Measure g	as Zero ga	as Test gas	IBR set	t value	Tag	Markin	g Sens	sor serial no.	Install. area	Sensor he	ad [
Group	2	Methane	Air	Propane	31	10 W	T100-1.2	2				Series 47K-	ST
First calibrations	3	Methane	Air	Methane	31	10 W	T100-1.3	3				Series 47K-I	PRP
 	4	Methane	Air	Methane	31	10 W	T100-1.4	4				Series 47K-	ST
•	<												>
1. without pre-adjustment													
Bridge current adjustments													
😓 IBR adjustment													
▼ Reports												Contin	
Calibration V												Contin	ue

Fig. 43 IBR adjustment

- (1) Select measuring points for adjustment (see chapter 10.1 "General Calibration Description").
- (2) Adjust bridge current if necessary, confirm with Apply.
- (3) Continue with Continue.

Calibration data will be erased						
<u>^</u>	All calibration data of the selected measuring point(s) will be erased in the SUPREMA.					
	OK Cancel					

Fig. 44 Calibration data will be erased

- (4) Start the adjustment with OK.
- The Progress field shows the progress of the adjustment:
- Starting...
- Preparing bridge current adjustment
- Bridge current adjustment running
- Accepted
- Finished

	Settings Extra Info			3	SUPREMA C	alibratio	2 -		The Safety Company
Lo	cal SUPREMA dataset	Bridge	curre	ent adjus	tments > IE	BR adjus	tment		
	Berlin Gas Warning Controller 1	Valid IB	R adju	ustments Remarks	Parchad IPP	Set IPP			
	n Change	Status	NO.	Kelliarks	Reactied IDK	Set IDA			
su	IPREMA connection	v	2	Ok	309	310			
		~	3	Ok	309	310			
4	Disconnect	✓	4	Ok	310	310			
•	Access P C I A Parameterization Synchronise Calibrations								
▼	First calibrations								
	? with pre-adjustment								
	1. without pre-adjustment								
	Bridge current adjustments								
	tibR adjustment								
▼	Reports								
	Calibration v							1. Et	Calibration report

Fig. 45 IBR adjustment

The calibration report for the IBR adjustment just finished can now be received by clicking on *Calibration Report*.

11 Reports

11.1 Calibration Reports

WARNING!

For firmware versions lower than 3.02.01:

No calibration data from calibrations carried out directly on the SUPREMA are stored in the database used by SUPREMA Calibration. This is why no reports are available for calibrations and *First calibrations* carried out directly on the SUPREMA.

Reports for all calibrations performed by the software can be shown.

In the *Report Selection* dialog it is possible to filter the stored calibrations by date, measuring point and calibration method.

WARNING!

Each *First calibration* and subsequent calibrations done via the SUPREMA Calibration software are saved in the currently used data set of the database so that they can be referenced by reports drawn afterwards.

To keep the calibration reports consistently complete MSA recommends that all calibrations are performed via the SUPREMA Calibration software.

No calibration data from calibrations carried out directly on the SUPREMA are stored in the database used by SUPREMA Calibration.

To store the reports for calibrations carried out directly on the SUPREMA, synchronize the calibration logbook before first usage (see chapter 5.3 "SUPREMA Connection", *Synchronize*.)

MSA-App + SUPREMA Calibration			- 0	×
Settings Extra Info	۲	SUPREMA Calibration 🌊 🔽		Many Many
Local SUPREMA dataset	Calibration >	Report selection		
🛗 Berlin 🔚 Gas Warning Controller 1	Report filter		For FW >= 3.02.01 calibration reports are	e
Change	Date filter	Start date: 06 Mar 2017 ~ Start date: 06 Apr 2017 ~	generated by using the database table calibration logbook. In the manager this table can be deleted and downloaded	
Access P C A Parameterization Evel: Synchronise	Measuring point filter	1 ^ 2 3 3 Clear selection 4 5 6 7 8 9 10 11	from the SUPREMA under "Logbooks > Calibrations".	
with pre-adjustment without pre-adjustment	Calibration method filter	Calibration First calibration Ridee current adi		
Bridge current adjustments IBR adjustment	Result filter	successful operations only		
Reports Calibration			Continued and	
Status report 🗸 🗸 🗸			- Continue	



With Continue the report will be shown.

MSA-App + SUPREMA Calibration											-		Х
Settings Extra Info			SUPF	EMA Cali	bratio	n 2 🛄		2				The So	15A fety Company
Local SUPREMA dataset MSA Berlin Gas Warning Controller 1 Change		Calibration	> Calibra	ation rep	orts	🗋 🔍 + 10	0%	Ŧ		Find	Next		^
SUPREMA connection Disconnect Access Ievel: P C A Parameterization	Cust Loca SUP	tomer: MS ation: Be REMA: Ga Tag/	SA rlin s Warnin Date	g Control	ler 1	Zero a	as			Test a	as		Uxf
Synchronise		Marking /	Duto	type	Ua	Conc (Nom)	Varia	nce	Ua	Conc (Nom)	Varia	ance	UNL
Single ^	2	Sensor serial no. WT100-1.2				-	Value	norm.		-	Value	norm.	_
Group		2	06 Apr 17 10:40:10	Bridge current adj.		-	-		-	-	-		-
Group First calibrations with pre-adjustment		2 WT100-1.2	06 Apr 17 10:40:10	Bridge current adj.		- Air			-	- Propan	-	-	-
Image: Second system		2 WT100-1.2 2	06 Apr 17 10:40:10 06 Apr 17 10:51:46	Bridge current adj. First calibration 2-man	399	- -0.06 (0) % LEL	-0.06 % LEL	-0.06 %	- 1279		e 0 % LEL	- 0 %	52.3
 Group First calibrations With pre-adjustment without pre-adjustment Without pre-adjustments 		2 WT100-1.2 2 WT100-1.2	06 Apr 17 10:40:10 06 Apr 17 10:51:46	Bridge current adj. First calibration 2-man	399	- Air -0.06 (0) % LEL Air	-0.06 % LEL	-0.06 %	1279	Propan 50 (50) % LEL Propan	e 0 % LEL	- 0 %	52.:
 Group First calibrations in with pre-adjustment without pre-adjustment Bridge current adjustments IBR adjustment 		2 WT100-1.2 2 WT100-1.2 2	06 Apr 17 10:40:10 06 Apr 17 10:51:46 06 Apr 17 10:55:12	Bridge current adj. First calibration 2-man Calibration 2-man	399	Air -0.06 (0) % LEL Air 0 (0) % LEL	-0.06 % LEL % LEL	-0.06 % 0 %	- 1279 1278	Propan 50 (50) % LEL Propan 49.94 (50) % LEL	e 0 % LEL e -0.06 % LEL	-0.12 %	52.:
 Group First calibrations with pre-adjustment without pre-adjustment Bridge current adjustments IBR adjustment Reports 	K	2 WT100-1.2 2 WT100-1.2 2 WT100-1.2	06 Apr 17 10:40:10 06 Apr 17 10:51:46 06 Apr 17 10:55:12	Bridge current adj. First calibration 2-man Calibration 2-man	399	Air -0.06 (0) % LEL Air 0 (0) % LEL Air	-0.06 % LEL 0 % LEL	-0.06 % 0 %	1279 1278	Propan 50 (50) % LEL Propan 49.94 (50) % LEL Propan	e 0 % LEL e -0.06 % LEL e	-0.12 %	52. 52. 52.
 Group First calibrations with pre-adjustment without pre-adjustment Bridge current adjustments IBR adjustment Reports Calibration 	<	2 WT100-1.2 2 WT100-1.2 2 WT100-1.2	06 Apr 17 10:40:10 06 Apr 17 10:51:46 06 Apr 17 10:55:12	Bridge current adj. First calibration 2-man Calibration 2-man	399	Air -0.06 (0) % LEL Air 0 (0) % LEL Air	-0.06 % LEL 0 % LEL	-0.06 %	1279	Propan 50 (50) % LEL Propan 49.94 (50) % LEL Propan	e 0 % LEL e -0.06 % LEL e	-0.12 %	52. 52.0 >



Legend

Color	Calibration result
	Ok (Calibration)
	Ok (IBR Adjustment)
	Ok (First Calibration)
	Errors
	Warning
	Rejected by user
	Cancelled

Ua	Measurement value, values displayed is edited for a measurement range of 400 mV to 2000 mV $$
Ux	Difference signal of the Wheatstone bridge for combustible sensors
Ux difference	Signal deviation for Ux between zero gas and test gas
Ux difference norm.	Signal deviation for Ux extrapolated over the complete measuring range.
Relative sensitivity	Sensitivity relative to sensitivity measured in first calibration.

The report can be printed and exported when clicking on the following buttons:

SUPREMA Calibration

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Button	Action
٩	Refresh
	Print
	Print Layout (to choose page size for the print)
	Page Setup (to preview print), click again on icon to leave preview
ы,	Export, as Excel, PDF or WORD file

11.2 Status Report For this report the current SUPREMA measuring point status is received from the SUPREMA and shown in table form. This report can be used to document the state of the SUPREMA measuring points.

MSA-App + SUPREMA Calibration									_			×
Settings Extra Info		۲	SUPREM	A Calibration	2 🖳	7					The Safety	
Local SUPREMA dataset	Reports	> Status	report									
Berlin Controller 1 Change		of 10 ▶ tatus report) = ®	© 🖨 🔲 L	25%	•	Find		Next			^
SUPREMA connection Customer: MSA Location: Berlin SUPREMA: Gas Warning Controller 1												
	MP	Tag	Marking	Serial no.	Install. area	Sensor head	Status	1st	Alar 2nd	⊤m 3rd 4	th Col	
level: Parameterization	1 W 2 W 3 W	/ T100-1.1 / T100-1.2 / T100-1.3	1 2 3			Series 47K-ST Series 47K-ST Series 47K-PRP	Measuring mode Measuring mode Measuring mode					_
Synchronise	- 4 W 5 W 6 W 7 W	/ T100-1.4 / T100-1.5 / T100-1.6 / T100-1.7	4 5 6 7			Series 47K-ST Series 47K-PRP Series 47K-ST Series 47K-PRP	Measuring mode Measuring mode Measuring mode Measuring mode					_
4 Group	8 9 W 10 W	/ T100-2.1 / T100-2.2	1			Series 47K-PRP Series 47K-PRP Series 47K-PRP	Measuring mode Measuring mode Measuring mode				+	_
 First calibrations with pre-adjustment 	11 W 12 W 13 W	/ T100-2.3 / T100-2.4 / T100-2.5	1 1 1			Series 47K-PRP Series 47K-PRP Series 47K-PRP	Measuring mode Measuring mode Measuring mode					_
without pre-adjustment	14 W 15 W 16 W	/ T100-2.6 / T100-2.7 / T100-2.8	1 1 1			Series 47K-PRP Series 47K-PRP Series 47K-PRP	Measuring mode Measuring mode Measuring mode				-	=
 Bridge current adjustments IBR adjustment 	17 W 18 W 19 W	/ T100-3.1 / T100-3.2 / T100-3.3	1 1 1			Series 47K-PRP Series 47K-PRP Series 47K-PRP	Measuring mode Measuring mode Measuring mode					_
▼ Reports	20 ₩ <	/ T100-3.4	1			Series 47K-PRP	Measuring mode	1			1	>
Status report									;	ĸ	Cancel	

Fig. 48 Status report

12 Ordering Information

Description	Part No.
SUPREMA Calibration Instr. Manual, English	10154656
SUPREMA Touch CD ROM - SUPREMA Calibration	10159747
SUPREMA Manager Instr. Manual, English	10154655
SUPREMA Touch CD ROM - SUPREMA Manager	10121868
SUPREMA Touch CD-ROM - Manuals	10121867
SUPREMA Touch Instr. Manual, English	10121863



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