






















# DRÄGER X-ZONE 5000 VIDEO BASED TRAINING

Valid for: X-zone software  $\geq$  V2.21 and X-am software  $\geq$  V6.6

# DRÄGER X-ZONE 5000 VIDEO TRAINING

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- ✓ This visual presentation is intended to help the user understand and correctly use the Dräger X-zone 5000. It is not intended to be a substitute for the complete instruction of use supplied with the instrument.
- ✓ **IT IS THE USER'S RESPONSIBILITY TO READ AND UNDERSTAND ALL MANUALS AND INFORMATION PROVIDED WITH THE DRÄGER X-zone 5000!**

# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Dräger X-zone 5000 components

Device receptacle

Status LED lights

On/out button and grouping-LED

Battery



360° Gas entry

Lock

360° LED alarm ring

Alarm amplifier with 360° horn

# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Dräger X-zone 5000 components



## DRÄGER X-ZONE 5000 VIDEO TRAINING

Turning the Dräger X-zone 5000 on

### TURNING ON X-ZONE 5000

- Press the [OK]-key of the Dräger X-zone 5000 and hold it for 3 seconds
- The battery LED will be activated
- Dräger X-zone 5000 is in STANDBY-Mode



## DRÄGER X-ZONE 5000 VIDEO TRAINING

Insert Dräger X-am 5/5600 into Dräger X-zone 5000

### INSERT GAS-DETECTION DEVICE

- Release the lock at the housing cover
- Remove the housing cover
- Insert the gas-detection device into the device receptacle
- Place the housing cover onto the housing and fasten the lock



# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Turning the Dräger X-am 5/5600 on

### TURNING ON X-AM 5/5600

- Press and hold the [OK]-key at the gas measuring device for 3 seconds
- Display counts down 3-2-1
- The gas-detection device switches to the X-zone mode
- Vibration and audible alarm of the gas-measuring device are switched off
- The visual and the audible alarm will be activated for short time
- The visual and audible life signal (LED ring green, single beep) will be given depending on the configuration
- The self test begins automatically and shows the following:
  - The installed software version
  - The MAK and STEV alarm levels
  - The number of days up to the next calibration





# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Turning the Dräger X-am 5/5600 off

### TURNING OFF X-AM 5/5600


- Press and hold the [+]- und [OK]-key of the gas-detection device for 3 seconds
- The visual and the audible alarm will be activated for a short time
- The gas-detection device is off
- The Dräger X-zone 5000 switches to the STANDBY-Mode



## DRÄGER X-ZONE 5000 VIDEO TRAINING

### Turning the Dräger X-zone 5000 off

#### TURNING OFF X-ZONE 5000

- Press and hold the  and [OK]-key of the Dräger X-zone 5000 for 3 seconds
- Dräger X-zone 5000 is off
- Battery LED is off



# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Connecting devices

### CONNECTING DEVICES

- A total number of up to 25 devices can be coupled via a wireless connection
- If radio connections are not allowed or blocked, the devices can be connected via cable
- A combined wireless and cable operation is also possible

# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Data transmission LED

### Data transmission LED

(Indicates the connection status if multiple devices are coupled via wireless connection or communication cable.)

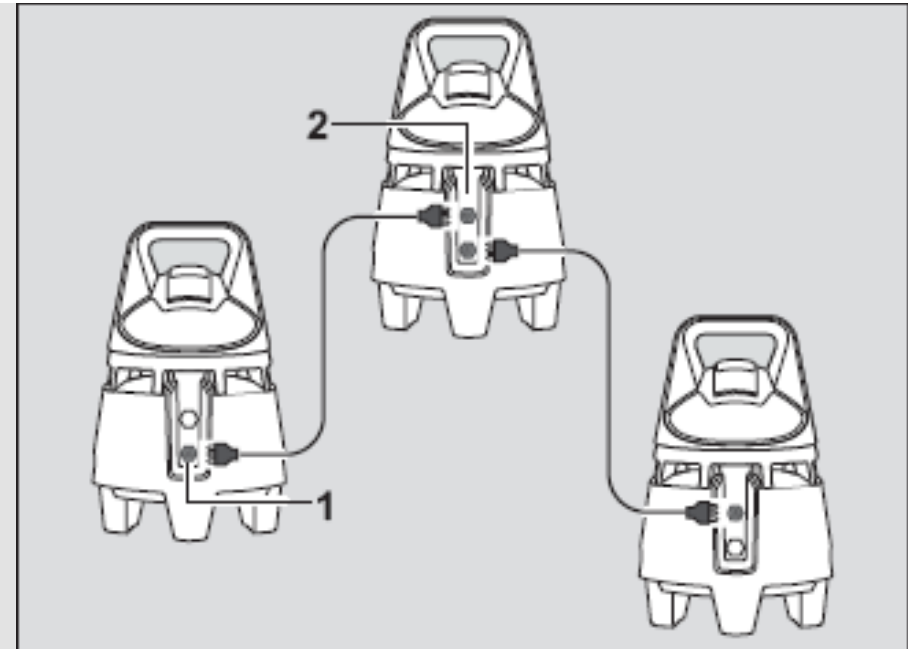
Colour	LED status	Group monitoring	Meaning
green	on	off - device ungrouped	At least 1 other X-zone 5000 coupled via wireless connection or cable detected.
		activated	On the main device: device connected to group. On the group device: device connected to main device.
green		provisionally deactivated	X-zone 5000 connected to group.
red	on	off - device ungrouped	No additional X-zone 5000 coupled via wireless or cable connection detected.
		activated	Alarm on main device: At least one device in the group is not connected. Alarm on group device: No connection to main device.
red		provisionally deactivated	On the main device: At least one device in the group is not connected. On the group device: No connection to main device.

## DRÄGER X-ZONE 5000 VIDEO TRAINING

### Connecting devices via cable

#### CONNECTING VIA CABLE

- Switch on the devices
- Plug the cable into the charging port (1) on the rear side of the device
- Connect the end of the cable to the switch relay (2) of the second device
- The data transmission LEDs of the coupled devices light green



## DRÄGER X-ZONE 5000 VIDEO TRAINING

### Establishing a wireless connection

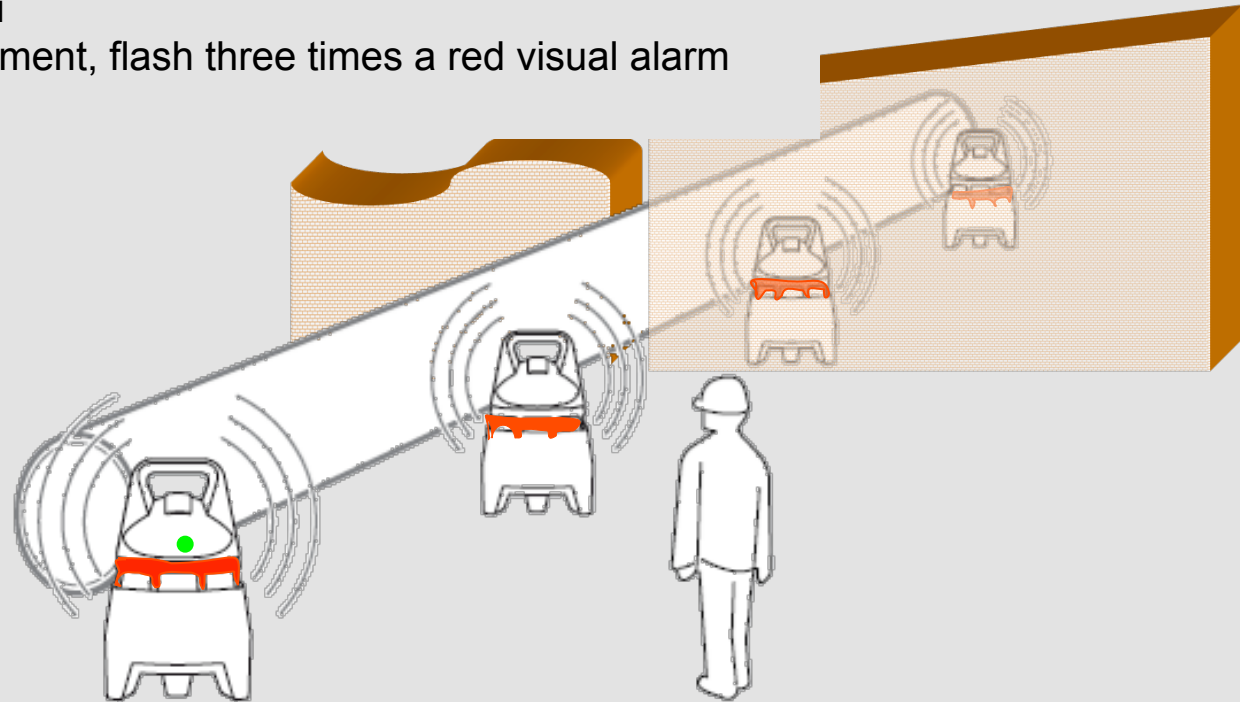
#### WIRELESS CONNECTION

- All devices within radio range are automatically connected
- Typical radio range is 100 m
- Switch on the devices one after another
- Switch on the first device: data transmission LED light red, no other device is detected
- Switch on the second device: data transmission of both devices light green, connection is established



### TEST WIRELESS FENCELINE

- Dräger X-am 5000 and Dräger X-zone 5000 switched „ON“
- Dräger X-am 5x00 press 1 x [OK] –key
- please choose „test“ ((())) in the menu
- all coupled Dräger X-zone 5000 instrument, flash three times a red visual alarm and three times an audible alarm



# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Recognizing concentration pre-alarm A1

### A1 GAS CONCENTRATION ALARM

- As soon as a device measures an increased gas concentration the alarm switches on
- During a A1 alarm a single tone sounds and the LED ring flashing red and green
- The triggering device transmits the alarms to the other coupled devices
- During A1 alarm the receiving device repeat a single tone and the LED ring flashes red and green
- The display alternates between A1 and the measured value
- Press the [OK]-key of the gas-detection device and the audible alarm will be switched off
- The pre-alarm is not self latching





# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Recognising concentration main alarm A2

### A2 GAS CONCENTRATION ALARM

- During A2 alarm the triggering device repeats a double tone and the LED ring generates a double red flashing
- The receiving device repeats a double tone and the LED generates a double red and green flashing
- The display alternate between A2 and the measured value
- The area has to be evacuated
- The alarm will only deactivate by pressing the [OK]-key when the concentration falls under the alarm threshold



# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Recognising battery status

### BATTERY STATUS

- Dräger X-zone 5000 is switched off: the battery LED is off
- Battery capacity of more than 66%: the battery LED lights green
- Battery capacity of more than 33%: the battery LED lights red/green
- Battery capacity of less than 33%: the battery LED lights red

**Recommendation: Store the X-zone in the induction charger or with connected power cord!**

# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Battery LED

### Battery LED

(Indicates the battery status.)

Colour	LED status	Device mode	Meaning
off	off	OFF mode	Device is switched off.
green	on	ON/STANDBY mode	Battery capacity of more than 66 %.
red/green			Battery capacity of more than 33 %.
red			Battery capacity of less than 33 %.
red		ON/STANDBY mode	Battery pre-alarm
red			Battery main alarm; X-zone 5000 switches off after 10 sec.
red		OFF mode	Attempt to switch on in OFF mode when the battery is empty (on for 10 s).
red		ON/STANDBY mode in induction charger	X-Zone 5000 <b>is being charged</b> , battery capacity less than 33 %.
red/green			X-Zone 5000 <b>is being charged</b> , battery capacity between 33 % and 66 %.
green			X-Zone 5000 <b>is being charged</b> , battery capacity greater than 66 %.
green			X-zone 5000 is <b>fully charged</b> .

# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Recognition battery alarm


### BATTERY PRE-ALARM

- The battery LED flashes red
- When the battery pre-alarm is activated, the audible alarm sounds and the LED ring flashes red (comparable with A1 alarm)
- Press the [OK]-key of the gas-detection device and the audible alarm is switched off
- After the first battery pre-alarm the battery will still last for 15 minutes

### BATTERY MAIN ALARM

- The battery LED flashes red
- A double tone sounds and the LED ring generates a double red flashing (comparable with A2 alarm)
- The device automatically switches off after 10 seconds



Battery alarm is configurable 

# Dräger X-zone 5000 System

## Alarm Differentiation

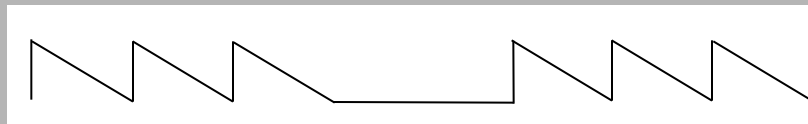
**< V1.15**

**> V1.15**

Error alarm



Error alarm



Gas Alarm



Gas Alarm



Same LED pattern  
(e.g. full coloured circle)  
for error and gas alarm

Option to configure error and gas alarms  
differently

Same horn volume

Option to configure horn volume

Same horn sound

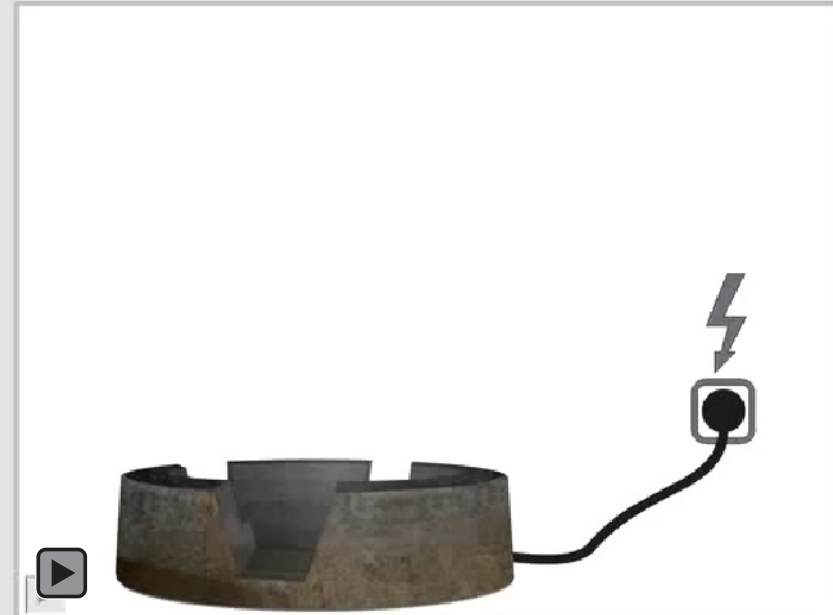
Option to vary horn sound

## DRÄGER X-ZONE 5000 VIDEO TRAINING

### Charging the batteries

#### INDUCTIVE CHARGING

- Connect the induction charger to the mains using the power pack
- Place the Dräger X-zone 5000 onto the induction charger
- During the charging the battery LED flashes red or green, depending on the battery status
- As soon as the charging is completed, the battery LED will permanently light green



# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Charging the batteries

### CHARGING VIA CABLE

- Plug the charging cable into the charging port on the rear side of the device
- Connect the power pack to the mains
- During the charging the battery LED flashes red or green, depending on the battery status
- As soon as the charging is completed, the battery LED will permanently light green



# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Operate up a pumped device

### OPERATE UP A PUMPED DEVICE

- Dräger X-zone 5000 is equipped with a pump as an option
- Release the lock at the housing cover and remove the cover
- Screw the filter onto the Dräger X-zone 5000
- Turn the Dräger X-zone 5000 on
- Insert gas-detection device
- Place the pump cover onto the housing and fasten the lock
- Screw the sampling hose to the filter
- Switch on the gas-detection device
- A pump test is to be performed











# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Pump LED

### Pump LED

(Indicates the pump status.)

Colour	LED status	Device mode	Meaning
 off	off	STANDBY mode	Device is in STANDBY mode.
 off			No pump adapter detected.
 red/green		ON mode	Flow test required.
 red			Performing flow test.
 green	on		Flow test successful/pump is running.
 red			Flow error (e. g. due to lack of volume flow or no flow test).

## DRÄGER X-ZONE 5000 VIDEO TRAINING

### Pump test

#### PUMP TEST

- If the gas-detection device is in the ON mode, the pump will be automatically switched on via a switching contact on the pump cover
- The pump test will start automatically
- The pump LED flashes red/green
- Kink the sampling hose for 2 seconds
- The pump LED lights red
- Unblock the sampling hose
- If the test was successful the pump LED lights green, accompanied by a tone
- If the test was not successful the pump LED lights red, accompanied by a tone and the pump switches off



# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Performing a bump test

### BUMPTEST

- Turn Dräger X-zone 5000 on
- Insert the gas-detection device into Dräger X-zone 5000
- Place the housing cover onto the housing
- Place the alarm-attenuation ring onto the device
- Set the bump test adapter on the housing cover and connect it via hose with a test gas cylinder
- Turn the gas-detection device on
- Open the regulator valve to let test gas flow over the sensor
- The values increase
- If the gas concentration exceeds the alarm threshold A1 and A2 the corresponding audible and visual alarm will occur
- The alarm will only deactivate by pressing the [OK]-key when the concentration falls under the alarm threshold
- The bump test is completed
















# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Grouping LED

The following instructions are valid from software version 2.21 on


### Grouping LED (Indicates the grouping status.)

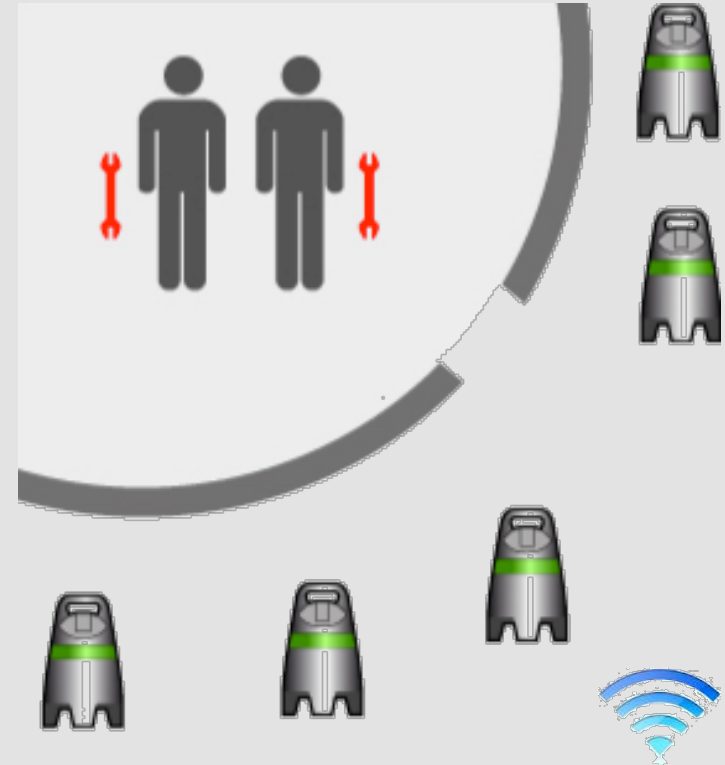
Colour	LED status	Device hierarchy	Meaning
 off	off	X-zone 5000	X-zone 5000 ungrouped
 green			X-zone 5000 ungrouped, can be added to a group.
 red			Several main devices found, X-zone 5000 cannot be grouped.
 green	on	Group device	X-zone 5000 is grouped.
 green			X-zone 5000 can be removed from a group.
 red/green	on	Main device	X-zone 5000 is a main device.
 red/green			Group of the main device can be extended.
 red/green			Group of the main device can be reduced.

## DRÄGER X-ZONE 5000 VIDEO TRAINING

### Closed Network

#### PREPARE GROUPING

- Gather all devices for the group in one area (ungrouped state).
- Relevant X-zone 5000 units need to be in ON-mode in order to cluster them.
- The data transmission LED  turns green, if there is a radio connection to another X-zone.
- Please choose one X-zone as main device (see slide 30).



# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Closed Network



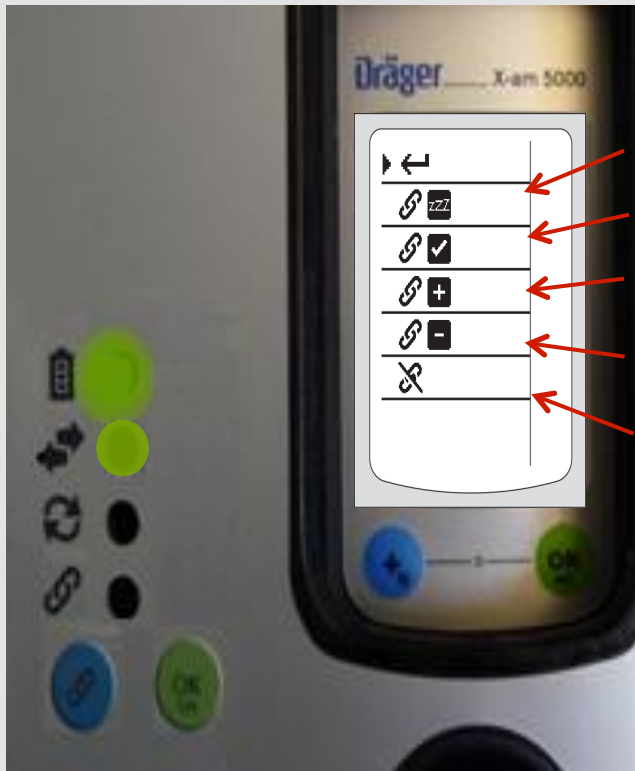
To administrate a group you can use the group configuration menu on the X-am (see picture) or the grouping button on the X-zone.



X-zone #0



X-zone #1...15




- Provisionally deactivating group monitoring
- Activating group monitoring
- Forming a new group / Adding a device to the group
- Removing a device from the group
- Terminating group




## DRÄGER X-ZONE 5000 VIDEO TRAINING

### Closed Network

#### GET STARTED – SEARCH MODE

- Press the blue grouping button  on one X-zone 5000 that will be your main device.

or alternatively

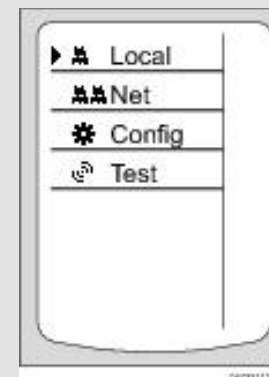
- Choose „Config“ on the X-zone main device
- Choose „+“
- The grouping LED  then displays a red-green light  (slowly flashing).

= SEARCH MODE

The search mode ends automatically after 2 minutes or you can press the [OK]-button.



X-zone #0  
main device



# DRÄGER X-ZONE 5000 VIDEO TRAINING

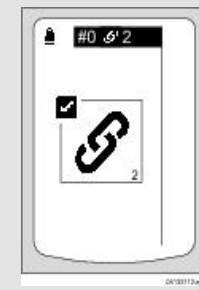
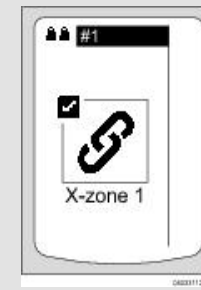
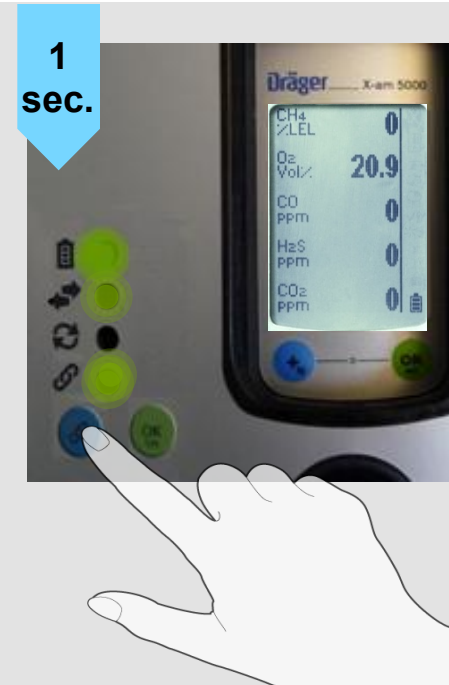
## Closed Network

### ADDING UNITS

- The communication LED is green on all units that are in radio contact with at least one other unit.
- If the grouping LED is flashing green, the X-zone 5000 is in radio contact with the main device and can now be added to the closed network:  
press the blue grouping key on each unit designated to be a group device.

The grouping LED illuminates in green.

- To end search mode (i.e. the closed network is complete, max. 16 devices), press the blue grouping key on the main device.
- The grouping LED illuminates in red-green.





## DRÄGER X-ZONE 5000 VIDEO TRAINING

### Closed Network

#### INFO MODE


- To identify which X-zone 5000 unit belongs to which group, go to info-mode on the inserted X-am 5x00:
- Press the green **OK** key.
- The display shows its grouping ID (4) as well as its station number within the group (1).  
Note: The main device is always station number 0.
- Normal mode automatically after 10 seconds.






# DRÄGER X-ZONE 5000 VIDEO TRAINING

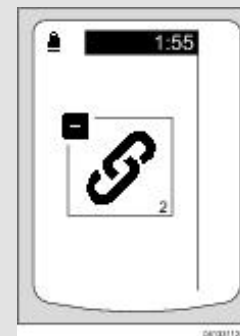
## Closed Network

### DOWNSIZE A NETWORK

- Gather all those group devices that need to be removed next to the main device for the following procedure.
- Press the blue grouping key  on the main device for 3 seconds.

#### or alternatively

- Choose „Config“ on the X-zone main device
- Choose „   “
- The grouping LED  of both main device (red-green) and group devices (green) flashes quickly.
- Push the [OK]-button on the group device.
- If new group is ready push also the [OK]-button on the main device.






# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Closed Network



### TERMINATE A NETWORK

- Choose „Config“ in the menu of the X-am
- Choose  „Terminate Group“
- The red-green grouping LED  then turns off, as well as the green grouping LED  on the X-zone 5000 units that were group devices.

The closed network is now terminated.



main device





# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Closed Network



### DEACTIVATE (provisionally)

- Choose „Config“ on the X-zone main device
- Choose „   “
- The grouping LED flashes quickly


Group monitoring is deactivated for **15 minutes**.



main device



### DEACTIVATE (provisionally)

- provisionally deactivating group monitoring means deactivating the group alarm function (note: concentration alarm, battery alarm and device alarm are still on)
- connecting status display and group affiliation of corresponding devices are retained
- after 15min of deactivation the system reactivates itself automatically (if no other action is carried out)
- during deactivation the data transmission LED  flashes green
  - slowly for 13min
  - quickly the last 2min

# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Closed Network

### SWITCH OFF - a closed network

There are two ways of switching off the system:

Switch off the X-am 5x00 device (slide 9). You have 30 seconds to switch off all group devices. Otherwise a group alarm will be set off.

or

Deactivate group monitoring [slide 35] → you now have 15 minutes to switch off all group devices [slide 9]. Otherwise the group monitoring reactivates itself automatically.



When switching off the X-zone 5000, Dräger recommends wearing hearing protection or using the alarm attenuation ring (order no. 83 20 110) as the acoustic alarm is activated for a brief period.

# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Closed Network



### SWITCH ON VIA DEACTIVATION MODE

To switch the system back on:

Switch on the X-am 5x00 inserted in the main device [slide 8]. The group monitoring is temporary deactivated. You have 15 minutes to switch on all group devices before the main device activates itself automatically the group monitoring.

or

The group monitoring can also be activated by keypress (see next slide).





When switching on the X-zone 5000, Dräger recommends wearing hearing protection or using the alarm attenuation ring (order no. 83 20 110) as the acoustic alarm is activated for a brief period.

# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Closed Network

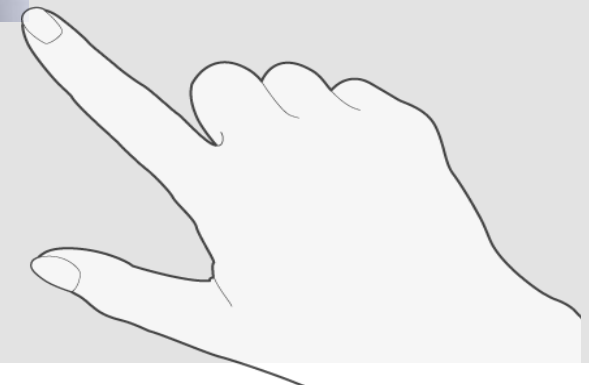


### ACTIVATE GROUP MONITORING

- Choose “Config” on the X-zone main device
- Choose  
- Group monitoring is started



main device






# DRÄGER X-ZONE 5000 VIDEO TRAINING

## Closed Network

### TERMINATING GROUP IN CASE OF GROUP ALARM

If the main device can no longer be found for an individual group device (destroyed / turned off because of an empty battery / etc.), its group affiliation can be deleted.

- Press the blue grouping key  on this group device for 3 seconds.

### or alternatively

- Choose „Config“ on this group device
- Choose „Deactivate Group“

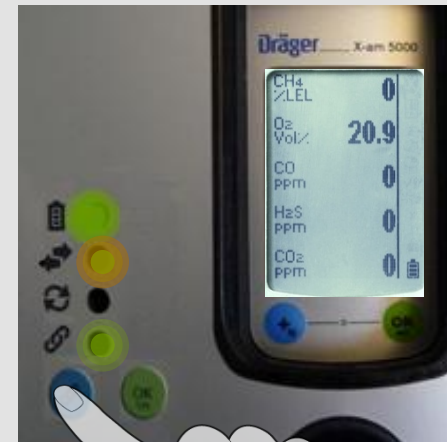
Group affiliation is deleted.



X-zone 5000



X-zone #1...15



Thank you for your attention.