gardex

Safety intercom for building and Disabled Refuge Systems

Brand name *gardex*, is a range of intercoms dedicated to safety application and communication for building

Operator can see on the screen display the call and where is located the caller.
The complete setup of the installation is simplified and flexible for any future modification, unexpansive complete solution.
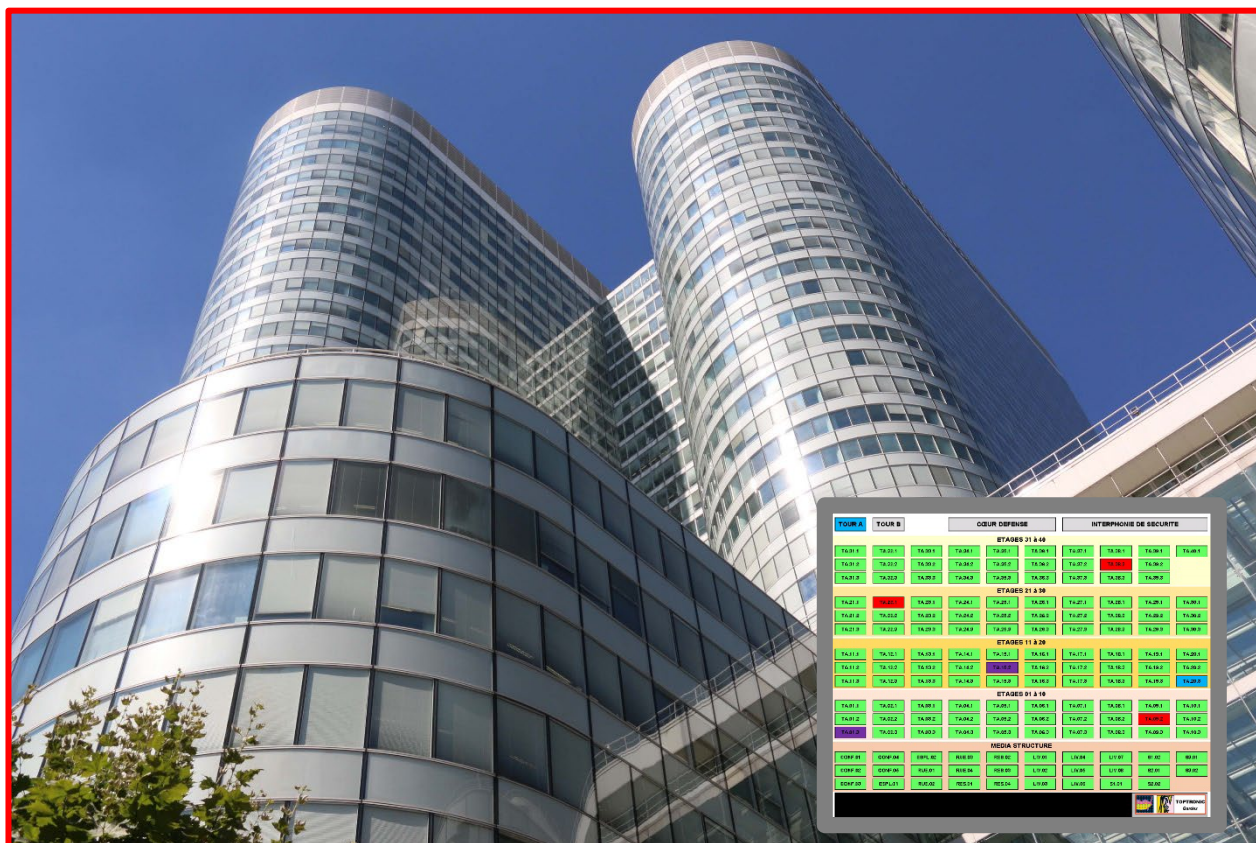
Gardex is a solution where everyone can find an advantage.

Users calling system is very simple with only a handset easy to unhook, easy to identify with the red color.

Operator behind the safety desktop: screen display easy to use without any training. Real time information provides the status of each calling system anywhere in the building. All events are logged in a file with date and time.

Architects and installers, connection in star mode between MMX and MAB allows to safe cable length and simplify any modification or new call

Maintenance becomes easy, all status of all head end are displayed on the screen display with a dedicated color code to define any mistake or bad connection in the installation. No need to walk through each terminal to verify the status.

The safety manager can log any conversations, and all events in supervision mode.

gardex schematic

Working station operator — MMX — MXAB

RS 232

RS 485
audio
+/-

Operator terminals

« call box »
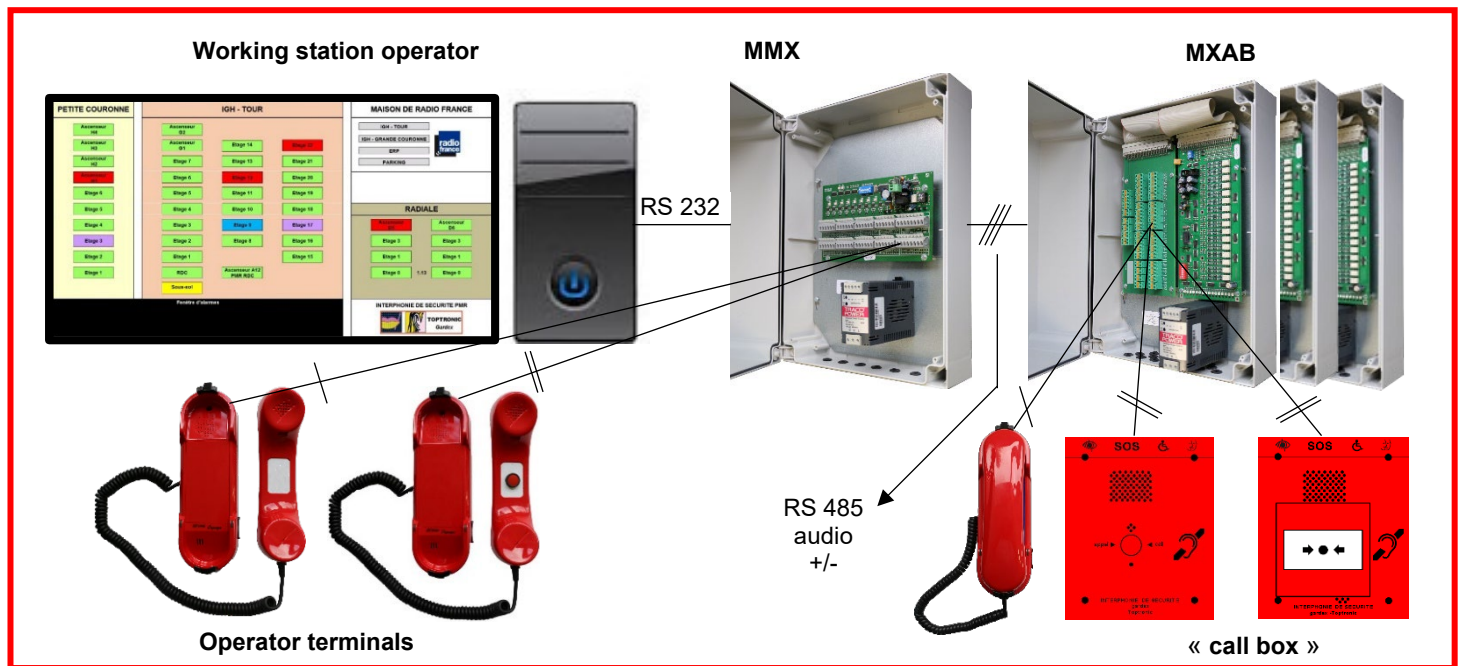
Working station
Desktop, Windows 10
Screen display 19'' customized in factory
- gardex < 16 posts   22.002.000 A
- gardex standard < 256 posts   22.002.000 B
- gardex maxi < 512 posts   22.002.000 C

Operator handset terminal
- Full duplex : installation with "handset"   22.001.021
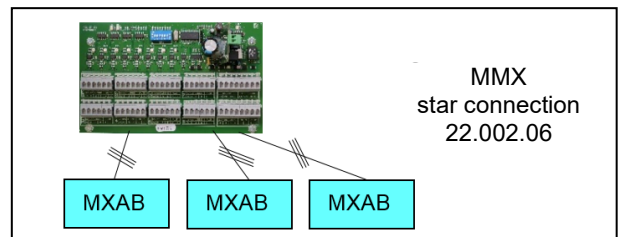- Simplex: installation with "handfree" box   22.001.022
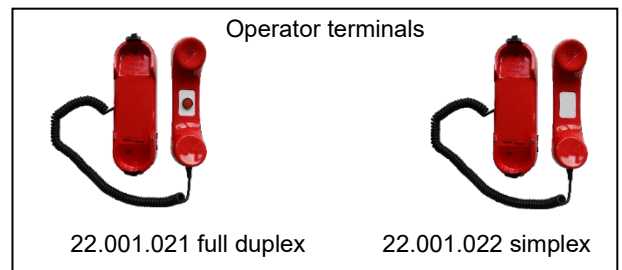
Master multiplexer MMX 48 V
Link by RS232 cable to the labtop   22.002.51
 Manage the communication between operator and users
- Star configuration: up to 16 MXAB only 1 MMX   22.002.06
- Bus configuration : up to 16 MXAB (2 MMX possible) 22.002.13

Connection : cable SYT 9/10 CR1/C1
- MMX → MXAB: 3 twisted pairs
- MXAB → terminal « handset » : 1 pair
- MXAB → terminal « call box » : 2 pairs
- Maximal length between MMX and the farthest terminal: 600 m
- For long distance connection, use optical fiber:
  MMX - optical fiber - MMX→MXAB
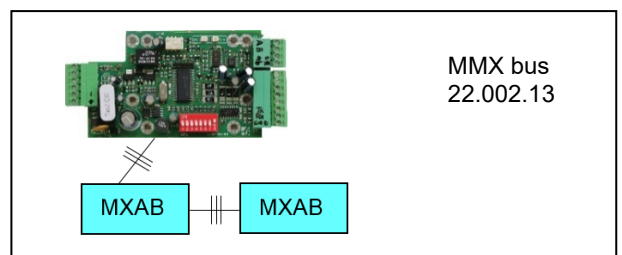
Power supply
Centralized to the MMX or remotely to the MXAB
- Standard terminal call station : 24 V
  . power supply 24 V/60 W   22.002.41
  . Power supply 24 V/120 W   22.002.42
  . UPS 24 V/7 Ah   22.002.52
- Call station with hearing loop : 48 V
  . power supply 48 V/60 W   22.002.43
  . power supply 48 V/120 W   22.002.44
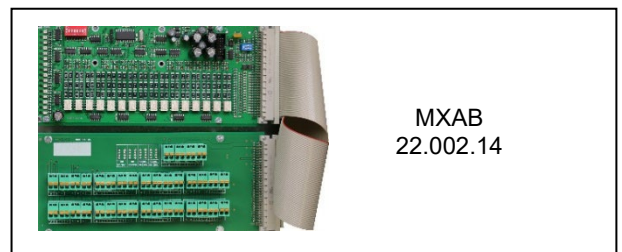 . UPS 48 V/3 Ah   22.002.62
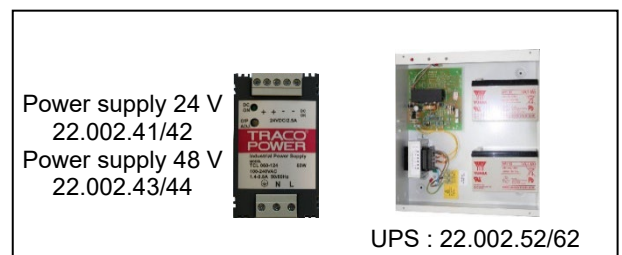
Multiplexer MXAB 16 departures - 24/48 V
Deployed in the building, usefull to connect each terminal in star connection
Allow any extension and new configuration
- MXAB   22.002.14

Operator terminals

22.001.021 full duplex   22.001.022 simplex

MMX
star connection
22.002.06

MXAB   MXAB   MXAB

MMX bus
22.002.13

MXAB — MXAB

Power supply 24 V
22.002.41/42
Power supply 48 V
22.002.43/44

UPS : 22.002.52/62

MXAB
22.002.14

gardex call stations

### « handset » call stations - connection 1 pair   22.001.023T
- red receiver to unhook for wallmounting
  L 75 x H 230 x D 78 mm
- call by hook up - rearming by hook on
- dialog full duplex
- user information :
  . by unhook : ringing tone
  . after aknowleg from operator : dialing tone
- hearing loop embetted in the handset
- consumption : standby 8 mA - dialog : 40 mA
- option : polycarbonat tearing flange   22.001.030
  L 215 x H 140 x D 75 mm
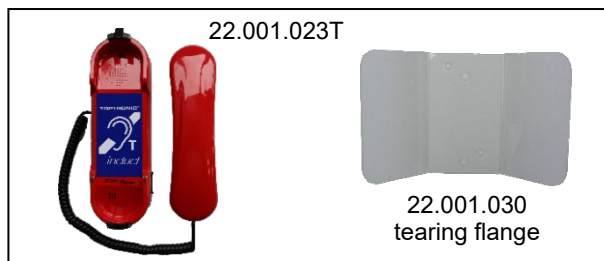
« handfree » call boxes - connection 2 pairs
- frontplate red RAL 3000 - painted steelsheet
- support of electronic , microphone, loudspeaker, LED
- selfrearming - or membrane release button
- needs surface or flush mounting box
- option : integrated hearing loop
- simplex dialog conducted by operator
- user information - push button
  . call : LED blinking/tone - communication : LED fix
- consumption : standby 20 mA, communication 80 mA,
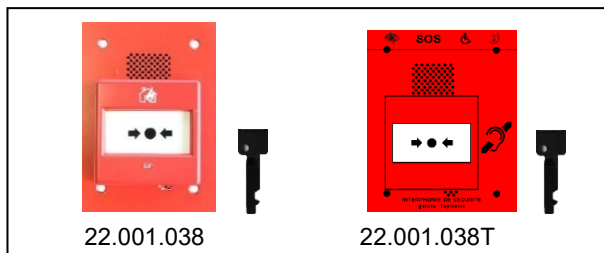 with hearing loop : 200 à 600 mA
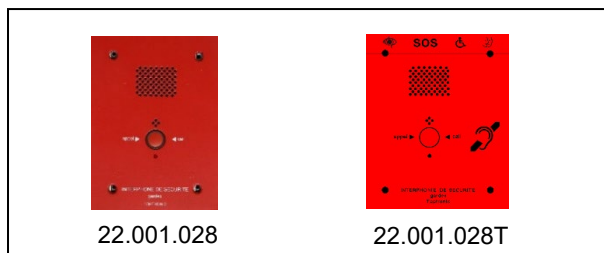
Standard call boxes - 24V
- frontplate with selfrearming button   22.001.028
- frontplate with membrane release button   22.001.038
  L 120 x H 164 x D 42 mm
- flush mounting box : L 94 x H 145 x D 50 mm   22.001.029
- surface mounting box : L 130 x H 174 x D 50 mm   22.001.31
- needs power supply 24 V

Hearing loop call boxes - 48 V
- frontplate with selfrearming button   22.001.028T
- frontplate with membrane release button   22.001.038T
  L 135 x H 164 x D 42 mm
- flush mounting box: L 109 x H 145 x D 50 mm   22.001.029T
- surface mounting box : L 145 x H 174 x P D 50 mm   22.001.31T
- needs power supply 48 V
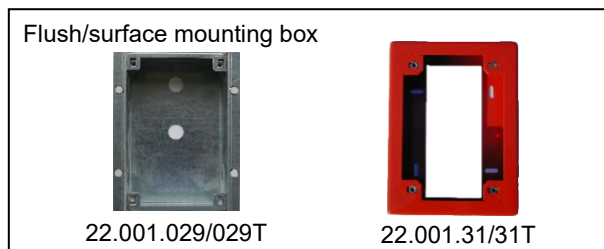
Call boxes in bunch
- 1 master box can be connected to 5 slave boxes over a 3 pairs bus
- the master box is alone identified on the gardex screen
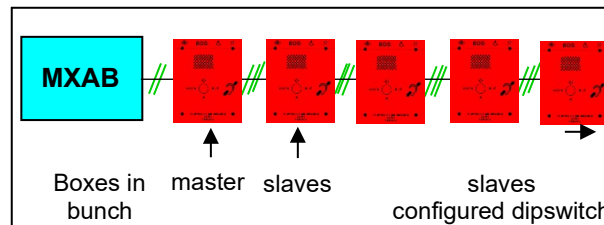
Lift call stations
- released by the lift emergency button
- splitted microphone, loudspeaker, LED on cable 1 m
- standard lift box   22.001.025K
- lift box with hearing loop *I 900* connection   22.001.025O
- pack *I 900* with induction cable 1,50 m   41.039.22
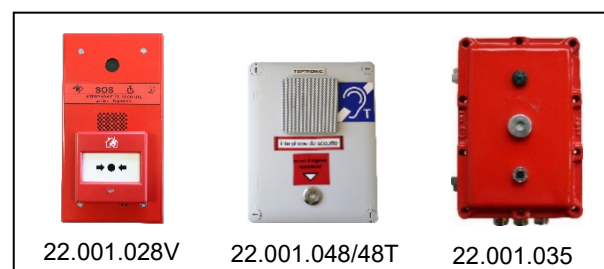- power supply 230 V/15 V   41.000.15

Vidéo call stations - 24 V
- frontplate with pinhole camera
- selfrearming button L 135 x H 164 x D 42 mm   22.001.028V
- flush mounting box : L 109 x H 145 x D 50 mm   22.001.029V
- surface mounting box : L 145 x H 174 x D 50 mm   22.001.31V

Special call stations
- IP 55 plastic box L 130 x H 172 x D 80 mm
  . standard box (24 V)   22.001.048
  . with hearing loop (48 V)   22.001.048T
- ATEX L 220 x H 340 x D 195 m   22.001.035
  with Atex loudspeaker

Braille label L 50 x H 35 mm   22.001.90

22.001.023T

22.001.030
tearing flange

22.001.028   22.001.028T

22.001.038   22.001.038T

Flush/surface mounting box
22.001.029/029T   22.001.31/31T

MXAB
Boxes in bunch   master   slaves   slaves configured dipswitch

I 900
22.001.025O   41.039.22

22.001.028V   22.001.048/48T   22.001.035

Braille label
22.001.90   call help push
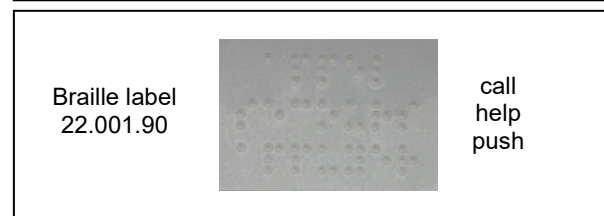
gardex management

Operator management

In real time, the screen displays all events.
Each terminal is displayed with a button on the screen display, with the building schematic it is possible to determine where the call is coming from in the building.
At the bottom of the screen, it is possible to track and log all the least events on the installation.
Screen display is customizable as much as you want. It is possible to determine the size of each button.
At the first call: tone is ringing and the concerned button is blinking in red The operator just needs to click on the concerned button and can discuss with the people who is calling.

Maintenance board – immediate diagnosis

- the screen shows the station and the MXAB
- the LED on the MXAB shows the situation of each station

Administrator consultation

- get out from "exploitation" and
  "C:\Gardex\Superviseur\GardexSuperviseur.log"
- read the list of all events :
  date-hour/minute/second/thousandths - address - type - details
- the events types in the file are :
  call - fault - acknowledge - hook up - unhook
  connection of supervisor - disconnection of supervisor
- record of the dialogs when installed

Display - maintenance = immediate diagnostic

- the screen indicates the call station and MXAB
- on the MXAB, LED indicates the call station

Regulation requires a visible display

gardex meet the standard EN 60950, EN 61950, EN 55022 class B, EN 50082-1; IT 248 article IGH GH 50 alarm.

§ 1 – On top of the standard telephone connection of the article G.H. 56, phonic devices (phone keyboard less, intercoms, etc), allowes an emergency call to the central security office to call the firefighter, must be installed in all stairs of the building in horizontal circulation. It must be in red color to be easily identified and protected to any accidental operation
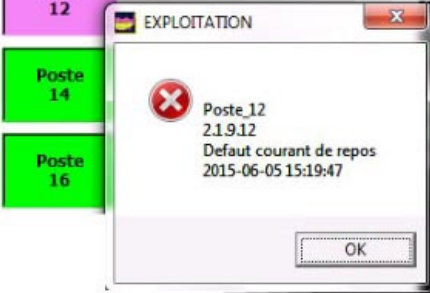
References equiped by gardex

European Parlamient, Council of Europe, Cœur Défense Towers, Hospital Center Michallon, Caisse des Dépôts et Consignations, Mall Carré Sénart, Building Sillon de Bretagne, Maison de Radio France, Hospital center Strasbourg, Mall Auchan Strasbourg, high schools, town halls, theaters, hotels …

Screen buttons color code

standby

- green pale fix : station ok
- yellow fix : previous station not activated
- violet / green blinking : line default

in communication

- red / yellow blinking : priority call
- orange / yellow blinking : non priority call
- blue fix : communication established
- blue pale / blue dark : call finished - station not hooked up
- green pale / green dark : call hooked up before operator release

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Information détaillée

Poste 12
Poste 14
Poste 16

EXPLOITATION

Poste_12
2.1.9.12
Defaut courant de repos
2015-06-05 15:19:47

OK

>2015-06-05 15:18:31 Poste_12 2.1.9.12 PRET
>2015-06-05 15:18:35 Poste_12 2.1.9.12 APPEL
>2015-06-05 15:18:39 Poste_12 2.1.9.12 FIN D'APPEL

Visualizations MMX : PWR et TX et RX

- PWR green fix : power supply OK
- PWR off : no power supply
- TX et RX blinking : system OK
- TX blinking / RX off : no communication
- RS485 with MXAB - A or B crossed or not connected - wrong address MXAB
- both TX / RX off
  PC cable not connected - PC off - MMX not functional - RX/TX crossed GND or RX not connected
- RX 1/2…8 blinking - all MXAB ok

Visualizations MXAB

- green fix : installation OK
- red fix : call stations in call
- red blinking : line default
- off : line non declared / no power supply

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