

# Intercom Station with Touch Screen TS 8107V

The IP Intercom Station with a special touch



Intuitive  
operation

space-saving  
design

16 kHz  
eHD Voice

Audio +  
Functionality

## Tough Touch - The Touch Intercom station for real life

Touch surfaces open all-new application options for Intercom terminals. Great overviews, lots of information, intuitive interaction, perfect communication. But only for indoor applications - until now. Touch surfaces used to be too sensitive for outdoor use.

Most of them won't even stand humid weather - or the cleaning crew. Rain and spray water tend to spoil their mood as well as their surface. Once they get really wet, they simply quit working. And then there's heat and frost. And, of course, the somewhat rough treatment by some of the more energetic users.

Door Intercom is also a question of size and design. Architects typically love clean, compact solutions. So does Commend. And we love powerful technical performance, too. That means weather resistance, self-checks to ensure reliable functionality, sturdy resistance against vandalism, and audio monitoring to enable instant reaction in case of an emergency. Commend. Security and Communication.

## Functions and Highlights

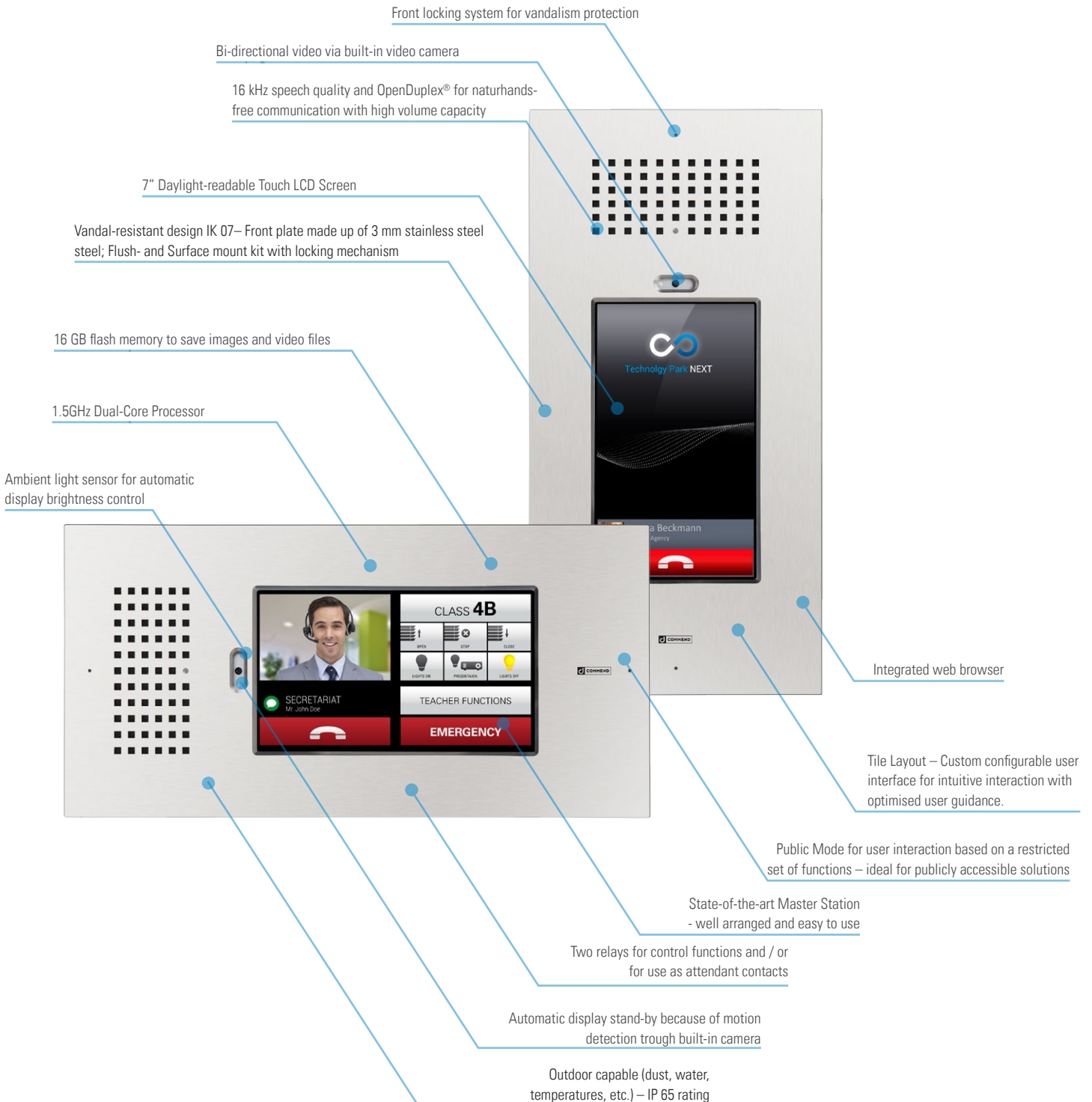
- Highly **intuitive operation** through flexible support of individual user interface needs
- Available free **Tile-Layouts**
- **Bi-directional** video
- Visitor guidance with **plans**
- **Functional monitoring** of microphone, loudspeaker and Intercom Station lines
- **Control functions** (video, doors & gates, ...)
- **Audio Monitoring** for automated call triggering, e.g. by a scream or shout
- **Audio recording**
- and many more...

## Key benefits at a glance

The following sample layouts show some of the flexible customisation capabilities of the user interface. Licence details for the individual control elements and functions can be found in the Datasheet "Intercom Client for Android".

### Typical applications

- Communication terminals for reception areas
- Terminals for visitor guidance and information
- Convenient Door Call Stations for inside and outside use
- Interactive Lift Call Stations
- Compact Control Desks



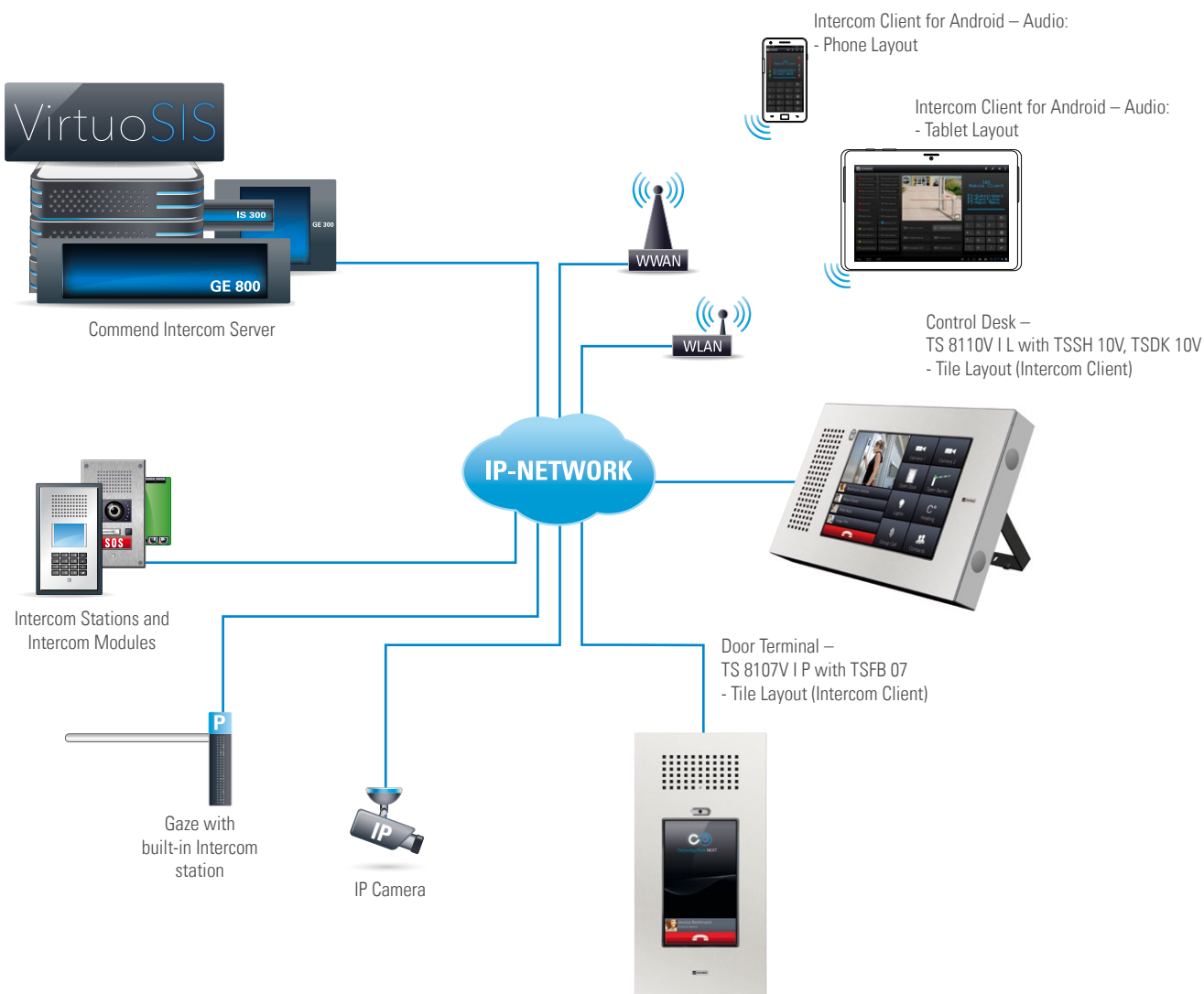
## The Commend Intercom Station with Touch Screen

### Fully adjustable

You define the features and functions that are most important to you, and the configurable tile layout adjusts perfectly to all your requirements. It's this commitment to usability that makes Intercom Touch a pleasure to use. The entire range of powerful Commend Intercom functions is never more than a simple tap of the finger away. What is more, built-in powerful 16 kHz technology ensures brilliant speech quality and crystal clear intelligibility at the highest level.

### NEW! Bi-directional Video

Intercom Touch is the first Commend device to transfer the principle of OpenDuplex® audio transmission to video connections, enabling users to see and be seen at the same time. In combination with clear 16 kHz speech transmission, this function makes Intercom Touch the ideal all-round communication terminal for entrance areas, doors and gates.



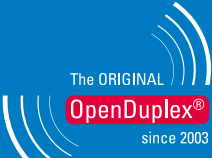






# Passion for Audio

by Commend

## Ultimate speech intelligibility in any situation

OpenDuplex® with enhanced HD Voice by Commend enables natural, hands-free talking and listening – as crystal clear and natural as a face-to-face conversation.

|  |  |  |   |  |
|--|--|--|---|--|
|  <p>Natural communication</p> |  <p>enhanced HD Voice</p> |  <p>High volume</p> |  <p>Background noise suppression</p> |  <p>Loudspeaker-Microphone monitoring</p> |
|--|--|--|---|--|

### Audio // Basics

|                          |   |
|--------------------------|---|
| <b>eHD Voice</b>         | Enhanced HD Voice by Commend transfers the audio signal at a bandwidth of <b>16,000 Hz</b> , thus capturing the entire frequency spectrum of the human voice.   |
| <b>STI</b>               | Speech Transmission Index <b>0.96</b> – measured under acoustic laboratory conditions; STI is a standard measure for speech intelligibility. It has a possible maximum value of 1.00, which corresponds to perfect intelligibility. |
| <b>Sound pressure</b>    | <b>High volume</b> up to <b>99 dB SPL</b>   |
| <b>Amplifier</b>         | High efficient class “D” amplifier with 2.5 W   |
| <b>Microphone</b>        | Omnidirectional electret microphone for max. 7 m (23 ft) speaking distance  |
| <b>Loudspeaker</b>       | 2 x 8 Ω loudspeaker with humidity-resistant special membrane type for optimum sound quality   |
| <b>Handset / Headset</b> | EM sensitivity: 14 mVeff<br>EM impedance: 3.3 kΩ / EM supply: 2.5V<br>EP level: 850 mVeff at 0 dBm0 / EP impedance: 200 Ω   |
| <b>Line-Output</b>       | Connection of loudspeaker module, induction loop amplifier, ...   |

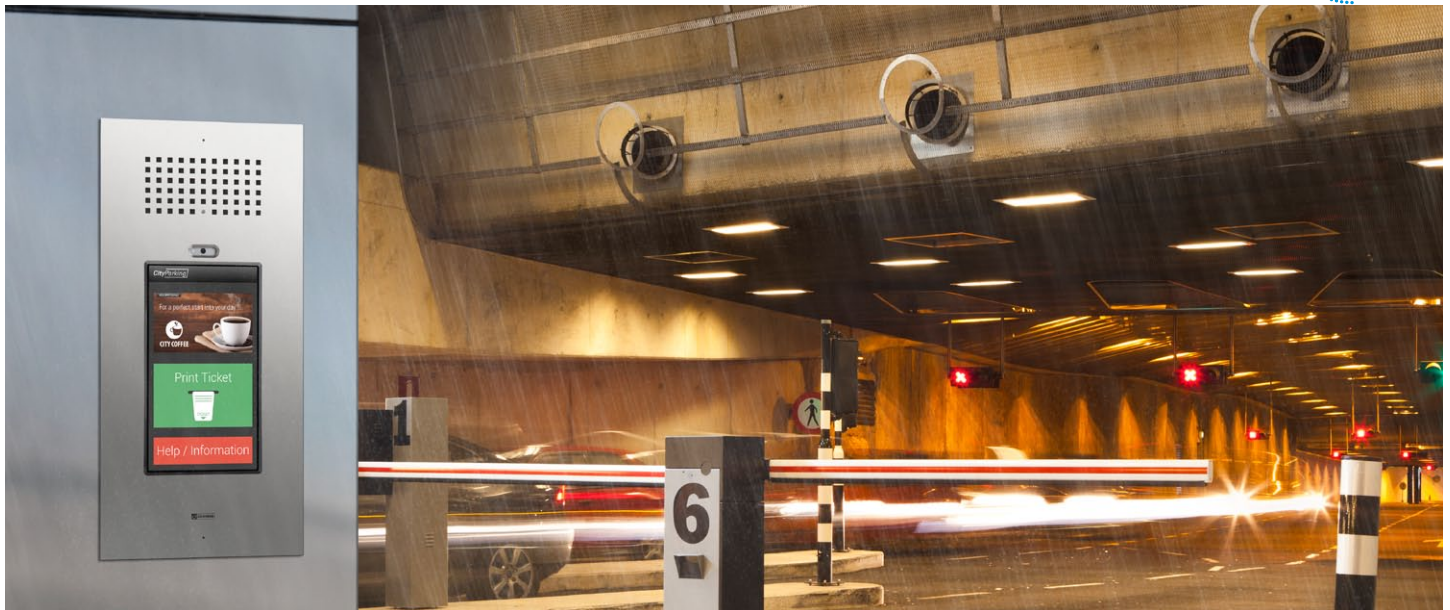
Learn more [audio.commend.com](http://audio.commend.com)

### Audio // Functions

- Dynamic **background noise suppression** virtually eliminates all ambient noise
- **Automatic volume adjustment** to ambient noise conditions
- **Loudspeaker/microphone monitoring** – ensures the availability of the Intercom station while reducing the need for manual verification of its functionality
- **Audio Monitoring** – Fully automated emergency calls triggered by shouting/screaming or predefined distress sounds – i.e., more security for users
- **Peer2Peer Audio** reduces network and server load to ensure efficient use of resources
- **Public Address functions**
- **Audio recording** and lip synchronous Audio/Video recording of conversations for documentation and evidence keeping purposes
- **Conference Call function** for simultaneous talking with multiple conversation partners
- **Speech activity detection** senses when calls are finished (no microphone signal) and terminates the connection automatically
- **Simplex-Modus** for applications requiring controlled communication – e.g., security solutions based on the ‘push-to-talk/release-to-listen’ method
- **Equalizer** for fine-tuning to ambient acoustic conditions



Examples of use



Example Description - Car Parking

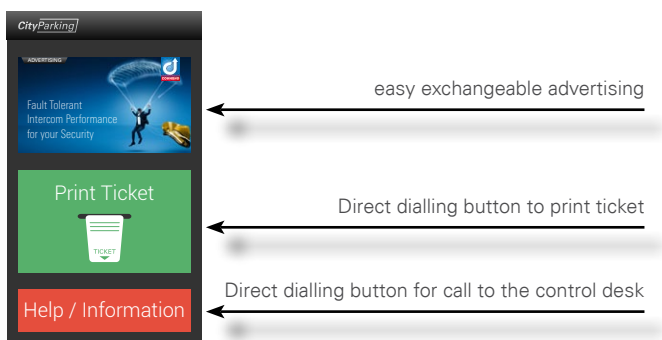
At vehicle entrances, it's the design that makes an Intercom truly big. Do you prefer lots of information presented in a compact-sized format? An outdoor capable Intercom should be capable of that, too. The Touch Intercom is specifically designed to provide just that: lots of information in a small space. That makes it perfect for a clean, lean design.

No need for the usual bulky push-button panels. The Touch comes with an unlimited number of on-screen buttons and enables information to be presented in a clean, well-structured format for interactive access. Integrating logos or individual colour schemes is no problem either.

The software-configurable user interface makes replacing information a breeze. Instead of unsightly stick-on labels at the vehicle entrances all required information can be presented beautifully on-screen with a few little mouse clicks

For car parking, it is possible to use the Tile-Layout template "Parking". The combination of Intercom Touchscreen Terminal and Tile-Layout provides the following features:

- Audio/Video Intercom stations for vehicle entry and exit gates, pay-on-foot machines and attended pay points
- Hands-free Intercom stations with excellent 16 kHz eHD Voice speech quality
- Barrier control from Control Room or attended pay point
- Display of equipment status information – e.g. coin box almost empty, running out of ticket stock, etc.
- Highly intuitive operation via overview screen:



Demand components

**Hardware components**

- Intercom Touchscreen Terminal: TS 8107V I P
- Flush-Mount Kit to mount the Terminal: TSFB 07V
- IP Intercom Server with free slot

**Licenses**

- Non-Audio Licence to run the Intercom Client for Android: L-ICNAA1



## Examples of use

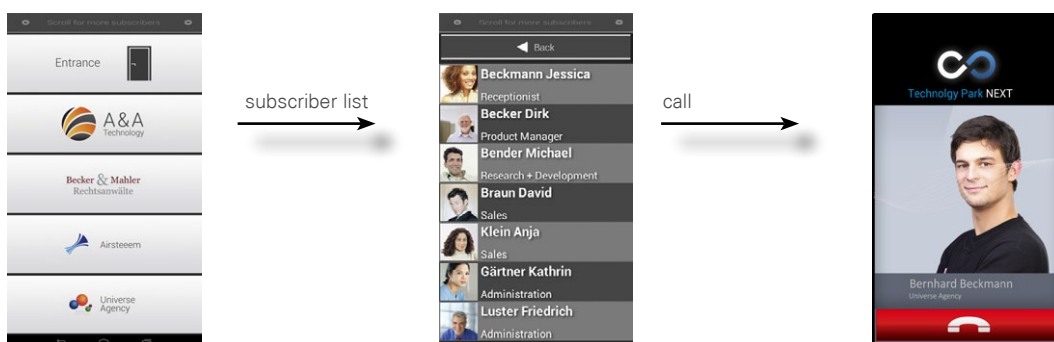


### Example Description - Buildings

Building Intercom - sometimes it can be as complicated as it sounds: endless lists, anonymous numbers, confusing or illegible labels and complicated technical contraptions. Much like telecommunication in the 1960s. The good news is, it doesn't have to be. In fact, it can be amazingly simple to use, like a modern smartphone. Swiping, tapping, watching, speaking, listening. All in convenient 21st-century style. Just like the new Intercom Touch by Commend. It is designed specifically to make building communication 21st-century easy. Just like that. Because technology does make a difference. At least in this case. Intercom Touch makes your visitors feel instantly welcome. The clean, intuitive user interface makes things easy for them. Well-structured directory listings let them find who they are looking for in no time at all. A simple tap of the finger opens the connection, optionally with video to add an extra personal touch. Also, displayed maps help them find their destination with ultimate ease. In short, Intercom Touch lets you get in touch the efficient and convenient way.

For building intercom, it is possible to use the Tile-Layout template "Entrance" (preinstalled at delivery). The combination of Intercom Touchscreen Terminal and Tile-Layout provides the following features:

- Hands-free Intercom stations with excellent 16 kHz eHD Voice speech quality
- Intercom Terminal for access control
- Door opening function available for each Intercom Station in the system
- Highly intuitive operation via main menu and a subscriber list.



### Demand components

#### Hardware components

- Intercom Touchscreen Terminal: TS 8107V I P
- Flush-Mount Kit to mount the Terminal: TSFB 07V
- IP Intercom Server with free slot

#### Licenses

- Non-Audio Licence to run the Intercom Client for Android: L-ICNAA1

## Vandal-Resistant Touchscreen Intercom Station

### Technical Data

|  |   |
|--|---|
| IP rating acc. EN 60529:   | IP 65*  |
| * only with flush mount kit TSFB 07V or surface mount kit TSSH 07V |   |
| Mechanical impact resistance acc. EN 62262:                        | IK 07   |
| Front panel:   | stainless steel, 3 mm (0.12 in)   |
| Microphone:  | Omnidirectional electret microphone for max. 7 m (23 ft) speaking distance                                      |
| Loudspeaker:   | Special membrane type for optimal sound quality, 2x8 Ω  |
| Amplifier:   | integrated class "D" amplifier with 2.5 W   |
| Sound pressure:  | max. 99 dB  |
| Input:   | 3 inputs for floating contacts (detection of 5 input states)  |
| Output:  | 2 relay outputs (switch-over contacts)<br>30 V / 1 A: 100,000 make-and-break cycles                             |
| Line input:  | for feed-in of audio (e.g. music, radio conference)<br>Line-Input: nominal level 0 dBu 0.775 V at 10 kΩ         |
| Call indication:   | LED (red / green)   |
| Display:   | 7" Daylight-readable Touch LCD Screen (1024 x 600)<br>with up to 500 cd/m <sup>2</sup> and ambient light sensor |
| CPU:   | 1.5GHz Dual-Core  |
| RAM:   | 1 GB SDRAM  |
| Internal memory:   | 16 GB flash   |
| Camera:  | 1.3 MP<br>(with Intercom Client Android Version 1.1 it is limited to 320x240 px)                                |
| Transmission bandwidth:  | 16000 Hz  |
| Operating temperature range:                                       | -20° C to 50° C<br>(-4° F to 122° F)  |
| Storage temperature range:   | -20° C to 50° C<br>(-4° F to 122° F)  |
| Relative humidity:   | up to 80% not condensing  |
| Connection:  | Power: pluggable spring-loaded terminal<br>- IP: shielded RJ 45 modular jacks                                   |
| Power supply:  | External power supply**<br>12 VDC, min. 2.5A<br>(10 - 16 VDC)   |
| ** not in the extent of supply!                                    |   |
| Cabling:   | min. Cat. 5   |
| Protocol:  | VoIP-Protocol based on UDP/IP   |
| Data rate:   | 10/100 MBit/s (Full/Half Duplex)  |
| Mounting:  | flush mount kit TSFB 07V<br>surface mount kit TSSH 07V<br>table mount kit TSDK 07V                              |
| Weight incl. package:  | 2600 g (5.7 lbs)  |

### Extent of supply

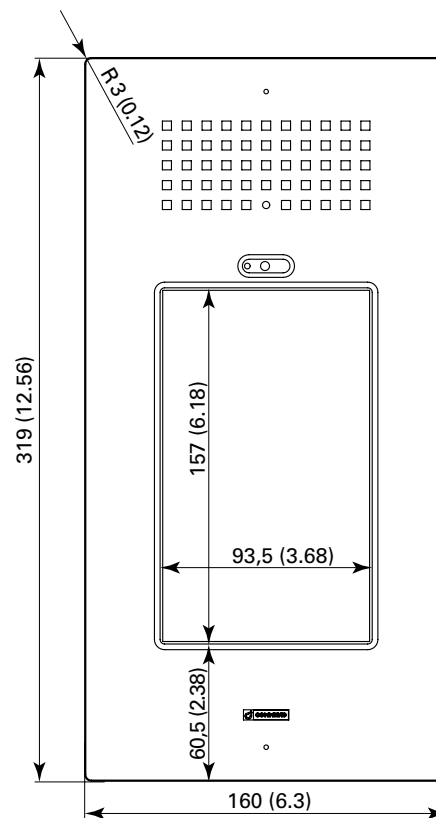
- Intercom Terminal
- Microfibre cleaning cloth
- Leverage Tool WSDM P
- Unlocking Tool
- Camera Cover
- Short Reference

### Line length in LAN

The maximum line length of Cat. 5 cabling in a LAN is 100 m (328 ft) – e.g. from switch to Intercom station.

### Measurements

Measurements in mm (inch), not scale!



## Vandal-Resistant Touchscreen Intercom Station

### Requirements Commend System

|                                 |  |
|---------------------------------|--|
| <b>Intercom Server</b>          | – GE800 with G8-IP or G8-IP-32<br>– GE300 with G3-IP<br>– IS300<br>– SIS |
| <b>Hardware</b>                 | – external power supply: 12 VDC, min. 2,5A (10-16 VDC)                   |
| <b>Intercom Server Software</b> | – CCT 800 3.0<br>– PRO 800 3.0   |
| <b>Software Licence</b>         | – desired licence for the required function range                        |

### Requirements to the network

#### IP-Addresses and Ports

- For the TS 8107V I the DHCP functionality is available.  
If DHCP is not used, the TS 8107V I must have a fixed IP-address.
- In case of a changing public IP-address, dynamic registration of a TS 8107V I is possible.
- Communication from the program IPStationConfig is done via Port 16399 (can not be configured).
- Communication from the TS 8107V I to the Intercom Server (UDP protocol) is done via port 16400 (configurable).

#### QoS Requirements

- Maximum One-Way-Delay 100ms
- Delay-Jitter not above 50ms
- 0% packet loss for perfect audio quality

#### Bandwidth

- The required bandwidth depends on the desired number of speech links:
  - Bandwidth incl. protocol overhead per IP-Intercom terminal, for upload and download:

|                              | 3.5 kHz        | 7 kHz          | 16 kHz         |
|------------------------------|----------------|----------------|----------------|
| Bandwidth (speech and data): | 96 kBit/s      | 96 kBit/s      | 143 kBit/s     |
| Speech is compressed to:     | G.711 standard | G.722 standard | G.722 standard |



## Accessories for Touchscreen Intercom Stations

### Flush Mount Kit TSFB 07V

Flush Mount Kit made from 1.25 mm stainless steel, black powder-coated, suitable for flush-mounting touch screen Intercom stations TS 8107V I.

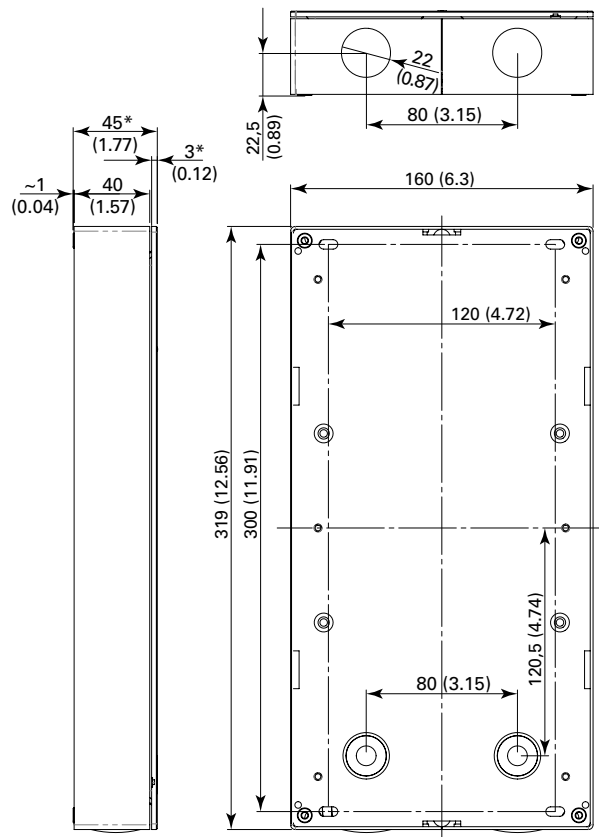
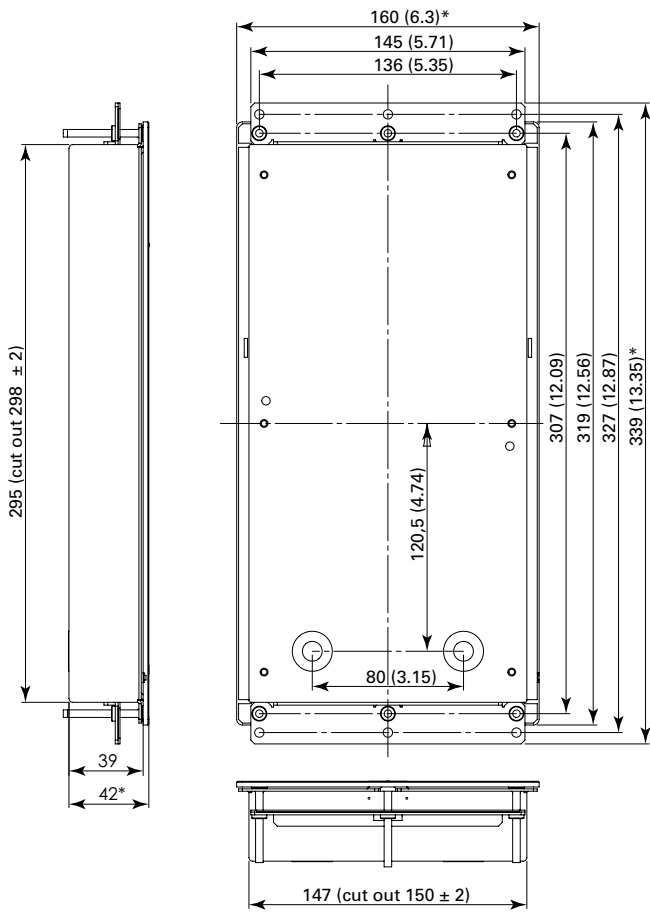
Weight incl. package: 1110 g (2.4 lbs)



### Surface-Mount Kit TSSH 07V

Surface-Mount Kit made from 1.5 mm stainless steel, suitable for surfacing touch screen Intercom stations TS 8107V I.

Weight incl. package: 1278 g (2.8 lbs)



### Desktop Kit TSDK 07VL

This kit allows for using the touch screen Intercom station TS 8107V IL as a desktop device. Note that this also requires a TSSH 07V Surface-Mount Kit. Material: powder-coated steel.

Weight incl. package: 468 g (1.0 lbs)



## Installation

### Precautions

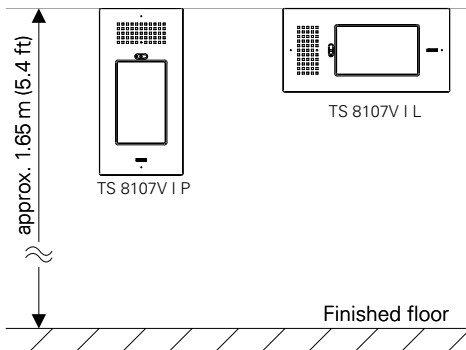
- When opening the stations ESD precautions must be observed.
- The stations may only be opened by authorised service engineers.
- The station may only be cleaned with cleaning agents for stainless steel – in NO case with cleaning agents containing chlorine or isopropanol!

### Mounting Instructions

- Do not expose the station to extreme temperature (below  $-20^{\circ}\text{C}$  or above  $+50^{\circ}\text{C}$  /  $-4^{\circ}\text{F}$  to  $122^{\circ}\text{F}$ ).
- For flush mounting a flush mount kit TSFB 07V (available separately) is required.
- For surface mounting a surface mount kit TSSH 07V (available separately) is required.
- Please take care of the correct mounting direction: The microphone has to be located at the bottom edge of the terminal and it may not be covered. For the position of the microphone, please see chapter "connection" on page 14.
- It is not allowed to use a network connector with kink protector.

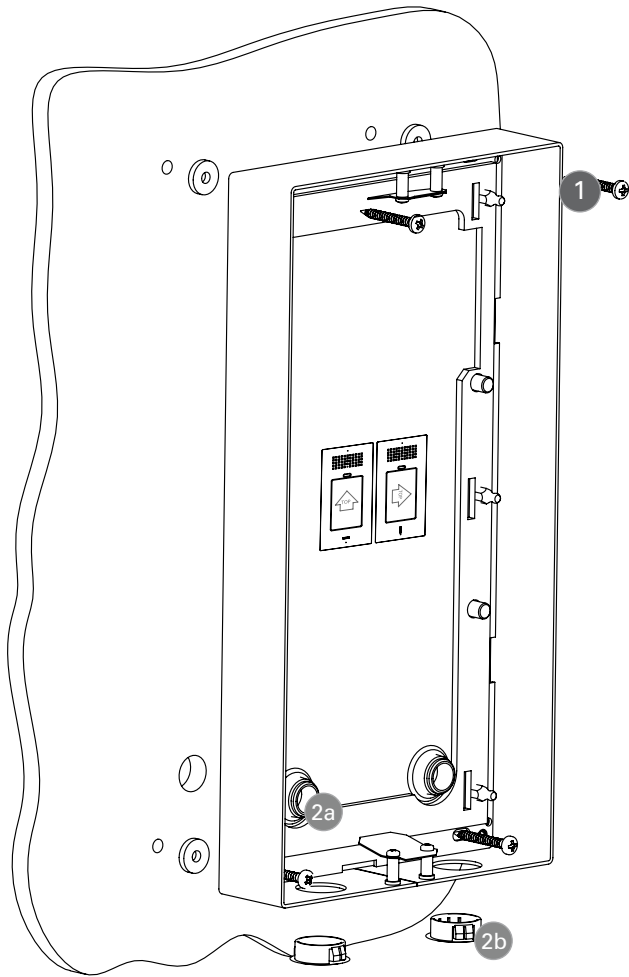
#### Recommended Mounting height

The upper edge of the station approx. 1.65 m (5.4 feet) from the finished floor. Please adapt the mounting height to the individual needs.



## Installation

### Mounting Surface-Mount Kit TSSH 07V



#### 1 ..... Surface mount box (Metal)

→ Mounting via mounting kit

**Note:** - Take care of the mounting direction ("UP" icon).

- Please take care of the correct mounting direction: The microphone has to be located at the bottom edge of the terminal and it may not be covered.

For the position of the microphone, please see the short reference of the touch terminal

#### 2 ..... IP 65 cable feed through

→ Installation cable feed through.

**Note:** - Per cable one cable feed through has to be used!

- It is only possible to use cables with a diameter of 2 - 7mm (0.08 - 0.28 in)

- The opening of the cable feed-in has to be smaller than the diameter of the used cable!

2a If the **cable inlet** on the **backside** of the surface mount box is used, the cable must be inserted in the cable feed through before mounting the surface mount box.

2b If the **cable inlet** on the **bottom** of the surface mount box is used, the cable feed through from the front panel box must be used (not pictured).

**Note:** - Cable feed throughs for the surface mount box have to be ordered separately!

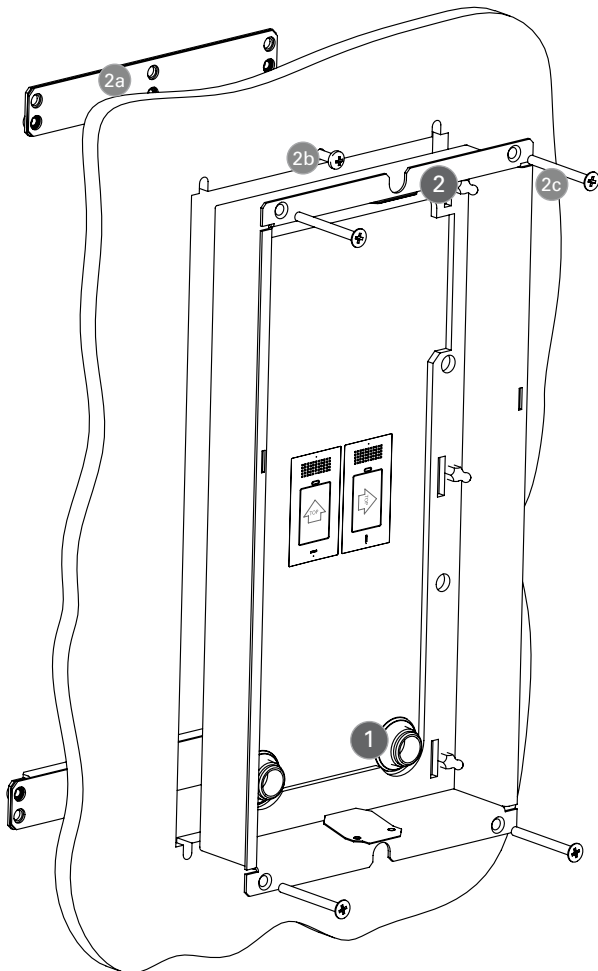
## Installation

### Mounting Flush-Mount Kit TSFB 07V

#### Cavity-mounting

It is possible to carry out the cavity-mounting for walls with a thickness of up to 35 mm (1.38 inch).

In case of thicker walls, it is recommended to mount the flush-mount box with RAWL® spring toggles M3x50 (not in the extent of supply).



#### 1 ..... IP 65 cable feed through

→ Installation cable feed through.

**Note:** - Per cable one cable feed through has to be used!

- It is only possible to use cables with a diameter of 2 - 7 mm (0.08 - 0.28 in)

- The opening of the cable feed-in has to be smaller than the diameter of the used cable!

#### 2 ..... Flush mount box

→ Mounting via mounting kit

**Note:** - Take care of the mounting direction ("UP" icon).

- The flush mount box has to be mounted flush with the wall.

- Please take care of the correct mounting direction: The microphone has to be located at the bottom edge of the terminal and it may not be covered.

For the position of the microphone, please see the short reference of the touch terminal.

- Watertight material to be placed between wall and flush mount box (if required) has to be ordered separately from other manufacturers.

2a Glue the mounting brackets onto the backside of the wall.

2b Additionally it is also possible to screw the mounting brackets onto the wall.

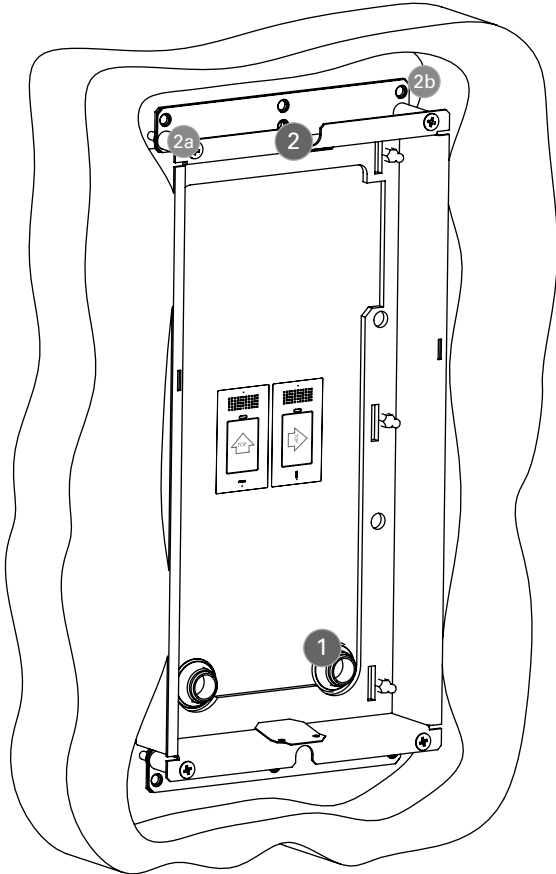
2c Fix the flush mount box with the 4 mounting screws



## Installation

### Mounting Flush-Mount Kit TSFB 07V

#### Wall-mounting



#### 1 ..... IP 65 cable feed through

→ Installation cable feed through.

**Note:** - Per cable one cable feed through has to be used!

- It is only possible to use cables with a diameter of 2 - 7mm (0.08 - 0.28 in)

- The opening of the cable feed-in has to be smaller than the diameter of the used cable!

#### 2 ..... Flush mount box

→ Mounting via mounting kit

**Note:** - Take care of the mounting direction ("UP" icon).

- The flush mount box has to be mounted flush with the wall.

- Please take care of the correct mounting direction: The microphone has to be located at the bottom edge of the terminal and it may not be covered.

For the position of the microphone, please see the short reference of the touch terminal.

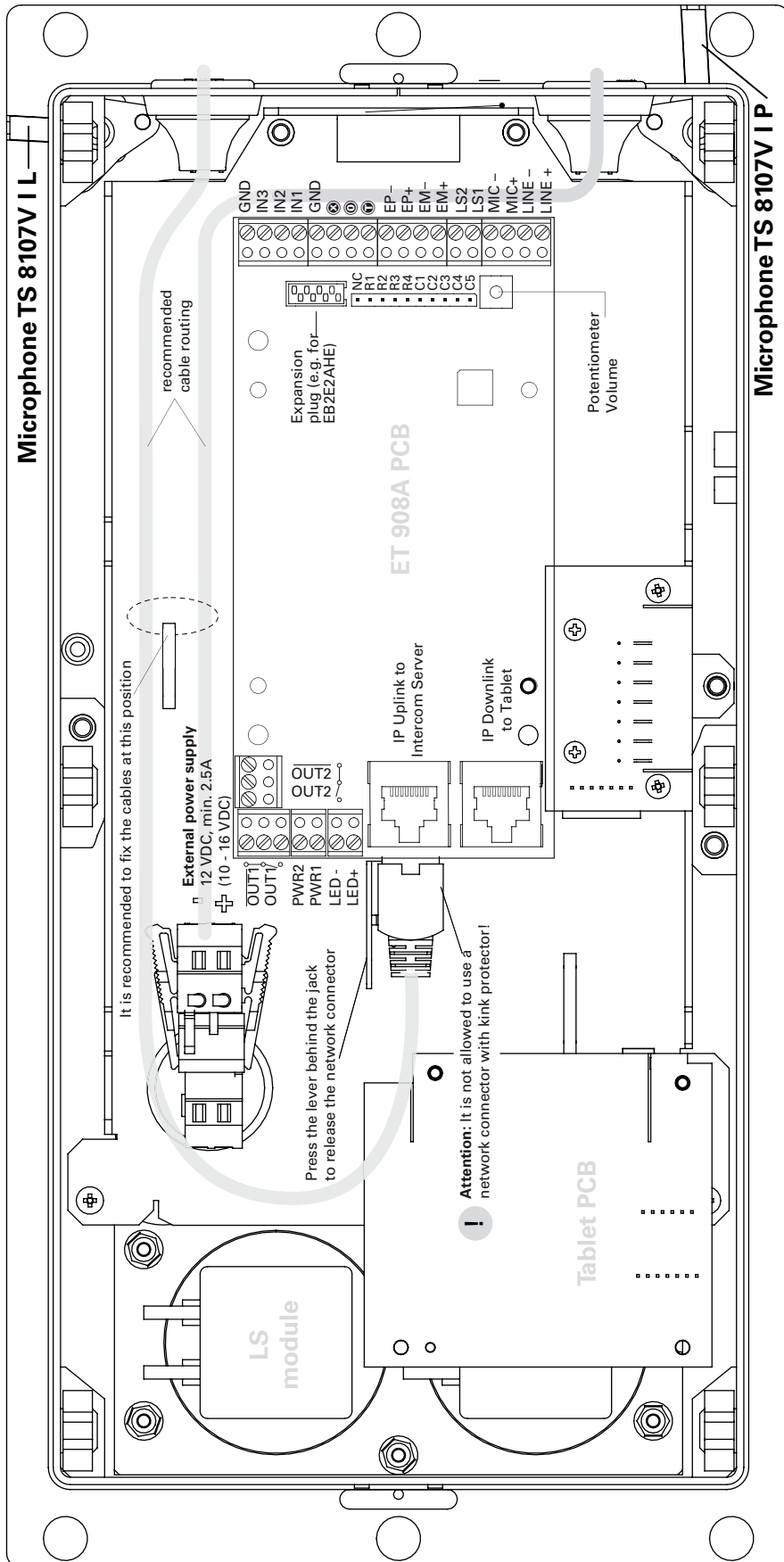
- Watertight material to be placed between wall and flush mount box (if required) has to be ordered separately from other manufacturers.

2a The flush mount box, the spacers and the mounting brackets have to be screwed together.

2b To prepare for pastering, it is recommended to fix the flush mount box to the wall via the mounting openings of the mounting brackets.

Installation

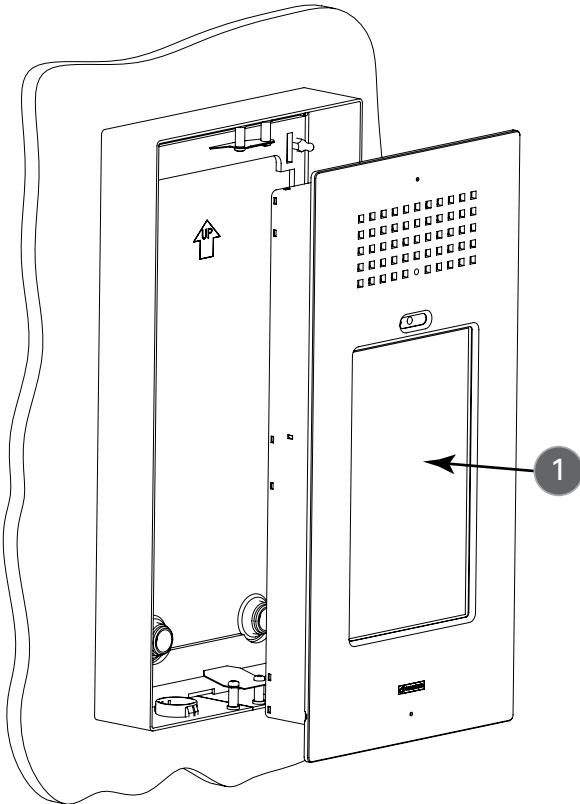
Connection



## Installation

### Frontplate TS8107V I

#### Mounting

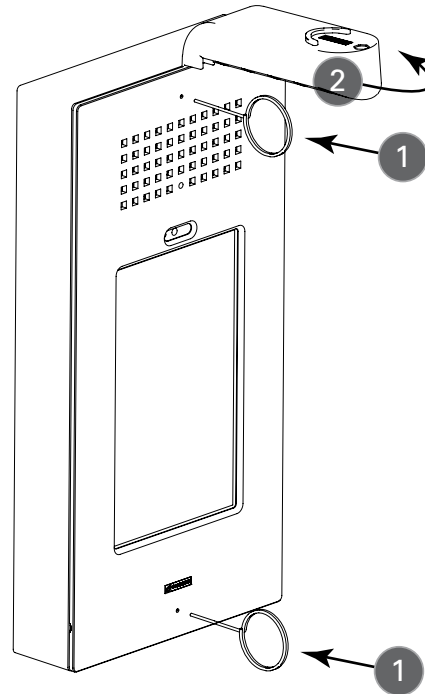


1. Press the front panel onto the mounting box.

#### Attention!

Please take care of the correct mounting direction: The microphone has to be located at the bottom edge of the terminal and it may not be covered. For the position of the microphone, please see "Connection" on page 14.

#### Demounting



1. Press the unlock tools into the openings to unlock the Intercom Terminal.  
**Attention:** Please take care to not damage the front panel with the unlock tool.
2. Insert the leverage tool WSDM P in the gap between front panel and mounting box and take off the front panel.

## Quality tested. Reliable. Smart.

COMMEND products are developed and manufactured by Commend International in Salzburg, Austria.

The development and manufacturing processes are certified in accordance with **EN ISO 9001:2008**.

## A strong worldwide network

COMMEND is represented the world over by local Commend Partners and helps to improve security and communication with tailored Intercom solutions.

ALGERIA **AUSTRALIA** AUSTRIA **BELGIUM** BRAZIL **CANADA** CHINA **CROATIA** CZECH REPUBLIC **DENMARK** FINLAND **FRANCE** GERMANY **HUNGARY** ICELAND **INDIA** IRELAND **ISRAEL** ITALY **LIECHTENSTEIN** LUXEMBURG **MOROCCO** NETHERLANDS **NEW ZEALAND** NORWAY **POLAND** PORTUGAL **RUSSIA** SERBIA **SINGAPORE** SLOVAKIA **SLOVENIA** SPAIN **SOUTH AFRICA** SWEDEN **SWITZERLAND** TUNISIA **UNITED KINGDOM** USA

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