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IP Video Door Station  
D21x Series



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D21x

## INSTALLATION MANUAL

Read these instructions carefully before starting to use any components. Keep the manual so you can refer to it at a later date if required. If you hand over the device to other persons for use, please hand over the operating manual as well.

You can always find the most up-to-date version of the installation manual on [www.doorbird.com/support](http://www.doorbird.com/support)

To make things easier we use the term “device” for the product “IP Video Door Station” and “mobile device” for a smartphone or tablet.

### Liability

Every care has been taken in the preparation of this document. Please inform Bird Home Automation GmbH of any inaccuracies or omissions. Bird Home Automation GmbH cannot be held responsible for any technical or typographical errors and reserves the right to make changes to the product and manuals without prior notice. Bird Home Automation GmbH makes no warranty of any kind with regard to the content of this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Bird Home Automation GmbH shall neither be liable nor responsible for incidental or consequential damages in connection with the furnishing, performance or use of this material. This product is only to be used for its intended purpose.

### Equipment Modifications

This equipment must be installed and used in strict accordance with the instructions given in the user documentation. This equipment contains no components that require service by the user. Unauthorized equipment changes or modifications will invalidate all applicable regulatory certifications and approvals.

### Symbols used



**Danger:** Indicates a hazardous situation which, if not avoided, will result in death or serious injury.



**Warning:** Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



**Caution:** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



**Notice:** Indicates a situation which, if not avoided, could result in damage to property.



**Important:** Indicates significant information which is essential for the product to function correctly.



**Note:** Indicates useful information which helps in getting the most out of the product.

### Hazard information



#### WARNING

- Mounting, installation and servicing work on electrical devices may only be performed by a qualified electrician. Failure to observe this regulation could result in the risk of serious damage to health or fatal injury due to electric shocks.
- Devices with 110-240 V connection: The device may only be connected to an easily accessible power socket outlet. The mains adapter must be pulled out if a hazard occurs.
- For power supply, only use the original plug-in mains adapter delivered with the device, separately available DIN rail power supplies or a recommended PoE-Switch/PoE-Injector as specified in this manual.
- Because of electrostatic charging, direct contact with the circuit board can result in destruction of the device. Direct contact with the circuit board must therefore be avoided at any time.
- Observe the EN 60065 resp. EN 60950 resp. EN 62368 standard.
- Do not use the device if there are signs of damage to the housing, control elements or connecting sockets, for example, or if it demonstrates a malfunction. If you have any doubts, please have the device checked by an authorized expert.
- Do not open the device. This voids the warranty of the device. The device does not contain any parts that can be maintained by the user. In the event of an error, please have the device checked by an authorized expert.
- For safety, approval and licensing reasons (CE/FCC/IC etc.), unauthorized change and/or modification of the device is not permitted.
- The device is not a toy: do not allow babies and children to play with it.
- To avoid the danger of suffocation, keep any packing materials away from babies and children. Plastic films/bags, pieces of polystyrene, etc. are not a toy and can be dangerous in the hands of a child. Discard any packing materials immediately after removing the product. Do not reuse packing materials.
- Always lay cables in such a way that they do not become a risk to people and domestic animals.
- Voltage is applied to parts within the equipment. Do not touch any parts that are

**WARNING**

not associated with the installation, wiring, or connection. Electric shock could result.

- On devices which are not marked as weather-proof: Keep the device away from water or any other liquid.
- Do not install or make any wire terminations while power supply is plugged in. It can cause electric shock or damage to the device.
- Before turning on power, make sure wires are not crossed or shorted. If not, fire or electric shock could result.
- High voltage may be present internally. Do not open the device. Electric shock could result.
- The device is not of explosion-proof. Do not install or use near gases or flammable materials. Fire or explosion could result.
- Do not install two power supplies in parallel to a single input. Fire or damage to the device could result. Be sure to connect a single power supply to the device.
- Do not connect any terminal on the device to an AC power line. Fire or electric shock could result.
- Keep AC cord from being marred or crushed. If the AC cord is fractured, fire or electric shock could result.
- Do not plug or unplug with wet hands. Electric shock could result.
- Do not put any metal or flammable material into the device. Fire, electric shock, or device trouble could result.
- Existing wiring may contain high voltage AC electricity. Damage to the device or electric shock could result. Wiring and installation must be done by a qualified electrician.
- When mounting the device on a wall or ceiling, install the device in a convenient location, but not where it could be jarred or bumped. Injury could result.
- On devices with ground terminals, connect to an earth ground. Otherwise fire or malfunction could result.
- On devices with plastic or real glass, do not put high pressure on the glass. If fractured, injury could result.
- On devices with LCD, if LCD is punctured, do not allow contact with the liquid crystal inside. Injury could result. If necessary, gargle your mouth and clean your eyes or skin with clear water for at least 15 minutes and consult your doctor.
- Do not put anything on the device or cover the device with cloth, silicone, glue, coating, separate covering etc. Fire or device issues

could result.

- Do not install the device in any of the following locations. Fire, electric shock, or device trouble could result.
- Places under direct sunlight or places near heating equipment that varies in temperature.
- Places subject to dust, oil, chemicals, hydrogen sulfide (hot spring).
- Places subject to moisture and humidity extremes, such as bathrooms, cellars, greenhouses, etc.
- Places where the temperature is very low, such as inside a refrigerated area or in front of an air conditioner.
- Places subject to steam or smoke (e.g. near heating or cooking surfaces).
- Where noise generating devices such as dimmer switches or inverter electrical appliances are closeby.
- Locations subject to frequent vibration or impact.
- On devices with intercom, be sure to perform a call test with low audio volume on both intercom devices. A sudden call etc. may arrive causing for example damage to your ear.
- If the device does not operate properly, unplug the power supply.
- All devices which are not marked as weather-proof are designed for indoor use only. Do not use outdoor.
- On devices which are marked weather-proof: Do not spray with high-pressure water. Device issues could result.
- We do not assume any liability for damage to property or personal injury caused by improper use or the failure to observe the hazard information. In such cases, any claim under warranty ceases. For consequential damages, we assume no liability!

**Safety instructions**
**NOTICE**

- The device shall be used in compliance with local laws and regulations.
- Store the device in a dry and ventilated environment.
- Avoid exposing the device to shocks or heavy pressure.
- Do not install the device on unstable brackets, surfaces or walls. Make sure the material is strong enough to support the weight of the device.
- Use only applicable tools when installing the device. Using excessive force with tools could

cause damage to the device.

- Do not use chemicals, caustic agents, or aerosol cleaners.
- Use a clean dry cloth for cleaning.
- Use only accessories that comply with technical specification of the device. These can be provided by Bird Home Automation GmbH.
- Use only spare parts provided by or recommended by Bird Home Automation GmbH.
- Do not attempt to repair the device by yourself. Contact Bird Home Automation GmbH for service matters.
- Keep the device more than 1 m (3.3') away from microwave, radio, TV, wireless router and any other wireless devices.
- On devices with intercom or built-in speaker or built-in microphone or signal transmission functions, keep the wires more than 30 cm (12") away from AC 100-240 V wiring. AC induced noise and/or device malfunction could result.
- Install the device in an area that will be accessible for future inspections, repairs and maintenance.
- If the device is used close to a cellular phone, the device may malfunction.
- The device can be damaged if dropped. Handle with care.
- The device turns inoperative during power failure.
- On devices with intercom or built-in speaker or built-in microphone, in areas where cellular or Radio / TV broadcasting station antennas are closeby, the device may be affected by radio frequency interference.
- On devices with LCD screen, it must be noted in advance that the LCD panel, though manufactured with very high precision techniques, inevitably will have a very small portion of its picture elements always lit or not lit at all. This is not considered a device malfunction.
- On devices with intercom, due to the environmental sound around the device, it may hinder smooth communication, but this is not a malfunction.
- On devices with Username/Password, the Username/Password to access the device is the customer's responsibility. Make sure to use a password that cannot be easily guessed by a third party. We recommend that you change the Password on a regular basis.
- We will, under no circumstances, be liable for damage that occurs due to failures in power supply, network equipment or terminal

devices; failures due to Internet providers and cellular network providers; failures such as disconnected lines and other losses in communication, which makes it impossible to provide this service as well as in any way delay this service due to any other causes outside of our responsibility; or if an error or missing data occurs during transmission.

#### **FCC Caution:**

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

#### **IC Statement**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference,

including interference that may cause undesired operation of the device.

“Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes:

- (1) l’appareil nedoit pas produire de brouillage, et
- (2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.

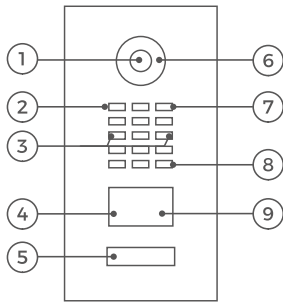
“Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.”

IC radiation exposure: This equipment complies with ISED radiation exposure limits defined for a controlled environment. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

“IC exposition aux radiations: Cet équipement est conforme avec ISED les limites d’exposition aux rayonnements définies pour un contrôlé environnement. Cet émetteur ne doit pas être co-localisés ou fonctionner en conjonction avec une autre antenne ou émetteur.”

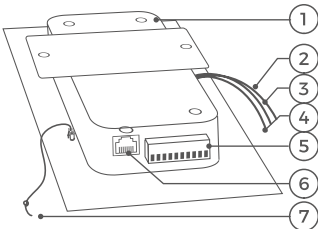
### DEVICE EXAMPLE WITH 1 CALL BUTTON

#### Front



- 1) HDTV Video
- 2) Light Sensor  
For night vision mode
- 3) Security screws
- 4) Motion Sensor
- 5) Illuminated call button with nameplate  
The illumination is also acting as Diagnostic LED(s).
- 6) Night Vision LEDs
- 7) Microphone
- 8) Loudspeaker
- 9) RFID Reader

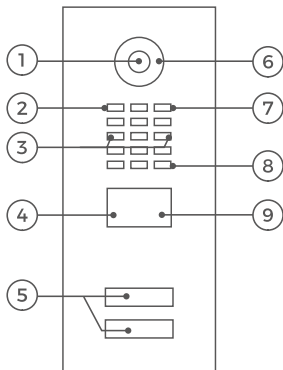
#### Inside



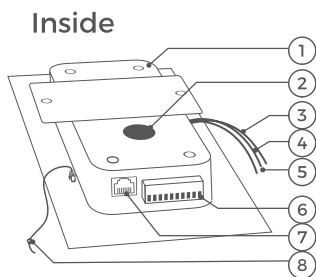
- 1) Main Electrical Unit
- 2) Yellow cable for call button  
Connected to the illuminated call button with nameplate
- 3) Red cable for Module Port 1(unused)
- 4) Green cable for Module Port 2 (unused)
- 5) Screw connection terminal
- 6) LAN/PoE jack
- 7) Nylon cord  
To secure the front panel during assembly

### DEVICE EXAMPLE WITH 2 AND MORE CALL BUTTONS

#### Front



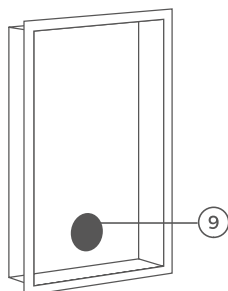
- 1) HDTV Video
- 2) Light Sensor  
For night vision mode
- 3) Security screws
- 4) Motion Sensor
- 5) Illuminated call buttons with nameplate  
The illumination is also acting as Diagnostic LED(s).
- 6) Night Vision LEDs
- 7) Microphone
- 8) Loudspeaker
- 9) RFID Reader



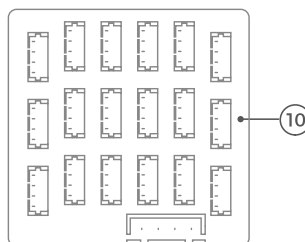
- 1) Main Electrical Unit
- 2) Velcro tape 1  
To fix the Multi Tenant Module temporary on the Main Electrical Unit during assembly

- 3) Yellow cable for call button (unused)
- 4) Red cable for Module Port 1  
Connected to Multi Tenant Module
- 5) Green cable for Module Port 2 (unused)

- 6) Screw connection terminal
- 7) LAN/PoE jack
- 8) Nylon cord  
To secure the front panel during assembly



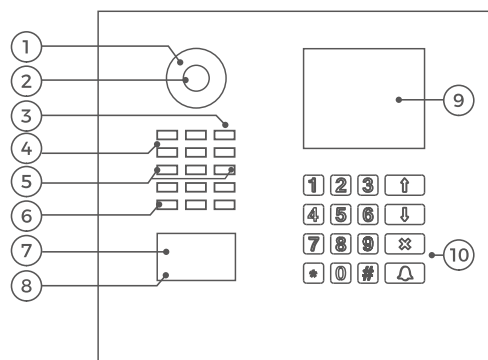
- 9) Velcro tape 2  
To fix the Multi Tenant Module permanently on the backbox



- 10) DoorBird Multi Tenant Module MTM18A

## DEVICE EXAMPLE WITH DISPLAY MODULE AND KEYPAD MODULE

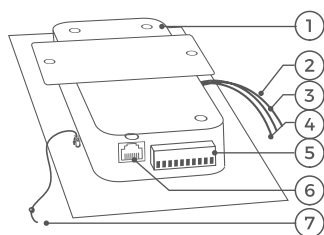
### Front



- 1) Night Vision LEDs
- 2) HDTV Video
- 3) Microphone
- 4) Light Sensor  
For night-vision mode
- 5) Security screws
- 6) Loudspeaker
- 7) RFID Reader
- 8) Motion Sensor

- 9) Display Module
- 10) Keypad Module  
The illumination is also acting as Diagnostic LED(s)

### Inside



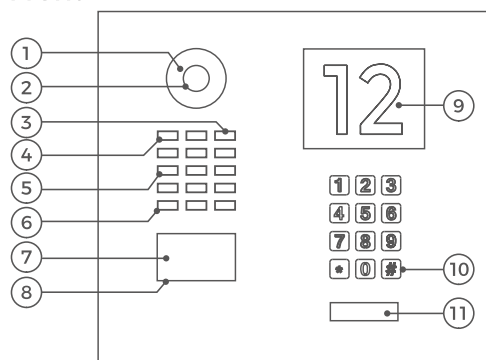
- 1) Main Electrical Unit
- 2) Yellow cable for call button (unused)
- 3) Red cable for Module Port 1  
Connected to the Display Module

- 4) Green cable for Module Port 2  
Connected to the Display Module
- 5) Screw connection terminal
- 6) LAN/PoE jack

- 7) Nylon cord  
To secure the front panel during assembly

## DEVICE EXAMPLE WITH INFO MODULE AND KEYPAD MODULE

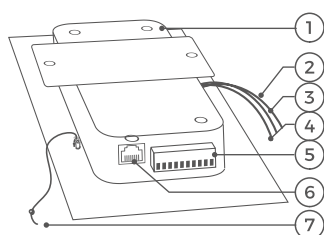
### Front



- 1) Night Vision LEDs
- 2) HDTV Video
- 3) Microphone
- 4) Light Sensor  
For night-vision mode
- 5) Security screws
- 6) Loudspeaker
- 7) RFID Reader
- 8) Motion Sensor
- 9) Info Module

- 10) Keypad Module  
The illumination is also acting as Diagnostic LED(s)
- 11) Illuminated call button with nameplate  
The illumination is also acting as Diagnostic LED(s).

### Inside



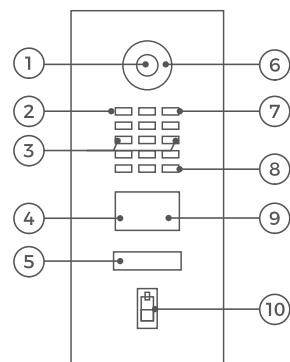
- 1) Main Electrical Unit
- 2) Yellow cable for call button  
Connected to the illuminated call button with nameplate

- 3) Red cable for Module Port 1  
Connected to the Keypad Module
- 4) Green cable for Module Port 2  
Connected to the Info Module

- 5) Screw connection terminal
- 6) LAN/PoE jack
- 7) Nylon cord  
To secure the front panel during assembly

## DEVICE EXAMPLE WITH FINGERPRINT READER MODULE

### Front

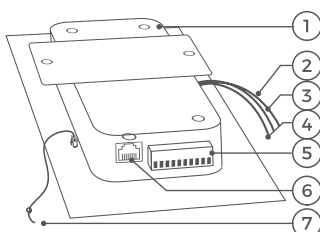


- 1) HDTV Video
- 2) Light Sensor  
For night vision mode
- 3) Security screws
- 4) Motion Sensor

- 5) Illuminated call button with nameplate  
The illumination is also acting as Diagnostic LED(s).
- 6) Night Vision LEDs

- 7) Microphone
- 8) Loudspeaker
- 9) RFID Reader
- 10) Fingerprint Reader

### Inside



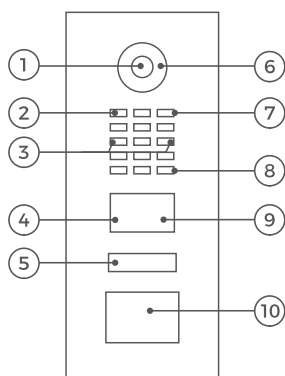
- 1) Main Electrical Unit
- 2) Yellow cable for call button  
Connected to the illuminated call button with nameplate

- 3) Red cable for Module Port 1  
Connected to the fingerprint reader module
- 4) Green cable for Module Port 2  
(unused)

- 5) Screw connection terminal
- 6) LAN/PoE jack
- 7) Nylon cord  
To secure the front panel during assembly

## DEVICE EXAMPLE WITH TOUCH FREE CALL BUTTON

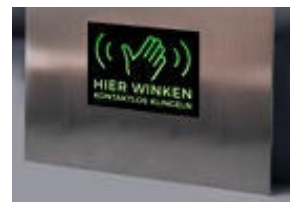
### Front



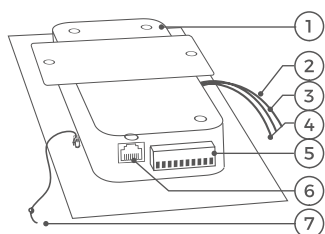
- 1) HDTV Video
- 2) Light Sensor  
For night vision mode
- 3) Security screws
- 4) Motion Sensor

- 5) Illuminated  
call button with  
nameplate  
The illumination is  
also acting as  
Diagnostic LED(s).
- 6) Night Vision LEDs

- 7) Microphone
- 8) Loudspeaker
- 9) RFID Reader
- 10) Touch Free Call  
Button to initiate door  
calls without contact



### Inside



- 1) Main Electrical Unit
- 2) Yellow cable for  
call button  
Connected to  
the illuminated call  
button and Touch  
Free Call Button  
module

- 3) Red cable for Module  
Port 1  
Connected to the  
Touch Free Call  
Button module
- 4) Green cable for  
Module Port 2  
(unused)

- 5) Screw connection  
terminal
- 6) LAN/PoE jack
- 7) Nylon cord  
To secure the front  
panel during assembly

Some door stations of the D21x series have an optional additional Accessibility Module including status display with three pictograms [calling, speaking, door opening], door opening acoustics and hearing loop. The module complies with DIN 18040 (Construction of accessible buildings) when installed properly. The power supply for the hearing loop must be provided by a separate power supply unit (15 - 48 VDC, 1 A) due to the high power consumption.

## VIDEOS

Need help with the installation? Be sure to watch our installation videos which can be found on <http://www.doorbird.com/support>

Each individual step of the installation is clearly documented in the videos.

## INSTALLATION

All the steps below should be carried out carefully by a competent adult, taking into consideration any applicable safety regulations. Please contact us directly or seek the advice of a competent specialist.

Please ensure that all wires used for the installation are undamaged along their entire length and approved for this type of use.

### Network speed and network components

Please ensure that the upload speed of your Internet connection is at least 0.5 Mbps. You can also carry out a speed test at any time via the DoorBird App. The user experience is only as good as your network speed, network stability and quality of your network

components, such as your Internet Router and WiFi access points or WiFi repeaters. Please also make sure that your network components are no older than two years, have been manufactured by a well-known manufacturer, and have the latest firmware installed.

Should these requirements not be fulfilled, it may occur, for example that the performance of audio and video is poor or push notifications are delayed or do not arrive on your smartphone or tablet at all.

### Requirements:

High-speed Internet (via landline): DSL, cable or optical fibre

Network: Ethernet, with DHCP

## 1

## SWITCHING OFF POWER



Switch off the power to all wires leading to the assembly location, i.e. the door chime, electric door opener, power supply unit for the video door station etc.

## 2

## DISMANTLING THE EXISTING DOORBELL

Should there already be a doorbell or door station on the exterior wall of the house, please dismantle it.

## 3

## DETERMINING THE ASSEMBLY LOCATION

The device uses an ultra wide-angle hemispheric lens so that even when the person is a minimum distance of 50 cm (19.68 in) away from the device, a low installation height is sufficient. The lens is therefore not mechanically adjustable. The camera lens should be located at an altitude of at least 145 cm (57 in). You may check this prior to the final mounting.

When choosing the assembly location, consider the lighting conditions. Avoid direct sunlight, direct backlight and reflective surfaces.



**NOTICE** Do not expose the device to direct sunlight. The housing temperature can exceed the maximum allowed temperature limit. This can result in damage of electric and mechanic components of the device and injuries especially when touching exterior parts of the device. White and bright silver-colored front plates absorb less sunlight than dark ones.



**NOTICE** An image sensor must not be exposed to direct sunlight for an extended period of time. Direct sunlight will “blind” the camera and may permanently bleach the small color filters on the image sensor chip.



Any defects caused by direct sunlight are not covered by warranty.

The network cable between the device and the PoE-Switch/PoE-Injector/Internet Router can have a maximum length of 80 meters/262 feet (IEEE 802.3).

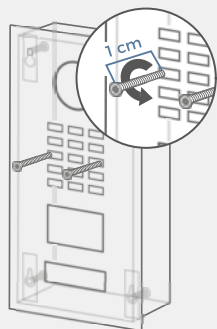


If you have only two wires available at the assembly location, you may use of the “DoorBird 2-Wire Ethernet PoE Converter A1071”, sold separately. It allows you to transfer network data (Ethernet) and power (PoE) with a simple two-wire cable over long distances. For example; existing buildings with a simple two-wire bell wire can be equipped with network technology without having to retrofit any network cables.

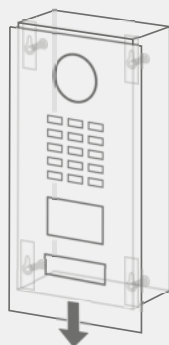
## 4

## REMOVING THE FRONT PANEL

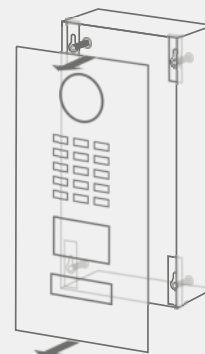
Remove the front panel carefully using the screw driver provided with the device from the mounting housing (backbox).



1.) Turn out the security screws for 1 cm



2.) Pull down the front panel.



3.) Pull the front panel towards you.

## 5

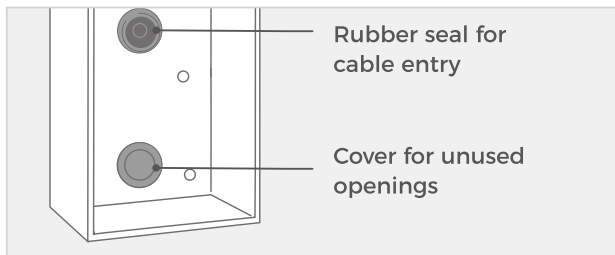
### ASSEMBLING THE MOUNTING HOUSING

Remove the front panel carefully using the screw driver provided with the device from the mounting housing (backbox). You can find detailed drawings and measurements of the device in the corresponding datasheet.

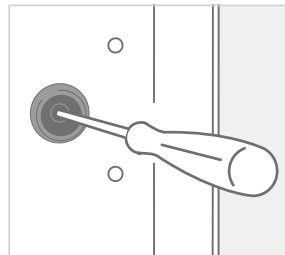


If you must drill holes in a wall, insert screws into a wall or lever up a wall, ensure that no cables or mains (gas, water, etc.) are to be found in the wall.

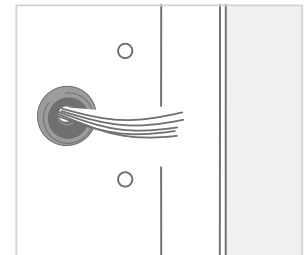
#### Mounting the surface-mounted housing



Place the rubber seal for the cable entry on the mounting opening.



Pierce through the middle of the rubber seal using a screwdriver.



Feed all cables and wires that you want to connect to the device through the rubber seal.

#### Important note for cavity mounting (e.g. in pedestals and mailboxes):



To protect the electronic units, please ensure that the technical components are protected against dripping and running water caused by condensate or entering the mounting space through openings. To protect the electronic units, ensure that the mounting space inside is not accumulating water.



Sufficient air circulation must be ensured, as well as unobstructed drainage of water at the base of the installation.

Failure to do so will result in warranty being declined.

## 6

### POWER SUPPLY

The device is powered via PoE (Power over Ethernet) using a network cable because the network connection of the device is exclusively via LAN.



#### POWER SUPPLY AND NETWORK CONNECTION USING POE (POWER OVER ETHERNET)

To power the device via a PoE-Switch (e.g. D-Link DGS-1008P) or PoE-Injector (e.g. DoorBird Gigabit PoE Injector A1093) in accordance with the PoE standard IEEE 802.3af Mode A, the four wires bearing the numbers 1, 2, 3 and 6 of a Cat.5 cable or better are to be used. Make sure to use a high-quality Cat.5 network cable or better and with proper shielding (Screened Foiled Twisted Pair (S/FTP or SFTP)) whereby the shield is connected to the outer metal shield of the RJ45 plug (8P8C). If you use PoE as a source of power the four wires for PoE then simultaneously form the data link.

The device won't start if your PoE-Switch/PoE-Injector does not support the PoE Standard IEEE 802.3af Mode A (see Diagnostic-LED and Diagnostic-Sounds).



1. Disconnect the PoE-Switch or PoE-Injector from the power grid.
2. Run the network cable to the installation location of the device.

Further information on PoE can be found here: <http://www.doorbird.com/de/poe>

## 7

## CONNECTING THE DEVICE

It is possible to connect the cables and wires to the device conveniently and safely via labelled connection ports. You can connect all necessary cables and wires to the device now. Please remove any cables and wires from the connection ports of the device that you do not need. Remove about 5 mm of insulation material at the end of the wires that you would like to connect to the green screw connection terminal of the device.

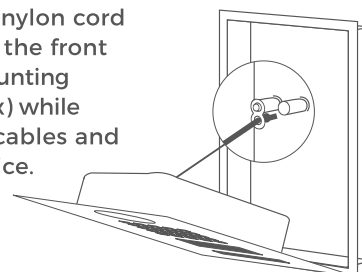


Please take care when connecting the cables and wires. Connecting the cables and wires the wrong way may damage the device. Wires without insulation material must not protrude out of the green screw connection terminal, it may lead to electrical short and damage the device.

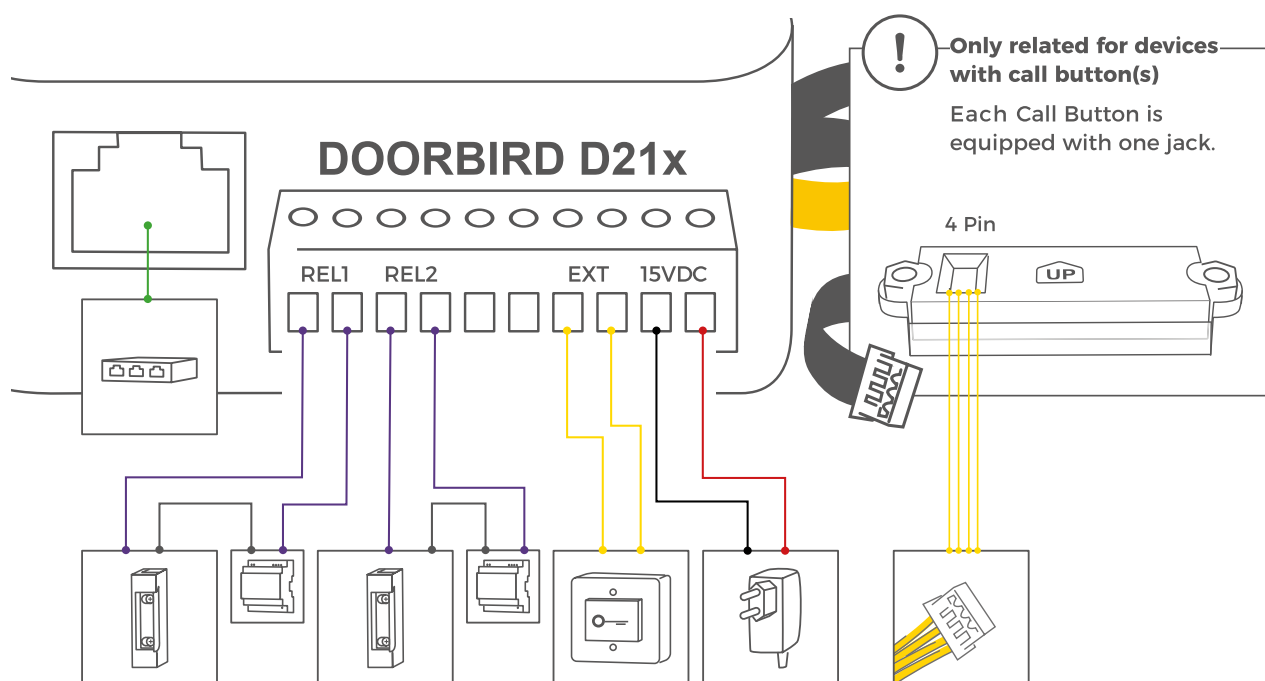


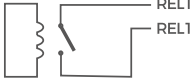
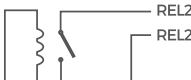
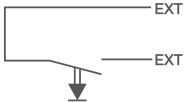
The yellow, green, and red cables that lead out from the side of the Main Electrical Unit must only be used to connect components certified by Bird Home Automation.

You can use the nylon cord to temporary fix the front panel to the mounting housing (backbox) while connecting the cables and wires to the device.



Handle the front panel with care. The surface of the front panel could be scratched or otherwise damaged if handled without care.



| PORT                                                                                            | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LAN/POE                                                                                         | <p>RJ45 jack to connect the Network coming from the Internet Router/PoE-Switch/PoE-Injector.</p> <p><b>NOTICE</b> Do not power the device simultaneously via the power supply from the power supply unit (mains adaptor) and the power supply via PoE.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| REL1, REL1<br> | <p>Bi-stable latching relay #1, max. 24 V DC/AC, 1 Ampere. Security feature: The relay keeps its state even in the case of loss of power. You can configure the default state of the relay (open/close) via the DoorBird App. These ports can be used to connect e.g. an electric door opener. The device does not supply power to the connected device. The power supply for the electric door opener must be installed separately.</p> <p><b>i</b> When wiring an electric door opener directly to a door station, there is a risk that the electric door opener could be tampered by unauthorized third parties (e. g. by breaking the door station and short-circuiting the wiring of the door opener). Therefore, we generally recommend the use of a remote safety relay mounted indoors (e. g. DoorBird I/O Door Controller A1081) for wiring an electric door opener for a more secure installation in your home.</p> |
| REL2, REL2<br> | <p>Bi-stable latching relay #2, max. 24 V DC/AC, 1 Ampere. Security feature: The relay keeps its state even in the case of loss of power. You can configure the default state of the relay (open/close) via the DoorBird App. These ports can be used to connect e.g. an electric door opener. The device does not supply power to the connected device. The power supply for the electric door opener must be installed separately.</p> <p><b>i</b> When wiring an electric door opener directly to a door station, there is a risk that the electric door opener could be tampered by unauthorized third parties (e. g. by breaking the door station and short-circuiting the wiring of the door opener). Therefore, we generally recommend the use of a remote safety relay mounted indoors (e. g. DoorBird I/O Door Controller A1081) for wiring an electric door opener for a more secure installation in your home.</p> |
| BELL, BELL                                                                                      | <p><b>NOTICE</b> Reserved – Do not use!</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| EXT, EXT<br> | <p>Door opener button, max. 0 V DC/AC, 0 Ampere. These ports can be used to connect e.g. a door opener button inside the home. It will trigger the first bi-stable latching relay of the device (REL1, REL1).</p> <p><b>NOTICE</b> Please make sure to add no voltage on these ports. Extra voltage may destroy the device immediately.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 15 VDC -                                                                                        | <p>15 V DC Power supply input, negative pole (-). Since no power supply unit is included in the scope of delivery, we do not test the power supply via power supply unit at the device. We only recommend PoE, since it is standardized, and the network connection of the device is exclusively via LAN.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 15 VDC +                                                                                        | <p>15 V DC Power supply input, positive pole (+). Since no power supply unit is included in the scope of delivery, we do not test the power supply via power supply unit at the device. We only recommend PoE, since it is standardized, and the network connection of the device is exclusively via LAN.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



**Only related for devices with call button(s):** \_\_\_\_\_

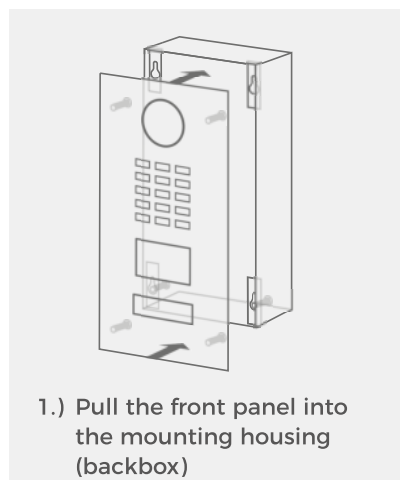
4 PIN (SWITCH)

Use the yellow cable to connect the button to the IP Video Door Station.

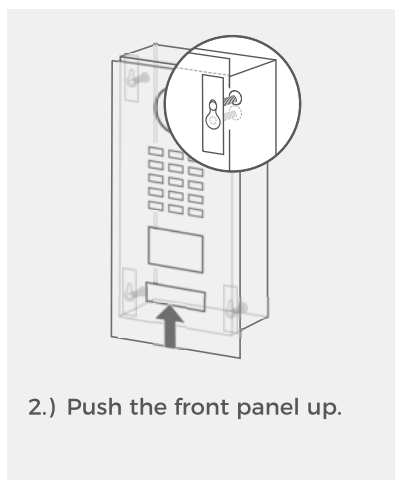
## 8

## ASSEMBLING THE FRONT PANEL

Assemble the front panel of the device to the mounting housing (backbox) of the device.



1.) Pull the front panel into the mounting housing (backbox)



2.) Push the front panel up.



3.) Insert the security screws.

## 9

## ACTIVATING THE DEVICE

Switch on the power leading to the assembly location again. Turn on the PoE switch/PoE injector that is connected to the device.

You can see if the device is powered by checking the Diagnostic-LED, which lights up after about 30 to 60 seconds after the power is connected. The device is ready for operation (booting up process, any software updates, etc.) once it has emitted a short diagnosis sound from the integrated loudspeaker. This may last for up to 5 minutes. If the Diagnostic LED does not light up, please check the power supply. Please also check whether you have used a wall-plug power supply and not PoE and whether you have connected the positive pole and negative pole to the device correctly.

## 10

## DOWNLOADING AND INSTALLING THE APP

Download the "DoorBird" App by Bird Home Automation onto your mobile device from the Apple App Store or Google Play Store. You can always find the most up-to-date version of the App manual on [www.doorbird.com/support](http://www.doorbird.com/support)

Go to DoorBird App "Settings > Add device" and click on the QR code icon in the "User" field. Scan the user QR code found on the "Passaporto digitale" provided with the device.

If you have problems adding the device to the App, please check if the device is online ([www.doorbird.com/checkonline](http://www.doorbird.com/checkonline)). If the device is not online, please check the network connection and the power supply of the device.

## DIAGNOSTIC-LED

You can see if the device is powered by checking the Diagnostic-LED, which lights up after about 30 to 60 seconds after the power is connected.

## DIAGNOSTIC-SOUNDS

After around one to five minutes, the device emits brief diagnostic sounds after it has been connected to the power grid.

## MOTION SENSOR

The device has a built-in Motion Sensor with 4D Technology. You can use it for numerous applications, e. g. to send an alarm to a mobile device or to switch a relay to turn on an outdoor light.

## RFID READER

The built-in RFID reader can be used for many applications, e.g. to open/lock doors or arming/disarming your alarm system. For security reasons, the RFID reader has a very short range (0 - 3 cm, 0 - 1.18 in), so you must place the compatible RFID tag (key fob) very close to the RFID reader. You can configure the RFID reader using the DoorBird App.



The RFID reader works only on short distance, for security reasons.

## API

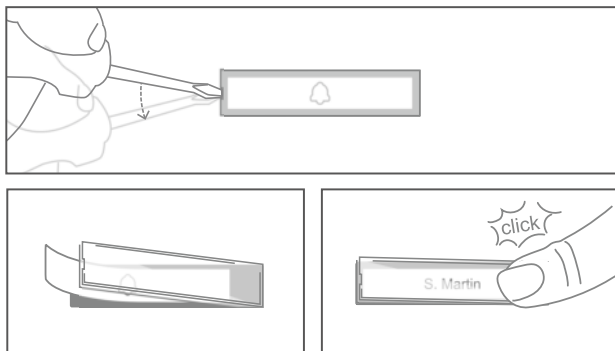
The device features a well documented API for third-party integration. For information, terms and conditions see [www.doorbird.com/api](http://www.doorbird.com/api)

## DOORBIRD CONNECT

The device features many options to integrate it into third-party applications. For information, terms and conditions see [www.doorbird.com/connect](http://www.doorbird.com/connect)

## CHANGING THE LABEL OF A CALL BUTTON NAMEPLATE

Applies only to devices with 1 and more illuminated call buttons with nameplate.



## Engraving Service



Engraving service for a modern and clean appearance: [www.doorbird.com/engraving](http://www.doorbird.com/engraving)



Please follow STEP 1 to switch off power. We recommend to use a thin slot screwdriver to remove the cover of the nameplate. We recommend to use white paper for the label which does not absorb moisture.

## CHANGING THE LABEL OF THE INFO MODULE



Applies only to devices with Info Module.

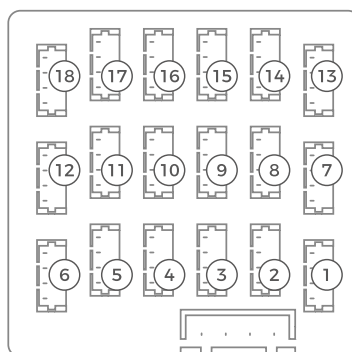
Please follow STEP 1 to switch off power and STEP 2 to open the device. You can then change the labeling of the Info Module in the inside. We recommend to use white paper for the label which does not absorb moisture.

## CONNECTING CALL BUTTONS TO THE MULTI TENANT MODULE



Applies only to devices with 2 and more illuminated call buttons with nameplate.

Connect only call buttons to the Multi Tenant Module (e.g. Multi Tenant Module MTM18A) certified by Bird Home Automation.



① = 1. call button jack

⑱ = 18. call button jack

## MAINTENANCE FOR DOORBIRD PRODUCTS

### Cleaning and maintenance instructions

All DoorBird door stations are made of high-quality materials and are designed for a durable lifetime. Since door stations are usually installed in unprotected outdoor areas, they are exposed to adverse weather conditions and aggressive substances, especially close to frequently used roads, in coastal and industrial areas. Therefore please consider the following care instructions. Unfortunately, we cannot accept any liability for damage if these instructions are not being observed.

Aggressive dirt such as bird droppings should be removed as quickly as possible.

**NOTICE** Never use abrasive detergents such as steel wool or scouring milk!

Warm water is usually sufficient, if necessary with a little detergent, a soft cloth or brush. Plastic parts (camera or name tags) must not be treated with metal care products. Remove all residues of cleaning agents or lubricants to avoid stains or discolouration after the maintenance.

### Stainless Steel

Only high-quality German stainless steel is used for all available DoorBird door stations. However, high-quality stainless steel can also rust, as approx. 70 % of stainless steel is made of iron. Rust resistance is only achieved by a protective layer (also called passive layer), which covers the iron like a skin. This protective layer consists essentially of chromium and other precious metals.

Iron particles, grinding dust and chips deposited on stainless steel can lead to corrosion (rust film). These iron particles can be found everywhere, but especially in coastal and industrial areas and close to frequently used roads. Please remove ferrous deposits immediately, as they will attack your door station and lead to real rust if not removed. To remove rust, simply wipe off the dust; in addition, a care product is recommended, e.g. WD 40, available e.g. at Amazon for less than € 5.00. Simply apply in a thin layer and rub in. The same applies if rust appears on the engravings on the stainless steel surface.

Cement or lime splashes should be carefully removed as soon as possible with a wooden spatula before hardening.

The following cleaning detergents are not to be used as they reduce corrosion resistance:

- products containing chloride and hydrochloric acid
- Bleach (in case of accidental use, rinse thoroughly with water)
- Silver polish

After the cleaning with clear water wipe with damp cloth and rub dry to avoid lime traces. Lime residues can be avoided by using demineralised water.

### Stainless steel PVD coated

PVD coated, chrome-plated or gold-plated surfaces are recommended to be cleaned with a grease-dissolving detergent and clear water or with a clean and dust-free microfibre cloth. For high-gloss surfaces, use a scratch-free cloth (e.g. cleaning cloth for glasses, furniture polishing cloth, etc.).

### Lacquered surfaces

Clean painted surfaces and lettering with a soft, scratch-free cloth moistened with a mild soap solution (e.g. cleaning cloth for glasses, furniture polishing cloth, etc.). To prevent stains or discolouration, the detergents should be wiped off without leaving any residue. Be particularly careful with lettering in order not to damage the film or the print.

### Real burnished brass and architectural bronze

The surface finish „real burnished brass“ and „architectural bronze“ is a cold burnished finish, which is sealed with a boat wax. As the surface is open to diffusion, it is advisable to apply a subsequent layer of wax at intervals (approx. 6-18 months) using a soft cloth (flow cloth), allow it to soak in for a while and then rub it evenly dry with a dry cloth. We recommend a wax such as Teroson WX 990 by Henkel.

**Chemical cleaning agents of any kind must NOT be used.**

Avoid touching the surface with your fingers during installation. Wearing powder-free latex gloves is recommended.

Depending on the weather conditions, the processed surface may change, forming its characteristic, individual appearance.

## TECHNICAL SPECIFICATIONS

### GENERAL

|                 |                                                                                                                                                                                                                                                                          |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply    | 15 V DC (max. 15 W) or Power over Ethernet (PoE 802.3af Mode-A)                                                                                                                                                                                                          |
| Info Module*    | 3.5", illuminated                                                                                                                                                                                                                                                        |
| Display Module* | 3.5" LCD (no touch function), illuminated, for the display of a 2-line free text and the name directory (max. 200 entries)                                                                                                                                               |
| Keypad Module*  | 16 keys, illuminated, configurable via App, e.g. <ul style="list-style-type: none"> <li>• Individual PIN codes</li> <li>• Individual events (e.g. switch a relay, push notification, SIP call [audio/video], HTTP(s) request)</li> <li>• Individual schedules</li> </ul> |

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accessibility module* | <ul style="list-style-type: none"> <li>• Separate power supply: 15 - 48 VDC, 1 A</li> <li>• Status display with three pictograms [calling, speaking, door opening], door opening acoustics and hearing loop</li> <li>• Approval according to DIN 18040</li> </ul>                                                                                                                                                                               |
| Connectors            | <ul style="list-style-type: none"> <li>• RJ45, for LAN/PoE</li> <li>• Bistable latching relay #1, max. 24 V DC/AC, 1 A, e.g. for electric door opener</li> <li>• Bistable latching relay #2, max. 24 V DC/AC, 1 A, e.g. for electric door opener</li> <li>• External input for external door opener button</li> <li>• 15 V DC input (+, -), max. 15 W</li> <li>• Relays can be expanded / detached with DoorBird I/O Door Controller</li> </ul> |
| Weather-proof         | Yes, IP65                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Approvals             | IP65, CE, FCC, IC, RoHS, IK08, REACH, IEC/EN 62368, IEC/EN 62471                                                                                                                                                                                                                                                                                                                                                                                |
| Operating conditions  | -25 to +55°C / -13 to 131°F<br>Humidity 10 to 85 % RH (non-condensing)                                                                                                                                                                                                                                                                                                                                                                          |
| Scope of delivery     | 1x Main Electrical Unit<br>1x Front panel*<br>(110 - 240 V AC to 15 V DC)<br>1x RFID key fob<br>1x Screwdriver<br>1x Quickstart guide with Passaporto digitale<br>1x Installation manual<br>1x Small parts                                                                                                                                                                                                                                      |
| Warranty              | see <a href="http://www.doorbird.com/warranty">www.doorbird.com/warranty</a>                                                                                                                                                                                                                                                                                                                                                                    |

#### CURRENT SYSTEM REQUIREMENTS

|                                 |                                                                                                                                                                                                                                                   |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System requirements             | Mobile device: Newest iOS on iPhone/iPad, newest Android on Smartphone/Tablet<br><br>Internet: High-Speed Landline Broadband Internet connection, DSL, cable or fiber optic, no socks or proxy server<br><br>Network: Ethernet Network, with DHCP |
| Recommended installation height | Camera lens should be at a min. height of 145 cm (57 in). Before the installation please determine your optimal installation height.                                                                                                              |

#### VIDEO

|              |                                                                                                   |
|--------------|---------------------------------------------------------------------------------------------------|
| Camera       | HDTV 720p, dynamic (VGA - HDTV)                                                                   |
| Lens         | High-end ultra wide-angle hemispheric lens 180° (D), 140° (H), 100° (V), straightened, IR-capable |
| Night-vision | Yes, light sensor, automatic IR-cut filter, 12 Infrared LEDs (850 nm)                             |

#### AUDIO

|                  |                                                                          |
|------------------|--------------------------------------------------------------------------|
| Audio components | Speaker and microphone, noise reduction and echo cancellation (ANR, AEC) |
| Audio streaming  | Two-way, full duplex                                                     |

#### NETWORK

|                     |                                                                                                                                     |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet            | RJ45 jack, PoE 802.3af Mode-A, 10/100 Base-T                                                                                        |
| Supported protocols | HTTP, HTTPS, SSL/TLS, Bonjour, DNS, RTSP, RTP, TCP, UDP, RTP, ICMP, DHCP, ARP, SIP, DTMF (RTP [RFC-2833], SIP INFO [RFC-2976]), STM |

#### MOTION SENSOR

|                 |                                                                                                                                                                                                                                                                                                              |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type            | Active                                                                                                                                                                                                                                                                                                       |
| Detection angle | 54° (H), 70° (V)                                                                                                                                                                                                                                                                                             |
| Range           | 1 - 10 m (3.3 - 32.9 ft), depends on environment, configurable in 1 m (3.3 ft) steps.                                                                                                                                                                                                                        |
| Technology      | 4D. Based on multiple integrated sensors and algorithms, e.g. Radio Frequency Energy (RFE)                                                                                                                                                                                                                   |
| Configuration   | Via App, e.g. <ul style="list-style-type: none"> <li>• Range (1 - 10 m / 3.3 - 32.9 ft)</li> <li>• Movement direction (coming, leaving, both)</li> <li>• Individual events (e.g. switch a relay, push notification, SIP call [audio/video], HTTP(s) notification)</li> <li>• Individual schedules</li> </ul> |

#### RFID

|                        |                                                                                                                                                                                                                                                                                  |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type                   | Active Reader Passive Tag (ARPT) system                                                                                                                                                                                                                                          |
| Standard               | ISO/IEC 18000-2:2009 Part 2, EM4100, EM4102                                                                                                                                                                                                                                      |
| Frequency              | 125 KHz                                                                                                                                                                                                                                                                          |
| Range                  | 0 - 3 cm, depends on environment                                                                                                                                                                                                                                                 |
| Antenna                | Internal                                                                                                                                                                                                                                                                         |
| Compatible Transponder | RFID key fobs, sold separately, see <a href="http://www.doorbird.com/buy">www.doorbird.com/buy</a><br><br>Up to 200 tags manageable                                                                                                                                              |
| Configuration          | Via App, e.g. <ul style="list-style-type: none"> <li>• Tag (add, delete)</li> <li>• Individual events (e.g. switch a relay, SIP call [audio/video], HTTP(s) notification)</li> <li>• Individual schedules</li> <li>• RFID history available for 60 minutes in the app</li> </ul> |

**INTEGRATED WIRELESS MODULES**

|        |                         |
|--------|-------------------------|
| RFID   | 125 KHz                 |
| Sensor | 24 GHz, can be disabled |

**THIRD-PARTY INTEGRATION (DOORBIRD CONNECT)**

|                            |                                                                            |
|----------------------------|----------------------------------------------------------------------------|
| Partner integrations       | see <a href="http://www.doorbird.com/connect">www.doorbird.com/connect</a> |
| API                        | see <a href="http://www.doorbird.com/api">www.doorbird.com/api</a>         |
| Simultaneous video streams | One, for event-based and continuous recording                              |

**OPTIONAL ACCESSORIES**

|                 |                                                                    |
|-----------------|--------------------------------------------------------------------|
| Sold separately | see <a href="http://www.doorbird.com/buy">www.doorbird.com/buy</a> |
|-----------------|--------------------------------------------------------------------|

\* Only contained in certain models or configurations

Errors and omissions excepted.

**LEGAL NOTES****General remarks**

1. DoorBird is a registered trademark of Bird Home Automation GmbH.
2. Apple, the Apple logo, Mac, Mac OS, Macintosh, iPad, Multi-Touch, iOS, iPhone and iPod touch are trademarks of Apple Inc.
3. Google, Android and Google Play are trademarks of Google, Inc.
4. The Bluetooth® word mark and logos are registered trademarks of Bluetooth SIG, Inc.
5. All other company and product names may be trademarks of the respective companies with which they are associated.
6. We reserve the right to make changes to our products in the interests of technical advancement. The products shown may also look different from the products supplied based on ongoing enhancement.
7. Reproducing or using texts, illustrations and photos from this instruction manual in any media – even if only in the form of excerpts – shall only be permitted with our express written consent.
8. The design of this manual is subject to copyright protection. We do not accept any liability for any errors or any erroneous content or printing errors (even in the case of technical specifications or within graphics and technical sketches).
9. Our products are in compliance with all technical guidelines, electrical and telecommunications regulations applicable in Germany, the EU and the USA.
10. Our products and also the components contained therein (ICs, software, etc.) may only be used for civilian non-military purposes.

**Data privacy and data security**

1. For maximum security, the device uses the same encryption technologies as are used in online banking. For your security, no port forwarding or DynDNS is used either.
2. The data centre location for remote access over the Internet by means of an App is obligatory in the EU if the determined Internet IP-Address location of the device is within the EU. The data centre is operated in line with the most stringent security standards.
3. Video, audio and any other surveillance methods can be regulated by laws that vary from country to country. Check the laws in your local region before installing and using this device for surveillance purposes.

If the device is a door-, indoor station or camera:

- In many countries video and voice signal may only be transmitted once a visitor has rung the bell (data privacy, configurable in the App).
- Please carry out the mounting in such a way that the detection range of the camera limits the device exclusively to the immediate entrance area.
- The device may come with a visitor history and motion sensor. You can activate/deactivate this function if required.

If necessary, indicate the presence of the device in a suitable place and in a suitable form.

Please observe any relevant country-specific statutory regulations concerning the use of surveillance components and surveillance cameras applicable at the installation site.

Check with the property owner and your house community if you are allowed to install and use this product. Bird Home Automation GmbH cannot be held responsible for any miss-use or miss-configuration of this product, including the unauthorized opening of a door.

Bird Home Automation cannot be held responsible for damages caused by improper existing installations or improper installation.

Software and operating system's updates (so-called "firmware updates") are generally automatically installed on the products of Bird Home Automation GmbH via Internet, if technically possible. Automatic firmware updates keep the products' software up to date so that they always work reliably, safely and efficiently. Through further development, features can be added, extended or slightly changed. Major changes or limitations to existing features will generally occur if Bird Home Automation GmbH deems it necessary (e.g. for data protection, data security or stability reasons, or to keep them up to date). When a firmware update is available, Bird Home Automation GmbH's servers generally automatically distribute it to all compatible products connected to the Internet or Bird Home Automation GmbH's servers. This process is gradual and can take several weeks. As soon as a product receives a firmware update, the system will be installed and will restart by itself. Installed firmware updates cannot be undone. Since the products and software of Bird Home Automation GmbH are not explicitly customer-specific products, a customer cannot deny an automatic update if the product is connected to the Internet or to the Bird Home Automation GmbH's server.

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It is possible that these manual still contains typographical errors or printing errors. The information in this manual will be checked regularly and corrections will be made in the next version. We accept no liability for errors of a technical or printing nature and their consequences.