

# **Video Door Station**

**D10x Series** 





**Installation manual** 

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Installationsanleitung

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# **Installation manual**

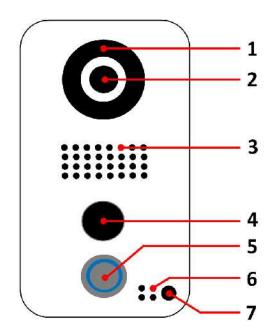
You can always find the most up-to-date version of the installation manual on www.doorbird.com/support

# **Components**

#### **Contents**

- 1x DoorBird Vdeo Door Station
- 1x Power supply unit (mains adaptor) with four country-specific adaptors
- 1x Cable with plug for the power supply (black, red)
- 1x Cable with plug and RJ45 jack for the network cable (white-orange, orange, white-green, green)
- 1x Cable with plug for the network cable (white-orange, orange, white-green, green),
  alternatively to the cable with plug and RJ45 jack
- 1x Cable with plug for the electric door opener (purple, purple)
- 1x Cable with plug for the electric door chime (blue, blue)
- 1x Cable with plug for the door-opening button (yellow, yellow)
- Several crimp connectors
- 4x Phillips countersunk head screws for the wall mounting plate, long
- 4x Phillips countersunk head screws for the wall mounting plate, short
- 4x Dowels
- 1x Safety screw
- 1x Screwing-tool for the safety screw
- 1x Wall mounting plate with sealing ring (installation on wall surface)
- 1x Installation manual
- 1x Quick start guide

### Video door station - front



#### 1) Night vision

Extra bright infra-red LEDs, effective during the hours of darkness (infra-red light invisible to the human eye, 850nm)

#### 2) HDTV video

Ultra wide-angle hemispheric lens, 180°

#### 3) Loudspeaker

Large-sized and speech enhanced broadband speaker

#### 4) Motion sensor

180° Infrared motion sensor for alarms

#### 5) Stainless-Steel Button

With illuminated LED ring (at night), also acts as Diagnostic-LED

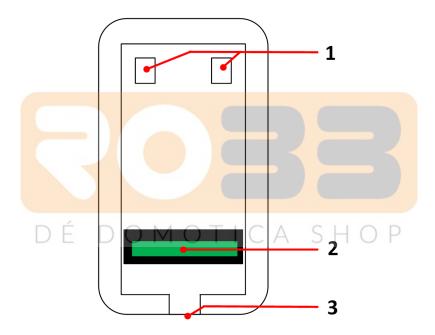
#### 6) Microphone

With active noise cancellation

#### 7) Light sensor

For the night-vision mode

### Video door station - back



#### 1) Locking positions

For the mounting plate

#### 2) Connection terminal

For the power supply, door chime, etc.

#### 3) Screw opening

For the safety screw

# **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. Should you have any questions, please contact us or a competent specialist directly. 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 old, have been manufactured by a well-known manufacturer, and have the latest firmware installed.

Should these requirements not be fulfilled, it may happen, 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.

High-speed Internet (via landline): DSL, cable or optical fibre Network: 802.11b/g/n 2.4 GHz or Ethernet, with DHCP

# **Step 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..

# **Step 2: Dismantling the existing doorbell**

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

# Step 3: Determining the assembly location

The video door station uses an ultra wide-angle hemispheric lens so that even when the person is a minimum distance of 50 cm (19.68 inches) away from the video door station, 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 125 cm (49.22 inches). You may check this prior to the final mounting. Press the mounting plate against the wall at the desired installation site and mark the boreholes with a pencil. Remove the mounting plate again. Ensure that no cables are to be found in the wall behind the boreholes.

### **Step 4: Power supply**

The video door station can be powered by two simple doorbell wires using the power-supply unit (mains adaptor) supplied with it or via PoE (Power over Ethernet) using a network cable. The video door station can alternatively also be supplied with a DIN-rail power supply unit that you can obtain from us directly.

The video door station does not use battery power. The use of a mains power supply permits the transmission and display of on-demand live video at any time and not only if a visitor has pressed the doorbell.

#### Power supply using the power-supply unit (mains adaptor)

Two insulated wires are required to power the video door station by plugging it into the mains. These wires are normally already there and are freely accessible once you have removed the previous doorbell. Only use the power supply unit provided along with the video door station, or a DIN-rail power supply unit that you can obtain from us separately, since this has been specially stabilized electrically and is equipped with an integrated audio interference reduction device. Other power supply units may destroy the video door station or cause poor transmission quality. The warranty automatically expires if you use a different power supply unit. The power supply unit is plugged into

a wall socket inside your house, usually where the two wires from your previous doorbell come out of the wall in the interior of the house.

Do not plug the power supply unit into the wall socket yet. Connect the power supply unit inside the house with the crimp connector provided and the two wires that you would like to use to power the device.

#### Power supply via PoE (as an alternative)

To power the video door station via a PoE switch (e.g. D-Link DGS-1008P) or PoE injector (e.g. TP-Link TL-PoE150S) 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. A Cat.5 cable or better *must* be used as network signals can only be transmitted over completely insulated, shielded and twisted cables. If you use PoE as a source of power, the WiFi interface of the video door station is automatically inactive, and the four wires for PoE then simultaneously form the data link. The video door station won't start if your PoE Switch or 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. Place the network cable in the installation site of the video door station.

Do not combine the power supply from the power supply unit (mains adaptor) with the power supply via PoE.

### **Step 5: Further connections (optional)**

If desired, connect additional wires to the installation site of the video door station. The wires or connection options mentioned in this section are optional.

#### Connecting the unit to a network

You can connect the video door station to your existing network via WiFi, or alternatively use a network cable (Ethernet). For reasons of network stability, we principally recommend using a network cable, as WiFi is sensitive to interference (range, house walls acting as shields, reliability of performance, third party WiFi networks, wireless transmitters causing interference in the area, etc.).

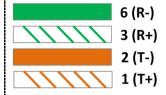
The video door station can be powered by PoE or using the power supply unit provided.

If you use PoE as a source of power, the WiFi interface of the video door station remains inactive.

Use only four wires (1, 2, 3 and 6) of a network cable that meets the Cat.5 standard or a better one. The other four wires of the network cable (4, 5, 7 and 8) are not required.

Connect the network cable in the house to your Internet router or to your PoE switch or PoE injector that is connected to your Internet router.

Be sure to use four insulated, shielded and twisted wires of a network cable in accordance with the Cat.5 standard or better.



#### **Electric door openers**

The video door station has a zero-potential relay contact for a standardised electric door, gate or garage opener (two wires). There is the possibility of switching on all electric door openers that work at a maximum power of 1A in the voltage range of up to 24V (AC/DC). The video door station does not provide its own power supply for the electric door opener. This is provided through the separate power supply of the electric door opener. You can learn more about the installation of the power supply from the instruction manual or technical specifications of

Two insulated wires.

your door opener. Should you have any questions about this, please contact the manufacturer of your door opener. You can find compatible electric door opener and a sample wiring diagram at www.doorbird.com/support

#### Conventional electric door chime

If someone rings your video door station, you will immediately receive a push notification with sound/vibration on your smartphone or tablet. In addition the video door station comes with a zero-potential relay contact for connecting a conventional electric door chime inside the building. The relay contact can be used to activate the separate operating voltage of the door chime or the door chime via its trigger input. If the operating voltage of the door chime is activated, it should not be greater than 24V (AC/DC). The power consumption should not exceed 1A. The video door station does not provide its own power supply for the door chime. This is provided through the separate power supply of your conventional door chime. Should you have any questions, please contact the manufacturer of your door chime. You can find compatible door chimes and a sample wiring diagram at www.doorbird.com/support

Two insulated wires.

#### **Conventional door opener button**

If an electric door opener is connected to the video door station, the door opener can be opened by App and also be directly controlled via a zero-potential button to be found in the interior of the building, i.e. a door opening button. In addition, the door opener button is to be connected to the connection terminal provided. You can find compatible door opener buttons and a sample wiring diagram on www.doorbird.com/support

Two insulated wires.

# Step 6: Dowels D É D O M O T I C A S H O P

If the exterior wall of the house is not made of wood, you should drill four holes 5 mm in diameter in the wall and then place the dowels provided into the boreholes. If the exterior wall of the house is made of wood, you will usually not require any dowels. There are special dowels for assembling the video door station on an insulating wall, e.g. Fischer insulating dowels. Please check with your insulating material manufacturer regarding which dowels they recommend.

#### **Step 7: Attach the mounting plate**

Put the wires that you would like to connect to the video door station through the opening in the mounting plate provided. Position the mounting plate against the exterior wall of the house and use the screws provided to position it in the dowels or on the wall. The mounting plate for the video door station has been designed in such a way that it can also be installed on uneven walls, so it is not completely flat. The partially greater clearances at the back also serve to stabilize temperature and moisture levels.

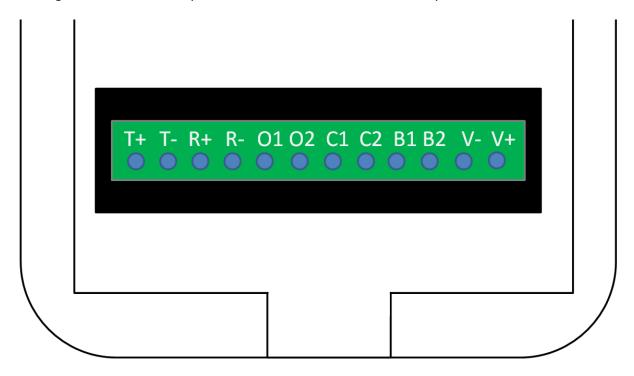
#### **Step 8: Preparing the wires**

Remove about 5 mm of insulation material at the end of the wires that you would like to connect to the video door station.

#### **Step 9: Connecting the wires**

It is possible to connect the video door station conveniently and safely via a connection terminal with jacks on the reverse of the video door station. The individual contacts on the connection terminal are labelled on the reverse of the casing. Some connectors on the connection terminal may come provided by us with cable. Please use appropriate crimp connectors or terminal strips to connect the

supplied cables with your wires. The accompanying crimp connectors are weatherproof and are equipped with heat-shrink tubing which can be sealed after assembly by, for example, carefully using a heat gun. Please remove any cables on the connection terminal that you do not need.



Connector	Description	Wire
T+	White and orange network cable wire (Number 1, Transmit Data +)	White-orange,
T-	Or <mark>ange network cab</mark> le wire (Number 2, Transmit Data -)	orange,
R+	White and green network cable wire (Number 3, Receive Data +)	white-green,
R-	Gr <mark>een network cab</mark> le wire (Numbe <mark>r 6, Receive Data -)</mark>	green
01	Electric door opener (zero potential)	Purple, purple
O2	Electric door opener (zero potential)	
C1	Electric door chime (zero potential)	Blue, blue
C2	Electric door chime (zero potential)	
B1	Door-opening button (zero potential)	Yellow, yellow
B2	Door-opening button (zero potential)	
V-	Power supply, negative pole (-)	Black, red
V+	Power supply, positive pole (+)	

Please take care when connecting the wires. Connecting the wires the wrong way may destroy the video door station.

#### **Step 10: Final assembly**

Mount the video door station on the mounting plate. The video door station will click into the locking positions intended for the mounting plate. Use the accompanying safety screw with the appropriate tool to fix the video door station to the underside of the mounting plate.

## **Step 11: Activating the video door station**

Switch on the power to the wires leading to the assembly location again. You can see whether you have connected the power supply properly from the Diagnostic LED (it lights up once the power has been connected correctly for up to five minutes and continuously in night-vision mode). The video door station 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. Should you not hear a beep, 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 video door station correctly.



### Step 12: 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

If you use WiFi for connecting the video door station to your Internet router, first go to "Settings > WiFi Setup" and follow the instructions.

If you have finished the WiFi set-up or have connected the video door station to your Internet router by means of a network cable, go to "Settings > Add device" and click on the QR code icon in the "User" field. Scan the user QR code found on the "Digital Passport" that accompanies the video door station.

If you have problems adding the video door station to the App please check if the video door station is online ( www.doorbird.com/checkonline ). If the video door station is not online, please check the WiFi or network cable connection again.

Since Apple uses very high quality microphones, loudspeakers and digital audio components that are perfectly in tune with one another, the voice quality with an iPhone or iPad is usually noticeably better than with an Android smartphone or Android tablet.

# **Diagnostic-LED**

This LED light is only lit up for five minutes after the video door station has been supplied with power (and continuously at night). It lights up as soon as the video door station is supplied with power.

Illuminated: Device is powered

# Diagnostic-sounds

After around two to five minutes, the video door station emits brief diagnostic sounds after it has been connected to the power grid.

- 1x diagnostic sound: The video door station is connected to the Internet
- 2x diagnostic sounds: The video door station is able to communicate with the router, but cannot access the Internet
- 3x diagnostic sounds: The video door station has no connection to the network

# **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. All other company and product names may be trademarks of the respective companies with which they are associated.
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#### **Product Liability Act**

- 1. All products covered by this instruction manual may only be used for the purpose specified. When in doubt, consult a qualified specialist or our support team.
- 2. Products that are supplied with voltage (in particular 110-240V mains voltage) need to be disconnected from the power supply prior to opening them or connecting cables.
- 3. Any losses or consequential damage caused by intervention or changes made to our products or improper handling are excluded from liability. The same applies to improper storage or external effects.
- 4. When dealing with 110-240V mains voltage or with mains-operated or battery-operated products, the applicable guidelines are to be observed, e.g. guidelines on adhering to the electromagnetic compatibility; or the low-voltage directive. The respective work should only be carried out by a qualified specialist.
- 5. Our products are in compliance with all technical guidelines and telecommunications regulations applicable in Germany, the EU and the USA.

#### 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 usedeither.
- 2. The data centre for remote access over the Internet by means of an app is located in the EU and is operated in line with the most stringent security standards.
- 3. Video door station: In many countries video and voice signal may only be transmitted once a visitor has rung the bell (this feature is available due to data privacy considerations, and is configurable in the app).
- 4. 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.
- 5. The device comes with an integrated visitor history. You can activate/deactivate this function as required (this feature being available due to data privacy considerations). If this function is enabled, up to 20 visitors are archived right inside the electronics of the device, complete with a picture, date and time. Use this function in accordance with the relevant country-specific statutory regulations applicable at the installation site (notification obligation/archival).
- 6. If necessary, inform visitors that the device has been installed, in a suitable place and in a suitable form.
- 7. If necessary, inform visitors that a motion sensor has been installed in a suitable place and in a suitable form. The motion sensor can, if necessary, be switched off via the app.
- 8. Please observe any relevant country-specific statutory regulations concerning the use of surveillance components and security surveillance applicable at the installation site.

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