Control 9 Client
Order No. : 2078 00
Control 9 KNX
Order No. : 2079 00

Operating instructions

1 Safety instructions

Electrical devices may only be mounted and connected by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

Danger of electric shock. Always disconnect device before working on it. At the same time, take into account all circuit breakers that supply dangerous voltage to the device.

Do not operate the device with sharp or pointed objects. The touch-sensitive surface could be damaged.

Do not use any sharp objects, acids or organic solvents for cleaning. Device can be damaged.

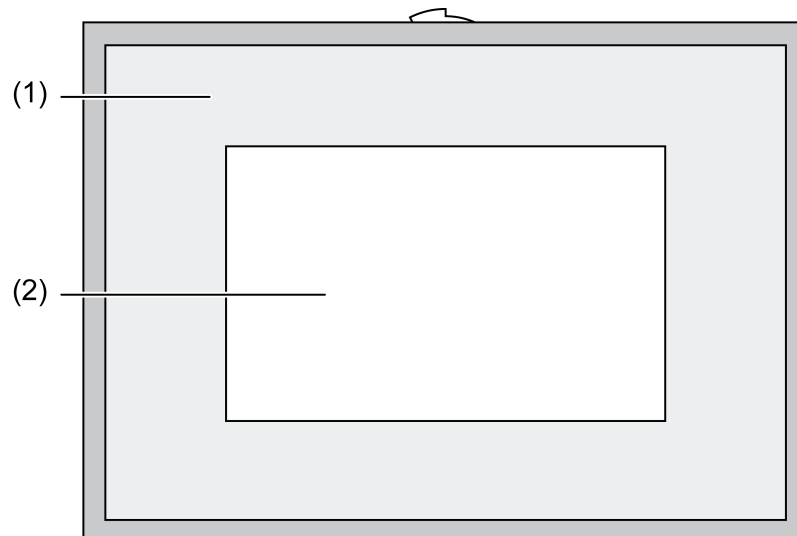**These instructions are an integral part of the product, and must remain with the end customer.**

2 Device components
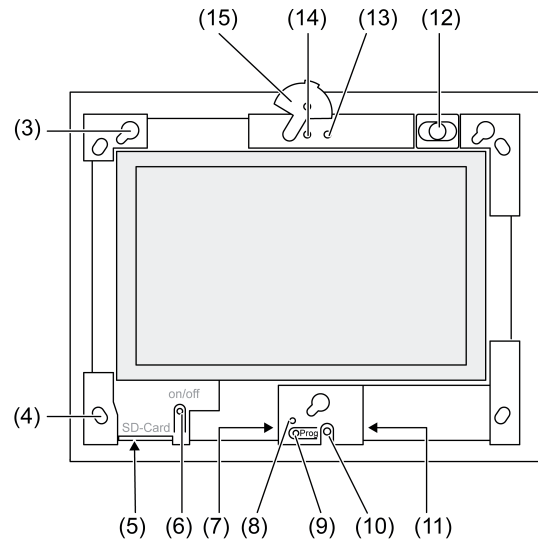

Figure 1: Front view with frame

Figure 2: Front view without Design frame

(1) Design frame
(2) Touchscreen surface
(3) Bracket for Design frame
(4) Holes for wall fastening
(5) Slot for SD memory card
(6) On/off push-button
(7) Service interface
(8) LED **Prog.** – for Control 9 KNX
(9) Button **Prog.** – for Control 9 KNX
(10) Internal microphone
(11) USB connection
(12) Internal loudspeaker
(13) Camera operating display
(14) Internal camera
(15) Panel for internal camera

3 Function

System information

Only for KNX device:

This device is a product of the KNX system and complies with the KNX directives. Detailed technical knowledge obtained in KNX training courses is a prerequisite to proper understanding.

The function of this device depends upon the software. Detailed information on loadable software and attainable functionality as well as the software itself can be obtained from the manufacturer´s product database. Planning, installation and commissioning of the device are carried out with the aid of KNX-certified software. The latest versions of product database and the technical descriptions are available on our website.

Intended use

-   Visualisation of system statuses and information on building automation
-   Flush mounting in indoor areas - flush to the wall in a Control 9 installation housing (see Accessories chapter), or with adapter frame in installation housing for information terminal

Product characteristics

-   Illuminated graphic colour screen TFT, 800x480 pixels, 16.7 million colours

- Touchscreen, operation via touch directly on the screen, operation via touch directly on the screen
- Operating system: Windows Embedded Standard 2009
- Fitting position horizontal or vertical – depending on application
- Integrated camera, hideable, e.g. for door communication
- Integrated loudspeaker
- Integrated microphone
- Interfaces - from, behind Design frame: USB, SD memory card
- Interfaces – accessible from rear: 2x USB, Ethernet, Stereo Audio-In, Stereo Audio-Out, Video-In

Control 9 KNX:

- KNX Interface
- Graphical user interface for visualisation and operation of KNX devices
- Scenes, forced position, timer, presence simulation and additional functions
- ⓘ When connected to an IP-/Ethernet network, additional services are available, e.g. Internet browser.
- ⓘ The KNX user functions remain active even when the device is switched off.

Operating system: Windows Embedded

The operating system is based on Microsoft® Windows® XP Professional in a memory-optimised version. All the components required for the device function are preinstalled. Additional drivers or programs, e.g. Gira software package QuadClient, can be installed at any later time.

4 Operation

Cleaning the touchscreen

The touchscreen requires regular cleaning in order to guarantee the optimum touch sensitivity. Keep the screen free of foreign bodies and dust. Use a soft, lint-free cloth to clean the screen. If needed, moisten the cleaning cloth slightly.

- ⓘ Do not use sharp cleaning agents, acids or organic solvents.
- ⓘ Keep moisture from penetrating into the device. Do not spray the cleaning agent directly onto the screen surface.
- ⓘ Do not use sharp objects for cleaning.

Removing the Design frame

Certain operating elements are only accessible when the Design frame has been removed.

- ▪ Hold the bottom of the Design frame with both hands.
- ▪ Carefully push the Design frame upwards and to the first - upwards and left in the case of vertical mounting.
- ▪ When the Design frame is loose in the bracket, pull it carefully away from the wall.

Mounting the Design frame

- ▪ Insert the Design frame into the brackets (3) in the right position.
- ▪ Carefully push the Design frame downwards until it engages.

Switching a device on or off

The On/off push-button (6) can be reached when the Design frame (1) has been removed.

- ▪ Switching on: Press the push-button (6).

  The panel switches on after about 2 seconds.

  The device is started.
- ▪ Switching off: Press the push-button (6) briefly.

  - or -
- ▪ Press the "Start" button and select the "Shut Down" command in the Start menu. In the subsequent list box, select "Shut Down" again and press the "OK" button.

  The operating system shuts down and switches off.

ⓘ On the KNX device, the KNX application is first terminated. Press the push-button (6) once again to switch off.

ⓘ Alternatively, the device can be shut down into Standby mode. Operating the touchscreen immediately reactivates the function.

ⓘ When delivered, the device logs in automatically with the username **Control** and the password **gira** .

Carrying out a reset

If the panel can no longer be operated, e.g. after a program has crashed, then the device can be reset and switched off. Any unsaved data will be lost.

The On/off push-button (6) can be reached when the Design frame (1) has been removed.

▪ Press the push-button (6) for approx. 5 seconds.

The device switches off after about 5 seconds.

Touch-sensitive surface

The display screen features a touch-sensitive surface, the so-called touchscreen. The device is operated by touching the screen surface with a finger or a special touchscreen stylus (not included in the scope of delivery).

ⓘ Do not operate the touchscreen with sharp or pointed objects.

Graphical user interface

Operation is carried out using a mouse pointer (23), which follows the operations of the touchscreen. Brief touches of the screen are interpreted as actuation of the mouse buttons. Pressing the icon (26) in the information area of the taskbar (25) allows switching of the mouse button. Text can be input using the Windows on-screen keyboard (24).

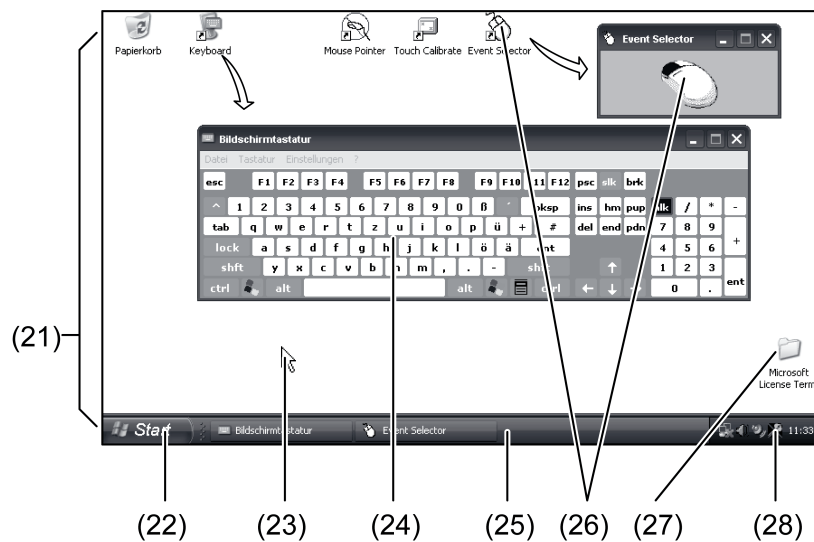ⓘ Additional operating devices, such as a keyboard or a mouse, can be connected to the USB interface.

Figure 3: Monitor elements

(21) Windows desktop

(22) Start menu

(23) Mouse pointer

(24) On-screen keyboard

(25) Windows taskbar

(26) Mouse button switching

(27) Microsoft Windows terms and conditions

(28) Preinstalled system programs

In the information area of the taskbar, system programs are preinstalled using the symbol (28), e.g. for setting the screen brightness.

Control 9 KNX: Recalling Windows user interface

After switching on, the KNX device starts the KNX application immediately. The display and operating elements of the KNX application are controlled via its own graphic user interface. The Windows user interface and system programs are accessible with a connected USB keyboard.

The USB keyboard is connected to a USB connection (11) or (37).

- Press Windows button.

  The Windows taskbar (25) and start menu (22) open. The Windows functions e.g. for starting, terminating, minimizing programs currently running, is accessible from here.

File-based write filter

The device contains an SSD drive with no moving parts as a mass storage facility. To prevent accidental changes to the configuration, the drive is protected by a file-based write filter - FBWF. Write operations to the protected are a diverted to a virtual drive in the RAM. Changes to this data are shown in the directory but are only available until the device is restarted. The previous data is restored is the device is switched-off or there is a power failure.

Changes to the "My Documents" directory are excluded from write-protection and are always applied.

The write filter must be switched off:
- When directories are created, which are to remain intact after a restart,
- When programs are installed.

The system must be restarted:
- When the write filter is switched on or off,
- When the size of the virtual drive is changed,
- When memory compression is switched on or off.
The user can change the settings for the file-based write filter.

Installing programs

Before installing additional programs, take the system requirements of the programs into account.

- Deactivating write filters: select the icon (28) with the mouse pointer.
- Select the menu item "Write protection".
  The window for the write filter settings opens.
- Deactivate write protection.
- Press the "Apply" button.
- Press the "Close" button.
- Shut down the panel and restart it.
- Install the program, e.g. from a USB stick.
- Activating write filters: select the icon (28) with the mouse pointer.
- Select the menu item "Write protection".
- Activate write protection.
- Press the "Apply" button.
- Press the "Close" button.
- Shut down the panel and restart it.

5 Information for electrically skilled persons

5.1 Fitting and electrical connection

⚠ **DANGER!**

Electrical shock when live parts are touched.

Electrical shocks can be fatal.

Before working on the device, disconnect all the corresponding miniature circuit breakers. Cover up live parts in the working environment.

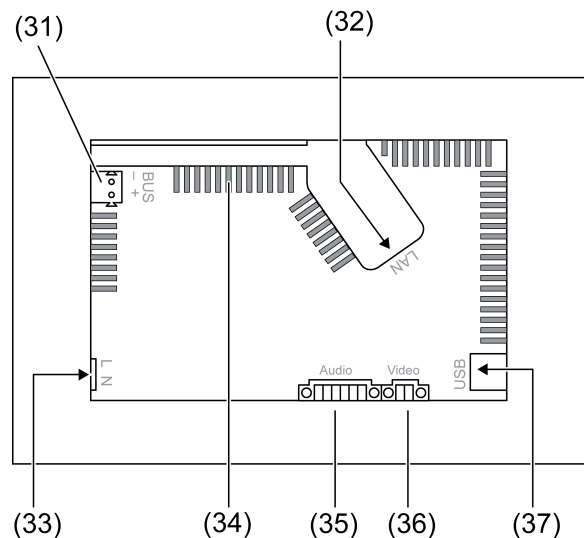**Mounting and connecting the device**

Figure 4: Rear side - Connections

(31) KNX connection – only for Control 9 KNX

(32) Ethernet connection

(33) Mains connection

(34) Ventilation openings

(35) Connection for Audio input and output

(36) Connection for analogue video input

(37) USB-2.0 connections

ℹ Recommendation: Install at eye-level, for optimal reading.

For wall-flush mounting: use a Control-9 installation housing.

For mounting in an installation housing for information terminals: use an adapter frame.
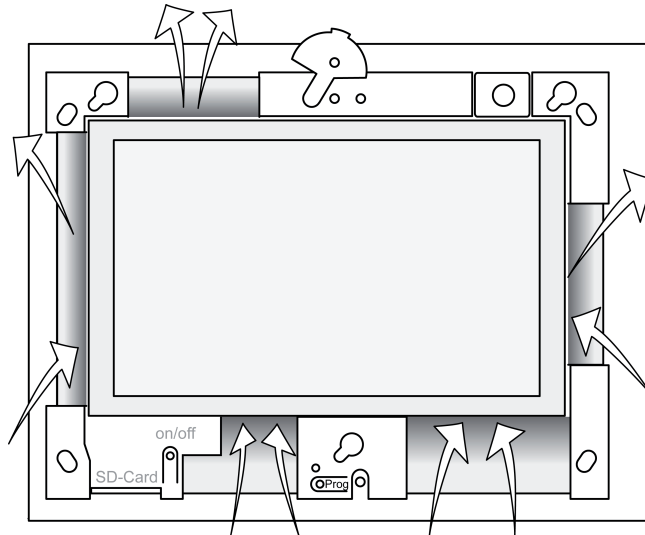
Figure 5: Ventilation openings, front side

Ensure sufficient cooling. Do not cover the ventilation openings on the front and rear side of the appliance box (Figure 5).

- Install the panel-mounted housing in the correct position - horizontally or vertically aligned in the wall.
  Horizontal mounting: observe the labelling **OBEN TOP** and **UNTEN BOTTOM**.
  Vertical mounting: top side points to the left.

ℹ️ Observe the mounting instructions of the installation housing.

- Pull the connecting cables through the designated bushings.

⚠️ **DANGER!**

Electrical shock when live parts are touched. The mains voltage and low voltage are located in a shared appliance box. If there is an error, other connected components may carry mains voltage.

Electrical shocks can be fatal.

Always secure the mains voltage with the enclosed tube.

Run the cables so that low voltage wires are securely protected against mains voltage.

- Strip the mains voltage cable to the length of the enclosed tube.
- Pull the supplied tube over the stripped mains voltage wires **L** and **N**.
- Connect the mains voltage **L** and **N** to terminal (33).
- Control 9 KNX: Connect the KNX bus line to terminal (31).
- Connect audio devices to terminal (35) (Figure 6).
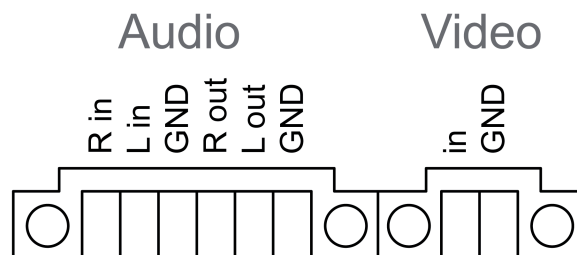- Connect the video device to terminal (36) (Figure 6).

Figure 6: Connection assignment, audio and video connections

Labelling	Function
Audio R in	Input, audio signal, right
Audio L in	Input, audio signal, left
Audio GND	GND audio inputs
Audio R out	Output, audio signal, right
Audio L out	Output, audio signal, left
Audio GND	GND audio outputs
Video in	Input, video signal
Video GND	GND video signal

Table: Connection assignment, audio and video connections

Use the Ethernet connection (32) together with the supplied Ethernet adapter plug and Ethernet adapter cable to connect to the IP network.

Pay attention to the correct colour assignment of the wires, EIA/TIA-568-A or -B. This can be found in the documentation of the installed network components and routers.

[i] The Ethernet connection on the device is carried out according to EIA/TIA-568-B.

▪ Connect Ethernet cable to the Ethernet adapter plug. To do this, strip the Ethernet wires, do not skin, and insert into the cover of the adapter plug. Shorten any wires that are jutting out and push the cover onto the adapter plug in the correct position (Figure 7).

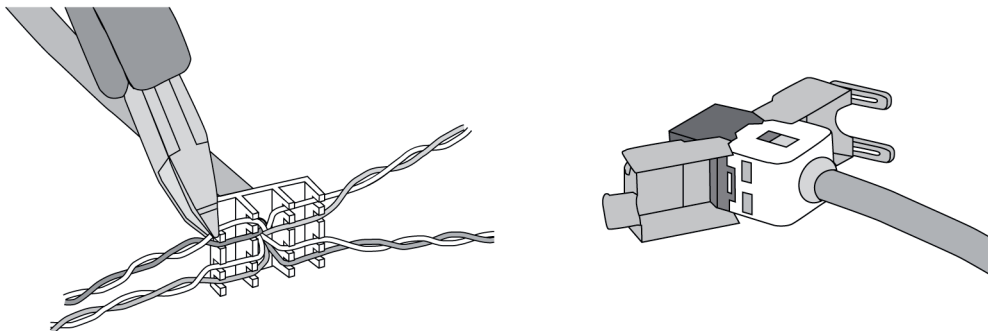▪ Connect the supplied Ethernet adapter cable to the terminal (32) and Ethernet adapter plug.

Figure 7: Connection of adapter connector to Ethernet cable

▪ Install device in panel-mounted housing. Use the screws supplied.

▪ Insert the Design frame in the correct direction into the designated brackets and push down and to the left - down and to the right for vertical mounting - to fix it.

5.2 Commissioning

Control 9 KNX: Loading physical address

▪ Press the programming button (9).

The programming LED (8) lights up.

▪ Assign physical address.

The programming LED (8) goes out.

Control 9 KNX: Loading the application software

[i] The project design and commissioning are performed using external project design and commissioning software.

▪ Establish connection to the commissioning PC via IP connection.

- Download configuration data with the commissioning software.

- or -

Configuration data is saved on a USB stick or SD card.

- Insert USB stock or SD card into the appropriate slot – (5) or (11). In the KNX user interface, select the entry "Commissioning" under "Settings". Select disk drive and path and open the file with the configuration data.

6 Appendix

6.1 Technical data

Supply	
Rated voltage	AC 110 ... 230 V ~
Mains frequency	50 / 60 Hz
Fine-wire fuse	Littelfuse/Wickmann 372 1160 T 1.6 L 250
Standby power	max. 1 W
Power consumption	max. 20 W
Power consumption	max. 8 W (Display off)
Ambient conditions	
Ambient temperature	0 ... +35 °C
Storage/transport temperature	-10 ... +70 °C
Relative humidity	15 ... 85 % (No moisture condensation)
Protection class	II
System	
Processor type	Intel Atom™ Z510
Clock speed	1.1 GHz
L2 cache	512 kB
System chipset	Intel System-Controller Hub US15W
Mass storage	2 GB SSD
RAM	1 GB RAM
Audio controller	Realtek ALC888
Display	
Type	TFT 22,9 cm [9"], WVGA
Resolution	800×480 pixels
Number of colours	16,7 millions
Observation angle	± 85 °
Touchscreen	resistive
Camera	
Resolution	1,3 million pixels
Connections	
Audio output	Line-out, Stereo
Audio input	Line-in, Stereo
Video input	FBAS/CVBS, 1 Vss
Memory card	SDHC, max. 32 GB
USB	
USB-Version	1.1/2.0
Connection	3× type A (2× back, 1× front)
Service interface	
Connection	Mini-USB, type AB, 5-pole
Network	
Type	10/100 MBit/s Ethernet
Connection	RJ45-socket 8/4-pin
Dimensions	
Dimensions W×H×D	268×220×65 mm (without design frame)
Dimensions screen W×H	195×118 mm
diagonal	22,9 cm

6.2 Conformity

Data according to EN directive 617/2013

Product type	Desktop-Thin-Client
Manufacturer	Gira Giersiepen GmbH Dahlienstrasse Radevormwald
Model no.	GIRA Control 9 Client
Year of manufacture	Model 2015
Efficiency of the internal power supply unit	83.0% efficiency at 20% of the nominal load of 20 W 85.4% efficiency at 50% of the nominal load of 20 W 85.4% efficiency at 100% of the nominal load of 20 W
Test parameters	Test voltage 230 V/50 Hz Distortion factor of the test voltage 1.6% Power measuring unit Zimmer LMG95 Current-correct power measurement Power supply unit operated separately with electronic load GOSSEN METRAWATT 150R30 FLUKE 179 measuring device for adjusting the load current
Maximum power	P_{max}= 19.6 W
Idle power	P_{idle}= 16.6 W
Power in idle state	P_{sleep}= 0.93 W
Power in off state	P_{off}= 0.73 W
Noise level	< 6 dB(A)
Measurement method	Test voltage 230 V Distortion factor of the test voltage 1.6% Power measuring unit Zimmer LMG95 Current-correct power measurement

6.3 Accessories

Design frame for Control 9	Order No. 2080 ..
Flush-mounted housing/flush-mounted box for Control 9	Order No. 2082 00
Flush-mounted housing	Order No. 0639 00
Adapter frame	Order No. 2081 00

6.4 Warranty

The warranty follows about the specialty store in between the legal framework as provided for by law

Please submit or send faulty devices postage paid together with an error description to your responsible salesperson (specialist trade/installation company/electrical specialist trade). They will forward the devices to the Gira Service Center.

GIRA

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