

Instructions manual

21554

Video touch screen 4,3in Full Flat



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Technical characteristics

The 21554 is a touch screen device comprising a display through which, by the mere touch of the finger on the icons displayed, you can select the home automation system management functions.

The video door entry module is none other than an audio-video interface through which it is possible to make voice and images interact; the device is provided with inputs and outputs that enable connecting the video door entry unit with the other appliances in the system (power supply, electrical lock, etc.).

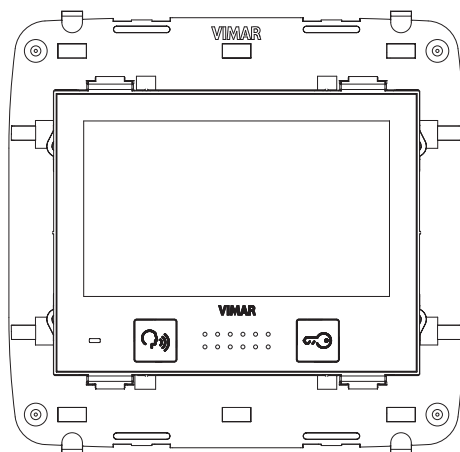


Figure 1 - Video touch screen 21554

Technical characteristics

Type of system.

The video touch screen 21554 can be used solely on video door entry systems of the Two Wire digital type; it will therefore be necessary to use solely power supplies in the Two Wire range (for the specifications see the relevant manuals).

To create the audio and video function the type of connection, both toward the pillar and toward the speech unit, is made with a "2 wire non-polarized" bus cable.

The Two Wire system enables making types of systems in which the identification of the devices and controls is digital. Depending on the configuration of the system, each of the connected devices is characterized by a numerical code between 1 and 200 (the value must be univocal) and is able to receive and send data packets containing all the information related to the management of the communication; each data packet is composed of the identification of the destination device and the command that the latter must actuate.

All the control operations typical of a video door entry system such as, for instance, call, electrical lock opening, stair lighting, etc., are therefore coded.

The voice unit for the voice communication and the video signal for viewing the images instead are still analogue signals. Lastly as regards the type of cables to use for the connection between the components of the system, both toward the pillar and toward the speech unit, it is recommended to use the twisted bipolar BUS cable with a cross-section of 1 mm² (type art. 732H/100 or the equivalent).

In the case of Due Fili video door entry systems where there are monitors 21550/20550/14550 combined with the module 01963 and with the presence of By-me home automation modules 01960 (or control panels with video door entry unit 01956), the following applies:

- The maximum number of indoor stations per pillar or after separator 692S, made with art. 21550/20550/14550 + 01960 + 01963, is 4 (that is a maximum of 4 independent home automation subsystems connected to the pillar of the Due Fili system).
 - It is possible to connect other Due Fili devices (art. 21553, 21554, 01955, 20557, 20577, 21550/20550/14550/+01963, etc.) up to a maximum of 32 total devices per pillar or after separator 692S.
- In all the above cases, if you need to exceed the maximum number of devices, it is necessary to expand the system by using separators 692S and their power supply units creating separate galvanic isolations.**

Advantages of the Two Wire system.

The most important advantage offered by the Two Wire system, compared to other video door entry systems (classic "8 wire + n" analogue or digital with multi-wire DigiBus), is its use in wiring the whole system with just 2 conductors, twisted and not polarized, on which the data, audio signal, video signal and necessary power supply are conveyed to the connected devices.

Thanks to this characteristic, the system is therefore ideal to be used both in small-medium residential systems and in large building complexes (up to a maximum of 200 indoor stations) because it considerably simplifies the wiring operations.

Another advantage of using the Two-Wire system is its extreme flexibility in the case of subsequent system expansion; it is possible, in fact, to add new indoor stations simply with the aid of the pillar without having to wire further cables toward the power supply.

The digital management of all the commands (call bell duration, type of bell, call time duration, answer time duration, entry with password or programmed key, etc.) lastly enables programming all the parameters of the devices according to the different requirements of each user.

Technical characteristics

Main technical characteristics of the system.

- All the system elements are connected via bus with 2 wires that are twisted and not polarized
- Up to a total of 200 users, comprising audio and video door entry units
- Up to 15 entry panels, audio and video
- In colour video systems it is necessary to use the cable art. 732H/100 for a maximum distance of 75 m (for all the details see the Two Wire technical documentation)
- Up to 16 independent pillars
- Up to 16 auxiliary functions in the same system
- Audio and video door entry units with confidential conversation
- Audio intercom between all the audio and video door entry units or between groups of audio and video door entry units
- Differentiated call tone for entry panel, door panel and intercom
- Possibility of including additional ringtones in parallel with the audio or video door entry unit
- Multiple routing of the same call (up to 8 devices)
- Group video door entry call with only the group leader switching on (with no supplementary power supplies) or with all the video door entry units of the group switching on at the same time (with supplementary power supplies)
- Simple programming of the devices for the standard functions via panel and device buttons
- Advanced device programming via personal computer (pc), USB 02024 interface and "SaveProg" software.

Description of terminals.

The connector, on the pillar side, through which all the connections from and to the video door entry unit are made, has 8 terminals (inputs and outputs) divided according to the functions described in the table on the following page.

Terminal number	Type	Function
+12	-	Power supply for supplementary
CH	Output	Control for supplementary bell/relay
1	Input/ Output	BUS digital line
2	Input/ Output	BUS digital line
E+	Input	Supplementary power supply (+28Vdc, 24Vac)
E-	Input	Supplementary power supply (GND, 24Vac)
FP	Input	Landing button N.O. (doorbell function)
M	-	Ground reference for Landing push-button N.O.

Technical characteristics

Operation of the Two Wire system.

The Two Wire system enables digital coding of the devices and the commands that are sent or that come from the external panel; the latter can be considered as the MASTER device (main appliance that manages the communication between the digital devices in the system) while every other single digital device (including the secondary panels) can be considered as a SLAVE (secondary appliance that is piloted/controlled by the master).

The entry panel is therefore essential for the operation of the Two Wire system and must always be installed in the system; all the programming parameters (call time, type of bell, electrical lock opening, code numbers of the indoor stations, etc.) are set and saved (until the next programming) in the main external panel (EEPROM memory).

For programming the panel and all the parameters correlated with it, see the related technical documentation.

Power Supplies and other.

The power supplies and other accessories that can be used for installing the system are all those of the Two Wire range; in particular, the following articles are recommended:

- 6922 (standard video door entry system power supply)
- 6923 (additional power supply for panels and monitor in parallel)
- 6582 (power supply for additional video cameras and landing video)
- 6925 (separator for the division of conversation areas, intercommunicating networks and landing door panels)
- 692C (concentrator for connections of up to 4 entrance panels, of which at least one is a video door entry version)
- 69AM (audio/video interface module for external video camera)
- 69AM/4 (expansion module for 4 video cameras with audio input to be connected to 69AM)
- 692D/2 (active video floor distributor to adapt impedance of video signal)
- 69RH (digital relay with 2 independent contacts and maximum load of 3A 230V per contact)

As regards all the technical characteristics (supply voltage, current delivered, power input, description of terminals, etc.), see the technical manuals.

Technical characteristics

General information on the digital controls.

The digital controls are packets of data that can be sent from/to each digital device and contain the information/instructions that enable activating a particular function (video call, intercom call, lock opening, stair lighting, auxiliary function activation, etc.). The control is mainly composed of 3 significant fields: < receiver - command code - sender >. An example of hexadecimal coding of a command is the following:

< 01 - 0E - FE > = LOCK

that represents the lock opening command of the main panel sent by device no. 1. Typically, in the Two Wire system, the main video door entry commands are the following:

- LOCK command
- FUNCTION F1 command
- FUNCTION F2 command
- AUX 1 SERVICE command
- AUX 2 SERVICE command

These commands pilot actuators that are in the panels or in special auxiliary digital relays to be set up; in the case of the above-listed main commands (and in reference to the Two Wire panel series 122..) the actuators are the following:

actuator S+/S-	S+ (positive output 12Vdc max 200mA) with S- that closes to ground on receiving the LOCK command.
actuator F1	Contact that closes to ground on receiving the F1 FUNCTION command. 12Vdc power supply that can be taken from the '+12V' terminal max 100mA. To be used to control an auxiliary external relay.
actuator F2	Contact that closes to ground on receiving the F2 FUNCTION command. 12Vdc power supply that can be taken from the '+12V' terminal max 100mA. To be used to control an auxiliary external relay.
AUX 1 SERVICE actuator	Contact on digital auxiliary relay (to set up) art. 69RH (see technical documentation art. 69RH)
AUX 2 SERVICE actuator	Contact on digital auxiliary relay (to set up) art. 69RH (see technical documentation art. 69RH)

NOTE: There are up to a maximum of 16 AUX SERVICES in the system.

Each single command is sent by pressing a button (associated with the same command) on the device. Other commands can be associated and programmed as preferred on the available buttons via pc, interface USB 02024 and "SaveProg" software.

Functions of the video door entry unit

The main function of the device is to identify, with communication and viewing via the audio and video channels, people asking to access the dwelling from the speech unit and to open or not open the electrical lock of the gate or door.

In addition, the video door entry unit enables implementing other additional functions that are:

- activating stair lights;
- self-starting the speech unit;
- additional auxiliary function(s) (according to the configuration of the buttons);
- intercom calls to other audio or video door entry units.

All the functions of the video door entry unit are enabled by pressing the dedicated buttons.

The main states of operation of the video door entry unit are the following:

- With display ON
- With display OFF

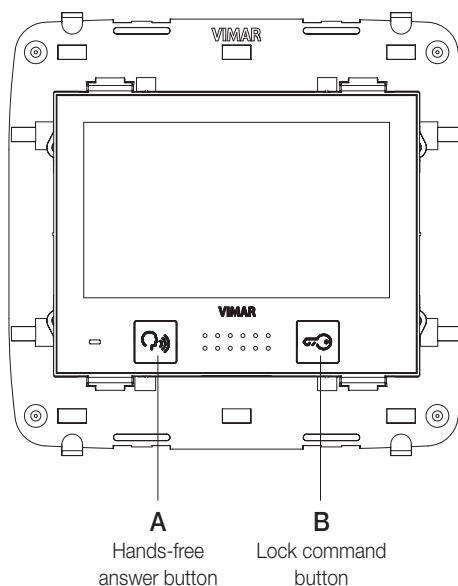


Figure 2 - Front view 21554

Functions of the video door entry unit

The "TV" (Termination Video) line termination selector.

The bus line (where data, video and audio signal transit) is a line that must be adapted according to the installation topology of the plant, especially to assure the maximum quality of the video signal. The connector (TV - video termination) must be jumpered according to the prescriptions given in the following table:

position A	no termination	if the bus enters and exits the device
position B	termination 100 Ohm	if the bus terminates in the device
position C	termination 50 Ohm	alternative to position B

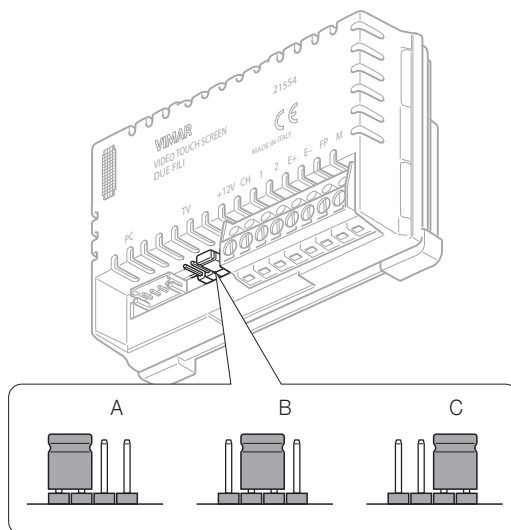


Figure 3 - "TV" line termination selector

Functions of the video door entry unit

Warnings for device coding and programming.

The identification phase (coding via numerical identification - ID) for some devices of the Two Wire system is done during the programming phase while for others it is done with jumpers or dip-switches in the device and that must be set during the phase of installation (see the instruction sheets of the single devices).

Important: It is vital, during the programming phase, for the system to have an electronic entrance panel model (1221, 1222, 1223, 1224), identified as the "Master entrance panel."

In an Two Wire system there must be only one Master entrance panel (identification code ID = 1). The various devices in the system must be programmed after their identification; this programming can be carried out with electronic entrance panel model 122.. with a PC by means of the USB 02024 interface and the "SaveProg" software.

Using the electronic entrance panels with conventional buttons (not with an alphanumeric keyboard) allows only standard programming of the devices but not advanced programming; this programming is anyhow enough for the operation of the devices in most systems.

Device programming phases.



For the correct configuration and programming of the system, follow this procedure in sequence:

- Install and connect all the system devices.
- For video door entry systems, set the jumper for video termination as shown on the connection diagrams.
- If present in the system code the devices 6925, 69RH, 692U, 692U/C, 69AV, 69AM, 69AU.
- When there are electronic entrance panels with pushbuttons, do the hardware programming of any pushbutton modules.
- In systems with multiple electronic entrance panels, set the SLAVE panels (generally using the specific jumper) and code without connecting the MASTER entrance panel (ID code of the SLAVE panels between 2 and 15)
- Connect and power up the MASTER entrance panel (it is the panel with ID = 1).
- Program any entrance panel parameters. The essential parameters to program are shown on the connection diagrams.
- Code the audio and video door entry units from the MASTER entrance panel.
- Do any advanced programming of the audio and video door entry units (intercom push-buttons, group calls, digital relay activation ...).


Functions of the video door entry unit

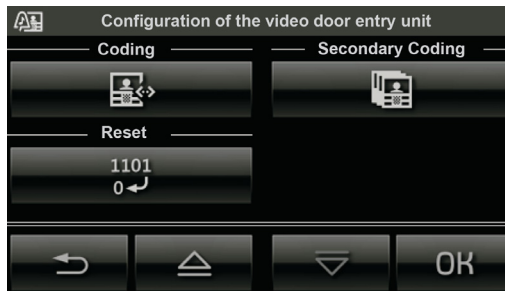
Numerical coding of the video door entry unit.


The video touch screen is identified in the system with a numerical code in the range from 1 to 200; it is then necessary to program this code with the following procedure:

- From the main menu, access the menu **Settings** by touching the  icon and  icon.



- Access the menu **Setting Video** by touching the  icon and display the menu **Configuration of the video door entry unit** using the  icon.



- Finally touch the  icon; the numerical coding is then completed.
- Send a call to the video touch screen from the MASTER panel with the desired numerical code; if you have a panel with an alphanumeric keyboard it is enough to key in this code and send it to the device by pressing the confirmation button on the panel while, if you have a push-buttons panel, send the call with the button that you want to associate with the video door entry unit on the panel.
- Lastly, check that the video touch screen answers the call (with an alphanumeric panel, key in the set code and press the confirmation button on the panel while, if you have a push-buttons panel, press the button corresponding to the call).

Functions of the video door entry unit

If you do not have a panel with alphanumerical buttons or single buttons it is necessary to use the USB 02024 interface with PC and "SaveProg" software.

Secondary numerical coding of the video door entry unit.

Programming the secondary identification code is only required when you want to have more than one video door entry unit ring at the same time with the same push-button or call code.




The video door entry units that must ring at the same time are associated with the same group; The "master" video door entry unit is programmed first by means of the numerical coding procedure described above (see under the heading NUMERICAL CODING OF THE VIDEO DOOR ENTRY UNIT), while the additional group video door entry units are programmed with the secondary identification code.

A maximum of four video door entry units can be associated with the same group, without the need for the interface USB with PC and "SaveProg" software.

In the case of video door entry units it is necessary to add an additional power supply art. 6923 for each additional monitor after the second one (that is starting from the third one).

By using the USB 02024 interface with PC and "SaveProg" software, it is possible to program the activation of the bell of all the video door entry units without all the monitors coming on at the same time; then only the monitor of the video door entry unit being answered from is activated, with the self-start push button, in such a way as not to have to use any additional power supplies.

If you want to program the video door entry unit as a secondary one of a certain master, the procedure is the following:

- From the main menu, access the menu **Settings** by touching the  icon.
- Access the menu **Setting Video** by touching the  icon.
- Touch the  icon; the secondary numerical coding is then completed.
- On the panel, press the corresponding button or key in the number of the master; the secondary one will automatically acquire the master's id (for more details please see the technical documentation).


Alternatively, you can set the secondary identification via the USB interface 02024 using a PC and the "SaveProg" software.

This type of approach enables associating the same group with up to 8 devices (video/audio door entry units).

Functions of the video door entry unit

Risposta chiamate.

When a call is made from a speech unit (external panel or consumer unit), the device related to the called numerical identification modulates the programmed call tone on the speaker; the video door entry unit then emits an audible warning and, if there is also the video signal (that is, for instance, there is an audio/video panel), the display will switch on to show the person making the call.

Being a "Handsfree" system (also called On/Off speakerphone), to answer the call and communicate with the speech unit, it is sufficient to press the  button.

To break off the communication press the  button again.

The call time is set as a panel parameter; these parameters can all be set in the phase of programming the external panel (MASTER) and involve various functions such as timing, recording users, etc. (for a full list of the parameters please see the technical documentation for the panel used and also read the "PROGRAMMING THE Due Fili PANEL" chapter).

If the video door entry unit is interfaced with the By-me home automation system, it is possible to end the call voluntarily.

Self-start function.

This function enables activating audio and video communication on the speech unit without a call being received; this can be useful, for instance, in the case in which it is wished to check the external zone or an internal zone where an additional video camera has been installed.

To activate self-starting on the external panel it is necessary to send the SELF-START command.

Repeatedly touching the icon associated with the SELF-START command cyclically performs self-start on any other secondary panels fitted; the progressive sequence is programmable as a panel parameter (using the PC, USB 02024 interface and the "SaveProg" software).

The self-start on further additional stand-alone video cameras type CCTV (for instance 20560, 14560, 20565, 14565) is constrained by the presence of the audio/video interface 69AM.

For greater details see the chapter "AUDIO/VIDEO INTERFACE FOR VIDEO CAMERAS" in this manual.

Conversation Privacy.

The "Conversation Privacy" function enables communicating with the speech unit only if a call has arrived or if a self-start has been performed; it is not possible to listen to any other communications in progress nor run a self-start while there a conversation is in progress.

In Two Wire systems the "confidential conversation" function is always enabled.

Functions of the video door entry unit

“Door Open” indicator.

This function enables displaying a “Door Open” signal on the video door entry unit through the ignition of an appropriate icon; this application is useful to avoid unwanted access to the housing unit.

To enable this function it is necessary, when the door is closed to connect a sensor with a N.O. contact to the terminals ‘PA’ and ‘M’ of the panel of the Two Wire system.

The icon turns on when at least one of the enabled doors closes the contact on the respective panel.

Example of installation:

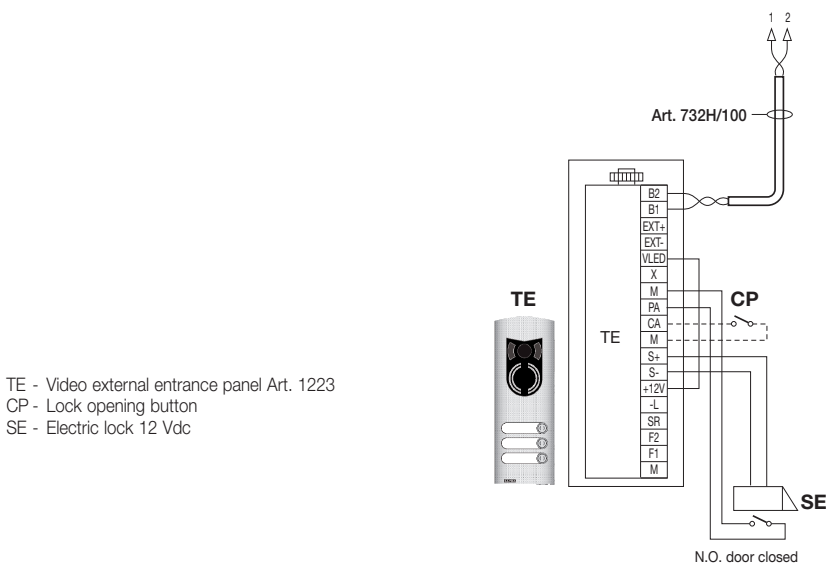



Figure 4 - Connection of the “door open” signal with additional power supply.

Functions of the video door entry unit

LOCK command activation.

This command opens the lock of the door or the gate that provides access to the housing unit.

The command is made by touching the  icon that sends the LOCK command to the panel which activates the corresponding actuator.

With reference to the Two Wire panel series 122.. its terminals to be used are the following:

- “S+/S-“ for locks at 12 V dc with low absorption (200 mA max continuous)
- “+12V/SR” for locks with high absorption (specific external relay 12 V dc and dedicated power supply)

The activation time can be programmed as a panel parameter (see the chapter “PROGRAMMING THE TWO WIRE PANEL”); the LOCK command is activated with both the MONITOR ON and OFF.

Example of installation:

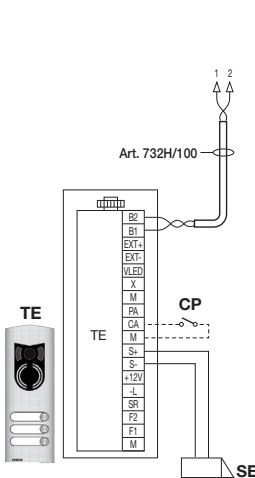


Figure 5 - Electrical Lock 12Vdc 200mA max

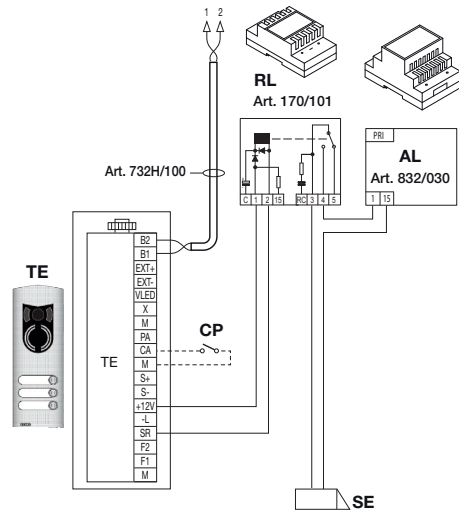


Figure 6 - Electrical Lock 15Vac 2A max

AL - Elvox Power Supply Art. 832/030
TE - Video external entrance panel Art. 1223
RL - Relay Art. 170/101

CP - Lock opening button
SE - Electric lock

Functions of the video door entry unit

Stair lights control activation (FUNCTION-F1/F2 or AUX SERVICE 1/2).

With this command it is possible to activate the output used for commanding a suitable external relay connected to one or more lamps to be turned on.

To activate this type of service it is possible to use both the FUNCTION F1/F2 commands (actuators available directly on the panel and common to all the internal ones) or the AUX 1/2 SERVICE commands (up to a max of 16 independent services) with the support for an external digital relay art. 69RH.

The command is activated by touching the appropriate icon that sends the AUX 1 SERVICE command that activates the corresponding output in the supporting digital relay (factory setting); nothing anyhow prohibits using the F1/F2 FUNCTION command and the related actuator of the panel (use the terminal '+12V' as positive and 'F1' or 'F2' as negative) to enable an external auxiliary relay (to setup).

For loads supplied at 230 V it is recommended to use relays of 12 Vdc with output 230 Vac 3 A.

The staircase lighting command is always active in both states of operation MONITOR OFF and MONITOR ON respectively.

Example of installation:

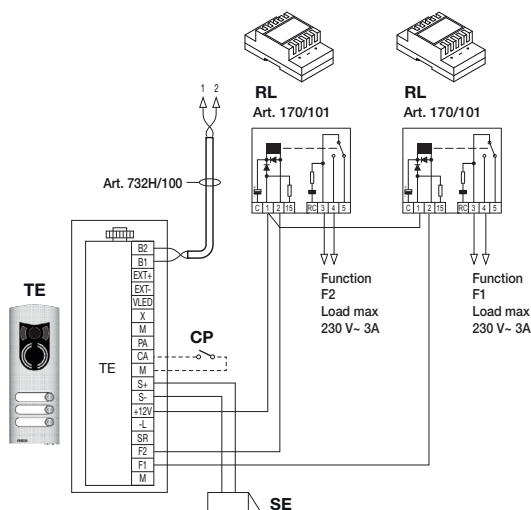


Figure 7 - Staircase lighting with F1/F2 FUNCTION

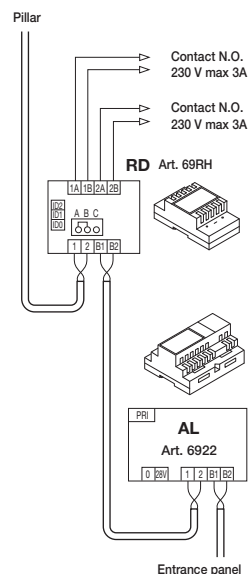


Figura 8 - Staircase lighting with AUX 1/2 SERVICE

AL - Power Supply Art. 6922

RD - Digital relay Art. 69RH

RL - Relay Art. 170/101

TE - Video external entrance panel Art. 1223

CP - Lock opening button

SE - Electric lock 12 Vdc

Functions of the video door entry unit

Auxiliary Function Activation (Function-F1/F2 or AUX SERVICE 1/2).

The activation command of any auxiliary functions can be used to activate services or external devices such as, for instance, courtesy lights, automations, etc.

It is possible to use both the FUNCTION F1/F2 commands (using the actuators available directly on the panel and common to all the internal ones, that have not already been used - e.g. to switch on the stair lights) or the AUX 1/2 SERVICE commands (up to a max of 16 independent services and that are free from other uses) with the support for an external digital relay art. 69RH.

The command is activated by touching the appropriate icon or the combination of buttons that sends the selected command (see the map of the combinations in 2ndF in chapter "THE SECOND FUNCTION BUTTON (2ndF)" available to send this command); then as regards the supporting relays, the related loads and connection diagrams, the same considerations apply as above.

The auxiliary function activation command is always active in both states of operation MONITOR OFF and MONITOR ON respectively.

WARNING: The activation time of the FUNCTION-F1 and FUNCTION-F2 commands is set with the advanced panel programming; in addition it is possible to set also the activation time of the AUX 1 SERVICES. .16 (for all the details see the related technical documentation art. 69RH).

Doorbell calls

This application enables, with a normal N/O button outside and connected directly to the video door entry unit, accomplishing the function performed by the traditional doorbell.

The N/O button must be connected to the terminals 'FP' and 'M' of the video touch screen and, on pressing this button, the video door entry unit emits an acoustic signal without however turning on the monitor; the tone of the bell is fixed and cannot be modified.

Example of installation

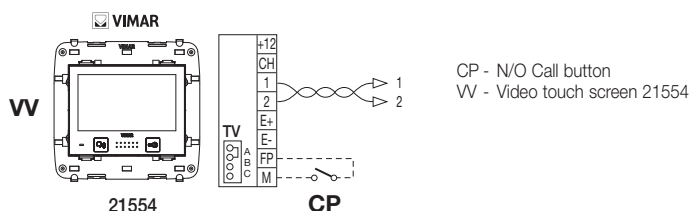


Figure 9 - Doorbell calls

Functions of the video door entry unit

Landing calls.

The system enables making both audio and audio/video external stations that can be used, for instance, on the landings of condominiums through which people pass to access the door for entry into the apartments.

The audio speech unit is made with the call button 20577 or 14577 while the audio/video one is composed of the same call button with which a video camera is combined (art. 20560, 14560 or 20565, 14565) with the opportunity of adding also the LED illuminators (art. 20570, 14570) if the environmental illumination is not enough.

Finally, to make the audio/video call from the landing, it is necessary to use the audio/video interface for video cameras 69AM (see the chapter "AUDIO/VIDEO COMMUNICATION FOR LANDING CALLS" of this manual).

Example of installation:

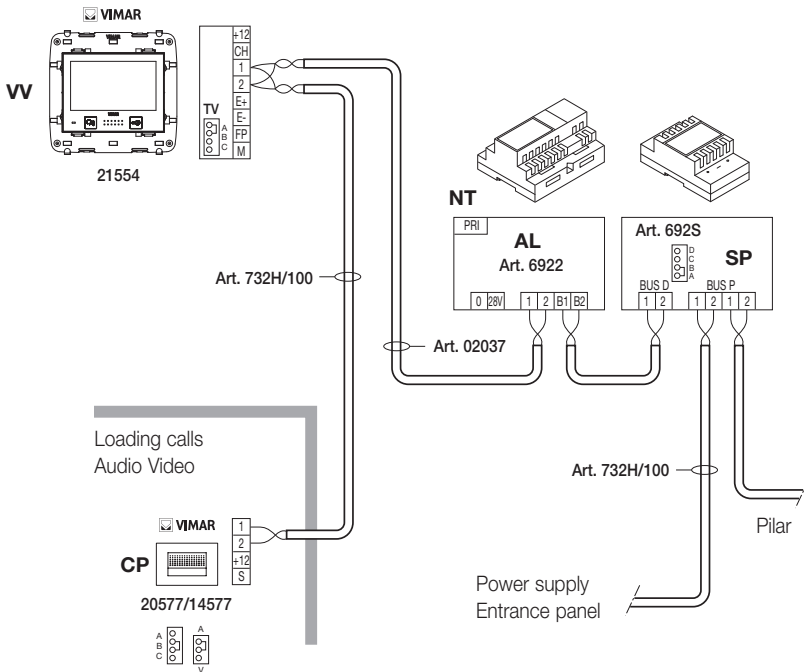


Figure 10 - Landing calls, audio only

AL - Power Supply Art. 6922
SP - Separator Art. 6925

CP - Landing call button Art. 20577/14577
NT - Network
VV - Video touch screen 21554

Functions of the video door entry unit

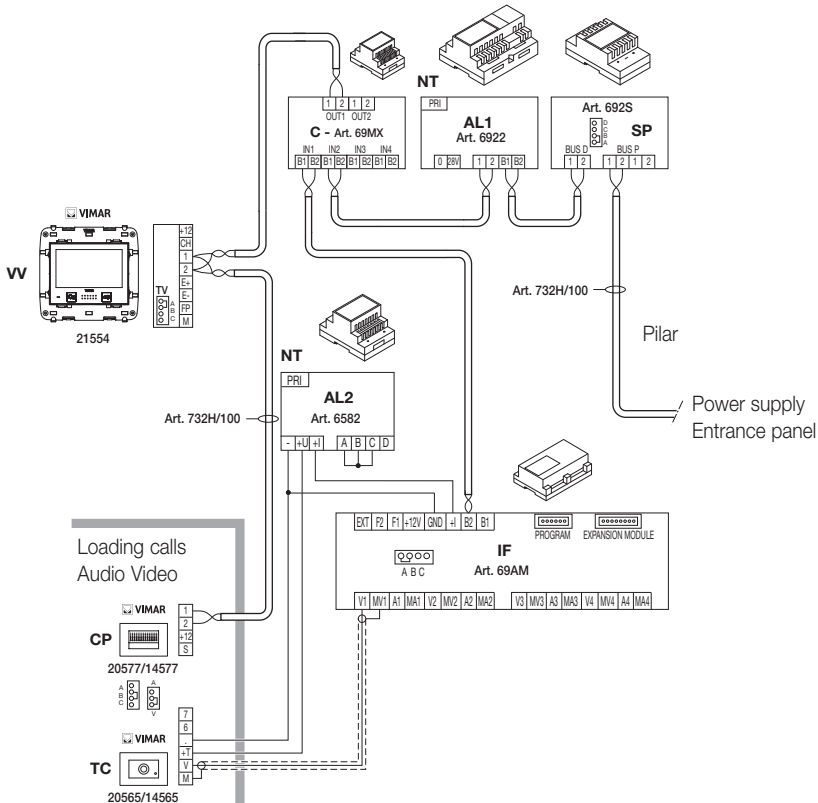


Figure 11 - Landing calls, audio/video

AL1- Power Supply Art. 6922
 AL2- Power Supply Art. 6582
 IF - Audio/video interface for video cameras Art. 69AM
 SP - Separator Art. 6925

CP - Landing call button Art. 20577/14577
 TC - Video camera with microphone Art. 20565/14565
 VV - Video touch screen Art. 21554
 NT - Network

For further details on the connections, see the technical documentation of the single articles (call button, video cameras, etc.) and the related diagrams given therein.

Functions of the video door entry unit

Installation of supplementary external ringtones.

If it is necessary to transmit the call audible warning to different points of the system (large properties, etc.) or boost its intensity, it is possible to install external bell repeaters.

To do this, uses the terminals '+12' and 'CH' in the case of ringtones that need an external relay at 12 Vcc (for instance art. 02021) while, if the Elvox bell 860A powered by the mains is used, the terminals to wire are 'CH' and 'M'.

N.B.: It is necessary not to exceed the absorption of 100 mA from the output '+12' so as not to cause any malfunctioning of the video door entry unit.

Examples of installation:

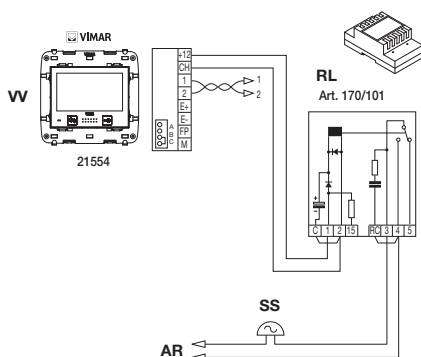


Figure 12 - External bell installation with relay

RL - Relay Art. 170/101
 SN - Elvox bell Art. 860A
 AR - Bell power supply
 NT - Network
 SS - Additional ringtone
 VV - Video touch screen 21554

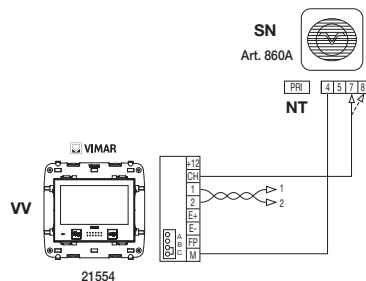


Figure 13 - Installation with Elvox

Video door entry units with simultaneous video calls.

The need to install multiple video door entry units in parallel, with the simultaneous activation of the LCD monitors, has requirements tied to their consumption of current that must be limited so as not to exceed the permissible delivery of the main power supply 6922.

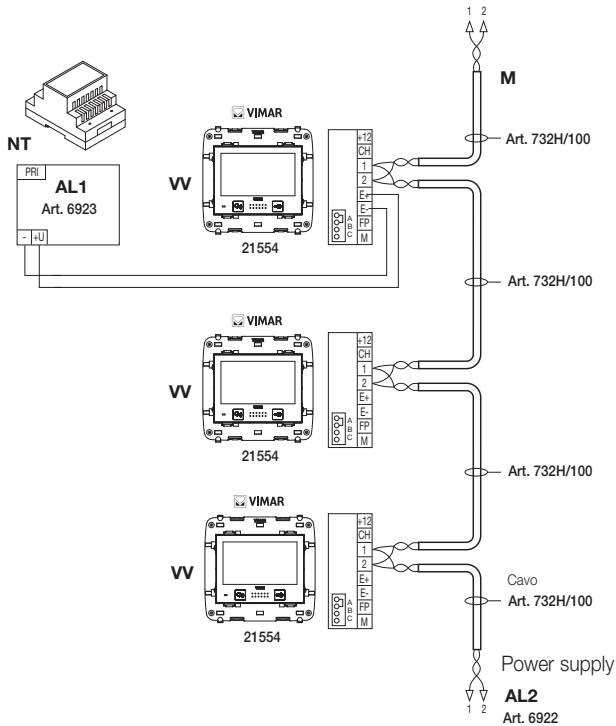
In the phase of configuration it is possible to set "call groups" (that are groups of video door entry units that at the same time answer the same call) in two different modes that can be set via advanced programming with PC and the USB 02024 interface with "SaveProg" software (for the details see chapter "CONFIGURATION OF THE OPTIONAL FUNCTIONS OF THE VIDEO DOOR ENTRY UNIT"); these modes are:

1. Group call with only the master active at the call (so only the master video door entry unit is switched on).
2. Group call with all the group video door entry units active at the call (all the video door entry units are switched on).

Functions of the video door entry unit

Note: In the second mode of operation, it is necessary to set up an additional power supply 6923 for each added video door entry unit (after the first two) in a call group so as to guarantee the correct current absorption from the main power supply.

Example of installation:



AL1 - Power Supply Art. 6923
AL2 - Power Supply Art. 6922

M - Pillar
NT - Network
VV - Multimedia video touch screen 21554

Figure 14 - Video door entry units with simultaneous video calls

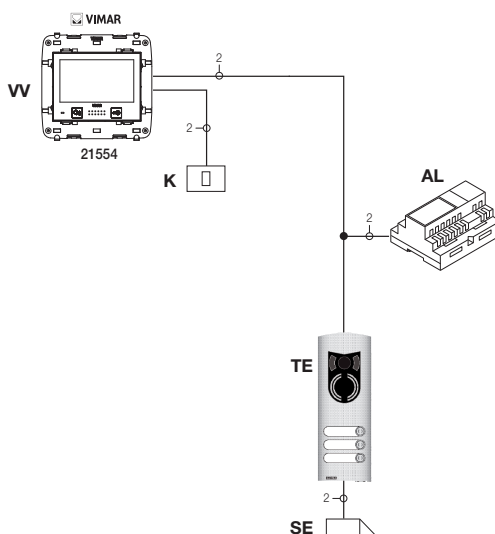
Installation topology

Installation topology.

In practice there are different installation topologies for creating video door entry systems; the type of each system in fact depends on the structure of the property, the number of outdoor and indoor stations that is desired to be installed and the functions to be enabled.

The most recurrent diagrams are typically those where there is one or more outdoor calling stations and one or more indoor answering stations. These outlines then differ according to the functions and services required (connection of a number of video door entry units in parallel, bell repeaters, actuators for external services, etc.) for which it is necessary to introduce specific supplementary modules (supplementary power supplies, external relays, etc.).

Examples:



AL - Power Supply Art. 6922

TE - Video external entrance panel Art. 1223

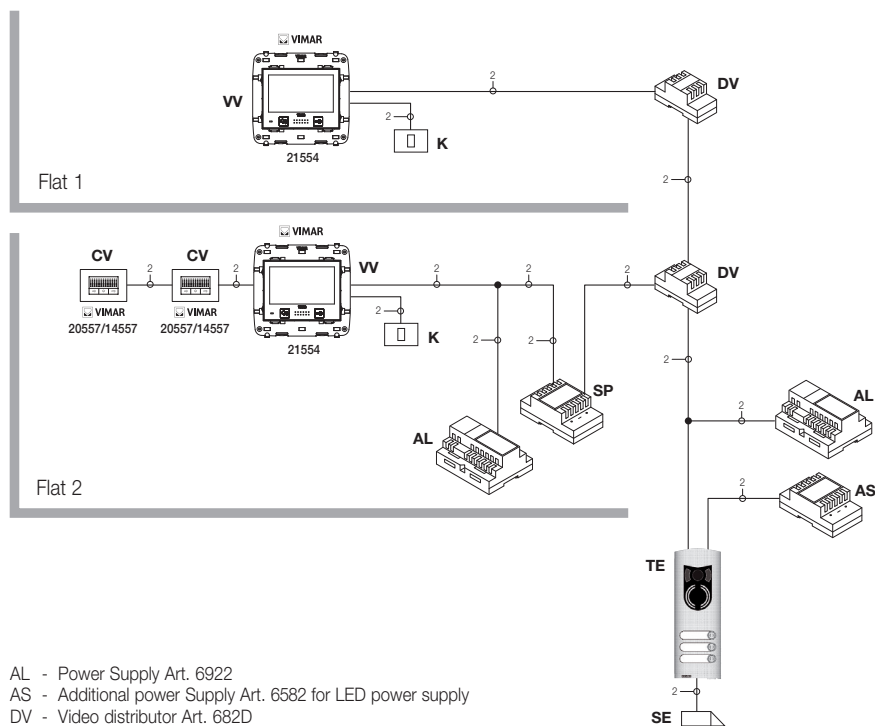
K - Landing call button

SE - Electric lock 12 Vdc

VV - Video touch screen 21554

Figure 15 - Video door entry system 2 indoor stations

Installation topology



AL - Power Supply Art. 6922
 AS - Additional power Supply Art. 6582 for LED power supply
 DV - Video distributor Art. 682D
 SP - Separator Art. 6925
 TE - Video external entrance panel Art. 1223

SE - Electric lock 12 Vdc
 K - Landing call button
 CV - Audio Door Entry Unit Art. 20557/14557
 VV - Video touch screen 21554

Figure 16 - Video door entry system multi-family

In the above examples, there is a single main power supply (AL) in the systems that use the single outdoor station (TE); in the case in which, it is necessary to build a network of intercommunicating audio/video door entry units isolated from the main system, in the case in which there are several external sources of audio-video signal (outdoor stations with video camera and voice unit) or you want to create separated communication sectors or in the case of systems installed in a building complex, it is necessary to insert further supplementary modules such as:

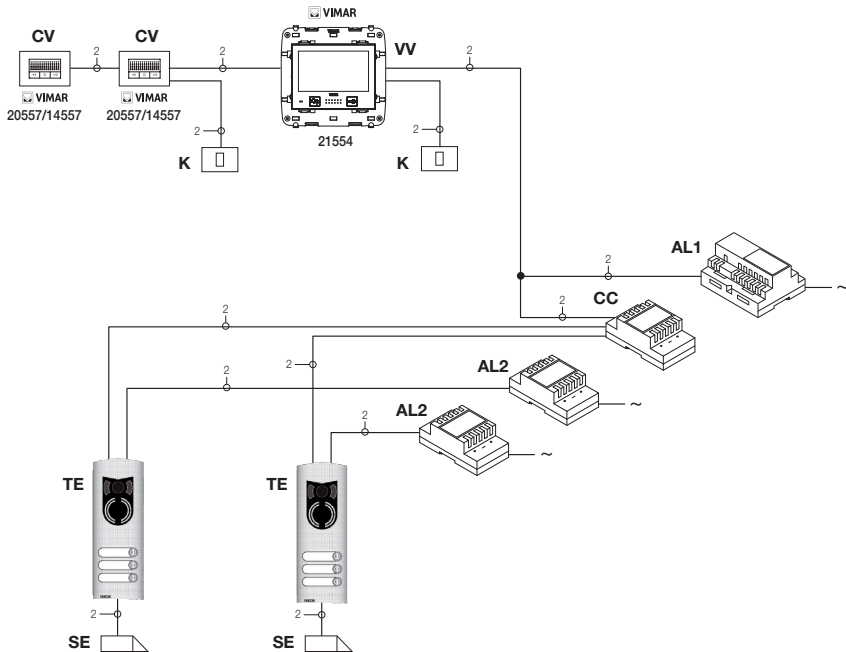
- concentrators (CC);
- additional power supplies (AL1 and AS);
- separators (SP).

Installation topology

In the system pillar there can be installed both Vimar and Elvox (VV, VE, CE) indoor stations, provided that these belong solely to the Two Wire system range.

For the technical details on the possible installation topologies both in the standard residential sector and in the building structure complex, see the examples given in the attached diagrams "INSTALLATION EXAMPLES AND DIAGRAMS" or the Two Wire technical diagrams.

Examples:



AL1 - Power Supply Art. 6922

AL2 - Power Supply Art. 6923

CC - Relay Art. 692C

TE - Video external entrance panel Art. 1223

K - Landing call button

CV - Audio Door Entry Unit Art. 20557/14557

SE - Electric lock 12 Vdc

VV - Video touch screen 21554

Figure 17 - Video door entry system 2 outdoor stations

Installation topology

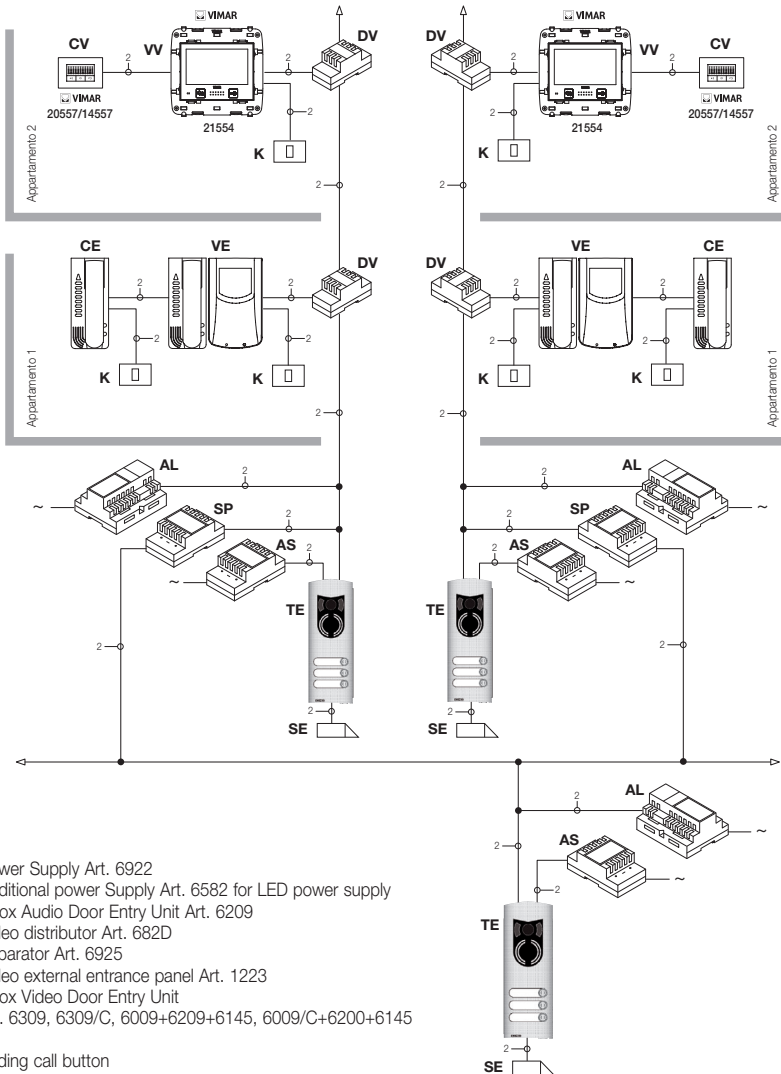


Figure 18 - Video door entry system in building complex

Configuration of the video door entry unit

Configuration of the video door entry unit.

All the main standard functions of the video door entry unit seen in the chapter "FUNCTIONS OF THE VIDEO DOOR ENTRY UNIT" are configured with the buttons on the front of the device (see fig. 6); for the advanced programming of the video door entry unit (optional functions such as setting groups, association of buttons with specific commands, configuration of the intercom calls, association with the landing audio/video call buttons, etc.) it is necessary to use the PC and the USB 02024 interface and the "SaveProg" software.

Configuration of the standard functions of the video door entry unit.

Configuration of the standard functions of the video door entry unit enables satisfying the application requirements of most of the systems that are installed. According to the state of operation of the monitor (ON or OFF) it is possible to set and program different functions that are as follows.

Enabling the self-start function.

To use this function it is necessary to configure the panel so that it is enabled to receive the self-start command (see the panel parameters in the Two Wire documentation - parameter enabled by default).

WITH THE MONITOR ON, sending the self-start command allows sequential viewing of the images sent from the video cameras of the video panels present besides the main one (it is necessary to set the self-start sequence on the MASTER panel with the PC and the USB 02024 interface with "SaveProg" software).

Enabling the "User Away" function.

This type of function allows the user, via the external panel, to signal his own absence to the guard room consumer unit (if applicable); it can moreover be used also in the case in which the user is at home but doesn't want to be disturbed. When the function is enabled the video door entry unit that receives the call doesn't emit any audible warning and it doesn't turn on the monitor.

Audio/video communication for landing calls.

If there is the need to install one or more indoor audio/video call stations ("landing call"), there are two different types:

- landing calls, "audio only";
- landing calls, "audio/video".

According to the chosen type, the installation of modules and auxiliary accessories is necessary.

Landing calls, audio only.

If there is a speech unit on the landing with only the audio function (art. 20577 or 14577), the video door entry unit must be configured for being able to receive the audio communication from the landing call button.

To associate the landing call button with the video door entry unit carry out the following procedure:

1. Code the landing call button (see the instructions sheet of art. 20577 or 14577)
2. Associate the video door entry unit/audio door entry unit with the landing call button 20577/14577 using the PC and the USB 02024 interface with "SaveProg" software (see the chapter "CONFIGURATION OF THE OPTIONAL FUNCTIONS OF THE VIDEO ENTRYPHONE" - Association of the landing calls) of this manual.

NOTE: To associate the video/audio door entry unit with the landing call solely of the audio type it is necessary to keep the call type selection jumper (set on the removable terminal side of 20577/14577) in position "A."

Configuration of the video door entry unit

Landing calls, audio/video.

If there is a speech unit on the landing with the audio/video function (art. 20577/14577 with 20560/14560 or 20565/14565), the video door entry unit must be configured for being able to receive the audio communication from the call button 20577/14577 and activation of the video camera from the landing.

To activate the video camera on the landing it is necessary to install the audio/video interface for video cameras art. 69AM.

To associate the landing call button with the video door entry unit carry out the following procedure:

1. Code the landing call button (see the instructions sheet of art. 20577 or 14577)
2. Associate the video door entry unit/audio door entry unit with the landing call button 20577/14577 using the PC and the USB 02024 interface with "SaveProg" software (see the chapter "CONFIGURATION OF THE OPTIONAL FUNCTIONS OF THE VIDEO ENTRYPHONE" - Association of the landing calls) of this manual.

NOTE: To associate the video/audio door entry unit with the landing call of the audio/video type it is necessary to keep the call type selection jumper (set on the removable terminal side of 20577/14577) in position "V".

IMPORTANT: The video/audio door entry unit can be associated with up to a maximum of 4 different landing call buttons; the identification code of the call button belongs to the class of the monitors (numerical code from 1 to 200).

The local lock activation time (the default setting is equal to 1 s) can be modified only with the PC and the serial USB 02024 interface and the "SaveProg" software (selection interval from 0 to 250 s).

Vice versa, the response time (30 s), conversation time (300 s) and self-start time (30 s) are fixed and are not modifiable.

Examples of different types of landing call:

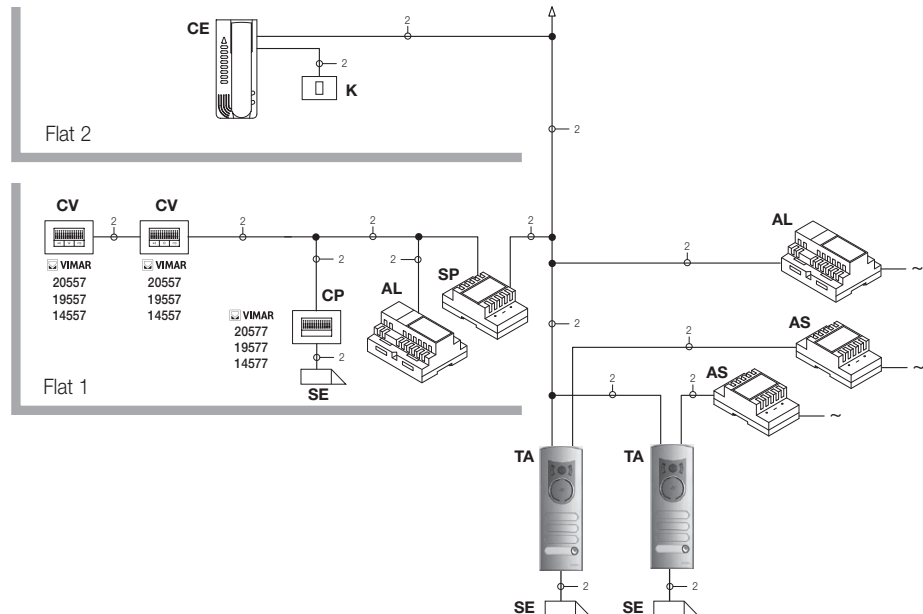


Figure 19 - Landing calls, audio only

Configuration of the video door entry unit

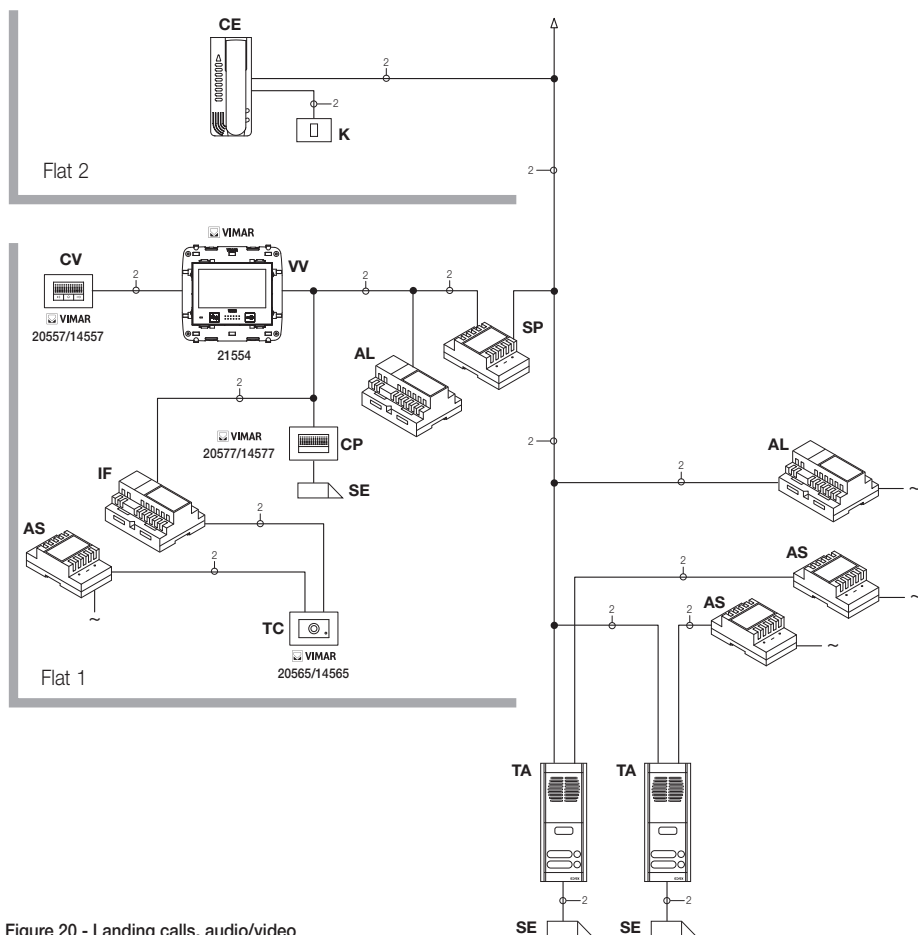


Figure 20 - Landing calls, audio/video

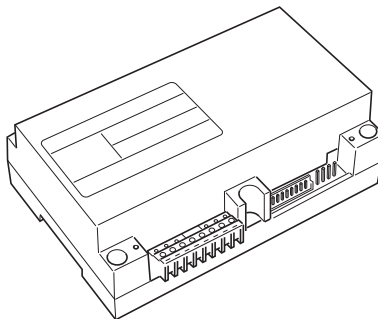
AL - Power Supply Art. 6922
 AS - Additional power Supply Art. 6582
 CE - Audio Door Entry Unit Art. 6209
 SP - Separator Art. 6925
 TA - Audio external entrance panel Art. 89F3/..., 89F4
 IF - Audio/video interface for video cameras Art. 69AM

CP - Landing call button Art. 20577/14577
 K - Landing call button
 CV - Audio Door Entry Unit Art. 20557/14557
 SE - Electric lock 12 Vdc
 TC - Video Camera Art. 20560/20565
 VV - Video touch screen Art. 21554

Configuration of the video door entry unit

Audio/video interface for video cameras.

The audio/video interface for video cameras art. 69AM is a DIN bar 8-module device necessary to make both the audio/video landing call and self-start any additional video cameras installed in the system with "CCTV function." The device is able to manage 4 video cameras directly with the related audio inputs (video cameras 20565 and 14565) and up to a maximum of 16 video cameras with related audio inputs using special expansion modules with 4 inputs art. 69AM/4.



The interface can be identified in the same way as a SLAVE panel, with a numerical code between 2 and 15 and different from that of any other panels present in the system; alternatively it can be used without numerical identification associating it with the landing call.

If it is identified as a SLAVE panel it is possible to self-start sequentially viewing the video cameras connected directly or through expansion modules (maximum 16 video cameras).

Whereas if the interface is not identified but only associated with the landing call button 20577 or 14577, the video cameras corresponding to the calls sent from the landing buttons (maximum 4 landing calls with the related video camera) can be turned on and self-start is also possible on the various video cameras connected to the interface making a fictitious intercom call toward the call button.

APPLICATIONS:

1. Using the interface 69AM for additional video cameras ("CCTV" function).

If it is wished to use the audio/video interface for video cameras 69AM for controlling the self-start of additional video cameras in the system (with any audio signal and up to a maximum of 16 video cameras using the special expansion modules art. 69AM/4), it is necessary to code the interface 69AM only with PC and USB 02024 interface and the "SaveProg" software assigning an identification code between 2 and 15 (numbering dedicated to the SLAVE panels) different to that of the other panels in the system (for greater details see the technical documentation for art. 69AM).

Configuration of the video door entry unit

In this way the interface behaves exactly as a normal SLAVE panel; to switch on the first video camera it is necessary to repeatedly send the SELF-START command from the video door entry unit (see the chapter "SELF-START FUNCTION") so as to "scroll" through any panels present to reach the first video camera connected to the 69AM.

N.B.: For each video door entry unit it is possible to configure the self-start sequence of the additional video cameras connected to the audio/video interface 69AM; **this configuration can be made exclusively with advanced programming of the audio/video interface by using the PC and the USB 02024 interface with "SaveProg" software (see the related technical documentation).**

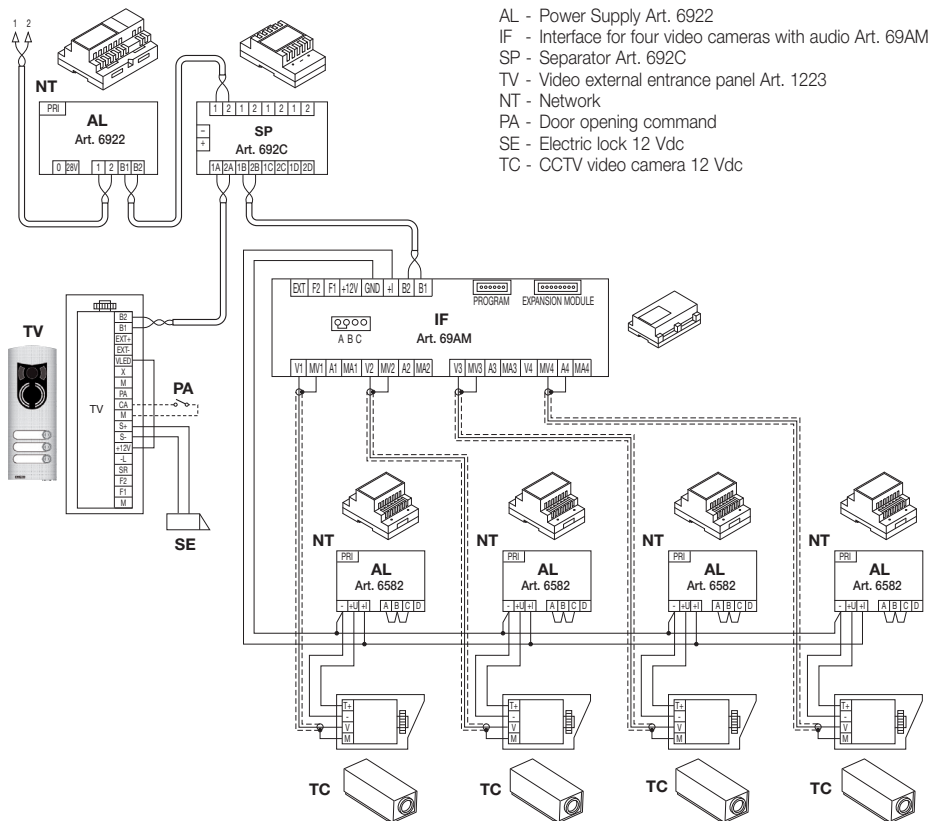


Figure 21 - Example of installation of additional video cameras

Configuration of the video door entry unit

2. Use of the interface 69AM for audio/video landing calls.

If there is a landing audio/video speech unit (push-button 20577/14577 and video cameras 20560, 20565, 14560, 14565), the audio/video interface can be used instead without numerical coding of the secondary panel as instead was necessary in the preceding case (in this way an ID reserved for the class of panels is not pointlessly occupied).

WARNING: The association between landing call button (20577 or 14577) and the video/audio door entry unit to be called can be done via advanced programming as the association of the video camera with the audio/video interface for video cameras (69AM); then it is necessary to use the PC and the USB 02024 interface with “SaveProg” software (see the related technical documentation).

On sending the audio/video call by pressing the landing nameplate button (art. 20577 or 14577), the interface will enable the video camera associated with it.

With this type of configuration it is possible to connect up to 4 video cameras for the 4 possible landing call buttons.

NOTE:

It is possible to self-start the video camera associated with the landing call button (and if necessary in sequence on the following ones) by sending an intercom call toward the latter; it is therefore necessary to configure the video door entry unit so it can send this command (see the chapter “PUSH-BUTTON CONFIGURATION - Intercom calls”).

Repeatedly sending the command allows “scrolling” through all the video cameras connected to the video interface 69AM.

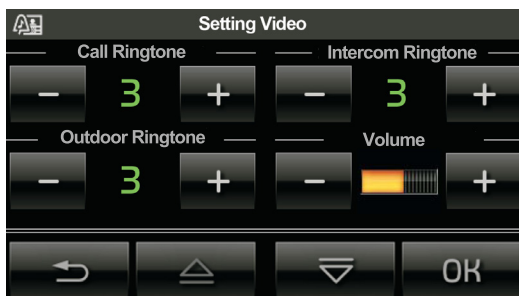
Ringtone type selection.

Using the video touch screen it is possible to select the types of ringtone to combine with the different calls that it can receive:

- call from panel (video door entry unit);
- call from landing (audio door entry unit);
- intercom call (Interphone).

- From the main menu, access the menu **Settings** by touching the  icon.

- Access the menu **Setting Video** by touching the  icon.



Configuration of the video door entry unit

Setting the entrance panel ringtone.



Through the  and  icons associated with **Call Ringtone**, set the desired value.

Setting landing call ringtone (push-button 20577 or 14577).

Through the  and  icons associated with **Outdoor Ringtone**, set the desired value.

The landing call ringtone can also be set through the advanced programming of the video door entry unit; in this case it is necessary to use the PC and the USB 02024 interface with "SaveProg" software (see the related technical documentation).



Setting intercom call ringtone.

Through the  and  icons associated with **Intercomm Ringtone**, set the desired value.

The intercom call ringtone can also be set through the advanced programming of the video door entry unit; in this case it is necessary to use the PC and the USB 02024 interface with "SaveProg" software (see the related technical documentation).



Ringtone volume adjustment.

The volumes of the ringtones that have just been described are adjusted in a similar manner for all the types of call (from external panel, landing or intercom).

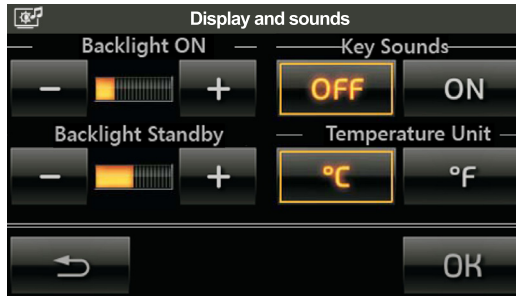
Through the  and  icons associated with **Volume**, set the desired value.

Setting the display parameters.



With the following procedures it is possible to set the three parameters:

- brightness;
 - contrast;
 - audible tone associated with the touch of your icons.
- From the main menu, access the menu **Settings** by touching the  icon.
 - Access the menu **Display and sounds** by touching the  icon.

Configuration of the video door entry unit



This is set by holding your finger on the icons until  and  the desired level is reached.

With the icons  and  it is possible to enable or disable the acoustic signal (beep) which accompanies the touching of the icons displayed by the touch screen.

Configuration of the functions associated with icons (INTERCOM CALLS).

The icons on the video touch screen can be configured for sending different specific commands on the bus.

They can be configured, for instance, for sending FUNCTION F1/F2 commands, the self-start command on a specific panel, the command for making an intercom call, etc...

For example:

1. **Set the push-button for intercom calls:** on the audio/video door entry unit that you want to call, press any button (except the hands-free answer button - preferably the LOCK or AUXILIARY SERVICE button) to send the code of the called device to the calling video door entry unit. The video door entry unit responds to programming with an audible warning.
2. **Set the button for sending the FUNCTION F1(F2):** using a device that is able to do it (for instance audio/video door entry units already configured, panels, USB 02024 interface for PC "SaveProg" software), send the FUNCTION F1(F2) command on the bus. The video door entry unit responds to programming with an audible warning.
3. **Set the button as self-start on a specific panel:** from the panel on which you want the self-start with the button being configured, send a call with the button corresponding to the video door entry unit; this responds to programming with an audible warning.
4. **Other functions:** they can be programmed entirely in a similar way to the preceding ones.

Configuration of the video door entry unit

Configuration of the optional functions of the video door entry unit (advanced programming with “SaveProg” software).

With the advanced programming it is possible to configure some optional functions of the video door entry unit or (when it is possible) this can be accomplished by pressing the appropriate combinations of buttons.

By advanced programming we mean a configuration of the video door entry unit that is only accessible via auxiliary programming instruments such as the PC and the USB 02024 interface with “SaveProg” software. In the following examples we will make reference to the “SaveProg” application.

NOTE: In the SaveProg management application the programmable buttons (or the sequences in 2ndF) are indicated by P0. .P8:

CORRESPONDENCE BETWEEN SaveProg AND FUNCTION WITHOUT 2ndF	
SaveProg	Function
P0	LOCK
P1	SELF-START
P2	STAIR LIGHT

CORRESPONDENCE BETWEEN SaveProg AND FUNCTION WITH 2ndF	
SaveProg	Function
P0	LOCK
P1	SELF-START
P2	SERVICE_AUX_1
P3	SERVICE_AUX_2
P4	FREE
P5	FREE
--	--
P7	FREE (F1 by default)
P8	FREE (F1 by default)

Programming the icons (INTERCOM CALLS).

The push-button function programming can be done by directly using the USB 02024 interface for PC “SaveProg” software without operating on the device with direct programming.

Example: Programming push-buttons with “SaveProg”: the intercom call is set as a “DEVICE” function combined with the indication of the ID address of the called device.

Configuration of the video door entry unit

Setting the flags.

The flags are options that can be turned on/off and affect the behaviour of the video door entry unit; access to the configuration of the flags is made exclusively with the USB 02024 interface for PC "SaveProg" software.

The flags that can be set are given in the following table:

Centralino	Enables control via the consumer unit
G3 solo Est.	Enables Group 3 only for external calls from panel
G4 solo Int.	Enables Group 4 only for intercom calls
Non RIPCH IC	Disables call repetition for the intercom
G1 solo Est.	Enables Group 1 only for external calls from panel
G2 solo Int.	Enables Group 2 only for intercom calls
Grp. Escl. S.	If on "User Away," the secondary ones ring all the same
I.C. Illim.	Unlimited duration of intercom conversations

Setting the group calls.

Besides directly setting the secondary identification code (see the chapter "SECONDARY NUMERICAL CODING OF THE VIDEO DOOR ENTRY UNIT" of this manual) that enables inserting the video door entry unit in a group of devices (audio/video door entry units) that at the same time receive a call, this association can also be made via advanced programming with USB 02024 interface for PC "SaveProg" software. There are four possible different groups (G1, G2, G3 and G4); each device can be associated with the single group by indicating (in the specific field that can be filled in with the aforesaid instruments for advanced programming) the identification code of the master.



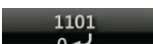
Associating landing calls.

Via advanced programming with the USB 02024 interface per PC and "SaveProg" software, it is possible (in the specific field that can be filled in with the above-mentioned instruments for advanced programming) to set the landing call buttons from which the video door entry unit is able to receive a call.

Each video door entry unit can receive calls up to a maximum of 4 different landing call buttons.

Configuration reset.

This procedure is recommended if you want to modify the ID of a video door entry unit previously programmed and without keeping the programming for operation of the device.

- From the main menu, access the menu **Settings** by touching the  icon.
- Access the menu **Setting Video** by touching the  icon.
- Finally touch the  icon to reset the video door entry unit.

Programming the Two Wire

Programming the Two Wire.

WARNING! The following operations must be carried out after powering up the system and before programming the audio door entry units and video door entry units.

In the same system there must be only one MASTER panel (identification code 1) while any secondary panels must be set as SLAVES (see the technical documentation related to the particular panel used).




Do the programming of the panels powering only one panel at a time; the master panel must always be programmed last.

The configuration of the panel parameters can be done in three different ways:

- Directly from the panel itself using the alphanumeric keyboard or with single buttons.
- With PC and USB 02024 interface and "SaveProg" software.

This section will illustrate solely the method of programming with the alphanumeric keypad on the front of the Two Wire panel; for configuration with the PC see the related technical documentation.

To access the panel configuration menu carry out the following operations:

- Press buttons  and  at the same time.
- Enter the password to access programming; key in "654321" for the first configuration (default password set by the factory that must then be modified by the installer).
- Press the button  to confirm.

Once in programming mode, use the and push-buttons ,  and  to select the parameters, the push-button  to confirm changes, and the push-button  to confirm changes.

At this stage it is possible to scroll through the list of all the panel parameters and the related set values; for each of these it is possible to enter a value that identifies the parameter and the related configuration.

The set values must be within a certain range (maximum value - minimum value) according to the parameters table attached to the technical documentation of the panel (see, for instance, the table of "TECHNICAL PARAMETERS OF THE PANEL" illustrated on the following pages).

For the configuration of the Two Wire panels without the alphanumeric keypad, see the related technical documentation.

Programming the Two Wire

Example of technical parameters of panel.

Message language	English
Panel ID	1
Coding digit number	Sequential
Lock code	No association
Push-button preferential code	No association
Push-button preferential code	No association
Lock codes	No association
F1 codes	No association
F2 codes	No association
Device numbering	No association
Search the entire agenda	No
Device names	No association
Programming password	654321
Answer time	30 sec.
Conversation time	120 sec.
Self-start time	10 sec.
Lock time	1 sec.
F1 time	1 sec.
F2 time	1 sec.
External volume	15
Internal volume	3
Lock block	Off
Enable / disable	No association

Panel ringtone repeat	Enabled
Monitor/audio door entry unit ringtone cycles	2
Common locks	No association
F1 common	No association
F2 common	No association
Self-start disable	No
Clock	01/01/05 00:00
Timed code enabling	No
First timed code	No association
Last timed code	No association
Code validity time bands	No association
Self-start sequence (Master entrance panel only)	No association
Monitor/audio door entry units configuration Monitor/audio door entry units function button assignment Intercommunicating Self-start Auxiliary services F1 function assignment F2 function assignment F1 function specific F1 function specific No intercommunicating call ringtone No ringtone for calls from panels	

Integration of the video door entry unit with the By-me.

The video touch screen permits managing the By-me home automation system (control of the electrical system, burglar alarm, temperature control, load control, automations, etc.) via the video door entry unit that basically becomes a real control panel.

The appliance will be in home automation mode and will switch onto video door entry mode every time there is an external call or when the user activates it via the navigation menus on the By-me home automation side.

Glossary

Glossary.

Entrance panel.

Set of audio and video devices that allow identifying the party asking to enter the dwelling via the outdoor station.

Indoor station.

Single video door entry or only audio door entry device that enables identifying the person at the speech unit that made the call. Generally the indoor station, besides communicating with the external panel, allows carrying out other operations such as opening lock, lighting stairs, etc.

Speech unit.

Generic term used to indicate the entrance panel or landing panel.

Pillar.

Term used to indicate the set of wirings connecting the indoor stations with the power supply.

Power supply.

Device that incorporates the drives for lock opening, the call generators and the necessary power supply both to the pillar and to the panel.

Landing panel.

Set of audio and video devices that allow making a call to the indoor station(s) and identifying the party making the call. It is generally installed for making calls from zones inside the building (landing, secondary entrances, etc.).

Self-start.

Optional function that allows audio and video communication between the indoor station and entrance panel or indoor station and landing panel, without a call coming (from the entrance panel or landing panel respectively).

Intercom.

Optional function that permits audio communication between two indoor stations.

Bus.

Physical connection permitting the transit of the electrical signals necessary for the operation of the system; generally, both analogue (audio and video) and digital (commands) electrical signals can transit on the Bus and also the power supply for the devices.

Identification code (ID).

Numerical code that univocally identifies the single device within the system. It is the name (in numerical format) of the device.

Master.

Main object that manages the system. Typically we talk about the "Master Panel" that refers to the main panel (that must be unique in the whole system) always identified with ID equal to 1.

Slave.

Secondary object in relation to the master; in general it is managed by the master. If we talk about "Slave Panel" the secondary panels of the system are identified with an ID other than 1.

Basic programming.

Programming the main functions of a device. Generally, this programming can be done without the aid of additional instruments such as programmers or PCs.

Advanced programming.

Programming the optional functions of a device. Generally, this programming is done with the aid of additional instruments such as programmers or PCs equipped with dedicated software.



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