

Installation and operation manual



Art. 69AM/T
Switching module for ELVOX DUE FILI (2-wire systems)





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1. GENERAL INFORMATION

Type 69AM/T is an “only video” switching module utilised in Elvox DUE Fili audio/video installation for video surveillance.

A maximum of four cameras can be connected to the base module. By using expansion module Type 69AM/T4, to which a maximum of four cameras can be connected at a time, the number of cameras can be increased. Up to three modules Type 69AM/T4, for a maximum of 16 cameras, can be connected to Type 69AM/T.

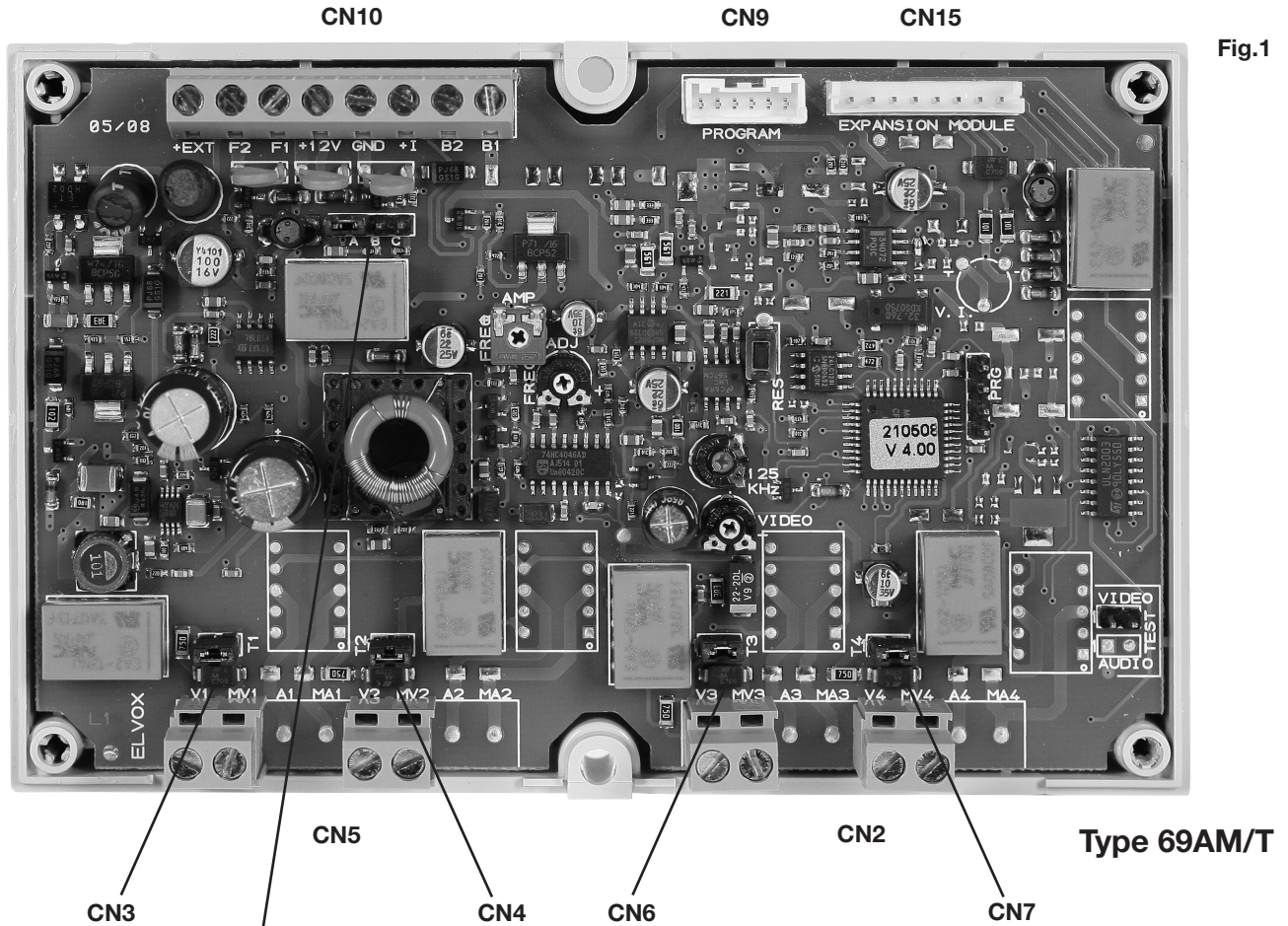


Fig. 1

Type 69AM/T

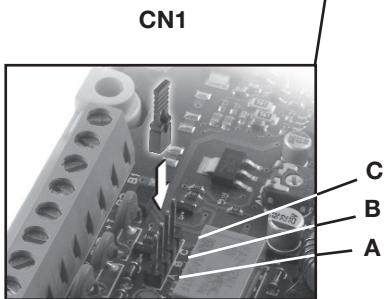
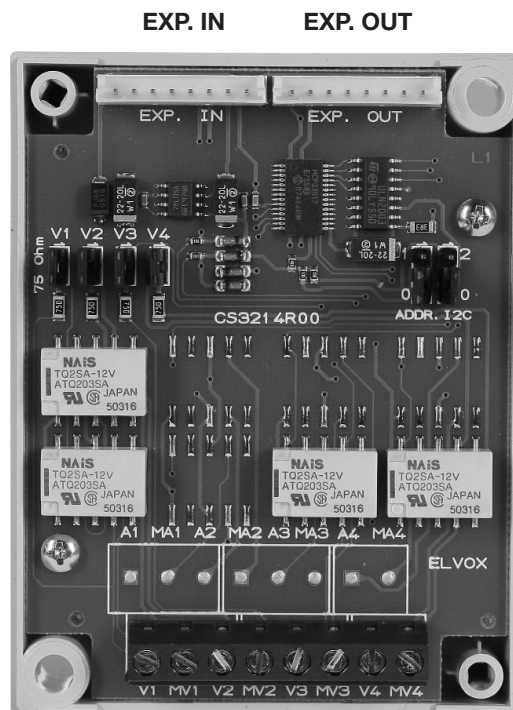


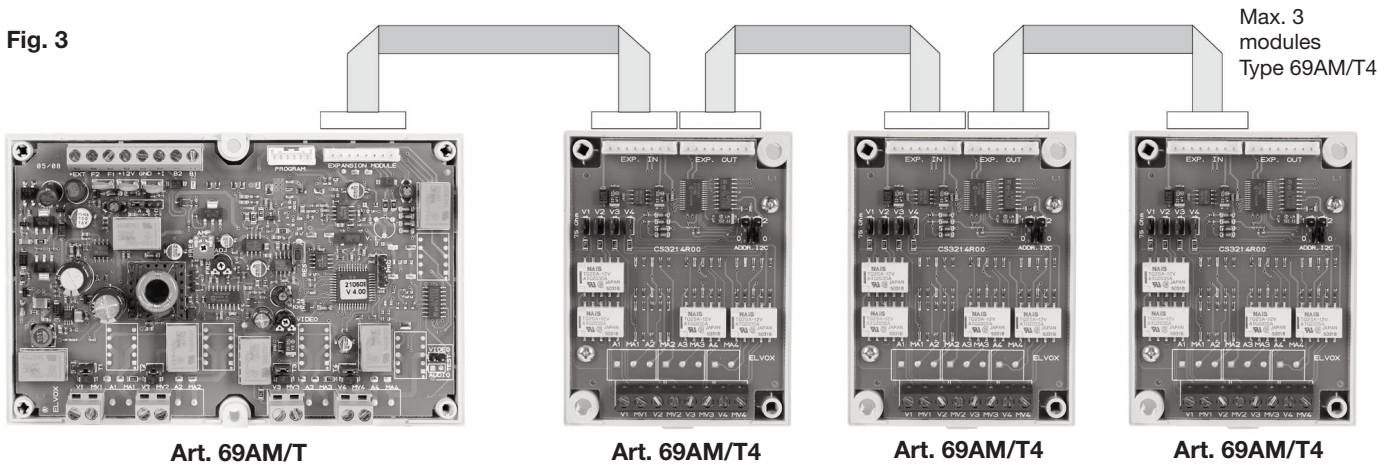
Fig. 2



Type 69AM/T4

Connector CN15 of the 69AM/T module must be connected to EXP. IN of the first 69AM/T4 module. EXP.OUT of 69AM/T4 must be connected to EXP.IN of the following module, and so forth. The cameras are connected by means of a coaxial cable to V1-M1, V2-M2, and so forth.

Fig. 3



The maximum number of cameras according to the number of additional 69AM/T4 modules is specified in the table below:

ADDITIONAL MODULES	MAXIMUM NUMBER OF CAMERAS
0	4
1	8
2	12
3	16

The 69AM/T switching module cannot be used as a Master entrance panel.

2. ELECTRICAL INSTALLATION

The interface is connected to the system by means of the CN10 terminal block on the top left side.

MARKING	DESCRIPTION
+ E	+I of an auxiliary power supply unit Type 6923, the negative pole must be connected to M
F2	Open-collector output, max 100 mA. Use +12 Vdc for the power supply
F1	Open-collector output, max 100 mA. Use +12 Vdc for the power supply
12	To be used for feeding loads on F1 and / or F2. Max 100 mA. Present only when at least one of the following is active: F1, F2, camera, data transmission
M	Reference ground of +I, 12, +E
+ I	Max. positive active output 100 mA (+12 Vdc when one camera is switched on).
B1, B2	Elvox Due Fili Bus

3. HARDWARE CONFIGURATION

Hereinafter reference is made to CN10 positioned at the top left.

3.1. BUS TERMINATION

Connector CN1 is located on the top left side below CN10. A jumper in one of the three possible positions (A, B, C) makes it possible to terminate the bus correctly with reference to the video signal. Identify the condition that provides the best viewing compromise.

3.2. VIDEO TERMINATION

When jumpers CN3, CN4, CN6 and CN7 are closed they interpose a 75 Ohm termination for each of the four possible video signals. Needless to add, the terminations are independent (already set by default).

3.3. ID ASSIGNMENT

The identifier is assigned by means of software programming.

The switching module can be identified as an entrance panel or as a device. To identify the switching module as an entrance panel the parameter ENTRANCE PANEL ID must be set to a number between 2 and 15. To identify the switching module as a device the parameter ENTRANCE PANEL ID must be set to 0 and then a value of between 1 and 200 must be assigned to the parameter DEVICE ID (see headings 4.2 and 4.3).

4. SOFTWARE CONFIGURATIONS

Configurations can be carried out via programmer Type 950C connected to CN9 on the top right-hand side and accessible also from the exterior of the cover. Otherwise, interfaces Type 692I or 692I/U can be used together with the SaveProg PC complete software. Programming procedures concern the switching module to which the programmer is connected. The configurable parameters are:

PARAMETER	DEFAULT	NEXT ITEM	PREVIOUS ITEM	SUB ITEM
Language	English (Local language)	↓	↑	
ID as entrance panel	0 (Not Assigned)	↓	↑	
ID as device	0 (Not Assigned)	↓	↑	
Conversation time	120 s	↓	↑	
Self-start time	10 s	↓	↑	
FUNCTION 1 TIME	1 s	↓	↑	
FUNCTION 2 TIME	1 s	↓	↑	
F1 COMMON	Blank	↓	4 x ↑ or R	↑
F2 COMMON	Blank	↓	4 x ↑ or R	↑
Number of Cameras	1	↓	↑	
Self-start sequence	Blank	↓	204 x ↑ or R	↑
Speech Unit Camera	Blank	↓	200 x ↑ or R	↑
Speech Unit ID	Blank	↓	4 x ↑ or R	↑
Audio powered (only 69AM)	YES	↓	16 x ↑ or R	↑
For EEPROM reset	N.A.	↓	↑	

The programmer keypad layout is as follows:



The key has no function as the programmer is powered by the bus. For the same reason the auto-shutdown function is not available. The programmer keys and enable selection of the item required from the main menu, from the following:

```
Select Function:
Terminal Mode
```

During the waiting for an answer from the panel, the display shows:

```
Entering
Terminal Mode
```

After a few seconds, the programmer display shows the type and version of the software related to the panel:

```
Program. 63AM OK
GG/NN/AA SW 000
```

When this disappears, the first item of the programming menu is displayed. The programming procedure terminates either when the timeout

elapses or when the key is pressed while the user is in any of the external menus listed below.

4.1 MESSAGE LANGUAGE

```
Messag. Language
English
```

Programming can be in Italian local (default) or English. Other local languages will be available for the respective markets.

To change language, press for local or for English.

```
Messag. Language
Italian
```

To cancel, press . To confirm, press . Acceptance of the command, as in all cases, is shown on the first line of the display:

```
Fatto!
Italian
```

The display now changes to:

```
Lingua Messaggi
Italiano
```

Use the key to move to the previous item in the programming menu.

4.2 SWITCHING MODULE ID AS ENTRANCE PANEL

Press to move to the next item, which allows you to change the switching module ID. To change the ID, enter number 0 or a number between 2 and 15.

```
Panel ID
12
```

To cancel press . To confirm, press . After running a check to ascertain that the system does not include any other entities at the time having the same address, the acceptance of the ID change is shown on the top line of the display:

```
Done!
12
```

If the ID number is off range, the error is indicated on the top line of the display:

```
Out of Range
59
```

Use the key to return to the previous item in the programming menu.

4.3 SWITCHING MODULE ID AS DEVICES

Pressing push-button you scroll to the next item through that you can change the switching module identification code, but considered as interphone or video interphone. As default the ID is not assigned:

```
Device ID
0
```

To change identification code, enter the digits as to form a number from 1 to 200 in such a way it is not equal to an interphone or video interphone identification code (ID).

```
Digiti ID disp. Enter device ID
1 10
```

```
Enter device ID
100
```

To cancel press . To confirm press push-button . After controlling that in the installation, in that moment, there is not any other object with the same address, the command acceptance is indicated in the first line of display:

```
Done! Device ID
100 100
```

If the Identification Code (ID) is out of limit, the first display line shows the incongruence:

```
Out of Range
888
```

With push-button you scroll to the next item of the programming menu

4.4 CONVERSATION TIME

Press to go to the next option, where you can edit the time during which conversation with the switching module remains on the monitor/interphone. The current value is shown on display:

```
Convers. Time
120 s
```

By entering digits the time can be changed in ten-second steps:

```
Convers. Time
180 s
```

To cancel press . To confirm, press . As for all the other commands, acceptance of this command is shown on the first line of the display:

```
Done!
180 s
```

If the time entered is outside the admissible interval, i.e. over 2550 seconds, the error is shown on the top line of the display:

```
Out of Range
9990 s
```

Press to return to the previous item in the programming menu.

4.5 SELF-START TIME

Press to go to the next item in which the user can modify the time for which the self-start function requested from the monitor or interphone lasts on the panel.

The current value is shown on display:

```
Self-start Time
10 s
```

On entry of digits, the time can be modified in intervals of seconds:

```
Self-start Time
25 s
```

To cancel, press . To confirm, press . Acceptance of the command, as in all cases, is shown on the first line of the display:

```
Done!
25 s
```

If the time is outside the admissible interval, i.e. over 255 seconds, the first line of the display shows the error:

```
Out of Range
999 s
```

Use the key to move to the previous item in the programming menu.

4.6. FUNCTION 1 TIME

Press to go to the next item in which the user can modify the time for which output F1 is activated.

The current value is shown on display:

```
Function 1 Time
 1 s
```

On entry of digits, the time can be modified in intervals of seconds:

```
Function 1 Time
 5 s
```

To cancel, press . To confirm, press . Acceptance of the command, as in all cases, is shown on the first line of the display:

```
Done!
 5 s
```

If the time is outside the admissible interval, i.e. over 255 seconds, the first line of the display shows the error:

```
Out of Range
999 s
```

Value 0 has the special meaning of activating output F1 for 0.5 seconds:

```
Function 1 Time
0.5 s
```

Use the key to move to the previous item in the programming menu.

4.7. FUNCTION 2 TIME

Press to go to the next item in which the user can modify the time for which output F2 is activated. The current value is shown on display:

```
Function 2 Time
 1 s
```

On entry of digits, the time can be modified in intervals of seconds:

```
Function 2 Time
 5 s
```

To cancel, press . To confirm, press . Acceptance of the command, as in all cases, is shown on the first line of the display:

```
Done!
 5 s
```

If the time is outside the admissible interval, i.e. over 255 seconds, the first line of the display shows the error:

```
Out of Range
999 s
```

Value 0 has the special meaning of activating output F2 for 0.5 seconds:

```
Function 2 Time
0.5 s
```

Use the key to move to the previous item in the programming menu.

4.8. COMMON F1

Press to move to the next item in which the user can set for which other F1 activations the current panel must activate its output. In practice the F1 output of a panel can be activated not only on a direct command, but also indirectly when the F1 of another panel (max. four) is activated.

There is no assignment by default:

```
Common F1      1
Not Assigned
```

Enter a number between 1 and 15, i.e. the panel ID (in this case the first of four possible options) which must also activate its F1 function on this command:

```
Common F1      1
```

To cancel, press . To confirm, press . Acceptance of the command, as in all cases, is shown on the first line of the display:

```
Done!
 5
```

If the ID is outside the admissible range, the first line of the display shows the error:

```
Out of Range
88
```

To cancel the assignment, enter a single '0' as ID:

Use keys and to move from one index to another. From position

1, press to move to the next item in the programming menu.

Use the key to skip all intermediate phases and go to the previous item in the programming menu.

4.9. COMMON F2

Press to move to the next item in which the user can set for which other F2 activations the current panel must activate its output. In practice the F1 output of a panel can be activated not only on a direct command, but also indirectly when the F2 of another panel (max. four) is activated. There is no assignment by default:

```
Common F2      1
Not Assigned
```

Enter a number between 1 and 15, i.e. the panel ID (in this case the first of four possible options) which must also activate its F2 function on this command:

```
Common F2      1
```

To cancel, press . To confirm, press . Acceptance of the command, as in all cases, is shown on the first line of the display:

```
Done!
 5
```

If the ID is outside the admissible range, the first line of the display shows the error:

```
Out of Range
88
```

To cancel the assignment, enter a single '0' as ID:

Use keys and to move from one index to another. From position

1, press to move to the next item in the programming menu.

Use the key to skip all intermediate phases and go to the previous item in the programming menu.

4.10. NUMBER OF CAMERAS

By pressing the push-button you can scroll to the next item through which it is possible to program the cameras for CCTV connected to the base module or through the additional modules type 69AM/T4. The camera number must be according to the number of additional modules installed:

```
No. Cameras
 1
```

Therefore as default only the basic module is to be used. To change this

number you must start entering the digits, for example than :

```
No. Cameras    No. Cameras
 1              12
```

To cancel press **EXIT**. To confirm press push-button **OK**. The acceptance of the command, as for all other commands, is indicated on the first line of display:

```
Done!
12
```

The maximum number of cameras is 16. With push-button **↑** you can scroll to the previous item of the programming menu.

4.11. SELF-START SEQUENCE

Press **↓** to move to the next item in which the user can program the self-start sequence of the cameras in the switching module, monitor by monitor, including any porter switchboards. There is no default sequence so the default involves exclusive use of the first camera.

```
S.-start Seq. 1
Not Assigned
```

To change ID of the monitor or interphone, use keys **↑** and **↓**. Otherwise enter the number of the monitor or interphone, from 1 to 200 for monitors/interphones and from 201 to 204 for porter switchboards:

```
Enter device ID
85
```

To cancel press **EXIT**. To confirm, press **OK**. To change the sequence of the selected device, starting from the point at

which the current value is shown, press **OK**.

```
S. Activ. Seq. 85
Not Assigned
```

To specify the sequence of cameras, use the **1** and **9** keys for the first 9:

```
Sequence for 85
321
```

For cameras beyond 9 there is a prefix system activated using the **0** key. Press once and a '?' symbol will be displayed in place of a digit:

```
Sequence for 85
321?
```

At this point, press a key from **0** to **6** to enter the ID from 10 to 16.

```
Sequence for 85
321A
```

Given that only one position is used on the display to show these values, the letters A to G are used, according to the following table:

KEY	CAMERA NUMBER	LETTER
0	10	A
1	11	B
2	12	C
3	13	D
4	14	E
5	15	F
6	16	G

The last ID present in the sequence can be cancelled by means of the **R** key. IDs may be duplicated within a sequence. The maximum limit is 16 for each monitor/interphone. To facilitate the composition of a series of identical sequences, the programming application has a clipboard function. During editing mode if the '?' symbol is not displayed, if the user

presses the **↓** key the sequence shown on the display is copied into a temporary memory. The user can terminate the current sequence, move

to another monitor / interphone and press **↑**, thus retrieving this memory which overwrites any sequence that may be already present. To cancel

press **EXIT**. To confirm, press **OK**. As for all the other commands, acceptance of this command is shown on the first line of the display:

```
Done!
321A
```

You can move between one ID and another also by means of the **↑** and **↓** keys. From the ID 1 position, press **↓** to move to the next item in the programming menu. To cancel all sequences, starting from the point

where the current value is shown, press **0**:

```
1=Reset S.start
```

You will be prompted to confirm by pressing **1**:

```
1=Reset S.start
YES
```

followed by **OK**. Press **EXIT** or **0** **OK** to cancel the procedure. If you choose to reset the sequences the following message is displayed:

```
Please wait...
```

And finally:

```
Done!
Please wait...
```

Press **R** to skip all intermediate steps and return to the previous item in the programming menu.

4.12. CALL BUTTON CAMERA (Not used)

4.13. OTDOOR SPEECH UNIT ID (O.D.S.U.) - (Not used)

4.14. AUDIO POWERED (Not used)

4.15. TOTAL RESET

Press **↓** to move to the next item in which you can reset all programming options of the switching module. A sequence of eight digits will be displayed, with different digits each time:

```
For EEPROM reset
40177660
```

Enter the requested information. Each correct digit is replaced by a dash:

```
For EEPROM reset
-0177660
```

You can cancel the procedure at any time by pressing **EXIT**. After entering at least one digit you will be prompted to enter another numerical sequence. If no numbers have been entered the system quits the programming procedure. After deleting the last digit on the display the following message appears:

```
**OK TO ERASE**
```




This message is always displayed in English. Press **F2 OK** to delete all data, or press **EXIT** again to cancel. After pressing **F2 OK** the following message is displayed for several seconds:

Please wait...

And lastly:

OK TO RESTART

As before, this message is always displayed in English.

Press **F2 OK** to restart the switching module programming procedure from the beginning.

5. OPERATION

First ensure that the electrical installation is correct and a unique ID has been assigned to all devices in the system.

Art. 69AM/T has no buttons and cannot therefore generate a call on its own initiative. It can be used exclusively in self-start mode, either by inserting it in a sequence of entrance panels and CCTV cameras or by using a dedicated button.

In the first case with switching module Art. 69AM/T set with entrance panel ID, the self-start button can be pressed to switch from one entrance panel to the next by continuing to press the self-start button of a monitor. Once the switching module "entrance panel" has been reached, you can scroll through the cameras associated with the switching module simply by pressing the LOCK button.

In the second case, setting the switching module to device ID (choosing an available number), you can access the specific camera or cameras from the selected monitor directly. From an entrance panel you must set a button of the monitor as "intercom call" towards the switching module in question and one of the parameters from C1 to C4 with the same number (switching module ID). The choice of the self-start sequence of the camera or cameras is executed by means of the "SELF-START SEQUENCE" parameter.

The 69AM/T4 switching module has two outputs F1 and F2, which can be used as required. These outputs are of the open collector type, each rated at 100 mA. The protection diode is already integrated internally on the +12V lines. Therefore, avoid using externally powered relays.

As with the other panels, times are adjustable and can be set in common with other panels to obtain advanced functions. By subsequently programming the monitor/interphone function keys, special functions can be enabled such as access door opening, activation of a camera tilt mechanism etc.



★

BUS TERMINATION FOR ELVOX TWO-WIRE INSTALLATIONS

This note applies to all devices with ELVOX TWO-WIRE technology equipped with “BUS termination connector or dip-switch”, which is identified by the screen-printed letters “ABC” and marked on the wiring diagrams with *.

For correct adaptation of the line, make the setting according to the following rule:

Maintain position “A” if the BUS enters and exits from the device;

Move to position “B” (if Elvox cable) or to position “C” (if CAT5 twisted pair cable) if the BUS line terminates in the device itself.

“A” = NO TERMINATION

“B” = TERMINATION 100 ohm

“C” = TERMINATION 50 ohm

INSTALLATIONS WITH PASSIVE DISTRIBUTOR 692D

(DIN rail version)

ALWAYS use output 1 on distributor type 692D (the only one that has no termination jumper).

For termination of type 692D: If outputs “OUT”, “2”, “3” or “4” are not used, KEEP the jumper on the “TOUT”, “T2”, “T3” or “T4” connector. The default “TOUT” connector is in the “100” position (Elvox cable), position it to “50” only if using a CAT5 twisted pair cable.

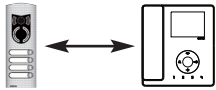
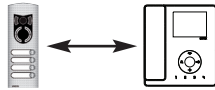
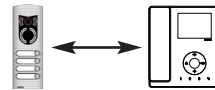
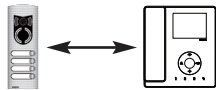

INSTALLATIONS WITH PASSIVE DISTRIBUTOR 692D

(non-DIN rail version)

For termination of type 692D (non-DIN rail version): If the “OUT” output is not used, KEEP the jumper on connector “A”. If the “OUT” output is used, REMOVE the jumper from connector “A”.

INSTALLATIONS WITH ACTIVE DISTRIBUTOR 692D/2.

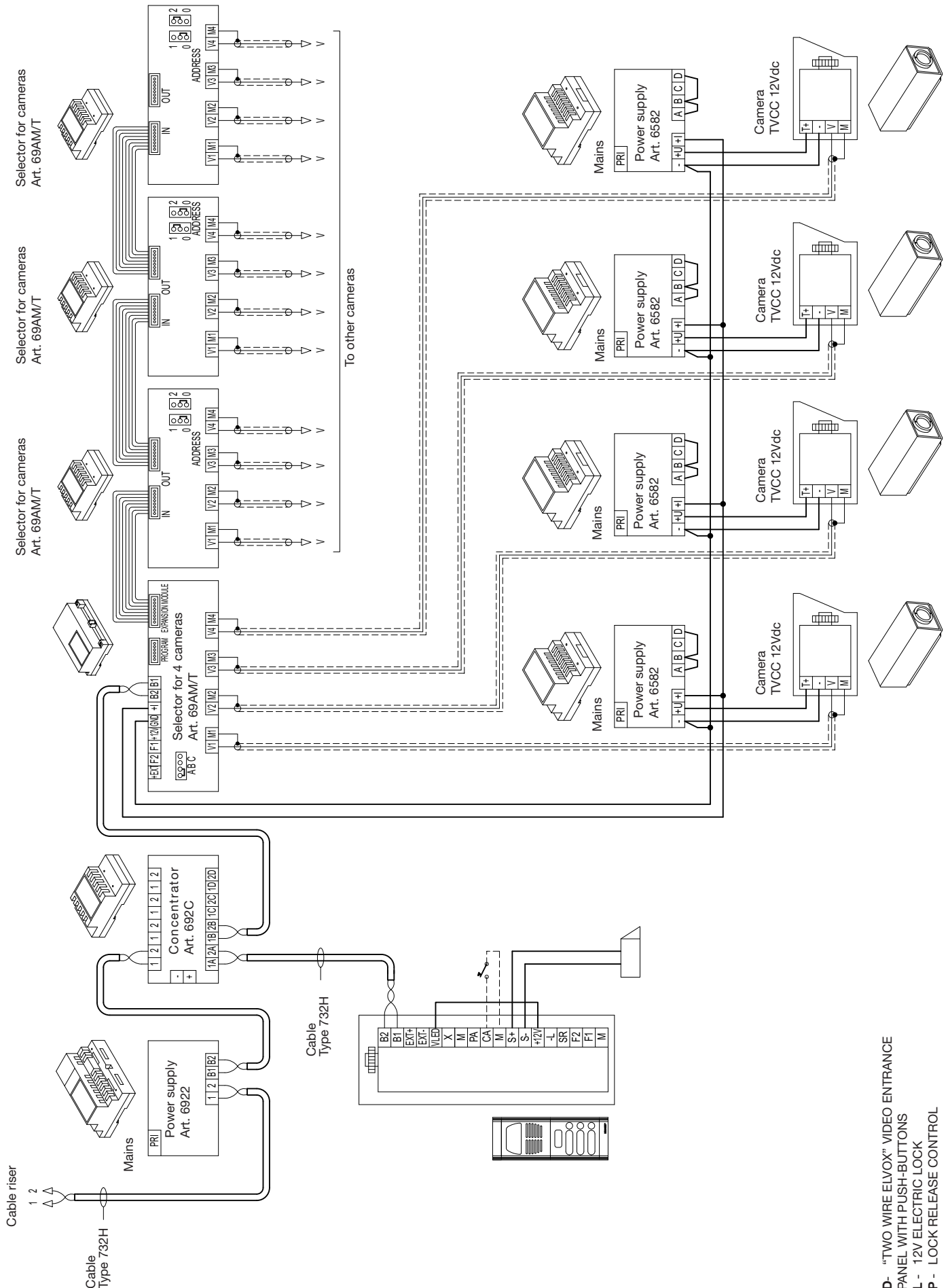
The termination jumper must be positioned on “B” (for Elvox cable) or on “C” (for CAT5 twisted pair cable) IF AND ONLY IF the BUS terminates at the device itself. It must be left on “A” if effecting entry-exit using terminals 1-2 on 692D/2.

Conductor section				
	 up to 10m	 up to 50m	 up to 100m	 up to 300m
Bus: 1, 2, B1, B2	CABLE Elvox (69MX) / Cat5 (69MX/5)	CABLE Elvox (69MX) / Cat5 (69MX/5)	CABLE Elvox (69MX) / Cat5 (69MX/5)	CABLE Elvox (69MX) / Cat5 (69MX/5)
	Ø 1,5 mm ²	-	-	-
Others -, +U, +I, -L (#)	Ø 1 mm ²	Ø 1 mm ²	Ø 1,5 mm ²	Ø 2,5 mm ²
# Additional power supply units must be installed as close as possible to the device to which they are connected.				

○ If it is connected to a CCTV camera type color in the device Art 69AM/T plug the jumper on the connector demoninato 75 Ohm.



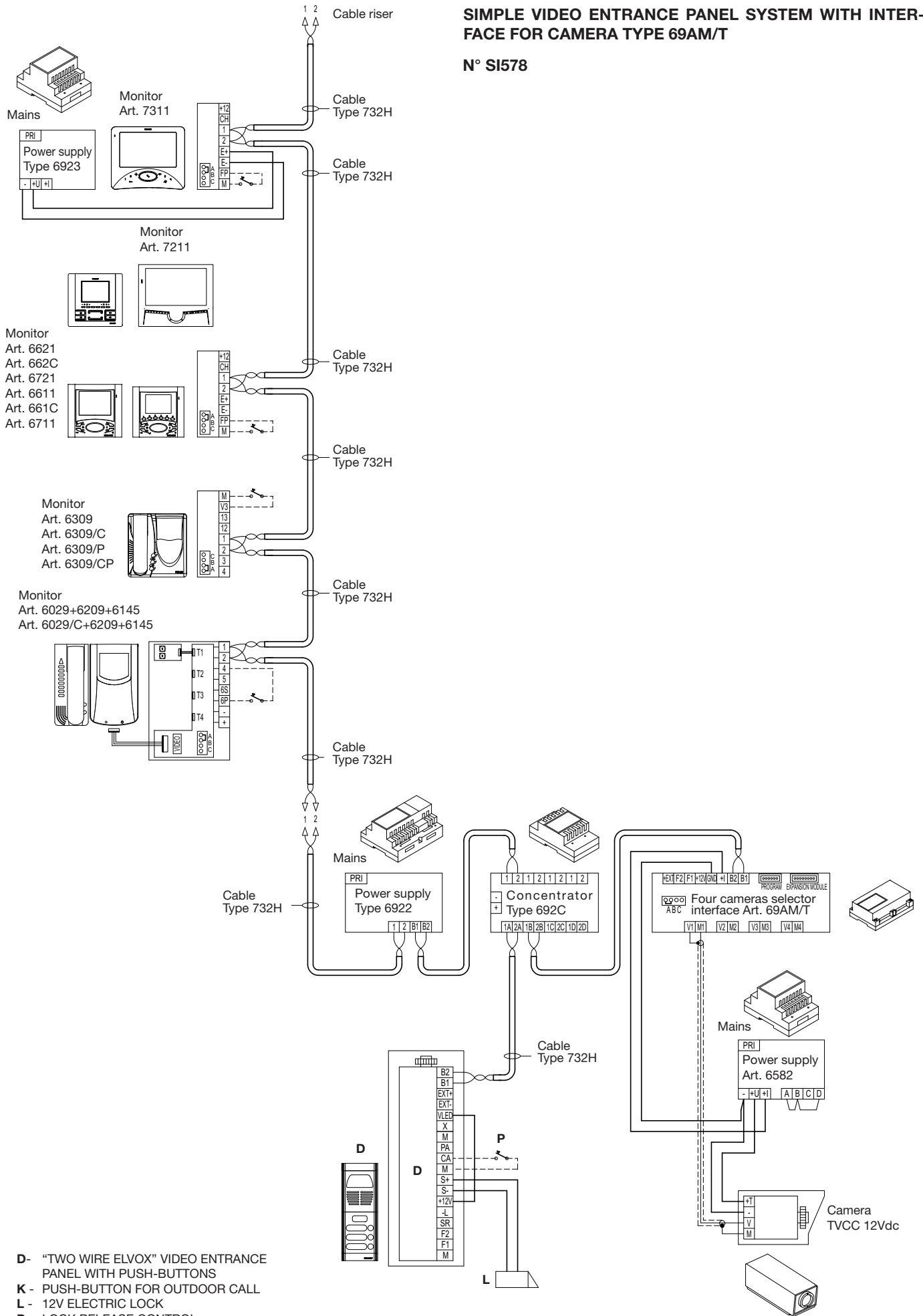
VIDEO ENTRANCE PANEL SYSTEM WITH INTERFACE TYPE 694M/T
N° SI577



D- "TWO WIRE ELVOX" VIDEO ENTRANCE
PANEL WITH PUSH-BUTTONS
L- 12V ELECTRIC LOCK
P- LOCK RELEASE CONTROL

SIMPLE VIDEO ENTRANCE PANEL SYSTEM WITH INTERFACE FOR CAMERA TYPE 69AM/T

N° SI578



SAFETY INSTRUCTIONS FOR INSTALLERS

- Carefully read the instructions on this leaflet: they give important information on the safety, use and maintenance of the installation.
 - After removing the packing, check the integrity of the set. Packing components (plastic bags, expanded polystyrene etc.) are dangerous for children. Installation must be carried out according to national safety regulations.
 - It is convenient to fit close to the supply voltage source a proper bipolar type switch with 3 mm separation (minimum) between contacts.
 - Before connecting the set, ensure that the data on the label correspond to those of the mains.
 - Use this set only for the purposes designed, i.e. for electric door-opener systems. Any other use may be dangerous. The manufacturer is not responsible for damage caused by improper, erroneous or irrational use.
 - Before cleaning or maintenance, disconnect the set.
 - In case of failure or faulty operation, disconnect the set and do not open it.
 - For repairs apply only to the technical assistance centre authorized by the manufacturer.
 - Safety may be compromised if these instructions are disregarded.
 - Do not obstruct opening of ventilation or heat exit slots and do not expose the set to dripping or sprinkling of water.
 - Installers must ensure that manuals with the above instructions are left on connected units after installation, for users' information.
 - All items must only be used for the purposes designed.
- WARNING:** to avoid the possibility of hurting yourself, this unit must be fixed to the wall according to the installation instructions.
- This leaflet must always be enclosed with the equipment.



Directive 2002/96/EC (WEEE)

The crossed-out wheeled bin symbol marked on the product indicates that at the end of its useful life, the product must be handled separately from household refuse and must therefore be assigned to a differentiated collection centre for electrical and electronic equipment or returned to the dealer upon purchase of a new, equivalent item of equipment.

The user is responsible for assigning the equipment, at the end of its life, to the appropriate collection facilities.

Suitable differentiated collection, for the purpose of subsequent recycling of decommissioned equipment and environmentally compatible treatment and disposal, helps prevent potential negative effects on health and the environment and promotes the recycling of the materials of which the product is made. For further details regarding the collection systems available, contact your local waste disposal service or the shop from which the equipment was purchased.

Risks connected to substances considered as dangerous (WEEE).

According to the WEEE Directive, substances since long usually used on electric and electronic appliances are considered dangerous for people and the environment. The adequate differentiated collection for the subsequent dispatch of the appliance for the recycling, treatment and dismantling (compatible with the environment) help to avoid possible negative effects on the environment and health and promote the recycling of material with which the product is compound.



NOTE:



NOTE:

ELVOX

 **VIMAR** group

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