

DCS repeater
2572 00

Gira
Giersiepen GmbH & Co. KG
Electrical installation
systems
P.O. Box 1220
42461 Radevormwald
Phone +49 (0) 21 95 - 602 - 0
Fax +49 (0) 21 95 - 602 - 339
www.gira.de
info@gira.de

GIRA

15/13 10499282

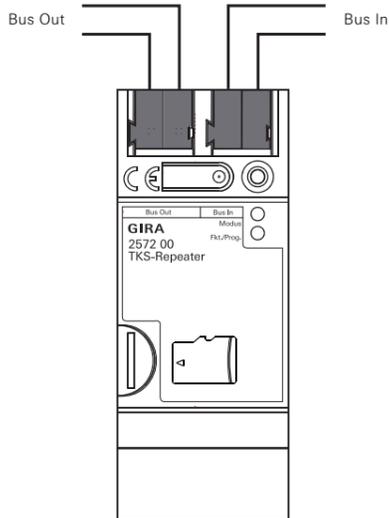
GIRA

Device description

The DCS repeater is an active component for expanding a Gira door communication system. It is for range extension and for increasing the number of devices. The DCS repeater amplifies audio and data signals of the door communication system in both directions.

In systems with video function, the DCS repeater performs the function of a video amplifier: The DCS repeater increases the volume of the incoming video signal at the "Bus In" input to the maximum permissible bus volume and outputs it at the "Bus Out" output. In doing so, line attenuation from the source of the video signal to the input of the DCS repeater is compensated.

Each line segment requires its own control device, and the DCS repeater counts as one device in each of both line segments.

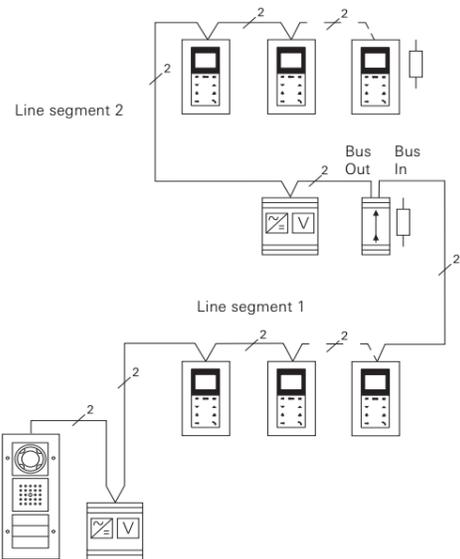


Depending on system size, the DCS repeater can be operated in 2 different operating modes:

Repeater mode

In "Repeater mode" the DCS repeater interconnects 2 line segments so that the number of devices in a video or audio door communication system and cable range can be doubled.

A second control device is needed for supply of the second line segment.



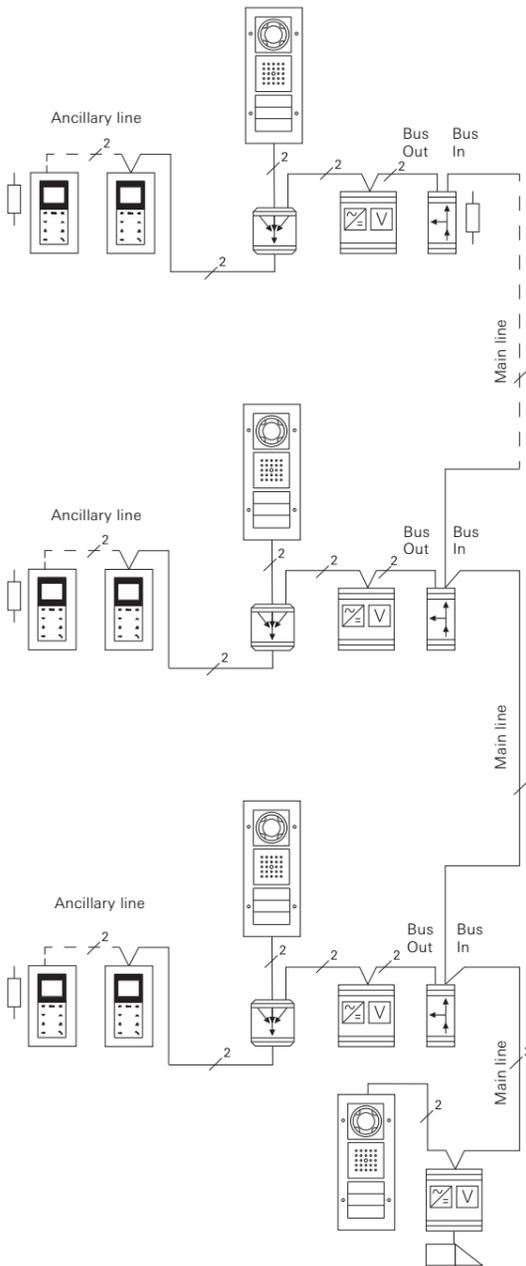
Multi-conversation mode

In "Multi-conversation mode" the complete system is subdivided into several lines (1 main line, up to 5 ancillary lines) interconnected via the DCS repeater. Each line is supplied by its own control device.

A total of five DCS Repeaters can be used in one system in Multi-conversation mode.

In "multi-conversation" operating mode, incoming calls are forwarded to the ancillary line when required with the aid of a filter table automatically generated during start-up. Thus, according to topology, it is possible to conduct multiple conversations in one complete system. However, it must be considered that only one conversation can be active for each line.

A conversation from the main line to a non-assigned ancillary line is also possible with an already existing conversation in another ancillary line. Similarly, internal conversations can be conducted between two unassigned ancillary lines if the main line is not assigned.



i Integrating a door station in an ancillary line

If a door station is to be integrated into an ancillary line, this must be connected to the control device via a video multiplexer.

Mounting

! Important

Installation and mounting of electrical devices may only be carried out by a qualified electrician.

For installation protected from dripping and sprayed water, the DCS repeater control device is mounted on a top-hat rail in the distribution.

! Equipotential bonding

In door communication systems installed over several separate buildings, sufficient equipotential bonding must be ensured between control devices.

Connection terminals

Connection to the Gira 2-wire bus is with plug terminals.

Bus In

Connection for the incoming signal of the Gira 2-wire bus.

Bus Out

Connection for the outgoing signal of the Gira 2-wire bus. The video signal is forwarded in amplified state via Bus Out.

i Video signal direction

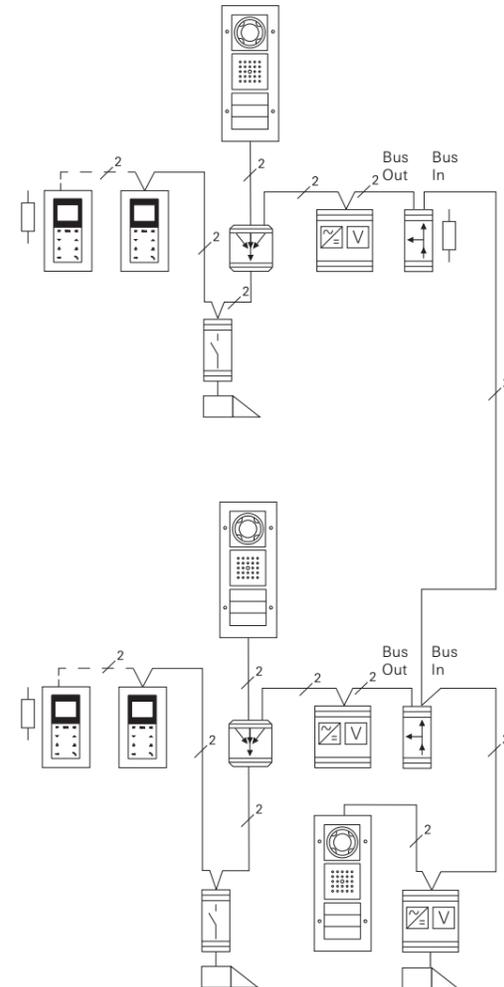
The video signal in the DCS repeater is forwarded only in one direction from Bus In to Bus Out.

! Separate cable routing

Cable feed to Bus In and Bus Out must be in separate cables.

Door opener on main and ancillary lines

If a system requires several door openers, only the door opener function of the control device on the main line can be used. All other door openers must be controlled using switching actuators.



Start-up

Start-up of the door communication system is identical to start-up of Gira door communication systems without a repeater.

i Activating programming mode

For start-up, programming mode is only activated on the control device of the main line.

Operation

Change mode (Repeater mode/multi-conversation mode)

Factory setting: Repeater mode

- Press the "Systemprogr." button on the **control device** for 3 sec. to start programming mode.
 - ✓ The LED at the control device flashes yellow. The LED "Fkt./Prog." on the DCS repeater flashes green.
- Press and hold the programming button on the **DCS repeater** for 9 s.
 - ✓ The LED "Fkt./Prog." briefly flashes green after 3, 6 and 9 s.
 - ✓ LED mode changes from green to yellow: Multi-conversation mode is active. or
 - ✓ LED mode changes from yellow to green: Repeater-mode is active

Deleting the filter table

If a device (home station, door station etc.) that functions across lines is replaced in the door communication system, or if an already programmed DCS repeater is to be used in another system, the filter table of the DCS repeater must be deleted. A backup file must then be implemented or the complete system must be started up again.

- Press the "Systemprogr." button on the **control device** for 3 sec. to start programming mode.
 - ✓ The LED at the control device flashes yellow. The LED "Fkt./Prog." on the DCS repeater flashes green.
- Press and hold the programming button on the **DCS repeater** for 6 s to delete the filter table.
 - ✓ The LED "Fkt./Prog." briefly flashes green after 3 and 6 s.
 - ✓ The LED "Fkt./Prog." lights up green for 3 s: The filter table has been deleted and terminating resistance was set to "off".
 - ✓ LED "Fkt./Prog." flashes 3 times: Deleting has failed, please repeat step 2.

Switching terminating resistance on or off

Factory setting: Terminating resistance "off"

In door communication systems with video devices, terminating resistance must be activated on the DCS Repeaters installed at the end of the line.

**Terminating resistance in audio systems**

In door communication systems consisting only of audio devices, DCS repeater terminating resistance does not have to be activated.

- Press the "Systemprogr." button on the **control device** for 3 sec. to start programming mode.
 - ✓ The LED at the control device flashes yellow. The LED "Fkt./Prog." on the DCS repeater flashes green.
- Press and hold the programming button on the **DCS repeater** for 12 s.
 - ✓ The LED "Fkt./Prog." briefly flashes green after 3, 6, 9 and 12 s.
 - ✓ The LED "Fkt./Prog." lights up green: Terminating resistance switched on.
 - ✓ The LED "Fkt./Prog." flashes green 3 times: Terminating resistance switched off.

Creating a backup

A data backup of the DCS repeater configuration can be generated. This is useful for example when a DCS repeater has to be replaced due to a device defect. Data backup should thus be implemented immediately following start-up.

A microSD card (SDHC) is needed to create a backup of the DCS repeater. This is contained in the scope of supply of the DCS repeater. The DCS repeater can also be started up without a microSD card.

Files saved on the microSD card should be saved to a computer and appropriately named (e.g. Repeater1.US) following the backup process.

**Saving the backup to a new DCS repeater**

To save a backup to another DCS repeater (e.g. if a device is defective) the corresponding backup file must be renamed to CFMASTER.TXT.

Saving data to the microSD card

- Insert a microSD card into the card slot
- Press the "Systemprogr." button on the **ancillary line control device** for 3 sec. to start programming mode.
 - ✓ The LED at the control device flashes yellow. The LED "Fkt./Prog." on the DCS repeater flashes green.
- Press the "Systemprogr." button within 3 s on the **ancillary line control device** to exit programming mode.
 - ✓ The LED "Fkt./Prog." lights up red: Data are saved to the microSD card.
 - ✓ The LED "Fkt./Prog." lights up green for 3 s: Saving successful.
 - ✓ The LED "Fkt./Prog." flashes green 3 times: Saving failed, microSD card is defective or erroneously formatted.
- Remove the microSD card, save the file to a computer and name it appropriately.

Copying data from the microSD card to the DCS repeater

- Rename the backup file to be copied to the DCS repeater to CFMASTER.TXT on the computer and save it to a microSD card.
- Press the "Systemprogr." button on the **control device** for 3 sec. to start programming mode.
 - ✓ The LED at the control device flashes yellow. The LED "Fkt./Prog." on the DCS repeater flashes green.
- Press and hold the programming button on the **DCS repeater** for 6 s to set the repeater to factory setting and delete all data.
 - ✓ The LED "Fkt./Prog." lights up green for 3 s: DCS repeater reset to factory setting.
 - ✓ LED "Fkt./Prog." flashes 3 times: Resetting failed, please repeat step 3.
- Following successful resetting on the **control device**, press the "Systemprogr." button to exit programming mode.
- Insert the microSD card with backup file into the SD slot.
 - ✓ The LED "Fkt./Prog." lights up yellow: Data are copied to the DCS repeater.
 - ✓ The LED "Fkt./Prog." lights up green: Copying successful.
 - ✓ The LED "Fkt./Prog." flashes green 3 times: Copying failed, microSD card defective, erroneously formatted, or has no data.

Replacing the DCS repeater

If a DCS repeater in a system is to be replaced, it is not necessary to start-up the complete system again. Depending on application, the following procedures are required:

In repeater mode without video function

If a DCS repeater in repeater mode is to be replaced in a system without video function, no further start-up steps must be carried out.

In repeater mode with video function

If a DCS repeater in repeater mode is to be replaced in a system with video function, it is sufficient when a call button is made known to the DCS repeater from each door station video:

- Press the "Systemprogr." button on the **control device** for 3 sec. to start programming mode.
 - ✓ The LED at the control device flashes yellow. The LED "Fkt./Prog." on the DCS repeater flashes green.
- Press a call button on the **door station** for 3 seconds. Release the call button following the brief acknowledgement tone.
 - ✓ The door station outputs a long acknowledgement tone.
- Press and hold the programming button on the **DCS repeater** for 3 s to enter the call button into the filter table of the DCS repeater.

In multi-conversation mode

If a DCS repeater in multi-conversation mode is replaced, all call buttons of the door station(s) must be made known to the DCS repeater:

- Press the "Systemprogr." button on the **control device** for 3 sec. to start programming mode.
 - ✓ The LED at the control device flashes yellow. The LED "Fkt./Prog." on the DCS repeater flashes green.
- Press and hold the call buttons to be made known for 3 s at the **door station**. Release the call button following the brief acknowledgement tone.
 - ✓ The door station outputs a long acknowledgement tone.
- Press and hold the programming button on the **DCS repeater** for 3 s to enter the call button into the filter table of the DCS repeater.
- Repeat step 3 until all call buttons are entered into the filter table of the DCS repeater.

Colour	Operating mode
green	Repeater mode
yellow	Multi-conversation mode
red	No BUS connection on terminal pair 1 to the main control device
off	No BUS voltage on terminal pair 2

Technical data	
Power supply:	26 V DC ± 2 V (bus voltage)
Connections:	2 plug terminals Bus In 2 plug terminals Bus Out
Temperature range:	-5 °C to +45 °C
Memory card:	microSD card (SDHC) to max. 32 GB
Dimensions:	DRA device / 2 HP

Symbols used

Symbols used in the topologies have the following meanings:

	DCS repeater in multi-conversation mode
	DCS repeater in repeater mode
	Terminating resistance activated
	Surface-mounted home station video
	Door station with colour camera
	Video control device
	Video multiplexer
	DCS switching actuator
	Door opener

Warranty

The warranty is provided in accordance with statutory requirements via the specialist trade.

Please submit or send faulty devices postage paid together with an error description to your responsible salesperson (specialist trade/installation company/specialist electrical trade).

They will forward the devices to the Gira Service Center.