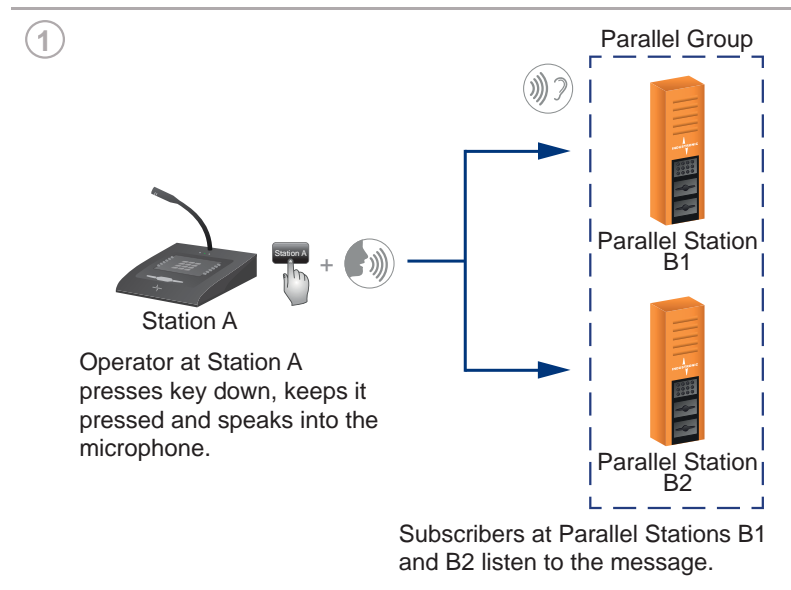# PARALLEL GROUP

IN A NUTSHELL

Via simple keypress, you can always establish a voice connection to a pre-defined group of several members (the so-called parallel group). Each time one member of a parallel group answers, a two-way connection is established between 2 subscribers. All other members of the parallel group cannot listen during this time and are indicated as busy. This means they cannot establish other calls.
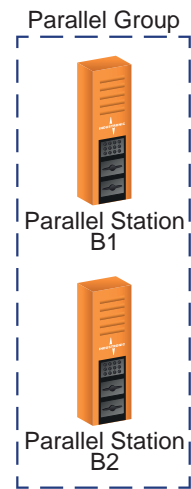
Communication constantly changes between a point-to-multipoint and a point-to-point connection. Each time someone speaks to a parallel group, a point-to-multipoint connection is established where all members of the parallel group can listen to the message simultaneously. If a member of the parallel group answers, a point-to-point connection is established and remains established for the time this member speaks.

A member of a parallel group can be any intercom station from INDUSTRONIC.

ILLUSTRATION

①   Parallel Group

Station A

Parallel Station B1

Parallel Station B2

Operator at Station A presses key down, keeps it pressed and speaks into the microphone.

Subscribers at Parallel Stations B1 and B2 listen to the message.

② Parallel Group

Station A

Parallel Station
B1

Parallel Station
B2

As soon as the operator releases the key at Station A and thus terminates his message, one subscriber at Parallel Station B1 or B2 can answer.

③

Station A

Subscriber at Station A listens to the message.

Parallel Station B2

Operator at Parallel Station B2 presses key down, keeps it pressed and speaks into the microphone. B1 does not listen and is indicated as busy.
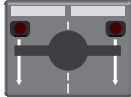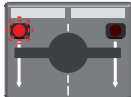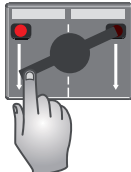
DESCRIPTION

To establish the voice connection, the operator at Station A presses the key configured with the parallel group as target, keeps it pressed and speaks into the microphone (Push-to-Talk).
All members contained in the parallel group can listen to the message simultaneously.

As soon as the operator at Station A releases the key, one subscriber at a parallel station can answer (e.g. B2). To do this, he presses the key configured with Station A as target, keeps it pressed and speaks into the microphone. At the same time, the parallel station B1 cannot listen and is indicated as busy. This means that this station cannot establish other voice connections.

When the operator at Station A now answers, all members of the parallel group can listen to the message again.
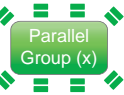
KEY SIGNALING AT PARALLEL STATIONS

LEDs at the keys indicating the different connection states are helpful for the operator personnel. The following illustrations show the default signaling types at a parallel station using the example of momentary rocker switches which are installed in outdoor intercom stations from INDUSTRONIC.

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Signaling		Description
	LED is off. Corresponding side of the rocker switch is not pressed.	Target is free.
	LED blinks at a frequency of 250:250 (250 ms on / 250 ms off). Corresponding side of the rocker switch is not pressed.	The target which can be reached via this side of the rocker switch is speaking to you. (Ready-to-listen signaling)
	LED is illuminated. Corresponding side of the rocker switch is pressed down.	A direct two-way connection is established to the target and the operator can speak into the microphone. (Ready-to-talk signaling)

KEY SIGNALING AT STATIONS ADDRESSING A PARALLEL GROUP

To show the signaling at stations which can establish a two-way connection to a parallel group, an IP desktop intercom station from INDUSTRONIC with display buttons is used as example.

Signaling		Description
Parallel Group (x)	Display button is off. Button is not pressed.	Parallel group is free.
Parallel Group (x)	Display button is illuminated in green. Button is pressed.	A direct two-way connection is established to the parallel group and the operator can speak into the microphone. (Ready-to-talk signaling)
Parallel Group (x)	Display button is illuminated in purple. Button is not pressed.	Parallel group is busy. (Pre-busy signaling)
Parallel Group (x)	Display button is illuminated in green and blinks at a frequency of 250:250 (250 ms on / 250 ms off).	A member of the parallel group is speaking to you. (Ready-to-listen signaling)

APPLICATION EXAMPLES

A typical application example for a parallel group is the installation of two intercom stations at two different places in a plant which are favorable for the operator, e.g. at the beginning and at the end of a long rolling mill train. Depending on the place of installation, the operator can decide at which intercom station he wants to answer the call.

CUSTOMER BENEFITS

- Directly, immediately and reliably establish a two-way connection to a pre-defined group of several members (Push-to-Talk method)
- Depending on the situation, flexibly decide at which intercom station you want to answer the call
- Setup of parallel groups according to operational requirements

OPTIONS

Priorities

You can also assign an individual priority for each two-way connection. This means that an active connection remains busy for other subscribers with the same or lower priority. The connection can only be interrupted by a voice connection or function with higher priority.

Answering

During an active two-way connection you can also use the SmartTalk key or if available the * key on a dial keypad to answer the call. This option is used when an intercom station has only a few keys available or when these keys are already assigned to other functions.

Listening (within a parallel group)

During project planning, you can already define that any member of the parallel group can listen to all outgoing voice connections. By default, if one member of a parallel group speaks, the other members cannot listen.

Other options are available upon request.

TECHNICAL DETAILS

Parallel groups can be set up using any intercom station from INDUSTRONIC. This intercom station requires at least the following key:
- 1 direct call key for each target you want to call
  If you want to establish voice connections to 5 different targets with your intercom station, you need 5 direct call keys.
- Optionally, you can also use a dial keypad to select the subscribers.

The key assignment of all intercom stations of a parallel group can be identical, but may also differ.

Each intercom station which wants to establish a voice connection to the parallel group, must have 1 direct call key configured with this parallel group as target.

RELATED FUNCTIONS

- MultiControl group
- Direct two-way communication

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