

IR Transmitter IR-5SP

English Manual



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Introduction

IR-5SP is a programmable IR transmitter which can be programmed with IR-channels from different types of existing IR remote controls for TV, VCR, HIFI and satellite sets. It has 20 different programming locations on 4 levels. The different levels are accessed by pressing one of the 6 keys. IR-5SP is a part of the "Gewa Smart House" concept and can therefore be used together with all the other products in the range.

News and Improvements

IR-5SP is improved in several ways compared to the earlier generation IR-5SO:

- Possibility to program it with IR channels from other transmitters
- Adjustable sound signal
- Adjustable delay time when pressing a key
- Possibility to program key sequences (macro)
- Possibility to copy channels/codes between different keys
- Possibility to save channels/codes and settings in a computer
- Possibility to transfer channels/codes between two transmitters

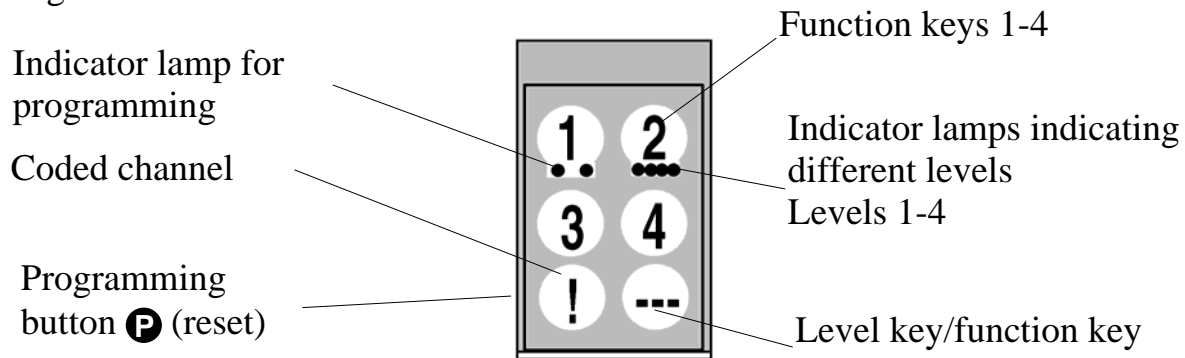
General Information about IR-5SP

Before using IR-5SP there are certain things you should know.

- On delivery the Gewa Link channels are factory programmed which means that it is possible to use the transmitter as soon as a battery has been inserted. See section "Inserting the Battery".
- For programming press the programming button using a pen for example **at the same time** as you choose a function key. Choose different function keys depending on what you want to program.
- If the wrong key is pressed by mistake during programming, the programming button on the side of IR-5SP will function as a reset button.
- It is important not to wait too long between the different steps when programming. After a certain time IR-5SP automatically leaves the programming state to save power.
- 3.0 as a superscript indicates the version of IR-5SP that is needed

The picture shows various terms and functions which will be found in the text.

Fig. 1



On delivery IR-5SP has the following default settings:

- Delay time is set to 0.
- Sound volume is set to 3.
- Only level 1 is open, other levels are closed.
- Gewa Link channels 16-31 are on levels 1-4.
- A random code on !-key. The same code for all levels.



Symbols

The following symbols will be found in the text:

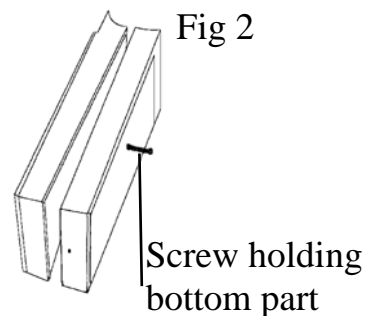
- P** = programming button
- X** and **Y** = any IR-5SP key
- Y** = any transmitter key to be programmed
- 1**....**4** = keys 1-4 on IR-5SP
- !** = coded key
- ...** = level key
- ...→** = hold level key pressed for approximately 2 seconds

Inserting the Battery

Unscrew the battery lid screw holding the bottom of IR-5SP using a Phillips screwdriver and insert one 9V alkaline 6LR61 (PP3) battery. Insert the battery according to the marking in the bottom of the battery compartment. Pay attention to the polarity! It is important to use long life **alkaline** batteries that are protected against leaking battery acid. When you have inserted the new battery, **press** the programming button on the left hand side of the remote control.

Lock/unlock delete protection **P** + , choose level, **3** or **4**,...

Lock level = **3** Unlock level = **4**





Settings

Below is a description of how the different IR-5SP functions are set.

Choosing Levels

IR-5SP has altogether 4 levels with 5 programmable keys. On delivery the keys are factory programmed with GewaLink channels 16-31. One, several or all 4 levels can freely be used. 4 indicator lamps indicate the present level (see fig 1).

When more than one levels are active you can change to another level by pressing the -key. Each time you press the key the next level is chosen. 5SP scans through the levels automatically if the -key is pressed continuously.

IR-5SP is delivered with only **level 1** open, the other levels are closed. To open more levels see chapter "Opening/Closing a Level".

When **one level** is open the level key is automatically programmed to one channel, which always is the first channel on the next level. Therefore it is possible to control 6 functions even if only one level is open. See¹ table 1.

Table 1 contains channels/codes for IR-5SP on delivery.

Table 1

GewaLink channels				
Key on IR-5SP	Level 1	Level 2	Level 3	Level 4
1	16	20	24	28
2	17	21	25	29
3	18	22	26	30
4	19	23	27	31
¹	20	24	28	16
² !	Code	Code	Code	Code

¹ If only one level is open the level key automatically becomes a channel. It is the first channel on the next level.

² The same code for all levels.

Opening/Closing a Level

1. Press **P** and **...** at the same time. IR-5SP is now in the programming state. The indicator lamp rapidly flashes orange and then the lamp for the current level is lit.
2. Press **...** a number of times until the level to be opened or closed is reached
3. Press **1** to open the chosen level or **2** to close the chosen level.
^{3.0} The level indicator lamp is automatically moved to the next level, which thereby directly can be opened or closed.
4. Press **→** for approximately 2 seconds until the indicator lamp goes out.




Quick guide

Open/close level: **P** + **...**, choose level, **1** or **2** .. **→**

Open = **1**, Close = **2**

Replicating Channels from another Transmitter

Make sure the batteries in both transmitters have full capacity. Do not place the transmitters in intense light (e.g. sunlight) when programming.

1. Place the two transmitters on a table with the original transmitter directed towards the rear part of IR-5SP (fig 3).
2. Using the -key choose the IR-5SP level to be programmed. Only one level at a time can be programmed.
3. Press  and  at the same time. The indicator lamp rapidly flashes orange and then goes out. The lamp for the present level begins to flash.

To check that the transmitters are in the right position, keep any key pressed on the original transmitter. Move the original transmitter to the left or to the right until the indicator lamp goes out. Then move the original transmitter backwards until the indicator lamp goes out (one meter for certain transmitters). Place the original transmitter centrally between these positions. Certain types of transmitters only emit a short flash each time the key is pressed. In these cases, press several times.



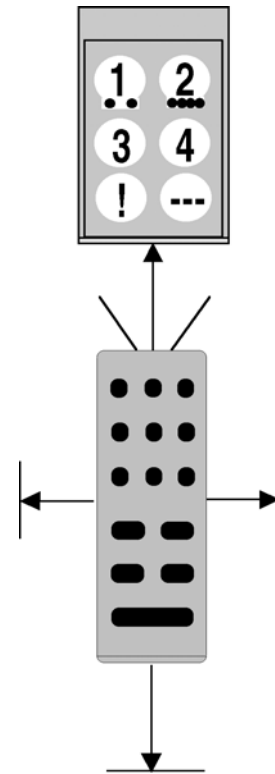
4. Press and release the key on IR-5SP which is to be programmed. The indicator lamp now emits a steady orange light.
5. Keep the corresponding key on the original transmitter pressed. Release the key when the indicator lamp goes green. It might take up to 10 seconds. If the indicator lamp goes orange again press the key one or more times until the lamp flashes green and goes out. The indicator lamp flashes green if the programming has been successful. If the indicator lamp flashes red the programming has failed. Try once more from step 4. If a beep is heard  the level is locked and no programming can be made. Read the next section for how to unlock a level.
6. If the programming of the first key was successful, repeat steps 5 and 6 until all keys are programmed. Finish by pressing the -key. The indicator lamp flashes green to indicate that the programming is complete.

Fig 3



7. Now test the programmed functions using the device which is to be controlled.

Important!

When only **one level** is used the level key automatically becomes the first key of the next level (see table 1). This means that it is quite possible to program the level key but only when **one level is open**. In this case we recommend that you **begin by programming the level key** and then continue with the other keys.

^{3.0} **Tip!** Gewa Prog can record codes from most IR transmitters on the market with a few exceptions. You may have problems with a few or all of the functions for a certain IR transmitter. In these cases it is possible to use another recording method. Instead, do as follows in step 3; Press **P** and **1** at the same time but keep them pressed for approximately 2 seconds until the indicator lamp flashes rapidly green once and goes out. Gewa Prog is now in another recording mode. Otherwise use the same recording procedure.

Programming: **P** + **1**, **X**, **Y**, **...**

Locking/Unlocking delete protection

In order to protect channels/codes from being erased by accident when new codes are programmed it is possible to lock each level separately. All levels are unlocked on delivery. A locked level is indicated by a beep ♪♪♪♪ when you try to program it. Do as follows to lock/unlock levels:

1. Press **P** and **...** at the same time. IR-5SP is now in programming state. The indicator lamp flashes rapidly and then the lamp for the current level is lit.
2. Change to the level to be locked/unlocked by pressing the level key.
3. Press **3** to lock or **4** to unlock.
^{3.0} The indicator lamp for the levels is automatically moved to the next level, which thereby can be locked/unlocked immediately.
4. Press **...** for approximately 2 seconds until the indicator lamp goes out.

Quick guide

Lock/unlock delete protection **P** + **...**, choose level, **3** or **4**, ... **...**

Lock level = **3** Unlock level = **4**

Channel Setting

IR-5SP makes it possible to set different channel intervals. When setting the channels programmed codes disappear and a new random code is programmed on the (!)-key. The levels must be unlocked. If the levels are locked there will be no change. Read the section "Locking/Unlocking levels".

Table 2 shows the different settings.

Table 2

Channel interval and key command	00-15 ...	16-31 ①	32-47 ②	48-63 ③	64-79 ④	80-95 (!)
Level 1	00-03	16-19	32-35	48-51	64-67	80-83
Level 2	04-07	20-23	36-39	52-55	68-71	84-87
Level 3	08-11	24-27	40-43	56-59	72-75	88-91
Level 4	12-15	28-31	44-47	¹ 60-63	76-79	92-95

¹Channel 62 is a stop code and cannot control any function. However, you can store channels/codes on this key which in turn can then control a function.

Do as follows to set the different channel intervals:

1. Press **P** and **...** at the same time. IR-5SP is now in programming state. One of the level indicators is red.
2. Press **(!)**.
3. Choose channel interval according to the table and press the keys for the desired channel interval. The indicator lamp flashes green to indicate when the operation is finished.

Quick guide

Channel setting: **P** + **...**, **(!)**, **X**

Resetting IR-5SP to Factory Setting

IR-5SP makes it possible to erase all keys on levels 1-4 at the same time. The erased keys are returned to the factory settings which means that they are replaced by the GewaLink channels 16-31 and a **new random code** on the (!)-key. Other settings also return to factory defaults. To reset:

1. Press **P** and **3**. The lamp indicating the level goes red.
2. Press in turn the keys **!**, **1**, **2**, **3**, **...**. The lamps for levels 1-4 flash red in turn. Then the indicator lamp flashes green to indicate that the operation is finished.

Quick guide

Resetting levels 1-4 to factory setting:

P + **3**, **!**, **1**, **2**, **3**, **...**

Resetting a Key or a Level

IR-5SP makes it possible to reset either one key or all keys on a level. When this is done the key or keys return to earlier chosen channel setting. Other settings are not affected. The level where the key/s is/are placed must be unlocked before resetting is possible.

Read the section "Locking/Unlocking levels".

Do as follows to reset:

1. Unlock the level where the key/s are to be reset..
2. Using the level key choose the level for which you want to perform the reset operation. Press **P** and **3** at the same time. One of the lamps indicating levels goes red.
 - 3a. Resetting a single key.

Press the button to reset. The lamp flashes green to indicate when the operation is finished.

- 3b. Resetting all keys for a single level.

Press in turn keys **...**, **1**, **2**, **3**, **...**.

The lamp flashes green to indicate when the operation is finished.

Quick guide

Resetting a key (X):

Choose level, (P) + (3), choose (X)

Resetting a level:

Choose level, (P) + (3), (…), (1), (2), (3), (…)

Programming 4096-Code

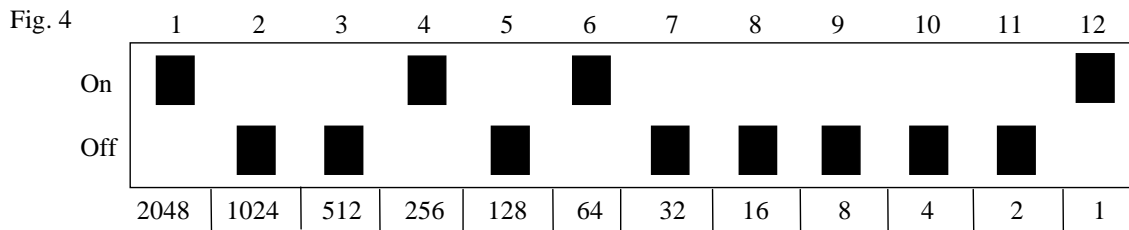
IR-5SP is delivered with a special coded channel (4096) on the (!)-key. The code is selected at random. This coded channel is normally used for functions that require strict authorisation such as apartment or house doors. The code has 4096 different combinations. The (!)-key has always the same code irrespective of the chosen level.

Method one: Use a coded transmitter as described under "Replicating channels from another transmitter". Using this method **any key independently of level** to be used as a coded channel can be programmed.

Method two: Enter a binary code. The binary code will always be associated with the (!)-key and it is **the same for all levels**. Make up your own binary code or use the code already programmed in an IR receiver or transmitter. There are two types of IR receivers. An older type where the code is set with a 12 pole switch (see fig. 4) or a newer type where the IR receiver is programmable. The principle is the same for how the binary code is created. In figure 4 a 12 pole switch is pictured. Switches 1, 4, 6 and 12 are in the "ON" position, all others in the "OFF" position.

The following example describes how the binary code is created according to figure 4:

1. Press (P) and (!) at the same time. You are now in programming state. One of the level lamps goes red.
2. Enter the code by pressing the (!)-key or the (…)-key. (!)-key = switch in the On-position and the (…)-key = switch in the Off-position. Press twelve times in turn; (!), (…), (…), (!), (…), (!), (…), (…), (…), (…), (…), (!). When you have pressed twelve times the level lamps for levels 1-4 flash red in turn. Then the indicator lamp flashes green to show that the operation is finished.
3. The code is now programmed on the (!)-key. Make a note of the chosen code for future usage.



Quick guide

Setting 4096-code: **P** + **!**,

Copying Codes

IR-5SP makes it possible to copy programmed codes and basic channels to other places (keys).

1. Choose level and press the key with the code to be copied.
2. Choose the level to which you want to copy the code.
3. Press **P** and **!**-key at the same time. IR-5SP is now in programming state. A red level indicator lamp is lit.
4. Press the **3**-key.
5. Press the key to which you want to copy the code. The indicator lamp flashes green to show that the operation is finished.

Quick guide

Copying code/channel from key **X** to key **Y**:

Choose level, choose **X**, choose level, **P** + **!**, **3**, choose **Y**

Setting Beep Volume

IR-5SP has a beep signal which sounds (for example) when a key is pressed.

Set the beep volume in 6 stages (⋮, 1, 2, 3, 4, !).

⋮-key = no sound at all and !-key = maximum sound level.

Do as follows:

1. Press **P** and **4** at the same time. IR-5SP is now in programming state. One of the indicator lamps for the levels goes red.
2. Press a key from ⋮, 1, 2, 3, 4, !, to choose beep volume. The indicator lamp flashes green to show that the operation is finished.
3. Check the beep volume by pressing a key. If you are not satisfied with the chosen volume start from step 1 again.

Quick guide

Setting beep volume: **P** + **4**,

Setting Delay Time/ON

IR-5SP makes it possible to set the delay time. By delay time is meant the time a key has to be pressed before a result is reached. The delay time can be set in 6 steps (⋮, 1, 2, 3, 4, !).

⋮-key = no delay time and !-key = maximum delay time (0.5 second).

Do as follows:

1. Press **P** and **2** at the same time. IR-5SP is now in programming state. The indicator lamp for the corresponding level goes red.
2. Press a key from ⋮, 1, 2, 3, 4, !, to choose delay time. The indicator lamp flashes green to show that the operation is finished.
3. Check the delay time by pressing a key. If you are not satisfied with the chosen delay time, start from step 1 again.

Quick guide

Setting delay time: **P** + **2**,

Programming of Sequences (Macro)

IR-5SP can send sequences. When you press **one key** IR-5SP automatically carries out what is equivalent to pressing several keys. One available application for instance is muting the TV at the same time as you answer the telephone. IR-5SP can also be programmed to change levels and it remembers how long a key should transmit.

The transmission of a sequence can be terminated at any time by pressing another optional key.

When a sequence is programmed IR-5SP transmits at the same time what is already on the key. Max. 25.5 seconds and 6 key pressures per key can be programmed.

NOTE! the key used to store the sequence must not be part of the sequence.

1. Press **P** and **!** at the same time. The indicator lamp for the corresponding level goes red.
2. Press **1**.
3. Press the keys which should be used for the sequence
4. Choose the level where you want the sequence to be.
5. Press **P** and **!** at the same time.
6. Press **2**.
7. Choose the key where you want the sequence to be stored. The lamp flashes green to indicate that the operation is finished.

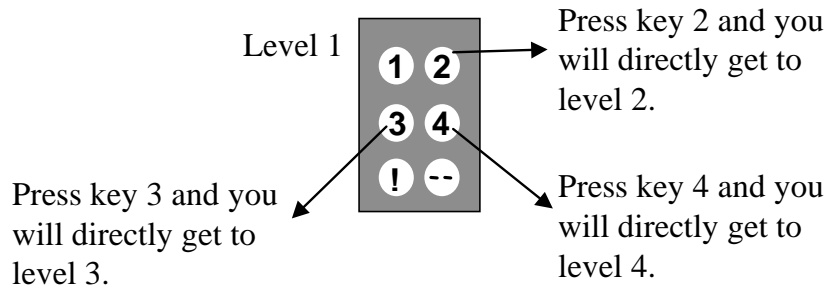
Quick guide

Programming sequences: **P** + **!**, **1**, **X** **Y**, choose level, **P** + **!**, **2**, choose **X**.

Direct Choice of Level

IR-5SP makes it possible to create quick keys which means that you can reach a level by pressing a selected key. If you are at level 1 for instance and press key 2 you will directly reach level 2. And by pressing key 3 you will directly reach level 3 etc. When you are at level 2, 3 or 4 you can press a new quick key to get back to level 1. You need to create the quick keys for these levels in advance. See fig. 5.

Fig 5



It is also possible to create a quick key in level 2, 3 and 4 to get back to level 1.

Do as follows to create quick keys:

1. Choose the level you want to reach with a quick key.
2. Press **P** and **!** at the same time. You are now in programming state.
3. Press **1**.
4. Choose the level where the quick key is to be stored.
5. Press **P** and **!** at the same time.
6. Press **2**.

Press the key which is to be used as a quick key. The lamp flashes green to indicate that the quick key is stored.

Quick guide

Create a quick key :

Choose level to be reached through direct choice, **P** + **!**, **1**, choose level where the quick key is to be stored, **P** + **!**, **2**, choose **X** which is going to be a quick key.

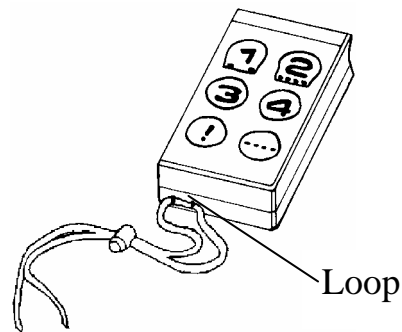
External Control Switch

It is possible to connect to IR-5SP an external control switch which affects key 1. The control switch is connected to a jack on the rear panel of the transmitter with a 3.5 mm phone plug.

Mounting

Rubber feet are mounted on the lower surface of IR-5SP to make it stay in place on flat surfaces. IR-5SP can be equipped with clips (article number 8910) which makes it possible to attach it to the waistband or a pocket. Another alternative is to hang IR-5SP round your neck. IR-5SP must then be supplied with a neck strap. Attach the neck strap as follows:

1. In the lower gable of the transmitter there are two drilled holes concealed by two plastic plugs. Remove the plastic plugs.
2. Press the two attachment loops which are on the neck strap into the holes where the plastic plugs have been. (see fig. 6).
3. Adjust the length of the neck strap.



Warning!

The string lock is a safety detail for the prevention of the risk of strangling. Check that the neck strap ends can easily be drawn out if for instance the transmitter gets stuck in something. Never make knots in the neck strap!

Labelling

IR-5SP is delivered with 2 marking and protection labels for the keyboard. Use the marking labels to indicate the function of each key. Stick the protection label on top of the marking label to protect the writing. The adhesive is not permanent and you can easily remove the labels and put them back several times. Before you adhere the marking label remove the IR-5SP keyboard overlay. A plastic leg at each corner holds the overlay. Remove the overlay by inserting a knife between the overlay and IR-5SP at each corner.

Be careful when doing this. Otherwise there is a risk that the plastic legs may break. 2 x A4 size sheets for notes are enclosed.

Cover Plate

4 cover plates are enclosed with IR-5SP. They can be used to cover keys which are not to be used. Remove the keyboard overlay to be able to affix the cover plates. See previous section for a description of how to remove the keyboard overlay. Place the cover plates on the key in question. Then put the keyboard overlay back on top of the transmitter.

Data Communication

Transferring Data between Two IR-5SP Transmitters

You can easily transfer all programmed channels and settings from one IR-5SP to another. This can be done for instance before servicing a transmitter or when replacing a transmitter. Before transferring data you must understand the following limitations.

- If the transmitters have the same program versions, transfer is possible without any problems. Look at the back of IR-5SP to check the program version e g, Ver:1.0a.
- If the transmitter has a different program version and is to be permanently used, the memory contents must be updated if you want to be sure that all functions are included. To do this connect IR-5SP to a computer which then updates the contents of the memory. Read next section for more information about data transfer between IR-5SP and a computer.

To transfer data, do as follows:

1. Remove the lower part loosening the screw on the back of each of the two transmitters.
2. Make sure that the batteries in both transmitters have full capacity.
3. Connect a data cable (Article no: 406922) to pin strip on the IR-5SP printed circuit board in both transmitters.
4. Press **P** and **!** at the same time and then **4** on the transmitter that will receive data. To prevent the battery from coming loose you will have to push the battery towards the contact springs with a finger at the same time as the keys are pressed. After approximately 15 seconds the transfer is finished.

Quick guide

Transfer of data between two transmitters: **P** + **!**, **4**

Transferring Data between IR-5SP and a Computer

To make a back-up possible the program PROG III Utility must be installed. Program and data cable can be ordered from Gewa AB or a Gewa retail dealer. Do as follows to make a back-up:

1. Remove the lower part loosening the screw on the back of IR-5SP (fig 6, page 14).
2. Connect the data cable (art. no:406918) to the connector on the IR-5SP printed circuit board and the COM serial port of the computer.
3. Open the program PROG III Windows Utility on the computer.
4. Click on FILE in the menu.
5. Click on BACK-UP.
6. Give the file a name and save it in the file IR_LIB directory.
7. The memory contents of the IR-5SP is now transferred to the computer and saved as a file.
8. If information is to be downloaded to IR-5SP, do in the same way but click RESTORE instead.

Cleaning

To clean IR-5SP **carefully wring out the water** from a cloth which has been dipped into water with some detergent in it Wipe off with a dry cloth afterwards.

Quick Guide

Replicating channels

P + **1**, **X**, **Y**, **...**

Setting delay time/ON

P + **2**, (factory setting = 0 second)

Resetting IR-5SP to factory setting

P + **3**, **!**, **1**, **2**, **3**, **...**

Resetting a single key

Choose level, **P** + **3**, choose **X**

Resetting a single level

Choose level, **P** + **3**, **...**, **1**, **2**, **3**, **...**

Setting channels

P + **...**, **!**, (factory setting = channel 16-31)

Setting beep volume

P + **4**, (factory setting=3)

Copying codes

Choose level, choose **X**, choose level, **P** + **!**, **3**, choose **Y**

Setting 4096-code

P + **!**, (factory setting = random code)

Opening/closing levels

Open/close level: **P** + **...**, choose level, **1** or **2** .. **...**→

Open = **1**, Close = **2** (factory setting = level 1 open)

Locking/unlock delete protection

Lock/unlock delete protection **P** + **...**, choose level, **3** or **4**, **...**→

Lock level = **3** Unlock level = **4** (factory setting = all levels unlocked)

Programming sequences

P + **!**, **1**, **X** **Y**, choose level, **P** + **!**, **2**, choose **X**

Direct choice of level

Choose level to be reached through direct choice, **P** + **!**, **1**, choose level where a quick key is to be stored, **P** + **!**, **2**, choose **X**

Data transfer between two transmitters

P + **!**, **4**

Accessories

Accessories Accompanying IR-5SP

Art. No	Description	Function	Qty
406910	Marking label IR-5SP	Label for marking of keyboard	2 pcs
406912	Protection label IR-5SP	Protection of marking label	2 pcs
-----	Note sheet IR-5SP	A4-sheet for notes concerning programmed channels	1 pc
8988	Keyboard overlay	Gives recessed keys	1 pc
890400	Neck strap	Makes it possible to carry IR-5SP around the neck	1 pc
8579	Cover plate	Cover plate to cover keys	4 pcs

Other IR-5SP Accessories

Art. No.	Description	Function
8360	Battery 6LR61, (PP3)	9 V Alkaline
8910	Clip	To attach IR-5SP to the waistband
406918	Data cable 3-pole JST/D-sub 9	Cable for connecting IR-5SP/PC (serial port)
406922	Data cable 3/3-pole JST	Cable for connection between two IR-5SP
424304	Data disc	Gewa Prog III Utility

Technical Data

Power consumption (stand-by):	Approx. 10 μ A
Power consumption (transmitting)	Approx. 20 mA (GewaLink-channel)
Battery life:	Approx. 2 years (100 seconds transmitting/day with GewaLink-channel)
Programming positions:	20
Key force	Approx. 1.5 N (150 gr.)
Range:	20-30 m (GewaLink-channels)
EMC-standard emission:	EN 50 081-1
” immunity:	EN 50 082-1
Measurements (L x W x H)	95 x 55 x 25 mm
Weight (batteries excluded):	70 g
Operating temperature (not valid for batteries)	-20°- +45°C

Conformity with the Medical Devices Directive

IR-5SP is marketed as a technical aid for people with disabilities and meets the requirements in Medical Devices Directive 93/42/EEC including relevant EMC and electrical safety requirements.



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