GB Installation Instructions IR-LIFT MAXI

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GB Installation Instructions

Introduction

The lift indicator IR-LIFT MAXI makes possible the wireless control of lifts using an IR transmitter. IR-LIFT MAXI has a built in display. The lift indicator is started by pressing a button on the transmitter, and this shows the various floors in sequence. When the right floor is displayed, the button on the transmitter is pressed again. The lift now starts and moves to the floor selected. This procedure allows persons with disabilities to control a lift without using the lift's control buttons.

Installation Instructions

These instructions describe the steps involved in installing the lift indicator IR-LIFT MAXI and the associated equipment. The normal instructions **that are delivered with the IR receiver are not to be used. They must be replaced by these instructions.** The IR-LIFT MAXI will be denoted simply by "the lift indicator" in the remainder of this document.

Descriptions of Components

The lift indicator: The lift indicator is a display with a built-in IR detector. This component is mounted in the wall panel inside the lift cage. The lift indicator must be connected to an IR receiver and a power supply in order to work.

IR receiver: The IR receiver (IR-16M 24V or IR-8M 24V) is mounted on the roof of the lift cage. The relay outputs are connected to the lift functions for selection of floor, an alarm signal and opening the door. Each IR receiver can control 8 or 16 functions. Several IR receivers can be mounted in parallel, if further functions are to be controlled.

Power supply: The lift indicator and the IR receiver are supplied with 24 V DC power from an external power supply or from the internal power supply in the lift. No other voltage should be used.

IR transmitter: All GewaLink transmitters that transmit on channels 00-61 and 63-127 can be used to control the lift and the lift indicator.

Descriptions of Functions

The lift indicator can be used in different modes:

Public scanning
The lift indicator is controlled in this mode using a freely chosen channel between 00-61 and 63-127. Only one channel is required to control the lift indicator.

Channel set scanning
The lift indicator is controlled by a specific channel and the lift can only be controlled by that channel.

Direct control
The lift can be directly controlled without using the lift indicator to reach the selected floor.

Mounting and Connection

Location

Figure 1 shows the mounting of the various components.

Figure 1

Power supply 24V

IR receiver IR-16M 24V
or IR-8M 24V

Lift indicator
IR-LIFT MAXI
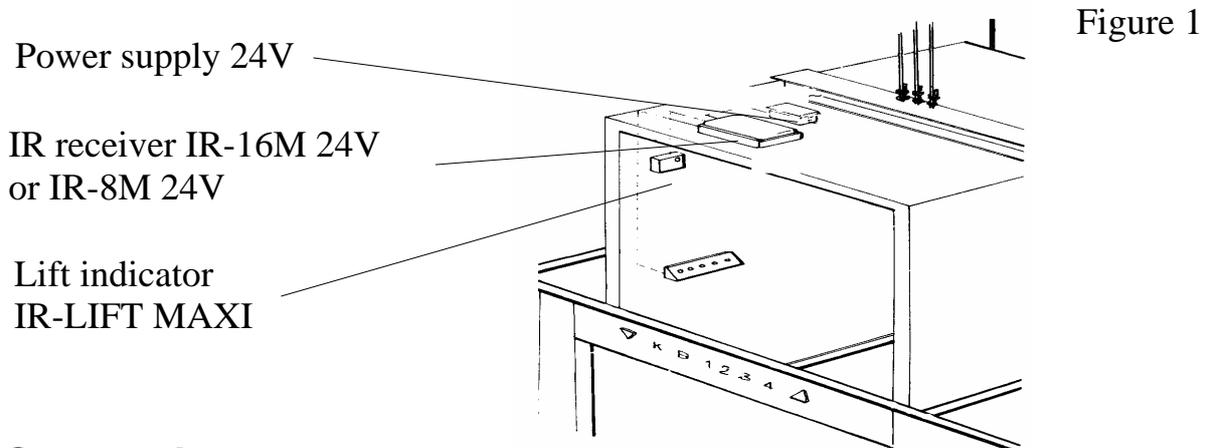
Connection

The connection of the components is described below. For further details, see the wiring diagram (Figure 2).

1. Connect the various relay outputs of the IR receiver to the functions that are to be controlled in the lift. Start with relay 1 for the lowest floor, then use relay 2 for the next floor, etc. Connect the alarm function and the door-opening function to the last relays. Several IR receivers can be connected in parallel if one IR receiver is insufficient for connecting all functions.
2. Connect the lift indicator to the IR receiver. Use the enclosed shielded cable.
3. Connect the power supply (24 V DC) to the power supply connector of the IR receiver.

Fig 2

Cable in

IR detector

Shield

External switch

Lift indicator

S-
S+

8
7
6
5
4
3
2
1

24V DC

Power supply
24 V DC

+

Shield

Detector input next IR receiver

1 2 3 4
+ - S+ S-

Connection to the next IR receiver when several are connected in parallel

Strap

3 2 1

24V DC

1 2 3 4   Detector input 1
+   S+ S-

Strap

1 2 3 4   Detector input 2

IR-16M 24V
The diagram shows IR receiver IR-16M 24V.
The IR-8M 24V receiver does not have an upper circuit board

On
A   B
Off 1   8

Upper circuit board relay output 9-16 starting from the left

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

On
C
Off 1   8

Lower circuit board relay output 1-8 starting from the left

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

Setting the IR Receiver

Several settings must be made on the IR receiver. The manual that accompanies each IR receiver is not to be used for these; it should be replaced by the following instructions.

Proceed as follows:

1. Set **all** switches on the IR receiver to the "Off" position (A, B and C, see figure 2).
2. Set switch 1 of switch row B to the "On" position (on the lower circuit board) and switch 2 of switch row C to the "On" position (on the upper circuit board). Only IR-16M 24V is equipped with an upper circuit board (see Figure 2). If several IR receivers have been connected in parallel, switches 3 and 4 are set to the "On" position on the second IR receiver, etc.

Programming the Lift Indicator

It may be necessary to modify certain settings of the lift indicator, such as the various symbols that are displayed on the lift indicator, the scanning speed, the scanning method a.s.o. It is necessary to have an IR transmitter with at least 12 channels in order to make the changes. The lift indicator automatically terminates the programming if a waiting period of 2 minutes occurs during the programming.

Enter programming mode

To be able to program the lift indicator you must enter a programming mode. The code has a default setting of [1] [2] [3]. To change code see section "Changing code", page ? After this procedure all settings can be programmed.

Proceed as follows:

1. Direct the transmitter towards the lift indicator, press and hold down the [*] symbol until [*] is shown on the display.
2. Press [1] [2] [3] (default setting) on the transmitter. [P] is now shown on the display.

It is now possible to proceed and program all settings.

Quick Guide

Enter programming mode: [*⤶], [1] [2] [3].

Leaving programming mode

When all settings have been made the programming mode is left by pressing [0] [0] on the transmitter. The lift indicator also automatically leaves the programming mode after a waiting period of approx. 2 minutes.

Quick Guide

Leave programming mode: [0] [0]

Programming the number of floors

The lift indicator can be programmed from -9 to 99 floors. Digits are always written with a zero for instance floor 1 is written as 01. To obtain a minus press key A on the IR transmitter.
Proceed as follows to program the number of floors:

1. Enter programming mode if this has not been done, see specific section. [P] is shown on the display.
2. Direct the transmitter towards the lift indicator and press [0] [1]. [↑] is shown.
3. Press the digits for the top floor that is to be reached. [↓] is now shown.
4. Press the digits for the bottom floor that is to be reached. [O][K] is now shown on the display.
5. Complete the programming by pressing [0] [0] or proceed by programming other functions.

Quick Guide

Programming the number of floors [0] [1], Press the digits for the top floor and the bottom floor.
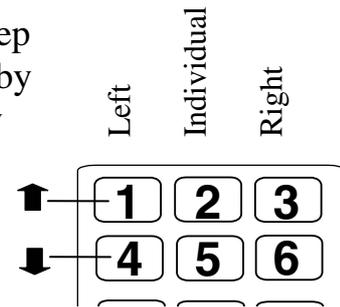
Default value = -9 to 99.

Programming the Symbols

The following describes how to program different symbols for the various floors that are to be shown on the lift indicator. The symbols can consist of one character ("B" for basement, for example) or two characters can be combined ("LG" for Lower Ground" for example). The following characters can be selected: 0-9, -, A-Ö, Æ, Ø, Ü, ▪, _ ♿, ✳,↓, ↑, □.
Do as follows to program the symbols:

1. Enter programming mode if this has not been done, see that section. [P] is now shown on the display.
2. Direct the transmitter towards the lift indicator and press [0] [2]. The bottom floor is now shown.

3. Select the floor that is to be changed by using button [1] (step upwards) or button [4] (step downwards).
4. Press [*] when the wanted floor has been selected.
5. Step upwards and downwards to select characters. Step by button [1] and [4] to select the left character. Step by button [3] and [6] to select the right character. Step by button [2] and [5] to select an individual character.
6. Press [*] when the correct character has been selected for the floor.
7. Proceed and select character for the next floor etc.
8. Complete the programming of characters by pressing [#]. [O][K] is now shown on the display.
9. Complete the programming by pressing [0][0] or proceed and program other functions.

Quick Guide

Programming symbols: [0] [2], select floor [*], select characters, confirm with [*], etc. Complete by [#].

Default value = -9 to 99.

Programming the Scanning Speed

Scanning speed is the time that passes from when one floor is shown on the display until the next floor is shown. This time can be set between 0,4 and 9 seconds. Example: Write the time 0,8 sec as 08 and 2,0 sec as 20.
Default value = 1,4 sec.
Proceed as follows to set the scanning speed:

1. Enter programming mode if this has not been done, see specific section. [P] is now shown on the display.
2. Direct the transmitter towards the lift indicator and press [0][4].
3. Select a value between [0][4] and [9][0] on the transmitter. [O][K] is now shown on the display.
4. Complete the programming by pressing [0][0] or proceed and program other functions.
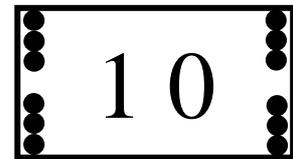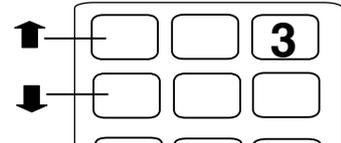
Quick Guide

Programming scanning speed: [0] [4], select a value between 04-90.
Default value = 1,4 sec.

Locking a floor

If you do not want the users to have access to some of the floors, these can be locked. The locked floors will not be shown on the display when scanning. Proceed as follows to lock a floor:

1. Enter programming mode if this has not been done, see specific section. $\boxed{P}$ is now shown on the display.
2. Direct the transmitter towards the lift indicator and press $\boxed{0}\boxed{6}$. The bottom floor is now shown on the display.
3. Select floor by using button $\boxed{1}$ (step upwards) and button $\boxed{4}$ (step downwards).
4. Press $\boxed{*}$ when the wanted floor has been selected. $\boxed{O}\boxed{K}$ is now shown on the display and after that the selected floor is shown with 3 dots in every corner.
5. Proceed to point 2 if several floors are to be locked or complete with $\boxed{\#}$. $\boxed{O}\boxed{K}$ is now shown on the display.
6. Complete the programming by pressing $\boxed{0}\boxed{0}$ or proceed and program other functions.

Quick Guide

Locking a floor: $\boxed{0}\boxed{6}$, select floor, confirm with $\boxed{*}$ etc. Complete with $\boxed{\#}$

Unlocking a floor

Proceed as follows to unlock a floor:

1. Enter programming mode if this has not been done, see specific section. $\boxed{P}$ is now shown on the display.
2. Direct the transmitter towards the lift indicator and press $\boxed{1}\boxed{1}$. The bottom floor is now shown on the display.
3. Select floor by using button $\boxed{1}$ (step upwards) and button $\boxed{4}$ (step downwards). A locked floor is marked with 3 dots in every corner.
4. Press $\boxed{*}$ when the wanted floor has been selected. $\boxed{O}\boxed{K}$ is now shown on the display and after that the selected floor is shown.
5. Proceed to point 2 if several floors are to be unlocked or complete with $\boxed{\#}$. $\boxed{O}\boxed{K}$ is now shown on the display.
6. Complete the programming by pressing $\boxed{0}\boxed{0}$ or proceed and program other functions.
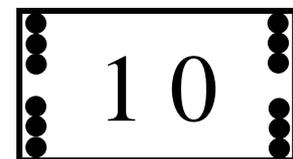
Quick Guide

Unlocking a floor: $\boxed{1}\boxed{1}$, select floor, confirm with $\boxed{*}$ etc. Complete with $\boxed{\#}$

Programming the Scanning Method

Two scanning methods are available: Public scanning and Channel set scanning.
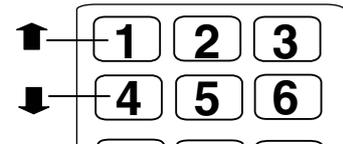
Public Scanning (PC)
The scanning on the lift indicator is controlled in this method by any freely chosen GewaLink channel between 00-61 and 63-127. Any channel can be used when transmitting.

Channel set scanning (DC)
The scanning of the lift indicator is controlled in this method by one set GewaLink channel 00-61 and 63-127.

Proceed as follows to set the scanning method:

1. Enter programming mode if this has not been done, see specific section. $\boxed{\text{P}}$ is now shown on the display.
2. Direct the transmitter towards the lift indicator and press $\boxed{0}\boxed{3}$. $\boxed{\text{P}}\boxed{\text{C}}$ or $\boxed{\text{D}}\boxed{\text{C}}$ is now shown on the display.
3. Select PC or DC using button $\boxed{1}$ (step upwards) and button $\boxed{4}$ (step downwards).
4. Press $\boxed{*}$ when the correct setting has been selected.
5. If DC has been selected, proceed and select GewaLink channel. Select a channel between 00-61, 63-127. Write channel 1 as 001 and channel 32 as 032 etc. $\boxed{\text{O}}\boxed{\text{K}}$ is shown on the display when the channel has been entered.
6. Complete the programming by pressing $\boxed{0}\boxed{0}$ or proceed and program other functions.

Quick Guide

Programming a scanning method: $\boxed{0}\boxed{3}$, select $\boxed{\text{P}}\boxed{\text{C}}$ or $\boxed{\text{D}}\boxed{\text{C}}$, confirm with $\boxed{*}$. If DC is selected, select channel.
Default value = Public scanning.

Programming Direct Control by GewaLink channel

With direct control it is possible to go directly to a floor without using scanning. This can be used by a person who always goes to the same floor and when there is no need for scanning. Scanning can still be used as usual. To program this function "Channel set scanning" must be selected in the previous section. Proceed as follows to program Direct control of a floor:

1. Enter programming mode if this has not been made, see specific section. $\boxed{\text{P}}$ is now shown on the display.
2. Direct the transmitter towards the lift indicator and press $\boxed{0}\boxed{7}$

3. Select floor by using button ☐1 (step upwards) and button ☐4 (step downwards).
4. Press ☐* when the wanted floor has been selected. ☐☐ is shown on the display.
5. Select GewaLink channel by choosing a number between 000-127, write channel 1 as 001 and channel 32 as 032 for instance. Selected floor is shown with one dot in every corner.
6. Proceed to point 3 if several floors are to be controlled directly or complete with ☐#. ☐O☐K is now shown on the display.
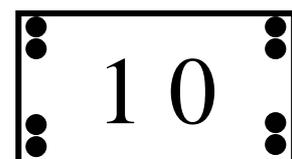7. Complete the programming by pressing ☐0☐0 or proceed and program other functions.
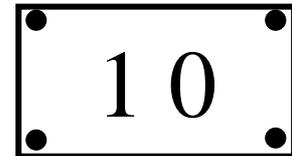
Quick Guide

Programming direct control by GewaLink channel: ☐0 ☐7, select floor, confirm with ☐*, select channel etc. Complete with ☐#

Programming Direct Control by coded channel

This function can be used to directly control (without scanning) to a selected floor by a coded channel (4096). Only the person who has access to the correct code can reach the selected floor. To be able to enter this function "Channel set scanning" must be programmed. See section "Programming the Scanning Method". It is not possible to enter the same code on more than one floor. Note! Write down the code for future use.
Proceed as follows to enter a coded channel:

1. Enter programming mode if this has not been made, see specific section. ☐P is now shown on the display.
2. Direct the transmitter towards the lift indicator and press ☐0☐5. The bottom floor is now shown on the display.
3. Select floor by using button ☐1 (step upwards) and button ☐4 (step downwards).
4. Press ☐* when the correct floor has been selected. ☐☐ is shown on the display.
5. Select code by choosing a number between 0000-4095, write channel 1 as 001 and channel 32 as 032 for instance. Selected floor is shown with two dots in every corner.
6. Proceed to point 3 if several floors are to be coded or complete with ☐#. ☐O☐K is now shown on the display.
7. Complete the programming by pressing ☐0☐0 or proceed and program other functions.

Programming direct control by a coded channel: ⓪ ⑤, select floor, confirm with ⁎ , select code etc. Complete with #.

Restoring Default Values

Proceed as follows to restore all settings to the default values.

1. Enter programming mode if this has not been made, see specific section. P is now shown on the display.
2. Direct the transmitter towards the lift indicator and press ①⓪. R is shown on the display and after that O K.
3. Complete the programming by pressing ⓪⓪ or proceed and program other functions.

Quick Guide

Restoring default values: ① ⓪.

Showing software version

Proceed as follows to find out of which version the lift indicator software is:

1. Enter programming mode if this has not been made, see specific section. P is shown on the display.
2. Direct the transmitter towards the lift indicator and press ①②. A version with 3 figures is shown on the display.
3. Complete the programming by pressing ⓪⓪ or proceed and program other functions.

Quick Guide

Showing software version: ① ②.

Showing IR channel

If you need to know which channels a transmitter transmits, it can be seen on the display of the lift indicator. Both public channels and coded channels (4096) are shown. When public channels are shown they start with GL, e.g. GL 032. Coded channels start with CC, e.g. CC 1096.

Proceed as follows to show IR channel:

1. Enter programming mode if this has not been made, see specific section. $\boxed{P}$ is shown on the display.
2. Direct the transmitter towards the lift indicator and press $\boxed{0}$ $\boxed{9}$ on the transmitter.
3. Press on a button on the transmitter to show the channel no. After that it is possible to proceed and press other buttons.
4. Complete by pressing $\boxed{\#}$
5. Complete the programming by pressing $\boxed{0}$ $\boxed{0}$ or proceed and program other functions.

Quick Guide

Showing IR channel: $\boxed{0}$ $\boxed{9}$. Transmit channel.

Changing Code

When entering programming mode press 1, 2, 3. See section "Entering programming mode" page. This code can be changed to prevent unauthorized persons to enter and make changes.
Proceed as follows to change code:

1. Enter programming mode if this has not been made, see specific section. $\boxed{P}$ is shown on the display.
2. Direct the transmitter towards the lift indicator and press $\boxed{0}$ $\boxed{8}$. $\boxed{*}$ is shown on the display.
3. Press on a 3-digit code on the transmitter. $\boxed{1}$, $\boxed{2}$ and $\boxed{3}$ is shown on the lift indicator and thereafter $\boxed{O}$ $\boxed{K}$.
4. Complete the programming by pressing $\boxed{0}$ $\boxed{0}$ or proceed and program other functions.

Note! Write down the code for future use.

Quick Guide

Changing Code: $\boxed{0}$ $\boxed{8}$ Transmit code.

Error codes

If there has been a mistake in the programming procedure an error code will appear. It is shown as an E (Error) followed by a number. The error codes help you find the error in the programming procedure.

The error codes are as follows:

E1   = Incorrect IR code
E2   = IR is not active
E3   = IR is active
E4   = This is no GewaLink code
E5   = This is no 4096 code
E6   = ---
E7   = The top floor has been reached
E8   = The lowest floor has been reached
E9   = Maximum 109 floors can be programmed
E10 = There is no such floor
E11 = Lowest floor is higher than top floor
E12 = ---
E13 = ---
E14 = ---
E15 = The number must be between 0-9.
E16 = Scanning speed must be within 0,4-9,0 sec.
E17 = 4096 code is already used
E18 = Code not valid to reach programming mode

Summary of Quick Guides

Entering programming mode:
[*]↵, [1], [2], [3]
Default values =, [1], [2], [3]

Leaving programming mode:
[0] [0]

Programming the number of floors:
[0] [1], enter the top floor and ground floor.
Default value = -9 to 99.

Programming symbols:

`0` `2`, select floor, confirm floor with `*`, select characters, confirm with `*`, etc. Complete programming by `#`
Default values = -9 to 99

Programming the Scanning Speed:

`0` `4`, select a value between 04-90.
Default value = 1,4 sec.

Locking a floor:

`0` `6`, select floor, confirm with `*`, etc. Complete with `#`

Unlocking a floor:

`1` `1`, select floor, confirm with `*`, etc. Complete with `#`

Programming scanning method:

`0` `3`, select `P` `C` or `D` `C`, confirm with `*`. If DC is selected, select channel.
PC = Public scanning. DC = Channel set scanning.
Default value = Public scanning.

Programming direct control by GewaLink channel:

`0` `7`, select floor, confirm with `*`, select channel, etc. Complete with `#`

Programming direct control by coded channel:

`0` `5`, select floor, confirm with `*`, select code, etc. Complete with `#`

Restoring default values:

`1` `0`

Showing software version:

`1` `2`

Showing IR channel:

`0` `9`, transmit channel.

Changing code:

`0` `8`, transmit code

Technical Data

Power supply: IR-LIFT MAXI and IR-16M 24V / IR-8M 24V	24 VDC, +/- 20%
Max power consumption (on stand-by): IR-Lift Maxi IR-16M 24V / IR-8M 24V	30 mA 16 mA
Max power consumption (when active): IR-Lift Maxi IR-16M 24V / IR-8M 24V	35 mA 26 mA
Max load relay outputs (IR-16M 24V / IR-8M 24V):	8 A resistive load at 250 VAC
Channel region:	00-61 and 63-127
Ambient temperature range: IR-Lift SC Maxi IR-16M 24V / IR-8M 24V	-20º - +35º C
Enclosure classification: IR-Lift SC Maxi IR-16M 24V / IR-8M 24V	IP-21 IP-55
Area of application:	within passenger lifts

The Medical Device Directive

IR-Lift Maxi is marketed as a technical aid for people with disabilities and it satisfies the requirements of the Medical Device Directive 93/42/EEC. This includes, for example, relevant requirements for EMC and for electrical safety.