

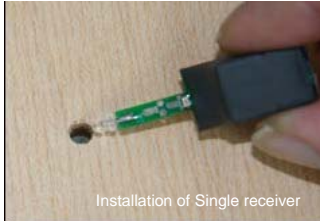
## LISSY Receiver 68 620

LISSY receiver 68 610 uses a single sensor only. For this reason only those LISSY functions using a single sensor can be implemented. These are the switching operation, reading of the locomotive data and the transfer of this data to the LocoNet. All automatic functions like shuttle operation, holding point, block-section or station control are not possible with this receiver.

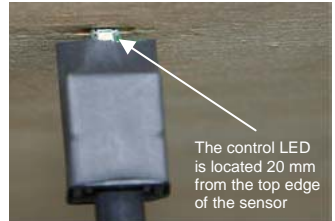
Characteristic	68 600	68 610	68 620
Dimensions in mm	53 x 50 x 21	53 x 50 x 21	48.5 x 16 x 4.2
Address range	1-4095	1-4095	1-4095
Switching operations	yes	yes	yes
Automatic operations	7	7	none
Travel direction independent operation	yes	yes	yes
Travel direction dependent operation	yes	yes	no
Infra red sensors	2	2	1
Commands per double sensor in switching operations	30	30	-
Commands per double sensor in switching operations	15	15	30
Power load on LocoNet	Approx. 25mA	Approx 25mA	Approx. 12mA
Factory default module address	1	1	1

### Installation of LISSY receiver 68 620

The sensor is installed in the track between the sleepers. Drill a 4.2 mm hole at centre of the track. For a clean hole, it is a good idea to pre-drill with a smaller drill size. Insert the sensor, including PCB, from underneath so that it is flush with the top of the sleepers. The control LED should still be visible.



Installation of Single receiver

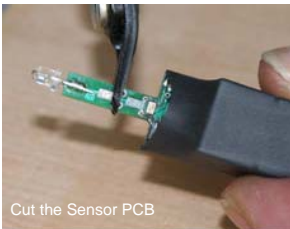


The control LED is located 20 mm from the top edge of the sensor

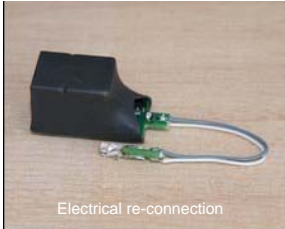
Should the receiver protrude too far below the baseboard, e.g. into the space of a track below, the PCB can be cut with side cutters. Then solder some short leads to the solder pads to re-establish the electrical connection between the sensor and the receiver.

#### Take note of the markings so the sensor is connected with the correct polarity!

Then insert the sensor, PCB included, from underneath so that it is flush with the top of the sleepers. The receiver can then be attached flat against the baseboard.



Cut the Sensor PCB



Electrical re-connection



Install the split receiver

## LISSY receiver 68 620 functions

The LISSY receiver is suitable for all functions that require only a single sensor:

### Basic Operation

LNCV2 = 1 – Reading of locomotive address and category.

### Switching Operation

LNCV2 = 3 – Switching operation with single sensor and independent of direction.

### Reset Operation

LNCV2 = 96-99 – Various reset options for the receiver

**Note:** *Direction detection and speed measurement as well as all automatic operations are not possible when using a single sensor.*

LISSY receiver 68 620 performs switching operations in the same way as in receiver 68 600 or 68 610 in single sensor mode. The difference is that receiver 68 600 and 68 610 each have 5 program options per sensor whereas the 68 620 has 10 program options for the single sensor.

All functions outlined for single sensors in the LISSY Manual chapter, "Switching Operations" can also be used with receiver 68 620. Programming of LNCVs of the single receiver 68 620 corresponds to that described in the chapter Programming receiver 68 600 and 68 610 for single sensors.

As the LISSY receiver 68 620 operates only with a single infrared sensor it does not detect the train's travel direction nor its speed. Therefore in switching operation, a speed change is only possible in absolute or percentage value. A change in km/h is not possible.

## Programming

Programming of LISSY single receiver 68 620 corresponds to the programming of the LISSY receivers 68 600 and 68 610, as it is described in the relevant chapters in the LISSY system manual.

### LNCV Table for LISSY Receiver 68 620

LNCV	Description	Value range
0	Module address Universal address 65535	1-4095 65535
1	Not used	-
2	Selection of various functions <i>Basic function</i> 1 = Reading of locomotive data via a single sensor <i>Note: Transmission to LocoNet activated via LNCV 15</i> <i>Switching operation</i> 3 = Switching operation with single sensor with direction detection <i>Reset function</i> 96 = Delete the current operating state. The programming remains 97 = Delete all LNCVs of the switching operations from LNCV 20 98 = Sets all LNCVs to value '0' with the exception of LNCV 0 (address) 99 = Reset to Factory default without changing the address	1  3  96-99
3-10	Not used	-
11	Turn Switching function on or off via a solenoid address. 0 = no solenoid address assigned 1-2000 = solenoid address, with which a LISSY receiver can be deactivated (red) or activated (green)	0-2000
12-14	Not used	-
15	Presets for the receiver module 0 = Do not send data to the LocoNet, inquiry is possible 1 = Uhlenbrock format with loco address and category 2 = Digitrax format with loco address and block free (transponder exit block) 3 = Digitrax with loco address and block occupied (transponders enters block) <i>Note: Only one output format can be selected.</i>	0-3

<b>LNCVs for switching Locomotive functions</b>	
20-29	Vehicle address for the function command
30-39	Function value
40-49	Function options

<b>LNCVs for changing Locomotive speed</b>	
50-59	Vehicle address for the speed change
60-79	Speed change value
80-89	Speed change options

<b>LNCVs for switching of solenoids and routes</b>	
90-99	Address of the Vehicle that is to trigger the command
100-109	Value for switching the solenoid or output address of feedback
110-119	Option for the solenoid or feedback

## Resetting and Deleting

In the course of operating a system it may be necessary to reset a LISSY receiver to a known pre-defined state.

If you want to program your own functions, then we recommend you first delete the factory programmed functions so they do not interfere with the functions wanted by you.

If you have a LISSY receiver with unknown content it is better to set it back to factory default rather than just deleting the contents. In the factory default state all pre-programmed functions are known. Thus you can simply test modules operation.

Deletion and/or resetting is done by programming a special operating mode into LNCV 2 of the LISSY receiver. There are four different methods for deleting and/or resetting:

LNCV	Description	Value
2	<i>Reset function</i> 96 = Delete the current operating state. Programmed LNCVs remain unchanged. 97 = Delete all LNCVs of the switching operations from LNCV 20 98 = Sets all LNCVs to value '0' with the exception of LNCV 0 (address) 99 = Reset to Factory default without changing the address	96-99

## Factory defaults of LISSY receiver 68 620

When programming LNCV 2 to value 99 factory default setting can be re-established. Only the address in LNCV 0 remains.

Function	LNCV	Description	Value
Basic Settings	0	Module address and sensor address	1
	2	Switching Operation without direction detection	3
Switch Operation	20	For all vehicles ...	20000
	30	... state of light function ...	1
	40	... change when passing the single sensor	16

All other LNCVs are set to a value of 0.

## The Universal address

If you have forgotten the address of a LISSY receiver, the universal address 65535 can assist you. A description of how to address a receiver using the universal address is outlined in the LISSY Manual, chapter "The Universal Address".

## Guarantee declaration

Each component is tested for its complete functionality before distribution. If a fault should arise within the guarantee period of 2 years, we will repair the component free of charge upon production of proof of purchase. The warranty claim is void if the damage was caused by inappropriate treatment.

 **Uhlenbrock Elektronik**

### Our contact Details: Service

In the event of a defect or failure send the unit together with the invoice and a short description of the fault back to us for repair.

### Hotline

We are available if you have any questions!

Your direct line to a technician: **0 20 45 - 85 83 27**

Mon - Tue - Thu - Fri, 14:00~16:00 and Wed 16:00~18:00



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*Electronic devices do not  
belong in household rubbish*



**Part No. 68 620**