B Uhlenbrock Elektronik

LocoNet Panel-display 63 440

LISSY-Information at Control desk

1. Operation

LocoNet Panel-display is used on model railway layouts for displaying locomotive addresses, the train category, the driving direction and the speed, which a LISSY system receiver determines.

It is possible to preset up to 16 items and switch between these items by pressing a key, displaying the item information of different LISSY system receivers in different places on the layout.

2. Connection and Installation

Connect the LocoNet Panel-display, using the enclosed LocoNet cable, to the LocoNet T or LocoNet B output of Intellibox or Twin Center or with the LocoNet socket of another digital controller. The direction of the 6-pole plug for the display is important, the LocoNet plug must have ` the nose ' pointing up (coding).

If the supplied cable is not sufficient, then you can find other LocoNet cables, distributors and connectors in our catalog.

In order to build the display into an existing desk, make a 59 x 22 mm rectangular cutout. Insert the display into the cutout from the front, using the two fixing clips and fasten it with the enclosed 3 mm nuts/washers.

3. The Display

When switching the display ON, it always shows the information of the LISSY system receiver with address 1. If the display is switched to another LISSY system receiver, then its information is gueried and indicated.

3.1 Indication with basic functions and switching operation

If LNCV 2 of the LISSY system receiver is set to the operating modes 0-3 (basic functions, switching operation), then the last locomotive to have passed this sensor is always indicated.

3.2 Indication with automatic operation

If the LISSY system receiver is programmed to one of the automatic functions 20 to 26 (shuttle train services, holding place, block section or station administration), then the display indicates the information of the locomotive that happens to occupy the track section. If the section is vacant, the indicator changes to "Block Free".

If the display is switched to another LISSY system receiver, the occupied section's information for that locomotive is indicated. If this section is vacant "Block Free" is indicated. (Applies to LISSY system receiver 68 600 software Version starting from 1.06).

3.3 The different indicator functions

Locomotive or wagon address

The address range, which can be supervised by a LISSY system receiver, is 1-9999 for locomotive addresses and 10001-16382 for wagon addresses. The different addresses are indicated as follows:

A maximum of four digit numbers without points, e.g. for the locomotive address 320:



Indication of four digits with points, where the first digit of the address (always the 1) is missing, e.g. for the wagon address 10074:



Indication of locomotive speed

Maximum of 3 digits with point following, e.g. for a speed of 50 Km/h:



Indication of train category with driving direction

The train category number to the right of the display, the driving direction with left vertical bar, e.g. the indication of train category 2 and a vertical bar on the top left for the driving direction of sensor 2 to sensor 1



or the indication of train category 4 and a vertical bar left down for the driving direction from sensor 1 to sensor 2.



Indication of no locomotive/free block

The message "no locomotive" is indicated, if after switching the model railway on, no locomotive passed the LISSY system receiver or if it is in automatic operation (LNCV 2 = 20-26) block-section is free.

3.4 Indicator mode

In the factory setting the display indicates only the locomotive and/or wagon address. Speed and/or train category with driving direction can be selected alternatively with LNCV 18. The display then indicates the information alternately. The display duration of the individual items can be individually programmed (see next chapter)

Note: Speed and driving direction can only be indicated if the LISSY system receiver with a double sensor is used (see LISSY system manual chapter "Reporting speed and direction").

3.5 Indication time

If LNCV 18 contains a value other than 0, then the display cycles through the information of a selected LISSY system receiver. How long the information is to be shown, can be adjusted using LNCV 19 in 0,5 second steps. The preset interval is 3 seconds (LNCV 19 = 6).

Note: The values in LNCV 18 and 19 apply to all indicator buffers.

4. Configuration of the Display Indicator Buffer

The panel-display has 16 different indicator buffers available. Each buffer can be assigned the address of a LISSY system receiver whose information it is to indicate.

Use the following LNCV's to configure of the indicator buffers:

LNCV	Buffer	Key	Address of LISSY receiver	Default
1	1	1	Receiver address for Indicator buffer 1	1
2	2	4	Receiver address for Indicator buffer 2	2
3	3	2	Receiver address for Indicator buffer 3	3
4	4	5	Receiver address for Indicator buffer 4	4
5	5	3	Receiver address for Indicator buffer 5	5
6	6	6	Receiver address for Indicator buffer 6	6
7	7	С	Receiver address for Indicator buffer 7	7
8	8	+	Receiver address for Indicator buffer 8	8
9	9	7	Receiver address for Indicator buffer 9	9
10	10	t	Receiver address for Indicator buffer 10	10
11	11	8	Receiver address for Indicator buffer 11	11
12	12	0	Receiver address for Indicator buffer 12	12
13	13	9	Receiver address for Indicator buffer 13	13
14	14	→	Receiver address for Indicator buffer 14	14
15	15	t	Receiver address for Indicator buffer 15	15
16	16	t	Receiver address for Indicator buffer 16	16

The 16 different indicator buffers can be selected as shown in the sketch.

Simple turnout commands can switch between the individual indicators. In the Intellibox keyboard mode, the top left key is assigned the start address for switching the display using LNCV 17 of the module. The factory setting is address 400.

The key assignment of the Intellibox is described in the Intellibox manual chapter "Keyboard mode".



Note: No turnout addresses may be within the address range which the display uses for indicator buffers. Please note that for the eight pairs of keys on the keyboard 8 addresses are assigned. In the factory setting that is the addresses are 400 to 407.

5. Configuration of the LISSY receivers 68 600

In order to be able to use the display in conjunction with a LISSY system receiver, it must be set to send in Uhlenbrock format. For this, LNCV 15 of the LISSY system receiver must have a value of 1 or 9

Note: If the supervised LISSY system receiver is set to an automatic function (LNCV 2 = 20-26), the display shows a "block free" message. In all other operating modes the information about the locomotive which was last in this section, is displayed



6. Programming the Panel-displays

LocoNet devices are programmed using LocoNet configuration variables (LNCV's). These LNCV's can be programmed with the help of the Intellibox (starting from software Version 1,3), the IB control (starting from version 1.55) or the Twin Center (starting from version 1.1). Since the display can only be used if it is meaningfully configured, the LNCV's must be programmed as described below

6.1 Access a LocoNet-Display

- Connect the module to the LocoNet.
- On the Intellibox (starting from software Version 1,3) press the [menu] and then [mode] key, in order to enter the basic adjustment menu
- Use the [\downarrow]-key to step to the "LocoNet Prog." menu option.
- Press the [→]-key:

LocoNet	Pro	bg	•	:		
ArtNr	. :				•••	

• Enter the Part number of the module (here 63 440) and press the [+]-key

LN Pro	og.:		6	3	4	4	0
Modul	Adr.	:	•	•	•	•	•

• Enter the address of the module (a new module is 1) and press the [+]-key.

LNPr	6	з	4	4	0-	0	0	0	0	1
LNCV:	•	•	•	•	0=	•	•	•	•	1

The upper line indicates the module part number and the valid module address. The lower line indicates the number of the LocoNet CV (here "0", for the module address) and its present valid value (here 1)

Important

For programming, each module has a so-called module address, with which the digital controller identifies the particular module. The factory setting of a LocoNet Panel-display is address 1. If more displays are to be connected to a controller, the other module addresses must be changed. The permissible address range is 1 to 65534. If the LocoNet Panel-display was addressed correctly, it indicates the "Prog" message.

6.2 Reading and Programming LocoNet Modules

Similar to with DCC decoder the behavior of the LocoNet Panel-displays is determined by configuration variables (CV). In contrast to locomotive decoders whose CV's are programmed via the rail, the LocoNet is used to program LocoNet CV's or LNCV's

After the module is called up (see chapter 6.1) the Intellibox display indicates:

LNPr	63440-00001
LNCV:	$\ldots \ldots 0{=}\ldots {1}$

The cursor flashes under 0

- At the cursor position enter the number of the LNCV, which you would like to program
- Press the [←]-key

- The Intellibox selects this LNCV. The value is shown at the right of the lower line of the display
- Use the [→]-key to move the cursor to the right and enter the new value for the LNCV.
- Press [←]-key to program the new value
- With the [←]-key go back to select another LNCV
- With the [←]-key go back to select another LocoNet display
- · Or with [menu]-key leave programming mode altogether.

As you already know, numerical values marked by flashing cursor, in the Intellibox, can be incremented with [+]-key and decremented with the [\downarrow]-key

6.3 The Universal Address 65535

With the universal address, as the name implies, all LocoNet displays can be called up.

Since the universal address is not a real address, with which different LocoNet displays can be identified, it can only be used in order to call up displays, whose individual address is unknown. Therefore, only the appropriate display may be connected to the LocoNet. If the display is then called, the programmed address can be read from LNCV 0

Procedure:

- Press the [menu] key
- Press the [mode] key
- With [↓]-key step up to the "LocoNet Prog." entry
- Further with the [→]-key
- Enter the part number (for the Panel display 63440)
- Input of the universal address 65535
- Press the [+]-key
- The module address can be read from LNCV 0

7. LNCV Table for the LocoNet Panel display

LNCV	Description	Value Range	Factory Default
0	Module address	1-65534	1
1-16	Indicator buffer with LISSY receiver addresses Each indicator buffer is assigned the address of the LISSY receiver, whose information it is to display.	1-4095	1-16
17	Start address for the indicator buffer	1-1993	400
18	Indicator mode 0 = only locomotive address 1 = locomotive address + speed 2 = locomotive address + train category and driving direction 3 = locomotive address + speed + train category driving direction	0-3	0
19	Time for the display change over In 0.5 second steps, duration that an individual items is to be indicated from LNCV 18.	1-255	6
20	Startup time of LocoNet in 0.5 second intervals	1-255	4
21	Brightness of the display 255 = max. brightness	1-255	128

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Service

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

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