Uhlenbrock Elektronik

6021 Infrared & LocoNet Adapter 63 820

For connecting LocoNet devices to the Control-Unit

1. Description

1.1 The Adapter

The 6021-Infrared & LocoNet Adapter has an integrated receiver for the IRIS infrared remote control and provides a LocoNet interface for the Märklin Control Unit 6021. Additional devices can then be attached to the Control Unit, expanding its functionality and usefulness.

1.2 The IRIS Infrared Remote Control

After installing the Adapter the integrated Infrared Receiver allows the use of the IRIS Infrared Remote Control. With IRIS you can select all 80 locomotives on your digital layout and control their direction, speed and special functions. IRIS can control up 256 turnouts for the Control-Unit, without installation of a keyboard.

IRIS uses 4 transmission channels. Each channel can control a single locomotive or 4 separate solenoids. With the various channels one can quickly switch from one locomotive to another. If a number of players are using separate remote controls (up to 4 on one Control Unit), each player can use one channel to control a locomotive he has selected without affecting the locomotives of fellow players.

1.3 What is the LocoNet?

The LocoNet is a very reliable and cost effective model train network using an American Standard. It can be setup easily and quickly. Devices with LocoNet interface can be connected to any distribution socket on the LocoNet with a single click. That way you save much wiring and can still be flexible. Best of all is that LocoNet supports cable runs up to 100m without a problem. That should be

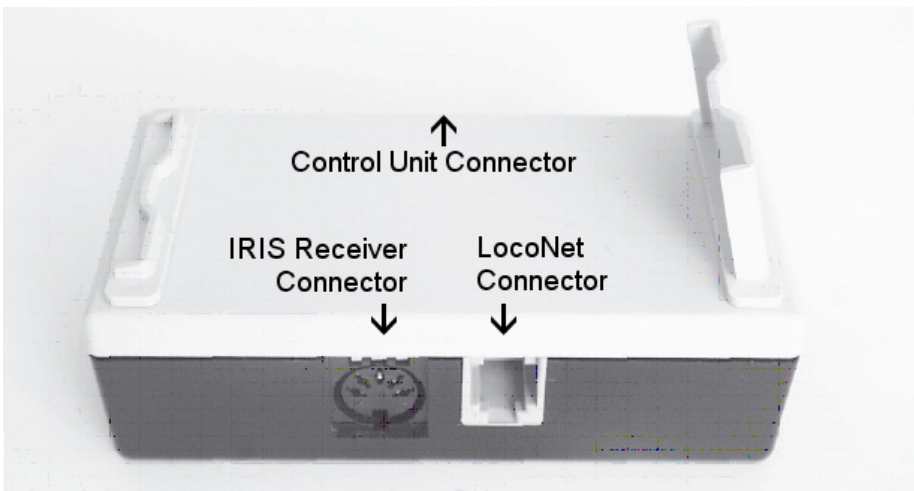
enough for even the larger model railway layouts.

The LocoNet uses a 6 way flat cable. For connection it simply uses the R12 connectors as used for telephones, which are wired 1:1. Cable, distributors and joiners for construction of a LocoNet are in our catalog.

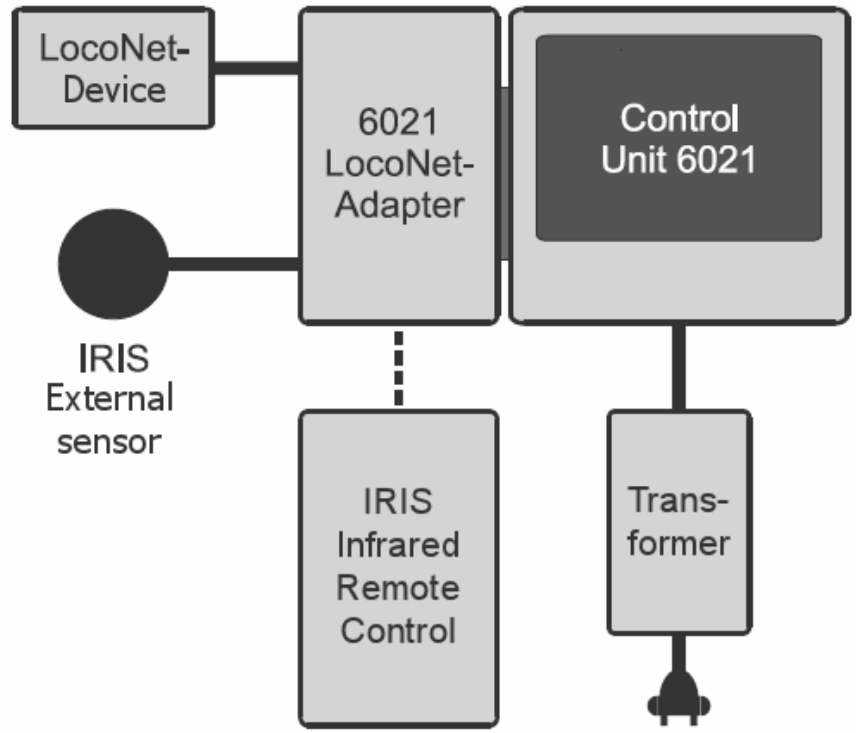
2. Connection

2.1 Connection to the 6021

Firstly we attach the feet that are provided in the package to the module so that it has the same orientation and level as the Control-Unit. Situate the Adapter so that the connector for Control-Unit is facing to the back. Use glue to attach the short foot to the left and the long foot to the right underside of the housing (see Photo).



Pay attention to the coding on the feet. After the feet have been attached the Adapter can be plugged into the left side of the Control-Unit.



Note: One or more devices such as keyboards, memory or switchboard can be attached between the Control-Unit and the Adapter as long as the Adapter is the last unit in the chain.

The Adaptor does not require an additional power supply. It is supplied from the Control Unit.

2.2 Using the IRIS Remote Control

During the operation the remote control should always be held toward the receiver. The infrared receiver is in the housing at the front of the adapter under the label "sensor". A red control LED blinks if the receiver has received the infrared signal from a remote control.

IRIS uses 4 transmission channels. Each channel can be used to control a locomotive or 4 separate solenoids. With these channels it is simple to switch from one locomotive to another. If a number of players use different remote controls (up to 4 on a Control Unit) each player can control ‘his’ selected locomotive via his channel.

If, for example, you have a large layout or a room with many corners, additional infrared receivers 66520 can be connected via the 5-pole DIN socket labeled “Zusatz-Sensor”, on the left side of the Adapter. The receiver has a 5m cable so can be fitted to the layout where desired. Two additional receivers can be connected using a Y-cable.

For a full description on operating with the IRIS remote control, refer to the IRIS Manual.

Note: Together with the Control Unit IRIS has an address range of 80 locomotives and 256 turnout addresses. Because of the limitation of the Control Unit’s data format it is not possible to switch routes.

2.3 Connection of devices to LocoNet

Devices are connected to the LocoNet using the left socket on the left side of the Adapters (Telephone plug RJ12). An appropriate cable is supplied with every Uhlenbrock device.

Attention: Model railway controllers e.g. the Roco Lokmaus 2, must not be connected to this socket even though they have an identical plug. Because they are not LocoNet devices, they can be destroyed.

The maximum power load of the Control Unit on the side connector is 3A. If many

devices are driven via this connector it is easy to exceed the maximum load and the control center will switch off. In this case, disconnect as many LocoNet devices as needed for the control center to become operational again. The devices you disconnected can then be reconnected via the LocoNet power feed unit 63100, which will provide more power to the system.

Important: Due to the data format of the Central Controller the LocoNet devices are restricted by the Control Unit to 80 locomotives and 256 turnout addresses; unlike our own products.

A number of devices that can be connected to the LocoNet are programmed via LocoNet configuration variables (LNCVs) to suit your requirements. LNCVs can be programmed with the aid of an IB-Control (from Software Version 1.55). Without this programming such devices are restricted and in combination with the Control Unit are not really useful.

Part No	Description	Function range
65400	IB-Control Dual speed control	Address range: locomotives 1-80; turnouts 1-256 Programming of LocoNet configuration variables (LNCVs)
66200	DAISY - digital hand controller with Display	Address range: locomotives 1-80; turnouts 1-256
66000	FRED - simple, digital hand controller	Controls one locomotive In Dispatch Mode the address is assigned by the Centre
65500	Profi-Control Drivers control panel	Controls one locomotive per steering wheel, brake and Combi lever In Dispatch Mode the address is assigned by the Centre
65800	IB-Switch	Switches turnouts and routes within address range 1-256

Part No	Description	Function range	
63400	Switch-Control - for connecting track plan to the LocoNet	Without IB-Control	Programming per Key, each Switch Control can control 5 solenoids via 2 keys and Lamps per solenoid
		With added IB-Control	LocoNet Programming: Uses the desired solenoid addresses per Key pair; together with the IB-Switch can activate routes and start/end keys
63850	LocoNet Display to show LocoNet activity	Without IB-Control	Display of locomotive, turnout, signal and feedback module status; display of all inputs from the IRIS remote control; display of a model clock for running to a model timetable
		With added IB-Control	Changing the pesets and special options
63810	Mobile station Adapter to connect the Märklin mobile station to the LocoNet	Without IB-Control	Locomotive control
		With added IB-Control	LocoNet Programming: programmable solenoid addresses, solenoids can be switched
63840	Maus-Adapter	For connecting a Roco Lokmaus 2	
63850	X-Bus Adapter	For connecting all Lenz X-Bus devices	
68000	LISSY – the individual locomotive control system	Without IB-Control	Not usable
		With added IB-Control	Train identification, shuttle train control, locomotive dependant shadow station control, digital Block control, speed measurement, acceleration and braking control at signals, automatic control of special functions

2.4 Locomotive assignment for FRED and Profi-Control

FRED and Profi-Control must be used in “dispatch mode” when connected to the Control Unit. That is, the devices are handed a locomotive address by a Märklin Controller or a Central Controller (Control Unit, Control 80 or Control 80f). After this the locomotive can be controlled by FRED or the Profi-Control.

To provide a locomotive address for FRED or the Profi-Control follow the following steps:

1. On the Control Unit, Control 80 or Control 80f press [go]-key and hold it until the LED labeled “STATUS” on the 6021 Infrared & LocoNet Adapter blinks.
2. Now enter the locomotive address that is to be supplied to the device.
3. The blinking LED goes off and the locomotive address can now be used by a FRED or a Profi-Control as described in their respective manuals under the keyword “Dispatch mode”.

Note: A locomotive address can only be provided via a Control Unit, a Control 80 or a Control 80f. It is not possible to provide the address from the IRIS remote control.

3. Special Options

3.1 Description

Special options are settings with which you affect or change the operation of the 6021 Infrared & LocoNet Adapters. The Adapters’ special options can be changed from the Control Unit.

3.2 Changing Special options

You need to follow the following steps to make the changes:

1. Press [stop]-key until the Status LED blinks slowly
2. Release the [stop]-Key and the system returns to the “go” mode
3. Enter the number of the special option (as you do a locomotive address)
4. A short press of the [stop]-key, and the system returns to the “go” mode and the Status LED blinks quickly
5. Enter the value for the special option (as you do a locomotive address)
6. A short press of the [stop]-key, and the system returns to the “go” mode and the Status LED blinks slowly
7. Repeat from point 3 or press the [go]-key to exit the special option programming mode and go back to running mode.

Note: A value of 0 as an address is invalid for the Center, as this address does not exist in a Motorola Digital System. Instead an address value of 0 is

always programmed by using the value of 80.

3.3 List of Special Options

Special Option 1

Save the status of all solenoids

0 = No

1 = Yes (Factory default)

Special Option 2

Read and report solenoid Status

0 = No

1 = Yes (Factory default)

Never change the value of any other special option!

Uhlenbrock Elektronik

Good service is our aim:

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:

02045 - 85 83 27

Mon - Tue - Thu – Fri, 14:00~16:00

and Wed 16:00~18:00

All our products have a warranty of two years.
We reserve the right to change data in this booklet at anytime.

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