RJ Uhlenbrock Elektronik

Magnetic Solenoid

For Motorola and DCC digital layouts





and Switch decoder

Description

Uhlenbrock Solenoid and Switch decoder can operate in Motorola digital layouts (from Uhlenbrock and Marklin) and in DCC digital layouts (from Uhlenbrock, Lenz, Arnold, LGB and Roco).

For the first time, the programming of the address in a Motorola format, is as simple as it has up to now only been in DCC systems. The building block remembers the 'listening' format for key pair for which it has been setup. The cumbersome encoding of addresses is now superfluous.

The Uhlenbrock Magnetic solenoid and switch decoder can use all addresses that the various controllers can assign. Intellibox und IB-Switch can use addresses 1 to 320 in Motorola format and addresses 1 to 2040 in DCC format. With keyboards from other manufacturers address range 1 to 256 in Motorola format, and in DCC format between 1 and 2040.

Solenoid Decoder MD2

This decoder switch two double solenoid devices by means of pulses on two independent addresses; that is two magnetic device with independent drive.(Turnout, signal) or a single device with 2 drivers (Three way Turnout, double slip crossing or Signal with warning signal).

Both switch addresses can be freely chosen. They must however be different.

Connect the decoder and device as shown in the diagram on the right.

Control LED Program Switch 0 A1 red Magnetic Switch 1 Solenoid 1 Solenoid 2 A1 green -20V A2 red Magnetic Switch 2 A2 green Solenoid 1 Solenoid 2 -20V Track **Digital Supply** Track

Technical Data

2 Outputs, 2 addresses, for each twin solenoid device, max. current load 2A (short circuit protected)

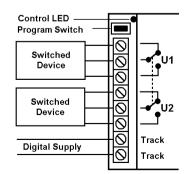
Switch Decoder SD1

The switch decoder has a single relay with electrically insolated changeover switches which are operated under a single address. e.g. changing a light signal and supply to the track. The decoder can be programmed to any desired address.

Connect the decoder and device as shown in the diagram on the right.

Technical Data

2 change over switches with a common address, max. current load 1A



Switch decoder SD2

This switch decoder has two independent and electrically isolated changeover switches that can be operated on different addresses. It can switch two totally independent devices such as e.g. Lighting or a light signal.

The two devices can be individually addressed. They must however have different address.

Connect the decoder and device as shown in the diagram on the right.

Control LED Program Switch Switched Device Switched Device Digital Supply Track Track

Technical Data

2 change over switches with a independent addresses, max. current load 1A

Programming

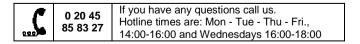
After the decoder and the devices it is to switch are correctly connected the decoder must be assigned to the appropriate keys on the control center's keyboard. This so the controller can switch the devices.

Use the following steps to setup the decoder to the desired address and key, paying attention that all the outputs of the particular decoder have been assigned.

Start Programming	Press the Program Switch on the decoder.
	The control LED will blink 3 times.
Operation in Motorola format	Switching to DCC format operation
The decoder expects to receive	Press the Program Switch again.
the address next.	The control LED will blink 3 times.
Set the first address	On the keyboard, press a key that from the
	key pair that is to control device connected to
	A1/U1.
	The control LED will blink 3 times.
Set the second address	On the keyboard, press a key that from the
Only possible with Decoders	key pair that is to control device connected to
67200 and 67600.	A2/U2.
	The control LED will blink 5 times.
End Programming	If all possible options have been setup, the
	decoder will automatically exit Programming
	mode.

Operation

The decoder should now switch the connected device(s) when the matching keys are activated on the control center. When the decoder receives a data packet intended for it the control LED beside the program switch will turn on. If this does not happen then check the wiring and the connections to the decoder and the device.



This product has two year warrantee.

If it is defective send decoder along with the receipt of purchase to the following address:

Uhlenbrock Elektronik * Mercatorstr. 6 * 46244 Bottrop * Tel: 02045-85830 * Fax: 02045-86840