

## FRU 55 500

### Electronic Reversing Switch For DC Locomotives

For converting DC locomotives to AC operation

#### Description

On the market since 1988, our reversing switch is still the smallest available reversing switch. Because of its small dimensions it fits into almost every vehicle without any problems.

The component guarantees safe jerk free switching without the bright flashing of the locomotive's lighting. The drive chain in the locomotive remains unchanged. The locomotive light can be connected to depend on the driving direction.

With the use of power transistors it gives only a minimum potential loss and also low heat dissipation.

When the power is turned off, the direction state is not saved by battery backup but rather by a relay. This way the device has an infinite memory.

The reversing switch well protected against voltage spikes and power loss. The running power can be as desired.

No further components are required for installation.

#### Technical Data

|                        |                 |
|------------------------|-----------------|
| Max. Driving current:: | 0.8A continuous |
| Short term:            | 1.5A            |
| Driving Voltage:       | 0-18V~          |
| Reversing Voltage:     | 22-30V~         |
| Dimensions:            | 18 x 14 x 7.5mm |

#### www.uhlenbrock.de

Our website for information on the Intellibox, pricelist or distributor list or various publications for download.

**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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Made in Germany



Part No. 55 500

## Installing the FRU 55 500 device

#### Preparation

First the locomotive to be modified is fitted with a pickup. *When installing the pickup take care that it has no electrical contact with the locomotive chassis.*

#### Connecting the Device

Disconnect the lines going from the motor and lights to the wheels.

Connect all wires that come from the wheels together. Connect them together to one of the black wires coming from the device.

If the locomotive has a switch to select between track and overhead power then connect the pickup to switch where the wheels were previously connected. Solder the second black wire from the device to the switch where motor was previously connected. If there is no catenary then connect this wire directly to the pickup.

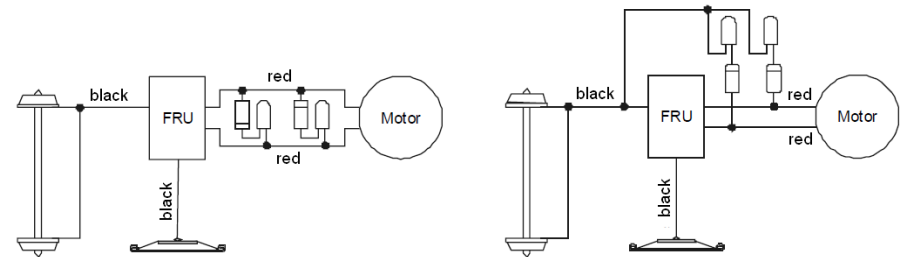
Lastly solder both of the red wires from the device to the motor. The original RFI components remain in place.

#### Automatic Light changeover

With two additional diodes (1N4004 or equiv.) connected in series with the lamps you can also switch the lights to match the travel direction.

Which of the circuits you follow depends on whether lamps are connected in parallel with the motor connected to chassis.

If the locomotive already has automatic light changing then this is not affected by this device.



The lamps in parallel with the motor

The lamps connected to chassis

#### Before Use

Check for correct installation with continuity tester or ohmmeter.

**A short circuit in the area of the motor, light, pickup and wheels will destroy the device and eventually the electronics in the locomotive**

#### Mounting the reversing switch in the vehicle

Double sided stick pads or regular adhesives are suitable for holding the device in place.

When mounting the device in the vehicle make sure that no conductive connection is made between it and the vehicle! To prevent this, a piece of insulation tape can be wrapped around the unit. Certify that even closing the locomotive no short circuit can arise and that none of the wires are cinched.

#### Guarantee declaration

Each component is tested for its complete functionality before distribution. If a fault should arise within the guarantee period area 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.

Please you note that, according to EMV law, the component may only be installed in vehicles, which carry the CE logo.