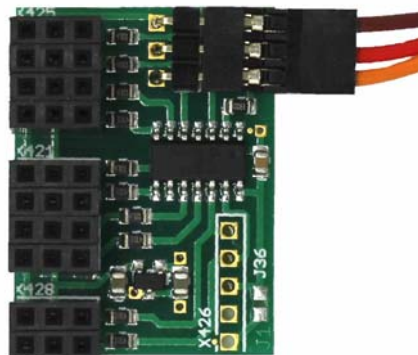


## Operating Manual

# Multiswitch-Converter MSC-8-C MSC-10-C MSC-8-C-LCD for CARSON Reflex Stick MULTI PRO 14 Channel



**BEIER-Electronic**  
Winterbacher Str. 52/4, 73614 Schorndorf - Weiler  
Telefon 07181/46232, Telefax 07181/45732  
eMail: [modellbau@beier-electronic.de](mailto:modellbau@beier-electronic.de)  
Internet: <http://www.beier-electronic.de/modellbau>



## Function

With the multiswitch converter modules MSC the signals of 8 or 10 switches of the CARSON Reflex Stick MULTI PRO 14 Channel can be collected and transferred via only one proportional channel to our sound module USM-RC-2 or speed controller UFR-1230.

The MSC modules are plugged directly on the receiver of the CARSON Reflex Stick MULTI PRO 14 Channel.

The MSC modules are available in 3 versions:

- MSC-8-C (for radio without LCD)
- MSC-10-C (for radio without LCD)
- MSC-8-C-LCD (for radio with LCD)

The modules MSC-8-C and MSC-10-C are both suitable for the CARSON radio without LCD. The version MSC-8-C-LCD can only be used with the CARSON radio control with LCD.

At MSC-8-C and MSC-8-C-LCD the switches/knobs for channel CH7 and CH8 stay free for other functions.

At MSC-10-C all 10 switch signals are transferred. CH5 – CH14 are occupied and can not be used for other functions.

## Technical data

<b>Supply voltage (U<sub>b</sub>):</b>	4 – 8 V DC (from receiver)
<b>Power consumption:</b>	ca. 1 mA
<b>Proportional input:</b>	8 or 10 (1,000 - 2,000 ms)
<b>Proportional output:</b>	1 multiswitch output
<b>Size:</b>	24 x 32 x 12 mm
<b>Weight:</b>	10 g

## MSC-8-C for CARSON Reflex Stick MULTI PRO 14

### Installation to receiver:

The multiswitch converter is plugged to channel CH5 - CH14 at the CARSON receiver, as demonstrated on the picture.

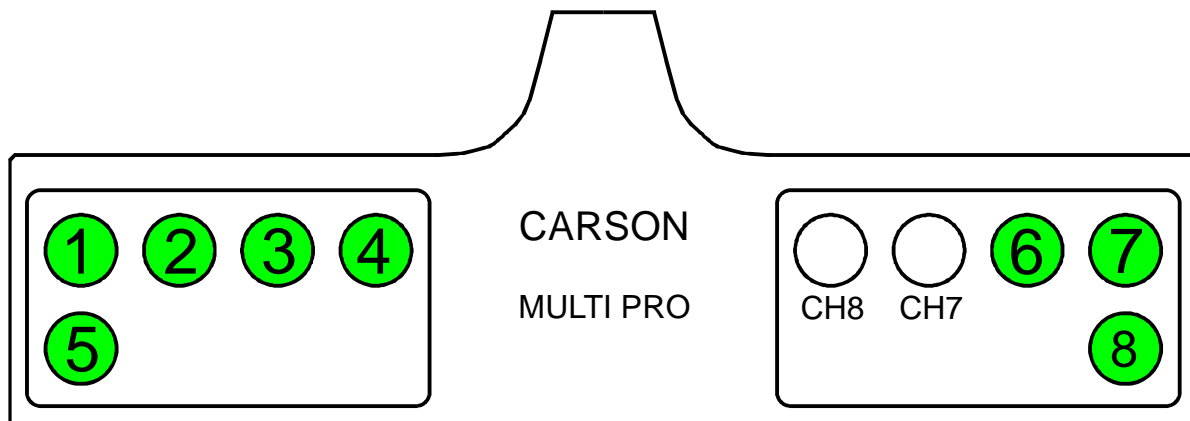
Channel CH5, CH6 and CH9 - CH14 are used by the MSC. These channels can not be used for additional functions, such as servos, speed controller or switching modules!

Channel CH7 and CH8 stay free and can be used for other functions.



### Switch numbers:

With the MSC-8-C the switches have following numbers:



For the switches 1 – 8 two functions can be assigned in the Sound-Teacher or in the Drive-Teacher. One function for „switch up“ and one function for „switch down“. In total 16 additional functions can be switches with the MSC-8-C.

## MSC-10-C for CARSON Reflex Stick MULTI PRO 14

### Installation to receiver:

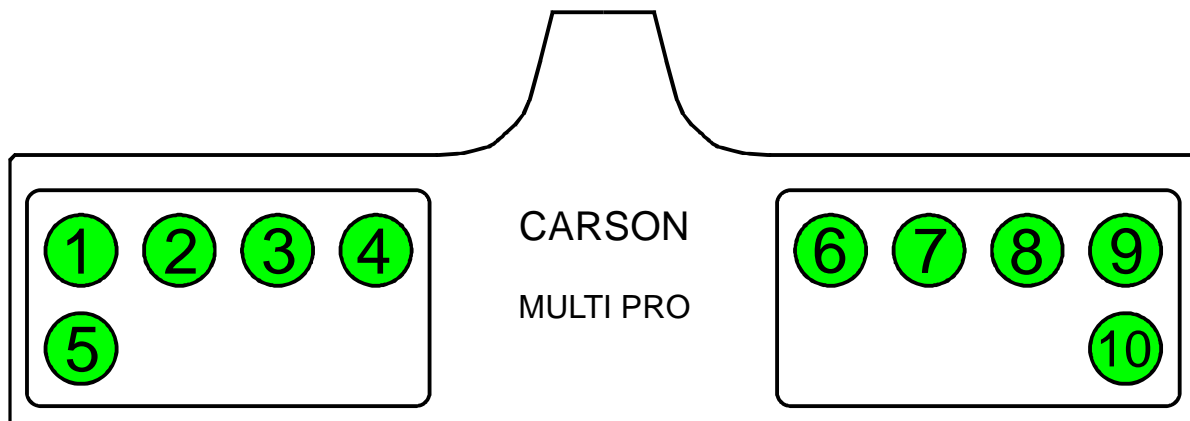
The multiswitch converter is plugged to channel CH5 - CH14 at the CARSON receiver, as demonstrated on the picture.

Channel CH5 - CH14 are used by the MSC. These channels can not be used for additional functions, such as servos, speed controller or switching modules!



### Switch numbers:

With the MSC-8-C the switches have following numbers:



For the switches 1 – 10 two functions can be assigned in the Sound-Teacher or in the Drive-Teacher. One function for „switch up“ and one function for „switch down“. In total 20 additional functions can be switches with the MSC-10-C.

## MSC-8-C-LCD for CARSON Reflex Stick MULTI PRO 14 LCD

### Installation to receiver:

The multiswitch converter is plugged to channel CH5 - CH14 at the CARSON receiver, as demonstrated on the picture.

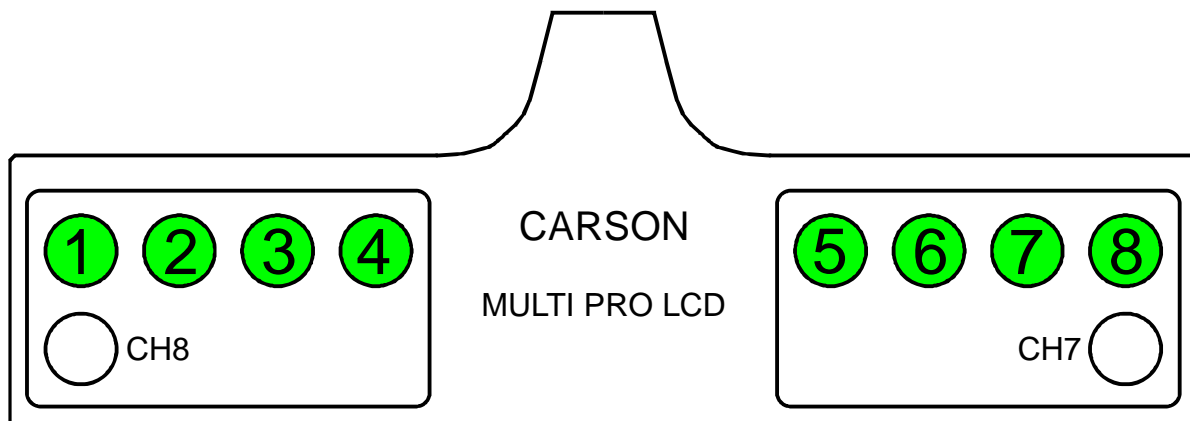
Channel CH5, CH6 and CH9 - CH14 are used by the MSC. These channels can not be used for additional functions, such as servos, speed controller or switching modules!

Channel CH7 and CH8 stay free and can be used for other functions.



### Switch numbers:

With the MSC-8-C the switches have following numbers:

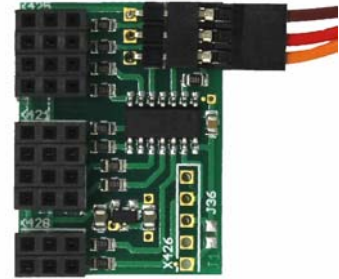


For the switches 1 – 8 two functions can be assigned in the Sound-Teacher or in the Drive-Teacher. One function for „switch up“ and one function for „switch down“. In total 16 additional functions can be switches with the MSC-8-C-LCD.

## Operation with sound module USM-RC-2

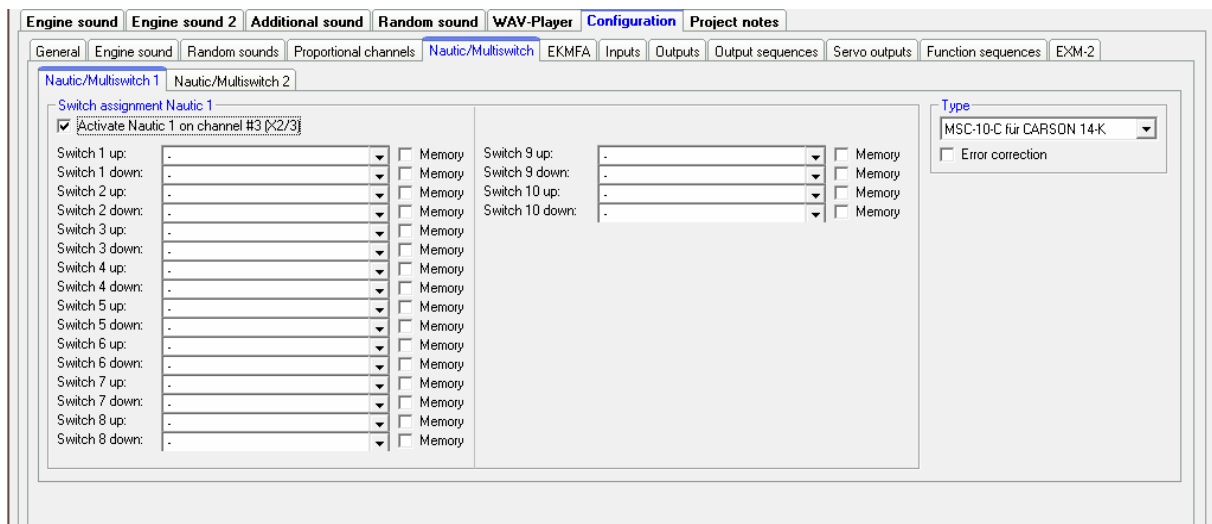
With the supplied servo patch cable the module is connected to proportional channel X2/3 (Prop #3) or X2/4 of the sound module USM-RC-2.

The brown cable points up to the edge of the board.



Nautic 1 or Nautic 2 must be activated in the Sound-Teacher under Configuration → **Nautic/Multiswitch**.

In „type“ the used multiswitch converter module must be set. The function error correction is not necessary



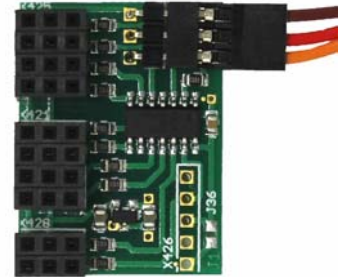
With correct transmission of data the blue LED is flashing at the sound module USM-RC-2.

For the MSC modules a Sound-Teacher version of at least V1.51a is required.

## Operation with UFR speed controller

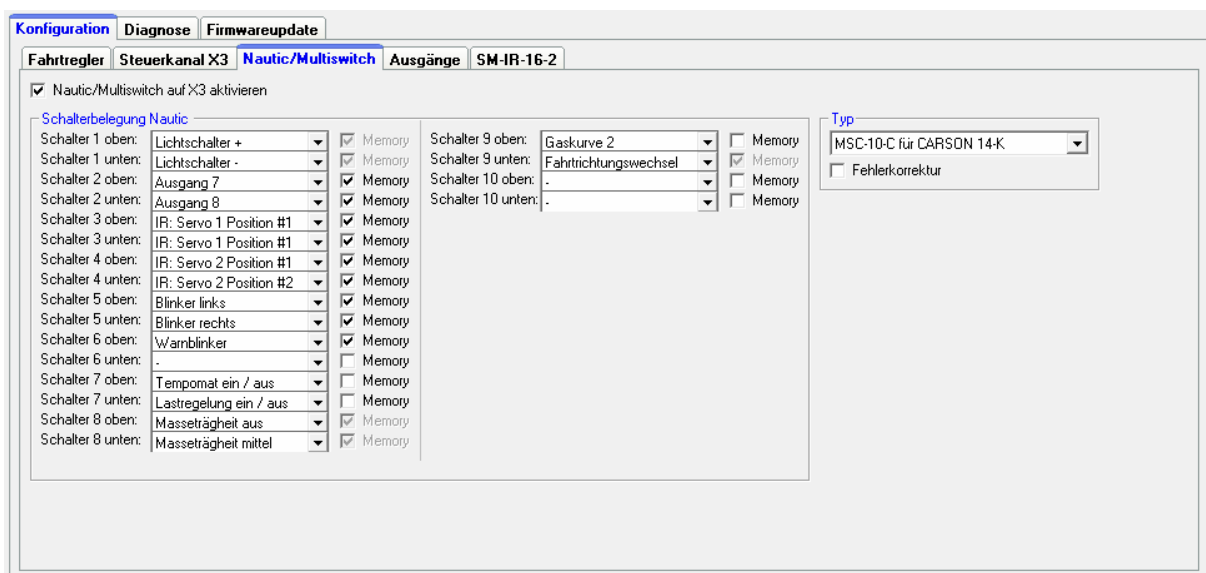
Servo patch cable X3 (control channel) of UFR speed controller is connected to the MSC module.

The brown cable points up to the edge of the board.



Nautic/Multiswitch at X3 must be activated in the Drive-Teacher under **Configuration** → **Nautic/Multiswitch**.

In „type“ the used multiswitch converter module must be set. The function error correction is not necessary



With correct transmission of data the blue LED is fast flashing at the speed controller.

For the MSC modules a Drive-Teacher version of at least V1.10d is required.

