

GB Operating instructions: Rx 12 DS receiver

35 MHz band A	Order No. 5 5936
35 MHz band B (36 MHz*)	Order No. 5 5938
40 MHz (41 MHz)	Order No. 5 5937

The **Rx 12 DS** receiver has been developed specifically for the new **PPM 12** transmission process, which is used for the first time in the **PROFI mc 4000**. This technology is able to transmit a maximum of 12 channels. All twelve channels operate at equal high speed, without any delay, and all twelve can be used without restriction for any model function.

The jumper (black bridging plug) fitted to socket 12 switches the receiver to 9-channel operation for compatibility with earlier transmitters. This is the mode in which the receiver is supplied as standard.

Up to three batteries can be connected to the **Rx 12 DS**. This innovation makes for great versatility, and allows the user to select the optimum power supply arrangement for receiver and servos. The possible options are described in detail in Section 2.

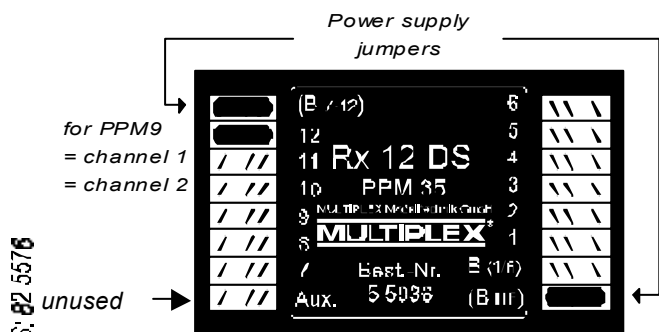
1. PPM 9 and PPM 12 transmission modes

Important: the Rx 12 DS receiver can process either PPM 9 or PPM 12 signals. If you set a transmission mode on the transmitter which does not match the receiver, the receiver will not work at all. If the receiver picks up a PCM signal, an unusable signal (same channel interference) or a signal which is too weak to be usable, it switches the servo outputs off.

Advantage: if you land "out" and have to recover your model with the transmitter switched off, the servos stay at rest, i.e. they will not move uncontrollably and cause damage to themselves or the model's linkages.

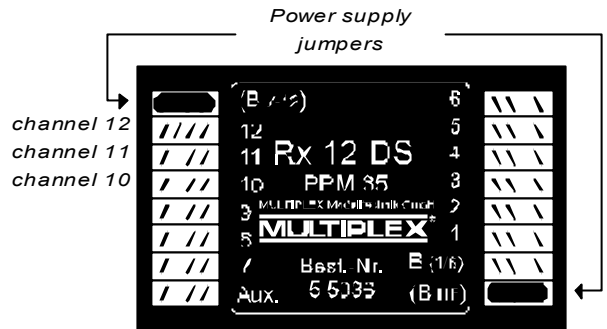
Default setting: PPM 9

The receiver is supplied with a jumper fitted to socket 12, i.e. it is in PPM 9 transmission mode. In this mode the "superfluous" sockets 10 and 11 are wired in parallel to sockets 1 and 2, and can therefore be used to replace two Y-leads.



Switching to PPM 12

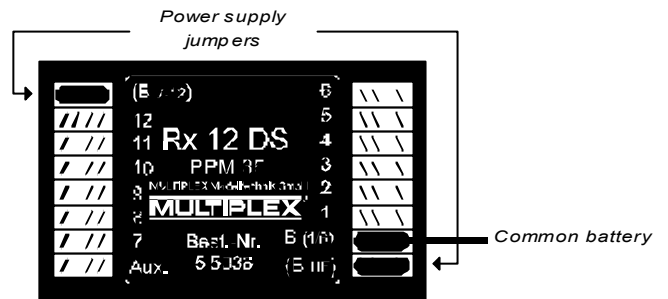
To use 12-channel mode you must remove the jumper fitted to socket 12. Sockets 10 to 12 can then be used directly for servos 10 to 12. Be sure to keep the spare jumper in a safe place!



2. Alternative battery circuits

Default mode: one shared battery

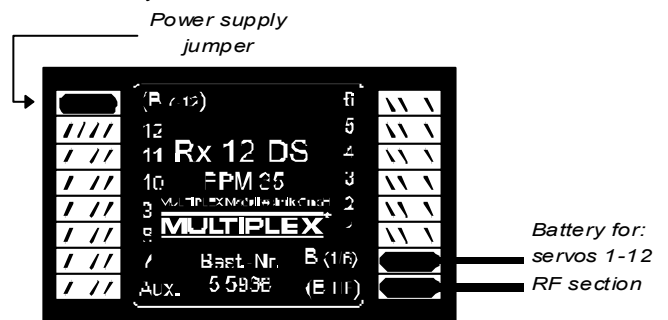
If you want to use a single battery, leave the jumpers in the sockets marked B(7-12) and B(HF). Connect the battery (or switch harness) to the socket marked B(1-6).



Two separate batteries for servos and RF section (receiver electronics)

In this mode a separate battery is used for the RF section (receiver electronics). A small battery (e.g. 270 mAh or 500 mAh) is adequate, as the consumption of the electronics is only about 35 mA.

The advantage of this arrangement is that possible interference produced by the servos cannot reach the receiver via the battery.



Three battery mode

(see next page)

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Using the receiver with three batteries

In this mode a separate battery is used for each of the following

- the RF section (receiver electronics),
- servos 1 to 6, and
- servos 7 to 12

A divided power supply offers three advantages:

- if your model carries a large number of servos, the current load on each battery is reduced.
- "emergency operation" is possible if one battery fails: vital control functions are "doubled up" and the servos shared by the two batteries
- the two servo groups can be operated with different numbers of cells if you are using servos of suitable specification.

