

MC-4000 short manual.

JBVM Delemarre

“+”, “-“, “R” and “M” are the four outer programming buttons.

“LU” is the left upper inner programming button

“LD” is the left lower inner programming button

“RU” is the right upper inner programming button

“RD” is the right lower inner programming button

“R”= to reverse
to program pos. or neg. numbers
to acknowledge a choice

“M”= to make a step back in the menu tree

“↓”= depress the button metioned

Switching on

A:

Switch on while depressing M to get into “power-on menu 1”

↓+ or ↓- to go around into “power menu 1 to 3”

Once in a “power menu” ↓M to get back into the start for the main menu

Once in a “sub menu” of one of the “power menu’s” ↓M to get back

power-on menu 1

>Channel check	↓RU	> +/- to program channel number
>Scan	↓RD	> scanning starts

LU, RU and LD programs the part of the 35 MC band to scan (A and B part) and programs for antenna use, i.e. short or long range scanning)

power-on menu 2

>Batt. Alarm	↓LU	> adjust alarm level for battery.
>Discharge	↓LD	> Discharge menu. ↓R to reset time.
>Op.time	↓RD	> to show and reset operation time

power-on menu 3

>text=AA	↓LU	>adjust display lettering with +/-
>Beep	↓R or +/-	to change on/off
>modul	↓+/-	to chance between memory module one or two (when fitted!)

NB: while in the power-on menu’s the button should be pressed a little longer than in the main menu to get a response

B:

Switch on and wait to get into the start up procedure.

After the channel check the main menu appears

↓+/- to get into one of seven display forms containing various timers or the RPM count.

↓LU or ↓RU or ↓LD or ↓RD to get into the adjustments menu, = menu 1

Here the servo, the stick, the timers or the memory files can be adjusted

On first use a model type has to be chosen to start all the programming. Various base types models are offered when choosing an empty memory to start programming for a model. Depending on the model type you choose various adjuncts are offered in the menus. The simpler the model the less options are offered. **Changing later on in the programming between base types is not possible in the MC-4000 so make the right choice here.** When in doubt go for the more complex option. You don't have to use all that is offered as a programming possibility. Option number 15, "Universal" at the end holds all the options.

↓R to assign a name by ↓LU. ↓LD or ↓RD to change letter position in the name and

↓+/- to make a choice of letter/sign in the name.

↓M to get back in the menu loop. There are five main menus in a circle configuration.

Remember: before programming servo's or sticks or mixers or switches they first have to be "assigned" so go to menu 2! - +/- to get there!

Menu 2: assigning

>servos ↓RU to change the number of the servo you want to assign to a function. The servo number is the signal output number in the receiver to which you want to connect the servo with this function.

↓RD to change the assigned function. More than one servo can be assigned to a function e.g. two aileron servos etc.

>controls ↓RU to change the control letter corresponding to the print on the face of the TX

↓RD to change the assigned function

>switches ↓RU to change the switch type

↓RD to change the assigned switch on the TX

switches can be of five kinds: transfer switch, momentary switch, control switch and analogue switch and logical switch. "Transfer switch" can read out any of the positions of a three position switch. * is shown in the display when the electronics see it as "on"

Momentary switch is an on or off switch. * is shown in the display when the electronics see it as "on"

Control switch can be assigned to one of the controls and is an "on-off" switch or a "trajectory-on" switch. One control can

serve more control switches at any point of its throw. * is shown in the display when the electronics see it as “on”

Analogue switch is assigned to a control or a slider and is used to gradually change the input/output of a signal for instance in a mixer or the value of a dual rate function.

Logical switch is used to put up to four switches together in a logical manner either using the “or” operation or the “and” operation (conditionally switching) * is shown in the display when the electronics see it as “on”

- >mixers
 - ↓LU to assign the servo that is controlled by the mixer
 - ↓RU to change the name of the mixer from “servomix” to any meaningful name, using +/- to change letters.
 - ↓LD to change the entrance number into the mixer circuit between 1 and 8 (up to eight controls can be mixed!) and to set priority in the mixing when a part of the controls is conditionally entered into the mixer controlled by more than one switch. (depending on the position of the switches parts of the mixing circuit can be put in or out of operation giving priority to one over the other switch)

TRIM function when displayed can be switched “on” or “of” by ↓R . When “on” in a mixer the trim input is taken into account in the mixing.

Menu 1: adjustments

- >servos
 - ↓LU to make adjustments specific for one servo.
 - ↓LU to choose the number of points in the servo response curve menu and to choose a switch controlling the servo function.
 - ↓RU to set servo center and travel limits.
 - ↓RD to set the response time for the servo in either direction of throw.
 - ↓LD to set the servo travel curve (when more than three points have been chosen a "curve" can be defined otherwise it will be a straight line from neutral to either side. Up to 13 points can be chosen) and direction of travel. ↓RD to change the point number to be set. The control can be used to go along the various points. Change between various number of points after programming is possible and advised when programming difficult curves. Start 5 or 7 and gradually put in more points to program.
- >controls
 - ↓RU to make adjustments specific for a control. All servos controlled directly or through mixers are affected.
 - ↓RU to change between controls.
 - ↓LU to choose the travel direction and amount (move the control to either side of neutral to adjust that part of the travel),

center, dual rate, exponential response, trim travel and sort of trim (center trim (servo endpoints are not influenced by the trim) or standard trim)

↓RD to make the adjustment by ↓+/-

WHEN CHANGING DIRECTION OF STICKTHROW MAKE A CHANGE IN THE DIRECTION OF TRIMTHROW ALSO BY CHANGING THE + OR – SIGN FOR THE TRIM PERCENTAGE. OTHERWISE THE TRIMTRAVEL IS OPPOSITE TO THE STICKFUNCTION.

Autotrim is the function where the actual trimsettings become the new center for the stick upon switching the TX off. Directly after switching off the TX the trims must be neutralized in order become effective when used. This is confirmed by a short beep. **WHEN ENCOUNTERING A CENTRE OFFSET THAT SEEMS UNEXPLAINED REMEMBER PREVIOUS USE OF THIS MENU POINT! THE CENTRE OFFSET IS SHOWN IN THE CONTROL ADJUSTMENT MENU. (MENU 2 - RU)**

- >timer/count. ↓LD to set timers. Setting a start time will make it a countdown timer. Setting the reset to automatic resets the timer on each start. Choose by ↓RD. Reset is done by ↓R
- >files ↓RD to change between various models after programming or to program a new one by going to an empty file; to change model name or to check the trim position in the previous flight. Files can be copied through this menu point.

Menu 3:

- >combiswitch combines rudder to aileron response or aileron to rudder response
↓LU to switch this option “on”. ↓+/- to assign a switch to control this function and make adjustments after ↓RU and ↓+/- and switch between rudder-aileron and aileron-rudder response by ↓R or ↓RD
- >copy copy a basic flight mode between various other flight modes so only the differences between flight modes have to be (re)programmed and all the common settings are already programmed.
- >flightmode ↓LU to change between the various flight modes and to set the corresponding switches to control entry into this flight mode.
↓RU to change the name of the flight mode by ↓+/-
↓LD to set response time to a change over between flight modes.
↓RD to assign a switch to change to this flight mode.
Go back to the menu 1 and make the various adjustments in the flight modes by actuating the assigned switches to get in the respective flight mode.

Menu 4:

- >pupil ↓LD to change between “on” and “off” Puts the TX in pupil mode or normal mode.
- >teacher ↓LU chooses the function in the teacher mode to be given over to the pupil. The number in the order of the signals sent to the RX has to correspond to the number of the signal in the TX of the pupil. Otherwise his rudder control will steer the elevator for instance of the teachers TX. In this menu point the order of the signals can be lined up so both TX’s line up in the way the signals are sent to the RX. The MPX TX can be adjusted to any other TX in the teacher-pupil mode as long as the signal fed into the teacher TX is a negative going PPM signal!
↓LD to assign a switch to give this function to the pupil. A switch can be used for more than one function. In this way the number of servos controlled by the pupil can be varied by using switch combinations.
- >tr.mode changes between PPM and PCM coding and the number of PPM servos driven. i.e. 7-9-12. To use the 12 servo option the DS-12 RX has to be used!!
- >trim>center The trim as set can be made the new center position of the stick after ↓LU for control A, ↓RU for control C and ↓RD for control D. The throttle trim is not given as an option in this menu and with another stick mode the option changes correspondingly, i.e. control B trim instead of control D trim is offered. WHEN ENCOUNTERING A CENTRE OFFSET THAT SEEMS UNEXPLAINED REMEMBER PREVIOUS USE OF THIS MENU POINT! THE CENTRE OFFSET IS SHOWN IN THE CONTROL ADJUSTMENT MENU. (MENU 2 ↓RU)

menu 5: testing

- >servos ↓LU shows the servo travel in percentages of neutral. ↓+ puts the first servo in self test. ↓+ again puts the next servo in self test. ↓- puts the previous servo in self test.
- >controls Here the correct physical position of the controls and switches in the TX can be checked.
Moving the controls shows the direction of travel by means of an arrow underneath the control letter. Sliders are represented as three position bars.
- >switches Same as above
- >RPM ↓RU and ↓+/- adjusts the number of propeller blades. As soon as the RPM pick-up module is connected to the left upper TX connector receptacle the display changes and shows the rpm number. This point in menu 5 can also be selected to show the RPM count.

PS:

The use and function of the more complex switches, i.e. the transfer switches and the analogue switches can best be found out by experimenting with them. The description is far more complex than the actual use. The MC-4000 is absolutely unique in the options offered here. The options offered in the servo adjustments i.e. the points and curves are also unique in this fashion. Remember: adjustments made for a control affect all the servos connected to this control directly or indirectly through mixers, while adjustments made for a servo affect only the corresponding servo. This gives an infinite amount of options to program this TX!

Once used to the programming structure and options given ALL other brands are put in the shadow in this respect.