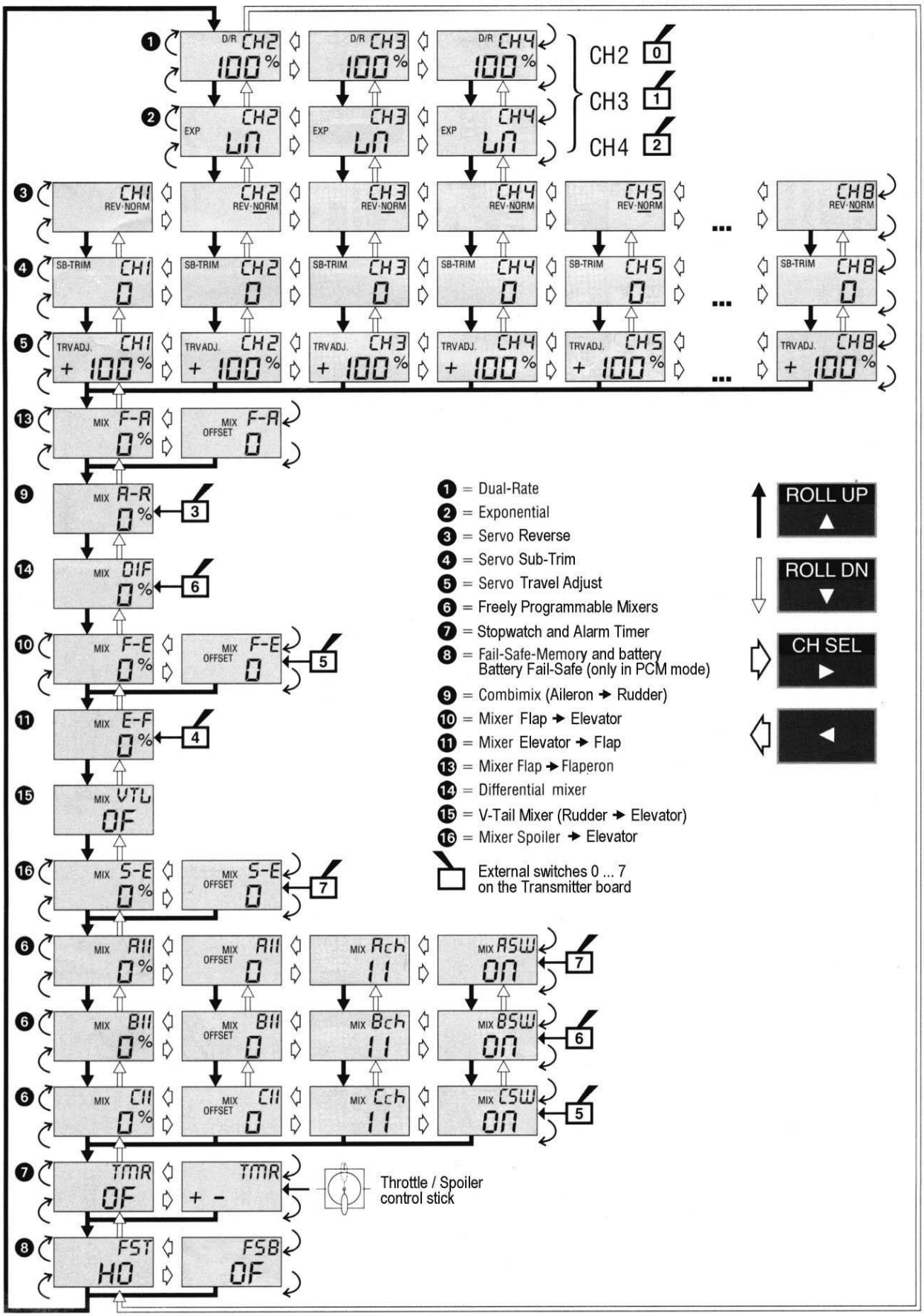
Block Diagram UNIFLY »UN«



Set-up Diagram

TYP UN Model Type “UN” = UNIFLY

All the mixers and adjustment values are set to 0 (= mixer off).
To adjust the mixer and adjustment values, while flying, we recommend fitting the 2-way momentary switch, Part No. 4160.44 (see page 10)

❶ ... ❺, ❼, ❽

Adjustments ❶ ... ❼, ❽ are available for all model types

❶ DUAL-RATE
Functions 2 ... 4
(0 ... ±125%), page 20

❷ EXPONENTIAL
Functions 2 ... 4
(linear ... +100%), page 20

❸ SERVO REVERSE
Channel 1...8, (Reverse/ Normal), page 21

❹ SERVO SUB-TRIM
Channel 1...8, (0...±125 each side), page 21

❺ SERVO TRAVEL ADJUST
Channel 1...8,
(0...±160%), page 21

❼ STOPWATCH and ALARM TIMER,
page 23/24

❽ FAIL SAFE MEMORY and BATTERY F.S.
(only in PCM mode),
page 24/25

⓭ MIX F-A (Flap ➧ Aileron)

Flap ➧ Aileron
When the flap slide control is moved (control input 6), this code moves both ailerons in the same direction as the flaps. This changes the camber of the entire wing. The adjustment range is 0 ... ±125%.

Standard Initialised Value

Mix ratio 0 ... ±125% (CLEAR = 0%)

OFFSET Adjustment: Move the control for channel 6 to the required position and press CLEAR

Range ca. −85 ... +85

❾ MIX A-R (Aileron ➧ Rudder)

Combi-Mix
When an aileron command is given, the rudder also moves to a pre-programmed extent (0 ... ±125%).
The mixer can be switched on and off via an external switch connected to socket 3.

Standard Initialised Value

Switch 3

Mix ratio (0 .... ±125%) (CLEAR = 0%)

⓮ MIX DIF

Differential
Differential movement of the ailerons, i.e. the ailerons having greater movement in one direction than the other. The amount of differential can be varied from 0% (Normal) to 100% (Split - only one aileron moves). You can switch between two different settings using an external switch connected to socket 6.

NORMAL = 0%

DIFFERENTIAL

SPLIT = 100%

❿ MIX F-E (Flap ➧ Elevator)

Flap ➧ Elevator
When the flap servo is operated, the elevator is fed a pre-set corrective signal (0 ... ±125%)
The mixer can be switched on and off if an external switch is connected to socket 5.

Standard Initialised Value

Switch 5

Mix ratio (0 .... ±125%) (CLEAR = 0%)

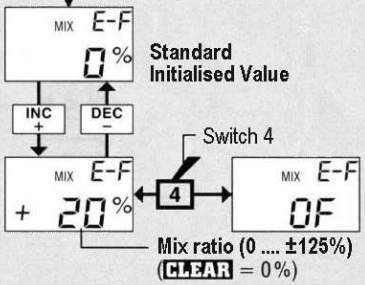
OFFSET Adjustment: Move the control for channel 6 to the required position and press CLEAR

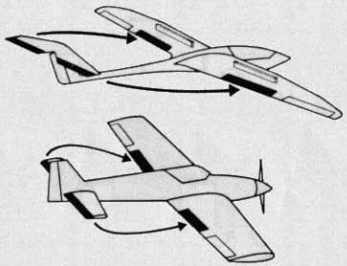
All mixer data can be reset to 0 by pressing the CLEAR button, i.e. turned off. When the display shows “OF” the external switch controlling the mixer is switched off.

⓫ MIX E-F (Elevator ➧ Flap)

Elevator ➧ Flap

When the elevator servo is operated, the flaps are fed a pre-set signal (0 ... ±125%) The mixer can be switched on and off if an external switch is connected to socket 4.

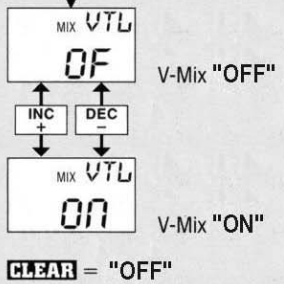


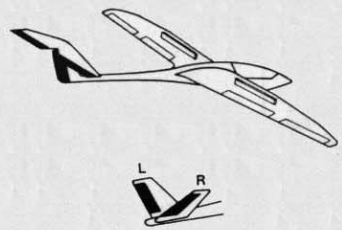


⓯ MIX VTL

V-Tail

This program couples channels 3 and 4 to provide rudder and elevator control. The mix ratio is adjustable using the Dual-Rates for channels 3 and 4.

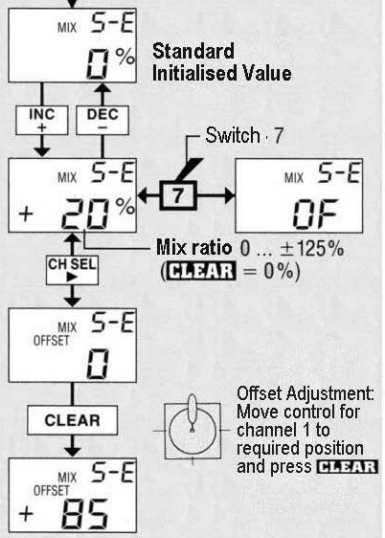


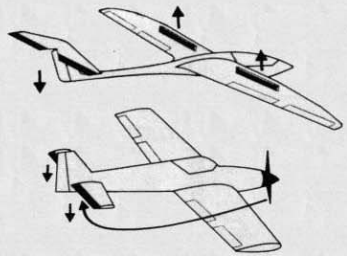


⓰ MIX S-E (Spoiler ➧ Elevator)

Spoiler ➧ Elevator

When the throttle / spoiler control stick is moved, this code allow the automatic movement of the elevator to compensate for any pitch trim change. The adjustment range is 0 ... ±125%.
The mixer can be switched on and off by an external switch connected to socket 7 on the transmitter board.

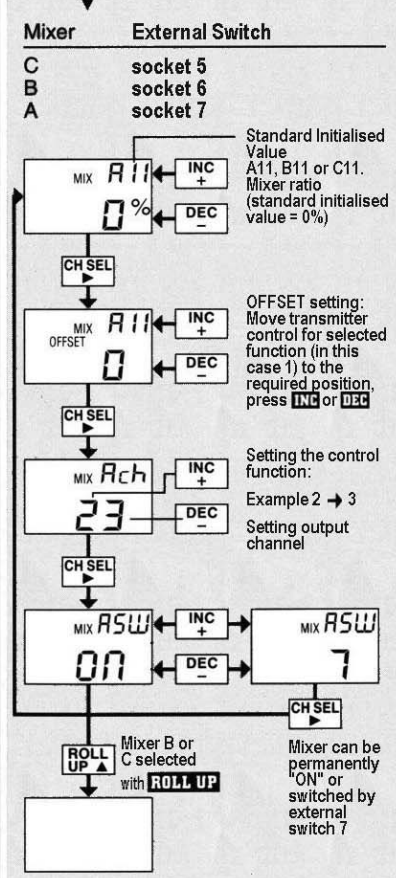




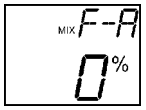
⓰ MIX A11, B11, C11

Freely Programmable Mixer

Both the mixer program (servo functions 1 ... 8) and the mixer ratio (0 ... ±125%) can be selected individually.
The mixers can be set permanently "ON" or switched on and off via the associated external switch



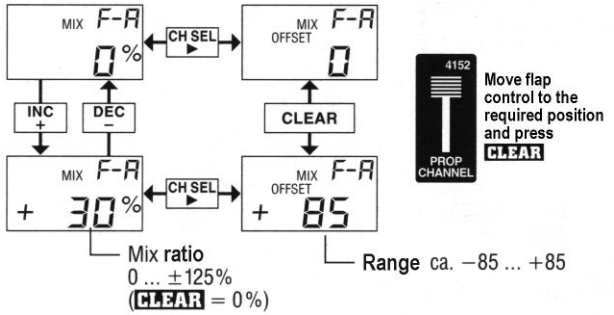
⓭

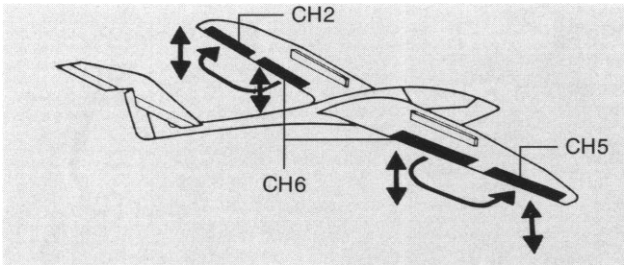


FLAP ➡ FLAPERON MIXER

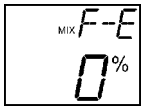
Flap ➡ Flaperon Mixer
(access via Set-Up Menu)

The mixer "F-A" allows an adjustable portion of the flap control system to be fed to the aileron channels (2 and 5) so that the ailerons move with flap deflection in a manner like the flaps, but normally with smaller movement. The advantage is that a more even lift distribution over the span can be achieved. The mix proportion is entered using the INC and DEC buttons, between 0 and ±125%.
In order to tell the mixer, in which position of the control for the flaps relates to the normal flight position, CH SEL is pressed to call up the offset value. The value is set by moving the control to the required position and pressing the CLEAR button. The offset, the deviation from the control central position, is indicated in the display. You can also first set the offset and then adjust the mix proportion.





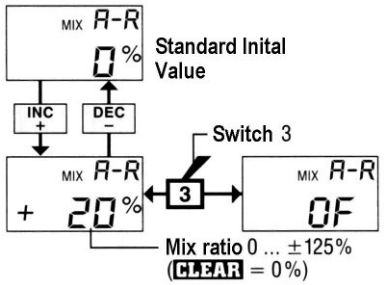
⓽

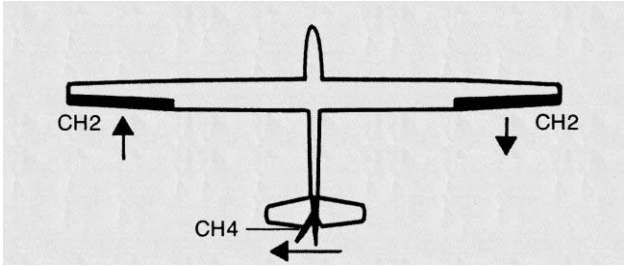


COMBI-MIX

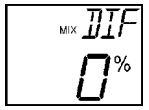
Aileron ➡ Rudder Mixer
(access via Set-Up Menu)

In the case of operating the ailerons, the rudder is deflected by a programmable mix proportion. The rudder can, however, be steered separately at any time with priority.
After call of the code "A-R", the mix proportion is adjusted using the INC/DEC buttons and is stopped to automatically at the maximum value of ±125%.
The combi mixer can also be disabled by an external switch attached to socket 3 on the transmitter board.





⓮



DIFFERENTIAL MIXER

Aileron Differential Mixer
(access via Set-Up Menu)

The aileron differential is used to adjust for an unwanted yaw effect, which is called "negative yaw": The aileron deflecting downward creates a larger drag resistance than that developed by the upward deflecting aileron. This results in a torque around the vertical axis against the intended turn direction. This effect arises naturally and is more obvious with gliders with high aspect ratio wings, than with normal power planes, .due to the increased moment arm that the aileron drag has.
The aileron differential causes the downward aileron to deflect by a smaller distance than the upward moving aileron. The drag forces can be balanced and therefore the negative turning moment removed.
Using the INC/DEC buttons, the aileron differential is adjusted between the limits 0 and 100%:

0% = Normal, thus no differential.
100% = No downward aileron deflection, Split position mentioned above.

An external switch attached to connection 6, allows selection between two differential values. These are displayed as "DIF" and "dif" depending on the position of the switch. Each can have a different value to suit differing flight modes.