

## Flight Phases

In the menu Setup->Assignment->Switches, two entries indicate Main phase, and Phase1-3. However, in menu Memory->Flight phase, phases are numbered 1, 2, 3 and 4, and no mark indicates which is the main phase. Phase 4 is the main phase. If a two state switch is assigned to Phase1-3, as it was expected, the phases available are 1 and 2.

Flight phases are prioritized into two levels, high priority for phase 4, and low but equal priority for phases 1, 2 and 3.

For Phases 1-3, the switch at the ON position indicates phase 1.

- When the phase1-3 switch and main phase switch are assigned the behaviour is:
  - Main phase switch ON, phase 4 is selected and it does not matter the position of phase1-3 switch.
  - Main phase switch OFF, phase is selected by phase1-3 switch.
- When the only phase1-3 switch is assigned the behaviour is:
  - Phases 1 and 2, or 1, 2 and 3 will be used, depending on the two/three state switch.
- When only main phase switch is assigned the behaviour is:
  - Phases 1 and 4 (main) will be used. The ON position indicates phase 4.
- When neither main phase switch, nor phase 1-3 switch is assigned, phase 1 is used.

The available phase names are listed below. They only intend to be a distinguishable label. The effect of each phase depends only on the programming done to parameters such as trims, fixed values and so on.

Phase Names Available

|           |         |         |
|-----------|---------|---------|
| THERMAL 1 | START 1 | LANDING |
| THERMAL 2 | START 2 | 3D      |
| SPEED 1   | NORMAL  | ACRO    |
| SPEED 2   | CRUISE  | HOVER   |
| AUTOROT   |         |         |

## Control Reference

**Bold** means that a separate value can be set per Flight Phase

*Italic* means that a separate value can be tuned in flight via 3D rotatory knob

\* parameters shown in the Mixer screens instead of Control screens.

| AIRPLANE CONTROLS | <b>Trim Center</b> | Trim Step | <i>Dual Rate</i> | <b><i>Travel</i></b> | <i>Expo</i> | <i>Slow</i> | <b><i>Fixed Value</i></b> | * Ail. Diff. Mode     | * <b><i>Ail. Diff. Value</i></b> | * Gyro Mode                   | * <b><i>Damping</i></b> | * Suppression |
|-------------------|--------------------|-----------|------------------|----------------------|-------------|-------------|---------------------------|-----------------------|----------------------------------|-------------------------------|-------------------------|---------------|
| Aileron           | <b>Y</b>           | Y         | <i>Y</i>         | <b><i>Y</i></b>      | <i>Y</i>    |             |                           | ON<br>OFF<br>+SPOILER | <b><i>Y</i></b>                  |                               |                         |               |
| Elevator          | <b>Y</b>           | Y         | <i>Y</i>         | <b><i>Y</i></b>      | <i>Y</i>    |             |                           |                       |                                  |                               |                         |               |
| Rudder            | <b>Y</b>           | Y         | <i>Y</i>         | <b><i>Y</i></b>      | <i>Y</i>    |             |                           |                       |                                  |                               |                         |               |
| Throttle          | <b>Y(idle)</b>     | Y         |                  |                      |             | <i>Y</i>    |                           |                       |                                  |                               |                         |               |
| Spoiler           |                    |           |                  |                      |             | <i>Y</i>    | <b><i>Y</i></b>           |                       |                                  |                               |                         |               |
| Flap/RPM          |                    |           |                  |                      |             | <i>Y</i>    | <b><i>Y</i></b>           |                       |                                  |                               |                         |               |
| L. gear           |                    |           |                  |                      |             | <i>Y</i>    |                           |                       |                                  |                               |                         |               |
| Tow Rel.          |                    |           |                  |                      |             |             |                           |                       |                                  |                               |                         |               |
| Brake             |                    |           |                  |                      |             |             |                           |                       |                                  |                               |                         |               |
| Gyro              |                    |           |                  |                      |             |             |                           |                       |                                  | Control<br>Heading<br>Damping | <b><i>Y</i></b>         | Y             |
| Mixture           |                    |           |                  |                      |             |             |                           |                       |                                  |                               |                         |               |

|      |  |  |  |  |  |  |  |  |  |  |  |  |
|------|--|--|--|--|--|--|--|--|--|--|--|--|
| AUX1 |  |  |  |  |  |  |  |  |  |  |  |  |
| AUX2 |  |  |  |  |  |  |  |  |  |  |  |  |



## Control/Switch Assignments

### Control Assignments

Each Tx Control has a legend, except both sticks, which can not be directly changed, but by means of Tx mode, 1, 2, 3 or 4.

An exception is made for the Throttle, which can be assigned to a up/down stick or a slider. In the programming screens, it is represented by an icon, but here for simplicity, letter **D** will be used.

^ represent an up arrow.

v represent a down arrow.

| CONTROL FUNCTIONS | POWER | GLIDER+ | HELI |
|-------------------|-------|---------|------|
| Throttle          | D v   | E v     |      |
| Spoiler           | E ^   | D ^     |      |
| Flap/RPM          | F v   | F v     |      |
| L. gear           |       |         |      |
| Tow Rel.          |       |         |      |
| Brake             |       |         |      |
| Gyro              |       |         | E v  |
| Mixture           |       |         |      |
| AUX1              |       |         |      |
| AUX2              |       |         |      |
| Collect           |       |         | D v  |
| Thr. Lim.         |       |         | F v  |

### Switch Assignments

| SWITCH FUNCTIONS | POWER        | GLIDER+      | HELI         |
|------------------|--------------|--------------|--------------|
| DR-ai            | L ^          | L v          | L v          |
| DR-el            | L ^          | L v          | L v          |
| DR-ru            | L ^          | L v          | L v          |
| CombiSw          | N v          | N v          | N v          |
| Throttle Cut     | H(momentary) | H(momentary) | H(momentary) |
| Slot Timer       |              |              |              |

| Sum Timer         | E ^            | E ^            | F ^ |
|-------------------|----------------|----------------|-----|
| Interval Timer    |                |                |     |
| Mix1              |                |                |     |
| Mix2              |                |                |     |
| Mix3              |                |                |     |
| Teacher           |                |                |     |
| Main Flight Phase | M(change-over) | M(change-over) | I v |
| Flight Phase 1-3  |                | O ^            | O ^ |



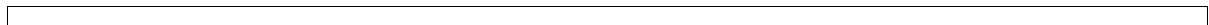
## Predefined Mixers

The factory mixer definitions used by templates are listed here.

- [ELEVATR+](#)
- [AILERON+](#)
- [FLAP+](#)
- [DELTA+](#)
- [V-TAIL+](#)

Other common mixers can be implemented (programmed) using above mixer definitions, such as:

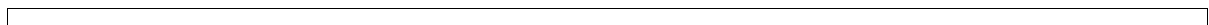
- [Throttle to elevator](#)
- [Ailerons as spoilers](#)
- [Snap-flap \(elevator-flap\)](#)
- [Butterfly](#)



The list of factory predefined user mixers is shown hereafter:

### ELEVATR+

| Input Name | Input active when ... | input option                       |
|------------|-----------------------|------------------------------------|
| Elevator   | always                | Asymmetrical                       |
| Spoiler    | always                | Single-Sided With Curve            |
| Flap       | always                | Asymmetrical                       |
| Thr -Tr    | always                | Single-Sided/Linear With Dead Zone |
|            |                       |                                    |



### AILERON+

| Input Name | Input active when ... | input option                    |
|------------|-----------------------|---------------------------------|
| Aileron    | always                | Symmetrical                     |
| Spoiler    | always                | Single-Sided/Linear With Offset |
| Flap       | always                | Asymmetrical                    |
| Ele -Tr    | always                | Asymmetrical                    |
|            |                       |                                 |

**FLAP+**

| Input Name | Input active when ... | input option                    |
|------------|-----------------------|---------------------------------|
| Flap       | always                | Asymmetrical                    |
| Spoiler    | always                | Single-Sided/Linear With Offset |
| Aileron    | always                | Asymmetrical                    |
| Ele -Tr    | always                | Asymmetrical                    |
|            |                       |                                 |

**DELTA+**

| Input Name | Input active when ... | input option                       |
|------------|-----------------------|------------------------------------|
| Aileron    | always                | Symmetrical                        |
| Elevator   | always                | Asymmetrical                       |
| Thr -Tr    | always                | Single-Sided/Linear With Dead Zone |
|            |                       |                                    |
|            |                       |                                    |

**V-TAIL+**

| Input Name | Input active when ... | Input option                       |
|------------|-----------------------|------------------------------------|
| Elevator   | always                | Asymmetrical                       |
| Rudder     | always                | Asymmetrical                       |
| Spoiler    | always                | Single-Sided With Curve            |
| Flap       | always                | Asymmetrical                       |
| Thr -Tr    | always                | Single-Sided/Linear With Dead Zone |

Implementation of common mixers are shown hereafter:

- Throttle to elevator.

Go to Mixers, ELEVATR+, input Thr-Tr, and set the desired % starting with small values

ELEVATR+

|         |                                    |      |    |        |    |
|---------|------------------------------------|------|----|--------|----|
| Thr -Tr | Single-Sided/Linear with Dead Zone | Dead | 20 | Travel | 10 |
|---------|------------------------------------|------|----|--------|----|

- Ailerons as spoilers.  
 Go to Mixers, AILERON+, input Spoiler, and set the desired % starting with large values.

AILERON+

|         |                                 |        |     |        |    |
|---------|---------------------------------|--------|-----|--------|----|
| Spoiler | Single-Sided/Linear with Offset | Offset | OFF | Travel | 70 |
|---------|---------------------------------|--------|-----|--------|----|

It may be necessary to adjust elevator compensation:  
 go to Mixers, ELEVATR+, input Spoiler, and set the desired % starting with small values.

ELEVATR+

|         |                         |         |   |         |    |
|---------|-------------------------|---------|---|---------|----|
| Spoiler | Single-Sided with Curve | Point 1 | 5 | Point 2 | 10 |
|---------|-------------------------|---------|---|---------|----|

- Snap-flap (elevator-flap).  
 Go to Mixers, ELEVATR+, input Flap, and set the desired %'s starting with small values.

ELEVATR+

|      |              |           |   |             |    |
|------|--------------|-----------|---|-------------|----|
| Flap | Asymmetrical | Travel Up | 5 | Travel Down | 10 |
|------|--------------|-----------|---|-------------|----|

- Butterfly.  
 Go to Mixers, AILERON+, input Spoiler, and set the desired % starting with large values.  
 Go to Mixers, FLAP+, input Spoiler, and set the desired % starting with large values.  
 It may be necessary to adjust elevator compensation,  
 go to Mixers, ELEVATR+, input Spoiler, and set the desired % starting with small values.

AILERON+

|         |                                 |        |     |        |    |
|---------|---------------------------------|--------|-----|--------|----|
| Spoiler | Single-Sided/Linear with Offset | Offset | OFF | Travel | 70 |
|---------|---------------------------------|--------|-----|--------|----|

FLAP+

|  |         |  |  |  |  |
|--|---------|--|--|--|--|
|  | Single- |  |  |  |  |
|--|---------|--|--|--|--|

|         |                          |        |     |        |     |
|---------|--------------------------|--------|-----|--------|-----|
| Spoiler | Sided/Linear with Offset | Offset | OFF | Travel | 100 |
|---------|--------------------------|--------|-----|--------|-----|

ELEVATR+

|         |                         |         |   |         |    |
|---------|-------------------------|---------|---|---------|----|
| Spoiler | Single-Sided with Curve | Point 1 | 5 | Point 2 | 10 |
|---------|-------------------------|---------|---|---------|----|

[← Atrás](#)   [→ Arriba](#)

## Template Summary

This table gives quick access to default values of new models using the selected template.

In column **Controls** the names that appear *remarked* means that such control is not directly assigned to any servo, but appears at least once as a mixer input in any of the mixers in the template. That is why it appears in the control menu.

Template summary

| TEMPLATE       | Assignment     | Controls   | Mixers   | Servo assignments |
|----------------|----------------|--|--|-------------------|
| <u>BASIC</u>   | <u>POWER</u>   | <u>Aileron</u><br><u>Elevator</u><br><u>Rudder</u><br><u>Throttle</u><br><u>Spoiler</u><br><u>Flap</u> | <u>ELEVATR+</u>                                    | <u>details</u>    |
| <u>DELTA</u>   | <u>POWER</u>   | <u>Aileron</u><br><u>Elevator</u><br><u>Throttle</u>   | <u>DELTA+</u>                                      | <u>details</u>    |
| <u>4-FLAPS</u> | <u>GLIDER+</u> | <u>Aileron</u><br><u>Elevator</u><br><u>Rudder</u><br><u>Throttle</u><br><u>Flap</u><br><u>Spoiler</u> | <u>ELEVATR+</u><br><u>AILERON+</u><br><u>FLAP+</u> | <u>details</u>    |
| <u>ACRO</u>    | <u>POWER</u>   | <u>Aileron</u><br><u>Elevator</u><br><u>Rudder</u><br><u>Throttle</u><br><u>Spoiler</u>                | <u>AILERON+</u><br><u>ELEVATR+</u>                 | <u>details</u>    |

|           |         |  |                      |         |
|-----------|---------|--|----------------------|---------|
|           |         | <i>Flap</i>  |                      |         |
| HOTLINER  | POWER   | <i>Aileron</i><br><i>Elevator</i><br><i>Throttle</i><br><i>Flap</i><br><i>Spoiler</i>                  | AILERON+<br>ELEVATR+ | details |
| GLIDER    | GLIDER+ | <i>Aileron</i><br><i>Elevator</i><br><i>Rudder</i><br><i>Throttle</i><br><i>Flap</i><br><i>Spoiler</i> | AILERON+<br>ELEVATR+ | details |
| HELI mech |         |  |                      |         |
| HELI ccpm |         |  |                      |         |

## Template Name: BASIC

### Assignment Used: POWER

### Suitable for:

simple powered models, models with one or two aileron servos, models with spoilers (landing flaps or airbrakes)

### Functions Used:

Sum Timer

Dual Rates  
(A/E/R)

Combi-Switch

Throttle-Cut

Phase1-3

### Functions Not Used:

Flap



### Controls

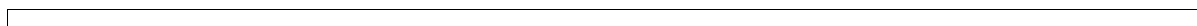
| CONTROL  | Trim %<br>(x4 Flight Phases) |   | Step % | D/R % | Travel %<br>(x4 Flight Phases) |     | Expo % |
|----------|------------------------------|---|--------|-------|--------------------------------|-----|--------|
| Aileron  | Main                         | 0 | 1.5    | 100   | Main                           | 100 | 0      |
|          | 1                            | 0 |        |       | 1                              | 100 |        |
|          | 2                            | 0 |        |       | 2                              | 100 |        |
|          | 3                            | 0 |        |       | 3                              | 100 |        |
| Elevator | Main                         | 0 | 1.5    | 100   | Main                           | 100 | 0      |
|          | 1                            | 0 |        |       | 1                              | 100 |        |
|          | 2                            | 0 |        |       | 2                              | 100 |        |
|          | 3                            | 0 |        |       | 3                              | 100 |        |
| Rudder   | Main                         | 0 | 1.5    | 100   | Main                           | 100 | 0      |
|          | 1                            | 0 |        |       | 1                              | 100 |        |
|          | 2                            | 0 |        |       | 2                              | 100 |        |
|          | 3                            | 0 |        |       | 3                              | 100 |        |

| CONTROL  | Idle % | Step % | Slow sg. |
|----------|--------|--------|----------|
| Throttle | 30     | 1.5    | 0.0      |

| CONTROL | Run Time sg. | Fixed Value % (x4 Flight Phases) |     |
|---------|--------------|----------------------------------|-----|
| Spoiler | 0.0          | Main                             | OFF |
|         |              | 1                                | OFF |
|         |              | 2                                | OFF |
|         |              | 3                                | OFF |
| Flap    | 0.0          | Main                             | OFF |
|         |              | 1                                | OFF |
|         |              | 2                                | OFF |
|         |              | 3                                | OFF |

Control Switches (Analog Switches)

| CONTROL  | ON Position (Up / Down) | Switch Value % |
|----------|-------------------------|----------------|
| Stick D  | Down                    | -50            |
| Slider E | Down                    | 0              |
| Slider F | Down                    | 0              |



Mixers

Combi Switch

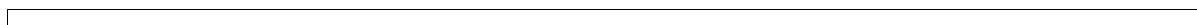
| Aileron <--> Rudder         |       |
|-----------------------------|-------|
| Positive: Aileron to Rudder | +50 % |
| Negative: Rudder to Aileron |       |

Aileron Differential

| Mode | Differential % (x4 Flight Phases) |    |
|------|-----------------------------------|----|
| OFF  | Main                              | 50 |
|      | 1                                 | 50 |
|      | 2                                 | 50 |
|      | 3                                 | 50 |

ELEVATR+

| FUNCTION | Mixer Option                       | Parameter 1 Name | Parameter 1 Value | Parameter 2 Name | Parameter 2 Value | Activate Input with ... |        |
|----------|------------------------------------|------------------|-------------------|------------------|-------------------|-------------------------|--------|
|          |                                    |                  |                   |                  |                   | Mix # (1/2/3)           | Switch |
| Elevator | Asymmetrical                       | Travel Up        | 100               | Travel Down      | 100               |                         |        |
| Spoiler  | Single-Sided with Curve            | Point 1          | OFF               | Point 2          | OFF               |                         |        |
| Flap     | Asymmetrical                       | Travel Up        | OFF               | Travel D         | OFF               |                         |        |
| Thr -Tr  | Single-Sided/Linear with Dead Zone | Dead             | OFF               | Travel           | OFF               |                         |        |
|          |                                    |                  |                   |                  |                   |                         |        |



Servos

| Servo # Assignment |        |     | Function | Signal Format (UNI/MPX) | # Points (2/3/5) | Trim | P1   | P2 | P3 | P4 | P5  |
|--------------------|--------|-----|----------|-------------------------|------------------|------|------|----|----|----|-----|
| JR                 | Futaba | MPX |          |                         |                  |      |      |    |    |    |     |
| 2                  | 1      | 1   | Aileron  | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 3                  | 2      | 2   | ELEVATR+ | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 4                  | 4      | 3   | Rudder   | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 1                  | 3      | 4   | Throttle | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 5                  | 5      | 5   | Aileron  | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 6                  | 6      | 6   | Spoiler  | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 7                  | 7      | 7   | Spoiler  | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
|                    |        |     |          |                         |                  |      |      |    |    |    |     |
|                    |        |     |          |                         |                  |      |      |    |    |    |     |

## Template Name: DELTA

**Assignment Used: POWER**

**Suitable for:**

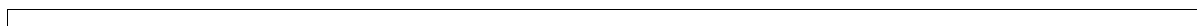
delta, flying wings powered or glider, model jets

**Functions Used:**

Sum Timer (Throttle)    Dual Rates (A/E/R)    Throttle-Cut    Phase1-3

**Functions Not Used:**

Flap                                  Spoiler                                  Combi-Switch



### Controls

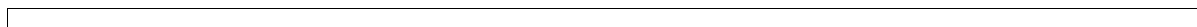
| CONTROL  | Trim %<br>(x4 Flight Phases) |   | Step % | D/R % | Travel %<br>(x4 Flight Phases) |   | Expo % |
|----------|------------------------------|---|--------|-------|--------------------------------|---|--------|
| Aileron  | Main                         | 0 | 1.5    | 100   | Main                           | 0 | 0      |
|          | 1                            | 0 |        |       | 1                              | 0 |        |
|          | 2                            | 0 |        |       | 2                              | 0 |        |
|          | 3                            | 0 |        |       | 3                              | 0 |        |
| Elevator | Main                         | 0 | 1.5    | 100   | Main                           | 0 | 0      |
|          | 1                            | 0 |        |       | 1                              | 0 |        |
|          | 2                            | 0 |        |       | 2                              | 0 |        |
|          | 3                            | 0 |        |       | 3                              | 0 |        |

| CONTROL  | Idle % | Step % | Slow sg. |
|----------|--------|--------|----------|
| Throttle | 30     | 1.5    | 0.0      |

#### Control Switches (Analog Switches)

| CONTROL | ON Position (Up / Down) | Switch Value % |
|---------|-------------------------|----------------|
| Stick D | Down                    | -50%           |

|          |      |   |
|----------|------|---|
| Slider E | Down | 0 |
| Slider F | Down | 0 |



**Mixers**

Combi Switch

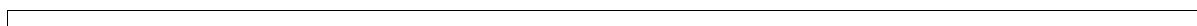
|                             |     |
|-----------------------------|-----|
| Aileron <--> Rudder         |     |
| Positive: Aileron to Rudder | OFF |
| Negative: Rudder to Aileron |     |

Aileron Differential

| Mode | Differential % (x4 Flight Phases) |     |
|------|-----------------------------------|-----|
| OFF  | Main                              | OFF |
|      | 1                                 | OFF |
|      | 2                                 | OFF |
|      | 3                                 | OFF |
|      |                                   |     |

DELTA+

| FUNCTION | Mixer Option                       | Parameter 1 Name | Parameter 1 Value | Parameter 2 Name | Parameter 2 Value | Activate Input with ... |        |
|----------|------------------------------------|------------------|-------------------|------------------|-------------------|-------------------------|--------|
|          |                                    |                  |                   |                  |                   | Mix # (1/2/3)           | Switch |
| Aileron  | Symmetrical                        | -                | -                 | Travel           | 50                |                         |        |
| Elevator | Asymmetrical                       | Travel Up        | 80                | Travel Down      | 80                |                         |        |
| Thr -Tr  | Single-Sided/Linear with Dead Zone | Dead             | OFF               | Travel           | OFF               |                         |        |
|          |                                    |                  |                   |                  |                   |                         |        |
|          |                                    |                  |                   |                  |                   |                         |        |



**Servos**

| Servo # Assignment |        |     | Function | Signal Format (UNI/MPX) | # Points (2/3/5) | Trim | P1   | P2 | P3 | P4 | P5  |
|--------------------|--------|-----|----------|-------------------------|------------------|------|------|----|----|----|-----|
| JR                 | Futaba | MPX |          |                         |                  |      |      |    |    |    |     |
| 2                  | 1      | 1   | DELTA+   | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
|                    |        |     |          |                         |                  |      |      |    |    |    |     |
|                    |        |     |          |                         |                  |      |      |    |    |    |     |
| 1                  | 3      | 4   | Throttle | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 5                  | 2      | 5   | DELTA+   | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
|                    |        |     |          |                         |                  |      |      |    |    |    |     |
|                    |        |     |          |                         |                  |      |      |    |    |    |     |
|                    |        |     |          |                         |                  |      |      |    |    |    |     |
|                    |        |     |          |                         |                  |      |      |    |    |    |     |

## Template Name: 4-FLAPS

**Assignment Used: GLIDER+**

**Suitable for:**

F3B, F3J, glider with four flaps, with electric power, with V-Tail

**Functions Used:**

|                         |                       |              |              |
|-------------------------|-----------------------|--------------|--------------|
| Sum Timer<br>(Throttle) | Dual Rates<br>(A/E/R) | Combi-Switch | Throttle-Cut |
| Mix1(ele-ail)           | Phase1-3              | Throttle     | Flap         |

**Functions Not Used:**

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### Controls

| CONTROL  | Trim %<br>(x4 Flight Phases) | Step % | D/R % | Travel %<br>(x4 Flight Phases) | Expo % |
|----------|------------------------------|--------|-------|--------------------------------|--------|
| Aileron  | Main 0                       | 1.5    | 100   | Main 100                       | 0      |
|          | 1 0                          |        |       | 1 100                          |        |
|          | 2 0                          |        |       | 2 100                          |        |
|          | 3 0                          |        |       | 3 100                          |        |
| Elevator | Main 0                       | 1.5    | 100   | Main 100                       | 0      |
|          | 1 0                          |        |       | 1 100                          |        |
|          | 2 0                          |        |       | 2 100                          |        |
|          | 3 0                          |        |       | 3 100                          |        |
| Rudder   | Main 0                       | 1.5    | 100   | Main 100                       | 0      |
|          | 1 0                          |        |       | 1 100                          |        |
|          | 2 0                          |        |       | 2 100                          |        |
|          | 3 0                          |        |       | 3 100                          |        |

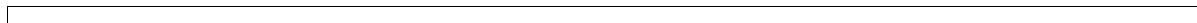
| CONTROL  | Idle % | Step % | Slow sg. |
|----------|--------|--------|----------|
| Throttle | 30     | 1.5    | 0.0      |

|  |  |                    |
|--|--|--------------------|
|  |  | Fixed Value % (x4) |
|--|--|--------------------|

| CONTROL | Run Time sg. | Flight Phases) |     |
|---------|--------------|----------------|-----|
| Spoiler | 0.0          | Main           | OFF |
|         |              | 1              | OFF |
|         |              | 2              | OFF |
|         |              | 3              | OFF |
| Flap    | 0.0          | Main           | OFF |
|         |              | 1              | OFF |
|         |              | 2              | OFF |
|         |              | 3              | -25 |

Control Switches (Analog Switches)

| CONTROL  | ON Position (Up / Down) | Switch Value % |
|----------|-------------------------|----------------|
| Stick D  | Down                    | -50 %          |
| Slider E | Down                    | 0              |
| Slider F | Down                    | 0              |



Mixers

Combi Switch

| Aileron <--> Rudder         |       |
|-----------------------------|-------|
| Positive: Aileron to Rudder | +50 % |
| Negative: Rudder to Aileron |       |

Aileron Differential

| Mode     | Differential % (x4 Flight Phases) |    |
|----------|-----------------------------------|----|
| +SPOILER | Main                              | 50 |
|          | 1                                 | 50 |
|          | 2                                 | 50 |
|          | 3                                 | 50 |

ELEVATR+

| FUNCTION | Mixer Option | Parameter 1 | Parameter 1 | Parameter 2 | Parameter 2 | Activate Input with ... |        |
|----------|--------------|-------------|-------------|-------------|-------------|-------------------------|--------|
|          |              | Name        | Value       | Name        | Value       | Mix # (1/2/3)           | Switch |
|          |              |             |             |             |             |                         |        |

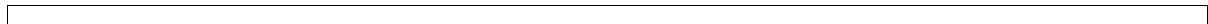
|          |                                    |           |     |             |     |  |  |
|----------|------------------------------------|-----------|-----|-------------|-----|--|--|
| Elevator | Asymmetrical                       | Travel Up | 100 | Travel Down | 100 |  |  |
| Spoiler  | Single-Sided with Curve            | Point 1   | 5   | Point 2     | 10  |  |  |
| Flap     | Asymmetrical                       | Travel Up | OFF | Travel D    | OFF |  |  |
| Thr -Tr  | Single-Sided/Linear with Dead Zone | Dead      | OFF | Travel      | OFF |  |  |
|          |                                    |           |     |             |     |  |  |

AILERON+

| FUNCTION | Mixer Option                    | Parameter 1 Name | Parameter 1 Value | Parameter 2 Name | Parameter 2 Value | Activate Input with ... |        |
|----------|---------------------------------|------------------|-------------------|------------------|-------------------|-------------------------|--------|
|          |                                 |                  |                   |                  |                   | Mix # (1/2/3)           | Switch |
| Aileron  | Symmetrical                     | -                | -                 | Travel           | 80                |                         |        |
| Spoiler  | Single-Sided/Linear with Offset | Offset           | OFF               | Travel           | 70                |                         |        |
| Flap     | Asymmetrical                    | Travel Up        | 10                | Travel Down      | 15                |                         |        |
| Ele -Tr  | Asymmetrical                    | Travel Up        | OFF               | Travel Down      | OFF               |                         |        |
|          |                                 |                  |                   |                  |                   |                         |        |

FLAP+

| FUNCTION | Mixer Option                    | Parameter 1 Name | Parameter 1 Value | Parameter 2 Name | Parameter 2 Value | Activate Input with ... |        |
|----------|---------------------------------|------------------|-------------------|------------------|-------------------|-------------------------|--------|
|          |                                 |                  |                   |                  |                   | Mix # (1/2/3)           | Switch |
| Flap     | Asymmetrical                    | Travel Up        | 10                | Travel Down      | 15                |                         |        |
| Spoiler  | Single-Sided/Linear with Offset | Offset           | OFF               | Travel           | 100               |                         |        |
| Aileron  | Asymmetrical                    | Travel Up        | OFF               | Travel Down      | 40                |                         |        |
| Ele -Tr  | Asymmetrical                    | Travel Up        | OFF               | Travel Down      | OFF               |                         |        |
|          |                                 |                  |                   |                  |                   |                         |        |



**Servos**

| Servo # Assignment |        |     | Function | Signal Format (UNI/MPX) | # Points (2/3/5) | Trim | P1   | P2 | P3 | P4 | P5  |
|--------------------|--------|-----|----------|-------------------------|------------------|------|------|----|----|----|-----|
| JR                 | Futaba | MPX |          |                         |                  |      |      |    |    |    |     |
| 2                  | 1      | 1   | AILERON+ | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 3                  | 2      | 2   | ELEVATR+ | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 4                  | 4      | 3   | Rudder   | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 9                  | 3      | 4   | Throttle | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 5                  | 5      | 5   | AILERON+ | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 6                  | 6      | 6   | FLAP+    | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 7                  | 7      | 7   | FLAP+    | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 1                  | 8      | 8   | Spoiler  | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 8                  | 9      | 9   | Spoiler  | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |

jueves, 13 de marzo de 2003 00:54

## Template Name: ACRO

**Assignment Used: POWER**

**Suitable for:**

Power models, fun-fly models

**Functions Used:**

Sum Timer      Dual Rates      Combi-Switch      Throttle-Cut  
 (Throttle)      (A/E/R)  
 Mix1 (snap-flap) Phase1-3

**Functions Not Used:**

Flap                  Spoiler

---

### Controls

| CONTROL  | Trim %<br>(x4 Flight Phases) |   | Step % | D/R % | Travel %<br>(x4 Flight Phases) |     | Expo % |
|----------|------------------------------|---|--------|-------|--------------------------------|-----|--------|
| Aileron  | Main                         | 0 | 1.5    | 100   | Main                           | 100 | 0      |
|          | 1                            | 0 |        |       | 1                              | 100 |        |
|          | 2                            | 0 |        |       | 2                              | 100 |        |
|          | 3                            | 0 |        |       | 3                              | 100 |        |
| Elevator | Main                         | 0 | 1.5    | 100   | Main                           | 100 | 0      |
|          | 1                            | 0 |        |       | 1                              | 100 |        |
|          | 2                            | 0 |        |       | 2                              | 100 |        |
|          | 3                            | 0 |        |       | 3                              | 100 |        |
| Rudder   | Main                         | 0 | 1.5    | 100   | Main                           | 100 | 0      |
|          | 1                            | 0 |        |       | 1                              | 100 |        |
|          | 2                            | 0 |        |       | 2                              | 100 |        |
|          | 3                            | 0 |        |       | 3                              | 100 |        |

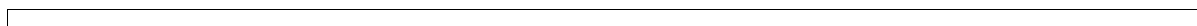
|         |        |        |          |
|---------|--------|--------|----------|
| CONTROL | Idle % | Step % | Slow sg. |
|---------|--------|--------|----------|

|          |    |     |     |
|----------|----|-----|-----|
| Throttle | 30 | 1.5 | 0.0 |
|----------|----|-----|-----|

| CONTROL | Run Time sg. | Fixed Value % (x4 Flight Phases) |     |
|---------|--------------|----------------------------------|-----|
| Spoiler | 0.0          | Main                             | OFF |
|         |              | 1                                | OFF |
|         |              | 2                                | OFF |
|         |              | 3                                | OFF |
| Flap    | 0.0          | Main                             | OFF |
|         |              | 1                                | 20  |
|         |              | 2                                | OFF |
|         |              | 3                                | -25 |

Control Switches (Analog Switches)

| CONTROL  | ON Position (Up / Down) | Switch Value % |
|----------|-------------------------|----------------|
| Stick D  | Down                    | -50 %          |
| Slider E | Down                    | 0              |
| Slider F | Down                    | 0              |



Mixers

Combi Switch

|                             |     |
|-----------------------------|-----|
| Aileron <--> Rudder         |     |
| Positive: Aileron to Rudder | OFF |
| Negative: Rudder to Aileron |     |

Aileron Differential

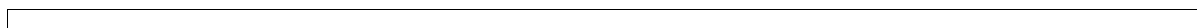
| Mode | Differential % (x4 Flight Phases) |     |
|------|-----------------------------------|-----|
| OFF  | Main                              | OFF |
|      | 1                                 | OFF |
|      | 2                                 | OFF |
|      | 3                                 | OFF |

ELEVATR+

| FUNCTION | Mixer Option                       | Parameter 1 Name | Parameter 1 Value | Parameter 2 Name | Parameter 2 Value | Activate Input with ... |        |
|----------|------------------------------------|------------------|-------------------|------------------|-------------------|-------------------------|--------|
|          |                                    |                  |                   |                  |                   | Mix # (1/2/3)           | Switch |
| Elevator | Asymmetrical                       | Travel Up        | 100               | Travel Down      | 100               |                         |        |
| Spoiler  | Single-Sided with Curve            | Point 1          | OFF               | Point 2          | OFF               |                         |        |
| Flap     | Asymmetrical                       | Travel Up        | OFF               | Travel D         | OFF               |                         |        |
| Thr -Tr  | Single-Sided/Linear with Dead Zone | Dead             | OFF               | Travel           | OFF               |                         |        |
|          |                                    |                  |                   |                  |                   |                         |        |

AILERON+

| FUNCTION | Mixer Option                    | Parameter 1 Name | Parameter 1 Value | Parameter 2 Name | Parameter 2 Value | Activate Input with ... |        |
|----------|---------------------------------|------------------|-------------------|------------------|-------------------|-------------------------|--------|
|          |                                 |                  |                   |                  |                   | Mix # (1/2/3)           | Switch |
| Aileron  | Symmetrical                     | -                | -                 | Travel           | 100               |                         |        |
| Spoiler  | Single-Sided/Linear with Offset | Offset           | OFF               | Travel           | OFF               |                         |        |
| Flap     | Asymmetrical                    | Travel Up        | OFF               | Travel Down      | OFF               |                         |        |
| Ele -Tr  | Asymmetrical                    | Travel Up        | 30                | Travel Down      | 30                |                         |        |
|          |                                 |                  |                   |                  |                   |                         |        |



Servos

| Servo # Assignment |        |     | Function | Signal Format (UNI/MPX) | # Points (2/3/5) | Trim | P1   | P2 | P3 | P4 | P5  |
|--------------------|--------|-----|----------|-------------------------|------------------|------|------|----|----|----|-----|
| JR                 | Futaba | MPX |          |                         |                  |      |      |    |    |    |     |
| 2                  | 1      | 1   | AILERON+ | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 3                  | 2      | 2   | ELEVATR+ | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |

|   |   |   |          |     |   |   |      |   |   |   |     |
|---|---|---|----------|-----|---|---|------|---|---|---|-----|
| 4 | 4 | 3 | Rudder   | UNI | 3 | 0 | -100 | - | 0 | - | 100 |
| 9 | 3 | 4 | Throttle | UNI | 3 | 0 | -100 | - | 0 | - | 100 |
| 5 | 5 | 5 | AILERON+ | UNI | 3 | 0 | -100 | - | 0 | - | 100 |
|   |   |   |          |     |   |   |      |   |   |   |     |
|   |   |   |          |     |   |   |      |   |   |   |     |
|   |   |   |          |     |   |   |      |   |   |   |     |
|   |   |   |          |     |   |   |      |   |   |   |     |

jueves, 13 de marzo de 2003 00:54



## Template Name: HOTLINER

**Assignment Used: POWER**

**Suitable for:**

Power models, fun-fly models

**Functions Used:**

Sum Timer  
(Throttle)

Dual Rates (A/E/R) Phase1-3

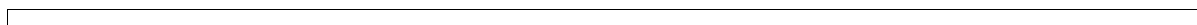
Throttle-Cut

**Functions Not Used:**

Flap

Spoiler

Combi-Switch



### Controls

| CONTROL  | Trim %<br>(x4 Flight Phases) |   | Step % | D/R % | Travel %<br>(x4 Flight Phases) |     | Expo % |
|----------|------------------------------|---|--------|-------|--------------------------------|-----|--------|
| Aileron  | Main                         | 0 | 1.5    | 100   | Main                           | 100 | 0      |
|          | 1                            | 0 |        |       | 1                              | 100 |        |
|          | 2                            | 0 |        |       | 2                              | 100 |        |
|          | 3                            | 0 |        |       | 3                              | 100 |        |
| Elevator | Main                         | 0 | 1.5    | 100   | Main                           | 100 | 0      |
|          | 1                            | 0 |        |       | 1                              | 100 |        |
|          | 2                            | 0 |        |       | 2                              | 100 |        |
|          | 3                            | 0 |        |       | 3                              | 100 |        |
| Rudder   | Main                         | 0 | 1.5    | 100   | Main                           | 100 | 0      |
|          | 1                            | 0 |        |       | 1                              | 100 |        |
|          | 2                            | 0 |        |       | 2                              | 100 |        |
|          | 3                            | 0 |        |       | 3                              | 100 |        |

| CONTROL  | Idle % | Step % | Slow sg. |
|----------|--------|--------|----------|
| Throttle | 30     | 1.5    | 0.0      |

| CONTROL | Run Time sg. | Fixed Value % (x4 Flight Phases) |     |
|---------|--------------|----------------------------------|-----|
| Spoiler | 0.0          | Main                             | OFF |
|         |              | 1                                | OFF |
|         |              | 2                                | OFF |
|         |              | 3                                | OFF |
| Flap    | 0.0          | Main                             | OFF |
|         |              | 1                                | 20  |
|         |              | 2                                | OFF |
|         |              | 3                                | -25 |

Control Switches (Analog Switches)

| CONTROL  | ON Position (Up / Down) | Switch Value % |
|----------|-------------------------|----------------|
| Stick D  | Down                    | -50 %          |
| Slider E | Down                    | 0              |
| Slider F | Down                    | 0              |

Mixers

Combi Switch

| Aileron <--> Rudder         |       |
|-----------------------------|-------|
| Positive: Aileron to Rudder | +50 % |
| Negative: Rudder to Aileron |       |

Aileron Differential

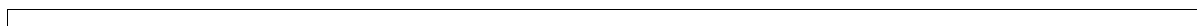
| Mode     | Differential % (x4 Flight Phases) |    |
|----------|-----------------------------------|----|
| +SPOILER | Main                              | 50 |
|          | 1                                 | 50 |
|          | 2                                 | 50 |
|          | 3                                 | 50 |

ELEVATR+

| FUNCTION | Mixer Option                       | Parameter 1 Name | Parameter 1 Value | Parameter 2 Name | Parameter 2 Value | Activate Input with ... |        |
|----------|------------------------------------|------------------|-------------------|------------------|-------------------|-------------------------|--------|
|          |                                    |                  |                   |                  |                   | Mix # (1/2/3)           | Switch |
| Elevator | Asymmetrical                       | Travel Up        | 100               | Travel Down      | 100               |                         |        |
| Spoiler  | Single-Sided with Curve            | Point 1          | 5                 | Point 2          | 10                |                         |        |
| Flap     | Asymmetrical                       | Travel Up        | OFF               | Travel D         | OFF               |                         |        |
| Thr -Tr  | Single-Sided/Linear with Dead Zone | Dead             | OFF               | Travel           | OFF               |                         |        |
|          |                                    |                  |                   |                  |                   |                         |        |

AILERON+

| FUNCTION | Mixer Option                    | Parameter 1 Name | Parameter 1 Value | Parameter 2 Name | Parameter 2 Value | Activate Input with ... |        |
|----------|---------------------------------|------------------|-------------------|------------------|-------------------|-------------------------|--------|
|          |                                 |                  |                   |                  |                   | Mix # (1/2/3)           | Switch |
| Aileron  | Symmetrical                     | -                | -                 | Travel           | 70                |                         |        |
| Spoiler  | Single-Sided/Linear with Offset | Offset           | OFF               | Travel           | 90                |                         |        |
| Flap     | Asymmetrical                    | Travel Up        | 10                | Travel Down      | 15                |                         |        |
| Ele -Tr  | Asymmetrical                    | Travel Up        | 20                | Travel Down      | 15                |                         |        |
|          |                                 |                  |                   |                  |                   |                         |        |



Servos

| Servo # Assignment |        |     | Function      | Signal Format (UNI/MPX) | # Points (2/3/5) | Trim | P1   | P2 | P3 | P4 | P5  |
|--------------------|--------|-----|---------------|-------------------------|------------------|------|------|----|----|----|-----|
| JR                 | Futaba | MPX |               |                         |                  |      |      |    |    |    |     |
| 2                  | 1      | 1   | AILERON+      | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 3                  | 2      | 2   | ELEVATR+      | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 4                  |        |     | <i>rudder</i> |                         |                  |      |      |    |    |    |     |

|   |   |   |          |     |   |   |      |   |   |   |     |
|---|---|---|----------|-----|---|---|------|---|---|---|-----|
|   |   |   | (BUG)    |     |   |   |      |   |   |   |     |
| 1 | 3 | 4 | Throttle | UNI | 3 | 0 | -100 | - | 0 | - | 100 |
| 5 | 5 | 5 | AILERON+ | UNI | 3 | 0 | -100 | - | 0 | - | 100 |
|   |   |   |          |     |   |   |      |   |   |   |     |
|   |   |   |          |     |   |   |      |   |   |   |     |
|   |   |   |          |     |   |   |      |   |   |   |     |
|   |   |   |          |     |   |   |      |   |   |   |     |

Here there is a bug. If servo configuration is selected as JR, servo number 4 is assigned to Rudder, and it should not. Choosing Futaba or MPX does it correctly.

jueves, 13 de marzo de 2003 00:54

## Template Name: GLIDER

**Assignment Used: GLIDER+**

**Suitable for:**

gliders with two wing flaps, with electric power, with V-tail

**Functions Used:**

Sum Timer      Dual Rates      Combi-Switch      Throttle-Cut  
 (Throttle)      (A/E/R)  
 Mix1 (ele-ail)      Phase1-3

**Functions Not Used:**

Flaps

---

### Controls

| CONTROL  | Trim %<br>(x4 Flight Phases) | Step % | D/R % | Travel %<br>(x4 Flight Phases) | Expo % |
|----------|------------------------------|--------|-------|--------------------------------|--------|
| Aileron  | Main 0                       | 1.5    | 100   | Main 100                       | 0      |
|          | 1 0                          |        |       | 1 100                          |        |
|          | 2 0                          |        |       | 2 100                          |        |
|          | 3 0                          |        |       | 3 100                          |        |
| Elevator | Main 0                       | 1.5    | 100   | Main 100                       | 0      |
|          | 1 0                          |        |       | 1 100                          |        |
|          | 2 0                          |        |       | 2 100                          |        |
|          | 3 0                          |        |       | 3 100                          |        |
| Rudder   | Main 0                       | 1.5    | 100   | Main 100                       | 0      |
|          | 1 0                          |        |       | 1 100                          |        |
|          | 2 0                          |        |       | 2 100                          |        |
|          | 3 0                          |        |       | 3 100                          |        |

| CONTROL  | Idle % | Step % | Slow sg. |
|----------|--------|--------|----------|
| Throttle | 30     | 1.5    | 0.0      |

| CONTROL | Run Time sg. | Fixed Value % (x4 Flight Phases) |     |
|---------|--------------|----------------------------------|-----|
| Spoiler | 0.0          | Main                             | OFF |
|         |              | 1                                | OFF |
|         |              | 2                                | OFF |
|         |              | 3                                | OFF |
| Flap    | 0.0          | Main                             | OFF |
|         |              | 1                                | 20  |
|         |              | 2                                | OFF |
|         |              | 3                                | -25 |

Control Switches (Analog Switches)

| CONTROL  | ON Position (Up / Down) | Switch Value % |
|----------|-------------------------|----------------|
| Stick D  | Down                    | -50 %          |
| Slider E | Down                    | 0              |
| Slider F | Down                    | 0              |

Mixers

Combi Switch

| Aileron <--> Rudder         |       |
|-----------------------------|-------|
| Positive: Aileron to Rudder | +50 % |
| Negative: Rudder to Aileron |       |

Aileron Differential

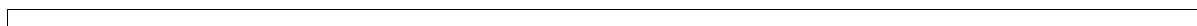
| Mode     | Differential % (x4 Flight Phases) |    |
|----------|-----------------------------------|----|
| +SPOILER | Main                              | 50 |
|          | 1                                 | 50 |
|          | 2                                 | 50 |
|          | 3                                 | 50 |

ELEVATR+

| FUNCTION | Mixer Option                       | Parameter 1 Name | Parameter 1 Value | Parameter 2 Name | Parameter 2 Value | Activate Input with ... |        |
|----------|------------------------------------|------------------|-------------------|------------------|-------------------|-------------------------|--------|
|          |                                    |                  |                   |                  |                   | Mix # (1/2/3)           | Switch |
| Elevator | Asymmetrical                       | Travel Up        | 100               | Travel Down      | 100               |                         |        |
| Spoiler  | Single-Sided with Curve            | Point 1          | 5                 | Point 2          | 10                |                         |        |
| Flap     | Asymmetrical                       | Travel Up        | OFF               | Travel D         | OFF               |                         |        |
| Thr -Tr  | Single-Sided/Linear with Dead Zone | Dead             | OFF               | Travel           | OFF               |                         |        |
|          |                                    |                  |                   |                  |                   |                         |        |

AILERON+

| FUNCTION | Mixer Option                    | Parameter 1 Name | Parameter 1 Value | Parameter 2 Name | Parameter 2 Value | Activate Input with ... |        |
|----------|---------------------------------|------------------|-------------------|------------------|-------------------|-------------------------|--------|
|          |                                 |                  |                   |                  |                   | Mix # (1/2/3)           | Switch |
| Aileron  | Symmetrical                     | -                | -                 | Travel           | 80                |                         |        |
| Spoiler  | Single-Sided/Linear with Offset | Offset           | OFF               | Travel           | OFF               |                         |        |
| Flap     | Asymmetrical                    | Travel Up        | 10                | Travel Down      | 15                |                         |        |
| Ele -Tr  | Asymmetrical                    | Travel Up        | OFF               | Travel Down      | OFF               |                         |        |
|          |                                 |                  |                   |                  |                   |                         |        |



Servos

| Servo # Assignment |        |     | Function | Signal Format (UNI/MPX) | # Points (2/3/5) | Trim | P1   | P2 | P3 | P4 | P5  |
|--------------------|--------|-----|----------|-------------------------|------------------|------|------|----|----|----|-----|
| JR                 | Futaba | MPX |          |                         |                  |      |      |    |    |    |     |
| 2                  | 1      | 1   | AILERON+ | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 3                  | 2      | 2   | ELEVATR+ | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |
| 4                  | 4      | 3   | Rudder   | UNI                     | 3                | 0    | -100 | -  | 0  | -  | 100 |

|   |   |   |          |     |   |   |      |   |   |   |     |
|---|---|---|----------|-----|---|---|------|---|---|---|-----|
| 7 | 3 | 4 | Throttle | UNI | 3 | 0 | -100 | - | 0 | - | 100 |
| 5 | 5 | 5 | AILERON+ | UNI | 3 | 0 | -100 | - | 0 | - | 100 |
| 1 | 6 | 6 | Spoiler  | UNI | 3 | 0 | -100 | - | 0 | - | 100 |
| 6 | 7 | 7 | Spoiler  | UNI | 3 | 0 | -100 | - | 0 | - | 100 |
|   |   |   |          |     |   |   |      |   |   |   |     |
|   |   |   |          |     |   |   |      |   |   |   |     |

jueves, 13 de marzo de 2003 00:54

# Software Bugs

## Screen refresh

### Description

The main screen (in 2 of the 4 modes) shows erroneous characters.

### Severity

Minor

### Reproducible sequence

Setup button - Mixer Def - Enter - Control button - Control button

### Workaround

Setup button - Enter

The main screen is correct.

## Servo Assignment

### Description

An extra rudder servo is assigned.

### Severity

Minor

### Reproducible sequence

Use JR assignment in Hotliner template.

### Workaround

Delete the assigned servo.