

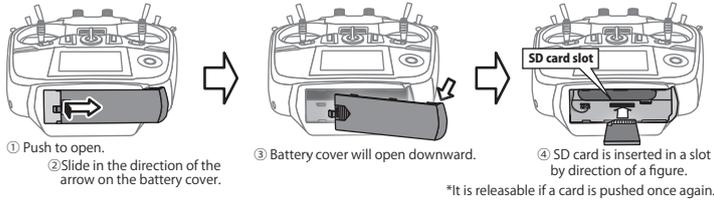
T14SG / FX-22 SOFTWARE UPDATE MANUAL

[Updating procedure]

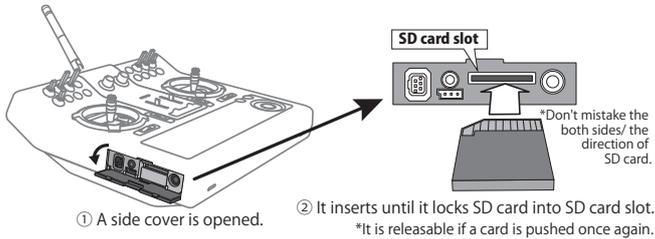
1. SD card format

1. You will first want to format your SD card to the 14SG/FX-22. If you are using an existing SD card, any data previously saved to it will be deleted during the "format". We suggest you either save this data on your computer or purchase a new card.

T14SG:



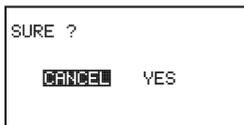
FX-22:



2. After inserting the new SD card into the transmitter, turn on the power switch. You will see the word "FORMAT" if you have not previously used this card in the transmitter.



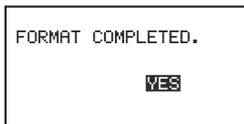
3. Please select "YES" and touch "RTN".



4. The following screen is displayed during formatting.



5. When the format is completed, the following screen is displayed.



6. Turn off the power switch and remove the SD card from its slot.

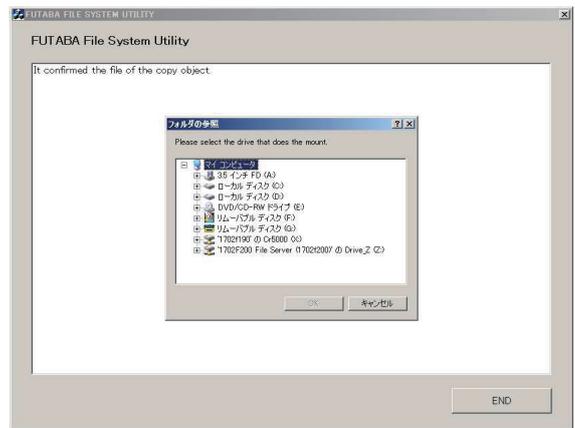
2. Preparing the software update card.

1. Please unzip the zipped file. The following files will be created.

- T14sgUpdate.exe
- T14sgUpdate.dat
- T14SG_UPDATE.dat
- T14SG_TS.bin
- T14SG_AP.bin
- T14SG_UPLD.bin

2. Insert the "formatted" SD card into a card reader in your PC.

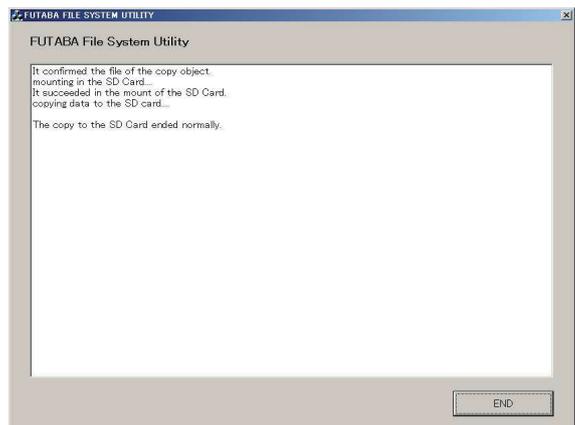
3. Please run "T14sgUpdate.exe".



4. Select the drive that your card reader is assigned to in your PC.



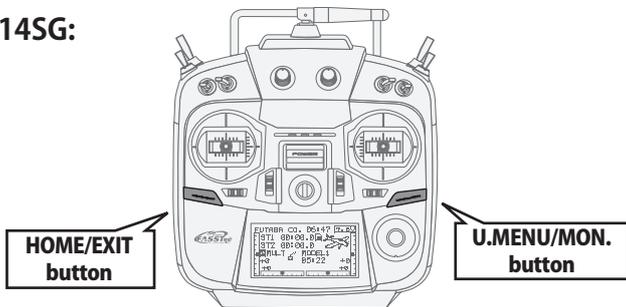
5. After the Update files are copied to the SD card, the following screens are displayed. Click the "End" button.



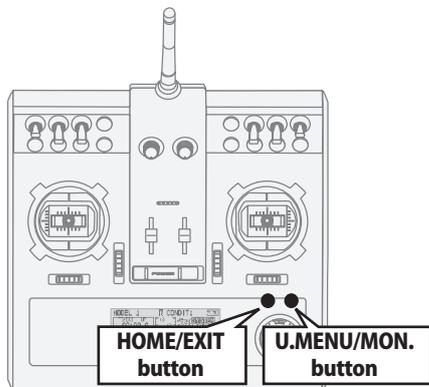
3. Update software of T14SG/FX-22

1. Please insert the SD card which includes the update file.
2. Push the HOME/EXIT button.
3. While still holding the HOME/EXIT button, power on the transmitter.

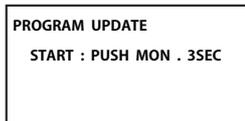
T14SG:



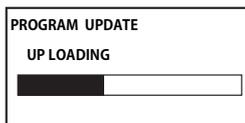
FX-22:



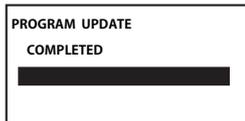
4. After a few seconds, the following screen is displayed.



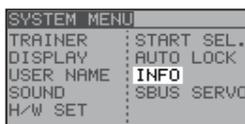
5. Push the U.MENU/MON. button for three seconds. The software update will begin.



6. When the update is complete, the following screen is displayed. Turn off the power switch.



7. Remove the SD card.



8. Please check the software version at INFO in SYSTEM menu.

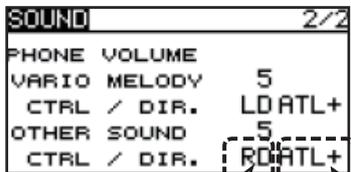


T14SG/FX-22 Software Update Changes (Version 5.x)

This software update modifies features found on the 14SG/FX-22. If you have questions about these updated directions, please consult your instruction manual or futaba-rc.com for further details. Refer to the original manual where applicable but replace the steps indicated below with these instructions.

1. [All Model Types] SOUND (Phone Volume)

The phone volume except Vario Melody can be adjusted by switch, dial or slider.



This is a hardware for phone volume except Vario.
This is a operation mode for the phone volume except Vario Melody.

[The phone volume except Vario Melody]

Adjustment range : 0 (silent) ~ 30 (maximum)

[The hardware for the adjustment is selectable]

Adjustment range : J1, J2, J3, J4, T1, T2, T3, T4, SA, SB, SC, SD, SE, SF, SG, SH, LS, LD, RD, RS, (SI, SJ)

* () is for FX-22 only.

[The operation mode of the adjustment hardware is selectable]

[ATL+] : When the operation direction is right or down or C.W., the volume is increased.

[ATL-] : When the operation direction is right or down or C.W., the volume is decreased.

[SYM.] : The center position is minimum volume. The both end points are maximum volume.

2. [All Model Types] TELEM.SET. (Addition of the pause switch for the telemetry logging function)

The pause switch is added to Telemetry logging function.



This is a hardware for the pause switch of the telemetry logging function.

If the pause switch is turned on while the telemetry data is recorded, recording the telemetry data to the memory card is stopped temporarily. When the pause switch is turned off, logging the telemetry data is resumed and recorded to same data file after the interval time.

3. [Helicopter, Glider] Condition

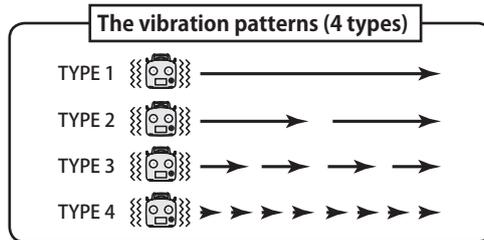
The vibrator setting is added to Condition Select. When the condition is changed, it informs by the vibrator.

Example of Helicopter	
CONDITION	NORMAL 1/3
NORMAL	OFF
IDLEUP1 SE	TYPE1 ↓
IDLEUP2 SE	TYPE2 ↑
IDLEUP3 SF	TYPE3 ↑
HOLD SG	TYPE4 ↑

Example of Glider	
CONDITION	NORMAL 1/3
NORMAL	TYPE1
START SE	OFF ↓
SPEED SE	TYPE2 ↑
DISTANCE SF	TYPE3 ↑
LANDING SG	TYPE4 ↑

These are Vibrator setting. 4 types can be selected.

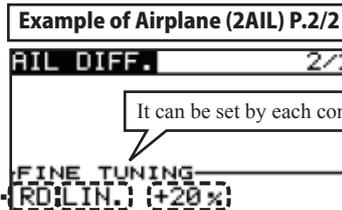
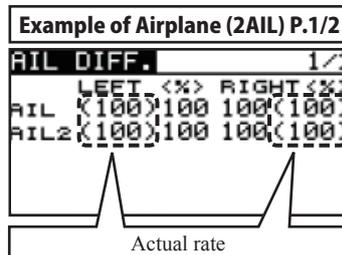
The buttons of changing the priority.



*Condition after switching, the vibrator is activated by a slight delay.

4. [Airplane, Glider] Aileron Differential Fine Tune

The fine tune is added to Aileron Differential function.



It can be set by each conditions.

Operation Mode
When the fine tune control is set, it is displayed.
Mode : LIN. / ATL+ / ATL- / SYM.

Fine tune control hardware

The fine tune rate Range : -100 ~ +100%

Example of Glider (4AIL) P.1/2	
AIL DIFF.	NORMAL 1/2
LEFT (<X)	RIGHT (>X)
AIL (100)	100 100 (100)
AIL2 (100)	100 100 (100)
AIL3 (100)	100 100 (100)
AIL4 (100)	100 100 (100)
BUTTERFLY ADJUST	+0%

Example of Glider (4AIL) P.2/2	
AIL DIFF.	NORMAL 2/2
FINE TUNING	
RD LIN.	+20%

It can be set by each flight conditions.

[Fine tuning VR operation mode]

[LIN.] : Mixing rate 0% at center of VR. When the VR is turned clockwise and counterclockwise, the mixing rate increases and decreases, respectively.

[ATL+] : Mixing rate 0% at left end of VR. When the VR is turned, the mixing rate increases.

[ATL-] : Mixing rate 0% at right end of VR. When the VR is turned, the mixing rate increases.

[SYM.] : When the VR is turned to the left or right of the neutral position, the mixing rate increases.

5. [Glider] Aileron Differential Butterfly Adjust

The operation of Aileron Differential Butterfly Adjust was changed.

BUTTERFLY stick operation is 0.

```

AIL DIFF. NORMAL 1/2
LEFT (<X>) RIGHT (<X>)
AIL (100) 100 30 (30)
AIL2 ( 30) 30 100 (100)
AIL3 (100) 100 30 (30)
AIL4 ( 30) 30 100 (100)
BUTTERFLY ADJUST +100%
    
```

The actual down rate = (Aileron Differential rate) + $\{(100 - \text{Aileron Differential rate}) \times (\text{Butterfly Adjust rate})\}$

BUTTERFLY stick operation is 100%.

```

AIL DIFF. NORMAL 1/2
LEFT (<X>) RIGHT (<X>)
AIL ( 0) 100 30 (100)
AIL2 (100) 30 100 ( 0)
AIL3 ( 0) 100 30 (100)
AIL4 (100) 30 100 ( 0)
BUTTERFLY ADJUST +100%
    
```

The actual up rate = (Aileron Differential rate) - (Aileron Differential Butterfly Adjust rate) x (Aileron Differential rate)

*When BUTTERFLY ADJUSTMENT RATE is "+", Up rate is decrease and DOWN rate is increase.

*When BUTTERFLY ADJUSTMENT RATE is "-", the calculation method of UP/DOWN and a direction become reverse.

*When Flying wing 2AIL type, it was made not to display BUTTERFLY ADJUSTMENT. (There is no butterfly mixing.)

*The start point of BUTTERFLY ADJUSTMENT shifted from the start point of BUTTERFLY MIXING. Then, it was corrected.

6. [Airplane, Glider] AIL to RUD

The fine tune is added to AIL to RUD mixing function.

Actual rate

It can be set by each conditions.

The current condition name is displayed at Glider.

The fine tune control hardware

The fine tune rate Range : -100 ~ +100%

Operation Mode
When the fine tune control is set, it is displayed.
Mode : LIN. / ATL+ / ATL- / SYM.

7. [Airplane, Glider] Camber FLP to ELE

3 points curve mixing similar to D/R is added to Camber FLP to ELE mixing function. It is easy to set the amount of moving ELE when FLP is down.

◆ **Mode A** ... Compatible to conventional 2 rates mixing.

◆ **Mode B** ... 3 Points curve mixing (new function)

(Mode A) (Compatible to conventional 2 rates mixing.)

• The master of this mixing is output of Camber FLAP D/R.

Mixing rate Range : -120 ~ +120%

The rate which is operating is shown.

If operational mode is changed, a mixing rate will become an initial value (0%).

[Mode B] (3 Points curve mixing)

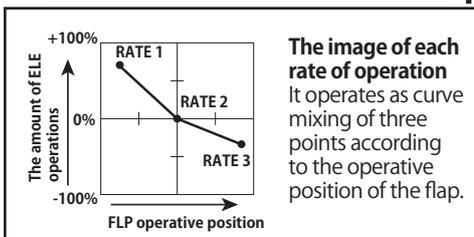
• The master of this mixing is the control hardware of Camber FLAP.

The rate which is operating is shown. Two ↓ may be displayed when the lever and the dial are set to operation of a camber flap. In that case, it operates linearly between rates with ↓ display.

```

CMBFLP→ELE NORMAL
(+)(-)
RATE1 RATE2 RATE3
ELE (+0%) (+0%) (+0%)
ACT INH SW -- MODE (B)
    
```

If operational mode is changed, a mixing rate will become an initial value (0%).



8. [Glider] Butterfly Mixing (Butterfly to Elevator)

The fine tune is added to Butterfly ELE operation.

The fine tune control hardware

The fine tune rate Range : -100 ~ +100%

Operation Mode
When the fine tune control is set, it is displayed.
Mode : LIN. / ATL+ / ATL- / SYM.

Actual rate

Fine Tune Control

*When Flying wing type, it was made not to display BUTTERFLY ELE. (There is no elevator rate setting.)

9. [All Model Types] Speech output of Timer 1/2

The speech output of Timer 1/2 can work even if the communication system is not FASSTest.

10. [All Model Types] Melody at FASSTest LINK

The melody during FASSTest LINK mode of Ver.4.1 is faster than previous version. It corrected.

11. [Area Code is EUROPE only] FASST and S-FHSS applied to EN300 328 V.1.8.1

FASST MULTI CH mode, 7CH mode and S-FHSS apply to EN300 328 V.1.8.1 adaptive system. (V.1.8.1 is the latest version of European regulation for 2.4GHz radio equipment which can output RF power less than 100mW.)

12. [All Model Types] Trainer 8CH mode CH9 - CH12 operation

When the Trainer is set to 8CH mode and CH mode is set to NORM, CH9 - CH12 were not able to work. It corrected.