[Updating procedure]

1. micro SD card format

1. You will first want to format your micro SD card to the T12K. If you are using an existing micro 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.

T12K:

① Push to open.

② Slide in the direction of the arrow on the battery cover.

③ micro SD card is inserted in a slot by direction of a figure.

*It is releasable if a card is pushed once again.

2. After inserting the new micro 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 micro SD card from its slot.
2. Preparing the software update card.

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

   - T12KUpdate.exe
   - T12KUpdate.dat
   - T12K_UPDATE.dat
   - T12K_AP.bin
   - T12K_UPLD.bin

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

3. Please run "T12KUpdate.exe".

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

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

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

7. Remove the micro SD card.

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

Language table

<table>
<thead>
<tr>
<th>Version No.</th>
<th>Selectable language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ver.x.x</td>
<td>English</td>
</tr>
<tr>
<td>Ver.x.x A</td>
<td>English</td>
</tr>
<tr>
<td>Ver.x.x B</td>
<td>English</td>
</tr>
<tr>
<td>Ver.x.x C</td>
<td>English</td>
</tr>
</tbody>
</table>

Choose from these files.
T12K INSTALLING SPEECH DATA

There are three language versions, English, German, and Japanese, in speech data. It is possible to install only one language. If you install a second language, it will override the first one that you installed. Speech data is the same as T14SG.

*The telemetry speech and the version of installed speech data can be confirmed on the “TELEM.SET.” screen.

*After updates, there is a possibility that a language changes. Readjust a language in that case.

<table>
<thead>
<tr>
<th>Speech Language table</th>
<th>Choose from these files.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version No.</td>
<td>English</td>
</tr>
<tr>
<td>Ver.x.x (No suffix)</td>
<td>○</td>
</tr>
<tr>
<td>Ver.x.x A</td>
<td>○</td>
</tr>
<tr>
<td>Ver.x.x B</td>
<td>—</td>
</tr>
<tr>
<td>Ver.x.x C</td>
<td>—</td>
</tr>
</tbody>
</table>

[Installing procedure]

1. Making of card for installing speech data

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

   **English Version**
   - T14sgInstallSoundEng.exe
   - T14sgUpdate.dat
   - T14SG_INSTALL_SOUND.dat
   - T14sgSpeechEng1.bin
   - T14sgSpeechEng2.bin
   - T14sgSpeechEng3.bin

   **German Version**
   - T14sgInstallSoundEng.exe
   - T14sgUpdate.dat
   - T14SG_INSTALL_SOUND.dat
   - T14sgSpeechGer1.bin
   - T14sgSpeechGer2.bin
   - T14sgSpeechGer3.bin

   **Japanese Version**
   - T14sgInstallSoundEng.exe
   - T14sgUpdate.dat
   - T14SG_INSTALL_SOUND.dat
   - T14sgSpeechJpn1.bin
   - T14sgSpeechJpn2.bin
   - T14sgSpeechJpn3.bin

2. Install the already formatted SD card into your PC's card reader.
3. Please run "T14sgInstallSound***.exe".

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

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

6. Install speech data of T12K

1. Please insert the micro SD card which includes the installing speech data.
2. Push the HOME/EXIT button.

3. Still holding the HOME/EXIT button, power on the transmitter.

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

5. Press the U.MENU/MON. button for three seconds. The speech data begins to install.

6. After about 16 seconds, uploading reaches the right of the progress bar, and then begins again after a pause.

7. The uploading may appear to progress slowly.

8. The progress bar will again upload. This can take a few minutes. (About. 2 min.) And, "COMPLETED" is displayed. Please turn off the power. (Don't turn off the power before COMPLETED is displayed.)

9. Please detach micro SD card.
10. Please check the language at TELEM.SET. menu in LINKAGE menu.
CRSF protocol for T12K

T12K has been made compatible with CRFS (TBS) protocol.

*Bidirectional communication function of CRFS is not supported.
*Making a special cable is necessary to connecting with CRFS Tx module.
*When using CRFS, the S.BUS servo setting function and [RELOAD] [REGISTER] [RELOCATE] [SET SLOT] functions cannot be used. When setting S.BUS servo and sensor, please set CRFS to OFF.
*When CRFS is ON, "POWER MODE" screen is not displayed even if you turn on the power with pushing RTN key.
*When CRFS is ON, it does not output 2.4 GHz RF.
(Monitor LED is turned off.)

4. Push RTN button to activate the function and return to the cursor mode. (ON is displayed)

A signal conforming to the CRFS standard is output from the S.BUS setting connector (S.I/F port) of the transmitter.

**Caution**

Futaba is not responsible for damage sustained by combination with parts other than Futaba Genuine equipment.

**Setting to apply CRFS**

1. LINKAGE MENU → SYSTEM is opened from the transmitter.

2. Move the cursor to [CRSF] item and push RTN button to switch the data input mode.

3. Select ON by scrolling the push dial. The display blinks.

**Warning Screen at CRFS is ON**

On the warning screen when CRFS is ON, if you move the cursor to "YES" and press RTN key, CRFS signal is output from S.BUS setting port (S.I/F). If you move the cursor "NO" and press RTN key, the signal for CRFS is not output.
1. Airspeed Sensor SBS-01TAS

It corresponds to SBS-01TAS (Airspeed Sensor). For details, please refer to the instruction manual of SBS-01TAS. For registration of this sensor, the following available slot is required.

<table>
<thead>
<tr>
<th>The slot which can be registered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31</td>
</tr>
</tbody>
</table>

**Selection of Sensor**

Select "SBS-01TAS"

**Alarm setting**

**Airspeed**

<table>
<thead>
<tr>
<th>MIN/MAX</th>
<th>INH</th>
<th>THRESHOLD</th>
<th>INH</th>
<th>LIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0km/h</td>
<td>300km/h</td>
<td>800km/h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Adjustment range]

**Airspeed**

<table>
<thead>
<tr>
<th>ALERT</th>
<th>INH</th>
<th>THRESHOLD</th>
<th>OFF</th>
<th>SPEECH</th>
</tr>
</thead>
<tbody>
<tr>
<td>0km/h</td>
<td>INH</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Adjustment range]