

# Instruction Manual PC Software for TUNING SET CTS-32-L (V1.20)

For Win-95, WIN-98, WIN-NT, WIN-ME, WIN-2000, WIN-XP

## 1 Installation of the PC software

On the delivered CD, start the installation program "SetupEnglish.exe" and follow the instructions.

## 2 Starting the program

By using the delivered interface cable, connect the Tuning Set to serial interface ( COM-Port) of your PC and switch on the power. If no COM port is available you can connect an USB to RS232 Adapter using this software.

After successful installation you will find the following icon in the starting menu,



which you may then use to start the interface program.

## 3 Saving data of the Tuning-Set on your PC

To start the reception process, click the following ICON:



You now have the possibility to send data from the Tuning Set in various manners:

### 3.1 Save all data:

In the main menu of the Tuning Set, select the option „ TRANSMIT ALL DATA “ and press the „Enter“ key. The following display appears on the Tuning Set:

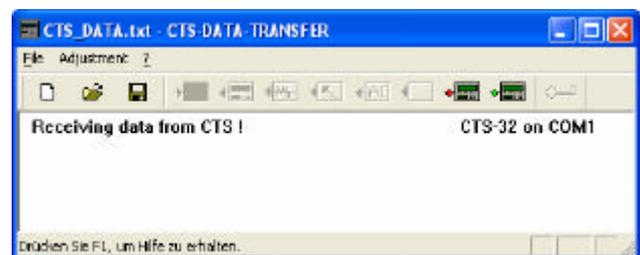
```
Connect to PC, start terminal program.  
... then push Enter
```

The following window then appears:



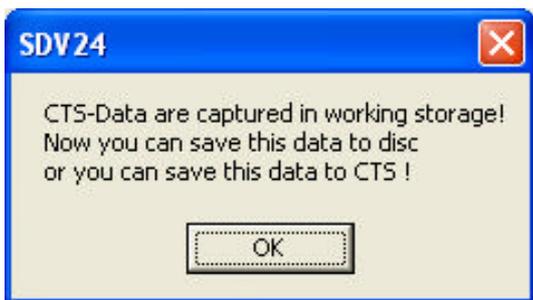
With "Adjustment" you select the interface you intend to use: COM1 ...8.

The interface program is now expecting to receive data from the Tuning Set.

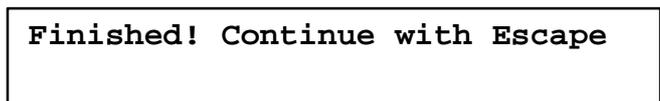


After pressing the "Enter" key, the data transfer takes place. While the data is being transferred, the file content is shown continuously both on the display of the Tuning Set and in the window of the interface program.

Once the data transfer is completed, the following indicator appears on the screen of your PC:



Display of the Tuning Set:



The data sent from the Tuning Set are now in the working storage and at this point should be saved on the fixed-disc.



By clicking this saving icon,

the data is stored in the file CTS\_DATA.TXT in the directory: „../CTS\_FILES“.

Of course you can also save this data in any directory under any title by clicking on the dialog field “File -> Save As“

The data is saved as text file which can be handled with the usual text processing programs (Word, Notepad etc.) The protocol for this is described in the instruction manual CTS-32-L.

Should you wish to edit the data, it is important that you only overwrite the individual characters and do not change the length of the character strings.

The data must then be saved as unformatted text file by the corresponding text processing program.

The data processed in this manner can then be transferred back to the Tuning Set.

### **3.2 Save only the data of the tuning programs:**

In the main menu of the Tuning Set, select the option “TRANSMIT ALL INSTR.PROG.DATA” and then proceed as described in section 3.1.

### **3.3 Save only the data of the historical temperaments:**

In the main menu of the Tuning Set, select the option “TRANSMIT ALL TEMP.HIST.DATA” and then proceed as described in section 3.1.

### **3.4 Save only the data device adjustment**

In the main menu of the Tuning Set, select the option “TRANSMIT DEVICE ADJUSTMENT” and then proceed as described in section 3.1.

### **3.5 Save only the data of one separate tuning program**

In the Tuning Set, select the instrument program which you wish to send as for example “ORGAN” and from there, you select the option “TRANSMIT”. You then may proceed as described in section 3.1.

### 3.6 Further buttons for the reception of data from the Tuning Set

In order to facilitate operation of the Tuning Set during data transfer, the following buttons were installed:

While using these buttons, the Tuning Set must only be connected and switched on. No further operation of the Tuning Set itself is required.



All data from the Tuning Set to the PC.



Data of historical temperaments from Tuning Set to PC.



Adjustment data from Tuning Set to PC.

The remaining actual data transfer then takes place as described in section 3.1.

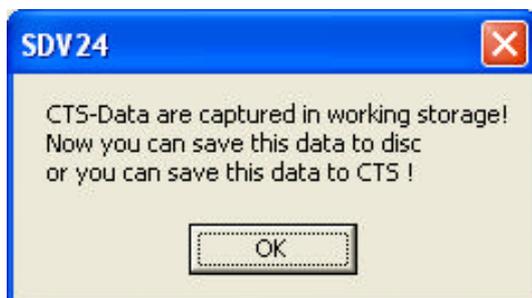
## 4 Sending data from the PC to the Tuning Set

Start the data transfer program as described in chapter 1.



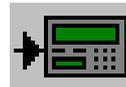
By clicking "File -> Open", open a file meant for CTS-32 as for example CTS32\_DATA.TXT.

The following indicator then appears. Next confirm with OK.



The data are now buffered in the working storage of your PC and at this point,

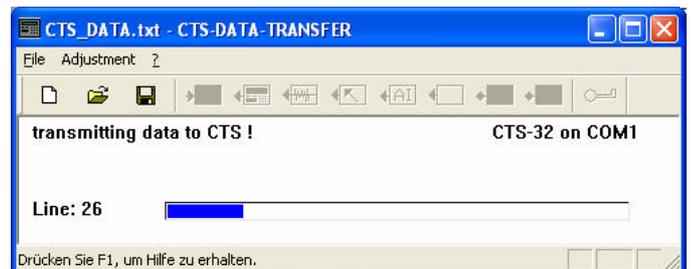
by clicking on the following icon,



can be transferred to the Tuning Set.

Attention !!! During this process the data formerly saved in the Tuning Set is overwritten.

Should the new data contain only parts of the entire data file, for example only one tuning program, the other existing data are preserved.



The data flow from the PC to the Tuning Set is now continuously displayed in the window. Once the data transfer is completed, the following indicator appears:



## 5 Update of the Tuning Set firmware

**Attention ! Do not operate any keys of the Tuning Set during the update process.**

Connect the power supply unit in order to insure that the power supply is not interrupted during the update.

An interruption of the power supply during an update can cause damage to the operating system. Consequently, a repair of the tuning device would be required.

If you have received a new update, please install the PC software of the newly delivered Setup-Routine as described in chapter 1.

Start the data transfer program as described in chapter 2.



Attention ! During the update all formerly saved data are erased ! Before the update, save all current data as described in chapter 3.1.

Then click on the following button:

(the left one with red rue.) 

The following display appears on your PC:



Click on OK!

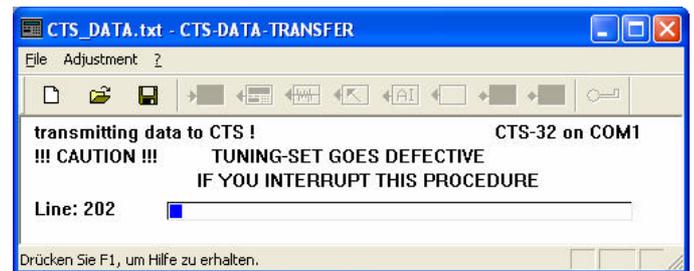
On the Tuning Set the following indicator is then displayed:

CTS\_32 UPDATER 1.03

First a bar display is run up. During this time, the Tuning Set is preparing for the update.

After that, firmware-update and data-update runs.

**Warning ! Tuning Set goes defective if you interrupt this procedure.**



Once the data transfer from the PC to the tuning device is completed, the following indicator appears on your PC:



In the Tuning Set it takes approx. one more minute until the update is completed. During this time, the indicator is still counting. Then the following is displayed:

<2> Instrument Selection, then Enter  
||| STANDARD\_\_\_\_\_ [0]

Now you can retransfer your former data back to the Tuning Set as described in chapter 4.