Addendum - Digispeech Plus (DS311)

12/19/96

The Version 4.00 installation software is now shipped with this unit.

The following 4 disks are included in the package:

> 1 Digispeech Plus driver installation disk
> 2 Speech disks containing text to speech drivers and utilities.
> 1 Network drivers disk

The manual that is shipped in this box is for Version 1.0. Please note the following differences as you read the manual.

Differences between Ver. 1.0 and Ver. 4.00

- The main drivers are now on one disk. (Release 1.0 had 2 disks)
- 4.00 drivers support Windows 95, Windows 3.1, 3.11 and DOS. (Ver. 1.0 supports only Windows 3.x and DOS)
- 4.00 Windows drivers now support 'Full Duplex' This makes it possible to speak into the microphone and listen to sounds from the speaker simultaneously like a telephone. See note on Full Duplex below.
- Text to Speech drivers and utilities are now included on a separate 2 disk set. The following drivers and utilities that are described in the manual are now found on the additional speech disks: The First Byte Co. text to speech engine, DSP Solutions Inc. WinReader, DOSreader, DOStalk.
- Network drivers are now included on a network disk. These drivers will give NETAUD users, under *ICLAS* or *School View,* support for the DS311. Please refer to the README documents that are on the disk.

Windows 95 Installation Instructions:

> Start Window 95
> Go to **START** and select **RUN**.
> Place the **Ver. 4.00** driver disk in drive a: (or b:)
> Type *a:install* in the Open field and click OK.
> Follow the on screen instructions and complete the install.

Windows 3.x Installation Instructions:

> Start Windows
> Go to FILE and select RUN
> Place the **Ver. 4.00** driver disk in drive a: (or b:)
> Type *a:install*

Reference the instructions in the manual if needed. Note that there is only one drivers disk

DOS *only* installation:

(Not required if you use only Windows applications)

> Place the **Ver. 4.00** driver disk in drive a: (or b:)
> Type a: (or b:) [Enter] to go to the floppy drive prompt.
> Type: **install**

Text to Speech drivers and utilities installation (optional).

These drivers and applications are installed from separate installation disks included in the package. Speech can be installed to Windows 95, Windows 3.x, or DOS. Installation is similar to the drivers installation above. Insert Speech disk 1 in drive a: and type **a:install** to begin installation.

Network drivers installation.

View and/or print the README files on the Network disk for installation instructions.

Printing issues:

The optional Printer Pass Through Adapter (DS312) is mentioned several times in the manual. Please be aware of the following:

-The printer adapter works on an individual (networked or not) or 'stand alone' system. (Where the person is using a printer which is physically attached to that persons system and not used by others on a network).

-Because of physical limitations of the printer port the individual user can never print and have any sound playing at the same time. This is not a problem for the individual user of the computer system because the driver software will take care of printing properly eg Wait for sound to finish then print or wait for printjob to finish before alowing sound.

-In a Networked environment any print-station (networked computer with a shared network printer attached) can not effectively be used as a workstation (for sound intensive applications) when frequent printing is required. Conflicts occur when other users on the network send print jobs at unpredictable times to the computer with the printer. The individual user at the print-station will experience an interruption with an error messages if a print job comes through when sound is being played.

There are several **possible solutions** for this problem. They are listed below in order of preference.

1. Install network printer sharing device. This type of device will allow the printer to be attached directly to the network and be used by all. Since it is not directly attached to any workstations no printer conflicts will occur. The DS312 is not needed in this situation.
-or-
2. Install a second printer port (LPT2) in the workstations that have printers, and install the DS311 on the new port LPT2 (or LPT3). These port cards are relatively inexpensive. When using a second printer port, printing and sound can be used on a workstation with no conflicts whatsoever. The DS312 is not needed in this situation. *see note 1 below.
-or
3. Use a dedicated print server for the printing only.
-or-
4. Batch the print jobs to be printed at a time when the workstations with printers are not being used for sound applications. The DS312 can be used here.

DOS sound driver - PDIGI.EXE
In reference to the manual on page 12 -and also regarding the tip box and note 2

The *Digispeech Plus* comes with the DOS sound driver PDIGI.EXE. This driver will support most types of audio playback formats used in many educational software applications from Eduquest, Jostens etc. Formats such as LPC, CVSD, and several others are supported. No other additional driver is required in most cases.

Example 1: Most sound applications can use this sequence of commands:
The following sequence of commands can be either entered at the command line or run from within a batch file

> PDIGI
> *Enter the command(s) to start your application here....*
> PDIGI /U

Example 2: For CVSD support you would use the following sequence of commands:
The following sequence of commands can be either entered at the command line or run from within a batch file

> PDIGI /C
> *Enter the commands(s) to start your application that requires CVSD here.....*
> PDIGI /U

The /U switch in the above examples is used to unload the PDIGI driver from memory after your application has been terminated.
If the next application to be run requires a different PDIGI switch then you MUST unload PDIGI and reload it with the different switch setting. If all applications use the same compression type then PDIGI can be left in memory.
For a full list of PDIGI command switches type: PDIGI /? at the DOS command prompt.

Digispeech (201A) to Digispeech Plus (DS311) upgrade:

If you are replacing (upgrading) a *Digispeech* (DS201A) with a *Digispeech Plus* (DS311) then you will need to change LWDIGI to PDIGI in the various batch files and/or ICLAS startup instructions for each application.

If you are adding *Digispeech Plus* (DS311) units to an existing network where there will be a mix of different sound devices or you are using the IBM NETAUD program within ICLAS or School View, then read the instructions contained on the network drivers disk before proceeding.

SoundBlaster™ Support.
Reference the manual - page 19
The Digispeech Plus also works with most * DOS based SoundBlaster™ programs when the special BMASTER.EXE driver is loaded.

Example:
(The following sequence of commands can be either entered at the command line or run from within a batch file)
      bmaster
      Start your SoundBlaster™ application here....
      bmaster /u

If your software application has a setup or configuration for sound, be sure that BMASTER is loaded before you do the configuration. Select SoundBlaster as the sound device. Not SoundBlaster Pro or 16.

SoundBlaster support is already included in the Windows drivers.
Do not load BMASTER when running DOS based SoundBlaster applications from within Windows.

* DOS programs that use one of the *'DOS Extenders'* will not work with BMASTER or in Windows 3.x, but many have been reported to work OK in Windows 95.

Note 1 - Windows and DOS Setup configuration.
The Windows installation process will run the SETUP for you automatically as part of the installation process. However if you make changes to your system then you will need to run setup again. The following are examples of changes that will require you to re-run setup:

      Move the DS311 to a different printer port. (LPT2 or LPT3).
      Add an extension cable between the DS311 unit and the computer.
      Change the computers clock speed with the turbo button.
      Upgrade the CPU with an overdrive chip.
      You want to change the default settings such as: Volume, AGC, Mix Wave and MIDI etc.

Setup Windows 95
Follow these steps: From the Taskbar Click *Start* - then go to *Settings*- Now Open *Control Panel* - Double click on *Multimedia* - click *Advanced* - Double click on *Audio Devices* - Double click on: *Audio for parallel Audio Device Driver v4.05.* Then click *Settings*. Make changes in *Options* if needed and then click *Setup* *

Setup for Windows 3.x
In the MAIN group open control panel- click on *drivers* - Select DSP parallel driver and click *Setup*- When the DSP Solutions Audio drivers app. comes up then make changes in *Options* if needed and Click on *Setup* *

Setup (DGSETUP) for DOS *
The DGSETUP is run at the end of the DOS installation if you ran install from DOS. The DGSETUP program is not automatically run when DOS drivers are installed from within Windows. The user must run DGSETUP from the DOS prompt in order to use the DOS sound drivers such as PDIGI and BMASTER. After DGSETUP is run once, it does not need to be run again unless you make changes to your system as described above.

* Setup note (all):
When in the DSP Solutions setup screen in Windows 3.x, Windows 95, or DGSETUP, make sure that the Device Model is set to Digispeech Plus. (Not Port*Able Sound Plus or CD*Net Sound).

Note 2 - FULL DUPLEX

In order to get full duplex sound in Windows you can not have the Mix Wave/Synth (MIDI) option enabled. There are 2 ways to accomplish this:

1- In Windows 3.x, click on DSP Audio Control in the DSP Solutions group, or if using Windows 95, go to the *Start -Programs* menu. Select DSP Solutions then select DSP Audio Control. Verify that the Mix WAVE/SYNTH box does NOT contain an 'X' This setting will be temporary and remain in effect for the duration of the current Windows session only.
-or-
2- Go to the setup as explained in Note 1 above. Click the OPTIONS button (instead of setup) and verify that the box next to: Mix WAVE/MIDI does NOT contain an 'X'. This setting will become the default for future Windows sessions.

Recording with Internal Microphone.

In reference to page 20.
You must have the AGC (Automatic Gain Control) turned ON when using the built in microphone. AGC can be set either in the Audio Control Panel or in drivers setup. (If AGC is not set ON then the internal microphone is turned off and will not record.).

1- In Windows 3.x, click on DSP Audio Control in the DSP Solutions group, or if using Windows 95, go to the *Start*-Then select the *Programs* menu. Select DSP Solutions, then select DSP Audio Control. Verify that the AGC OFF box does **NOT** contain an 'X'. This setting will become the default for future Windows sessions.
-or-
2- Go to the setup as explained in Note 1 above. Click the OPTIONS button (instead of setup) and verify that the AGC OFF box does **NOT** contain an 'X'. This setting will become the default for future Windows sessions.

For DOS applications where the PDIGI driver is used, you must use the /Loff parameter in order for the internal microphone to work. Load PDIGI like this: PDIGI /Loff

Note: Whenever a **cable is plugged into the Line-In** on the back of the Digispeech Plus, **you cannot use the internal microphone**, it is shut off and will not work. You can however use an external microphone.

Recording with (optional) External Microphone.

In reference to page 20.
You can use an external microphone with AGC either ON or OFF. If you are using any kind of voice recognition software such as Dragon Systems that comes with the SuperLink Plus software package, then it is best to use an external microphone with AGC set to OFF. (For this case the AGC OFF box DOES contain an 'X'. See Recording with Internal Microphone and note 1 above).

Electret (condenser) and Dynamic microphones:
Electret (condenser) microphones require a small power source in order to work (bias voltage). Some electret microphones have a built in battery, others require the recording device to supply power through the microphone cable. The Digispeech Plus does supply bias voltage required for these types of microphones, but some brands of electret microphones may require an adapter in order to work. (Usually available from the microphone manufacture). If your electret microphone seems to not be working, then the proper adapter may fix the problem. The simplest kind of adapter will functionally short the tip connector to the center ring connector on the plug. The third ring at the base of the plug is ground. Another type of adapter takes power from the computer with a special connection to the joystick port. Battery powered electret microphones will usually work without the need for an adapter.

The cheaper dynamic microphones do not require a power source and, will work fine for most situations, but they are not as good in sound quality.

Recording And Playing sounds from Line-In. (CD or other audio source *):

In reference to page 20
The Line-in on the back of the unit can be used to play or record sounds from a CD player or other audio source. The connection is for a 1/8" stereo plug. If you want to hear sound from audio CD's then you MUST connect an audio cable (not included) from the CD players headphone out (or line-out) jack to the line-In on the back of the Digispeech Plus.

The headphone jack to line-in audio cable is common and available at most electronic supply and component stores. (1/8" stereo plugs on each end).
If you have an external CD ROM there may be a sound connection (RCA) on the back of the drive and/or headphone jack that can be used. External portable CD ROMs usually have a 1/8" Line-Out and/or headphone jack that can be used.

Some software CD ROM applications have CD audio tracks on the disk which are played in conjunction with the software on the same disk. You must have the cable connected from the CD to Line-In as described above so the audio tracks can be heard.

Also note that whenever a cable is plugged into the Line-In on the back of the Digispeech Plus, you cannot use the internal microphone, it is shut off and will not work. You can however use an external microphone to record when Line-In is connected.

Note: Some older 1X and 2X internal CD units do not have a headphone jack. Most CD ROMs do have a special internal sound connection on the back of the CD unit itself, meant to be used by an internal sound card. If you want to connect a CD ROM which does not have a headphone jack, or you want to use the internal connection instead of the headphone jack, then you may need to consult with your CD ROM documentation and/or computer technician, in order to find or make up an internal cable if it is not already there.

*When connecting other audio sources as a stereo or tape player, TV etc., make sure you are connecting the line-in on the Digispeech Plus to the line level output on the other source, NOT the speaker output. Connecting high power speaker outputs to line-in will damage the Digispeech Plus! Portable CDs and radio/tape players may be connected from the headphone out of the device to the line-in of the Digispeech Plus, but start with a low volume setting and turn volume down if distortion occurs.

Stereo ON/OFF switch located on the back of the Digispeech Plus unit.
(Not mentioned in the manual.)
This switch is normally ON. If you are using mono type headsets such as the Telex 610 and you can only hear sound from one side of a headset, then move the stereo switch to the OFF (MONO) setting. You should now hear sound from both sides of the headset. When using two headsets on a Digispeech Plus, they should be the same type.

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