SPEECHLAB $^{(R)}$ MODEL 20A

APPENDIX "D"

AUTO SLOT FINDER

The following program will automatically find SpeechLab and set SLOT to the correct slot number. This allows SpeechLab to be placed in any available slot (1-7). A typical PR# statement could then be:

PRINT D$;"PR#";SLOT

```
12090     REM AUTO SLOT FINDER
12100     C100=-16384+256: REM SLOT #1 ADDRESS
12110     C700=-16384+7*256: REM SLOT #7 ADDRESS
12120     CFFF=-16384+15*256*15*16+15
          :REM DISABLE SLOTS ADDRESS
12130     SLOT=0
12140     POKE CFFF;0: REM DISABLE SLOTS
12150     FOR I=C100 TO C700 STEP 256
12160     SLOT=SLOT+1
12170     POKE I,0: REM ENABLE SLOT
12180     IF PEEK (-14071)#141 THEN 12200:
          IF PEEK (-14098)#202 THEN 12200:
          IF PEEK (-13546)#48  THEN 12200
12190     RETURN:REM FOUND SLOT
12200     NEXT I:REM KEEP LOOKING
12210     PRINT "NO SPEECHLAB IN SYSTEM."
12220     END
```

APPENDIX "E"

USING THE SPEECHLAB 20A WITH DOS

To use the SpeechLab 20A with DOS and Integer Basic it is
necessary to issue the "LOMEM"command from within Basic.
This is accomplished with the following POKE commands:

```
10      POKE 74,124
20      POKE 75,21
30      POKE 204,124
40      POKE 205,21
```

These POKE's must be the first commands entered in the Basic
program. In particular, they must preceed any DIM statements.

In addition, all PR# and IN# commands must be executed from
PRINT statements as mentioned on Page 33 of the DOS manual.
For example:

```
50      DIM D$(1)
60      D$="": REM"" IS CONTROL D
70      PRINT D$;"PR#3"
80      PRINT : REM INITIALIZE SPEECHLAB
90      PRINT D$;"PR#0"
```

A complete example follows on the next page.

Apple Integer Basic, Applesoft Basic, and DOS have some in-
compatible conventions. The software changes given here will
allow SpeechLab to work with Integer Basic and DOS, but not
with Applesoft. A future application will address using
SpeechLab with Applesoft.

```
Ø       REM EXIT THIS PROGRAM BY TYPE
1       REM RESET AND THEN 3DØG RETURN
15      REM SET LOMEM;MUST BE DONE FIRS
2Ø      POKE 74,124
21      POKE 75,21
22      POKE 2Ø4,124
23      POKE 2Ø5,21
3Ø      DIM D$(1),W$(2Ø)
35      D$="": REM   "" IS CONTROL D
37      REM LINE 4Ø KEEPS SCREEN CLEAN
4Ø      PRINT D$;"NOMON I,C,O"
45      CALL -936: REM  CLEAR SCR OF NOM
        ON
5Ø      PRINT D$;"PR#3"
6Ø      PRINT
7Ø      PRINT D$;"PR#Ø"
8Ø      PRINT "NOW 20A IS INITIALIZED"
1ØØ     PRINT

1Ø5     PRINT "SAY TEST WORD NOW"
11Ø     PRINT D$;"PR#3"
12Ø     PRINT "TEST WORD"
13Ø     PRINT D$;"PR#Ø"
14Ø     PRINT "NOW SPEECHLAB IS TRAINED"
15Ø     PRINT "SPEAK.."
16Ø     PRINT D$;"IN#3"
17Ø     INPUT W$
175     PRINT D$;"PR#Ø"
176     PRINT D$;"IN#Ø"
18Ø     PRINT "YOU SAID";W$
19Ø     PRINT D$;"IN#Ø"
195     PRINT D$;"PR#Ø"
2ØØ     FOR I=1 TO 4ØØ
21Ø     NEXT I
22Ø     GOTO 16Ø
23Ø     END
```

APPENDIX "F"

TO SAVE AND RESTORE
VOCABULARIES WITH THE
SPEECHLAB 20A

After training is complete the training data may be saved
for reuse later. This is useful for a number of reasons.
First, you can increase the effective vocabulary size by
swapping one 32 word set with another giving a virtually
unlimited vocabulary size. Secondly, you can restore
saved training data to eliminate retraining each time you
use SpeechLab.

Saving and restoring data is simple. After training is
complete save locations 2048 (base 10) to 5500 and also
locations 90 and 91. These are the training tables. When-
ever this data is restored SpeechLab is ready to recognize
those words again. You don't have to reinitialize or re-
train SpeechLab -- just start recognizing.

SAVING AND RESTORING SPEECHLAB
VOCABULARY TABLES ON APPLE DISK

The following commands will save SpeechLab's vocabulary tables,
etc., onto the Apple disk:

```
POKE 5498,PEEK(90)
POKE 5499,PEEK(91)
PRINT D$;"BSAVE SDATA1,A2048,L3452"
```

To restore these tables for later recognition:

```
PRINT D$;"BLOAD SDATA1,A2048"
POKE 90,PEEK(5498)
POKE 91,PEEK(5499)
```

Note that SpeechLab should not be reinitialized ("PRINT") after
restoring training data. See complete example below.

SAVING SPEECH DATA

```
10      REM SET LOMEM
20      POKE 74,124
30      POKE 75,21
40      POKE 204,124
50      POKE 205,21
60      DIM D$(1)
70      D$="":REM"" IS CONTROL D
80      REM KEEP SCREEN CLEAN
90      PRINT D$;"NOMON I,C,O"
100     CALL -936:REM CLEAR SCREEN
110     REM INITIALIZE SPEECHLAB,SLOT 3
120     PRINT D$;"PR#3"
130     PRINT
140     PRINT D$;"PR#0"
150     REM TRAIN ON A WORD
160     PRINT D$;"PR#3"
170     PRINT "A WORD"
180     PRINT D$;"PR#0"
190     REM SAVE ON DISK FILE F00
200     POKE 5498,PEEK(90)
210     POKE 5499,PEEK(91)
220     PRINT D$;"BSAVE F00,A2048,L3452"
230     END
```

```
10      REM SET LOMEM
20      POKE 74,124
30      POKE 75,21
40      POKE 204,124
50      POKE 205,21
60      DIM D$(1),W$(20)
70      D$="":REM""IS CONTROL D
80      REM KEEP SCREEN CLEAN
90      PRINT D$;"NOMON I,C,O"
100     CALL -936:REM CLEAR SCREEN
110     REM RESTORE SPEECH DATA
120     PRINT D$;"BLOAD F00,A2048"
130     POKE 90,PEEK(5498)
140     POKE 91,PEEK(5499)
150     REM RECOGNIZE PREVIOUSLY TRAINED SPEECH
160     PRINT D$;"IN#3"
170     INPUT W$
180     PRINT D$;"IN#0"
190     PRINT D$;"PR#0"
200     PRINT W$
210     GOTO 160
220     END
```