

# WORD PACK VOCABULARY TABLE

WORD PACK ROM 1 (supplied)	WORD PACK ROM 2	WORD PACK ROM 3	WORD PACK ROM 4 (must be used with W.P.3)
ZX81: POKE 49149 SPECTRUM: OUT 255	ZX81: POKE 49149 SPECTRUM: OUT 255	ZX81: POKE 49148 SPECTRUM: OUT 223	ZX81: POKE 49148 SPECTRUM: OUT 223
WORD CODE	WORD CODE	WORD CODE	WORD CODE
THIS IS DIGITAL TALKER* 0	CENTI 72	ABORT 0	LOAD 67
ONE 1	CHECK 73	ADD 1	LOCK 68
TWO 2	COMMA 74	ADJUST 2	MEG 69
THREE 3	CONTROL 75	ALARM 3	MEGA 70
FOUR 4	DANGER 76	ALL 4	MICRO 71
FIVE 5	DEGREE 77	ASK 5	MORE 72
SIX 6	DOLLAR 78	ASSISTANCE 6	MOVE 73
SEVEN 7	DOWN 79	ATTENTION 7	NANO 74
EIGHT 8	EQUAL 80	BRAKE 8	NEED 75
NINE 9	ERROR 81	BUTTON 9	NEXT 76
TEN 10	FEET 82	CALL 10	NO 77
ELEVEN 11	FLOW 83	CAUTION 11	NORMAL 78
TWELVE 12	FUEL 84	CHANGE 12	NORTH 79
THIRTEEN 13	GALLON 85	CIRCUIT 13	NOT 80
FOURTEEN 14	GO 86	CLEAR 14	NOTICE 81
FIFTEEN 15	GRAM 87	CLOSE 15	OHMS 82
SIXTEEN 16	GREAT 88	COMPLETE 16	ONWARD 83
SEVENTEEN 17	HAVE 89	CONNECT 17	OPEN 84
EIGHTEEN 18	HIGH 90	COPY 18	OPERATOR 85
NINETEEN 19	HOUR 91	CORRECT 19	PASS 86
TWENTY 20	IN 92	DATE 20	PER 87
THIRTY 21	INCHES 93	DAY 21	PICO 88
FORTY 22	IT 94	DECREASE 22	PLACE 89
FIFTY 23	KILO 95	DEPOSIT 23	PRESS 90
SIXTY 24	LEFT 96	DIAL 24	PRESSURE 91
SEVENTY 25	LESS 97	DIVIDE 25	QUARTER 92
EIGHTY 26	LESSER 98	DOOR 26	RANGE 93
NINETY 27	LIMIT 99	EAST 27	REACH 94
HUNDRED 28	LOW 100	ED (b) 28	RECEIVE 95
THOUSAND 29	MARK 101	ED (b) 29	RECORD 96
MILLION 30	METER 102	ED (b) 30	REPLACE 97
ZERO 31	MILE 103	ED (b) 31	REVERSE 98
A 32	MINUTE 104	ED (b) 32	ROOM 99
B 33	NEAR 105	ED (b) 33	SAFE 100
C 34	NUMBER 106	ED (b) 34	SECURE 101
D 35	OFF 107	ED (b) 35	SELECT 102
E 36	ON 108	ED (b) 36	SEND 103
F 37	OUT 109	ED (b) 37	SERVICE 104
G 38	OVER 110	ED (b) 38	SIDE 105
H 39	PARENTHESIS 111	ED (b) 39	SLOW 106
I 40	PERCENT 112	ED (b) 40	SLOWER 107
J 41	PLEASE 113	ED (b) 41	SMOKE 108
K 42	PLUS 114	ED (b) 42	SOUTH 109
L 43	POLY 115	ED (b) 43	STATION 110
M 44	POLY 116	ED (b) 44	SWITCH 111
N 45	POLY 117	ED (b) 45	SYSTEM 112
O 46	POLY 118	ED (b) 46	TEST 113
P 47	POLY 119	ED (b) 47	TH (b) 114
Q 48	POLY 120	ED (b) 48	THANK 115
R 49	POLY 121	ED (b) 49	THIRD 116
S 50	POLY 122	ED (b) 50	THIS 117
T 51	POLY 123	ED (b) 51	TOTAL 118
U 52	POLY 124	ED (b) 52	TURN 119
V 53	POLY 125	ED (b) 53	USE 120
W 54	POLY 126	ED (b) 54	UTL (b) 121
X 55	POLY 127	ED (b) 55	WAITING 122
Y 56	POLY 128	ED (b) 56	WARNING 123
Z 57	POLY 129	ED (b) 57	WEST 124
AGAIN 58	POLY 130	ED (b) 58	WEST 125
AMPERE 59	POLY 131	ED (b) 59	SWITCH 126
AND 60	POLY 132	ED (b) 60	YES 127
AT 61	POLY 133	ED (b) 61	WINDOW 128
CANCEL 62	POLY 134	ED (b) 62	ZONE 129
CASE 63	POLY 135	ED (b) 63	
CENT 64	POLY 136	ED (b) 64	
CENT 65	POLY 137	ED (b) 65	
LOW TONE 66	POLY 138	ED (b) 66	
.025 SILENCE (a) 67	POLY 139	ED (b) 67	
.045 SILENCE (a) 68	POLY 140	ED (b) 68	
.065 SILENCE (a) 69	POLY 141	ED (b) 69	
.085 SILENCE (a) 70	POLY 142	ED (b) 70	
.105 SILENCE (a) 71	POLY 143	ED (b) 71	
.125 SILENCE (a) 72	POLY 144	ED (b) 72	
.145 SILENCE (a) 73	POLY 145	ED (b) 73	

## IMPORTANT NOTE

IF WORDS FROM EITHER WORD PACKS 3 OR 4 ARE REQUIRED BOTH WORD PACKS MUST BE FITTED SIMULTANEOUSLY.

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Note: (a) These are fixed periods of silence in seconds.  
(b) When correctly timed these sounds will make some words plural.  
Word Pack 4 can only be fitted when Word Pack 3 is fitted.  
\*Digitaliser, Trademark National Semiconductor Corporation.

# S-PACK

DCP  
microdevelopments

The DCP Speech Pack is a completely self contained add-on Speech Synthesiser for the ZX81 or Spectrum computer and is supplied fully assembled and tested. It can be used in addition to a ZX RAM PACK, DCP PACK and/or ZX Printer by simply plugging in these to the rear of the S-Pack.

The S-Pack is supplied complete with Word Pack ROM 1 which contains all the letters of the alphabet, numbers zero to over a million and some other general words which can all be 'spoken' under computer control using simple POKE or OUT commands. Up to three more Word Pack ROM's can be fitted and details of these are given later. (Different Word Packs will be available later in addition to those listed here.) The two versions of the Speech Pack for the Spectrum and ZX81 are operated in a similar way but are NOT interchangeable; i.e. a Spectrum Speech Pack should not be used on a ZX81 and vice versa.

## USING THE PACK

To use the Speech Pack first remove the power plug from your computer along with any other packs you may have fitted on the back. Plug the S-Pack into the rear of the computer and re-connect the ZX power (ignore any speech or sound that comes out of the S-Pack after power up).

The 'K' cursor or '©Sinclair Research Ltd' should appear as normal. Then enter in this following simple command to try your S-Pack:

For ZX81: POKE 49149,0 (followed by NEWLINE)  
For SPECTRUM: OUT 255,0 (followed by NEWLINE)

The Speech Pack should respond by announcing itself. You can see from the Word Pack 1 list that 49149 or 255 is the address of Word Pack 1 and 0 is the code for "This is Digitaliser".

## SOFTWARE

To use Speech in your programs simply choose where you want the word or phrase and insert a POKE or OUT command as before. (POKE and OUT are fully explained in the ZX manual). You will find it easier if you make a variable (example "S") equal to the Speech Word Pack address you are using:-

For ZX81: LET S=49149 (or 49148 for Word Packs 3 and 4.)  
For SPECTRUM: LET S=255 (or 223 for Word Packs 3 and 4.)

Make this one of the first lines in your program. Then decide which word or words you want the Speech Pack to speak and enter their corresponding codes from the Word Pack list into POKE or OUT commands:-

For ZX81: POKE S, (number code of word to be spoken)  
For SPECTRUM: OUT S, (number code of word to be spoken)

If you wish to use a string of words you must insert PAUSE commands between the POKE or OUT commands otherwise the Speech Pack will try to say all the words at once! As a rough guide PAUSE 50 is equal to about one second delay and so depending on the length of the words shorter or longer PAUSE's may be required.

If you have extra Word Pack ROM's you can make words plural by adding "SS", "ED" or "TH" sounds onto the end of them (see Word Pack lists). You can also join two words together to make one (e.g. "Twenty-Three") - as soon as you command the Speech Pack to speak a new word it will stop the previous one and start the new word. You will need to experiment with different PAUSE delays to get the best results. This short program contains a FOR-NEXT loop that when RUN counts from one to twenty at one second intervals.

### ZX81 Program:

```
10 LET S=49149
20 FOR A=1 TO 20
30 POKE S, A
40 PAUSE 50
50 NEXT A
```

### ZX SPECTRUM Program:

```
10 LET S=255
20 FOR A=1 TO 20
30 OUT S,A
40 PAUSE 50
50 NEXT A
```

## EXPANSION

If you have other ZX Packs you can disconnect the power plug from the computer and plug them onto the rear of the S-Pack. You can then reconnect the ZX power and use the S-Pack as before. The power supply must be capable of supplying enough current both for the computer + Speech Pack and the other accessories as well. (If in doubt consult your dealer).

The Volume level of the Speech Pack may be adjusted by carefully inserting a very small screwdriver into the volume slot and adjusting the control to the required level.

An external speaker or earphone may be connected to the 3.5mm jack socket - this must have an impedance of 8R.

Add-on Word Pack ROM's are available and simply plug into sockets inside the Speech Pack - full instructions are provided with each Word Pack.

For details of these and other DCP ZX add-ons including Interspec, Analogue, Control and Peripheral Packs contact your dealer or DCP Microdevelopments direct.

## SERVICE

If you suspect that your S-Pack is not working correctly, contact either your dealer or us to arrange for the service. Retain all original packing and your receipt. The S-Pack should be used only in accordance with these instructions and the guarantee will become void if the unit is misused or tampered with.

We reserve the right to make design changes to the product without notice.

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DCP SP2

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