

How to install COMBIDOS NON-banked and BANKED versions

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The Combidos MASTER disk is supplied with 2 versions of CombiDos. One is a version for 64K systems (NON-banked) and will start when the master disk is booted. The other version is for a 128K Compactboard-80 (BANKED) and can be used in combination with the disk buffer MANAGER program.

The NON-banked version supports 2 disk drives and is supplied in the file PSYS2.COM. To make a bootable disk with this version, run PSYS2 like with PUTSYS (see CombiDos manual section 2.2.7).

The BANKED version also supports 2 disk drives and is supplied in the file PSYS2B.COM. Bootable disks are made like with PUTSYS.

The operation of the BANKED version and the MANAGER.

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The BANKED version of CombiDos will identify itself after boot. The system is copied into the second RAM-bank and will not be reread from disk every warm boot (with ctrl/C), but it will be read back from the second RAM-bank.

The rest of the RAM-space in the second bank can be used as disk cache memory by invoking the disk buffer manager program MANAGER. This program must be started typing:

A% MANAGER

The manager program will save all sectors read from disk in the second bank using a LRU (Least Recently Used) buffer algorithm. Sectors that must be written will be written directly when operations on them stop.

The disk integrity is maintained like the NON-banked system, as long as disk are not changed during disk operation (in-use lamp on the drive is on).

Command	description
^E, '-', 'B' :	Moves the cursor Up
^X, 'X', '+', ' ' :	Moves the cursor Down
^D, ^U :	Moves the cursor Right
^H, ^S :	Moves the cursor Left
^P :	Does a screendump if in Directory show mode
^R :	If a Msdos disk does not function correctly then you can choose from a limited set of alternatives to change the MsDos disk Parameters.
'A' :	Selects All Files
'C' :	Starts -at once- a copy action from the Logged disk to the other. If Logged disk was Cpm A: then copies to Msdos disk B:. If Logged disk was Msdos B: then copies to Cpm disk A:
'E' :	Asks Erase F)ile or A)ll selected. if Answered 'F' then it erases the file the cursor was on, if 'A' then all selected files. <return> or ^c returns to Command level
'H' :	gives Help from the file 'MSCOPY.HLP' which must be present on Drive A:
'I' :	Inverts all selected files to Unselected files and all unselected files to selected
'L' :	Login a disk: you can only select A:(Combidos) or B:(MsDos)
'M' :	Mask setup a selection criterion for showing files
'Q' :	Quits the Program with restoring the Original Disk Parameter Block of Drive B:
'S' :	Select a file
'U' :	Unselect a file
'V' :	Shows the contents of a selected textFile <space> advances one line, <Return> returns to the command level
'Z' :	Asks 'Exit without restoring Parameter Block Y/N', if 'Y' answered and Msdos disk B: was selected you can format disk B: like the Msdos disk was formatted

'/' : Parameters: for technicians only: Shows the Current Ms-Dos Disk Parameters if B: is selected

^F : Fat: for technicians only: Shows the last accessed Msdos Fat (File Allocation Table) to look at integrity.

Important for first users:

- If you use Mscopy for the -first time-, then mscopy must know what kind of B: Drive you have.
- if you have 2 x 80 track drives then its Ok but beware of writing to 2 x 40 tracks diskettes because dependant of the accuracy of the Msdos machine drive head it can result in read errors on the Msdos machine.
- If you have your system -updated- to a 2 x 80 tracks drive as B: then type once 'FX MSCOPY.DPB=MSCOPY.80T' to tell Mscopy in the future that your B:Drive is such a one.
- if you have a 2 x 40 track drive as B: drive then type once 'FX MSCOPY.DPB=MSCOPY.40T' to tell Mscopy in the future that your B:Drive is such a one.

Command	description
[^] E, '-', 'B' :	Moves the cursor Up
[^] X, 'X', '+', ' ' :	Moves the cursor Down
[^] D, [^] U :	Moves the cursor Right
[^] H, [^] S :	Moves the cursor Left
[^] p :	Does a screendump if in Directory show mode
'\$' :	Attribute Edit. the cursor goes to the 'R/W' field of the current file. with <spacebar> you can toggle this field from 'R/W' to 'R/O' (read/write vs. read-only) <return> gets you to the next fields: 'DIR' vs. 'SYS' (directory or system files) You cannot change the 'Upd' vs. 'Arc' field: this one is updated to 'Arc' by the program backup and cleared by Combidos as soon there has been a write action to the file.
'A' :	Selects All Files
'C' :	Copies the selected files. It asks to which User and Drive. Defaults are given within braces. If Logged disk was A:, then default copy is to B: If Logged disk was B: then default is copy to disk A:. if a selection before is made, then these selections remain active as defaults.
'E' :	Asks Erase File or All selected. if Answered 'F' then it erases the file the cursor was on (after confirming) , if 'A' then erasing starts -at once- of all selected files. <return> or ^c returns to Command level.
'H' :	gives Help from this file 'FCOPY.HLP' which must be present on Drive A:
'I' :	Inverts all selected files to Unselected files and all unselected files to selected
'L' :	Login a disk: you can select UserNr and or a driveNr . <return> selects the default or previously selected ones.
'M' :	Mask setup a selection criterion for showing files
'Q' :	Quits the Program.
'R' :	Reverse copy: as Copy but copies the files in reverse alphabetical order.
'S' :	Select a file

'U' : Unselect a file

'V' : Shows the contents of a selected textFile <space> advances one line, <Return> returns to the command level

'?' : Shows the Size of the used memory buffers.

Fcopy Short reference (Rev. 19-9-1985)

author: H.J. Pragt
date: 851110
last update: 851113
file: WSPATCH.TXT

Patches in Wordstar for CB-80
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This file contains a description of the patches made in Wordstar to optimise it for the Compactboard CB-80.

The patches are made for a CB-80 in the following configuration:

- CB-80
- direct video from CB-80
- KB-2 keyboard connected to serial keyboard input.
- STAR SG-10 printer

BASIC INSTALLATION:

terminal: TVI 912

printer: - any teletype-like printer without backspacing;
Printing underscores, overstrikes etc go faster if the entire line is printed again than on a character by character base.

- no communication protocol

- user installed printer driver. The printer puts its BUSY signal high while printing a line. Because the standard CP/M LST: entry waits for this line and doesn't give control back to Wordstar the screen response of Wordstar is terrible. Therefore a user-installed printer driver is patched into Wordstar.

Other patches deal with the screen intensity, special printer facilities etc.

Wordstar doesn't change the printersetting, unless this is done with the ^P commands for sub/super script, italic printing and alternate pitch. Note that resetting the alternate pitch (which is condensed mode) leaves the printer in "pica".

If special printing modes are selected and not reset, they will still be active when Wordstar stops.

Note that some CB-80's might have non-inverting printer-driver. See note at printer-patches.

Terminal patches:

label:	TVI 912	patch	doel
HITE:	24 18 H		screen height
WID:	80 50 H		screen width
CLEAD1:	02 1B 3D		ESC =: cursor pos lead-in
CLEAD2:	00		cur pos string between row and collumn
CTRAIL:	00		cur pos trailer
CB4LFG:	00		first line, then collumn
LINOFF:	20		offset to add to line
COLOFF:	20		offset to add to collumn
ASCUR:	00		1 byte binary lin/coll
ERAEOL:	02 1B 54		ESC T: erase to end of line
LINDEL:	02 1B 52		ESC R: delete line
LININS:	02 1B 45		ESC E: insert line
IVON:	02 1B 29	02 1B 28	ESC (: highlighting on, function is reversed:: text at low intensity, markers etc at high int.
IVOFF:	02 1B 28	02 1B 29	ESC): highlighting off,
TRMINI:	08 1B 71 1B 77 1B 43 1B 2C	08 1B 5F 37 35 1B 5F 46 44 1B 28	ESC-7: forground high intensity ESC-F: halftone lower intensity ESC (: start at high intensity
TRMUNI:	00	02 1B 28	ESC (: set high intensity when leaving wordstar.
USELST:	00		no use of 24th screen line.
DELCUS:	2A 20	00 00	cursor set delay delay other functions

DEL1:	03		cursor blink on time
DEL2:	09		cursor blink off time
DEL3:	19	09	prefix menu display delay
DEL4:	40	1A	Sign-on & abandon file delay

WS: \$ (40 - 2) 62
100 - 3 F00 E

62

Printer patches:

CPADO

label:	std	patch	doel:	
POSMTH:	FF		overstrike by whole lines	
BLDSTR:	03		3 times overstrike for boldface	
DBLSTR:	02		noof overstrike times	
PALT:	00	03 1B 42 03	ESC B 3: alternate character set condensed print	0/ 15
PSTD:	00	03 1B 42 01	ESC B 1: standard character set pica print	0/ 18
ROLUP:	00	02 1B 54	ESC T: cancel sub- and superscript. Note: Roll-up cannot be used for superscript because of printercode. Two user-controls are used.	
ROLDOW:	00	03 1B 53 01	ESC S 1: subscript on	
USR1:	00	03 1B 53 00	ESC S 0: superscript on ^P ^Q function	
USR2:	00	02 1B 54	ESC T: cancel sub- and superscript ^P ^W function	
USR3:	00	02 1B 34	ESC 4: italic print on ^P ^E function	
USR4:	00	02 1B 35	ESC 5: cancel italic print ^P ^R function	
RIBBON:	00		not used	

PSINIT:	01	04	printer initialisation:	03
	0D	1B	ESC \ 1: print zero with slash	1B
		5C		40
		01		0D
		0D	carriage return	

PSFINI: 00 leave printer setting unchanged

CSWCH: 02 user printer driver

HAVBSY: 00 FF sepearte BUSY tester

The PRAGT-printer driver is installed over the Wordstar port-driver. The driver directly controls the CB-80 PIA, but doesn't change its setting except for the printer-lines. The PIA must be well initialised before WORDSTAR is invoked.

BUSY tester: (returns C=1 if printer busy line is high)

0728	DB 20	IN 20	;read PA-port for status
072A	17	RLA	;shift BUSY into carry
072B	17	RLA	
072C	17	RLA	
072D	C9	RET	

CHARACTER OUTPUT, CHAR is in Accu:

072F	2F 40	CPL	;port-drivers are not ^{inverting} !!!!
0730	D5	PUSH DE	
0731	5F	LD E,A	;save character
0732	DB 20	IN 20	;read status of printer
0734	CB 6F	BIT 5,A	;check BUSY
0736	20 FA	JR NZ,732	;wait till ready
0738	7B	LD A,E	;get char back
0739	D3 22	OUT 22	;output char
073B	DB 23	IN 23	;read CTRL-B reg (CB2 is STB output)
073D	CB 9F	RES 3,A	;
073F	D3 23	OUT 23,A	;give strobe
0741	00	NOP	
0742	00	NOP	;strobe pulse width
0743	00	NOP	
0744 4	CB DF	SET 3,A	
0746 6	D3 23	OUT 23,A	;reset strobe
0748 8	D1	POP DE	
0749 9	C9	RET	

74C PUBSY: C3 28 07 JP 0728 ;jump to busy tester
 PUSEND: C3 2F 07 JP 072F ;jump to character output routine

 Additional modifications:

Refer to Wordstar manual par. 15.4:

ITHELP: 02 ; initial help level

NITHLF: FF ; no help message at edit-start

INITOG: FF 00 ; edit start with INSERT off.

Patches in overlay file WSM SGS.OVR:

The new printer-directives (control-P prefix) are mentioned in the help-text of WSM SGS.OVR. These patches are made with ZSID:

```
x% ZSID WSM SGS.OVR
make patches
control-C
```

```
x% SAVE 108 WSM SGS.OVR
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Subscript:

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There were only two strings available for the sub- and superscript control, namely a carriage ROLL-up and a ROLL-down. The SG-10 needs three strings, namely:

subscript on
superscript on
both subscript and superscript off.

^PV still toggles subscript by using strings 1 and 3 in an alternate fashion.

^PT was used to toggle superscript, but I strongly advise not to use it anymore, for it also toggles subscript, but in the wrong sequence.

the function of toggling superscript is now dedicated to two user-definable print-directives:

^PQ superscript on

^PW superscript off

In WSM SGS.OVL two patches are made to correct the text:

1043: "V=subscript" into

1043: "V=sub toggl"

1053: "T=superscript" into

1053: "Q/W=super n/f"

11B8: "V=subscript begin/end" into

11B8: "V=subscript toggle "

11D0: "T=superscript begin/end" into

11D0: "Q/W=superscript on/off "

Italic printing:

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Merely because they were free and to use it as gimmick the italic printing mode is supported by use of the user-printer controls ^PE and ^PR.

The texts in WSMMSG.S.OVL are patched:

1153: "Q,W,E,R=user printer controls" into

1153: "E/R = italic printing on/off "

132F: "Q, W, E, R = user printer controls" into

132F: "E/R=italic printing on/off "

Note: I had problems with the install-programs symbolic references, that sometimes gave wrong addresses or couldn't find a label. Sometimes it helped to address some other label, and than try again the wrong one.

Note: According to some changes in the CB-80 service manual, some CB-80's might have a non-inverting Centronics driver. In that case change the following instructions:

072F	2F	CPL	into	00	NOP
073D	CB 9F	RES 3,A	into	CB DF	SET 3,A
0745	CB DF	SET 3,A	into	CB 9F	RES 3,A

ITDSDR: FF ; main menu with directory.
INITWF+1: FF : default justification on
INITWF+4: 00 ; default hyphen help off
DECCHR:
HZONE: 04 ; hyphen length
PODBLK+1: 00 FF ; default print using form feeds.
ITPOPN: 00 ; default page numbering

As finishing touch the sign-on message of Wordstar is patched to
show who wrote the printer-driver and the right terminal-type.

x% ZSID WS.COM
patch signon
control-C

x% SAVE 56 WS.COM

The signon message starts at address 0118. No responsibility is
assumed for these or any other patches.