

Commodore ROM Genealogy

When the PET-2001 first went into production in September 1977 there were two ROM sets incorporated into the system, known as BASIC 1.0. One set was the 6540 28-pin ROM by MOS Technology Inc. and the other was the 2316 24-pin ROM.

The next up-grade production was with two ROM sets known as BASIC 2.0. These corrected an intermittent bug in the edit software and improved the garbage collection routines.

The next two production ROM sets are generally known as BASIC 3.0. This up-grade allowed interfacing to the Commodore disk system. It also cleared up a bug limiting the dimensions of arrays and improved the garbage collection.

Also, at this time the CBM Professional Computer came into being. One set of ROM's was for the Graphic (PET) keyboard and the other was for the Business CBM.

The next up-grade known as BASIC 4.0 added the Disk Commands to ROM and greatly improved the garbage collection. This has been further upgraded to BASIC 4.1 to correct errors in version 4.0. At the same time Commodore brought out the new 80-column machine (the 8032) with an enhanced screen editor.

There have been three different Character Generator ROM's installed over these generations. Earlier production runs through BASIC 2.0 had the 6540-010 (p/n 901439-08) and 901447-08 (p/n 901447-08). BASIC 3.0 and 4.0 used the 901447-10 (p/n 901447-10).

The 901447-10 ROM can replace the 901447-08 ROM in up-grading from BASIC 2.0 to BASIC 3.0. There is no replacement ROM for the 6540-010 28 pin ROM.

The 2022 (tractor feed model) and 2023 (friction feed) printers were discontinued in 1980.

ROM 1.0 - Basic Level I - 28 pin ROM type 6540 - Series 2001

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
H1	6540-011	901439-01
H2	6540-013	901439-02
H3	6540-015	901439-03
H4	6540-016	901439-04
H5	6540-012	901439-CS
H6	6540-014	901439-06
H7	6540-018	901439-07
A2	6540-010	901439-08

ROM 1.0 - Basic Level I - 24 pin ROM type 2316B - Series 2001

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
H1	901447-01	901447-01
H2	901447-03	901447-03
H3	901447-05	901447-05
H4	901447-06	901447-06
H5	901447-02	901447-02
H6	901447-04	901447-04
H7	901447-07	901447-07
A2	901447-08	901447-08

ROM 2.0 - Basic Level II - 28 pin ROM type 6540 - Series 2001

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
H1	6540-019	901439-09
H2	6540-013	901439-02
H3	6540-015	901439-03
H4	6540-016	901439-04
H5	6540-012	901439-05
H6	6540-014	901439-06
H7	6540-018	901439-07
A2	6540-010	901439-08

ROM 2.0 - Basic Level II - 24 pin ROM type 2316B - Series 2001

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
H1	901447-09	901447-09
H2	901447-03	901447-03
H3	901447-05	901447-05
H4	901447-06	901447-06
H5	901447-02	901447-02
H6	901447-04	901447-04
H7	901447-07	901447-07
A2	901447-08	901447-08

ROM 3.0 - Basic Level III - 28 pin ROM type 6540 - Series 2001

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
H1	6540-020	901439-13
H2	6540-022	901439-15
H3	6540-024	901439-17
H4	6540-025	901439-18
H5	6540-021	901439-14
H6	6540-023	901439-16
H7	6540-026	901439-19
A2	6540-010	901439-08

ROM 3.0 - Basic Level III - 24 pin ROM type 2316B - Series 2001

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
H1	901465-01	901465-01
H2	901465-02	901465-02
H3	901465-24	901465-24
H4	901465-03	901465-03
H5	Blank	
H6	Blank	
H7	Blank	
A2	901447-08	901447-08

ROM 3.0 - Basic Level III - Large Graphic Keyboard - Series 2001

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
D3	Blank	
D4	Blank	
D5	Blank	
D6	901465-01	901465-01
D7	901465-02	901465-02
D8	901465-24	901465-24
D9	901465-03	901465-03
F10	901447-10	901447-10

ROM 3.0 - Basic Level III - Business Keyboard - Series 2001

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
D3	Blank	
D4	Blank	
D5	Blank	
D6	901465-01	901465-01
D7	901465-02	901465-02
D8	901474-01	901474-01
D9	901465-03	901465-03
F10	901447-10	901447-10

ROM 4.0 - Basic Level IV - Graphic Keyboard - Series 2001 & 4000

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
D3	Blank	
D4	Blank	
D5	901465-19	901465-19
D6	901463-20	901465-20
D7	901465-21	901465-21
D8	901447-29	901447-29
D9	901465-22	901465-22
F10	901447-10	901447-10

ROM 4.0 - Basic Level IV - Business Keyboard - Series 2001 & 4000

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
D3	Blank	
D4	Blank	
D5	901465-19	901465-19
D6	901465-20	901465-20
D7	901465-21	901463-21
D8	901474-02	901474-02
D9	901465-22	901465-22
F10	901447-10	901447-10

ROM 4.1 - Basic Level IV - Graphic Keyboard - Series 2001 & 4000

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
D3	Blank	
D4	Blank	
D5	901465-23	901465-23
D6	901465-20	901465-20
D7	901465-21	901465-21
D8	901447-29	901447-29
D9	901465-22	901465-22
F10	901447-10	901447-10

ROM 4.1 - Basic Level IV - Business Keyboard- Series 2001 & 4000

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
D3	Blank	
D4	Blank	
D5	901465-23	901465-23
D6	901465-20	901465-20
D7	901465-21	901465-21
D8	901474-02	901474-02
D9	901465-22	901465-22
F10	901447-10	901447-10

ROM 4.0 - Basic Level IV - Series 8000

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
UD6	901465-22	901465-22
UD7	901474-03	901474-03
UD8	901465-21	901465-21
UD9	901465-20	901465-20
UD10	901465-19	901465-19
UD11	Blank	
UD12	Blank	
F10	901447-10	901447-10

ROM 4.1 - Basic Level IV - Series 8000

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
UD6	901465-22	901465-22
UD7	901474-03	901474-03
UD8	901465-21	901465-21
UD9	901465-20	901465-20
UD10	901465-23	901465-23
UD11	Blank	
UD12	Blank	
F10	901447-10	901447-10

VIC-20 COLOR (Pre-FCC Version)

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
D5	901486-01	901486-01
D6	901486-06	901486-06
C7	901460-03	901460-03

VIC-20 COLOR (FCC Version)

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
E11	901486-01	901486-01
E12	901486-06	901486-06
D7	901460-03	901460-03

2022 (Tractor Feed) Printer

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901472-03	901472-03

2023 (Irrigation lead) Printer

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901472-02	901472-02

2023 Printer - Interim Fix

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901472-03	901472-03

2022 and 2023 Printers - Interim Fix

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901472-04	901472-04

2022 and 2023 Printers - Final Fix

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901472-07	901472-07

4022 (Tractor Feed) Printer

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901472-04	901472-07

8032 (handwritten)

UD7		901474-03
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4016 (handwritten)

UD7		901499-01
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2022 (Tractor Feed) Printer

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901472-03	901472-03

2023 (Friction Feed) Printer

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901472-02	901472-02

2023 Printer - Interim Fix

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901472-03	901472-03

2022 and 2023 Printers - Interim Fix

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901412-04	901472-04

2022 and 2023 Printers - Final Fix

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901472-07	901472-07

4022 (Tractor Feed) Printer

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
	901490-01	
U11	901472-04	901472-07
	901651-02	

(The top and bottom lines are handwritten corrections)

D. O. S. 1.0 -- 2040 Dual Disk Unit

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
UL1	901468-06	901468-06
UK1	Blank	
UH1	901468-07	901468-07
UK3	901466-02	901466-02
UK6	901467	901467

D. O. S. 2.1 -- 4040 Dual Disk Unit

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
UL1	901468-12	901468-06
UK1	901468-11	901468-11
UH1	901468-13	901468-13
UK3	901466-04	901466-04
UK6	901467	901467

D. O. S. 2.5 -- 8050 Dual Disk (Micropolis)

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
UL1	901482-03	901482-03
UH1	901482-04	901482-04
UK3	901483-03	901483-03
UK6	901467	901467

D. O. S. 2.5 -- 8050 Dual Disk (Tandon)

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U11	901482-07	901482-07
UH1	901482-06	901482-06
UK3	901483-04	901483-04
UK6	901467	901467

D. O. S. 2.6 -- 2031 Single Disk Drive

<u>Location</u>	<u>ROM #</u>	<u>Part Number</u>
U5F	901484-05	901484-05
U5H	901484-03	901484-03

BASIC CHECK SUM VALUES

<u>3.0</u> <u>PCB POSITION</u>	<u>CHECK SUM</u>	<u>PART#</u>
D9	1D	901465-03
D8	C0 Graphics	901447-24
	F3 Business	901474-01
D7	C1	901465-02
D6	77	901465-01

2001
4.0

D9	F0	901465-22
D8	E0 Graphics	901447-29
	E0 Business	901474-02
D7	D0	901465-21
D6	C0	901465-20
D5	B0	901465-23
D4	82 Empty	
D3	81 Empty	

901465-19 has a bug in the program and should be replaced by 901465-23. It also can cause IEEE trouble.

40/80 UNIVERSAL

UD-6	FO	901465-22
UD-7	BC	901499-01
UD-8	DO	901465-21
UD-9	CO	901465-20
UD-10	BO	901465-23
UD-11	82	
UD-12	81	