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The Commodore VIC1020 is an extension of the VIC20 to accommodate 6 modules. The VIC1020 also contains the required bus drivers and an independent power supply. It contains both the VIC20 and the modulator, thus unifying the system into a compact table computer. On top of the unit a transportable TV set can be comfortably placed.

### 1. Mounting the VIC20

Before fitting the VIC20 into the VIC1020 housing all plugs and modules have to be removed from the VIC20. The VIC20 is then pushed from the front side into the extension box. The plug on the right side of the VIC1020 must be carefully inserted into the module connector. The modulator connecting the VIC20 with the TV set is pressed into the holder at the back of the top lid of the VIC1020 on the right side. The TV connector socket must point outwards through the hole in the top lid. The modulator cable is connected to the video socket of the VIC20 as usual. On the right side of the VIC1020 there is a short cable with a plug, which is inserted into the power supply socket of the VIC20. The power transformer of the VIC20 is inserted into the power supply socket of the VIC1020 on the back at the right side. There you will also find the main switch for the whole unit. The on/off switch of the VIC20 should always be "on".

#### Attention!

The VIC1020 must always be switched off before removing or inserting a module!

When installing the module the label of the module should be facing the VIC20 or upward.

### 2. Installation of modules

All modules are electrically equivalent. It makes no difference into which socket an extension module is plugged. The last position with regards to the VIC20 is placed horizontally; it was designed for modules requiring an additional cable connection, such as the IEEE 488 interface. The cable connection points backwards out of the VIC1020.

When inserting a module it is necessary to have the VIC1020 switched off or better have the power supply cable removed - otherwise the VIC1020 and the extension module could get damaged. It is also important, that the print of the module face the VIC20 or, in the last position, face upward. The label must be readable when the module is inserted. In this way electrical and mechanical damage to the module and the VIC1020 is avoided.

### 3. Combination of Modules

All modules have got a fixed place in the address range of the VIC20. Therefore modules with identical functions will occupy the same address region. For this reason not all modules can be combined. Only those modules can be combined which functionally supplement each other. So only one game cassette can be inserted at a time, since the VIC20 cannot provide two games simultaneously. The following table shows the memory area allocations (hex) of the currently available modules.

A	I	B	I	C	I	D	I	E
0400 - 0FFF	I		I		I		I	
2000 - 5FFF	I	6000 - 6FFF	I	7000 - 7FFF	I	A000 - AFFF	I	B000 - BFFF
3k RAM	I	MACH.-PROG	I	PROG. AID	I	SUPER-	I	IEEE 488
or	I	MONITOR	I	PACK	I	EXPANDER	I	INTERFACE
8k RAM	I		I		I		I	
or	I	(or additional 8k RAM)			I	(---- or 1 game ----)		
16k RAM	I		I		I		I	
or	I		I		I		I	
2*8k RAM	I		I		I		I	

From every memory area (A,B,C,D,E) only one modul may be inserted into the VIC1020. The VIC1020 can contain simultaneously for example:

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16k RAM PACK
MACHINE PROGRAM - MONITOR
PROGRAMMER'S AID PACK
SUPER EXPANDER
IEEE 488 BUS INTERFACE
    
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Should the VIC20 now be used with a game, the SUPER EXPANDER and the IEEE INTERFACE must be removed, because these two occupy the same memory area as the games do. All other modules can remain in the VIC1020, but are not used in this case.

An additional exception is presented by the 3k - RAM PACK and the 3k RAM of the SUPER-EXPANDER, which are lying in the memory area hex 0400 - 0FFF. The BASIC of the VIC20 can only work with RAM in the area 0400 to 0FFF, if no additional memory pack is installed. As long as these 3k are the only memory extension of the VIC20, they can be used by BASIC. Otherwise this area is free for the user. It can be reached with PEEK/POKE commands in BASIC programm. The decimal address range is 1024 to 4095.

If more than one 8k-RAM-PACK module or a 16k module are utilized, the address code switches inside the memory modules have to be changed.