Project Documentation

Commodore VIC-20 Diagnostic Keyboard PCB

Project number: 156

Revision: 0

Date: 15.09.2020

Commodore VIC-20 Diagnostic Keyboard PCB Rev. 0

Module Description

The Keyboard PBC provides the feedbacks for the keyboard connector, which are required for the Commodore VIC-20 Diagnostic software. The LED works as an alternative Power LED.

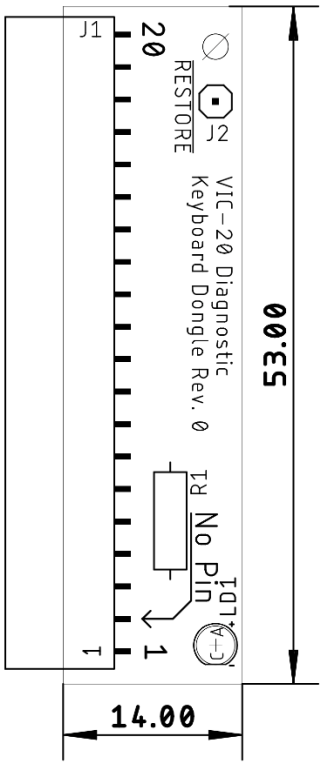


Figure 1: Dimensions of the Keyboard PCB

Connectors

Keyboard Connector (J1)

Pin	Signal
1	GND
2	No Pin
3	$\overline{\text{RESTORE}}$
4	+5V
5	COL7
6	COL6
7	COL5
8	COL4
9	COL3
10	COL2
11	COL1
12	COL0
13	ROW7
14	ROW6
15	ROW5
16	ROW4

Pin	Signal
17	ROW3
18	ROW2
19	ROW1
20	ROW0

$\overline{\text{RESTORE}}$ Cable (J2)

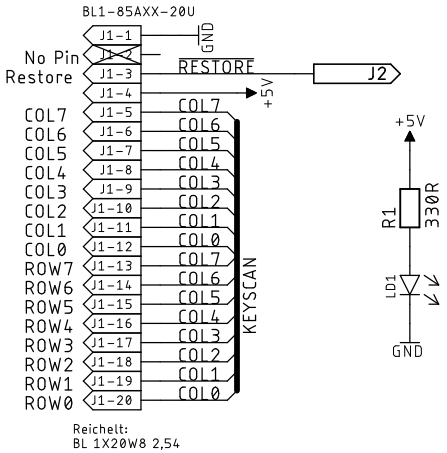
This is a solder pad for the RESTORE Cable (Doc.-No. 159-3-04-**) from the cable set. The cable is soldered to the pad and a knot serves as a strain relief.

Figure 2: Keyboard PCB with the RESTORE cable soldered to J2 and tied to the PCB

This cable is connected to a single pin of the User Port PCB.

Interconnects

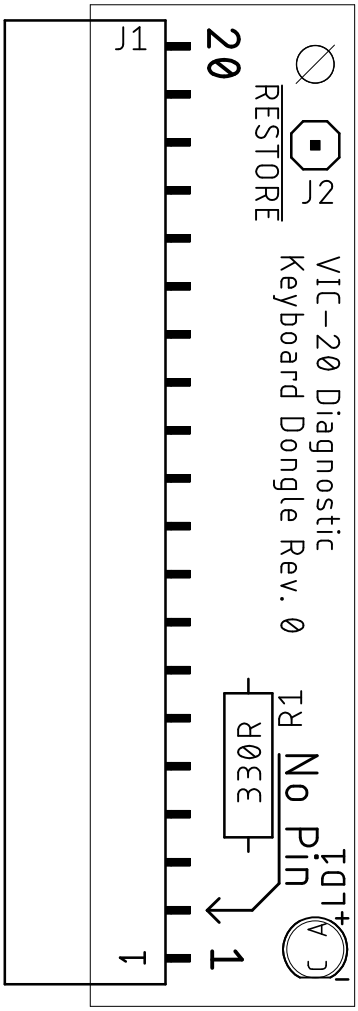
Signal		Signal
$\overline{\text{RESTORE}}$	→	User Port Pin 9 (ATN)
COL7	↔	ROW7
COL6	↔	ROW6
COL5	↔	ROW5
COL4	↔	ROW4
COL3	↔	ROW3
COL2	↔	ROW2
COL1	↔	ROW1
COL0	↔	ROW0



open source hardware

Title:	VIC-20 Diagnostic Harness Keyboard Dongle	Doc.-No.:	156-1-01-00
		Draft.:	Sven Petersen
Date:	17.09.2020 16:17	Rev.: 0	Page 1/1
File:	VIC-20_Diag_Keyboard		
	http://github.com/svenpetersen1965		A4

Sven Petersen 2020	Doc.-No.: 156-2-01-00	
	Cu: 35µm	Cu-Layers: 2
VIC-20_Diag_Keyboard		
17.09.2020 16:20		Rev.: 0
placement component side		



Sven Petersen 2020	Doc.-No.: 156-2-01-00	
	Cu: 35µm	Cu-Layers: 2
VIC-20_Diag_Keyboard		
17.09.2020 16:20		Rev.: 0
placement solder side		

Sven Petersen 2020	Doc.-No.: 156-2-01-00	
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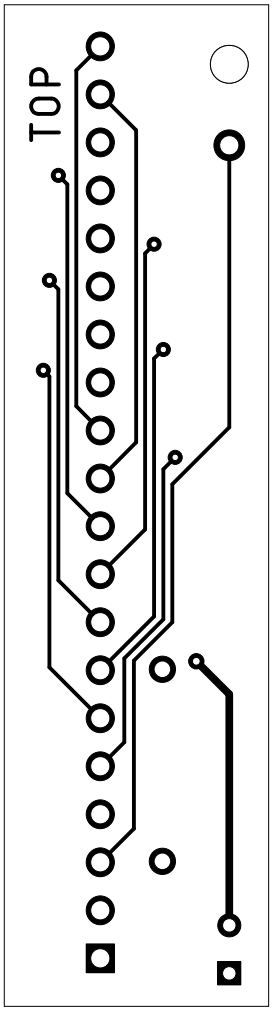
VIC-20_Diag_Keyboard		
17.09.2020 16:20		Rev.: 0
top		



Sven Petersen 2020	Doc.-No.: 156-2-01-00	
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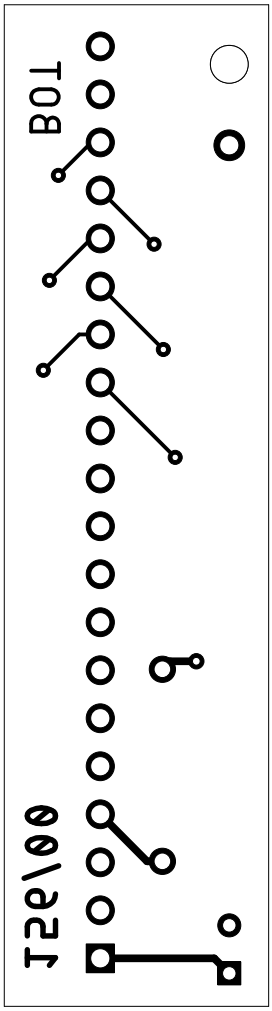
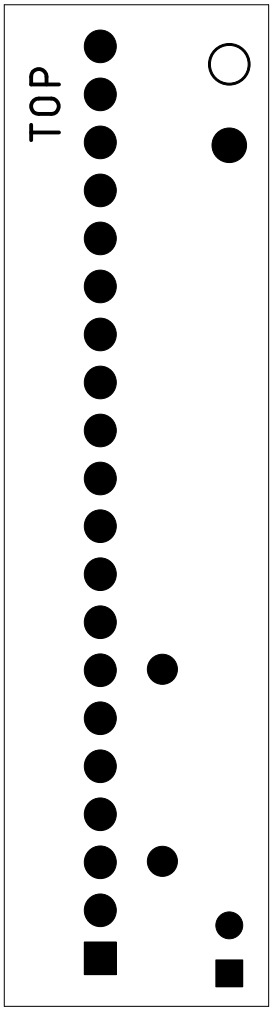
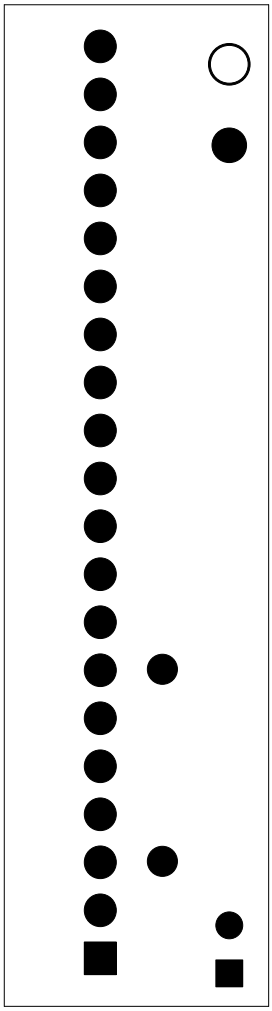
17.09.2020 16:20		Rev.: 0
bottom		



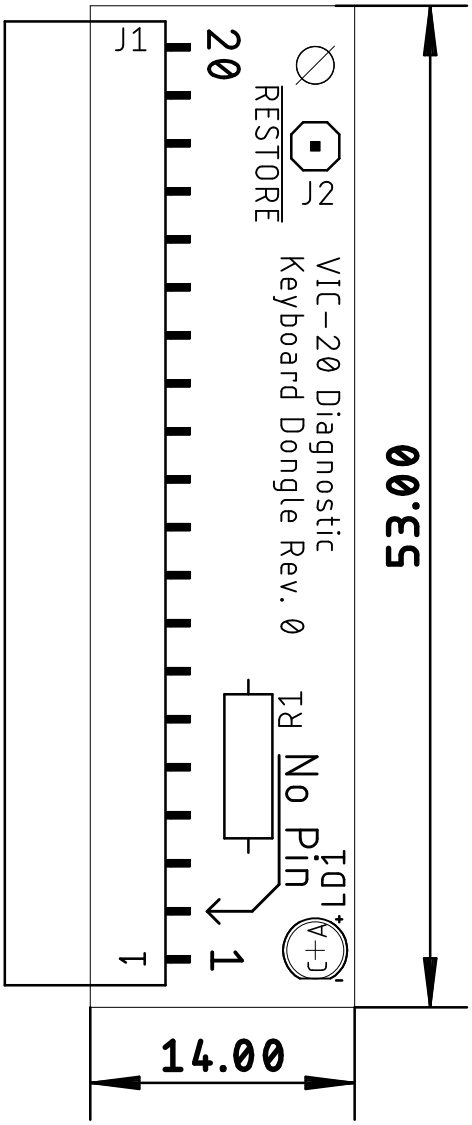
Sven Petersen 2020	Doc.-No.: 156-2-01-00	
	Cu: 35µm	Cu-Layers: 2
VIC-20_Diag_Keyboard		
17.09.2020 16:20		Rev.: 0
stopmask component side		



Sven Petersen 2020	Doc.-No.: 156-2-01-00	
	Cu: 35µm	Cu-Layers: 2
VIC-20_Diag_Keyboard		
17.09.2020 16:20		Rev.: 0
stopmask solder side		



Sven Petersen 2020	Doc.-No.: 156-2-01-00	
	Cu: 35µm	Cu-Layers: 2
VIC-20_Diag_Keyboard		
nicht gespeichert!		Rev.: 0
placement component side measures		



VIC-20 Diagnostic Keyboard PCB Rev. 0
Bill of Material Rev. 0.0

Pos.	Qty	Value	Footprint	Ref.-No.	Comment
1	1	156-2-01-00	2 Layer	PCB Rev. 0	2 layer, Cu 35μ, HASL, 53.0mm x 14.0mm, 1.6mm FR4
2	1	3mm/green	3MM	LD1	LED
3	1	Restore cable	1X01	J2	Cable (Doc.-No. 159-3-04-**) from cable set soldered to J2, see module description
4	1	330R	R-10	R1	1/4 Watt, 5%
5	1	BL1-85AXX-20U	BL1-85AXX-20U	J1	20 socket connector, 90°, 2.54mm pitch. E.g. MPE Garry, Reichelt BL 1x20W8 2,54