

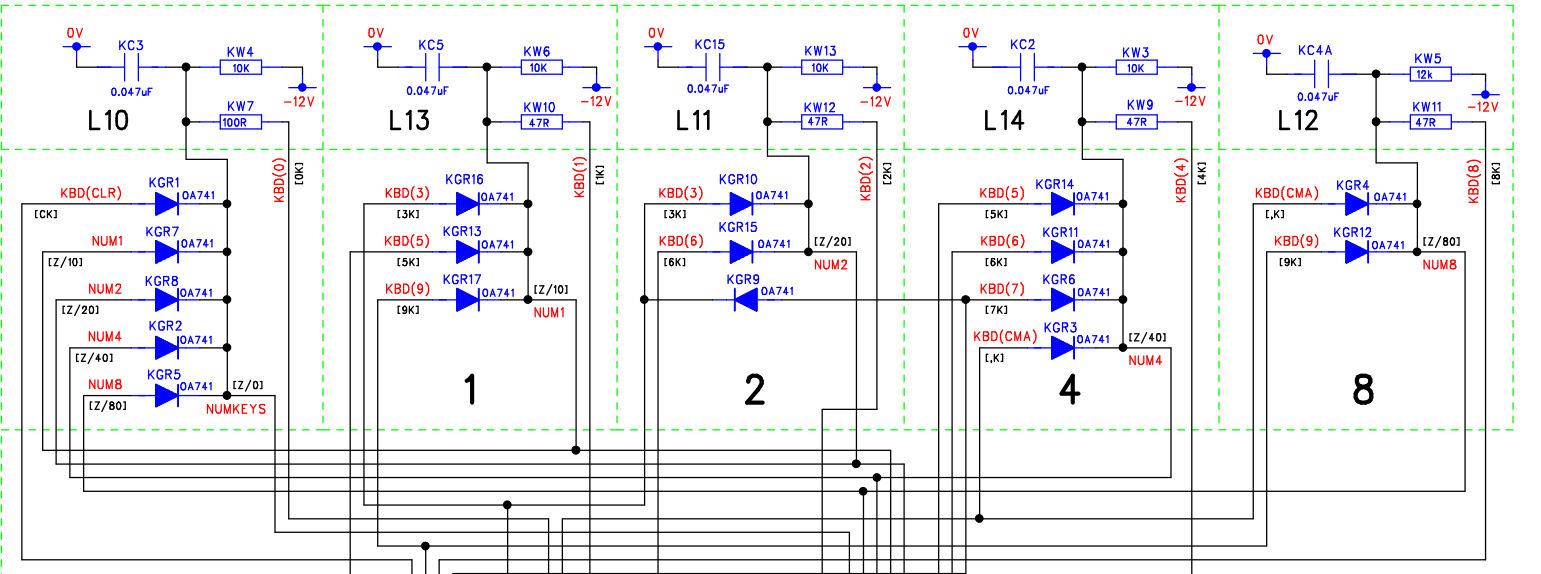
Keyboard Physical Layout

Notes -

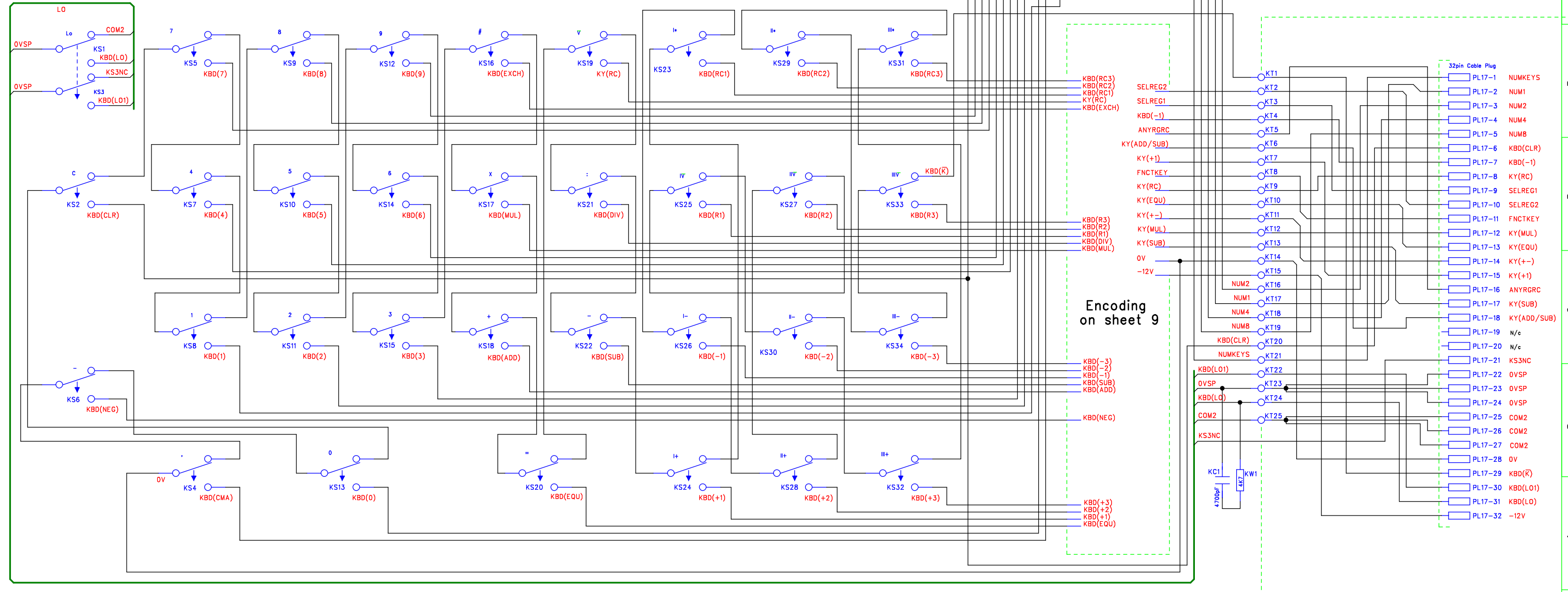
1	#	Exchange operands	4	-	Negate entry
2	I II III	Recall (clears memory)			
3	▽	Recall only			

RevNo	Revision note	Date	By	Checked
-	-	-	-	-

Numeric (BCD 0-9), Clear & DP (BCD 12) Encode Matrix



Keyboard PCB 224-301-014a



Encoding sheet 9

Keyboard & Digit Key Encoder

These diagrams are referenced to 0V - Logical 1 = -12v, logical 0 = 0V



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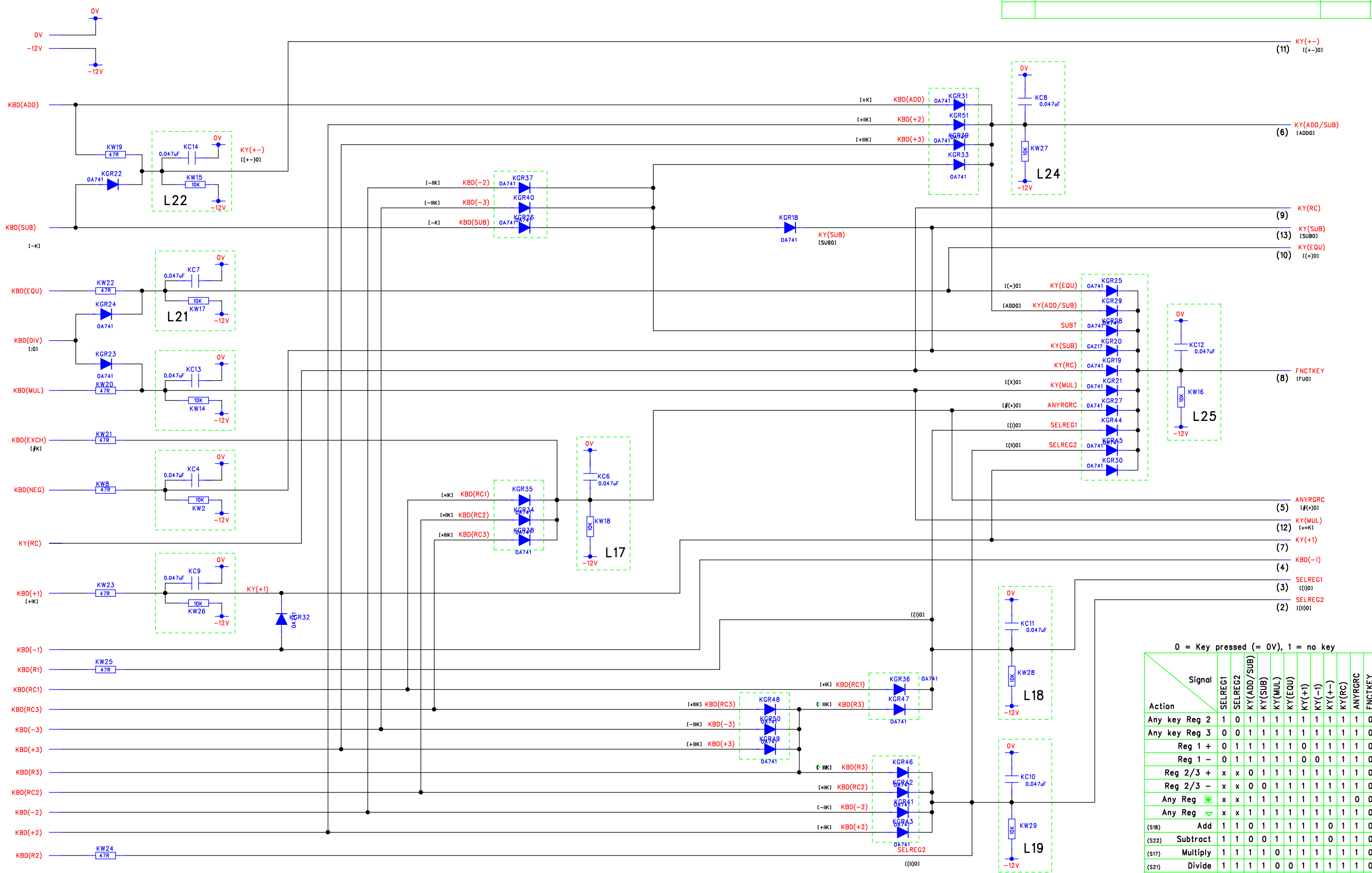
DM Associates
 33, Northbrook Road
 Aldershot, Hampshire. GU11 3HE
 Email: mike@soemtron.org
 www.soemtron.org

Pcb Dwg # =

Name	Date
MD Hatch	23/5/2011

Scale	Nts
Sheet 8	8
Next Sheet	9
Drawing Number	Soemtron 224

Title	Issue
Soemtron ETR 224 Calculator Keyboard Circuit & Layout PCB = 224-301-014a	A



0 = Key pressed (= 0V), 1 = no key

Signal	SELREG1	SELREG2	KY(ADD/SUB)	KY(SUB)	KY(MUL)	KY(EQU)	KY(+)	KY(-)	KY(+/-)	KY(RC)	ANYRGR	FNCTKEY
Any key Reg 2	1	0	1	1	1	1	1	1	1	1	1	0
Any key Reg 3	0	0	1	1	1	1	1	1	1	1	1	0
Reg 1 +	0	1	1	1	1	1	0	1	1	1	1	0
Reg 1 -	0	1	1	1	1	1	0	0	1	1	1	0
Reg 2/3 +	x	x	0	1	1	1	1	1	1	1	1	0
Reg 2/3 -	x	x	0	0	1	1	1	1	1	1	1	0
Any Reg *	x	x	1	1	1	1	1	1	1	1	1	0
Any Reg ▽	x	x	1	1	1	1	1	1	1	1	1	0
(S18) Add	1	1	0	1	1	1	1	1	1	0	1	0
(S22) Subtract	1	1	0	0	1	1	1	1	1	0	1	0
(S17) Multiply	1	1	1	0	1	1	1	1	1	1	1	0
(S21) Divide	1	1	1	0	0	1	1	1	1	1	1	0
(S4) Negate	1	1	1	0	1	1	1	1	1	1	1	0
(S19) Recall	1	1	1	1	1	1	1	1	1	0	1	0
(S16) Exchange	1	1	1	1	1	1	1	1	1	1	0	0
(S20) Equal	1	1	1	1	0	1	1	1	1	1	1	0

Function & Register Key Encoder

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 Aldershot, Hampshire. GU11 3HE
 Email: mike@soemtron.org
 www.soemtron.org

Pcb Dwg # =

Name	Date
MD Hatch	23/5/2011
Checked	-

Scale	Nts
Sheet	9
Next Sheet	10
Drawing Number	Soemtron 224

Title	Soemtron ETR 224 Calculator Keyboard Function Encoding Circuit Diagram
Issue	A2
By	A