



Fox Delta

Amateur Radio Projects & Kits

Astro- Clock

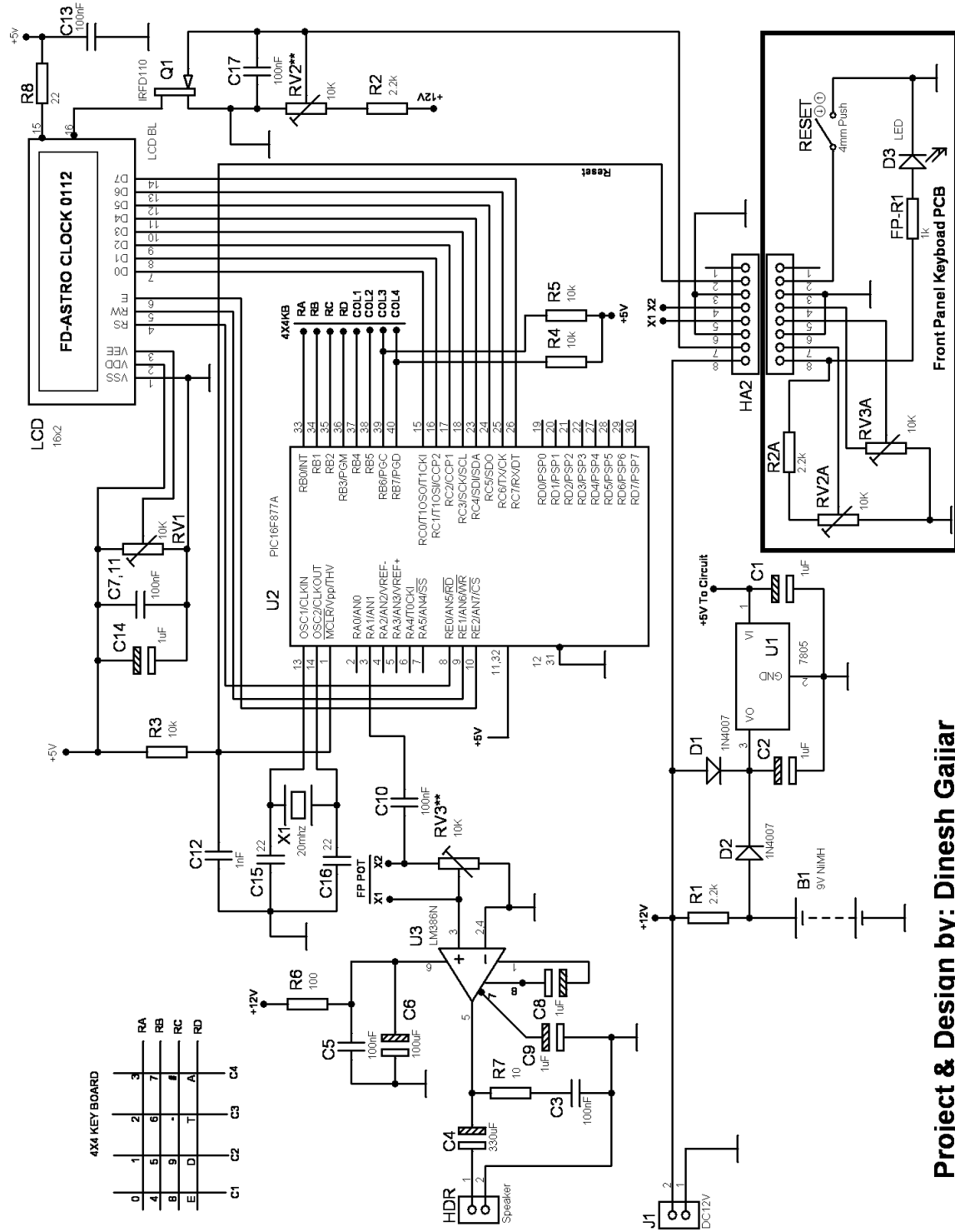
Kit Parts List and Schematic: PIC16F877A Astro - Clock

Parts List:

Qty	Check	ID	Details
1		U2	PIC16F877A
1		Q1	IRFD110
1		X1	20MHZ Crystal
1		U1	7805
1		U3	LM386
2		FP Pots + Knobs	10K (P090)
1		FP-Reset	4mm Push Button
1		FP-LED	3mm
1		J1	DC 12V Connector
1		PCB Main	Astroclock-0112 DSPTH PCB
1		PCB Front Panel	FD-Astro-Clock-FP- KB
1		PCB 4x4 Keyboard	FD-4X4KB-0112
2		SIL8	4x4KB
16		KB Keys with Key tops*	Push Switches for 4X4 Keyboard
2		SIL8	FP-KB (One straight, one Right angle)
2		SIL16	LCD Connector
2		8SIL Ribbon Cable	FP Board and 4X4 Key Board
1		16SIL Ribbon Cable	LCD Cable
1		B1	Battery Holder
1		IC Socket	40Pin,
1		IC Socket	8Pin
3		RV1, 2, 3	10K Presets
2		D1, 2	1N4007
1		LCD	2x16 LCD with backlight
1		Speaker	Small (2 inch Dia) 8 ohms
1		Case	Free powder coated metal case
Capacitors			
5		C1, 2, 8, 9, 14	1uF Tantalum
1		C6	100uF Electro
7		C3, 5, 7, 10, 11, 13, 17	0.1uF Poly
1		C12	0.001uF Poly
2		C15, 16	22pf Ceramic
1		C4	330uF Electro
Resistors			
3		R1, 2, 2A,	2.2K ¼ W 5%
1		R3	47K
2		R4, 5	10K
1		R6	100
1		R7	10
1		R8	22

* Key tops are supplied blank

Astro Clock Schematic:



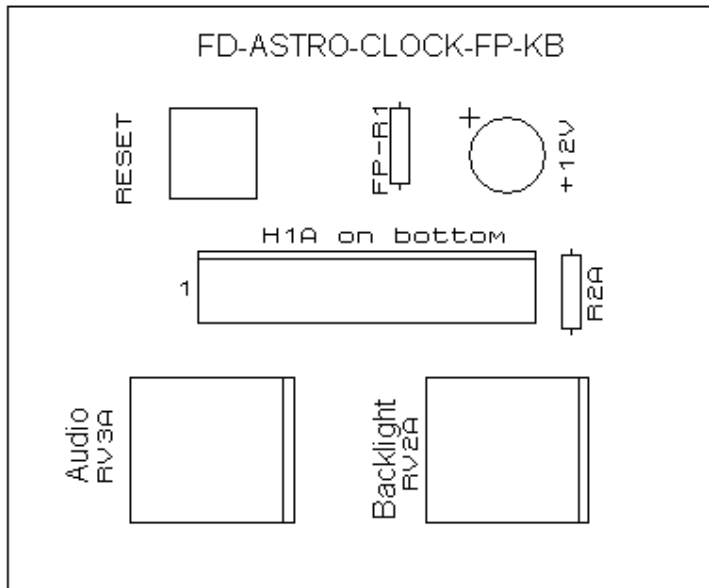
4x4 KEYBOARD

0	1	2	3	RA
4	5	6	7	RB
8	9	-	*	RC
E	D	T	A	RD
C1	C2	C3	C4	

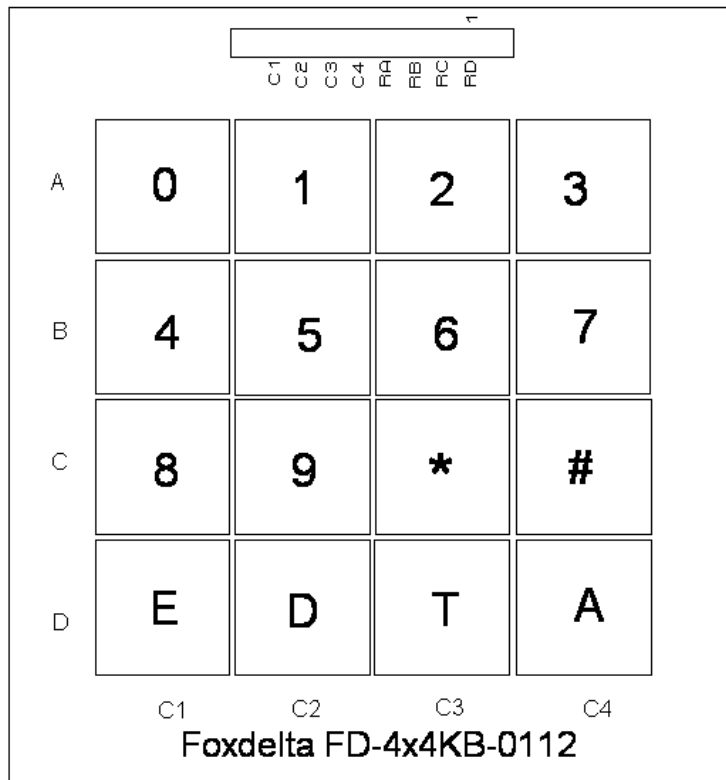
Project & Design by: Dinesh Gajjar

Fox Delta Astro Clock 0112 <http://www.foxdelta.com>

Silk Front Panel Keyboard:



4X4 Keyboard:



Dinesh Gajjar / 24th January 2012

Please visit <http://www.foxdelta.com> for more information on this project.