Packing List: 35MHZ (3.5GHZ) LCD PIC16F628/A Frequency Counter

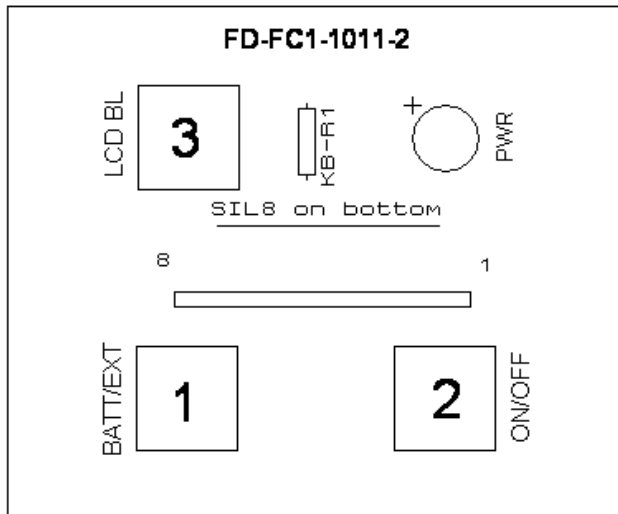**FC1 Rev 1011**

FC1: 35MHZ Frequency Counter Kit Parts List:

Quantity	Check	Part ID / Details
1		PIC16F628 with FW fc1-1011.hex U2
1		MPF102 (Q1)
1		FC1-1011 DSPTH PCB with mounting hardware
1		FC1-1011-2 Keyboard PCB with hardware
1		74HC132 U1
1		MAX232 U3
1		2N4403 (Q2)
3		Front Panel KB Push Switches
1		3mm LED
2		2x 8 PIN SIL Male with 1x Female ribbon cable
3		1N4148 (D1, 3, 4)
1		1N4007 (D2)
1		78M05 +5V Regulator T0-220 U4
1		BNC connector for RF IN: J2
1		78M08 (U5)
1		16X1 LCD Display with mounting hardware
1		Battery Holder Keystone 1294
2		2x 16SIL Male and 1x Female Cable
1		DC Connector: J1
1		D9F R/A Connector J2
1		BNC Connector MX416
1		4.000MHZ Crystal X1
1		10K Preset Bourns 3386 (P2)
1		1K Preset Bourns 3296 (P1)
1		14 Pin IC Socket
1		18 Pin IC Socket
1		16 Pin IC Socket

Quantity	Check	ID	Part Value
1		R1	100K
2		R2, 6	1M
1		R3	100
1		R4	330
1		R5	820K
1		R7	22
1		KB-R1	1K
1		RFC1*	33-82uH

Quantity	Check	ID	Part Value
1 (2)		C1, (C1A)	0.47uF (0.22uf) Poly
11		7, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24	1uf Tantalum
1		C2	47pf
1		C3	470pf
8		C4, 6, 8, 9, 12, 19, (19A**), 20,	0.1uf Poly
2		C10, 11	22pf
1		C5	0.047uf

Front Panel Key Board FC1-1011-2:

1. SIL8 connector is to be placed on the bottom side of this board.
2. Mach #1 to #1 of the main board
3. Push switches 1, 2, 3 can be oriented both ways. Decide what you want before you solder it.
4. KB-R1 is 1K ¼ W. LED is 3mm.

Note:
*RFC Placement: RFC may be placed at one of the three locations. This provides us ability to select from where we supply 9V or 5V to front-end Transistors: Q1+Q2
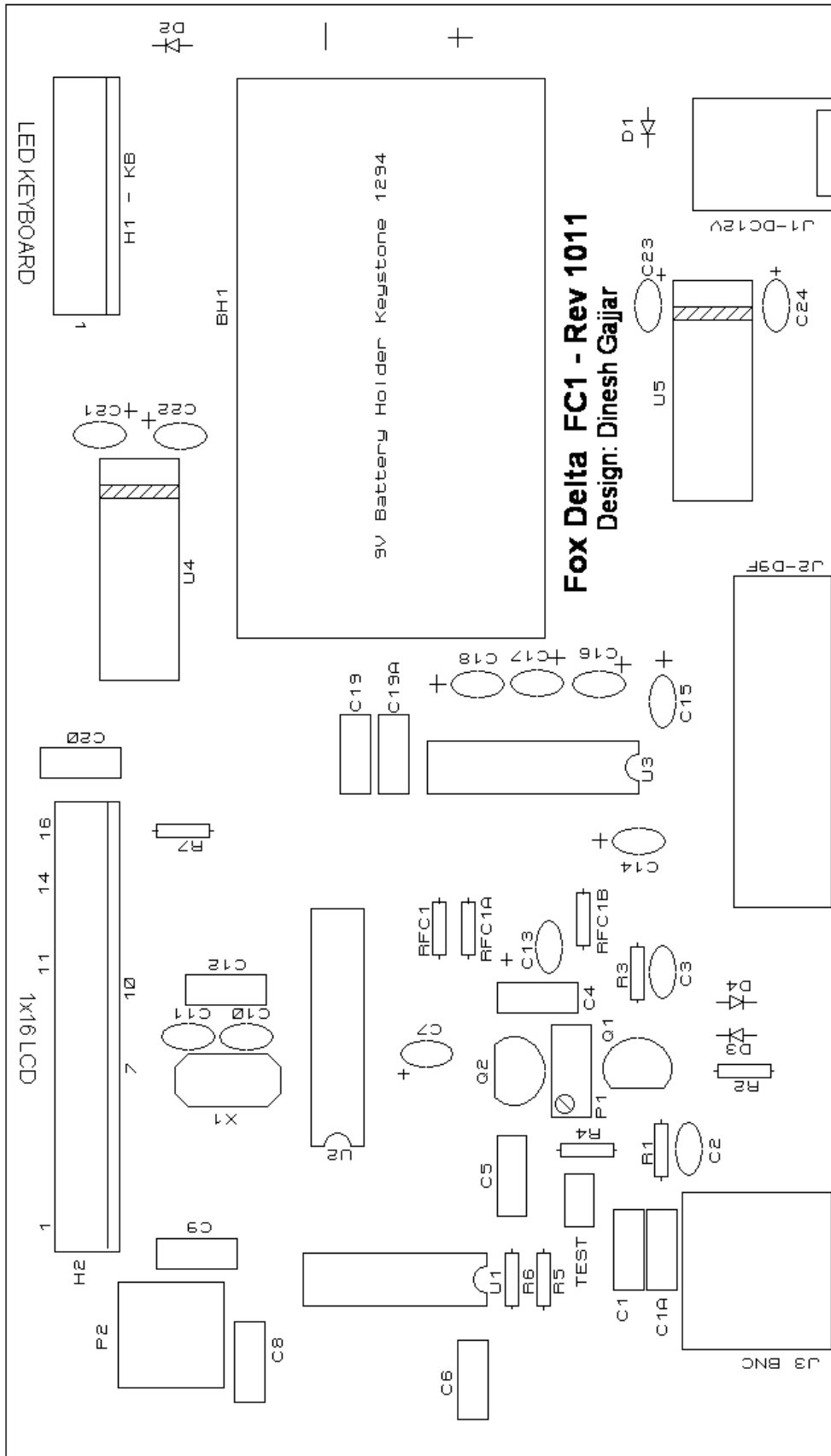
1. RFC1 = 9V from Supply or battery (Standard)
2. RFC1A = 9V from MAX232
3. RFC1B = 5V from system 5V.

Select one method (Standard Preferred) as front-end will require adjustment of Pre-set P1 for proper functioning.
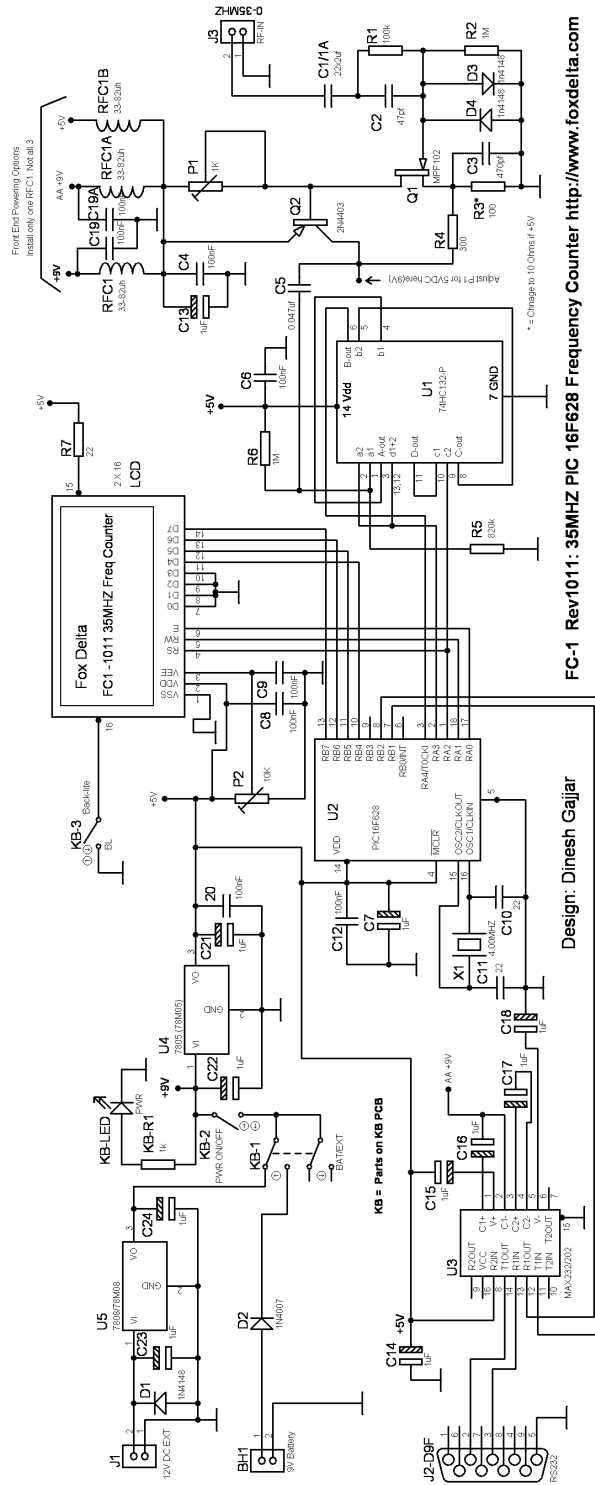
Ensure that RFC is only placed in one of the three positions.

** = If RFC is at location 1A, you may add C19A

Silk Snap: 35MHZ Frequency Counter: FC1 Rev1011

LED KEYBOARD

H1 - KB

D2

BH1

9V Battery Holder Keystone 1294

Fox Delta FC1 - Rev 1011
Design: Dinesh Gajjar

D1

J1-DC12V

C23

C24

U5

J2-D9F

C21

C22

U4

C20

R7

C14

C19

C19A

C18

C17

C16

C15

U3

RFC1

RFC1A

RFC1B

C13

R3

C3

C4

D4

Q1

D3

R2

Q2

C7

P1

16

14

11

10

7

1

1x16LCD

C12

C11

C10

X1

U2

H2

C9

C5

R4

R1

C2

U1

R6

R5

TEST

C1

C1A

P2

C8

C6

J3 BNC

Schematic FC1 Rev1011:

FC-1 Rev1011: 35MHZ PIC 16F628 Frequency Counter http://www.foxdelta.com

Design: Dinesh Gajjar

KB = Parts on KB PCB

73s/Dinesh Gajjar
9th September 2011
Updated 10th August 2014

Visit: http://www.foxdelta.com for project details.