Routines Flow MAP

#	Addr	Routine					
1	0000	RESET Vector	02 041C	Jump to Start			
				#times	Called from	1x	0
2	0006	#01 → UART	1x 074C	1x	0		
3	000E	#06 → UART	1x 074F	1x	0		
4	0016	#79 → UART	9x	9x			
5	001E	#1F → UART	6x	6x			
6	0023	UART ISR Jump (0C0F)		3			
7	0026	Init PCA = 00	0B0F	0			
8	002B	Timer2 9/t ISR Jump (0C12)		1			
9	002E	Init Oscillator = C7	0B15	0.			
10	0036	Disable Global INT IE.7 = 0	0B18	0			
11	003E	(5C) → R7	1x	0			
12	0046	R7 → UART	6x	6x			
13	004E	Push R7 → 61	6x	6x			
14	0056	Push R7 → 68	6x	6x			

ISR End ≡   # Call

#	Addr	Routine	#
15	008E	READ R1R2 Pointers	4x
16	00A7	READ DPTR & R1R2 Offsets	4x
17	00D4	WRITE A to FLASH, RAM XRAM	4X
18	00E6	READ A,B	1x 06

		gp registers	Results in Acc, Carry
20	0130	16-bit Math '4 LOR'	2x 0BA2, 0702
21	0141	WRITE/SAVE R1,R2,R3 '4 DPTR OFFSETS, 4R2	:0376
22	0190	PROGRAM EXECUTION, JUMP → DPTR	:0A56
23	01B1		:07A9
24	025C		:07A6
25	02F3		4x
26	0389	READ 6-stale table '4 (1A)(1F) offset, set R7=2 or 3 exit 0234 branches	0234
27	041C	RESET VECTOR	:ØØØ
28	042B	- GENERIC DPTR READER to INIT Mem Ram Reg PC data Table, etc	:0
29	0463	START INIT Mem	:04.
30	0448	16 bit Math calc. dptr → 0E0F R6 R7 2x	0AB 073.
31	0532	READ @ 4 0074 [81/04/85/88], Bootload R7→68 [01/05/03/06] by 16 status → words.	:0A
32	05B7	Registers 21-27, 13-1C ? 2x	01C. 02b
33	061E	Branch of R7 Eval/Reply routine 0C00 1DFF	07A

34	0679	Read 4 R1 #16 R2 00 offset	2x	01 06
		Write A, B		⇒ This
		Read A, B		from
		1DFF?		
35	06D2	Read Serial Port	2x	0. 0.
		Register shuffling		
36	0726	Branch for R7 = #21 from		:0
		#1A00 #1BFD, E, F		
37	0774	Check R7 and send a message ⇒ UART	2x	d
		load into X09, then subtract values to get branching?		
38	07BE	38.28 Ref UART Check Register, Store, Send, Ret. 4 R7 = 1, 2 n 3	4x	3 4 4 R
39	080A	3rd Jump Target [MAIN]		(N
40	084D	Flash lock & key		0
41	087B	0BE5 state code table read		02
42	08C8	load Register 21 - 28	2x	0 0
43	08E2	" " 24 - 27; R5-7	2x	0 0
	0BEF	— 0B5F6 ↑ BA, 28, 40		
44	[08F6]	UART Timer 2 0/f, 32-bit ops. ?		0 0
[0924] ←				
45	0952	UART related? w/o timer?	2x	0
46	097E	Write data to X in Flash dptn	2x	0 0

47	09A7	4th J.T g [MAIN]		Nov
	09CF			
48	09F7	Push gp, clear 37 bit bmte, pop up	7x	
		Read / Send UART → 8 x66; SEND it out UART		
49	0A1A	1st Jump Target [MAIN]		Nov
50	0A3C	MAIN 4th First Start Init Hware Call		OB
		LJMP @ DPTR		
		SJMP to top.		
51	0A5B	2nd Jump Target [MAIN]		None
52	0A79	Second Init Timer Setup		OB0
53	0A95	7nd Subcall of First Init [Init Ports]		OB1
54	0AAE	Send calc. DPTR Hi:Lo out the UART	2x	0B8
55	0AC4	Read UART		090
56	0AD7	MAIN Jump Table		
		ref. dph @ 0BED states		
57	0AE9	Send R7 → UART x67 is TxFlag	6x	
58	0AFB	START HWARE INIT (4 calls)		090
59	0B0C	First START INIT call		0AF
60	0B1B	LOAD R1-3, DPTR ? Read data		0 36 / 040
61	0B2A	LOAD R3=0, 24-27 00000BF6, CLRA		0B13 / 09A
62	0B39	FIFTH Jump Target [MAIN]		Nov

63.	0B45	Setup IART Voo Mon Enoee/Reset Source		0!
64	0B52	?	2X	ε O
65	0B5F	Start Init Mem data table		04
66	0B6C			0B
67	0B74			05
68	0B78	DPTR R6R7 read → R7	8x	
69	0B84	Calc DPTR Hi Lo → UART		0
		Ext. or Secondary Loop : Jump Targets?		
		1BFD vs. 0C00		
70	0B8F	load R3-R7	2x	0. 0:
		R3=R4=0 R5=01 R6=DC R7 90		
71	0B9A	Pop 32-bit T/c fr 5D-60 to gp, LJmp 130		0 0B
72	0BA5	Init Setup UART		0
73	0BB0	Sent dptr 1A00=3 → UART		0
74	0BBA	Send Sec. loop or RESET Vetn → UART		07
75	0BC4	Clear 32-bit 5D-60	2X	04 09
76	0BCE	6th Jump Target [MAIN]		No
		#21 → R7		to 07
77	0BD7	Clear SCON. 4, 1, 0		07
78	0BDE	DISABLE Flash Write/Erase, Allow Vpp Read		09
79	0BE5	State Code data table		03
		0 1 2 3 4 5 FF		08.

80	0C00	LJmp 0D2D [Start of Secondary Loop?]	077?
81	0C03	Setup PCA	126
82	0C0F	UART ISR vector LJ 0D39	002
83	0C12	TIMER2 O/F ISR LJ 1109	002
84	0C15	CRC-8 Look-Up Table	101
85	0D15	Secondary Loop Jump Table data	9/0E3 1OF
		¹102A ³1154 ⁵1175 ⁷1279	
		²0F27 ⁴10B8 ⁶11EB ⁸105E	
86	0D2D	Secondary Reset Clear Ram 'y LJ Indthen 0D74	0C?
87	0D39	Jump to Start Init Hware	0D7.
88	0D3C	Generic dptr Read to Init Mem Routine	0D9
89	0D74	Secondary Init Mem (from dptr 1245 table)	0D:
90	0DB9	UART ISR	0CC
91	0E2C	READ. Duplicate of 008E	3x OE4. 101.
92	0E59	WRITE "	OF.
93	0E6B	16-bit Math u of 0130	2x 1239
94	0E7C	Transfer Program Jump @ 0076	110
95	0E82	SPI ≠ UART activity?	128
96	0ED7	?	4x

99	OF27	2nd Jump Target [SECONDARY] loop	λ
100	OF72	SPI WRITE + READ	1
101	OFB6	Read Data, send out SPI.	3x
102	OFF1	READ OCIS TABLE CALL FROM 6th JT [SEC]	1
103	102A	1st JT of [SEC]	λ
104	105E	8th JT [SEC] read dpth. send out SPI	.
105	10B8	4th JT [SEC]	λ
106	10E3	[SECONDARY] xID is state	1.
107	110A	Timer 2 o/F INT SERVICE ROUTINE	0.
108	1131	SETUP TIMERS	+ 1.
109	1154	3nd JT [SEC]	N
110	1175	5th JT [SEC]	λ
111	1196	SPI send zero byte, get reply	3x
112	11B5	[SEC] Start INM/WARE	C
113	11D2	SETUP PORTS & CROSSBAR	1
114	11EB	6th JT [SEC]	λ

115	1203	SETUp UART	2x 11BC
			121E
116	121A	SET UP SPI	11C
117	1230	?	OE
118	1245	[SEC] INITMEM DATATABLE	OD
		23-28 42 29-2E	
119	1259	[SEC] INIT HWARE LCALLS	11.
		3 LCALL + LJMP.Ret	
120	1269	R7 → UART	OE
121	1279	7^{II} JT [SEC] FLAG (1D)	No.
		Read bytes in Flash → SPI, → UART	
122	1288	Setup V_{DD} MON	12:
			OE
123	1295	Clear 23-26 32.bits	2x OE
124	129F	Start of ChipSelect CS Hi/Lo	6x
125	12A9	SETUP Global Interrupt^{IE} Enable = #B0	11c
126	12AD	SETUP Oscillator	12
127	12B1	Setup Timer2 Mode C9 = H40	No:
128	12B5	Clear Ram 29	10
129	12B9	R7 → RAM 27	2x
130	12BC	R7 → RAM 2D	2x
131	12BF	R7 → RAM 2C	2x

END OF CODE