COO-COO CLOCK "P9"

"Coo-Coo Clock" is a trivial novelty, but it demonstrates pretty well the way that program-generated data can be rearranged and formatted and displayed in a useful way. The clock "coo-coo's" on the hour, once at 1:00, twice at 2:00, etc. and keeps better time than most cuckoo clocks. The time is accrued internally to .0001 second, but the display is rounded to the nearest 5 seconds and presented for about 2 seconds at approximately 5-second intervals. The number of sequential 31 25 24 steps beginning at 064 should ideally be adjusted to give a cycle time as close as possible to five seconds for your individual calculator (each such step slows the clock about 12 seconds an hour) and then the nominal .0005 constant stored in R1 can be slightly altered (it's effictive to six significant digits) to give quite good accuracy over a 24-hour period with sufficiently stable ambient temperature and line voltage. Read the program card P9-I (both sides), the data card P9-II (either side) and enter the time (e.g. 1:15=1.15 and press A.

001	f LBL A	31 25 11	041	g X>Y?	32 81		
002	ENTER	41	042	0	00		
003	.	83	043	h LST X	35 82		
004	0	00	044	f INT	31 83		
005	0	00	045	+	61		
006	0	00	046	RCL 8	34 08		
007	2	02	047	x	71		
008	5	05	048	f INT	31 83		
009	h H.MS+	35 83	049	h LST X	35 82		
010	STO 0	33 00	050	g FRAC	32 83		
011	f LBL 2	31 25 02	051	RCL 8	34 08		
012	RCL 0	34 00	052	x	71		
013	RCL 1	34 01	053	+	61		
014	h H.MS+	35 83	054	f X=0?	31 51		
015	STO 0	33 00	055	GTO 4	22 04		
016	RCL 2	34 02	056	STO+6	33 61 06		
017	g X≤Y?	32 71	057	h F? 3	35 71 03		
018	RCL 3	34 03	058	f LBL 3	31 25 03		
019	g X≤Y?	32 71	059	RCL 4	34 04		
020	STO-0	33 51 00	060	h F? 2	35 71 02		
021	RCL 5	34 05	061	RCL 7	34 07		
022	STO 6	33 06	062	RCL 6	34 06		
023	9	09	063	h X↔Y	35 52		
024	RCL 0	34 00	064	GTO .AD	31 25 24	f LBL i	
025	f INT	31 83	↓	↓ ↓	↓ ↓ ↓	↓	
026	h STO I	35 33	152	GTO .AD	31 25 24	f LBL i	
027	g X≤Y?	32 71	153	GTO 2	22 02		
028	h SF 2	35 51 02	154	f LBL 9	31 25 09		
029	g X>Y?	32 81	155	f LBL 9	31 25 09		
030	h SF 3	35 51 03	156	f LBL 4	31 25 04		
031	RCL 9	34 09	157	h RCL I	35 34		
032	x	71	158	RCL A	34 11		
033	STO+6	33 61 06	159	x	71		
034	RCL 0	34 00	160	RCL B	34 12		
035	g FRAC	32 83	161	+	61		
036	RCL 9	34 09	162	RCL 0	34 00		
037	x	71	163	h H.MS+	35 83		
038	g FRAC	32 83	164	STO 0	33 00		
039	.	83	165	f LBL 5	31 25 05		
040	5	05	166	RCL C	34 13		

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