

REV. NO. 2	TITLE	CONT ON SHEET 2	SH NO. 1
P3K-AL-0341-A01	CIRCUIT BOARD TEST SPECIFICATION AUXILIARY RELAY BOARD 24V - 117D7328		
CONT ON SHEET 2	FIRST MADE FOR EHC MARK II		

Refer to the drawing to see that

1. The relays coils all use 24 VDC.
2. The common of eight relays is connected to one input terminal.
3. The case ground of eight relays is connected to one input terminal.
4. The high side of each relay coil goes to a separate input terminal.
5. Each relay has two form C sets of output contacts --- all are independently connected to output terminals.
6. There are no interconnections on the card except the coil commons and the case grounds of each group of eight relays.
7. There are no time delay relays,

The relay specifications are in the "U" sheets.

ACCEPTED	DATE
BY	

REVISION:

BY-271

271-2

271-3

271-4

271-5

271-6

271-7

271-8

MADE BY D. Mone Jan. 16, 1975	APPROVALS	Stream Turbine	DIV OR DEPT.	P3K-AL-0341-A01
ISSUED		Schenectady, N.Y.	LOCAL	CONT ON SHEET 2

REV
NO.

TITLE

P3K-AL-0341-A01

CIRCUIT BOARD TEST SPECIFICATION
Auxiliary Relay Board 24V--117D7328

CONT ON SHEET 3

SH NO. 2

FIRST MADE FOR

REVISION:

With the minus side of the power source connected to the $\sqrt{C/24}$ terminal(s) and the plus applied (app) and removed (rem) alternately to each terminal, the relays pick up and drop out as shown in the chart. A one (1) indicates an energized relay. A zero (0) indicates a de-energized relay and is usually omitted from the chart--for clarity.

		K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16
1.	TB 7- 97 app	1															
	rem																
2.	TB 7- 98 app		1														
	rem																
3.	TB 7- 99 app			1													
	rem																
4.	TB 7-100 app				1												
	rem																
5.	TB 8-105 app					1											
	rem																
6.	TB 8-104 app						1										
	rem																
7.	TB 8-103 app							1									
	rem																
8.	TB 8-102 app								1								
	rem																
9.	TB10 115 app									1							
	rem																
10.	TB10-114 app										1						
	rem																
11.	TB10-113 app											1					
	rem																
12.	TB10-112 app												1				
	rem																
13.	TB 9-107 app													1			
	rem																
14.	TB 9-108 app														1		
	rem																
15.	TB 9-109 app															1	
	rem																
16.	TB 9-110 app																1
	rem																

PRINTS TO

MADE BY

D. Hoge Jan. 15, 1975

APPROVALS

Steam Turbine

DIV OR
DEPT.

P3K-AL-0341-A01

ISSUED

Jan 15 1975

Shenandoah, N.Y.

LOCATION

CONT ON SHEET 3

SH NO. 2

REV.
NO. 1

TITLE

CONT. ON SHEET 4

SH. NO. 3

P3K-AL-0341-A01

CIRCUIT BOARD TEST SPECIFICATION
Auxiliary Relay Board 24V - 117D7328

CONT. ON SHEET

4

SH. NO.

3

FIRST MADE FOR

REVISION

TEST INSTRUCTIONS 1PC2-AOOX

Assembly 117D7328

Schematic 117D7319

PROCEDURE:

1. Connect the circuit under test as described in the setup instructions.
2. Test the logic circuitry using Table A.

PRINTED

MADE BY

R. Jone Jan. 15, 1975

ISSUED

APPROVALS

Steam Turbine

Schneider

DIV OR
DEPT.

LOCATION

P3K-AL-0341-A01

CONT. ON SHEET 4

SH. NO.

REV. NO. <input type="radio"/>	TITLE	CONT. ON SHEET	5	SH. NO.	4
P3K-AL-0341-A01	CIRCUIT BOARD TEST SPECIFICATION Auxiliary Relay Board 24V - 117D7328				
CONT. ON SHEET	5	SH. NO.	4	FIRST MADE FOR	

SETUP INSTRUCTIONS - FMCC 1PC2-A00X

1. The loads to be applied to the circuit under test are $\pm 1\%$ tolerance.
2. Unless otherwise specified, all voltage to be applied and to be measured is +24.00VDC (tolerance ± 100 MV)
3. This circuit card has 116 pins total with 116 pin in use. The terminal board configuration is 6 - 16 pt. and 4 - 5 pt.
4. Connect pins 101, 106, 111 and 116 to ground.

REVISION

PRINTS

MADE BY D. Hone Jan. 15, 1975	APPROVALS	STEAM TURBINE	DIV. CH. DEPT.	P3K-AL-0341-A01
ISSUED			LOCATED ON SHEET	5

REV NO. 1

TITLE

CONT ON SHEET 6

P3K-AL-0341-A01

CIRCUIT BOARD TEST SPECIFICATION

Auxiliary Relay Board 24V - 117D7328

CONT ON SHEET

6

SH NO.

5

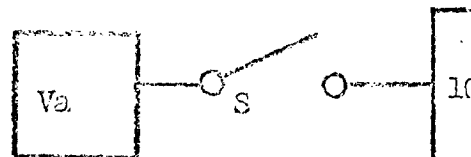
FIRST MADE FOR

INSTRUCTIONS FOR USE OF LOGIC TABLE

A. s 10 Va = set 10 to Va.

Close S to apply Va to Pin 10

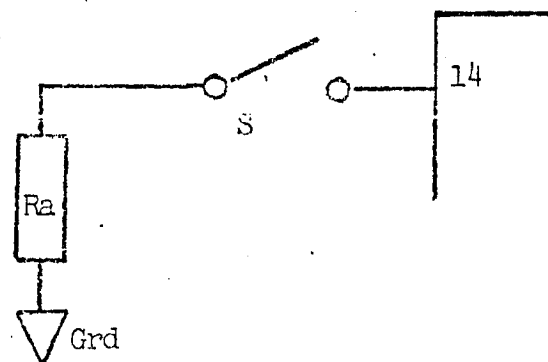
If Va is not specified, assume +24.0 VDC.



B. r 10 Va = reset 10 to Va

open S

C. s 14 Ra = set 14 to Ra



Close S to apply load Ra to Pin 14.

D. An "X" in the logic table indicates a voltage measurement of +24.00VDC. A letter (ie "C") in the logic table indicates a voltage measurement, the voltage being equal to that specified by the subscript letter (ie "Vc"). A blank space indicates a 0 VDC measurement.

E. The voltage at all pins and all test points will be measured at each step of the logic table.

MADE BY

D. Mone Jan. 15, 1975

APPROVALS

Steve Topping

DIV OR
DEPT.

P3K-AL-0341-A01

ISSUED

GEO. W. T. B. V.

LOCATION CONT ON SHEET 6

REV
NO. 1

TITLE

CONT ON SHEET

7

SM KD.6

CONT ON SHEET

7 SM NO.

5

FIRST MADE FOR

REVIS

24 VDC AT 72 SNI: IV CDA 47 SINS:

[illegible]

MADE BY
U. Hone Jan. 19, 1975

151300

442-2415

DIV 6-6
2757

P3K-A5-0301-001

LOCATION: CONT ON S-SHEET

100

P3K-AL-0341-A01

8

SH NO.

7

TITLE

CIRCUIT BOARD TEST SPECIFICATION
Auxiliary Relay Board 24 V - 117D7328
FIRST MADE FOR

REV:3

24 VDC AT PINS:

[illegible]

MACC BY

d. Mone Jan. 15, 1976

17.94.27

APPROVALS

Spoon-birding

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

DIV OR
DEPT.

PER-AL-0342-A 2

LOCATION	CONT ON SHEET
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	
75	
76	
77	
78	
79	
80	
81	
82	
83	
84	
85	
86	
87	
88	
89	
90	
91	
92	
93	
94	
95	
96	
97	
98	
99	
100	

1987

P3K-AL-0341-A01

TITLE

CIRCUIT BOARD TEST SPECIFICATION
Auxiliary Relay Board 24V - 117D7328
FIRST MADE FOR

CONT ON SHEET

9

SN NO. 8

24 VDC AT PINS:

[illegible]

REV: 1

P.R.A.

DATE: 11-2-82 BY: [signature]

D. Bone Jan. 15, 1975

15402

APPROVALS

Stage Two

DIV CM

FAX-AL-0342-021

LOCATED - COURT CH. 5-155

123

CONT ON SHEET 10 SN NO. 9

LOCATION: CONT ON SHEET

P3K-AL-0341-A01

TITLE
CIRCUIT BOARD TEST SPECIFICATION
Auxiliary Relay Board 24V

CONT ON SHEET 11 SN NO. 10

FIRST MADE FOR

24VDC AT PINS:

[illegible]

REV:

MADE BY
D. Mone Jan. 15, 1975
ISSUED

APPROVALS

Sharon Girdley

DIV CR
- DEPT.

33-11-03-1-A1

REF ID: A6415741
PUBLISHED IN U.S.A.

LOCATION / COUNTY OF INDIA

P3K-AL-0341-A01

TITLE

CIRCUIT BOARD TEST SPECIFICATION

Auxiliary Relay Board 24V

CONT ON SHEET

13

SH NG.

12

FIRST MADE FOR

REVIS

24 VDC AT PINS:

Test of

PAGE BY
D. Mone Jan. 15, 1975

19500

APPROVALS

DIV CX
- DEPT.

PPH-1-101-11

LEAP 2005-2006

SECRET

REV. NO.	P3R-AL-0341-A01	TITLE	CIRCUIT BOARD TEST SPECIFICATION Auxiliary Relay Board 24V--117D7328	CONT ON SHEET	SH NO. 13
CONT ON SHEET		FIRST MADE FOR			

REVISIONS

PREPARED BY: George W. Kessler DATE: 3/6/73
George W. Kessler
EHC DESIGN ENGINEERING

APPROVED BY: P.C. Callan DATE: 1-13-75
P.C. Callan - MANAGER
EHC DESIGN ENGINEERING

TEST PROCEDURE
PREPARED BY: C. Bugg DATE: 12/22/74
C. Bugg
EHC TEST ENGINEER

TEST PROCEDURE
APPROVED BY: George W. Kessler DATE: 1/6/75
George W. Kessler
EHC DESIGN ENGINEERING

DATE	Jan. 15, 1975	APPROVALS	Steam Turbine	DIV OR DEPT.	P3R-AL-0341-A01
ISSUED	15876		Schenectady, N.Y.	LOCATION	CONT ON SHEET
PRINTED IN U.S.A.		SH NO.			

CODE (EHC) 10