Holland Computers, Inc.

Crane Kit Manual
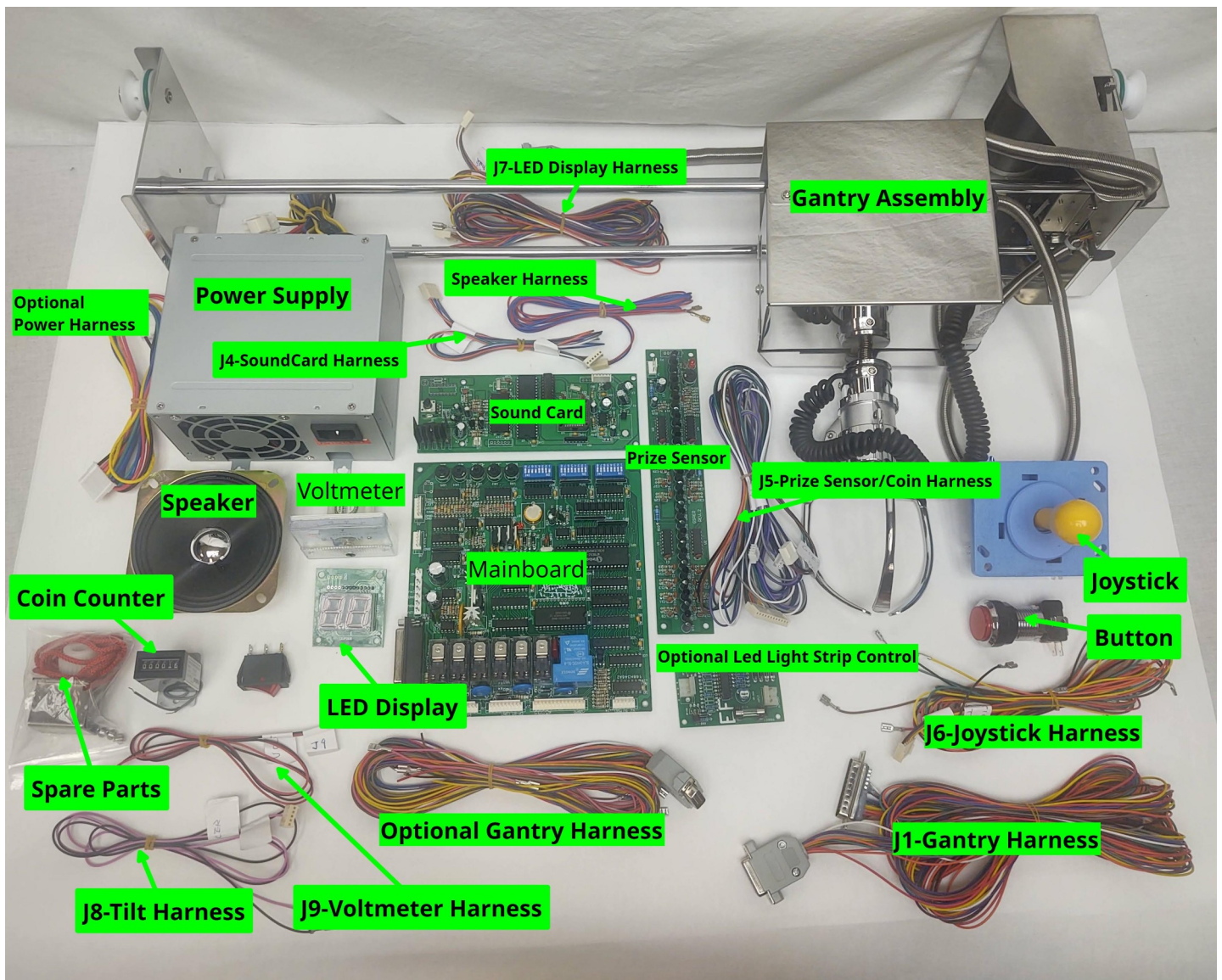Part Number RA-CRANE-KIT v3 (2023)

SECTION 1 - Introduction

Description

This kit has been manufactured as a replacement gantry and electronics for existing machines using a 28" wide gantry or for new installations in your own cabinet.
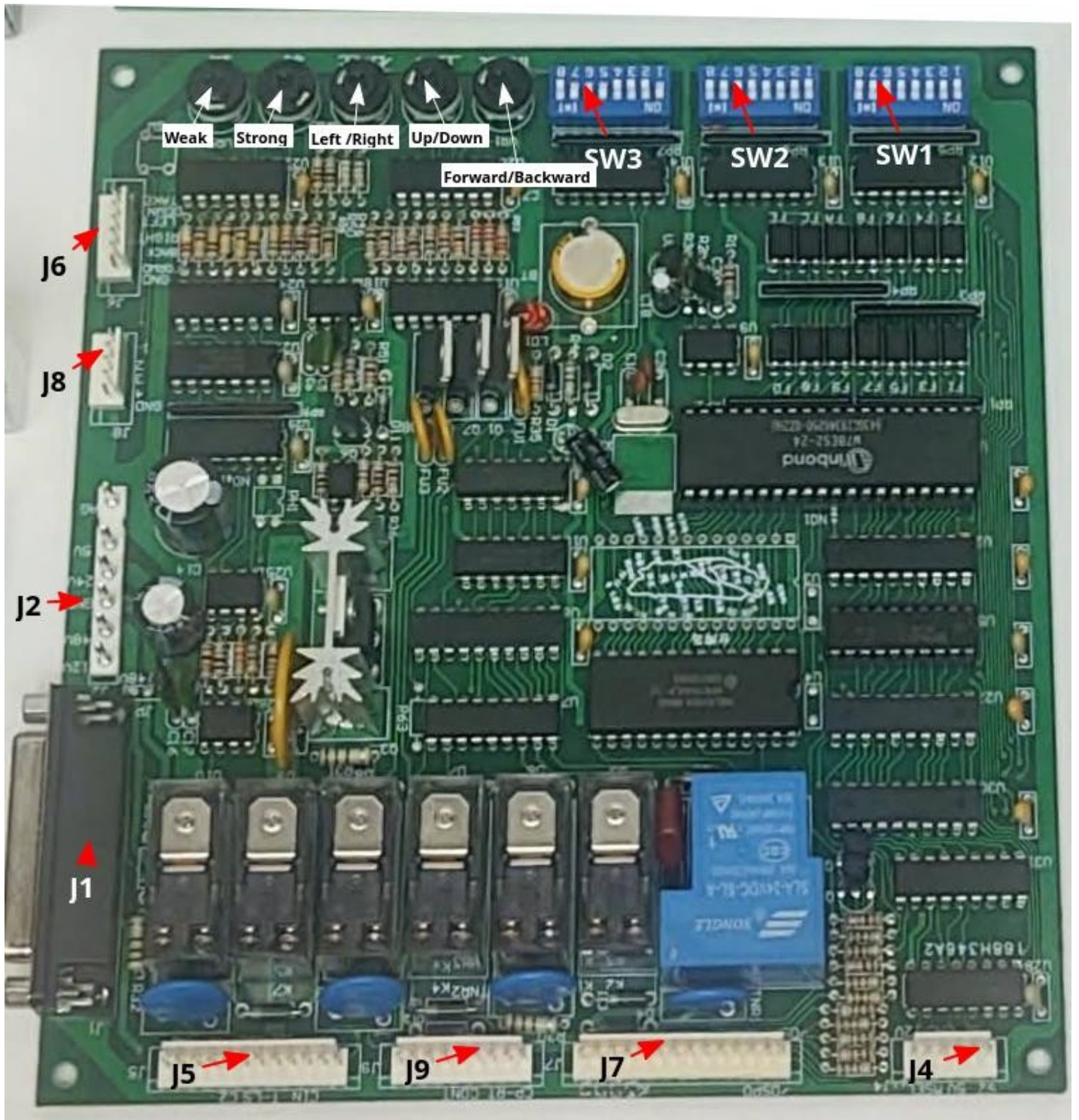
Warnings and disclaimers

- This kit is designed for professional installation only.
- EXPOSED HIGH VOLTAGE EQUIPMENT – USE EXTREME CARE – NEVER TOUCH ANY COMPONENT WITHOUT UNPLUGGING THE POWER CORD. FAILURE TO FOLLOW THIS WARNING MAY RESULT IN INJURY OR DEATH.
- Due to varied manufacturing methods and multiple suppliers, some parts may not look as pictured in this manual. Wiring colors on diagrams are not provided because each manufacturer may use different colors. Please refer to the pin out section to trace connections.

Kit Contents

- **J1 – Crane Gantry**
- **J2 – From Power Supply**
- **J4 – To Sound Card**
- **J5 – Prize Sensor / Coin Selector**
- **J6 – Joystick / Fire Button**
- **J7 – LED Display**
- **J8 – Tilt Switch**
- **J9 – Voltmeter**

	SW1		SW2		SW3	
	• SW1		• SW2		• SW3	
	1-8 Claw Weak Timer		1-2 Coins per Play		1-6 ???	
			3-4 Claw Down timer		7-8 Play to Win Options	
			5-8 Claw Strong Timer			

In the following Tables a blank cell implies "OFF", Greyed out Cells indicate not used.

SW1 Time in Seconds	1	2	3	4	5	6	7	8
1								
2	ON							
3		ON						
4	ON	ON						
5			ON					
6	ON		ON					
7		ON	ON					
8	ON	ON	ON					
9				ON				
10	ON			ON				
11		ON		ON				
12	ON	ON		ON				
13			ON	ON				
14	ON		ON	ON				
15		ON	ON	ON				
16	ON	ON	ON	ON				
17					ON			

SW1 Time in Seconds	1	2	3	4	5	6	7	8
18	ON				ON			
19		ON			ON			
20	ON	ON			ON			
21			ON		ON			
22	ON		ON		ON			
23		ON	ON		ON			
24	ON	ON	ON		ON			
25				ON	ON			
26	ON			ON	ON			
27		ON		ON	ON			
28	ON	ON		ON	ON			
29			ON	ON	ON			
30	ON		ON	ON	ON			
31		ON	ON	ON	ON			
32	ON	ON	ON	ON	ON			
33						ON		
34	ON					ON		
35		ON				ON		
36	ON	ON				ON		
37			ON			ON		
38	ON		ON			ON		

SW1 Time in Seconds	1	2	3	4	5	6	7	8
39		ON	ON			ON		
40	ON	ON	ON			ON		
41				ON		ON		
42	ON			ON		ON		
43		ON		ON		ON		
44	ON	ON		ON		ON		
45			ON	ON		ON		
46	ON		ON	ON		ON		
47		ON	ON	ON		ON		
48	ON	ON	ON	ON		ON		
49					ON	ON		
50	ON				ON	ON		
51		ON			ON	ON		
52	ON	ON			ON	ON		
53			ON		ON	ON		
54	ON		ON		ON	ON		
55		ON	ON		ON	ON		
56	ON	ON	ON		ON	ON		
57				ON	ON	ON		
58	ON			ON	ON	ON		
59		ON		ON	ON	ON		

SW1 Time in Seconds	1	2	3	4	5	6	7	8
60	ON	ON		ON	ON	ON		
61			ON	ON	ON	ON		
62	ON		ON	ON	ON	ON		
63		ON	ON	ON	ON	ON		
64	ON	ON	ON	ON	ON	ON		
65							ON	
66	ON						ON	
67		ON					ON	
68	ON	ON					ON	
69			ON				ON	
70	ON		ON				ON	
71		ON	ON				ON	
72	ON	ON	ON				ON	
73				ON			ON	
74	ON			ON			ON	
75		ON		ON			ON	
76	ON	ON		ON			ON	
77			ON	ON			ON	
78	ON		ON	ON			ON	
79		ON	ON	ON			ON	
80	ON	ON	ON	ON			ON	

SW1 Time in Seconds	1	2	3	4	5	6	7	8
81					ON		ON	
82	ON				ON		ON	
83		ON			ON		ON	
84	ON	ON			ON		ON	
85			ON		ON		ON	
86	ON		ON		ON		ON	
87		ON	ON		ON		ON	
88	ON	ON	ON		ON		ON	
89				ON	ON		ON	
90	ON			ON	ON		ON	
91		ON		ON	ON		ON	
92	ON	ON		ON	ON		ON	
93			ON	ON	ON		ON	
94	ON		ON	ON	ON		ON	
95		ON	ON	ON	ON		ON	

SW1 Time in Seconds	1	2	3	4	5	6	7	8
96	ON	ON	ON	ON	ON		ON	
97						ON	ON	
98	ON					ON	ON	
99		ON				ON	ON	
100	ON	ON				ON	ON	
101			ON			ON	ON	
102	ON		ON			ON	ON	
103		ON	ON			ON	ON	
104	ON	ON	ON			ON	ON	
105						ON	ON	
106	ON			ON		ON	ON	
107		ON		ON		ON	ON	
108	ON	ON		ON		ON	ON	
109			ON	ON		ON	ON	
110	ON		ON	ON		ON	ON	

SW1 Time in Seconds	1	2	3	4	5	6	7	8
111		ON	ON	ON		ON	ON	
112	ON	ON	ON	ON		ON	ON	
113					ON	ON	ON	
114	ON				ON	ON	ON	
115		ON			ON	ON	ON	
116	ON	ON			ON	ON	ON	
117			ON		ON	ON	ON	
118	ON		ON		ON	ON	ON	
119		ON	ON		ON	ON	ON	
120	ON	ON	ON		ON	ON	ON	
121				ON	ON	ON	ON	
122	ON	ON		ON	ON	ON	ON	
123		ON		ON	ON	ON	ON	
124	ON		ON	ON	ON	ON	ON	
125			ON	ON	ON	ON	ON	

SW1

SW1 Time in Seconds	1	2	3	4	5	6	7	8
126	ON	ON	ON	ON	ON		ON	
127		ON	ON	ON	ON		ON	
128				ON	ON	ON	ON	
Note:	Switch position 8 adds 128 seconds and is not normally used								

SW2

SW2	1	2			3	4	SECONDS	5	6	7	8
Coins Per Play				**Claw Down Timer**			**Claw Strong Timer**				
One Coin / One Play				10 SECONDS			1				
One Coin / Two Plays	ON			15 SECONDS	ON		2	ON			
Two Coins / One Play		ON		20 SECONDS		ON	3		ON		
Five Coins / Six Plays	ON	ON		30 SECOND	ON	ON	4	ON	ON		
							5			ON	
							6	ON		ON	
							7		ON	ON	
							8	ON	ON	ON	
							9				ON
							10	ON			ON
							11		ON		ON
							12	ON	ON		ON

SW2	1	2		3	4	SECONDS	5	6	7	8
						Claw Strong Timer				
						13			ON	ON
						14	ON		ON	ON
						15		ON	ON	ON
						16	ON	ON	ON	ON

SW3	1	2	3	4	5	6	7	8
- Disable play to win - Credits displayed - Timed claw drop after move								
- Disable play to win - Credits displayed - Timed claw drop after move						ON		
- Play to win - Credits displayed - Timed claw drop after player moves - Display flashes number of times played credited to play to win - Play to win after coins per prize value is met							ON	
- Play to win - Credits displayed - Timed claw drop after player moves - Display shows number of times played credited to play to win						ON	ON	

Configure Coins Per Prize

- Power off

- Set SW3 Position 8 to ON

- Power On

- Joystick Forward to increase number of coins by 1 to win a prize

- Joystick Rearward to increase number of coins by 10 to win a prize

- Fire button to reset to 1

- Set SW3 Position 8 to OFF

- If display shows a flashing "5" then Coins per Prize is not set

- Power OFF

Section 3 – Troubleshooting
Error Codes:

- 1 – Claw did not return home after specified time

- 2 – Counter is faulty or not installed

- 4 – Prize Sensor blocked or out of order

- 5 – Coins per prize is not set

- 23 – Gantry could not return home

Section 4 Connectors and Wiring

Please refer to Mainboard image and Kit image. Connectors and cables are labeled the same.
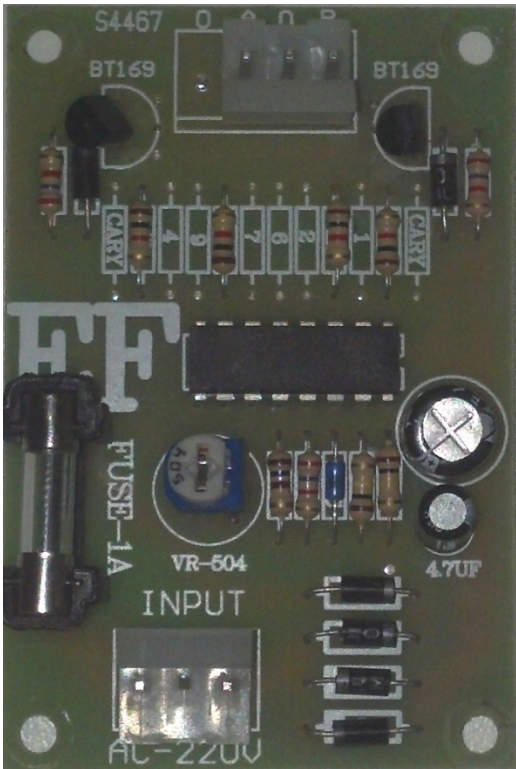
Section 5 - Power Supply

- The 5 wire pigtail plugs into J2 of the Main board
- The 2 wire pigtails are unused and supplies 12v power for lighting or other accessories.

Section 6 - Included Optional equipment

- **EF Light Control Board**

  - Image

  - Input AC 110v or 220v
  - Output DC 12V
  - **THIS UNIT DOES NOT CONNECT TO THE MAIN BOARD. ANY ATTEMPT TO DO SO WILL VOID ANY AND ALL WARRANTIES FOR THIS KIT.**
  - LED Light strips not included

- **Volt Meter** is used to check output voltage to assist in setting proper claw strength. Can be permanently mounted or simply used during setup then removed.
- **Coin Counter** is provided to offer a way to keep a running total of coins. Onboard counter can be reset, losing this data. Exclusion of this unit will not affect operation.
- **Power Switch** – **UNPLUG FROM AC POWER SUPPLY BEFORE INSTALLING THE POWER SWITCH.**
  This switch is place between AC power and the Power supply and should only be installed by a professional electrician

Distributed By:

Holland Computers, Inc.
483 N. Abbe Rd
Elyria, Ohio 44035
440-365-9906

www.hollandcomputers.com

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