Rescue Hero

OPERATING MANUAL

Rev. 5-12-11

(Software Version: W605-U2A4)

DIP SW Setting

➤ DIP SW1		1	2	3	4	5	6	7	8
COIN1 COIN VS. CREDIT	2 coins 3 credits	ON	ON						
	2 coins 1 credit	ON	OFF						
	1 coin 2 credits	OFF	ON						
	1 coin 1 credit	OFF	OFF						
COIN2 COIN VS. CREDIT	2 coins 3 credits			ON	ON				
	2 coins 1 credit			ON	OFF				
	1 coin 2 credits			OFF	ON				
	1 coin 1 credit			OFF	OFF				
Coin meters Counting mode	mode 2	See Explanation Below						ON	
	mode 1	See Explanation Below						OFF	
Reserved									OFF
Default Setting		ON	OFF	ON	OFF	OFF	OFF	OFF	OFF

1. Coin Meters Counting mode：
   - ● ON Mode 2：

   Coin meter 1 = COIN1 PULSE + COIN2 PULSE
   Suitable for two coin mechs (same value).
   - ● OFF Mode 1：

   Coin meter 1 = COIN1 PULSE

   Coin meter 2 = COIN2 PULSE

   Suitable for two coin mechs (different values).

➢ DIP SW2		1	2	3	4	5	6	7	8
Keep CREDIT on power fail	YES	ON							
	NO	OFF							
DEMO MUSIC (*Attract Mode Only*)	No		ON						
	YES		OFF						
TICKET DISPENSER	YES			ON					
	NO			OFF					
Keep unpaid tickets on power fail	No				ON				
	YES				OFF				
GAME TIME	60 SEC.					ON	ON		
	50 SEC.					ON	OFF		
	40 SEC.					OFF	ON		
	30 SEC.					OFF	OFF		
Ticket value for each level	ADJUST VALUES	Continuously adjust ticket values from 1 - 99						ON	
	DEFAULT	See Ticket Value Table						OFF	
GAME mode	FREE PLAY								ON
	CREDIT								OFF
Default Setting		ON	OFF	ON	OFF	OFF	OFF	OFF	OFF

1. Ticket out mode :
   - Fixed : Cannot change (Factory Default *Ticket Value Table*)

LEVEL	1	2	3	4	5	6	7	8	9	10	11	12
Number of Tickets	1	2	3	4	5	6	7	8	10	20	30	40

   - **ADJUST VALUE** : To change ticket value at each level from 1 - 99. See DIP SW4 Ticket setting.

➢ DIP SW3		1	2	3	4	5	6	7	8
COIN1 TICKET(S)/UPON COINS INSERTED (MERCY TICKET)	3	ON	ON						
	2	ON	OFF						
	1	OFF	ON						
	0	OFF	OFF						
COIN2 TICKET(S)/UPON COINS INSERTED (MERCY TICKET)	3			ON	ON				
	2			ON	OFF				
	1			OFF	ON				
	0			OFF	OFF				
NUMBER OF TRIES IN EACH GAME	4							ON	ON
	3							ON	OFF
	2							OFF	ON
	1							OFF	OFF
Default Setting		OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON

➢ DIP SW4		1	2	3	4	5	6	7	8
Speed Mode of Raising Bar	Random	ON							
	Fixed	OFF							
Speed of Raising Bar *Adjustable only when SW4 Pin 1, is OFF*	Fastest		ON	ON					
	Fast		ON	OFF					
	Normal		OFF	ON					
	Slow		OFF	OFF					
Game Difficulty	Difficult				ON	ON			
	Hard				ON	OFF			
	Normal				OFF	ON			
	Easy				OFF	OFF			
System mode	Normal game						ON	ON	ON
	Normal game						ON	ON	OFF
	Normal game						ON	OFF	ON
	Normal game						ON	OFF	OFF
	Ticket Setting						OFF	ON	ON
	I/O TEST						OFF	ON	OFF
	Default setting						OFF	OFF	ON
	Normal game						OFF	OFF	OFF
Default Setting		OFF	OFF	ON	OFF	ON	OFF	OFF	OFF

◆ **Notes：**

1. Speed Mode of Raising Bar：
   ● FIXED：The speed of Rising bar is fixed in each game. The speed of Rising bar is referred to Setting of DW 4 Pin 2~3.
   ● RANDOM：The speed of Rising bar is random in each game and the random speed will be one of four speeds (DW 4 Pin 2~3)

2. Game Difficulty：
   ● Easy：Both fire bars turn around in fixed way. When rising bar is rising up on the 3/4 position, both fire bars will be turning faster.
   ● Normal：Both fire bars turn around in fixed way. When rising bar is rising up on the 2/3 position, both fire bars will be turning faster.
   ● Hard：Both fire bars turn around in fixed way. When rising bar is rising up on the 1/2 position, both fire bars will be turning faster.
   ● Difficult：Both fire bars will turn a different way randomly, and the speed of rising bar is random as well.

TICKET VALUE TABLE

3.

- Ticket Setting：
➢ Enter mode： Only adjustable when DIP SW2 Pin 7 is On.
➢ Setting Detail：

LEVEL	Default	Adjust Range	
1	1	1 ~ 99	
2	2	1 ~ 99	
3	3	1 ~ 99	
4	4	1 ~ 99	
5	5	1 ~ 99	
6	6	1 ~ 99	
7	7	1 ~ 99	
8	8	1 ~ 99	
9	10	1 ~ 99	
10	20	1 ~ 99	
11	30	1 ~ 99	
12	40	1 ~ 99	

Maintenance

I/O Test

- ➢ Entering : adjust DIP SW4 pins 6、7、8 to "OFF、ON、OFF" and then restart.
- ➢ Exit：adjust DIP SW4 pins 6、7、8 to "OFF、OFF、OFF" then turn on and off machine back to normal game mode.

- ➢ Buttons description：
  【TEST】SW：Choose the test item
  【SERVICE】SW：Enter in test mode

- ➢ Operation diagram: If you would like to choose another test item, press【TEST】SW to exit current test

Item	Content
1	Test DIP SW1、2
2	Test DIP SW3、4
3	Test switches
4	Test LED light, DISPLAY
5	Test UP/DOWN motor and position SENSOR
6	Test Left side motor
7	Test Right side motor
8	Test sound
9	Rising bar auto test

● **Test DIP SW1、2**
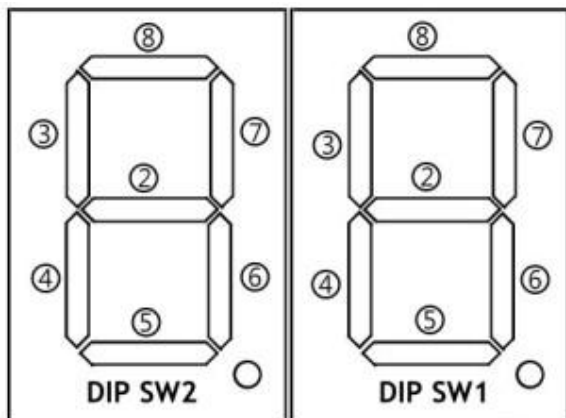
Turn on each PIN and then the corresponding display section will light up. (DIP switch pin 1 causes display to flash).
(DIP SW2 shown on ten digits；DIP SW1 shown on unit digits)

● **Test DIP SW3、4**
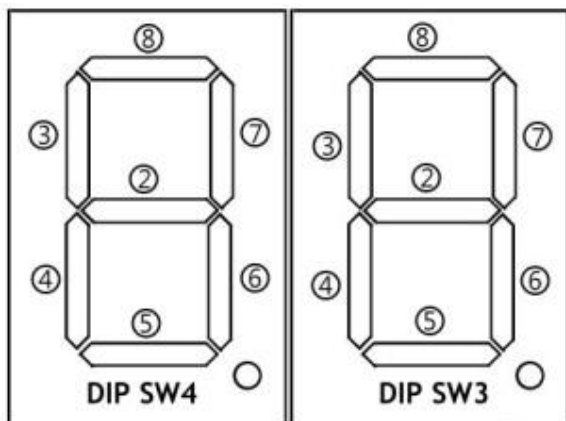
Turn on each PIN and then the corresponding display section will light up. (DIP switch pin 1 causes display to flash).
(DIP SW4 shown on ten digits；DIP SW3 shown on unit digits)

● **Test Switch**
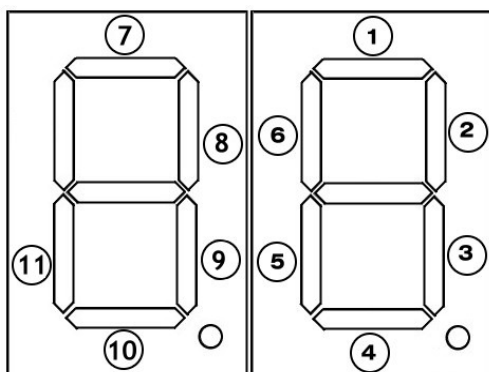
Following signals have their compared display section to become light up and flash to show the status

1. Joystick – UP
2. Joystick – Down
3. Rising bar's beginning SW
4. Rising bar's ending SW
5. n/a
6. Rising ball SW
7. COIN1 signal
8. COIN2 signal
9. n/a
10. Ticket dispenser SENSOR
11. Ball dispenser SENSOR (reserved)

● **Test LED Lights、DISPLAY**

➢ Entering：Under TEST mode, press TEST SW to "4", and press【SERVICE】 SW to enter test mode of Test LED lights、DISPLAY. The test menu will show forward to the next test item in every 1 second.

➢ Button/SW operating description of Test LED lights、DISPLAY：
1.) Press【TEST】SW：Back to TEST Menu.

● Test up/down motor and position sensor

➤ Entering：Under TEST mode, press TEST SW to "5", and press【SERVICE】 SW to enter test mode of up/down motor and position sensor.

➤ Button/SW operating description of Test up/down motor：

  1.) Press【SERVICE】button:：Select speed 0~15, 0 means Motor is off. Number value is higher, speed of motor is faster. Motor can start working in number value 10 after installing in the game. Move joystick up and down to raise and lower bar. If motor is not working at speed 10, the motor is out of order and need to replace. If motor is still working in number value 0, the Driver IC in main board is bad, the main board needs to be repaired. During the process of moving, the display shows the bar position, if this number is not correct, it means the installation of position sensor is not correct or the sensor has failed.

  2.) Press【TEST】SW：Back to TEST Menu.

● Test left side motor

➤ Entering：Under TEST mode, press TEST SW to "6" , and press【SERVICE】 SW to enter test mode of left side motor.

➤ Button/SW operating description of Test left side motor：

  1.) Press【SERVICE】button:：Select speed 0~15, 0 means Motor is off. Number value is higher, speed of motor is faster. Motor can start working in number value 8 after installing in the game. Use joystick to move the flame arm in either direction. If motor is not working at speed 8, the motor is bad and needs to be replaced. If motor is still working in number value 0, the Driver IC on the main board is bad, and the main board needs to be repaired.

  2.) Press【TEST】SW：Back to TEST Menu.

● Test right side motor

➤ Entering：Under TEST mode, press TEST SW to "7" , and press【SERVICE】 SW to enter test mode of right side motor

➤ Button/SW operating description of Test right side motor：

  1.) Press【SERVICE】button:：Select speed 0~15, 0 means Motor is off. Number value is higher, speed of motor is faster. Motor can start working in number value 8 after installing in the game. Use joystick to move the flame arm in either direction. If motor is not working at speed 8, the motor is bad and needs to be replaced. If motor is still working in number value 0, the Driver IC on the main board is bad, and the main board needs to be repaired.

  2.) Press【TEST】SW：Back to TEST Menu.

● Test Sound

➤ Entering：Under TEST mode, press TEST SW to "8" , and press【SERVICE】 SW to enter test mode of Sound.

➤ Button/SW operating description of Test Sound：

  1.) Press【SERVICE】SW：Select sounds.

  2.) Move joystick【UP】: Start Playing.

3.) Press【TEST】SW：Back to TEST Menu.

● **Rising bar auto test**

➢ Entering：Under TEST mode, press TEST SW to "9", and press【SERVICE】 SW to enter auto test mode of Rising bar.

➢ Button/SW operating description of Rising bar auto test：
   1.) Move joystick【UP】: Start or Stop Test.
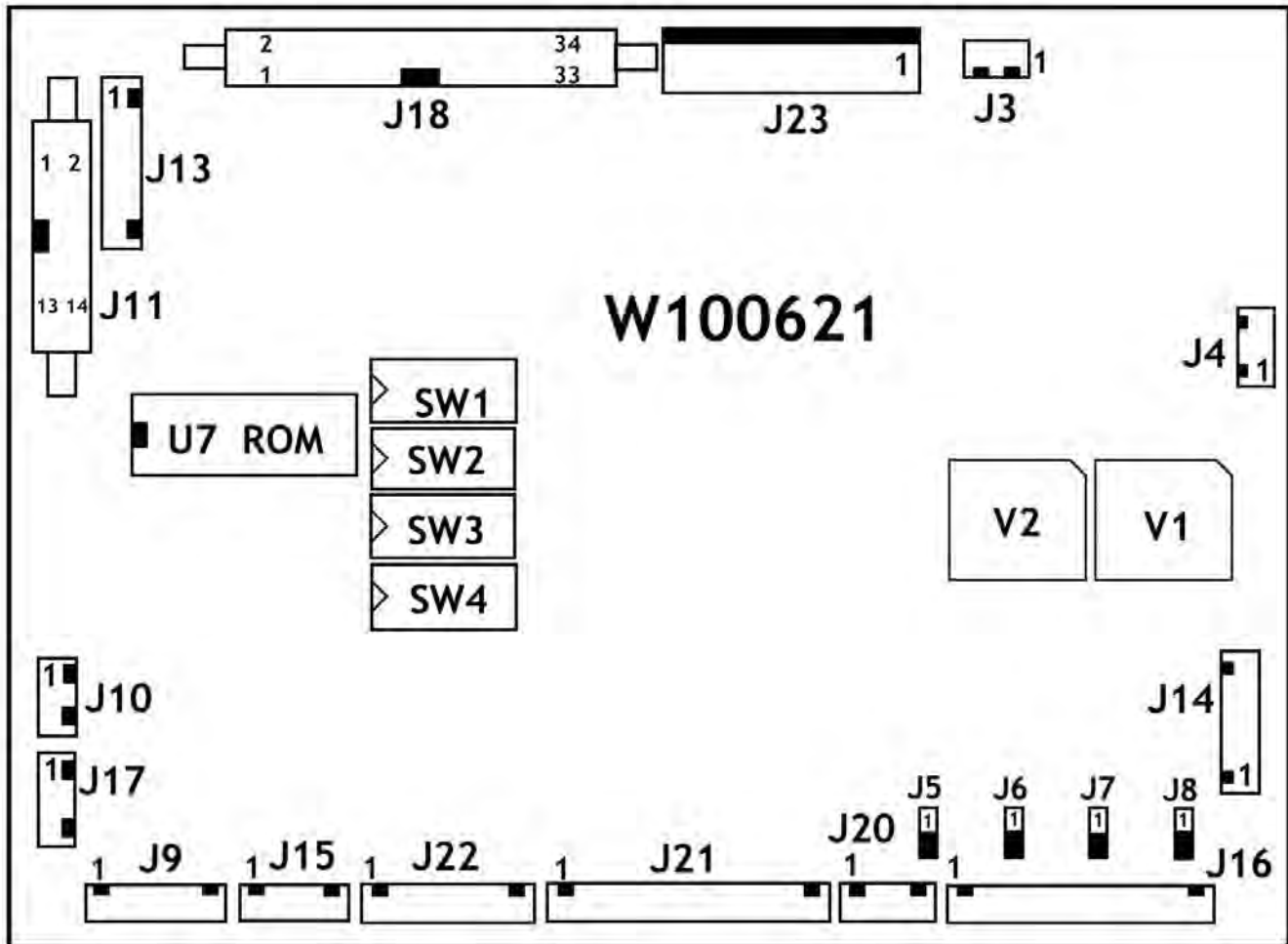   2.) Press【TEST】SW：Back to TEST Menu.

Error code description

Machine will auto check each function, if any function is out or order, the error code will be showed on Credit Display. Error cores table is showed as below：

Error Code	Description	Failure Reason	Trouble shooting
cr	Memory	Had changed different version ROM (program) or compulsion elimination	Reboot machine again.
O1	Start point SW	Start point SW is fault.	1. Check whether the wire of Start point SW or Destination SW is connected well. 2. Check whether the wire of J22 of Main board is connected well. 3. SW or main board is out of order or main board.
O2	Destination SW	Destination SW is fault.	
O3	Position SENSOR	Position SENSOR of Rising bar is fault.	1. Check whether the wires of all Position SENSOR are connected well. 2. Check whether the wire of J22 of Main board is connected well. 3. W100203- Position SENSOR is out of order. 4. Main board is out of order or main board
O4	Rising bar SW	Ball position SW is fault or there is no ball.	1. Check whether there is any ball in the machine. 2. Check whether the wire of Rising bar SW is connected well. 3. Check whether the wire of 15 of Main board is connected well 4. SW or main board is out of order or main board.
O5	Memory	Memory of PCB is out of order	Sent the PCB back to repair.
O6	Coin mech 1	Meters Offline	**1. Check if the meter is out of work? Is the pin loose?** **2. Check if the pin #J18 connects well?** **PS. If all ticket settings are set as 0, the program will not detect ticket meter.**
O7	Coin mech 2		
O9	Ticket		
10	Tickets	No tickets	1. Check Ticket Qty. 2. Check the wire of ticket dispenser is connected well.
11	COIN1	Wrong input signal of Coin Mech.	Check Coin mech is N.O. mode.
12	COIN2		

Wiring Diagram

MAIN BOARD W100621

● JUMP PIN

J5	COIN1 DISABLE		J6	COIN2 DISABLE		J7	COIN3 DISABLE		J8	TICKET DISPENSER Driver
1	HIGH Drive		1	HIGH Drive		1	HIGH Drive		1	HIGH Drive
2			2			2			2	
3	LOW Drive		3	LOW Drive		3	LOW Drive		3	LOW Drive

J3	COLOR	2.5 Pin	Remark
1	WHITE	SOUND VR -- PIN1	Volume VR (1K)
2	RED	SOUND VR -- PIN2	
3	BLACK	SOUND VR -- GND	

J4	COLOR	2.5 Pin	Remark
1	BLUE	SPEAKER –	SPEAKER
2	BLUE	SPEAKER	
3	PURPLE	SPEAKER +	
4	PURPLE	SPEAKER +	

J9	COLOR	2.5 Pin	Remark
1	RED	LEFT LED-R	LEFT LED
2	GREEN	LEFT LED-G	
3	BLUE	LEFT LED-B	
4	BLACK	GND	
5	RED&WHITE	RIGHT LED-R	RIGHT LED
6	GREEN&WHITE	RIGHT LED-G	
7	BLUE&WHITE	RIGHT LED-B	
8	BLACK	GND	

J14	COLOR	2.5 Pin	Remark
1		GND	
2	RED&WHITE	UP/DOWN MOTOR +	
3	BROWN	UP/DOWN MOTOR –	
4	RED&YELLOW	LEFT MOTOR +	
5	ORANGE	LEFT MOTOR –	
6	RED	RIGHT MOTOR +	
7	YELLOW	RIGHT MOTOR –	
8		GND	

J13	COLOR	2.5 Pin	Remark
1	Brown	A	Connect W991907 CREDIT Dispaly (connect one by one)
2	RED	B	
3	ORANGE	C	
4	YELLOW	D	
5	GREEN	E	
6	BLUE	F	
7	PURPLE	G	
8	GRAY	DP	
9	WHITE	COM0	
10	PINK	COM1	

J15	COLOR	2.5 Pin	Remark
1	RED	+12V	Connect top win LED light board - W100831
2	BROWN	LED-R	
3	ORANGE	LED-G	
4	YELLOW	LED-B	
5	GREEN	Rising bar SW N.O.	Rising bar SW
6	BLACK	Rising bar SW COM	

J11 14 PIN -- CONNECT W100622 DISPLAY					
P#	Color	Pin	P#	Color	Pin
1			2		
3			4		
5			6		
7			8		
9			10		
11			12		
13			14		

J16	COLOR	2.5 PIN	REMARK
1	RED	+12V	COIN 1
2	WHITE	COIN1 SIGNAL	
3	GREEN	COIN1 DISABLE SIGNAL	
4	BLACK	GND	
5	RED	+12V	COIN 2
6	WHITE&BLUE	COIN2 SIGNAL	
7	GREEN&WHITE	COIN2 DISABLE SIGNAL	
8	BLACK	GND	
9		+12V	NOTE READER
10		COIN3 SIGNAL	
11		COIN3 DISABLE SIGNAL	
12		GND	
13	RED	+12V	TICKET DISPENSER
14	PINK/GREEN	T/D SENSOR	
15	BLUE	T/D SSR	
16	BLACK	GND	

J17	COLOR	2.5PIN-RED	REMARK
1	RED	+12V	METER
2	BROWN&WHITE	COIN1 METER	
3	ORANGE&WHITE	COIN2 METER	
4		PRIZE METER	
5	GREEN&WHITE	TICKET METER	

J19	COLOR	2.5PIN-BLUE	REMARK
1	BROWN&WHITE	A	CONNECT W991907 T/D DISPLAY (1 TO 1)
2	RED&WHITE	B	
3	BROWN&WHITE	C	
4	YELLOW & WHITE	D	
5	GREEN&WHITE	E	
6	BLUE&WHITE	F	
7	PURPLE&WHITE	G	
8	GRAY&BLACK	DP	
9	WHITE&PURPLE	COM5	
10	PINK/BLUE	COM6	

J18 34PIN- CONNECT W100624-SCORE LED LIGHT					
P#	COLOR	PIN	P#	COLOR	PIN
1			2		
3			4		
5			6		
7			8		
9			10		

11			12		
13			14		
15			16		
17			18		
19			20		
21			22	RED	+12V
23			24	PURPLE & WHITE	Left side LED Light (W060711)
25	RED	+12V	26	RED	+12V
27	GRAY	Right side LED Light (W060711)	28	GRAY & BLACK	Top Win Light
29			30		
31			32		
33			34		

J20	COLOR	2.5 PIN	REMARK
1		+12V	CAPSULE DISPENSOR (RESERVED)
2			
3		CAPSULE DISPENSOR MOTOR	
4		CAPSULE DISPENSOR SENSOR	
5		GND	

J21	COLOR	2.5 PIN	REMARK
1	BLACK	GND	JOYSTICK
2	ORANGE & WHITE	JOYSTICK-UP SW	
3	BLACK	GND	
4	GREEN & WHITE	JOYSTICK-DOWN SW	
5			
6			
7	BLACK	GND	TEST
8	PURPLE & WHITE	TEST SW (N.O.)	
9		GND	SERVICE
10	PINK/BLUE	SERVICE SW (N.O.)	
11			
12			
13			

J22	COLOR	2.5PIN	REMARK
1	RED	+12V	A POSITION Sensor CONNECT WITH W100203
2	BROWN	A POSITION Sensor	
3	BLACK	GND	
4	RED	+12V	B POSITIOB Sensor CONNECT WITH W100203
5	BROWN	B POSITION Sensor	
6	BLACK	GND	

7	BLUE	START POINT SW (N.O.)	START POINT SW
8	BLACK	GND	
9	WHITE	DESTINATION SW (N.O.)	DESTINATION SW
10	BLACK	GND	

14			
15			
16			
17			

J23	COLOR	3.96 Pin	REMARK
1	BLACK	GND	
2	YELLOW	+12V	
3	YELLOW	+12V	
4	BLACK	GND	
5	YELLOW	+12V	
6	YELLOW	+12V	
7	BLACK	GND	Power PIN
8		+5V	
9		+5V	
10	BLACK	GND	

J24	COLOR	2.5 Pin-BLUE	REMARK
1	PURPLE	DI	CONNECT WITH J1 OF ODD NUMBER DISPLAY (PCB-W101134)
2	GRAY	CK	
3	WHITE	/EO	
4	PINK	LE1	
5	BLACK	GND	

J25	COLOR	2.5 Pin-GREEN	REMARK
1	PURPLE & WHITE	DI	CONNECT WITH J1 OF EVEN NUMBER DISPLAY (PCB-W101134)
2	GRAY & BLACK	CK	
3	WHITE &BLUE	/EO	
4	PINK/BLUE	LE1	
5	BLACK	GND	

COUNT DOWN DISPLAY BOARD W100622 (backside)
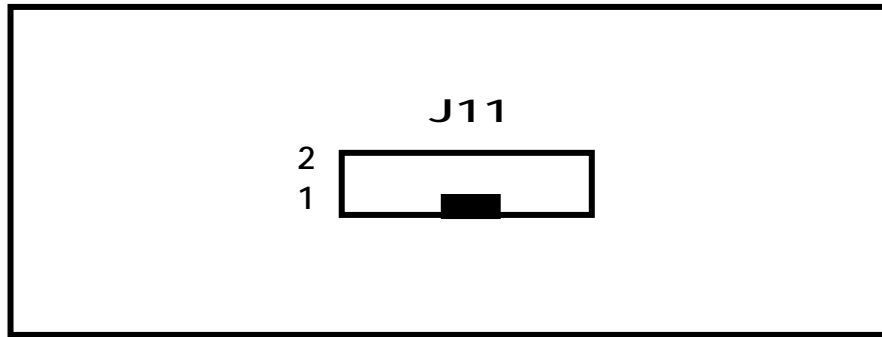
J11 14PIN – Connect Main Board-W100621						
P#	Color	Pin #		**P#**	Color	Pin #
1		COM2	W100621-J11 Pin 1	**2**		TBA : W100621-J11 Pin 2
3		COM3	W100621-J11 Pin 3	**4**		TBB : W100621-J11 Pin 4
5		COM4	W100621-J11 Pin 5	**6**		TBC : W100621-J11 Pin 6
7				**8**		TBD : W100621-J11 Pin 8
9				**10**		TBE : W100621-J11 Pin 10
11				**12**		TBF : W100621-J11 Pin 12
13		TBP	W100621-J11 Pin 13	**14**		TBG : W100621-J11 Pin 14

TOP LED BOARD W100831 for ball touch (back side)
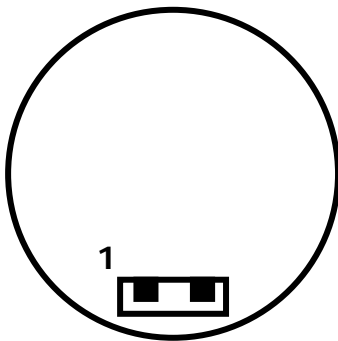
CN1	COLOR	2.5 Pin	
1		+12V	Connect main board J15 Pin 1
2		LED-R	Connect main board J15 Pin 2
3		LED-G	Connect main board J15 Pin 3
4		LED-B	Connect main board J15 Pin 4

Score LED BOARD W100624 (backside)
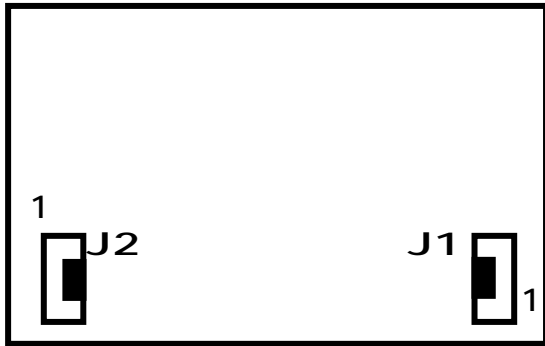
J1	COLOR	2.5 Pin	
1		+12V	Connect main board J18
2		LED SIGNAL	
J2	COLOR	2.5 Pin	
1		+12V	Connect main board J18
2		LED SIGNAL	

SENSOR BOARD W100203
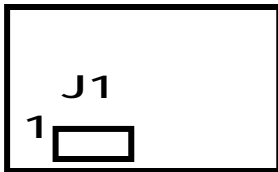
J1	COLOR	2.5 Pin	
1		+12V	Connect main board J22
2		VO	
3		GND	

CREDIT display board W991907 (front side)
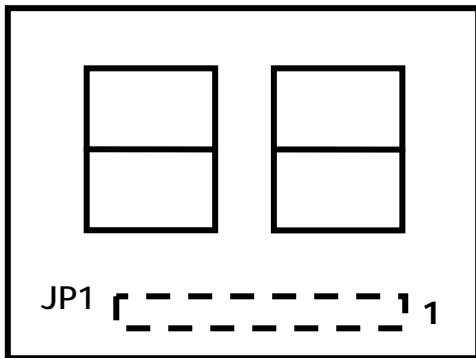
JP1	COLOR		2.54 Pin
1	Brown	A	Connect main board J13 Pin 1
2	RED	B	Connect main board J13 Pin 2
3	ORANGE	C	Connect main board J13 Pin 3
4	YELLOW	D	Connect main board J13 Pin 4
5	GREEN	E	Connect main board J13 Pin 5
6	BLUE	F	Connect main board J13 Pin 6
7	PURPLE	G	Connect main board J13 Pin 7
8	GRAY	DP	Connect main

			board J13 Pin 8
9	WHITE	COM4	Connect main board J13 Pin 9
10	PINK	COM3	Connect main board J13 Pin 10
11		COM2	
12		COM1	