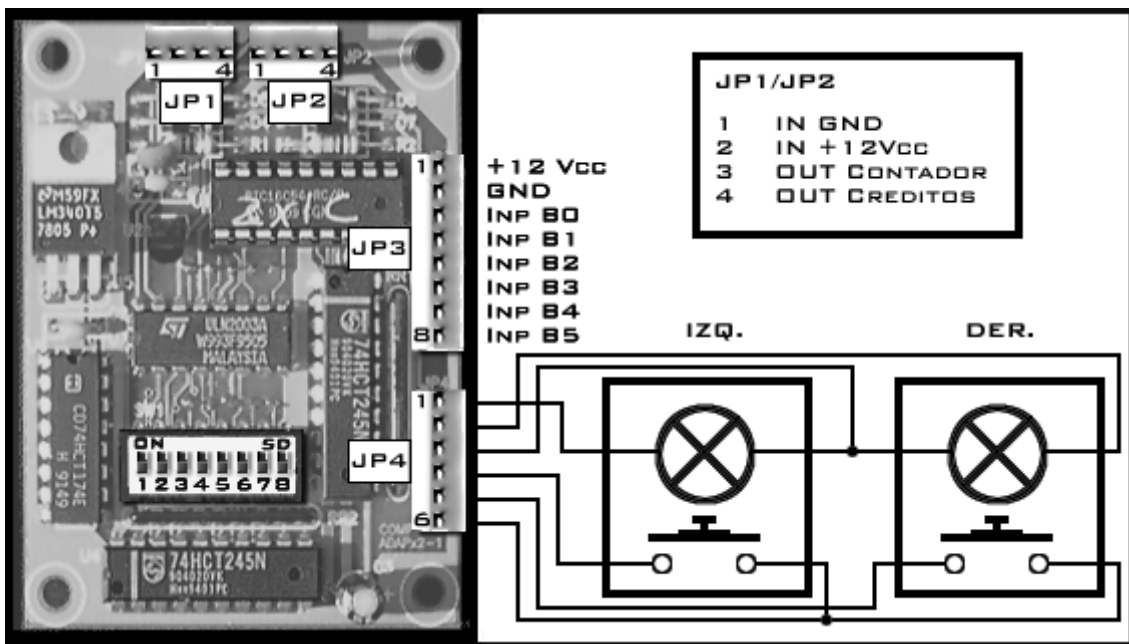


Speed Up (twin)

CREDIT DISTRIBUTOR SETUP



Connectors:

JP1: Cabinet 1 (Left player).

JP2: Cabinet 2 (Right player).

JP3: Coin controller.

JP4: Credits distribution controls.

Credit distributor PCB has four connectors and eight switches providing the possibilities to configure it for some commonly used versions of coin/credit relations.

CONNECTORS LAYOUT

Conectors JP1/JP2:

The conectors JP1 and JP2 should be connected to SPEED UP PCB No.1 and SPEED UP PCB No.2 respectively:

JP1	Description:	Values:	Source/Destination:
Pin 1	Input GND.	GND.	GND power supply.
Pin 2	Input Vcc.	+12 Vdc	DC power supply.
Pin 3	Reserved.	- - - -	
Pin 4	Credits output.	+5/0 V.	Credits for CPU.

JP2	Description:	Values:	Source/Destination:
Pin 1	Input GND.	GND.	GND power supply.
Pin 2	Input Vcc.	+12 Vdc	DC power supply.
Pin 3	Counter output.	0/+5/+12 V	Coin counter
Pin 4	Credits output.	+5/0 V.	Credits for CPU.

Conector JP3:

Input conector of electronic coin controller, programmable per channels.

Distributor connector :

	PIN	Signal	Active	Link
1	1	Vcc	+12Vdc	=>blue(2)
2	2	GND	0V	=>black(1)
3	3	Inp. 1	0V	<=green(7)
4	4	Inp. 2	0V	<=red(8)
5	5	Inp. 3	0V	<=grey(9)
6	6	Inp. 4	0V	<=white(10)
7	7	Inp. 5	0V	<=orange(3)
8	8	Inp. 6	0V	<=yellow(4)

Coin controller connector :

PIN	Signal	Active
1	0V	0V
2	+12Vdc	+12Vdc
3	Outp. 5	0V
4	Outp. 6	0V
5	- - -	
6	Lock	High
7	Outp. 1	0V
8	Outp. 2	0V
9	Outp. 3	0V
10	Outp. 4	0V

***** Conectors layout for COMPONENTS SIDE *****

Conector JP4:

This connector should not be manipulated except in the case of malfunction.

PIN	Description:	Values:	Source/Destination:
Pin 1	Output LEFT bulb	0/12 Vdc.	Active= 0 V.
Pin 2	Output RIGHT bulb	0/12 Vdc.	Active= 0 V.
Pin 3	Common output bulbs	+12 Vdc	Power supply
Pin 4	Input LEFT button	0/5 Vdc	Left botton signal.
Pin 5	Input RIGHT button	0/5 Vdc	Right button signal
Pin 6	Output GND	GND	GND

SWITCH SETUP

SW1= OFF SERIAL Input:

Used for **mecanic** o electronic coin controllers that provide serial output or **channel** output.

Each input pulse is multiplied by a value (or "weight") depending of the input used according to the following table:

SW1= OFF: SERIAL INPUT (sw2= off)(*)

Connector (input)	Pin3 (i 1)	Pin4 (i 2)	Pin5 (i 3)	Pin6 (i 4)	Pin7 (i 5)	Pin8 (i 6)
VALUE:	x 25	x 10	x 5	x 4	x 2	x 1

(*) Europe except Spain: sw2= off.

SW1= OFF: SERIAL INPUT(sw2= on)**

Connector (input)	Pin3 (i 1)	Pin4 (i 2)	Pin5 (i 3)	Pin6 (i 4)	Pin7 (i 5)	Pin8 (i 6)
VALUE:	x 20	x 10	x 8	x 4	x 2	x 1

(**) USA and Spain: sw2= on.

SW2 coin multiplication factor:

SW2= OFF (Europe except Spain)	Channel:	1	2	3	4	5	6
	Value:	x 25	x 10	x 5	x 4	x 2	x 1
SW2= ON (Spain and USA)	Channel:	1	2	3	4	5	6
	Value:	x 20	x 10	x 8	x 4	x 2	x 1

SW3= XX Not used if SW1=OFF

SW1= ON PARALLEL Input:

Used for electronic coin controlles that provide **three-bit coin code**.

SW1= ON: PARALLEL INPUT (SW2= off)(*)

SW3= off: REDUCED table			SW3= on: EXTENDED table		
Coin 1	x5	5Dm,5Fs,500Lr	Coin 1	x25	
Coin 2	x2	2Dm,2Fs,200Lr	Coin 2	x10	10Ff, 1Lb
Coin 3	--		Coin 3	x8	
Coin 4	x1	1Dm,1Fs,100Lr	Coin 4	x5	5Ff,50Pn
Coin 5	--		Coin 5	x2	---,20Pn
Coin 6	--		Coin 6	x2	2Ff, ---
Coin 7	--		Coin 7	x1	---,10Pn
Coin 8	--		Coin 8	x1	---, ---

(*) Europe except Spain: sw2= off.

SW1= ON: PARALLEL INPUT (SW2= on)()**

SW3= off: REDUCED table			SW3= on: EXTENDED table		
Coin 1	x5	500Pt	Coin 1	x20	500Pt, ---
Coin 2	--		Coin 2	x10	
Coin 3	x2	200Pt	Coin 3	x8	200Pt, ---
Coin 4	x1	100Pt	Coin 4	x4	100Pt, 1\$
Coin 5	--		Coin 5	x2	--- ,50Ct
Coin 6	--		Coin 6	x2	50Pt, ---
Coin 7	--		Coin 7	x1	
Coin 8	--		Coin 8	x1	25Pt,25Ct

(**) USA and Spain: sw2= on.

SW2: coin multiplication factor:

SW2= OFF (Europe except Spain)	Coin:	1	2	3	4	5	6	7	8
	Value:	x 25	x 10	x 8	x 5	x 2	x 2	x 1	x 1
SW2= ON (Spain and USA)	Coin:	1	3	3	4	5	6	7	8
	Value:	x 20	x 10	x 8	x 4	x 2	x 2	x 1	x 1

SW3: REDUCED or EXTENDED coin table.

Used to setup parallel input of coin controller depending if the coin values fit the scale x1, x2 and x5, or extended scale must be used.

SW2= OFF Used in EUROPE except Spain	
SW3= OFF (REDUCED table)	SW3= ON (EXTENDED table)
x1 x2 x5	x1 x2 x5 x8 x10 x25

SW2= ON Used in SPAIN and USA	
SW3= OFF (REDUCED table)	SW3= ON (EXTENDED table)
x1 x2 x5	x1 x2 x4 x8 x10 x20

SW4-SW5 EXTRA credits bonus.

Define one EXTRA CREDIT bonus according to the BONUS table joined with Credits table.

SW6-SW7-SW8 CREDITS table

The following table indicate **pulses per credit**:

CREDITS table				BONUS table(SW4/SW5)			
SW6	SW7	SW8	Val/Cr	off/off	on/off	off/on	on/on
off	off	off	1	0	5	4	2
on	off	off	2	0	5	4	2
off	on	off	3	0	*5	3	6
on	on	off	4	0	20	16	8
off	off	on	5	0	25	20	10
on	off	on	8	0	20	16	8
off	on	on	10	0	25	20	10
on	on	on	12	0	20	16	24

(*)Adds another credit for the second lap.

APPLICATION EXAMPLES

Spain:	SW1=	off	SERIAL input. (25 Pt via PIN 8)
	SW2=	on	Input values x1 x2 x4 x8 x20
	SW3=		Not used.
	SW4=	on	EXTRA credit for 500pts.
	SW5=	off	
	SW6=	on	8 pulses / 1 credit.
SW7=	off		
SW8=	on		
RESULT:	200 Pts /1 credit; 500 Pts / 3 credits;		

Spain:	SW1=	on	PARALLEL input. (Coin 8 = 25 Pts)
	SW2=	on	Input values x4 y x20
	SW3=	on	Extended table x1 x2 x4 x8 x10 y x20.
	SW4=	on	EXTRA credit for 500pts.
	SW5=	off	
	SW6=	on	4 pulses / 1 credit.
SW7=	on		
SW8=	off		
RESULT:	100 Pts /1 credit; 500 Pts / 3 credits;		

Germany:	SW1=	off	SERIAL input. (1 Dm via PIN 8)
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	SW2=	off	Input values x1 x2 -- x5
	SW3=		Not used.
	SW4=	on	EXTRA credit on the 5th Coin.
	SW5=	off	
	SW6=	off	1 pulse / 1 credit.
	SW7=	off	
	SW8=	off	
RESULT:	1 dm /1 credit; 5 dm / 6 credits;		

France:	SW1=	off	SERIAL input. (5 Ff via PIN 5)
	SW2=	off	Input values x1 x2 -- x5
	SW3=		Not used
	SW4=	off	EXTRA credit on the 4th Coin.
	SW5=	on	
	SW6=	off	5 pulses / 1 credit.
SW7=	off		
SW8=	on		
RESULT:	5 ff/1 credit; 20 ff/ 5 credits;		

Great Britain :	SW1=	off	SERIAL input. (10 Pen via PIN 8)
	SW2=	off	Input values x1 x2 -- x5
	SW3=		Not used.
	SW4=	on	EXTRA credits for 50 Pn and 1 £.
	SW5=	off	
	SW6=	off	3 pulses / 1 credit.
SW7=	on		
SW8=	off		
RESULT:	30 Pn /1 cred.; 50 Pn /2 cred.; 1 £ / 5 cred.		

END