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## INSTALLATION AND USER INSTRUCTIONS

### CAUTION!!

Read to the end of this manual before connecting the device!

In this way, you will avoid any extremely unpleasant surprises and hazards.

Check that the device supplied corresponds to what you ordered.

If this is not the case, do not throw your packaging away, note the order number and inform ELAUT.

Test the keys supplied on all the locks and note the numbers for any later orders.

### CONNECTION & INSTALLATION

Every device is supplied with a Euro electrical plug and, unless otherwise stated, is set to 230 V 50 Hz. (U.S.A. 115 V 60 Hz and U.S.A. electrical plug )

Before connecting the device to the mains, check that the mains voltage corresponds to that of the device.

The devices may only be connected to power distribution boxes with circuits fitted with a 30 mA circuit-breaker.

**Bear in mind the following advice:**

Any heat generated by the device must be evacuated without hindrance.

Do not cover any ventilation openings and ensure that the device is not installed in overheated premises.

Do not place the devices in direct sunlight or close to any sources of heat.

Do not leave the device unprotected in rain or damp.

UNPACKAGING

After unpackaging, remove the protective materials and place the loosely packed components to one side.

BLOCKING DEVICES

Certain components which are likely to be displaced during transportation must be fastened or clamped in place (carriages, mirrors and trays)

**BRINGING INTO SERVICE**

Before connecting the device, check whether:

- the mains voltage is suitable (in volts)
- the required power supply is available (in amps)
- the electrical supply cables have the diameter required to supply this power with a voltage drop of less than 5% (if necessary, consult a competent electrician)

**Before carrying out inspection or repair work on the cabinet, always remove the plug from the socket!!!**

ELAUT shall accept no liability for any modifications carried out by third parties.

The management are under an obligation to ensure that it does not apply any options and/or function which contravene any local legal stipulations.

## SAFETY STIPULATIONS

Safety stipulations must in all cases be given top priority (i.e. specific, local and general safety precautions and regulations).

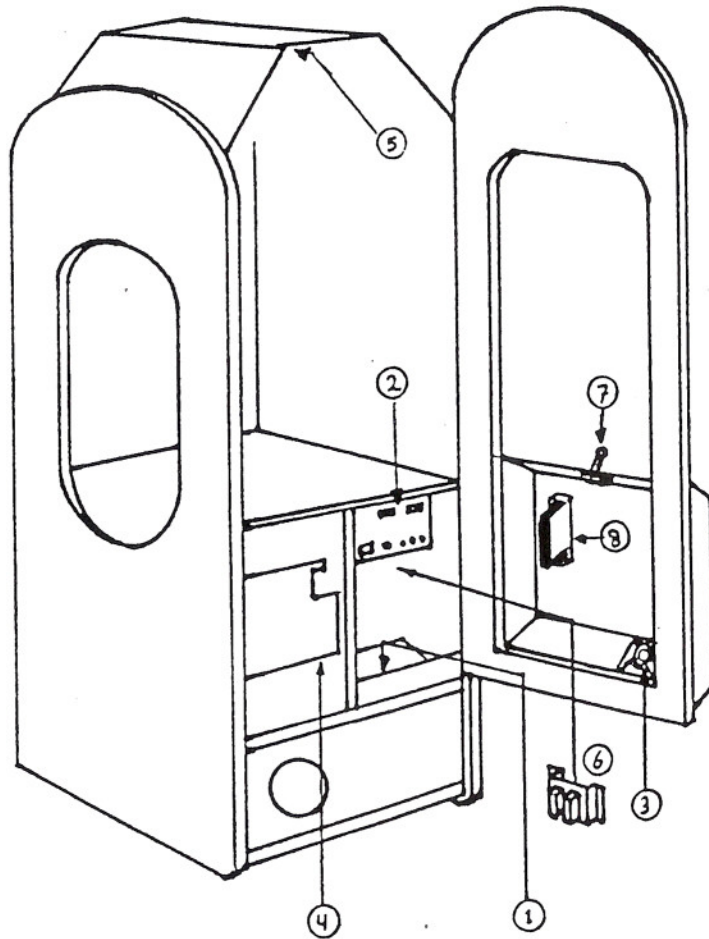
In all cases, make sure that:

- the power cables are well insulated and inaccessible.
- the power cables are properly earthed.
- the neutral power cable cannot be connected separately.

**Check the glass after each transportation.**

Damaged cabinets or cabinets with broken glass or damaged electrical mains cables cannot be used!!

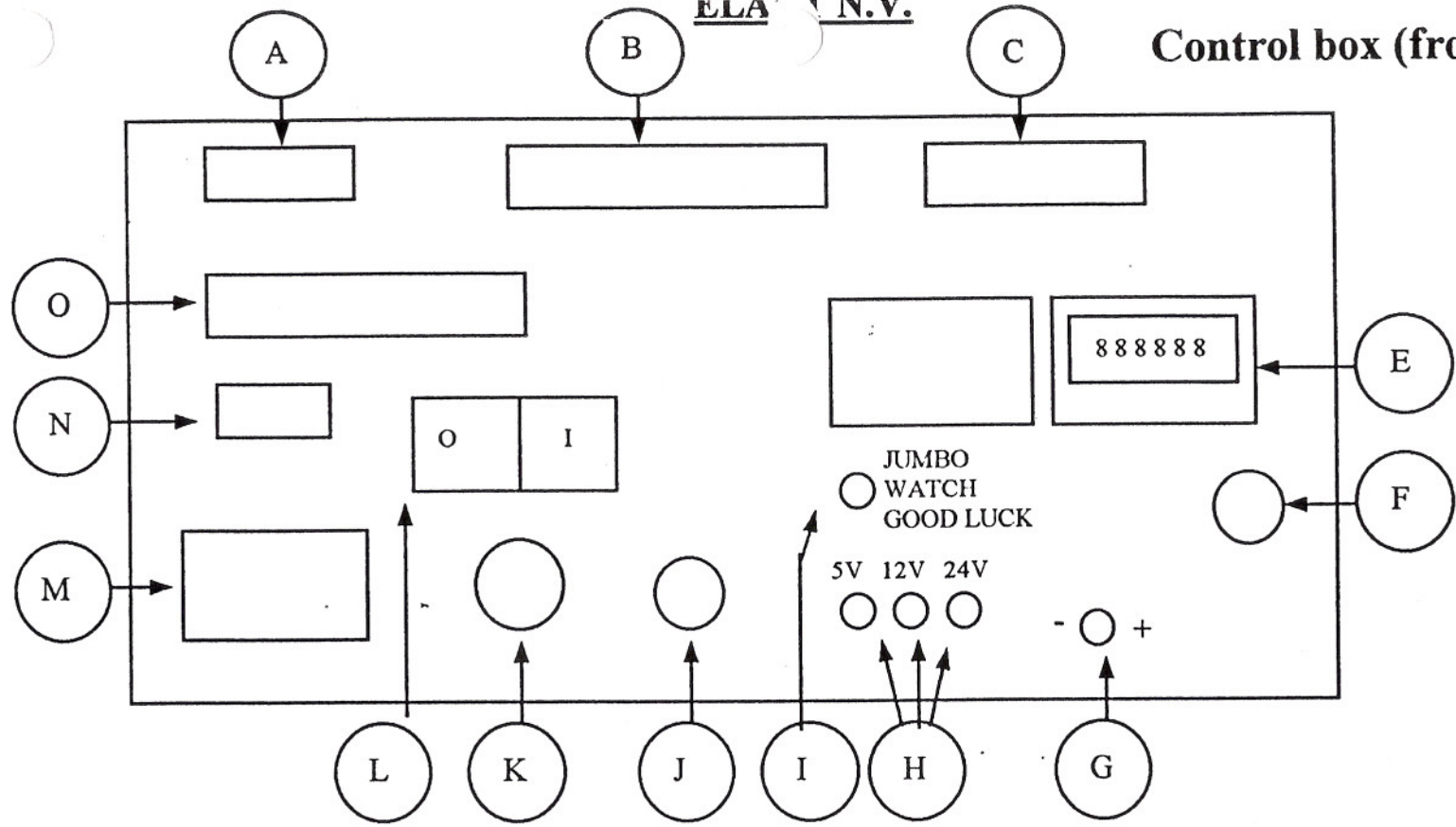
**ONCE** the aforementioned safety measures are taken, the aforementioned conditions are met and all the guidelines and safety regulations are complied with, the device can be brought into service.



OVERVIEW OF CABINET

- 1 : Coin compartment.
- 2 : Control box (drive module).
- 3 : Loudspeaker.
- 4 : Prize sensor.
- 5 : TL lamps.
- 6 : Main cabinet fuses (Amperage vary according to the type of cabinet).
- 7 : Control: joystick.
- 8 : Coin tester.

Control box (front)



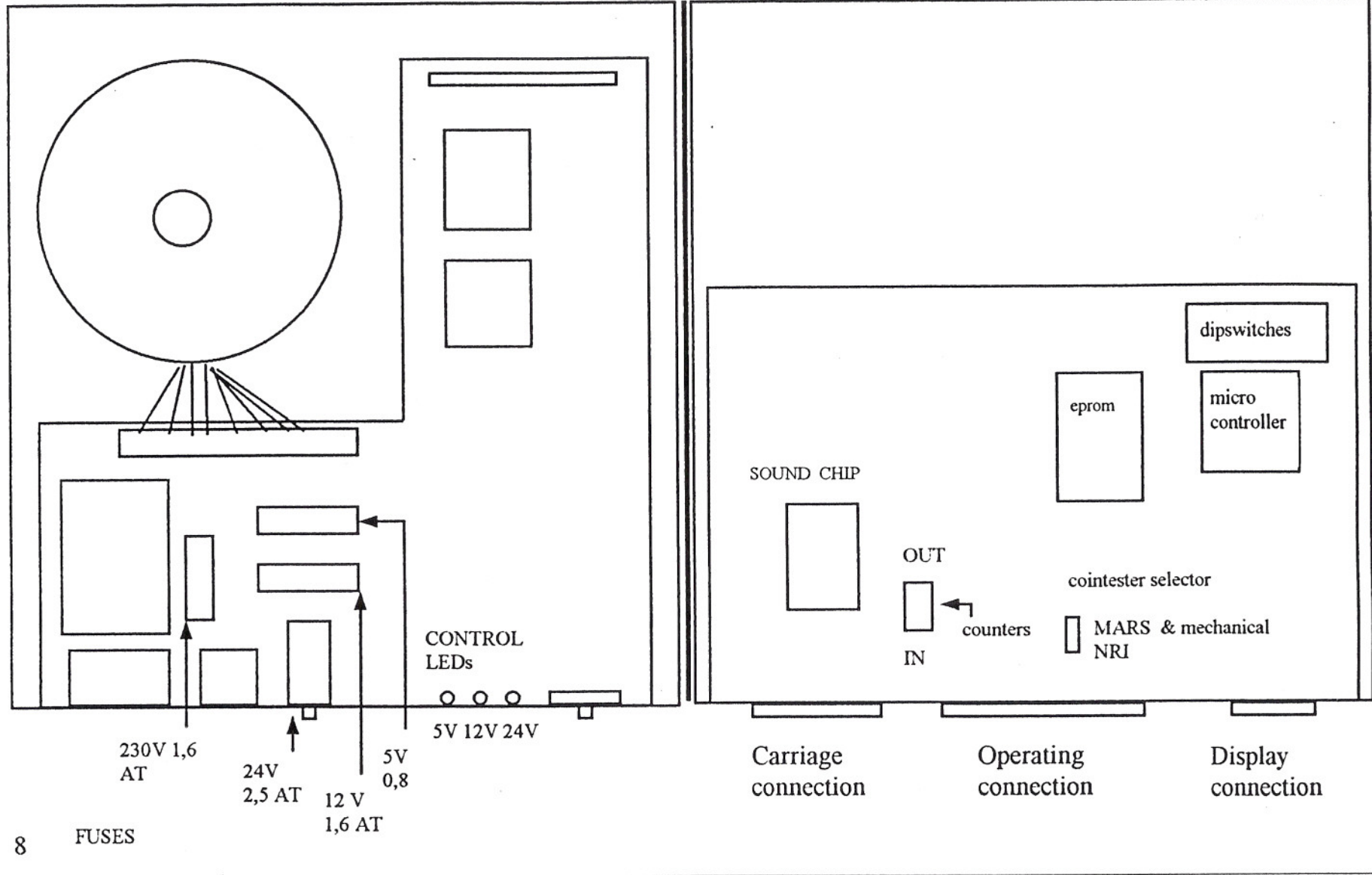
- |   |                                    |     |   |
|---|------------------------------------|-----|---|
| A | = display connection               | I   | = selector for JUMBO, WATCH or GOOD LUCK® |
| B | = control connection               | J   | = 2.5 Amp slow 24V fuse                   |
| C | = carriage connection              | K   | = connection for setting unit             |
| E | = input counter (coins)            | L   | = control box on/off switch               |
| G | = volume control (sound)           | M   | = mains voltage connection (115/230 V ~)  |
| H | = supply control LEDs (see page 9) | N/O | = for possible extensions                 |

# Control box (open)

A

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B



## The crane drive module (control box)

### Description:

This drive module can be disconnected fully by means of plugs. It consists of 2 major parts (see diagram on page 8)

**A:** the supply and transformer along with the appropriate fuses. An input voltage of 230V +/- 10% (115V +/-10%) is required for correct operation

the output voltages are      5V (for microcontroller)  
   12V (for interface and control)  
   24V (for motor and grabber)

For this purpose, an indicator LED is fitted to the front panel. In the event of a faulty fuse, the indicator for the appropriate part remains extinguished.

fuses:                    230 V - 1.6 AT or 115 V - 3.15 AT  
                                 24 V - 2.5 AT on front panel  
                                 12 V - 1.6 AT  
                                 5 V - 0.8 AT

**NEVER** replace with a fuse other than the specified type!

**B:** the drive unit (printed board) with microcontroller and connection. This drive ensures the control and operation of the PLC- operated grab-crane:

- control of display
- control of motors, grab-crane and control switches
- sound
- service and coin testing
- connection of setting unit
- (connection for computer communication)



## INFORMATION ABOUT EXPLOITAION

## CONFIGURABLE PARAMETERS

The crane has a number of configurable parameters which allow the PLC to be extended according to user requirements:

1. coin insert
2. bill acceptor installation (if present)
3. not used
4. not used
5. not used
6. game timer
7. waiting jingle
8. cabinet number units (computer communication)
9. cabinet number tens (computer communication)
10. counters reset
11. quit configuration mode

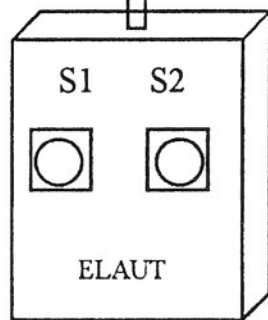
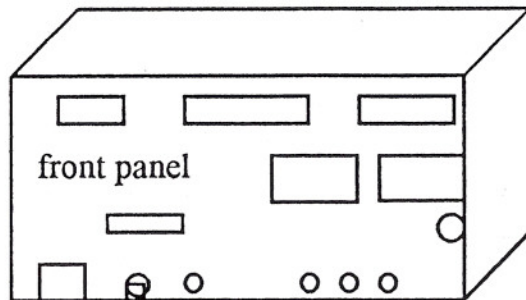
### **The game :**

When the game is started the gantry travels to the middle of the cabinet. You can play now with the joystick in all directions until you push the fire button . When the play time is over the grab will drop automatically.

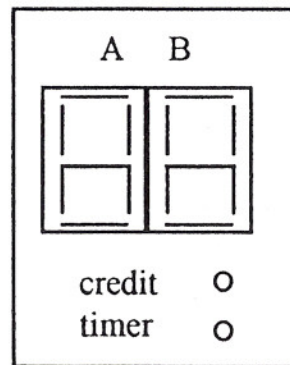
When you didnt grasp a candy or object the game starts again until you have grasp something.

There's a grabber with motor available for large objects

**PRINTED BOARD**



**SETTING UNIT**



**DISPLAY**

**How to configure the microcontroller (Eurograb)**

1. plug the setting unit into the socket on the printed board (see diagram)
2. press the pushbutton S1 for one second. A '1-' will appear on display A and the configured value will appear on display B. The latter value can be changed using pushbutton S2.
3. by pressing S1 at this point, the device changes to the next setting. This can be continued until setting 20 is reached. At this point if S1 is pressed, you quit configuration mode automatically.
4. because the tens cannot be shown, the '1-' from 10 up to and including 19 is displayed trough the CREDIT LED, and the '2-' in 20 by the TIMER LED
5. when you quit configuration mode, the display turns off. The two LEDs will blink at this point before the system returns to play mode.

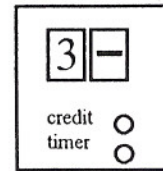
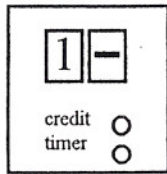
**Default settings**

The microcontroller can program itself to the default settings stipulated by ELAUT. Therefore press and hold button S2 on the setting unit during power up until both leds blink. This provides a good starting point for tuning your machine.

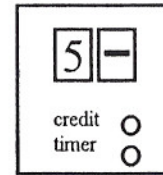
Settings

Coin insert value

- display B =
- 1 : \$0.25 / game
  - 2 : \$0.50 / game
  - 3 : \$0.75 / game
  - 4 : \$1.00 / game
  - 5 : \$1.25 / game
  - 6 : \$1.50 / game
  - 7 : \$1.75 / game
  - 8 : \$2.00 / game
  - 9 : \$2.25 / game
  - 0 : \$2.50 / game

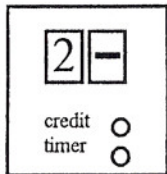


setting 3-5 = not used



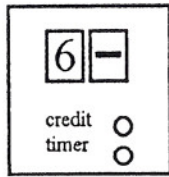
bill insert value

- display B =
- 1 : 1 game / 1 bill
  - 2 : 2 games / 1 bill
  - 3 : 3 games / 1 bill
  - 4 : 4 games / 1 bill
  - 5 : 5 games / 1 bill
  - 6 : 6 games / 1 bill
  - 7 : 7 games / 1 bill
  - 8 : 8 games / 1 bill
  - 9 : 9 games / 1 bill
  - 0 : 10 games / 1 bill



**You will find the coin values of each channel on the last page of this manual**

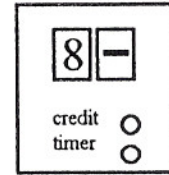
Maximum playing time



display B =

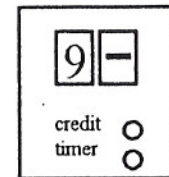
0 : OFF	5: 30 s
1 : 10 s	6: 45 s
2 : 15 s	7: 60 s
3 : 20 s	8: 75 s
4 : 25 s	9: 90 s

computer communication



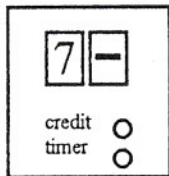
display B = units

computer communication



display B = tens

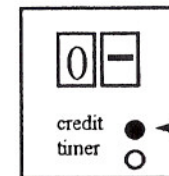
Time interval between jingle



display B =

0 : OFF	5: 4 min
1 : 0.5 min	6: 5 min
2 : 1 min	7: 6 min
3 : 2 min	8: 7 min
4 : 3 min	9: 8 min

counter reset



display B =

- 0 = no action
- 1 = no action
- 2 = no action
- 3 = no action
- 4 = no action
- 5 = reset

## READING OF ELECTRONIC COUNTER:

The crane has two electronic counters:

- total coins inserted (6 characters - in 3 x readings)
- number of prizes which have been won (4 characters - in 2 x readings)

The setting unit must be used to read these counters.

To read the total amount of money which has been inserted, press pushbutton S2 once. To see the number of prizes which have been won, press pushbutton S2 twice. Because the display can only show 2 characters simultaneously, the amounts are shown in several subtotals; the total amount of money inserted is shown in 3 groups:

e.g. group 1 group 2 group 3  
58 42 50 = 58 42 50

the number of prizes won appears in 2 groups

e.g. group 1 group 2  
18 74 = 18 74 prizes won

The display blinks whenever a group changes. In this way, you can see that the next group appears. The microcontroller then automatically returns to play mode.

## MECHANICAL COUNTER

Mechanical counter can be placed to store the amount of money inserted. The coin counter counts in stages.

You will find the counter units of your country on the last page of this manual

## BACKUP MEMORY:

The following data are stored in a backup memory:

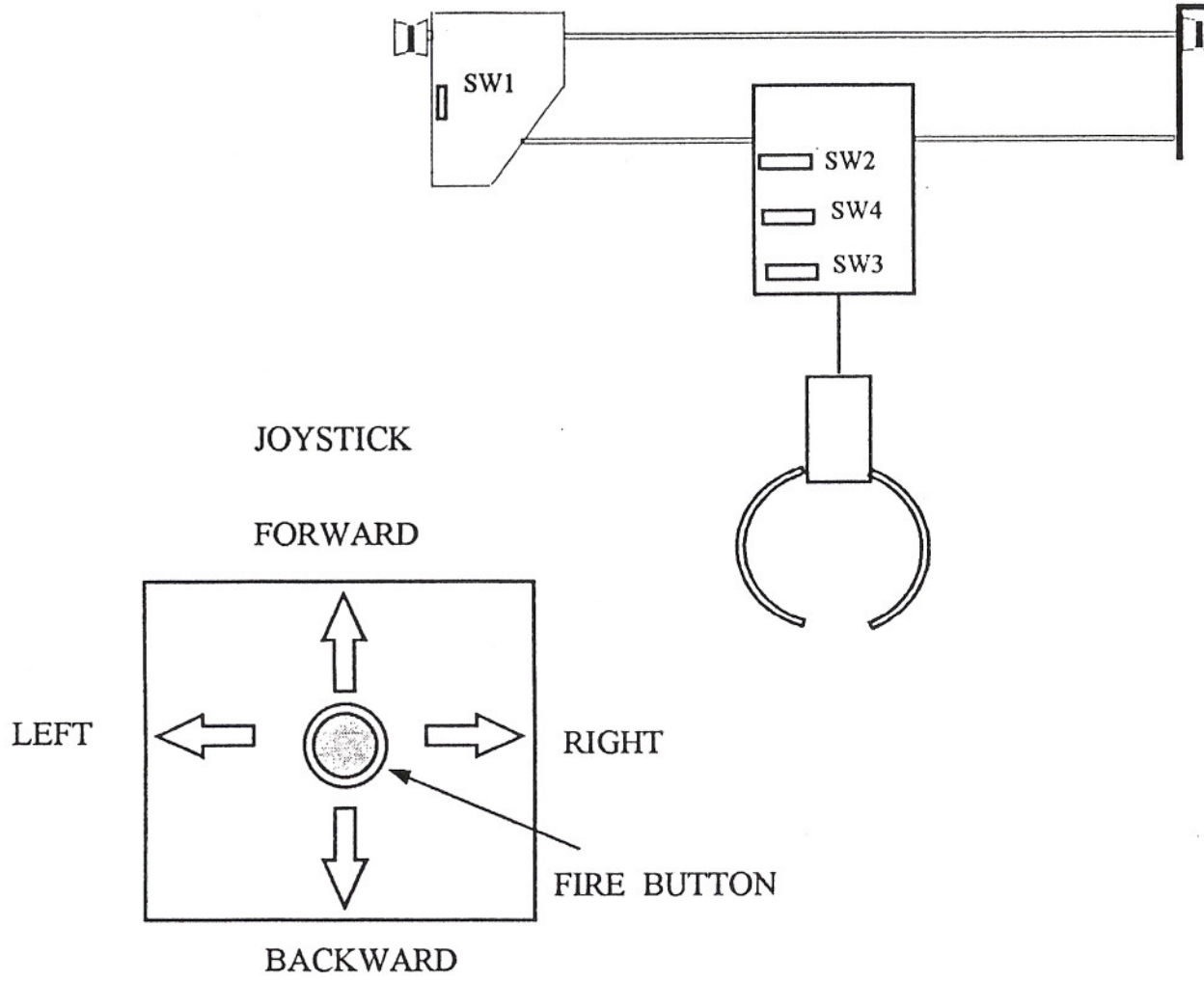
- electronic "total money inserted" counter
- all settings
- number of credits (games) not yet awarded to the player
- the number of counts still to be added to the mechanical counters

This backup is made whenever the grab-crane is switched off or in the event of a power-cut.

However, this does not occur after the system breaks down due to a fault: in this case, the data stored earlier are saved.

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## Crane self-test

When the S1 and S2 pushbuttons on the setting unit are kept pressed when the grab-crane is started up, the system carries out a self-test. This procedure tests the carriage movements, the user CONTROLS and the prize detector.

### A: mechanical system test:

The gantry carried out a full cycle until it is completed with no errors. If a problem is detected, an error code blinks on the display.

The gantry remains stationary or moves to a safe position until the specified fault is rectified.

The error codes are (from home position):

- code 01: the gantry does not go forward or the "SW 1" switch does not work
- code 02: the gantry does not go sideways or the "SW 2" switch does not work
- code 03: the grabber fails to drop or the "SW 3" switch does not work
- code 04: the grabber reaches the bottom too late (or not at all) or the "SW 4" switch does not work
- code 05: the grabber returns to high position too late (or not at all) or the "SW 3" switch does not work
- code 06: the gantry goes back to the left too late (or not at all) or the "SW 2" switch does not work

- code 07: the gantry returns to home position too late (or not at all) or the "SW 1" switch does not work

end of MECHANICAL test

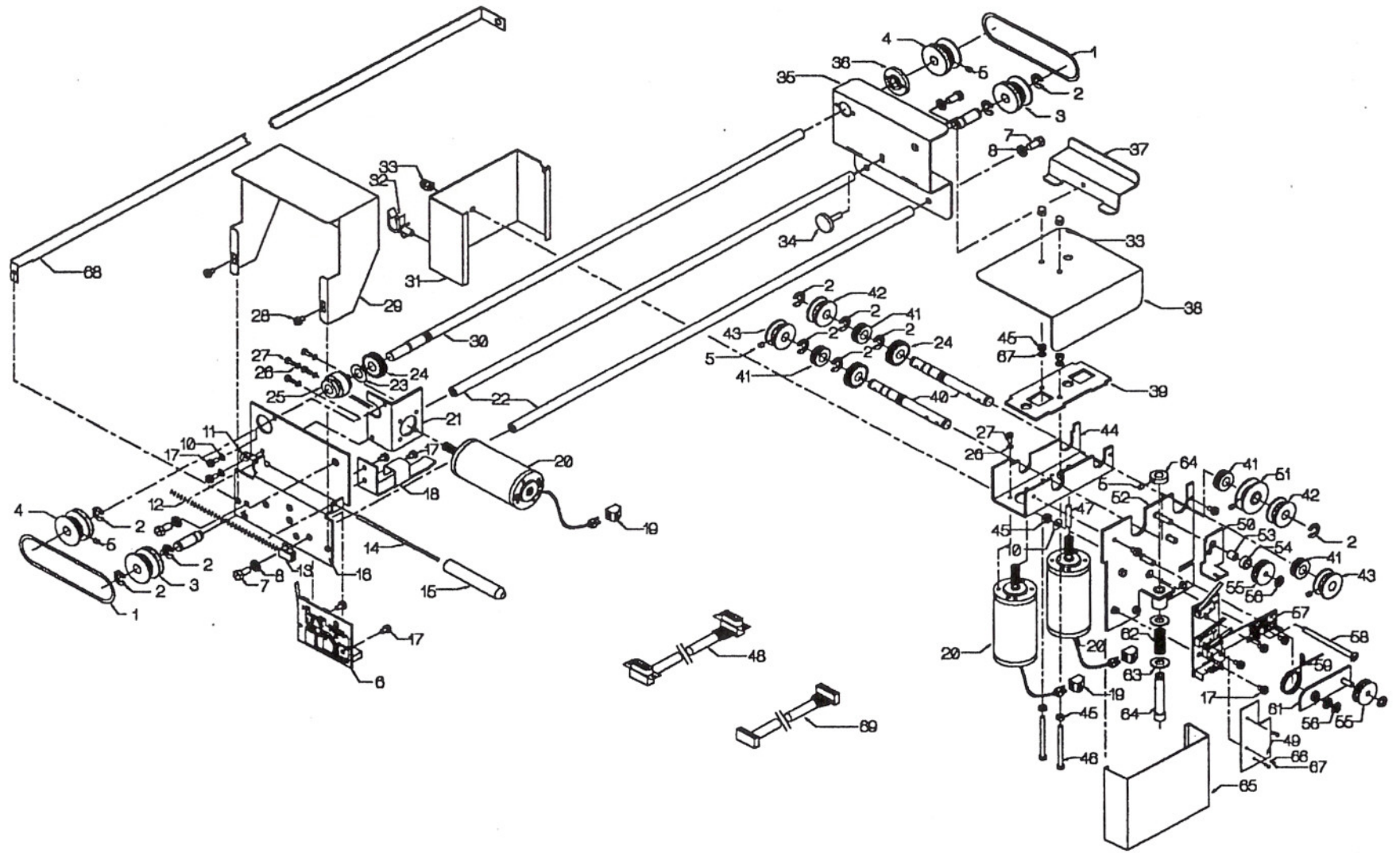
### B: control and prize detector test

When the control button is pressed, the code of the button which has been pressed appears on the blinking display. When the prize sensor is enabled, the code for this sensor appears on the display.

- code 10:forward pushbutton (joystick pushed forward)
- code 11:backward pushbutton (joystick pulled backward)
- code 12:right pushbutton (joystick to the right)
- code 13:left pushbutton (joystick to the left)
- code 14:stop button
- code 15:quickstart (not applicable to all devices)
- code 16:prize detector

To quit self-test mode after the mechanical test, press push-button S1 or S2 of the setting unit.

Whenever a problem is detected on the grab-crane (the display blinks and an error code is shown on the display), you can change to self-test mode by turning off the device and starting up in self-test mode.



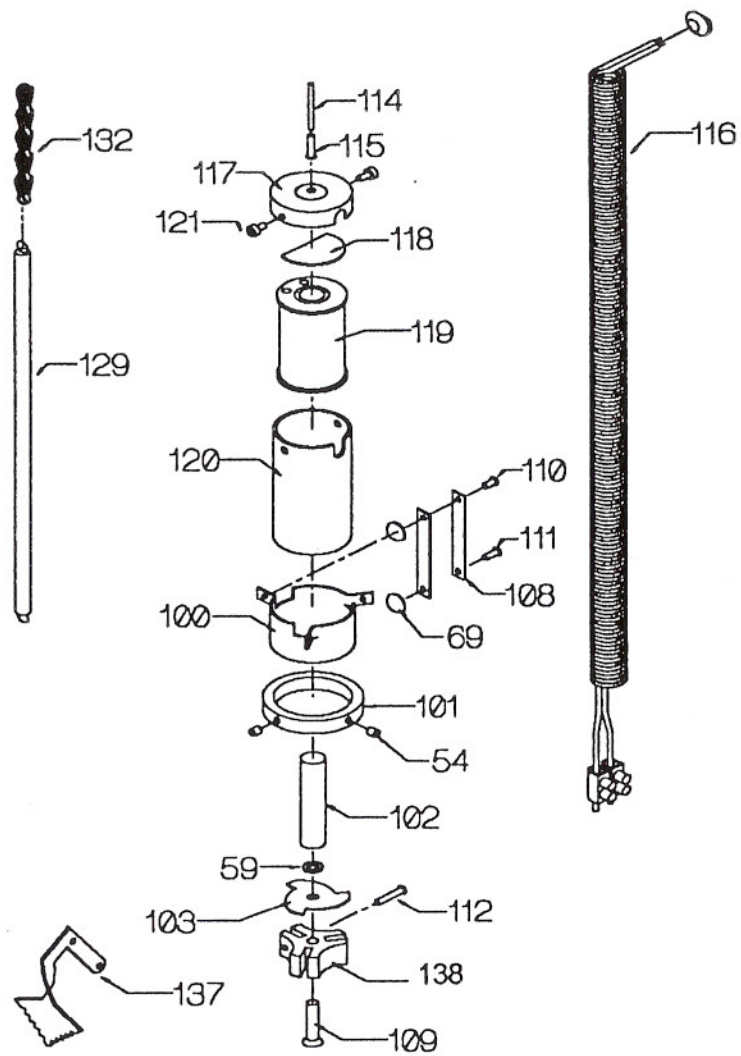


**Parts list (carriage)**

<u>no</u>	<u>article</u>	<u>nodescription</u>	<u>no</u>	<u>article</u>	<u>nodescription</u>
1	3500.0010	3 mm wheel	24	3500.0211	worm wheel (acetal resin)
2	6241.0008	8 mm circlips	25	3500.2113	front bearing ring 93
3	3500.0030	small free wheel	26	6090.0003	galvanized washer m3
4	3500.0060	large free wheel	27	6030.0308	bolts din 7985 m3 x 8
5	6052.0406	fastening screws din 914 m4 x 6	28	6030.0406	bolts din 7985 m4 x 6
6	9002.0021	printed board carriage stop	29	3500.0124	Eurograb side cover
7	6056.0060	galvanized bolts din 933 m6 x 12	30	3500.0204	top carrying axle 564 93
8	6090.0006	m6 spring washer	31	3500.0174	Eurograb top cover
9			32	3500.0181	nylon cable holder ch-2-01
10	6090.0004	m4 spring washer	33	6075.0014	top nut din 934 m4 (galvanized)
11	6251.0003	starlock capped 3 mm	34	6890.0035	housing top screw m5 din 912
12	3500.0241	endless spring 104 mm	35	3500.0293	Eurograb side plate (stainless steel)
13	2120.0006	screw clamp 6 mm	36	3500.2114	side washer 93
14	3500.0230	stainless steel nail 140 mm	37	3500.0302	Eurograb anti-discharge clamp
15	3500.0270	limit stop 68 mm black	38	3500.0483	Eurograb top covering plate
16	3500.1013	Eurograb front plate	39	3500.0135	Eurograb side covering plate
17	6030.0408	bolts din 7985 m4 x 8	40	3500.0441	universal shaft 93
18	3500.1050	Eurograb disconnection clamp (stainless steel)	41	3500.0380	ertalon washer
19	1801.1002	fastening screw 2 p vr	42	3500.0190	small free wheel
20	3502.0145	motor g4-91	43	3500.0600	small fixed wheel
21	3500.0132	Eurograb front motor fastening	44	3500.0134	Eurograb side motor fastening
22	3500.0342	separating bar 550 mm	45	6075.0004	nut din 934 m4 (galvanized)
23	6092.0062	steel shim washer 10.2 x 22 x 0.3	46	6030.0445	bolts din 7985 m4 x 45

Parts list (carriage)

<u>no</u>	<u>article</u>	<u>nodescription</u>	<u>no</u>	<u>article</u>	<u>nodescription</u>
47	6270.0524	split pins din 7343 5 x 24 mm			
48	9015.0222	cabinet carriage cable			
	9015.0226	prize cabinet carriage cable			
49	5615.0051	carriage top plate (printed board)			
50	3500.0731	grabber anti-theft plate			
51	3500.0540	cable winding mechanism			
52	3500.0533	Eurograb side plate			
53	3500.0570	copper distance bush, 7.7 mm			
54	3500.0732	ertalon distance bush, anti-theft device			
55	3500.0580	small cable lead			
56	6250.0005	starlock 5 mm			
57	9002.0031	printed board (grabber stop)			
58	6060.0555	bolts din 965, front m4 x 65			
59	3500.0620	spring-torsion spring counterweight			
60					
61	3500.0630	counterweight			
62	3500.0761	spring holder 27.5 mm			
63	6088.0008	polyethylene washer, 8 mm			
64	3500.0741	Eurograb chrome bush + assembly ring			
65	3500.0672	front Eurograb cover			
66	6090.0002	washer din 127 m2.5			
67	6075.0002	nut m2.5 din 934			
68	3500.0128	JB stainless steel cableway			
69	9015.0223	GL carriage cable roll			



**Parts list (grabber)**

<u>no</u>	<u>article</u>	<u>nodescription</u>
100	3500.0900	glide bush
101	3500.0910	thrust collar
102	3500.0950	iron core 55 mm
103	3500.0960	spacer
104		
105		
106		
107		
108	3500.1000	spacer 55 mm
109	6059.0030	bolts din 964 m5 x 25
1110	6220.1030	fastening nails 3 x 6
111	6220.1031	fastening nails 3 x 8
112	6220.1035	fastening nails 3 x 16
113	2122.0006	plug screw clamp, 6 mm
114	3500.0490	nylon cord 2 mm 1.65 m
115	3500.0720	riveting bolt
116	3500.0810	grabber cable 135 + plug
117	3500.0850	grabber top cover
118	3500.0860	small protective plate
119	3500.0876	coil 30 ohm
120	3500.0930	coil housing 66 mm

<u>no</u>	<u>article</u>	<u>nodescription</u>
121	6150.0045	parker 3.9 x 9
122		
123	3500.0951	iron core 75 mm
125		
126		
127		
128		
129	3500.0820	Jumbo spring cable lead
130		
131		
132	6829.0300	jumbo chain
133		
134		
135		
136		
137	3500.0990	claw candy
138	3500.0974	claw holder polyethylene

**Amerika 31 01 xx**

**Page 13** : coin insert value : \$0.25  
coin value for each channel :

channel	1	2	3	4	5	6
coin value	\$0.25	\$0.50	\$1	/	/	\$1 bill

**Page 15**      mechanical counter 1 = \$1  
                  electrical counter 1 = \$0.01