



COMBOPRIZE/ PRIZE2

Punch and kick/ punch force measuring machine

Technical Information



Rev. 3.1, software ver. 5.326

Valid from serial number 32750

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1. Introduction

Main purpose of this Technical Information is to:

- familiarize user with machine construction,
- provide proper setup parameters, installation and power line hookup,
- familiarize user with proper and safe usage procedures, exploitation and conservation.



WARNING: USER MUST FOLLOW ALL GUIDELINES INCLUDED IN THIS DOCUMENT FOR SAFE AND LONG LASTING MACHINE USAGE.

2. Technical Data

Model		COMBO PRIZE
Dimensions	Depth [cm]/[in]	130 / 51
	Width [cm]/[in]	92 / 36
	Height [cm]/[in]	228 / 90
Overall Mass [kg]/[Lb]		159 / 351
Power consumption [Wh]		200

Table 1 - technical data of Combo Prize

Model		PRIZE2
Dimensions	Depth [cm]/[in]	131 / 52
	Width [cm]/[in]	70 / 28
	Height [cm]/[in]	222 / 87
Overall Mass [kg]/[Lb]		155 / 342
Power consumption [Wh]		200

Table 2 – technical data of Prize2 Boxer

3. Assembly/Construction description

Punch and kick force measuring machine Combo Prize is built out of three main components:

- base,
- middle assembly,
- top assembly.

The key component is a mother board (electronic board) placed inside boxer's body (block schematics drawing # 1) to which mechanical elements and user interface components are connected.

Electric /electronic part contains following:

- measuring mechanism – consists of sending and receiving diodes that measure blade fly speed thru assembly,
- verbal information mechanism – built using potentiometer and speaker, used to send voice messages,
- punching bag lowering mechanism – consists of ‘START’ button with backlight and electromagnets – actual lowering mechanism,
- kicker leg release mechanism – consists of ‘START’ button with backlight and electromagnets – actual releasing mechanism (COMBO PRIZE ONLY),

- visual information assembly – assembled out of diodes used for visual representation of punch force measurement, warning siren (informs player of breaking top record) also displays on electronic panel (shows measurement result, credit amount, top day record),
- coin acceptor – used to deposit coins (can be reprogrammed to tokens or other currencies),
- bill acceptor – used to deposit bills (option),
- mother board.

4. Transport

Machine should be transported in vertical position. Machines are shipped on a 34" x 50" wooden palette, and sides are covered with special (~3/8") thick 93" tall (from the bottom of the pallet) multi-layer cardboard. The total weight of the box is approx. 370 lbs.

After the machine is taken out of the box, it should be transported in horizontal position with the help of two wheels. Machine can, in special cases (exp. if it does not fit in doorway), be taken apart and then reassembled. This procedure should be done by a specialist or someone familiar with all technical information.

5. Installation

Machine after being taken out of the box should be placed in vertical position and base should be leveled. To level the machine appropriate tools should be used (exp. laser level or typical manual construction heavy duty level). Turning several screws under the base allows level adjustment. After plugging the machine to power outlet it should be ready to use.

Make sure that there is enough clearance on the sides and in the front of the machine, so the player will not hit any objects after punching the bag.

The **installer** of the machine is responsible for defining the safe clearance.

6. Usage instructions

- 1) It is recommended to take some warm-up punches.
- 2) Before pressing the “START” button player must stand in front of the Boxer.
- 3) If the randomized prize numbers mode is active, “RANDOM” button blinks: press the “RANDOM” button to draw.*
- 4) After pressing the ”START” button player has to wait in front of the machine for the punching bag to be released from the upper position.
- 5) After the punching bag is released, player should make a fist so the thumb would be on the outside of the pointing and the middle finger.
- 6) The punch must be placed in the center of the punching bag.
- 7) After the punch, a score would be displayed on the front panel.
- 8) Follow the same instructions before the next game.

* See details in 10. “Machine setup”, PRIZE No1..4 settings.

Game rules

The machine allows winning prizes (PRIZE No 1 to 4) when the following conditions are met for each prize:

1. Number of loaded prizes is set correctly (setting No→QUANTITY);
2. Price is bigger than 0 (setting No→PRICE);
3. Money gathered towards winning (counter No→MONEY) must be equal to setting No→PRICE;

If these conditions are not met, the player cannot win Prize No 1 to 4.

7. Maintenance check list, problem prevention and day-to-day fixes

Every two weeks (recommended):

- check the air pressure of the bag. It should be **NO MORE** than 2psi,
- check if the bag is not rotating about it's own axis. If it is see point d) in this section,
- check the position of the arm protectors. See point h) in this section,
- check all of the connections on the main board,
- check the level/balance of the machine. If needed use adjusting legs under the machine to bring the machine to level,
- check if the usage instructions are readable.

Every month:

- check mounting cover screws/nuts,
- check the lubrication of the mechanism. For the instructions see point C in this section,
- check the display lights,
- clean the bill acceptor.

a) Coin acceptor maintenance

Coin acceptor should be cleaned periodically (every 2000 - 3000 credits). Best way to clean it is by using simple cloth slightly soaked in distilled alcohol. Focus should be placed on cleaning the area where coins slide thru (make sure sliding part is in open position).

b) Sound volume regulation

Volume potentiometer (see Main Board Layout, back side) used to control volume is placed on the top right side of the electronic board. The volume adjustment can be done by rotating the potentiometer to the left or right.

c) Maintenance of mechanism and regulating spring

Periodically (once a month or more often, or if the lowering speed of punching bag is fairly low) all moving elements should be rubbed/sprayed with WD-40 or grease.

If punching bag lowers slowly or too fast one should check if spring is properly stretched. Spring can be adjusted with screw that is in the front/left side after taking the masking net.

In case of forced lowering mechanism replacement one should unscrew plastic casing, and then take off masking board (black from the bottom) and remember about the retro cop light.

d) Manual punching bag reposition

In case the punching bag is vibrating too much (or if it is rotating around its own axis), the top nut located on the punching bag screw should be tightened (loosen the lower nut first) until the bag is not rotating any more.

e) Replacement of inner punch bag bladder

To replace inner bladder of the punch bag one should untie rope, take out old insert and replace it with a new rubber bladder. A special attention must be given to the location of the bladder valve. The valve must be placed in the opening of the leather cover.

f) Bulb replacement, "START" and "RANDOM" button

In case of bulb failure in the "START" button one should take out micro-switch from the casing (by slight turn and then pull) and then proceed with bulb replacement [bulb spec: 12 Volt & 3 Watt].

g) Fuse replacement

Machine is equipped with one blade type (automotive) fuse on the main electronic board [specs: 30 A]. In case of short circuit situation and/ or insufficient power supplied to the electronic main board one should first check the fuse and if it is burned, proceed with replacement. Make sure the fuse used to replace old one has the same specifications.

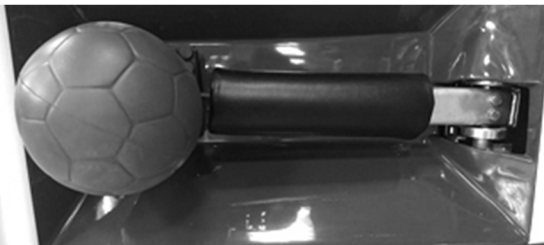
h) Position of the arm protector
DO NOT PLAY THE GAME WITHOUT
PROPERLY PLACED ARM PROTECTOR.



The position of the arm protector should be like on the picture below
(1 – boxer, 2 - kicker):

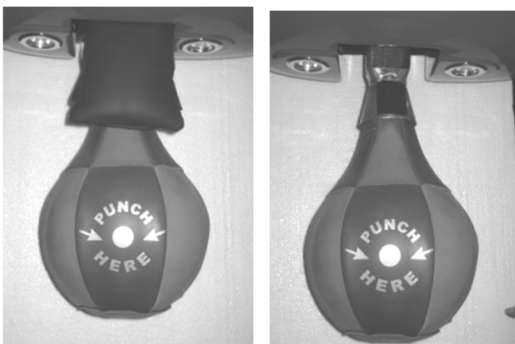


1



2

The following two pictures illustrate an improper setup of the arm protectors. NEVER leave the machine in this state. The picture on the left shows the arm protector placed too high. The second picture shows the missing arm protector. Both of these cases may result in serious injury to the user.



8. Potential problems and their resolution

All the tests and repairs have to be done by service workers authorized by the manufacturer. Ask your supplier for assistance.



Main board is not functioning:

- 1 Check main power fuse (3.15 A).
- 2 Check connection between transformer and the main board.
- 3 Make sure that connectors are well seated.
- 4 The main display can be checked by turning the switch # 1 to “ON” position then turning machine off and back on.

Coin Acceptor is not functioning:

- 1 Check if it is not plugged up.
- 2 Check for dust and dirt.

- 3 Check strip connecting main board with the acceptor.

Mechanism is not functioning:

- 1 Using just power supply check if it is possible to lower punching bag (using BOXER TEST/ KICKER TEST accordingly, placed on the left side of the main board).
- 2 Check for burned fuse (30 A).
- 3 Check button functionality and if they have proper connection.
- 4 Check for unhooked cable from power supply spools.
- 5 Check strip connecting main board with the power supply (transformer).

Sensor is not functioning:

- 1 Check sensors in diagnostic mode (go to menu to DIAGNOSTIC MODE then SENSOR TEST Hi Lo. If punching bag is moving UP / DOWN and on the main board (depending on bag position) HI – LO shows this would indicate that the sensor is working.
- 2 Check if sensor cable is firmly connected to the main board.
- 3 Check all wires to / from sensor.

LED spotlights are not functioning:

- 1 Check power supply cable connection.
- 2 Check power supply wire integrity.
- 3 Check connector plug for loose bulb.
- 4 Check if spotlight is faulty and if so swap it with a new one (12V 2.4W).

Button START or RANDOM is not functioning:

- 1 Check for main board cable connection.
- 2 Check switch/button cable connection.

Power supply is refusing to work:

- 1 Check if “car” fuse in main board (left bottom) is not burned 30A (green).
- 2 Check if transformer cable is correctly hooked up to power supply socket.

Machine is not starting:

- 1 Check power cable fuse 3.15 A.
- 2 Check if filter is not damaged.

Bill Acceptor is not functioning:

- 1 Check if power supply cable is hooked up to main board (BILL).
- 2 Check if cable from bill acceptor is correctly hooked up.
- 3 Check acceptor settings. For switches 1-8 set switch no 7 at ON, and for switches 1-4, set switches no 3 and 4 at ON.

Sound is not working:

- 1 Check if it is not at low volume or mute (Volume)
- 2 Check if cable is correctly connected to the main board.
- 3 Check if cable to speaker is correctly connected.

9. Board layouts

Motor Board layout - resistors

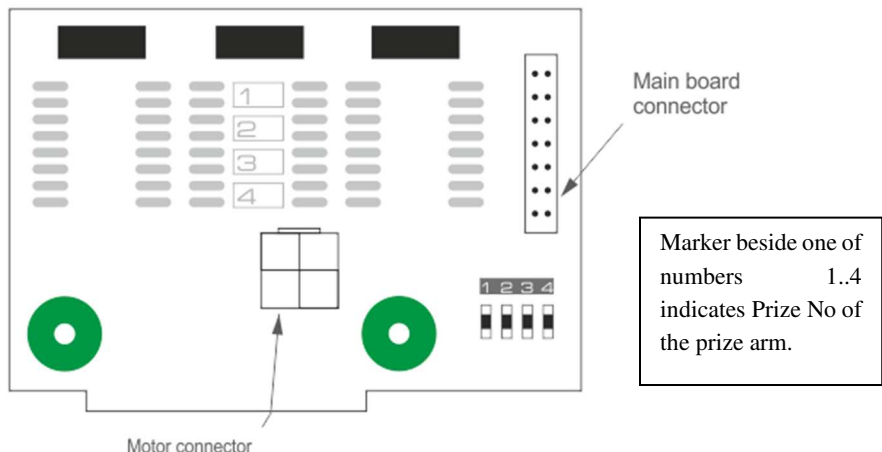


Figure 1 – Motor Board layout

Motor Board layout - switches

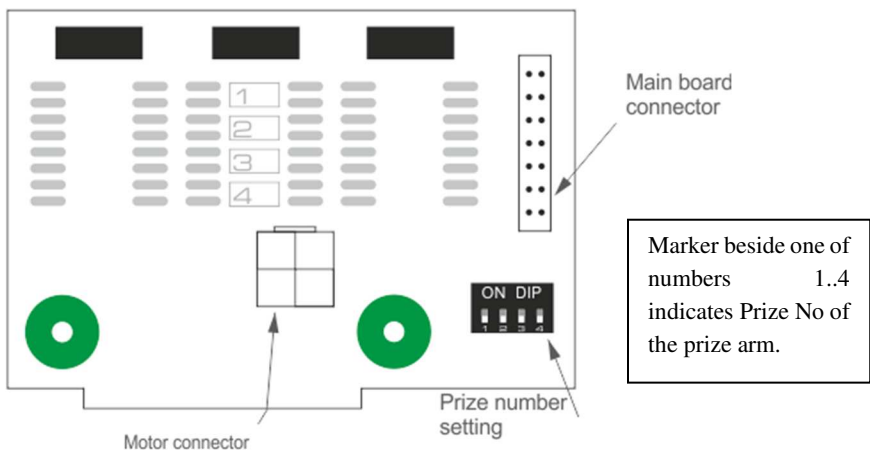


Figure 2 – Motor Board layout

Main Board layout (back side)

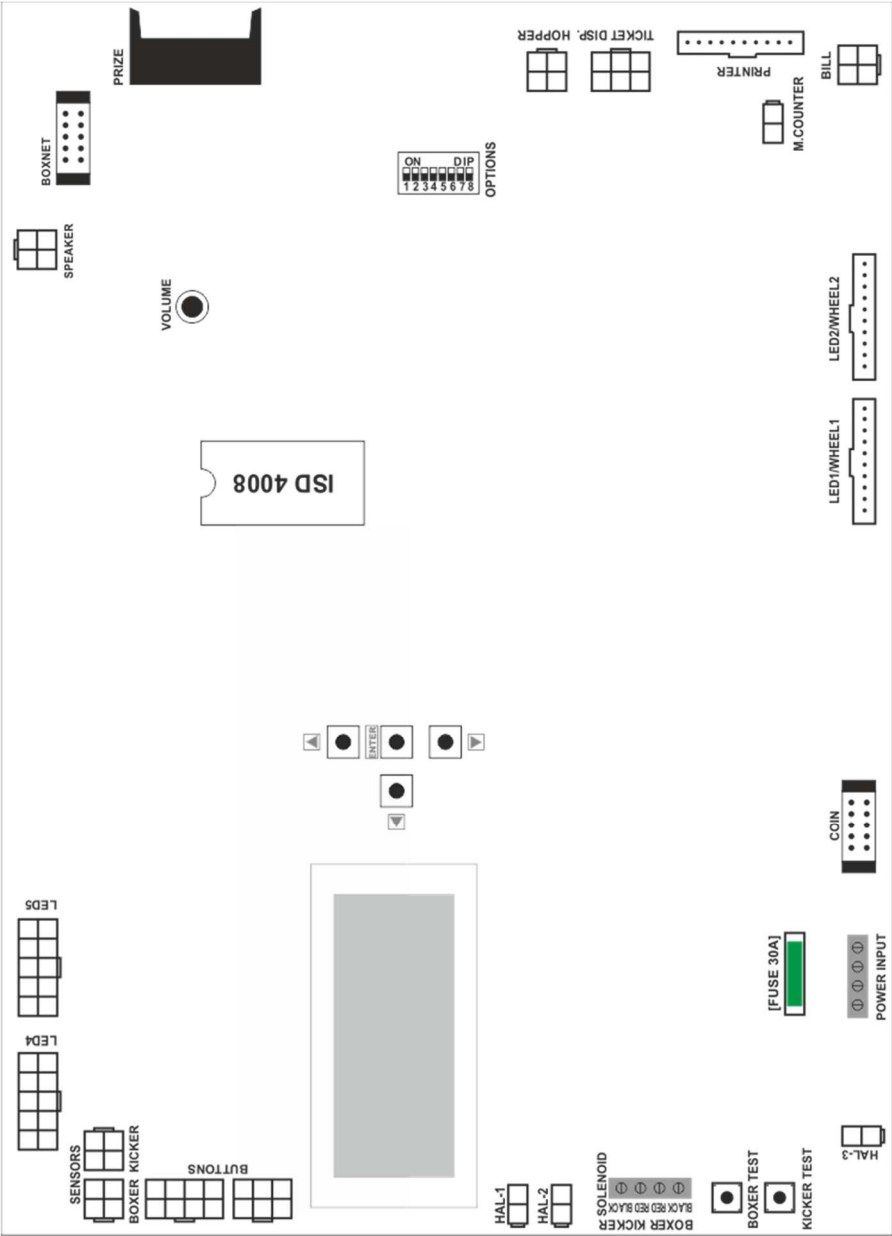


Figure 3 - Main Board layout (back)

COIN – connector for coin acceptor

BILL – connector for bill acceptor

LED 4, LED 5 – front panel backlight

POWER INPUT – connector for power

SENSORS (BOXER) – sensor connector for Boxer

SENSORS (KICKER) – sensor connector for Kicker

BUTTONS – connectors for “START” & “RANDOM” buttons [PRIZE2] or “START BOXING”, “RANDOM” & “START KICKING” buttons [COMBOPRIZE]

SPEAKER – connector for speaker

VOLUME – potentiometer for volume control

ISD4008 – speech synthesizer

SOLENOID BOXER - connector for Boxer solenoid

SOLENOID KICKER – connector for Kicker solenoid

LED1 – not used

LED2 – not used or connector for extension board (US)

OPTIONS – service settings switch board

BOXER TEST – for manual Boxer solenoid test

KICKER TEST – for manual Kicker solenoid test

HAL-1 – connector for Boxer halogens

HAL-2 – connector for Kicker halogens

HAL-3 – connector for showcase halogens

TICKET DISP. – not used

HOPPER – not used

PRINTER – not used

LCD – display showing changing of settings

BUTTONS board – set of menu buttons (up, down, back, enter)

BOXNET – connector for BoxNet

PRIZE – connector for prize dispensers

FUSE 30A – solenoid circuit fuse

M.COUNTER – connector for mechanical counter

Layout (Front)

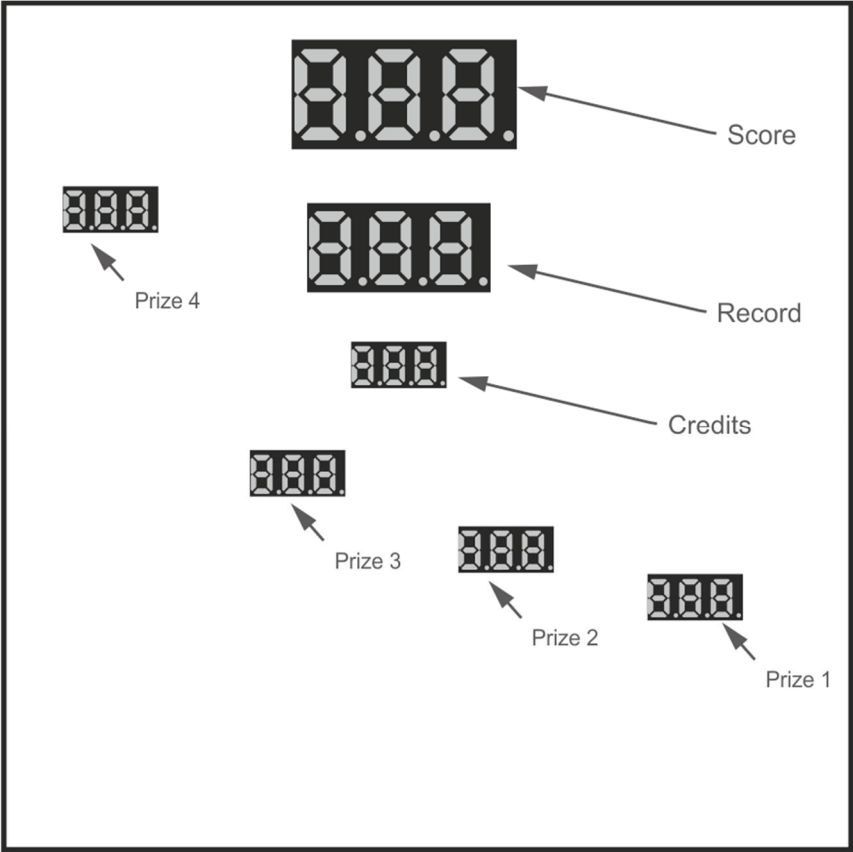
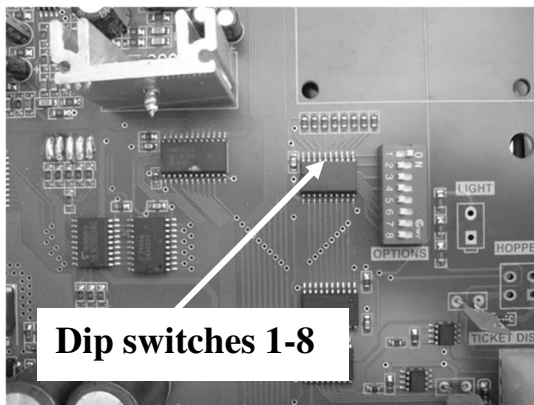


Figure 4 – Front layout

10. Machine setup

SWITCHES

Dip Switch 1-8 (S1 “OPTIONS”)



Switch #1

Not used.

Switch #2

When **ON**, machine is set for free punch.

Switch #3

ON/OFF function for sound in Relax Mode. When **ON**, music autoplays after time set in function FACTORY SETTINGS/ TIME VOICE RELAX.

Switch #4

When **ON**, the highest score for each game will be reset to value set in DEFAULT RECORD (see Menu Tree for reference) after you push the **START** button for 10 seconds. When **OFF**, the top score will stay displayed.

Switch #5

Random prize numbers mode (when **ON**). See 6. “Usage instructions” and 10. “Machine setup” PRIZE No1..4 settings for more info. To deactivate this mode and come back to last saved prize numbers, restart the machine.

Switch #6

Not used

Switch #7

Not used

Switch #8

Not used

FRONT DISPLAY MENU

This menu is accessible from the front of the machine without opening the machine's back and allows to check and reset some of the counters. From the front of the machine press RANDOM button for 5 seconds. Front menu will be activated. The big display will show function number (F01-F05). Middle and bottom display show function value. Pressing RANDOM button changes function number (up and in loop). Resettable functions are reset by 5 seconds pressing of START button. After ten seconds of inactivity (START or RANDOM buttons are not pressed) the menu will be deactivated.

For F01 to F04:

Middle front display shows time in hours and minutes in format H.MM; bottom display shows time in seconds in format SS.

Functions F01 to F04 correspond to Prize No of each prize arm.

F05 – short counter (for details see Point 10. COUNTERS/ SHORT COUNTER).

Front menu	Function	Options
F01	Time after last prize No1 win	<i>manual reset or reset after turn off/on machine</i>
F02	Time after last prize No2 win	<i>manual reset or reset after turn off/on machine</i>
F03	Time after last prize No3 win	<i>manual reset or reset after turn off/on machine</i>
F04	Time after last prize No4 win	<i>manual reset or reset after turn off/on machine</i>
F05	Short counter	<i>Not resettable using front menu</i>

MAINBOARD DISPLAY MENU - CHANGING SETTINGS

To change any settings and check counters, buttons (arrows)

▲ (up) and ▼ (down), ◀ (left) and ENTER (center button) need to be used. All information will be shown on the LCD display.

If the display is black, use left button ◀ to lighten up the display.



Mainboard display menu structure

Main Menu - use ▲ and ▼ buttons to choose main menu function. To access its submenu press ENTER.

Submenu - use ▲ and ▼ buttons to choose submenu function. To access its setting mode press ENTER. To go back to main menu press ◀.

Setting mode - use ▲ and ▼ buttons to adjust value. Then press ◀ button to accept new setting and go back to submenu. Fast forward of value is done by keeping ▲ or ▼ button pressed.

Menu tree

Main menu	Submenu	Setting mode (range)	Default value	Page
COUNTERS	SHORT COUNTER	<i>counter, resettable to 0</i>	0	27
	LONG COUNTER	<i>counter</i>	0	27
	FREE CREDITS	<i>counter</i>	0	27
	BROKEN RECORDS	<i>counter, resettable to 0</i>	0	27
	PRIZE No1→WON	<i>counter, resettable to 0</i>	0	27
	PRIZE No2→WON	<i>counter, resettable to 0</i>	0	27
	PRIZE No3→WON	<i>counter, resettable to 0</i>	0	28
	PRIZE No4→WON	<i>counter, resettable to 0</i>	0	28
	TICKET COUNTER	<i>counter</i>	0	28
	BALL COUNTER	<i>counter</i>	0	28
	CREDITS	<i>counter ,resettable to 0</i>	0	28
CREDITS	0:COIN→CREDIT	1..250	*	28
	1:COIN→CREDIT	0..250	0	29
	2:COIN→CREDIT	0..250	0	29
	3:COIN→CREDIT	0..250	0	29
	4:COIN→CREDIT	0..250	0	29
	5:COIN→CREDIT	0..250	0	29
	6:COIN→CREDIT	0..250	0	30
TICKET DISPENSER	TD.ON/OFF	ON, OFF	OFF	30
	BREAKING POINT	0..990	0	30
	FIRST TICKET	0..20	0	30
	TICKET RANGE	10..100	40	30
	NUMBER OF TICKET	0..5	0	30
	TD LOAD SERVICE	-	-	30
BALL DISPENSER	BALL ON/OFF	ON, OFF	OFF	32
PRIZE Nx100	Nx100→CREDITS	OFF, 1..20	OFF	32
	Nx100→BALL			32
	Nx100→TICKET		OFF	32
PRIZE Nx111	Nx111→CREDITS	OFF, 1..20	OFF	32
	Nx111→BALL			33
	Nx111→TICKET		OFF	33
LUCKY NUMBER	LUCKY1→CREDITS	OFF, 1..20	OFF	33
	LUCKY1→BALL			33
	LUCKY1→TICKET			33
	LUCKY2→CREDITS	OFF, 1..20	OFF	33
	LUCKY2→BALL			34
	LUCKY2→TICKET			34
	LUCKY NUMBER 1	0..999	0	34

	LUCKY NUMBER 2	0..999	0	34
RECORD	RECORD→CREDITS	OFF, 1..20	1	34
	RECORD→BALL			34
	RECORD→TICKET			34
	UNAVAILAB.RECORD	OFF, 1..999	OFF	35
	CURRENT RECORD	<i>resettable to DEFAULT RECORD</i>		35
	DEFAULT RECORD	100..999	650	35
NUMBER	NUMBER	0..999	0	35
	NUMBER→BALL			35
	NUMBER→TICKET			35
PRIZE No1	No1→VALUE	100..990	555	36
	No1→QUANTITY	0..2	0	36
	No1→PRICE	0..5000	0	36
	No1→MONEY	<i>counter, resettable to 0</i>	0	36
	No1→RANGE-HELP	0..30	10	37
	No1→MOTOR-TIME	15..45 [s]	30 [s]	37
PRIZE No2	No2→VALUE	100..990	666	37
	No2→QUANTITY	0..2	0	37
	No2→PRICE	0..5000	0	37
	No2→MONEY	<i>counter, resettable to 0</i>	0	38
	No2→RANGE-HELP	0..30	10	38
	No2→MOTOR-TIME	15..45 [s]	30 [s]	38
PRIZE No3	No3→VALUE	100..990	777	38
	No3→QUANTITY	0..2	0	38
	No3→PRICE	0..10000	0	38
	No3→MONEY	<i>counter, resettable to 0</i>	0	39
	No3→RANGE-HELP	0..30	10	39
	No3→MOTOR-TIME	15..45 [s]	30 [s]	39
PRIZE No4	No4→VALUE	100..990	888	39
	No4→QUANTITY	0..2	0	39
	No4→PRICE	0..20000	0	40
	No4→MONEY	<i>counter, resettable to 0</i>	0	40
	No4→RANGE-HELP	0..30	10	40
	No4→MOTOR-TIME	15..45 [s]	30 [s]	40
PRIZE No 1..4	DRAW TYPE	SINGLE, MULTIPLE** MULTIPLE-LIMIT	SINGLE	40
	MULTIPLE-LIMIT	2..100	20	41
	GAME-TYPE	RANGE CLOSE TO SCORE		41
	RANGE MAX.VALUE	..990 (dependent on RANGE MIN.VALUE)	950	41

	RANGE MIN.VALUE	100.. (dependent on RANGE MAX.VALUE)	250	41
	CLOSE TO SCORE	LAST SCORE +/- 5..100	10	42
SIREN	TIME.RECORD	OFF, 0.1..20 [s]	OFF	42
	TIME.NUMBER	OFF, 0.1..20 [s]	OFF	42
	TIME.COIN	OFF, 0.1..10 [s]	OFF	42
	TIME.STARTBUTTON	OFF, 0.1..10 [s]	OFF	42
FACTORY SETTINGS	CRED.NATION.SET	UNITED STATES, CANADA, SPAIN, EUROPE, CROATIA, SWITZERLAND, GERMANY, RUSSIA, POLAND, LITHUANIA, ENGLAND, UKRAINE, CZECH REPUBLIC, ISRAEL, DENMARK, ROMANIA	UNITED STATES	42
	VOICE.NATION.SET	ENGLAND, GERMANY, RUSSIA, SPAIN, POLAND, RESERVED 1, RESERVED 2, RUSSIA II, FRANCE, RESERVED 3, RESERVED 4, ITALY, CZECH REPUBLIC ***	ENGLAND	43
	SENSITIVITY	0..9	5	43
	PERIPH. DEVICE		NO PERIPHERAL	43
	TIME VOICE RELAX	OFF, 10s..3h	5m	43
	TIME DISPL RELAX	OFF, 10s..3h	2m	43
	BOXNET->T.PERIOD	OFF, 1m..12h	1h	43
	BOXNET->STARTUP	OFF,ON	ON	43
	BOXNET ID			43
	BONUS CRED.MODE	NORMAL, ADD MODE	NORMAL	43
DIAGNOSTIC MODE	SENSOR TEST HI LO	BALL DOWN, BALL UP		44
	DISPLAYS TEST	<i>All displays</i> →888		44
	MOTORS TEST	M1, M2, M3, M4, ALL		44
	GAME TEST	OFF, 1..999	OFF	45
	PRIZE-2 VER.	<i>Software version</i>		45

*: It depends on the setting of the function: FACTORY SETTINGS/ CRED.NATION.SET

**: This option will be working only with Switch #5 on ON.

***: It depends on hardware configuration. Do not change.

COUNTERS

SHORT COUNTER

Temporary counter of points, e.g. US: 1 point = 0,25 USD, EU: 0,50 EUR (currency settings are available in FACTORY SETTINGS/ CRED.NATION.SET).

You can reset it to 0000 by pushing **ENTER**, then pushing **▲** or **▼** button and pushing **◀** button.

LONG COUNTER

Counter of points – counts all the points from the beginning of machine's work. This is life long - not erasable.

FREE CREDITS

Counter of free punches. Free punches (free game) is activated by setting dip switch # 2 at **ON** position.

BROKEN RECORDS

This counter tells us how many times a record had been broken. The counter can be reset by pressing **ENTER**, then **▲** or **▼** and next **◀** button.

PRIZE No1→WON

This counter tells us how many times a Prize No1 had been won. The counter can be reset by pressing **ENTER**, then **▲** or **▼** and next **◀** button.

PRIZE No2→WON

This counter tells us how many times a Prize No2 had been won. The counter can be reset by pressing **ENTER**, then **▲** or **▼** and next **◀** button.

PRIZE No3→WON

This counter tells us how many times a Prize No3 had been won. The counter can be reset by pressing **ENTER**, then ▲ or ▼ and next ◀ button.

PRIZE No4→WON

This counter tells us how many times a Prize No4 had been won. The counter can be reset by pressing **ENTER**, then ▲ or ▼ and next ◀ button.

TICKET COUNTER

Counter of released tickets.

BALL COUNTER

Counter of released balls.

CREDITS

Temporary counter of credits. Shows the current number of credits. Can be reset by pressing **ENTER**, then ▲ or ▼ and next ◀ button.

CREDITS

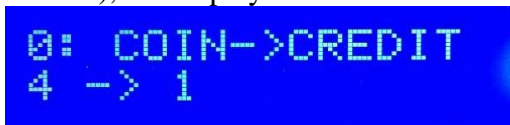
BASIC COIN: it is a coin of the smallest value programmed on the coin acceptor. Mechanical counter shows the money inserted to the machine in the amount of basic coins, eg. for USA \$0.25 is often a basic coin, so \$100 inserted to the machine will result in mechanical counter showing 400.

0: COIN→CREDIT

Sets how many basic coins are needed for one game (how much one game costs).

Example:

For USA, when the basic coin is \$0.25 and 1 game is for \$1 (4 basic coins), the display will be set as below:



To change from COIN to CREDIT setting press **ENTER** button.

1: COIN→CREDIT

You can set additional credits (bonus credits) when a set amount of money is inserted. Press **ENTER** button once to go to adjust number of basic coins (eg. 1). Press **▲** or **▼** button to adjust number of coins. Then press **ENTER** button again to adjust number of credits. Press **◀** button to accept new settings.

Example: if you want to set 6 punches for \$5, you should set 20 coins and 6 credits:
20→6.

2: COIN→CREDIT

Bonus credits 2. See 1: COIN→CREDIT for reference.

3: COIN→CREDIT

Bonus credits 3. See 1: COIN→CREDIT for reference.

4: COIN→CREDIT

Bonus credits 4. See 1: COIN→CREDIT for reference.

5: COIN→CREDIT

Bonus credits 5. See 1: COIN→CREDIT for reference.

6: COIN→CREDIT

Bonus credits 6. See 1: COIN→CREDIT for reference.

TICKET DISPENSER

TD.ON/OFF

You can turn on and off the ticket dispenser.

If you want to turn the ticket dispenser on, set this option to ON.

If you want to turn the ticket dispenser off, set this option to OFF.

BREAKING POINT

Setting this option would enable the ticket dispenser to start giving out tickets (range from 0-990). Factory setting is “0”.

FIRST TICKET

Sets how many tickets will be given out after reaching the “breaking point” for the first time (range from 0-20). Factory setting is “0”.

TICKET RANGE

Points increment, in another words what is the increment for the next ticket/s to be released (range from 10-100). Factory setting is “40”.

NUMBER OF TICKET

Number of tickets given out after reaching another ticket range – set in ticket range. Factory setting is “0”.

TD LOAD SERVICE

This function allows inserting tickets into ticket dispenser.

Press **ENTER** button.

Use **▲** button to set number 1.

Press **ENTER** a couple of times and at the same time insert tickets.

BELOW 2 EXAMPLES:

RESULT ON DISPLAY	TICKETS	RESULT ON DISPLAY	TICKETS
0	0	0	0
40	1	40	0
80	2	80	0
120	3	120	0
160	4	160	0
200	5	200	0
240	6	240	0
280	7	280	0
320	8	320	0
360	9	360	0
400	10	400	0
440	11	440	0
480	12	480	0
520	13	520	0
560	14	560	0
600	15	600	10
640	16	640	12
680	17	680	14
720	18	720	16
760	19	760	18
800	20	800	20
840	21	840	22
880	22	880	24
920	23	920	26
960	24	960	28
BREAKING POINT = 0		BREAKING POINT = 600	
FIRST TICKET = 0		FIRST TICKET = 10	
TICKET RANGE = 40		TICKET RANGE = 40	
NUMBER OF TICKET = 1		NUMBER OF TICKET = 2	

BALL DISPENSER

BALL ON/OFF

You can turn on and off the ball dispenser.


If you want to turn the ball dispenser on, set this option to ON.

If you want to turn the ball dispenser off, set this option to OFF.

PRIZE Nx100


Nx100→CREDITS

Sets bonus credits for a player gained after scoring multiples of 100, e.g. score is 200, 300, 800.

To turn this option off, while in setting mode, keep button  pressed until display shows OFF.

Nx100→BALL

Option. Sets number of surprise balls gained after scoring multiples of 100, e.g. score is 200, 300, 800.

To turn this option off, while in setting mode, keep button  pressed until display shows OFF.

Nx100→TICKET

Option. Sets number of tickets gained after scoring multiples of 100, e.g. score is 200, 300, 800.

PRIZE Nx111


Nx111→CREDITS

Sets bonus credits for a player gained after scoring multiples of 111, e.g. score is 222, 333, 888.

To turn this option off, keep button  pressed until display shows OFF.

Nx111→BALL

Option. Sets number of surprise balls gained after scoring multiples of 111, e.g. score is 222, 333, 888.

To turn this option off, while in setting mode, keep button  pressed until display shows OFF.

Nx111→TICKET

Option. Sets number of tickets gained after scoring multiples of 111, e.g. score is 222, 333, 888.

LUCKY NUMBER


LUCKY1→CREDITS

Sets bonus credits for a player gained after scoring value of LUCKY NUMBER 1.

To turn this option off, keep button  pressed until display shows OFF.

LUCKY1→BALL

Option. Sets number of surprise balls gained after scoring value of LUCKY NUMBER 1.

To turn this option off, while in setting mode, keep button  pressed until display shows OFF.

LUCKY1→TICKET

Option. Sets number of tickets a player gets after scoring LUCKY NUMBER 1.


LUCKY2→CREDITS

Sets bonus credits for a player gained after scoring value of LUCKY NUMBER 2.

To turn this option off, keep button  pressed until display shows OFF.

LUCKY2→BALL

Option. Sets number of surprise balls gained after scoring value of LUCKY NUMBER 2.

To turn this option off, while in setting mode, keep button  pressed until display shows OFF.

LUCKY2→TICKET

Option. Sets number of tickets a player gets after scoring LUCKY NUMBER 2.

LUCKY NUMBER 1

Sets the value of LUCKY NUMBER 1.


LUCKY NUMBER 2

Sets the value of LUCKY NUMBER 2.

RECORD

RECORD→CREDITS

Allows to set number of bonus credits given to player for breaking a record.

To turn this option off, while in setting mode, keep button  pressed until display shows OFF.

RECORD→BALL

Option. Allows to set number of balls given for breaking a record.

RECORD→TICKET

Option. Allows to set number of tickets given for breaking a record.

UNAVAILAB. RECORD

Allows to set unattainable record. When this is set to e.g. 970, player cannot score 970 or more.

CURRENT RECORD

Method 1 – using service settings

You can reset it to DEFAULT RECORD by pushing **ENTER**, then **▲** and next **◀** button – the record will be reset.

Method 2 – without opening the machine

This method works when switch # 4 on dip switch S1 (see connectors on the main board layout - back side) is at **ON** position. Without opening the machine's back, the highest score can be reset by pressing **START (BOXER)** button for 10 seconds (the main display shows record value set in DEFAULT RECORD).

DEFAULT RECORD

Allows to set default record value to which all the resets will be done.

NUMBER

NUMBER

Sets score value that has to be beaten.

NUMBER→BALL

Option. Sets number of surprise balls that will be given to player after scoring NUMBER or more.

To turn this option off, while in setting mode, keep button **▼** pressed until display shows OFF.

NUMBER→TICKET

Option. Sets number of tickets given out after scoring NUMBER or more.

PRIZE No1

No1→VALUE

Sets score value of Prize No 1. This setting applies when RANDOM function is OFF (switch #5 on OFF). Its value must be different than No2→VALUE, No3→VALUE and No4→VALUE.

No1→QUANTITY

Sets number of Prize No 1 prizes loaded in dispenser.

NOTE: if small display shows “- - -” see **Prize availability** below for reference.

No1→PRICE

Sets amount of money (in points = basic coins, e.g.US: 1 point = 0,25 USD, EU: 0,50 EUR) which need to be accumulated before the possibility of winning Prize No 1.

US example: Prize No1 is worth 100 USD (that is 400 basic points). You want to earn 50 USD (that is 200 basic points), before anyone can win this prize. You have to add 400 to 200, that is 600 and this is the setting of No1→PRICE.

EU example: Prize No1 is worth 100 EUR (that is 200 basic points). You want to earn 50 EUR (that is 100 basic points), before anyone can win this prize. You have to add 200 to 100, that is 300 and this is the setting of No1→PRICE.

NOTE: if small display shows “- - -” see **Prize availability** below for reference.

No1→MONEY

Counter of money accumulated for Prize No 1. The counter is resettable. Max value shown on the display is the amount set in No1→PRICE. When the counter meets max value, the prize is ready to be won.

No1→RANGE-HELP

The function works when No1→PRICE max value is met. When score falls within the range of “No1→VALUE” to “No1→VALUE + No1→RANGE-HELP” the assisting function helps scoring Prize No 1, eg. No1→VALUE = 555, No1→RANGE-HELP = 10, machine measured: 564, score shown: 555, prize dispensed.

No1→MOTOR-TIME

Sets the time of motor work when dispensing Prize No 1.

PRIZE No2

No2→VALUE

Sets score value of Prize No 2. This setting applies when RANDOM function is OFF (switch #5 on OFF). Its value must be different than No1→VALUE, No3→VALUE and No4→VALUE.

No2→QUANTITY

Sets number of Prize No 2 prizes loaded in dispenser.

NOTE: if small display shows “- - -” see **Prize availability** below for reference.

No2→PRICE

Sets amount of money (in points = basic coins, e.g.US: 1 point = 0,25 USD, EU: 0,50 EUR) which need to be accumulated before the possibility of winning Prize No 2.

For an example see No1→PRICE setting.

NOTE: if small display shows “- - -” see **Prize availability** below for reference.

No2→MONEY

Counter of money accumulated for Prize No 2. The counter is resettable. Max value shown on the display is the amount set in No2→PRICE. When the counter meets max value, the prize is ready to be won.

No2→RANGE-HELP

The function works when No2→PRICE max value is met. When score falls within the range of “No2→VALUE” to “No2→VALUE + No2→RANGE-HELP” the assisting function helps scoring Prize No 2, e.g. No2→VALUE = 660, No2→RANGE-HELP = 20, machine measured: 675, score shown: 660, prize dispensed.

No2→MOTOR-TIME

Sets the time of motor work when dispensing Prize No 2.

PRIZE No3

No3→VALUE

Sets score value of Prize No 3. This setting applies when RANDOM function is OFF (switch #5 on OFF). Its value must be different than No1→VALUE, No2→VALUE and No4→VALUE.

No3→QUANTITY

Sets number of Prize No 3 prizes loaded in dispenser.

NOTE: if small display shows “- - -” see **Prize availability** below for reference.

No3→PRICE

Sets amount of money (in points = basic coins, e.g.US: 1 point = 0,25 USD, EU: 0,50 EUR) which need to be accumulated before the possibility of winning Prize No 3.

For an example see No1→PRICE setting.

NOTE: if small display shows “- - -” see **Prize availability** below for reference.

No3→MONEY

Counter of money accumulated for Prize No 3. The counter is resettable. Max value shown on the display is the amount set in No3→PRICE. When the counter meets max value, the prize is ready to be won.

No3→RANGE-HELP

The function works when No3→PRICE max value is met. When score falls within the range of “No3→VALUE” to “No3→VALUE + No3→RANGE-HELP” the assisting function helps scoring Prize No 3, e.g. No3→VALUE = 777, No3→RANGE-HELP = 20, machine measured: 782, score shown: 777, prize dispensed.

No3→MOTOR-TIME

Sets the time of motor work when dispensing Prize No 3.

PRIZE No4

No4→VALUE

Sets score value of Prize No 4. This setting applies when RANDOM function is OFF (switch #5 on OFF). Its value must be different than No1→VALUE, No2→VALUE and No3→VALUE.

No4→QUANTITY

Sets number of Prize No 4 prizes loaded in dispenser.

NOTE: if small display shows “- - -” see **Prize availability** below for reference.

No4→PRICE

Sets amount of money (in points = basic coins, e.g.US: 1 point = 0,25 USD, EU: 0,50 EUR) which need to be accumulated before the possibility of winning Prize No 4.

For an example see No1→PRICE setting.

NOTE: if small display shows “- - -” see **Prize availability** below for reference.

No4→MONEY

Counter of money accumulated for Prize No 4. The counter is resettable. Max value shown on the display is the amount set in No4→PRICE. When the counter meets max value, the prize is ready to be won.

No4→RANGE-HELP

The function works when No4→PRICE max value is met. When score falls within the range of “No4→VALUE” to “No4→VALUE + No4→RANGE-HELP” the assisting function helps scoring Prize No 4, e.g. No4→VALUE = 880, No4→RANGE-HELP = 15, machine measured: 889, score shown: 880, prize dispensed.

No4→MOTOR-TIME

Sets the time of motor work when dispensing Prize No 4.

PRIZE No1..4

DRAW TYPE

Sets type of draw (single, multiple, multiple-limit). Works only with Switch #5 set to ON. Single draw means player can draw Prize Numbers only once before each game; multiple draw means player can draw Prize Numbers several times before each game; multiple-limit draw means player can draw Prize Numbers several times before each game but the

number of available draws is limited to number set in PRIZE No1..4/MULTIPLE-LIMIT. Prize Numbers in single draw mode can be drawn only when credits are available or free game is on; Prize Numbers in multiple and multiple-limit draw mode can be drawn even without credits.

MULTIPLE-LIMIT

Sets the limit for number of available draws. Works with DRAW TYPE set to MULTIPLE-LIMIT.

GAME TYPE

Limits the range of drawn Prize Numbers. Two possible limits are available: min – max RANGE and CLOSE TO SCORE. RANGE limits Prize Numbers which can be drawn to a specified range set in RANGE MAX.VALUE and RANGE MIN.VALUE, while CLOSE TO SCORE draws Prize Numbers close to the last score plus minus value set in CLOSE TO SCORE setting.

RANGE MAX.VALUE

Defines maximum value of Prize Number for GAME TYPE/ RANGE. For example, if GAME TYPE is set to RANGE and RANGE MAX.VALUE is 888 and RANGE MIN.VALUE is 333, any of the Prize Numbers same and higher as 333 and smaller or same as 888 can be drawn.

RANGE MIN.VALUE

Defines minimum value of Prize Number for GAME TYPE/ RANGE. For example, if GAME TYPE is set to RANGE and RANGE MAX.VALUE is 888 and RANGE MIN.VALUE is 333, any of the Prize Numbers same and higher as 333 and smaller or same as 888 can be drawn.

CLOSE TO SCORE

Defines minimum and maximum value of Prize Number for GAME TYPE/ CLOSE TO SCORE. Sets the increase and decrease value of the drawn Prize Number.

For example: If CLOSE TO SCORE is set to 40 and the last score was 795, Prize Number value range will be between 795-40 and 795+40, so between 755 and 835. Note: Minimal value cannot be lower than 100, maximal value cannot be higher than 990. If last score was outside the 100...990 range, last score is 'fake', drawn by the software.

SIREN

(Settings apply to machines with siren module installed.)

TIME.RECORD

Sets how long the siren will be on after breaking record.

TIME.NUMBER

Sets how long the siren will be on after scoring same or more as the value set in NUMBER.

TIME.COIN

Sets how long the siren will be on after inserting coin or bill.

TIME.STARTBUTTON

Sets how long the siren will be on.

FACTORY SETTINGS

CRED.NATION.SET

Parameter used by manufacturer.

VOICE.NATION.SET

Parameter used by manufacturer.

SENSITIVITY

Sets the difficulty level (range 0 – 9). Lower level numbers correspond to greater difficulty, i.e. 0 – hard, 9 – easy.

PERIPH.DEVICE

Turns peripheral device ON or OFF.

TIME VOICE RELAX

Sets time (counted from last game) after which music is activated.

TIME DISPL RELAX

Sets time (counted from last game) after which displays start flashing.

BOXNET→T.PERIOD

Defines how often BoxNet data is sent to server. Possible settings: OFF (no data is sent periodically). Available range (time period): 1m..12h.

BOXNET→STARTUP

When OFF, this function sends BoxNet data at machine startup. Please mind that there's a 60 s. delay from machine's start. Another data is sent according to settings in BOXNET→T.PERIOD. When ON, data is sent at each machine startup with 60 s. time delay.

BOXNET ID

Stores machine's BoxNet ID (read only).

BONUS CRED. MODE

Two possible settings: NORMAL MODE and ADD.MODE.

NORMAL MODE: bonus is calculated after each coin/bill input.
ADD.MODE: value of each inserted coin/bill is summed up and bonuses are calculated for the cumulated value. In this mode the main credits display blinks. Pressing START (Boxer or Kicker) ends the cycle of summing up values and calculating bonuses.

DIAGNOSTIC MODE

SENSOR TEST HI LO

Testing of the sensor.

Sensor is working correctly: while the punching bag is in the vertical position the display shows "LO" and while the punching bag is in the horizontal position the display shows "HI". Different behavior indicates improper sensor work. This option is used for diagnostic only.

DISPLAYS TEST

Testing of the displays.

All displays show "8"s.

MOTORS TEST

This function enables to verify if any of the motors (M1, M2, M3, M4) or all motors work correctly.

This function works the same as "Motor testing" with prize arm button described in "Prize arm buttons" below.

Choose motor number (M1, M2, M3, M4) or ALL by pushing ▲ or ▼ button and press **ENTER** to start test. Press ◀ button to stop test.

Function ALL tests motors one by one.

Example for testing motor M1 of Prize No1.




Hang both prizes on Prize No1 arm (see “Prize loading” for reference). In diagnostic mode choose M1 and press **ENTER**. Motor works for time set in setting No1→MOTOR-TIME. The No1→MOTOR-TIME setting is correct when the first prize from the arm is dispensed and the second prize takes place marked **1** on the arm. If the second prize is placed between **2** and **1** mark, No1→MOTOR-TIME is too short. If the second prize is placed after the **1** mark, No1→MOTOR-TIME is too long. Adjust accordingly.

The settings are correct when the test is carried out three times and each time after test the first prize is dispensed and the second prize is placed on **1** mark.

GAME TEST

This function lets user test the machine’s work for a set result.

Example: Our test result will be 555.

After entering GAME TEST diagnostic mode use  or  buttons to set 555, then press  button to accept. The display will show TESTING: 555. Press START button to initiate test and punch the ball.

Player’s score will be 555, unless the conditions described in GAME RULES (Point 6) are not met or the unbreakable record is lower than the tested value.

After the test is over, the GAME TEST function is deactivated. GAME TEST function is also deactivated when the display fades (after 1 minute).

PRIZE-2 VER.

Shows software version.

Prize arm buttons

Each prize arm button has different functions:



- **Showing number of prizes loaded** - Short pressing shows number of prizes loaded (same as e.g. function No3→QUANTITY), after 2,5 sec. the value vanishes and display shows prize value;
- **Changing number of prizes loaded** – short press and then keep pressing the button until the display shows desired number, after 2,5 sec. the value

vanishes and display shows prize value and the value is saved (e.g. to function No3→QUANTITY);

- **Motor testing** – long press the button (for 3 sec.) to test the motor. The test takes the time set in e.g. No3→MOTOR-TIME function.

Prize loading

For the prize mechanism to work correctly it is necessary to load the prizes in the proper places marked **1** and **2** shown on the photo below.

If only one prize of each type is loaded then it needs to be placed in a place marked **1** on prize arm.





Placing prizes in places other than marked can cause improper prize pay-out, including releasing two prizes at the same time.



Proper prize placement on prize arm is shown on the photos below.

1. Using cable tie fasten prize on the prize arm in a place marked **2**. Make sure, that the cable tie goes **BELOW** the prize arm bar.

2. Using another cable tie fasten prize on the prize arm in a place marked **1**. Make sure, that the cable tie goes **BELOW** the prize arm bar.

DO NOT unscrew the bar.



3. Repeat the steps 1. And 2. for all the prizes you want to hang (max 8).



4. Max two prizes on one prize arm.

PLEASE REMEMBER!

If the value of any loaded prize changes please remember to check (and update) values of according function: No1→PRICE, No2→PRICE, No3→PRICE and/or No4→PRICE.

IMPORTANT!

For the Prize Pay-out to work correctly it is required that functions No1→QUANTITY, No1→PRICE, No2→QUANTITY, No2→PRICE, No3→QUANTITY, No3→PRICE, No4→QUANTITY, No4→PRICE are set. Without it the prize dispensing feature will not work and the money counters of each Prize will not count the money towards winning possibility.



PLEASE NOTE! Both prizes on the same prize arm (on places marked **1** and **2**) should be the same (worth the same).

Prize availability

When display shows “- - -” it means that either PRIZE No QUANTITY is 0 or PRIZE No PRICE is not set. Check both settings for each Prize No with “- - -” on display for the prize to be available again.

REMEMBER for example when PRIZE No1 PRICE is set to 0 and even though PRIZE No1 QUANTITY is 1, the prize No1 cannot be won.



11. Spare parts and equipment

Leveling legs 4 pieces.

Punching bag pump 1 piece.

Bladder 1 piece.

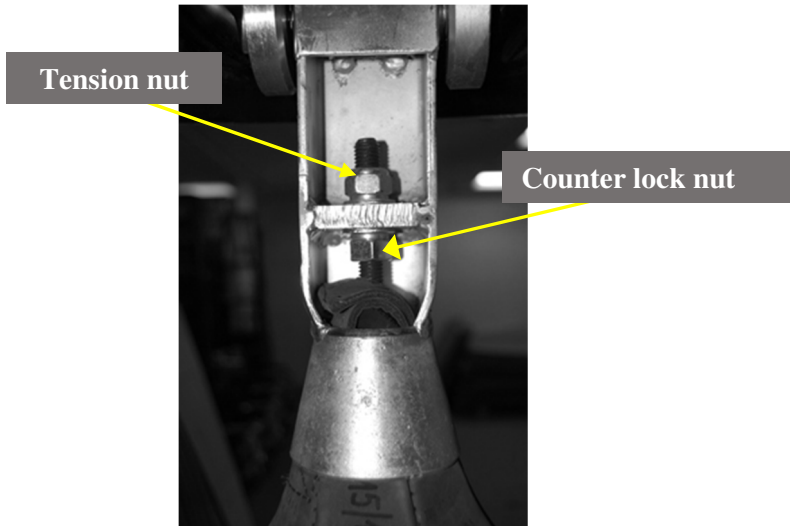
12. Standard replacement parts

- Front panel bulbs
- ‘START’ or ‘RANDOM’ button bulb
- LED spotlight bulb (12 V 2.4 W, MR11/C (GU4) – 35mm DIA)

13. Step-by-step setup and maintenance instructions

How to change the punching bag

Changing the punching bag is required in some cases. Lower the bag arm as in the play mode. Take off the front protector and unscrew the top nut using 19 mm wrench (use wrench with a ratchet). This will release the bag assembly.



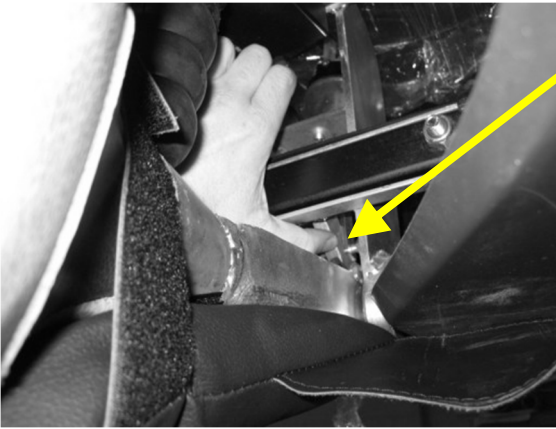
To install a new bag first make sure that the tension nut is taken off and the second nut is screwed all the way on the bolt. Otherwise the second bolt will prevent the bag from proper tightening of the assembly.



Insert the bag in its place, replace the tension nut and tighten it until the bag cannot be twisted by manual tests. To test this, grab the bag in your arm and simply use your body's weight to try to twist the bag on the bolt's axis.

If it is secured tight enough, then finish by unscrewing the second nut until it tightens on the metal arm.

How to release the punching bag manually



Sometimes it is necessary to release the punching bag when the machine has no power. This can still be done manually. You must reach over the bag and find the mechanical hammer holding the entire arm in position. Then using

your thumb press the hammer which is under compression by a spring behind it and the bag should be free to come down.

How to change the fuse in the main switch

Locate the power cord connection on the back of the machine. The fuse can be found hidden between the power cord socket and the main ON/OFF switch. In order to replace it, use a flat screwdriver to pry open the fuse holder and pull it out.



									Date of Service	MAINTENANCE LOG	Serial #
									Punching bag condition		
									Punching bag pressure		
									Arm protector condition		
									Arm protector position		
									Legibility of disclaimer		
									Legibility of instruction		
									Level of machine		
									Grease on mechanism		
									Bulbs		
									Button		
									Bill and coin validators		
									Safe condition (Yes/No)		
									If not working or condition not safe for use what was replaced		
									Comments		
									Signature		