«MultiFish»
Board documentation

Contents

Introduction

Thank you for the purchase MultiFish gameboard. We thank you for the attention towards our product.

MultiFish board should be supplied with the stable power and reliable protection against physical impact (e.g. hammer strikes).

The producers are not responsibility for the damage, caused by inappropriate exploitation of the board or by exploitation of board being out of order. The guarantee license does not spread over the boards, hardware and/or software components of which were altered (replaced) by a person without an official permission of a board producer.

The producer is allowed to make changes in software or hardware components of the board, which do not change its characteristics, without altering of the documentation. That means that some system or game screens can differ from those, described in this documentation.

Instructions for amusement arcade operator

Switching on and off of the machine

To set up the machine it is necessary to connect it to the **alternating** current with the **220** V voltage. After the giving of power supply the board will start the system condition check, which will be accompanied by the illumination of game-machine buttons and the change of the sound. That is necessary for preliminary diagnosis of board faultinesses. If the testing is successful, an inscription "**HARD TEST PASSED**" will appear, which means that the board is in order and is ready for work

After the accomplishment of actions stated above the machine should launch a playing or a demonstration mode. If that does not occur, go to appendix 1: problems solution. **It is strongly prohibited to allow customers to use the machine that have not launched a playing or a demonstration mode!**

If the credit has been equal to zero before the machine switching off, after the switching on it should launch a demonstration mode. Besides, the machine enters this mode if there is a zero credit during some period of time. A playing mode is launched immediately after the entering of credit.

If a three-color indicator of working mode is connected to the machine, then:

red – technical mode (setup and statistic));

yellow – an interference of an attendant is required (an exceeding credit, absence of coins in the hopper);

green – demonstration mode; a credit entering is awaited

all are extinguished – playing mode.

The game machine can be switched off at any moment – after switching on it will reestablish the condition, in which it was before switching off. **If the machine needs to be switched off, it is recommended to do this while there is no player.**

Entering and canceling of the credit

Entering of the credit can be accomplished with the help of coin slot, bill acceptor or credit key. It should be remembered, that a credit key has two work modes – direct (if turned, a appointed in settings value is added to credit) or key-driven (the amount of credit entered while the key is turned depends on button, pressed by the player: **HOLD1**=1000, **HOLD2**=100, **HOLD3**=10, **HOLD4**=1, **HOLD5** – canceling of the credit). For each notes- and coin slot there is a setting – a value of a note (a coin) in credits. To enter the credit with the help of the computer one should follow the instructions to its software.

The payout of credit is accomplished with the help of a service button "CREDIT CANCEL", a credit key in a key-driven mode by the HOLD5.

Short statistic.

The entering of a short statistic is accomplished by a short statistic key. After the transfer to a short statistic mode there will be a picture on the screen, the example of which is adduced below.

```
MULTIGAME1 4GAME V00-0000 15 06 02 12 00
        SHORT STATISTIC
TOTAL IN           10000 CREDIT        0
TOTAL OUT          10655

IN-OUT                 -       655
ACTUAL PERCENTAGE      106

KEY IN       10000 KEY OUT        10655
COINS IN         0 HOPER OUT          0
BILL IN          0 TICKET OUT         0
COMP. IN         0 COMP. OUT          0

PREV. F DOOR OPEN    0  0.00.00  00:00
PREV. B DOOR OPEN    1 15.06.02  12:00
SHORT STAT. CLEAR    0  0.00.00  00:00
LAST VIEW SHORT        15.06.02  12:00
        OPERATION STATISTIC
TOTAL IN           10000
TOTAL OUT          10655
ACTUAL PERCENTAGE    106

ORD NUMBER             0   CONNECTS    0

CANCEL ...... ...... ...... ...... START
 Clear                              Exit
```

TOTAL IN – the number of credits entered;

TOTAL OUT – the number of credits paid out;

IN-OUT – their disparity;

ACTUAL PERCENTAGE – percentage of credit entered, which was paid out as winnings, is calculated via formula $\frac{\textbf{TOTAL OUT}}{\textbf{TOTAL IN}} \cdot \textbf{100\%}$.

KEY IN – credits, entered with a credit key;

COINS IN – credits, entered in all coin slots;

BILL IN – credits, entered in all bill acceptors;

COMP. IN – credits, entered with a computer;

KEY OUT – credits, withdrawn with a credit key;

HOPER OUT – credits, paid out by hopper;

TICKET OUT – credits, being gave out with the tickets;

COMP. OUT – credits, unloaded with the help of computer;

PREV. F DOOR OPEN – amount and date of last front door opening;

PREV. B DOOR OPEN – amount and date of last back door opening;

SHORT STAT. CLEAR – amount and date of last short statistic cleaning;

LAST VIEW SHORT – date of last statistic browsing.

Besides, important data from long statistic, such as **TOTAL IN**, **TOTAL OUT** and **ACTUAL PERCENTAGE** are adduced below.

The statistic is zeroed after pressing and holding for five seconds of the button **CANCEL** (**BET**). **The zeroing of short statistic will not change the condition of long statistic and will not affect the percentage of payout of the machine.**

Service mode

Service mode is switched on if any door (front or back) is opened, statistic does not change and an inscription «**SERVICE MODE**» appears on the screen. Stuff can thus check the efficiency of the machine, study rules and capabilities of the board, without changing of its general characteristics (statistic data, percentage and other)

The mode is off in a while after all doors are shut. The machine condition (win, credit, jackpot) reestablishes.
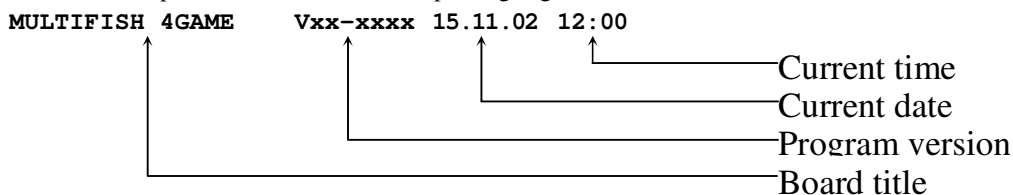
Instructions on service and setup of the machine

To enter the service mode a long-statistic key should be used. The offsetting over the menu is accomplished with buttons **HOLD1** – up and **HOLD2** – down. The choice of a necessary entry is accomplished with the button **START**, exit – with the button **CANCEL** (**BET**).

The Menu contains the following entries:

|	
OPERATION STATISTIC	– long statistic;
TOTAL SETTINGS	– general settings;
INIT	– machine initialization;
EVENT LIST	– register of events;
SET CLOCK	– date and time adjustment;
GAME STATISTIC	– the statistics of plays;
GAME OPTIONS	– game adjustment;
TESTS	– tests of sound, connector contacts and event register;
EXIT	– exit to playing or demonstration mode (depends on credits available).

At the very top of the screen there is an information line with the title and version of the game, and current date. Below an example of information line deciphering is given:

```
MULTIFISH 4GAME    Vxx-xxxx 15.11.02 12:00
```

Current time
Current date
Program version
Board title

Controls in all menus of lower level are similar to those of the main one, and the parameters changing is accomplished with buttons **HOLD3** and **HOLD4**.

Operation Statistic

Operation statistic, or long statistic, consists of two pages. The change of pages is accomplished with the button **HOLD2**.
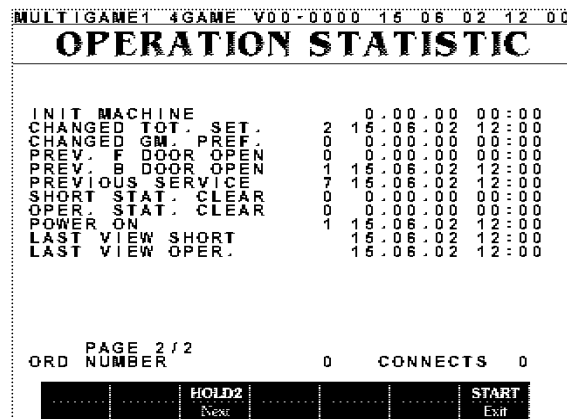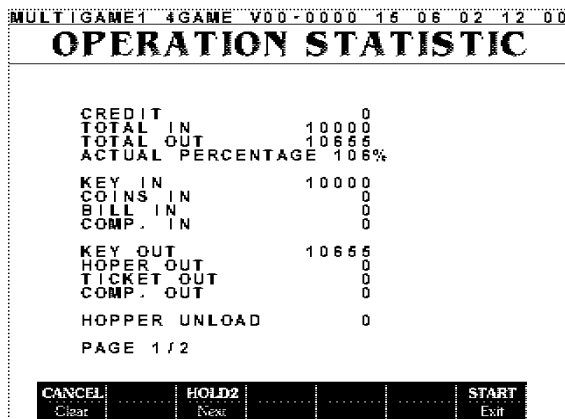
On the first there is information about credit (how much and where it is entered and where it is paid out, see short statistic), and besides:

INIT MACHINE	– board initialization;
CHANGED TOT. SET.	– changing of general parameters;
CHANGED GM. PREF.	– changing of game options;
PREV. F DOOR OPEN	– opening of the front door;
PREV. B DOOR OPEN	– opening of the back door;
PREVIOUS SERVICE	– turning on of the service mode;
SHORT STAT. CLEAR	– clearing of short statistic;
OPER. STAT. CLEAR	– cleaning of operation statistic;
POWER ON	– switching on of the machine;
LAST VIEW SHORT	– last view of short statistic;
LAST VIEW OPER.	– last view of operation statistic;

ORD NUMBER – net machine number;
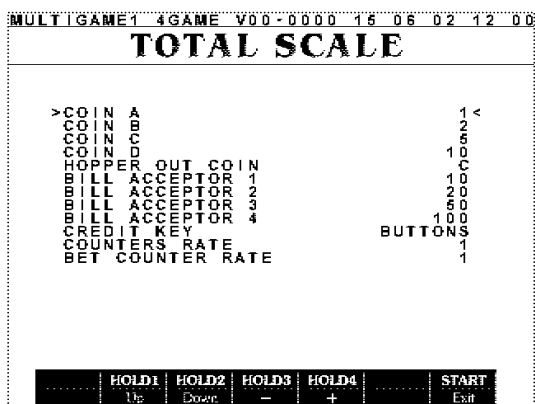CONNECTS - amount of machines in the net.

After a title of the events their amount since the last cleaning of statistic and the date of the last are given. The cleaning of the statistic is accomplished with pressing of the button **CANCEL** (**BET**) and holding it for five seconds. **Cleaning of the statistic does not affect the percentage of payout of the machine.**

Total Settings

After entering this section of the main menu, you will get to a sub menu, which contains four entries:
TOTAL SCALE – options of coins- and bill acceptors, credit key and external counters;
TOTAL PARAMETERS – general parameters settings;
TOTAL ACCESS – access settings;
EXIT – exit to the main menu.

Total Scale

```
MULTIGAME1 4GAME V00-0000 15 06 02 12 00
            TOTAL SCALE

        >COIN A                      1<
         COIN B                      2
         COIN C                      5
         COIN D                     10
         HOPPER OUT COIN             C
         BILL ACCEPTOR 1            10
         BILL ACCEPTOR 2            20
         BILL ACCEPTOR 3            50
         BILL ACCEPTOR 4           100
         CREDIT KEY            BUTTONS
         COUNTERS RATE              1
         BET COUNTER RATE           1




       .....HOLD1 HOLD2 HOLD3 HOLD4 ..... START
            Up   Down    -     +          Exit
```
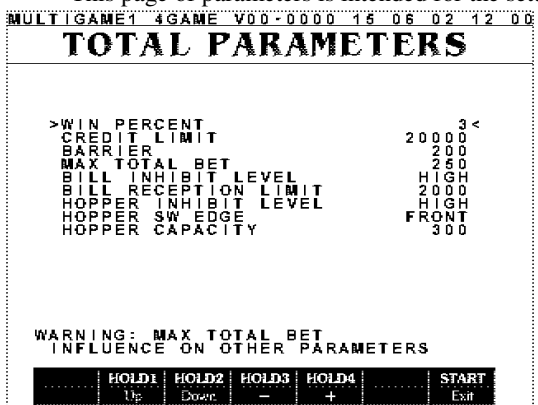
First eight points (the first four on bill acceptors, the second four on coin slots) impose the correspondence between one response of indicated machine and the amount of credits, entered at the time. For example, if coin slot **COIN B** (see pict.) responds, credit goes twice, and if **BILL ACCEPTOR 4** – 100 times.
HOPPER OUT COIN – coin slot, corresponds to hopper;
CREDIT KEY – credit key receives several numerical and one special value. As it was described above, credit key is able to work in two modes – direct and key-driven. By default, the key-driven mode is on, but it can be changed to direct.
COUNTERS RATE – an adjustment for three mechanical counters of credits entered (credit key + computer, coin slot + bill acceptor and general), and also for tree counters of credits unloaded (key + computer, hopper + ticket distribution device and general);
BET COUNTER RATE –an adjustment for counter of bets lost.

Two these parameters assign the value of a counter unit in credits. I.e., if BET COUNTER RATE is assigned equal to 50, then the corresponding counter will change only if the amount of bets collected increase not less then 50.

Total Parameters

This page of parameters is intended for the settings of common features of all games on the board.

```
MULTIGAME1 4GAME V00-0000 15 06 02 12 00
         TOTAL PARAMETERS

        >WIN PERCENT                 3<
         CREDIT LIMIT             20000
         BARRIER                    200
         MAX TOTAL BET              250
         BILL INHIBIT LEVEL        HIGH
         BILL RECEPTION LIMIT      2000
         HOPPER INHIBIT LEVEL      HIGH
         HOPPER SW EDGE           FRONT
         HOPPER CAPACITY            300




      WARNING: MAX TOTAL BET
      INFLUENCE ON OTHER PARAMETERS
       .....HOLD1 HOLD2 HOLD3 HOLD4 ..... START
            Up   Down    -     +          Exit
```
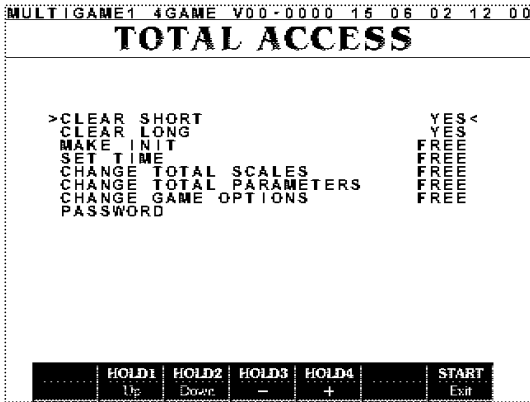
WIN PERCENT – percentage of winnings, the higher the value, the more winnings the machine will pay out. **Can be changed only after initialization.** It is recommended not to set this parameter too low – the machine will not be popular with gamers;
CREDIT LIMIT – the maximum magnitude of the credit, if it is exceeded, there will be a corresponding inscription on the screen and the machine will not let play until the credit is unloaded. Used for setting limit of maximum winning, paid out to a player, corresponding to the game arcade rules;
BARRIER – game events with a parameter below the one, assigned by this setting are not recorded into the event list. **Do not assign this setting too low – this can lead to the clog of the list with unnecessary information;**
MAX TOTAL BET – maximum bet. Limits the diapason of changing of other parameters, which assign the magnitudes of bets. **Changing of this parameter can lead to the modification of other parameters;**
BILL INHIBIT LEVEL – level of the signal of blockage of coins- and bill acceptors;
BILL RECEPTION LIMIT – magnitude of credit, after the exceeding of which coins- and notes receivers are blocked;
HOPPER INHIBIT LEVEL – level of error signal of the hopper;
HOPPER SW EDGE – edge of the signal, due to which coins, given out by the hopper, are counted.
HOPPER CAPACITY – amount of coins, the hopper can give out for one time.

Total Access

```
MULTIGAME1 4GAME V00-0000 15 06 02 12 00
          TOTAL ACCESS

    >CLEAR SHORT                  YES<
     CLEAR LONG                   YES
     MAKE INIT                    FREE
     SET TIME                     FREE
     CHANGE TOTAL SCALES          FREE
     CHANGE TOTAL PARAMETERS      FREE
     CHANGE GAME OPTIONS          FREE
     PASSWORD




     ......| HOLD1| HOLD2| HOLD3| HOLD4|......| START
           | Up   | Down |  –   |  +   |      | Exit
```

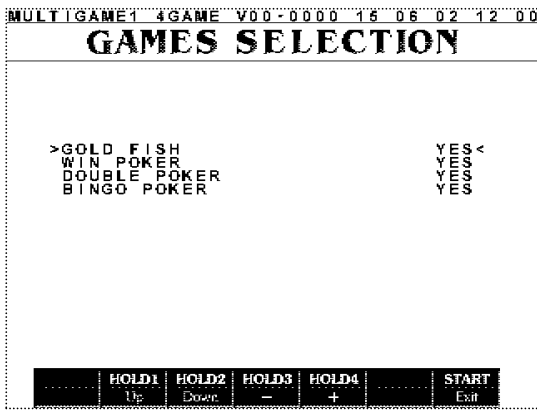Putting of permissions and passwords on system pages.

CLEAR SHORT – permission to clean short statistic;

CLEAR LONG – permission to clean long statistic;

MAKE INIT – form of access to initialization;

SET TIME – form of access to time setting;

CHANGE TOTAL SCALES – form of access to the settings page of coins- and bill acceptor and machine counters;

CHANGE TOTAL PARAMETERS – form of access to the page of general parameters;

CHANGE GAME OPTIONS – form of access to the page of game options;

PASSWORD – putting of a password, which will be asked if a protected page is tried to access. Removal is accomplished by entering an empty password.

After the initialization of the boar the password will be lacking. To lock access to any page with a password one should:
– To set a form of access to a corresponding page «**PAROLE**»;
– To enter a password different from empty.
Password is no more then eight figures (from 1 to 5), entered with the buttons **HOLD1, HOLD2, … HOLD5.**

Game Select

```
MULTIGAME1 4GAME V00-0000 15 06 02 12 00
        GAMES SELECTION



    >GOLD FISH                    YES<
     WIN POKER                    YES
     DOUBLE POKER                 YES
     BINGO POKER                  YES









     ......| HOLD1| HOLD2| HOLD3| HOLD4|......| START
           | Up   | Down |  –   |  +   |      | Exit
```

List of available games.

INIT

```
MULTIGAME1 4GAME V00-0000 15 06 02 12 00
             INIT

 FOR INIT MACHINE PRESS CANCEL BUTTON
 AND HOLD IT APPROXIMATE 5 SECONDS








 CANCEL|......|......|......|......|......| START
 Clear |      |      |      |      |      | Exit
```
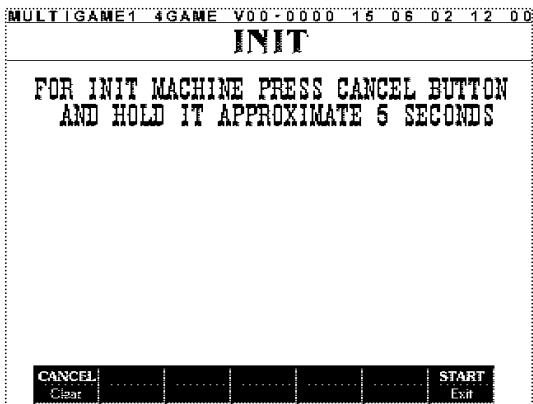
Before the receipt into the sale every board is initialized by the manufacturer and therefore a buyer does not need to conduct this operation himself. But in case of some mistakes, caused by wrong adjustment or influence of external factors, it can be necessary.

Initialization (full nulling) – is an adjustment of all settings by default, some of which can be set only before the first start of the game, then they are blocked until the next initialization.

Initialization is invoked from the main menu of the service mode. Then, pressing button **CANCEL** (BET) and holding it for five seconds it is possible to null the board.

Attention! All information about settings, credit and winnings is lost at the same time. All settings drop by default.

Event List

```
               EVENT LIST

    >ALL EVENT LIST                    <
     PAYOUT LIST
     PAY AND CONTROL LIST
     GOLD FISH EVENT LIST
     WIN POKER EVENT LIST
     DBL POKER EVENT LIST
     BNG POKER EVENT LIST
              EXIT
```

| CANCEL | HOLD1 | HOLD2 | | | | START |
| Exit | Up | Down | | | | Enter |

Event list is intended to control the work of the machine. All events, satisfying some conditions, for example game events, numerical parameter of which is not less then a value assigned, are written down in it.

It is possible to view four types of lists:

ALL EVENT LIST	– all happened events;
PAYOUT LIST	– entering and canceling of credit;
PAY AND CONTROL LIST	– entering and canceling of credit and system events;

<GAME NAME> EVENT LIST – register of game **<GAME NAME>** events

```
           ALL EVENT LIST

CHANGE TOTAL SETTINGS        15.06 12:00
CHANGE TOTAL SETTINGS        15.06 12:00
POWER ON                     15.06 12:00
POWER OFF                    15.06 12:00
CLOSE BACK DOOR              15.06 12:00
OPEN BACK DOOR               15.06 12:00
CLOSE BACK DOOR              15.06 12:00
OPEN BACK DOOR               15.06 12:00
KEY OUT                10655 15.06 12:00
WPOKER 5 OF A KIND       600 15.06 12:00
STOP BONUS G.FISH        183 15.06 12:00
    PAGE   1    BARRIER   200
```

| | HOLD1 | HOLD2 | | | | START |
| | Previous | Next | | | | Exit |

All events have the following structure:

<event title> [<numerical parameter>] <date> <time>

Numerical parameter can be lacking for some types of events (for example: switching on/ off of the machine). The whole list of events and their deciphering is situated in appendix №2 events.

Set Clock

```
              SET CLOCK




        TIME  : 12:00

        DATE  : 15

        MONTH: 06 JUNE

        YEAR  : 2002
```

| CANCEL | HOLD1 | HOLD2 | HOLD3 | HOLD4 | | START |
| Restore | Previous | Next | − | + | | Exit |

With the help of this menu the setting of time and date is accomplished.

The change of position of editing is accomplished with **HOLD1** and **HOLD2** buttons, forward and backward correspondingly. The change of the value is accomplished with the **HOLD3** and **HOLD4** buttons– previous and next value. The denying of changes is accomplished with the **CANCEL** (BET) button. Exit with the saving of adjusted time is accomplished with the button **START**.

Game statistic

Gold Fish

Gold Fish game statistic occupies 5 pages:

    1. General information;

    2. Full screen winnings;

    3-5. Line winnings.

On the first page the general information is given:

TOTAL GAMES	– amount of games;
TOTAL BETS	– amount of bets made;
MAIN GAME WIN	– sum of all winnings in the main game;
TAKEN WIN	– sum of winnings taken (including risk- and bonus-games);
RISK IN	– sum of winnings, with which the doubling was entered;
RISK OUT	– sum of winnings in doubling;
BONUS IN	– sum of winnings before the bonus game
BONUS OUT	– sum of winnings added after the bonus game

Besides, the date and time of the last winning is shown.

On the second page information about full-screen winnings is given. For each type quantity, sum and date of the last are.

<n> GOLD FISH –**n** gold fish appeared on the screen;

SEA ANIMALS – a winning of "marine residents" (see the game rules).

On the other pages information about line winnings can be found. Everything is displayed similarly to the one described above, except the types of winnings are displayed in pictures.

Win Poker

On the first page the general information is given:

TOTAL GAMES – amount of games;
TOTAL BETS – amount of bets made;
TOTAL WIN – sum of all winnings (and losses):
  1ST DEAL – got during the first deal;
  2ND DEAL – during the second;
  3RD DEAL – during the third;
TAKEN WIN – sum of winnings;
DOUBLE IN – sum of winnings, with which the doubling was entered;
DOUBLE OUT – sum of winnings in doubling;

On second page the information about winnings is given: an amount, sum of winnings, date and time of the last hit.

```
MULTIGAME1  4GAME V00-0000 15 06 02 12 00
     WIN POKER STATISTIC
PARAMETER        VALUE  LAST DATE & TIME

TOTAL GAMES      1252   15.06.02 12:00
TOTAL BETS       1252

TOTAL WIN        1714   15.06.02 12:00
1ST DEAL          104   15.06.02 12:00
2ND DEAL          444   15.06.02 12:00
3RD DEAL         1166   15.06.02 12:00
TAKED WIN        1714   15.06.02 12:00

DOUBLE IN           0   0.00.00  00:00
DOUBLE OUT          0   0.00.00  00:00




PAGE 1/2

......| HOLD1 | HOLD2 |......|......|......| START
      Previous  Next                       Exit
```

```
MULTIGAME1  4GAME V00-0000 15 06 02 12 00
     WIN POKER STATISTIC
WIN TYPE       GAMES WINNINGS DATE & TIME

5 OF A KIND       1      600  15.06 12:00
ROYAL FLUSH       0        0  00.00 00:00
STR. FLUSH        0        0  00.00 00:00

4 OF A KIND       5      200  15.06 12:00
FULL HOUSE       11      132  15.06 12:00
FLUSH            25      225  15.06 12:00

STRAIGHT         22      154  15.06 12:00
3 OF A KIND      44      220  15.06 12:00
TWO PAIRS        67      201  15.06 12:00

BONUS WIN        10       70  15.06 12:00



PAGE 2/2

......| HOLD1 | HOLD2 |......|......|......| START
      Previous  Next                       Exit
```

Double Poker

Similar to the previous game.

Bingo Poker

Similar to Win Poker.

Game options

Gold Fish

In this menu the game Gold Fish can be adjusted. There are the following settings here

MIN BET PER LINE – minimum bet per line;
MAX BET PER LINE – maximum bet per line;
MIN WIN FOR RISK – minimum winning for entering of the risk game
REELS SPEED – speed (fast/slow) of the reels;
ROTATION TIME – time (short/long) of the reels' rotation.

Win Poker

In this menu the game Win Poker can be adjusted. There are the following settings here:

MIN BET – minimum bet;
MAX BET – maximum bet;
DEALS – amount of deals (two, two + one and three);
CARDS PACK – deck used in the game.

Double Poker

In this menu the game Double Poker can be adjusted. There are the following settings here:

MIN BET – minimum bet;
MAX BET – maximum bet;
WAIT FOR START RELEASE – permission on the waiting of "START" button kept not pressed before the next deal;
CARDS PACK – deck used in the game

Bingo Poker

In this menu the game Bingo Poker can be adjusted. There are the following settings here:

MIN BET   – minimum bet;
MAX BET   – maximum bet;
CARDS PACK – deck used in the game.

```
TESTS



    >SOUND TEST                    <
     KEYS TEST
     HOPPER UNLOAD
     ERROR LIST
            EXIT







CANCEL  HOLD1  HOLD2                     START
 Exit    Up    Down                      Enter
```

```
KEYS TEST
P.RESERVE(11A) OFF    COIN  A  (18A) OFF
P.RESERVE(12A) OFF    COIN  B  (18B) OFF
P.RESERVE(13A) OFF    COIN  C  (19A) OFF
P.RESERVE(14A) OFF    COIN  D  (19B) OFF
SELECT.GM(15A) OFF
                      KEY IN   (35A) OFF
CALL ATT.(17B) OFF    KEY OUT  (21B) OFF
FR. DOOR (16A) OFF    PAY OUT  (21A) OFF
BK. DOOR (17A) OFF
SHORT ST.(20A) OFF    BILL #1  (04B) OFF
LONG ST. (20B) OFF    BILL #2  (05B) OFF
                      BILL #3  (06B) OFF
S.RESERVE(13B) OFF    BILL #4  (07B) OFF
S.RESERVE(14B) OFF
S.RESERVE(15B) OFF    HOPPER 1 (08B) OFF
S.RESERVE(16B) OFF    HOPPER 2 (09B) OFF
S.RESERVE(35B) OFF    HOPPER 3 (10B) OFF
                      HOPPER 4 (11B) OFF
TICKET    (12B) OFF
HOPPER SW(22B) OFF

   TO EXIT PRESS "START" AND "BET"

BET  STOP1    STOP2    STOP3    STOP4    STOP5  START
```

Tests

After entering of this unit of the menu, you get to the sub menu, in which you can choose:

KEYS TEST   – ports test;
SOUND TEST   – sound test;
HOPPER UNLOAD   – unload of the hopper;
ERROR LIST   – records about errors.

After choosing the sound test, there will be three inscriptions: "**CHANNEL 1**", "**CHANNEL 2**" and "**CHANNEL 3**" appearing in turns on the screen. At that time the sound will be given through, correspondingly, the first, the second and the third channels.

Choosing **the ports test,** you will get to the screen, where all board ports are listed (title and location on the connector), and also their current condition. If you think, that you have some external device or button unable to work, then after entering of this mode, you will be able to check your supposition.

Unload of the hopper is accomplished with the simultaneous display of the coins thrown out. With the help of this function efficiency and accuracy of the adjustment of this devise can be checked, and besides, the quantity of coins can be counted.

Error list is needed for the registration of not established situation. If the machine behaves itself in a "strange" way or suddenly demanded an initialization, then, probably, a situation of that type has occurred. A type of the error can be learnt from this list. This list is necessary only for the producer. If there is no serious reason, do not pay attention to the errors.

Initialization does not clear this list. To clear it, it is necessary to press the button **CANCEL** (**BET**) while viewing it and then hold it for five seconds.
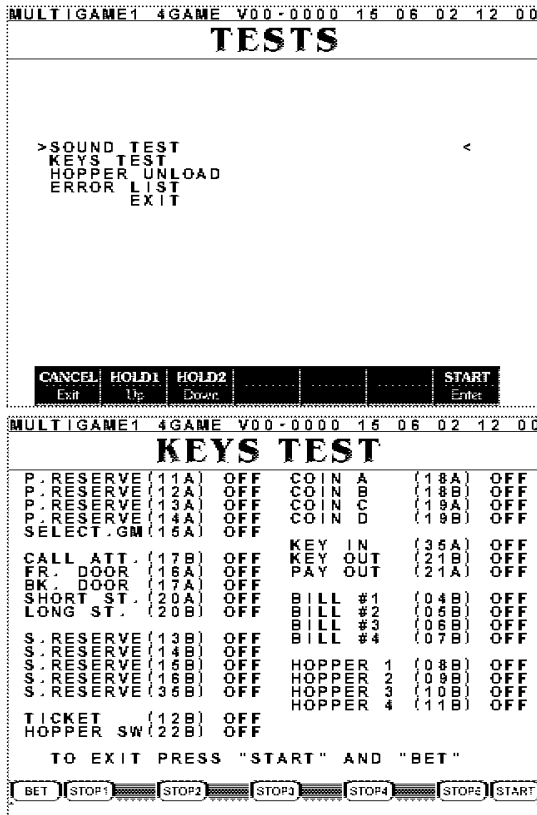
Attention! If some inscription has appeared in your error list, that is a ground for contact with the support service of the machine seller.

Game selection

This mode is on at the moment the credit is entered or after the machine switching on, if the credit was not equal to null. Besides, the machine enters this mode after a player presses "SELECT GAME" button.

Change of the current game is accomplished by the button «BET», after that there will be a luminous frame around the game. Chosen game is launched with the «Start» button.
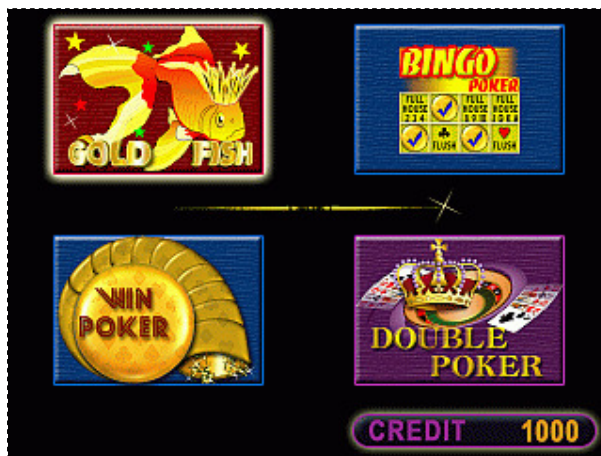
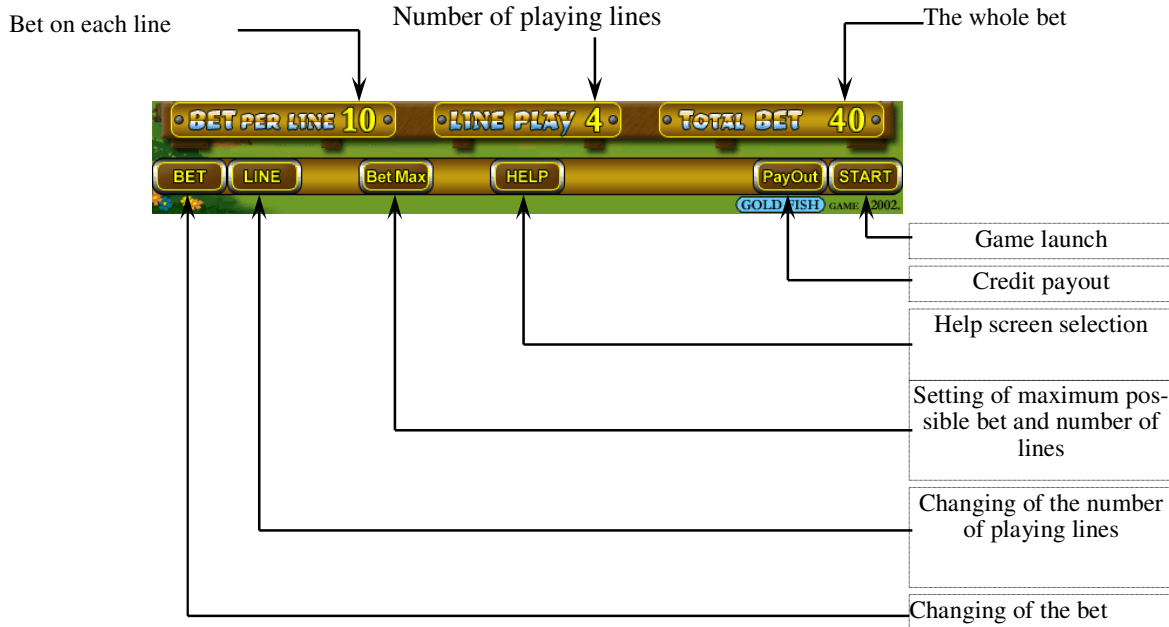The buttons are common for all games (do not function in the game changing mode):

SELECT GAME – entering of the change game mode. Activated before the regular circle of the current game.

PAY OUT – credit payout with the coins.

Gold Fish game rules

General game

The game starts with the button "START" pressed while the credit value is not zero. You can change the line bet and number of lines playing (however total value can not exceed current credit). That is done with the "BET" and "LINE" buttons (watch pict). "Bet max" button can be used for the same purposes and it will set <u>nine</u> active lines and <u>maximum</u> bet, if possible. Otherwise, there will be a button "LIABLE", pressing of which will lead to the setting of <u>maximum possible</u> bet and number of active lines.

Bet on each line — Number of playing lines — The whole bet

- Game launch
- Credit payout
- Help screen selection
- Setting of maximum possible bet and number of lines
- Changing of the number of playing lines
- Changing of the bet

Pressing of the button «**HELP**» will lead to the selection of help menu, which includes table of winnings and game rules in English.

Button «**PayOut**» is not used yet; therefore pressing on it will not have any effect. For credit payout the particular button is used.

In some modes the reels can be stopped individually or all at once while they are rotated with the corresponding buttons.

After the reels have stopped, the program will show you your winning. There are two types of winning: line and full-screen. This game supports up to nine lines, so they all can, theoretically, win. The winnings from all lines are summed. If there are winning lines on the screen, they are displayed one after another. A line is considered winning if there are at least three similar objects in a row and they touches left or right side. The more objects contains the line, the higher is a coefficient, by which the <u>line bet</u> is multiplied. There is a table of the correspondence between the coefficient, objects type and their amount below.
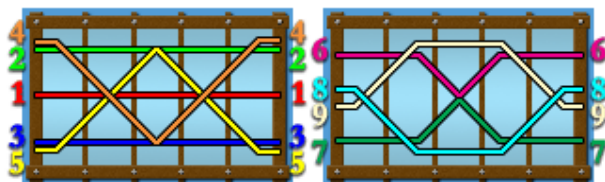
Object \ Quantity	Three in a row	Four in a row	Five in a row

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(fish)	100	500	**2000**
(ship)	80	400	800
(octopus)	60	300	600
(helm)	40	200	400
(seahorse)	30	100	300
(crab)	20	70	200
(shell)	10	50	100
(anchor)	5	20	50
(starfish)	2	5	10

There are so-called full-screen winnings – the winnings that are not included in any line. If after the reels stop there are one or more lines and one or two full-screen winnings, the value in the WIN frame will be the sum of all winnings. For each full-screen combination there is its coefficient, which is multiplied by the full bet. The table of winnings and coefficients for them is given.

Reels content	Coefficient
(five fish)	**10**
(four fish)	**5**
(three fish)	**3**
(two fish)	**2**
(one fish)	**1**
If there are no other object on the reels, except marine residents: (fish octopus seahorse crab shell starfish)	**20**

Three and more fish give access to *the bonus game*.

If your total win exceeds some particular value, a button "RISK" appears, after pressing of which you will enter *the risk game*.

Risk game

The aim of the game is to increase your winning, by stopping the reels one by one with the button "STOP". The winning will be multiplied by the number on the coin fallen out.

Theoretically, it can be increased by 1024 times, if all the coins show four, but you can also lose, if one of the coins is equal to zero. At any moment you can pick up your winning by pressing the "TAKE" button. You can stop one reel without any risk (see pact). If you press one of the buttons «FIX», the corresponding reel will stop, but your winning will not change. If you want the winning to be multiplied, you should stop all the reels to the left.

If after you press «**FIX**» «0» has fallen out, it is better not stop other reels, as in any case you will lose.

The game ends in one of three cases: you pick up the winning, you stop all reels or one of the coins has zero value.

Bonus game

Enter to the bonus game is possible if three or more fish are on the reels. Bonus game is similar to the risk game, except you will never lose it.

You have three attempts to guess the balloon with the coin. With the buttons and chose one and press the button "POP". The balloon will pop and there will be a coin instead of it. The value of the coin will be summed by the bet (0 to 3), shown under the inscription «BONUS», and the result will be multiplied by the bet of the general game.

Each attempt replace the previous one, so you can both improve and worsen your result. Good luck!

After each attempt you can pick up your winning by pressing the button «**TAKE**».

Game buttons

Button / Game	BET	HOLD1	HOLD2	HOLD3	HOLD4	HOLD5	START
Bet setup	BET	LINE	MAX BET	HELP	LIABLE	Pay Out.	START
Reels rotation	—	STOP1	STOP2	STOP3	STOP4	STOP5	STOP
Winning display	RISK	—	—	HELP	—	—	TAKE
Risk game	—	STOP1	FIX STOP2	FIX STOP3	FIX STOP4	FIX STOP5	TAKE
Bonus game	POP	—	⟳	—	⟲	—	TAKE

Win Poker game rules

General game

This game is a simple poker with joker. The aim of the game is to collect some winning combination (see the table).

Joker can replace any card in all combinations, except for the first and the last (see the table).

Before the game set the bet. That is accomplished by the "BET" button. Do not be afraid to experiment – the game will allow to set a bet, less than the current, even if you have not played yet.

Now you can start the game. Press the button "START". Five cards of the first deal will be opened, some of them may hold themselves at once, or there can be the winning.

If you do not like the way the game chose cards, you can cancel the holds with the button "BET" and/or set yours with the buttons HOLD1 – HOLD5.

VALUE	COMBINATION NAME	SHORT DISCRIPTION
3	Two pairs	Two pairs of cards of one type (e.g. two twos and two threes)
5	Three of a kind	Three cards of one type (e.g. three fives)
7	Straight	If you put cards as they increase. They should make a succession (e.g. three, four, five, six and seven)
9	Flush	All cards of one suit (e.g. all spades)
12	Full house	Two cards and three cards of one type at the same time
40	Four of a kind	Four cards of one type
80	Straight flush	Straight, but all cards of one suit
300	Royal flush	Straight flush, but cards are not less, then ten
600	Five of a kind	Four cards of one type and joker

The second and the next deals occurs if at least one card is held, but not all after the button "START" is pressed. If not a card is held, the deal is considered the first, if all cards are held, nothing will occur except there is winning. In that case it will be transferred into credit.

If there is no winning cards are examined after every following deal for the "highest pair". If there is one, you are closer to the getting of bonus. When all arrows become red, your winning will be equal to the seven bets.

Doubling game

If you had luck and you won something you can increase it by several times. You should press the button "DOUBLE". All cards will close and then the first one opens. That is the dealer's card. Your aim is to open the card of the higher value. You can pick up the winning not opening the card. If your card turns out to be of the less value, your winning will be nulled, if equal – it will not change. In upper right corner the maximum winning is shown and the number of steps for its attaining.

Game Buttons

Game / Button	BET	HOLD1	HOLD2	HOLD3	HOLD4	HOLD5	START
Bet setup (last deal)	BET	—	—	—	—	—	START
Last deal with winning	DOUBLE	—	—	—	—	—	TAKE
Not last deal without winning	HOLDS CANCEL	HOLD1	HOLD2	HOLD3	HOLD4	HOLD5	START
Not last deal with winning	DOUBLE	HOLD1	HOLD2	HOLD3	HOLD4	HOLD5	START
Doubling	—	—	HOLD2 / STOP2	HOLD3 / STOP3	HOLD4 / STOP4	HODL5 / STOP5	TAKE

Double Poker game rules

DOUBLE POKER is a card poker with three synchronous deals on two decks, with winnings by the coincidence between the decks, with the possibility of its increasing (doubling game) and getting of special jackpot winning.

General game

On the screen there are (from left to right, from the top downwards)
1. Bonus values of each vertical (5 figures) for the current bet (above)
2. Two fields of cards, 5 cards for each deck
3. Number of deal (to the left, in the middle of the screen) It may be the first, the second or the third.
4. Blinking tip line (middle of the screen).
5. Field for credit, jackpot and winning (brick line at the bottom). On the left there is current credit value, in the middle the bet, on the right – jackpot or winning (WIN).

Bet setup The bet can be set before the first deal with the "BET" button from 1 to 1000, and after MAX there is 1 again. The bet can be limited from below (minimum bet) or from above (maximum bet). The bet can be higher then half of the current credit. Change of bet can be accomplished before every deal. Value for each vertical bonus is particular and it also alters, when the bet is changed. If the bonus value is higher, then ten bets, it is displayed in red.

Table of winnings observing. You can see the table of winnings after pressing of the button "HOLD3". All combinations and their value will be listed. If some combination allows you to play the jackpot game, it is marked with color (red).

The first deal. There are ten card backs (game start) or the cards from the previous deal. Press the button "START". Two bet values are deducted from credit, an inscription <1st deal> appears and ten cards are, five for each deck are distributed. If some cards coincide in vertical line, the corresponding bonus value and, possibly, jackpot value will rise. If there is a joker among the cards and the vertical bonus exceeds 10 bets (it marked red in that case), it means that bonus winning was got. If cards in line constitute a combination, an inscription with its name and value will appear. If there are both general winning and the bonus, they are indicated by the "+" sign and the value of the winning will be their sum. Besides, to the right at the bottom there information about the winning will appear. Cards, which corresponded to the winning or close to that, will be marked with "HOLD" tablets. The player can use the buttons HOLD1 – HOLD5 to set his own version of card holding for the next deal. If there is winning the player can go to the doubling game all at once, without playing the second and the third deals, then play it or pick up the winning. For that the "BET" button is used. If there is no winning, pressing of the button «BET» will lead to the "HOLD" tablets canceling. The buttons HOLD1-HOLD5 are used for the card holding on the player's decision.

The second deal. Press the button "START". The second deal can use either one (upper or lower) or two decks. That depends on player's decision on card holding. If there are cards held the deck will participate in the second deal, and if there are no cards held or all five cards are held, it will not. For the second deal one or two credits are taken, depending on the number of lines in game. The line, which participates in the deal, will keep the tablets HOLD, an inscription <2nd deal> will appear and the cards, which are not held, will be replaced in turns from left to right. The BONUS winning rules are the same as in the first deal. If there is winning, the third deal is possible. If not, after the "START" button pressing, there will be the first deal.

The third deal. It is possible only if there is winning after the second deal. Press the button "START". The rules are the same as in the second one. After the deal if there is winning, it can be taken by the button "START", or the doubling game can be entered by the "BET" button.

Doubling game

The game can start during any deal if there is winning and the player pressed the button "BET/DOUBLE".
The doubling game allows increasing winning by guessing the card, the value of which is higher, than the dealer's one.

The game ends, if:
- the player takes the winning
- the player did not guess the card position

On the screen there (from left to right, from the top downwards):
1. Current curds or the backs of the doubling game cards (up-left).
2. The number of the general game deal and the step in the doubling game (in the middle).
3. button tip (in the middle).
4. Field for the credit, bet and winning (stripe at the bottom). Current credit value is at the left, bet is in the middle and winning is to the right (WIN).

The doubling game consists of steps, during each the dealer's card opens and the dealers is suggested to accomplish one of the following actions:
- Try to guess the position of the card, which is higher than the dealer's one, using the buttons HOLD2 – HOLD5. If successful, the winning is doubled. There is no such a card for certain and the player should guess his chances by himself.
- Take the winning, pressing the button "TAKE".
- Take half of the winning, pressing the button "TAKE½".

Game Buttons

Game \ Button	BET	HOLD1	HOLD2	HOLD3	HOLD4	HOLD5	START
Bet setup (last deal)	BET	—	—	HELP	—	—	START
Last deal with winning	DOUBLE	—	—	—	—	—	TAKE
Not last deal without winning	HOLDS CANCEL	HOLD1	HOLD2	HOLD3	HOLD4	HOLD5	START
Not last deal with winning	DOUBLE	HOLD1	HOLD2	HOLD3	HOLD4	HOLD5	START
Doubling	—	—	HOLD2 STOP2	HOLD3 STOP3	HOLD4 STOP4	HODL5 STOP5	TAKE

Bingo Poker game rules

General game
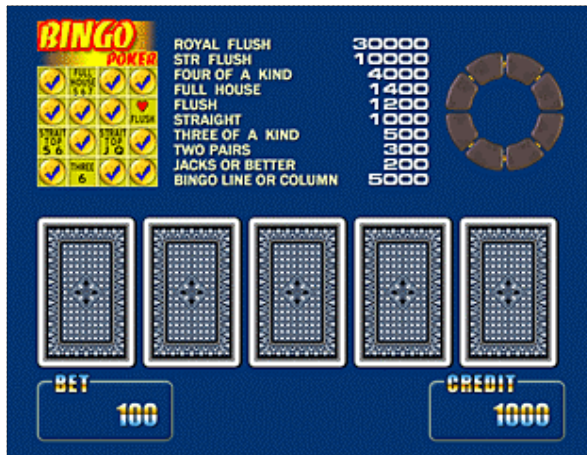
This game is a simple poker with the elements of lottery. The aim of the game is to collect the winning combination (see table) and to fill in the lottery card.

Before the game set the bet. That is accomplished by the "BET" button. Do not be afraid to experiment – the game will allow to set a bet, less than the current, even if you have not played yet.

Now you can start the game. Press the button "START". Five cards of the first deal will be opened, some of them may hold themselves at once, or there can be the winning.

If you do not like the way the game chose cards, you can cancel the holds with the button "BET" and/or set yours with the buttons HOLD1 – HOLD5.

VALUE	COMBINATION NAME	SHORT DISCRIPTION
2	Jacks or better	Pair of similar cards with pictures
3	Two pairs	Two pairs of cards of one type (e.g. two twos and two threes)
5	Three of a kind	Three cards of one type (e.g. three fives)
10	Straight	If you put cards as they increase. They should make a succession (e.g. three, four, five, six and seven)
12	Flush	All cards of one suit (e.g. all spades)
14	Full house	Two cards and three cards of one type at the same time
40	Four of a kind	Four cards of one type
100	Straight flush	Straight, but all cards of one suit
300	Royal flush	Straight flush, but cards are not less, then ten
50	Bingo line or column	Filled line or column. If both line and column are filled at the same time, **the value is doubled.**

The second and the next deals occurs if at least one card is held, but not all after the button "START" is pressed. If not a card is held, the deal is considered the first, if all cards are held, nothing will occur except there is winning. In that case it will be transferred into credit.

The third deal is accomplished only if there is winning. If there is no, the second deal will be followed by the first one.

Each winning is checked to correspond bingo card cells. If it coincides with one of them, it is filled. If horizontal or vertical line is filled, you have won bingo. If the filled cell completes both a line and a column, you get two bingos.

Bingo winning is transformed at once to the credit.

For each bet the card is its own and they are filled separately. After the card has won, another with several filled cells replaces it.

Doubling game

If you had luck and you won something you can increase it by several times. You should press the button "DOUBLE". All cards will close and then the first one opens. That is the dealer's card. Your aim is to open the card of the higher value. You can pick up the winning not opening the card. If your card turns out to be of the less value, your winning will be nulled, if equal – it will not change. In upper right corner the maximum winning is shown and the number of steps for its attaining.

Game Buttons

Game \\ Button	BET	HOLD1	HOLD2	HOLD3	HOLD4	HOLD5	START
Bet setup (last deal)	BET	—	—	—	—	—	START
Last deal with winning	DOUBLE	—	—	—	—	—	TAKE
Not last deal without winning	HOLDS CANCEL	HOLD1	HOLD2	HOLD3	HOLD4	HOLD5	START
Not last deal with winning	DOUBLE	HOLD1	HOLD2	HOLD3	HOLD4	HOLD5	START
Doubling	—	—	HOLD2 / STOP2	HOLD3 / STOP3	HOLD4 / STOP4	HODL5 / STOP5	TAKE

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Appendix №1: problems solution

Q: The machine does not enter the demonstration or the game modes. It drops itself constantly and writes «INIT MACHINE».

A: Probably, a serious error has occurred. It is necessary to initialize the board. It is possible to learn about an error from the error list (see "Instructions on service and setup of the machine" chapter "Tests").

Q: The machine gave out an inscription «HARD TEST PASSED» and one or several more from the list: «SHORT STATISTIC ERROR», «LONG STATISTIC ERROR», «MAIN SETTINGS ERROR», «INTERNAL ERROR», «ERROR: FAILED MEMORY! INIT NEEDED!». And did not enter game/demonstration mode.

A: A memory failure has occurred in the corresponding domain of data. It is recommended to clear corresponding statistic, if an error occurred in it, or, having entered the service menu, change damaged settings. In any case, it is better to accomplish an initialization of the board and if it repeats again, contact the organization that sold the board/the machine.

Q: A just bought machine gives a large amount of winnings. Its percentage of exit exceeds 100%.

A: Such behavior is peculiar for any new machine. That is kind of advertising and attracts customers. In some time it will start to maintain specified percentage. If that does not suit you, play yourself and when the machine reaches the necessary percentage, start its usual exploitation.

Q: Players do not play games on this machine.

A: Probably, too low percentage of winnings was established. Increase it to the maximum value. If after that people will not play, than, obviously, the game does not suit their taste.

Q: During an attempt to give out the credit by the hopper, an inscription HOPPER ERROR appeared.

A: The sum demanded was too high. The inscription is removed with any key, including the credit one.

Q: The hopper started to give out money, but did not give them all. An inscription CALL ATTENDANT appeared.

A: The hopper ran out of coins. It is necessary to add them there. The inscription is removed with any service key.

Appendix №2: events

System events

POWER ON/OFF	– switching on/off of the machine
INIT MACHINE	– initialization of the machine
SET CLOCK	– time and date setting
OPEN (CLOSE) FRONT (BACK) DOOR	– doors movement control
CHANGE TOTAL SETTINGS	– adjustment of parameters
NEW CONNECT n	– other machines connection;
CLEAR SHORT	– clearing of the short statistic;
CLEAR LONG	– clearing of the long statistic.
START BONUS <GAME NAME>[1]	– enter of the bonus game;
STOP BONUS <GAME NAME>	– bonus game exit;
CHANGE PREF. <GAME NAME>	–**<GAME NAME>** settings change;
SWITCH TO <GAME NAME>	– **<GAME NAME>** switching on;
BONUS WIN <GAME NAME>	– winning in the bonus game.

Events of the entering/canceling of the credit

COIN IN	– credit is entered through the coin slot;
HOPPER OUT	– credit gave out by the hopper;
KEY IN/OUT	– credit entered/canceled with the help of a credit key;
COMPUTER IN/OUT	– credit entered/canceled with the help of a computer;
BILL IN	– credit is entered through the bill acceptor;
TICKET OUT	– credit is given out with the tickets.

Gold Fish game events

SEVERAL LINES	– several lines have won
RISK WIN STEP #<n>	– winning in the risk game on the step **<n>**;
FULL CONNECT n	– the whole jackpot is won;
HALF CONNECT n	– half of the jackpot is won;
QUARTER CONNECT n	– quarter of the jackpot is won;
□□□□□ **LINE #<n>**	– winning of the indicated number of pictures by the line <n>;
SCREEN <n> GOLD FISH	– full-screen winning «**<n>** gold fish»;
SCREEN SEA ANIMALS	– full-screen winning «Marine residents».

Win Poker game events

WPOKER DOUBLE IN	– enter the doubling;
WPOKER DOUBLE OUT	– exit from the doubling;
WPOKER <WIN TYPE>	– hitting the winning of the**<WIN TYPE>**.

Double Poker game events

DPOKER DOUBLE IN	– enter the doubling;
DPOKER DOUBLE OUT	– exit from the doubling;
DPOKER <WIN TYPE>	– hitting the winning of the**<WIN TYPE>**.

Bingo Poker game events

BPOKER DOUBLE IN	– enter the doubling;
BPOKER DOUBLE OUT	– exit from the doubling;
BPOKER <WIN TYPE>	– hitting the winning of the**<WIN TYPE>**.

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[1] Here and further <GAME NAME> is a title of the game which registered an event.

Appendix №3: admissible setting values.

Title	List of possible values
Total Settings→Total Scales	
COIN A, B, C, D BILL ACCEPTORS 1, 2, 3, 4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 2000, 5000
CREDIT KEY	10, 20, 50, 100, 200, 500, 1000, BUTTONS
COUNTERS RATE	1, 10, 100
BET COUNTER RATE	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 2000, 5000
Total Settings→Total Parameters	
WIN PERCENT	1 (low percent), 2, 3, 4, 5 (high percent)
CREDIT LIMIT	1000, 5000, 10000, 20000, 50000, 100000, 200000, 500000, 900000
BARRIER	2, 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 3000, 4000, 5000, 7000, 10000, 20000, 50000
MAX TOTAL BET	10, 50, 100, 500, 1000
BILL INHIBIT LEVEL	HIGH, LOW
BILL RECEPTION LIMIT	100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 6000, 7000, 8000, 9000, 10000
Total Settings→Total Access	
CLEAR SHORT	YES, NO
CLEAR LONG	YES, NO
MAKE INIT	FREE, PAROLE
SET TIME	FREE, PAROLE
CH. TOTAL SCALES	FREE, PAROLE
CH. TOTAL PARAMS	FREE, PAROLE
CH. GAME PREFERS	FREE, PAROLE
PASSWORD	Any combination of numbers from 1 to 5.
Game Options→Gold Fish	
MIN BET PER LINE	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 40, 50
MAX BET PER LINE	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90
MIN WIN FOR RISK	2, 5, 10, 20, 30, 40, 50, 70, 100, 200, 300, 400, 500, 1000, 2000, 5000, 10000, 20000, 50000, 100000, OFF
REELS SPEED	QUICK, SLOW
ROTATION TIME	LONG, SHORT
Game Options→Win Poker	
MIN BET	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300
MAX BET	4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000
DEALS	2, 2+1, 3
CARD PACK	A, B, C
Game Options→Double Poker	
MIN BET	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 200
MAX BET	2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 200, 300, 400, 500
WAIT FOR START RELEASE	YES, NO
Game Options→Bingo Poker	
MIN BET	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300
MAX BET	4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000
CARD PACK	A, B, C

Appendix №4: Diagram of connectors

		COMPONENT SIDE	SOLDER SIDE		
		1A	1B		
		2A	2B		
Out	SPEAKER	3A	3B	GND	
In	HOLD 1 SW	4A	4B	BILL ACCEPTOR 1	In
In	HOLD 2 SW	5A	5B	BILL ACCEPTOR 2	In
In	HOLD 3 SW	6A	6B	BILL ACCEPTOR 3	In
In	HOLD 4 SW	7A	7B	BILL ACCEPTOR 4	In
In	HOLD 5 SW	8A	8B	HOPPER INHIBIT*	In
In	START SW	9A	9B		In
In	BET / DOUBLE SW	10A	10B		In
In	reserve	11A	11B		In
In	reserve	12A	12B		In
In	reserve	13A	13B		In
In	reserve	14A	14B		In
In	SELECT GAME SW	15A	15B		In
In	FRONT DOOR SW	16A	16B		In
In	BACK DOOR SW	17A	17B		In
In	COIN A	18A	18B	COIN B	In
In	COIN C	19A	19B	COIN D	In
In	(short) STATISTIC SW	20A	20B	SERVICE SW (long)	In
In	PAY OUT SW*	21A	21B	KEY OUT SW	In
Out		22A	22B	HOPPER COIN SW	In
Out	COIN + BILL COUNTER	23A	23B	COIN LOCK	Out
Out	KEY IN COUNTER	24A	24B	BILL ACCEPTOR LOCK	Out
Out	TOTAL IN COUNTER	25A	25B	UPPER LAMP GREEN	Out
Out	TOTAL OUT COUNTER	26A	26B	UPPER LAMP RED	Out
Out	KEY OUT COUNTER	27A	27B	UPPER LAMP YELLOW	Out
Out		28A	28B	TOTAL BET COUNTER	Out
Out	HOLD 1 LAMP	29A	29B	BET / DOUBLE LAMP	Out
Out	HOLD 2 LAMP	30A	30B		Out
Out	HOLD 3 LAMP	31A	31B		Out
Out	HOLD 4 LAMP	32A	32B		Out
Out	HOLD 5 LAMP	33A	33B	HOPPER MOTOR	Out
Out	START LAMP	34A	34B	SELECT GAME LAMP	Out
In	KEY IN SW	35A	35B		In
	GND	36A	36B	GND	
	COMPONENT SIDE		SOLDER SIDE		
	GND	1A	1B	GND	
	GND	2A	2B	GND	
	+5V	3A	3B	+5V	
	+5V	4A	4B	+5V	
	+12V	5A	5B	+12V	
		6A	6B		
		7A	7B		
		8A	8B		
	GND	9A	9B	GND	
	GND	10A	10B	GND	