GOLDZONE

PLEASE READ FIRST BEFORE PLUGGING IN MACHINE

ALL RIGHT RESERVED. PAT. PENDING
# Table of Contents

- Introduction: 1
- WARNINGS: 2
- GAME SETUP: 3
- GAMEPLAY: 4
- COIN MECH SETUP: 5
- COIN CHUTE DESCRIPTION: 6
- FLOURESCENT LIGHTS: 7
- PLAYFIELD ASSEMBLY: 8
- PROGEMMING: 9

**Schematics Player 1**
- CPU: CPU-1
- 4 Digit Displays: SCHEM-2
- Ticket Dispenser, Speaker, Counters: SCHEM-3
- Rotating Playfield, Hopper, Halogen Light: SCHEM-4
- Coin Mech, Opto Switch, Tilt, Jackpot Switch: SCHEM-5

**Schematics Player 2**
- 4 Digit Displays: SCHEM-2
- Ticket Dispenser, Speaker, Counters: SCHEM-3
- Rotating Playfield, Hopper, Halogen Light: SCHEM-4
- Coin Mech, Opto Switch, Tilt, Jackpot Switch: SCHEM-5

**Schematics Player 3**
- 4 Digit Displays: SCHEM-2
- Ticket Dispenser, Speaker, Counters: SCHEM-3
- Rotating Playfield, Hopper, Halogen Light: SCHEM-4
- Coin Mech, Opto Switch, Tilt, Jackpot Switch: SCHEM-5
- Troubleshooting Guide: SCHEM-6
- Troubleshooting Cont'd.: SCHEM-7
DEAR CUSTOMER:

THANK YOU FOR PURCHASING BENCHMARK GAME’S GOLD ZONE GAME.

BECAUSE OF THE DIFFERENT NEEDS OF EVERY LOCATION, YOU MAY NEED TO FINE TUNE THE MACHINE IN THE FUTURE. WE STRONGLY SUGGEST THAT YOU LEAVE THE MACHINE AT FACTORY SETTINGS FOR AT LEAST 2 TO 3 WEEKS. AFTER THIS TIME IF YOU FIND NECESSARY YOUR PAYOUT TOO LOW OR TOO HIGH, THEN MAKE THE PROPER ADJUSTMENTS. START FIRST WITH THE FACTORY DEFAULT SETTINGS.

YOU WILL FIND ENCLOSED IN THE MANUAL A SET OF INSTRUCTIONS ON HOW TO PROGRAM YOUR MACHINE SHOULD YOU NEED TO.

PLEASE READ THE MANUAL BEFORE YOU CALL US FOR ANY INFORMATION. WHEN YOU CALL PLEASE HAVE THE SERIAL NUMBER FOR YOUR GAME IN HAND.

BENCHMARK GAMES, INC.
51 HYPOLUXO RD.
HYPOLUXO, FL 33462
561-588-5200
PARTS FAX: 561-493-2990
WARNING:

DO NOT TURN GAME ON UNTIL THE FOLLOWING INSTRUCTIONS ARE READ AND UNDERSTOOD.

FAILURE TO ADHERE TO THE FOLLOWING INSTRUCTIONS WILL VOID ANY FACTORY WARRANTIES AND COULD RESULT IN DAMAGE TO THE GAME AND OR INJURY TO THE PLAYER OR TECHNICIAN.

THIS GAME SHOULD BE PLUGGED INTO A 3 WIRE GROUNDED OUTLET 115VAC 60 HZ. UNLESS OTHERWISE SPECIFIED.

FCC PART 15 RULE:
THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A COMPUTING DEVICE PURSUANT TO SUB-PART J OF PART 15 OF FCC RULES.

ELECTRICAL SPECIFICATIONS:
POWER CONSUMPTION 1.5 AMP 180 WATT
LINE VOLTAGE 100-130VAC 60HZ.
LINE FUSE 5 AMP

COPYRIGHT@ 2002 BENCHMARK GAMES. ALL RIGHTS RESERVED

THE GAME, TECHNICAL MANUAL, GRAPHIC DESIGNS AND SCHEMATIC DIAGRAMS ARE PROTECTED BY THE U.S. COPYRIGHT ACT OF 1979. BENCHMARK GAMES WILL ENFORCE ITS COPYRIGHT AND PATENTS AGAINST INFRINGERS.
1. REMOVE GAME FROM BOX.
2. OPEN WOOD DOOR AND REMOVE CASHBOX. REMOVE THE POWER
   PLUG, SPINNER ASSEMBLY AND THE PLATTER BALLS,(7/16" METAL BALLS).
3. REMOVE THE GLASS BY UNLOCKING THE LOCK AT THE TOP CORNERS OF THE GLASS
   AND PULLING THE GLASS OUT,(NOTE: THE COIN MECH WILL BECOME UNPLUGGED).
4. INSTALL THE 3 WHEELED HUB ONTO THE CENTER SHAFT OF THE ROTATING
   PLATTER, THEN INSTALL THE ALUMINUM SPINDLES ON TOP OF THE HUBS.
5. INSTALL THE PLATTER BALLS INTO THE HOLES ON THE PLATTER.
6. TURN GAME ON AND SLOWLY START PUTTING COINS ONTO THE PLAYFIELD TO
   SEED THE GAME. KEEP PUTTING ON COINS UNTIL COINS ARE FALLING OFF THE
   PLAYFIELD ALL AROUND THE PLATTER,(THE PLATTER IS NOW FULLY SEEDED).
7. REASSEMBLE THE GLASS ON ALL ,(MAKING SURE YOU PLUG IN THE COIN
   MECHS WHILE INSTALLING THE GLASS).
8. USING THE POWER PLUG, PLUG IN THE GAME ON THE RIGHT SIDE OF THE GAME ON
   THE OUTSIDE AND TURN POWER SWITCH ON,(LOCATED WHERE THE PLUG GOES
   INTO THE CABINET).
GAME DESCRIPTION


GAMEPLAY


IF COINS FALL OFF THE PLAYFIELD THEY ARE COUNTED BY THE HOPPER AND THE APPROPRIATE AMOUNT OF TICKETS ARE PAID OUT.

SECURITY: ON POWER UP THE HOPPER EMPTIES ANY COINS IN IT BUT DOES NOT PAY OUT THE TICKETS. THE SAME ACTION HAPPENS IF THE GAME IS TILTED. THE TILT BOB IS LOCATED ON THE LEFT INSIDE CABINET. THERE IS A TIMER BUILT INTO THE SOFTWARE THAT ONLY ALLOWS TICKETS TO BE PAID OUT AFTER VERIFYING THAT A COIN WENT THROUGH THE COIN MECH.

VER. 01.2
COIN MECH SETUP

WHEEL DEAL USES A COIN COMPARATOR. A SAMPLE COIN MUST BE INSERTED AND LEFT IN THE MECH AS SHOWN BELOW. WHEN THE PLAYER INSERTS A COIN FOR GAMEPLAY, THE MASS OF THE COIN IS MEASURED AGAINST THE SAMPLE COIN AND IS ACCEPTED OR REJECTED.

THE COIN MECH SWITCH ON THE SIDE MUST BE SET TO N.O. (NORMALLY OPEN), NOT N.C. (NORMALLY CLOSED).

THE PULSE TIME 3 POSITION SWITCH SHOULD BE SET AT THE SHORTEST PULSE TIME.

THERE IS A SENSITIVITY ADJUSTMENT ON THE SIDE OF THE MECH. STRICT MAKES THE MECH MORE DISCREET, (WILL REJECT MORE COINS IF THEY ARE NOT PERFECT). SLACK MAKES THE MECH NOT SO DIFFICULT ABOUT THE COINS IT WILL ACCEPT.
COIN CHUTE DESCRIPTION

When coins falls off the playfield, they slides down the coin chute. It then hits the metal coin plate which activates the opto sensor. When the opto sensor it activated, it starts the hopper. The hopper will continue to run until there are no more coins in it. At this point the appropriate amount of tickets are paid out.

There is a LED on the back of the opto sensor. To check that the switch and opto are working properly: hit the metal coin plate with your hand and observe the LED on the back of the opto sensor.
TO REPLACE THE FLOURESCENT LIGHT IN A GOLD ZONE:

1. REMOVE THE 2 6-32 ACORN NUTS AND THE TOP METAL PLATE ON THE TOP OF THE GAME.
2. REPLACE THE BULBS.
3. REPLACE THE TOP PLATE WITH THE ACORN NUTS.

NOTE: THE FLOURESCENT LIGHTS ARE 100 WATT SPIRAL FLOURESCENT BULBS AVAILABLE AT MOST HARDWARE STORES.

TO REPLACE INCANDESCENT BULB: NOTE: THE INCANDESCENT BULBS ARE 60 WATT FLOOD LIGHTS.

1. UNSCREW BULB AND REPLACE WITH SAME TYPE.
IF YOUR COINS ARE GOING UNDERNEATH THE COIN POINTER BEFORE THEY GET TO THE END OF THE POINTER, OR IF YOUR ROTATING PLAYFIELD IS GETTING SCRATCHED IN A CIRCULAR PATTERN, YOU MAY NEED TO ADJUST THE COIN POINTER HEIGHT.

HOW TO ADJUST:

1. OPEN THE WOOD FRONT DOOR AND LOCATE THE 6-32 BOLT AND FIBER NUT HOLDING THE RED PLASTIC COIN POINTER TO THE METAL BRACKET.
2. LOOSEN THE NUT AND PLACE A .012 FEELER GAUGE IN BETWEEN THE COIN POINTER AND THE ROTATING PLAYFIELD AND TIGHTEN THE NUT.
3. CHECK THE CLEARANCE AT DIFFERENT POINT ALONG THE COIN POINTER TO MAKE SURE IT HAS EVEN CLEARANCE. RECLEARANCE AS NECESSARY.
NOTE: THERE HAVE BEEN 5 REVISIONS OF THE BENCHMARK CONTROLLER, ONLY REV 5 WILL WORK IN GOLDSZONE. THE JUMPER ON THE MHZ MUST BE SET AT 33 MHZ AS SHOWN ON THE PICTURE ABOVE. BE CAREFUL WITH THE CONNECTORS NOT TO PUT THEM ONE PIN OFF OR BEND ANY OF THE PINS.
NOTE: REPLACE FLOURESCENT BULBS WITH ONLY 100 WATT EQUIVALENT SPIRAL FLOURESCENT BULBS.

NOTE: REPLACE INCANDESCENT BULB WITH 60 WATT FLOOD LIGHT ONLY.
NOTE: REPLACE FLOURESCENT BULBS WITH ONLY 100 WATT EQUIVALENT SPIRAL FLOURESCENT BULBS.
NOTE: REPLACE INCANDESCENT BULB WITH 60 WATT FLOOD LIGHT ONLY.
Schematic:

PLAYER 1 COIN MECH

- Pin 1: YELLOW +12VDC
- Pin 2: BLACK
- Pin 3: BLUE/WHITE

COIN CHUTE OPTO SWITCH

- Pin 1: RED
- Pin 2: WHITE
- Pin 3: BLACK

JACKPOT SWITCH

- Pin 1: BLACK
- Pin 2: OR/YELL

TILT SWITCH

- Pin 1: BLACK
- Pin 2: WHI/BLACK/GR

POWER DIST. BLOCK

Schem-5
Schematic:

ROTATING PLAYFIELD MOTOR 110 VOLTS AC.

WHITE

WHITE

METAL POWER DIST. BOX

POWER DIST. BLOCK

HOPPER PLAYER 1

PIN 9 VIOLET/WHITE

PIN 8 YELLOW+12VDC

PIN 6 PINK/WHITE

J101 PIN 3

J101 PIN 4

J202 PIN 6
Schematic:

4 DIGIT JACKPOT DISPLAY PLAYER 3

- Pin 1: GREEN
- Pin 2: NOT USED
- Pin 3: BLACK
- Pin 4: GREY/BLACK
- Pin 5: GREEN/WHITE
- Pin 6: RED

4 DIGIT TICKET OWED PLAYER 3

- Pin 1: GREEN
- Pin 2: NOT USED
- Pin 3: BLACK
- Pin 4: WHITE/BLACK/RED
- Pin 5: GREEN/WHITE
- Pin 6: RED

SPIRAL FLOURESCENT AND INCANDESCENT PLAYFIELD FLOOD LIGHTS

NOTE: REPLACE FLOURESCENT BULBS WITH ONLY 100 WATT EQUIVALENT SPIRAL FLOURESCENT BULBS.
NOTE: REPLACE INCANDESCENT BULB WITH 60 WATT FLOOD LIGHT ONLY.
Schematic:

PLAYER 2 TICKET DISPENSER

- Pin 1: WHITE/RED
- Pin 2: BLACK
- Pin 3: WHITE/VIOLET
- Pin 4: YELLOW +12VDC

LOW TICKET LIGHT, (PLAYER 2).

- YELLOW +12VDC
- WHITE/BLACK/ORANGE
- BLACK

LOW TICKET SWITCH

- CONNECTOR

SPEAKER PLAYER 2

- BLUE/GREY
- GREY/VIOLET

J202

J106

J301
Schematic:

**ROTATING PLAYFIELD MOTOR 110 VOLTS AC.**

```
J102
```

**GRAY/RED**

**POWER DIST.BLOCK**

**HOPPER PLAYER 2**

```
J202
```

**OR/BLACK**

**WHITE**

**METAL POWER DIST. BOX**
TROUBLESHOOTING GUIDE

THE 4 DIGIT LED'S DO NOT COME ON.

IS ONE OF THE FUSES ON THE POWER DISTRIBUTION BLOCK BLOWN, (LED ON).

CHECK POWER SUPPLY FAN. IS FAN ON?

YES

FUSE IS BLOWN, REPLACE FUSE

NO

CHECK FOR LOOSE YELLOW, RED OR BLACK WIRES.

IF NO LIGHTS OR MOTORS COMES ON, CHECK MAIN FUSE IN SWITCH ASSEMBLY. IS MAIN FUSE BLOWN?

YES

FUSE IS BLOWN, REPLACE FUSE

NO

CHECK POWER SUPPLY.

CHECK MAIN COMPUTER POWER CONNECTION

ROTATING PLATTER DOES NOT TURN

CHECK AC MOTOR CONNECTIONS.

JACKPOT IS NOT PAID WHEN COIN GOES THROUGH JACKPOT HOLES.

CHECK MECHANICAL CHERRY SWITCH AND CONNECTIONS

SOUND IS GARBLED

CHECK CONNECTORS ON SPEAKERS. CHECK AMPLIFIER HEATSINK ON COMPUTER BOARD. IS THERE STILL A PROBLEM

REPLACE SOUND ROMS AND GAME ROMS

GAMEPLAY AND SOUNDS PLAY SLOW

MAKE SURE JUMPER ON COMPUTER IS SET TO 33MHZ.

TICKETS ARE NOT PAID WHEN COINS FALL OFF EDGE OF PLATTER.

CHECK SWITCH AND SWITCH PLATE AT BOTTOM OF CHUTE. CHECK HOPPER OPERATION BY HOLDING TILT MECHANISM.

NO

ARE VOLUME KNOBS ON COMPUTER TURNTUP?

NO

TURN UP BOTH VOLUME KNOBS SLIGHTLY AND ADJUST

YES

CHECK J301 PLUG AND CONNECTORS ON SPEAKERS

NO

RETANGLE:)
TROUBLESHOOTING GUIDE CONT’D

4 DIGIT DISPLAY DOES NOT INCREMENT BY 3 AFTER INSERTING COIN

DOES GAME MAKE COIN ENTRY SOUND

NO YES

CHECK COIN MECH FUNCTION CHECK DATA WIRES TO DISPLAY

TICKETS DONT PAY OUT

10-12 TICKETS COME OUT EVERY PLAY

CLEAN OPTO SENSOR IN TICKET DISPENSER

NO TICKETS COME OUT

PROBLEM STILL EXISTS

CHECK THE OPTO INPUT WIRE FROM THE TICKET DISPENSER TO THE COMPUTER

SWAP TICKET DISPENSER WITH OTHER SIDE, DOES PROBLEM FOLLOW DISPENSER

NO YES

CHECK TICKET ENABLE WIRE FOR CONTINUITY AND OPERATION

REPLACE TICKET DISPENSER

SCHEM-7