OK
MANUFACTURING

GH2 EXTREME
OPERATING INSTRUCTIONS

* MACHINE MUST BE <u>LEVEL </u>TO OPERATE PROPERLY!
** REFER TO OWNERS MANUAL TO ADJUST DIFFICULTY OF PLAY!!

GH2 EXTREME

DESCRIPTION

GH2 Extreme is an interactive skill game with instant prize redemption. It incorporates a two- tiered prize system consisting, of a Small Prize and a Grand Prize.

GAME OBJECTIVE

The object of the game is to move a ball up the track to the Grand Prize hole at the top without falling off. This is accomplished by moving the handle bars up/down and rocking them side to side to control the movement and speed of the ball going up the track.

GAME FEATURES

<   Addictive music tracks that run during game play
<   Sound effects that enhance the game and encourage the player
<   Removable bumpers to increase or decrease the play difficulty
<   Variable game play time limit
<   Optional "Winner Every Play"

MACHINE FEATURES

<   Heavy duty construction
<   Mars bill acceptor, stacker.
<   Play counter
<   Volume control
<   Neon lights
<   Stem glide levelers
<   Display shelf to show Grand Prize and Small Prize products
<   Dispenses a variety of Small Prizes:
  1.   27mm or 32mm super balls
  2.   850 or 600 count gumballs
  3.   850 or 600 count jawbreakers
  4.   1040 count Sweet Revenge
  5.   700 count Megabytes
  6.   1 to 1¼" round capsules
<   Dispenses a 3¾ to 4" (95mm to 100mm) capsule for the Grand Prize
<   Small Prize capacity: 2-3 cases of product
<   Grand Prize capacity: 42   4" (100mm) capsules
<   220 volt option available
<   Coin acceptors for tokens or foreign coins available
<   Time and credit display
<   Variable game time
<   Game default set for 50 cent vend; can be set for 1 to 4 coins
<   Attract mode
<   Winner every play
<   Ball kick back feature
<   Decreasing time option
<   Small & Grand Prize count

See Menu Options for Instructions

OPERATING INSTRUCTIONS

1. Located in the coin cash box are:
    - <   Three steel play balls
    - <   Extra fuse
    - <   Velcro
    - <   Spanner security bits (snake eye)
    - <   Extra rubber bumpers
    - <   Instructions and decals for bill and coin acceptors
    - <   Menu Options are located inside of coin door on back panel above coin box

2. Use stem glide levelers underneath unit to level machine (see figure 1).

3. Load Small Prize and Grand Prize products in the rear by removing locks in upper back door (see figure 2). Load Grand Prize capsules one at a time starting with the lowest row, working up to top row (see figure 3). Load Small Prize product by dumping product into the Small Prize hopper (see figure 4). Utilize extra Small Prize product storage **if necessary** by dumping product at the top of the extra storage column (see figure 5) after Small Prize hopper has been filled. After all product is filled, replace upper back door.

4. Set up Grand and Small Prize product display by removing the front shield from machine by unscrewing the security screws located on each side of the unit on the top band(see figure 6 & 6A) and removing the front shield locks located in the rear left and right pillars (see figure 3). Attach displays with supplied velcro.

5. Now that the front shield is removed, load the three steel plays into the game by dropping them onto the bottom tray (see figure 7). Balls will roll and drop into ball feed hole in bottom tray (see figure 7A).

6. Test Grand Prize dispenser by coining up and dropping play ball through the Grand Prize hole (see figure 8).

7. Replace front shield. Replace security screws (figure 6 & 6A) and front shield locks (figure 3).

8. The circuit board is located through the lower back door (see figure 9). This provides service access to the board and its components.

9. Access to volume control is possible from the lower back door (see figure 10).

10. Counter is mounted inside of coin door on back panel above coin box and can be easily viewed when door is fully opened (see figure 11).

11. Menu Options are located inside of coin door on back panel above coin box and on the next page. Red and yellow menu buttons are located next to the counter (see figure 11A).

12. Game play comes preset for easy play. This means there are clear rubber bumpers placed on the winners circle in strategic locations that help keep the ball in play (see figure 8). These can be removed to increase the difficulty of play or more added to increase the ease of play.

13. For technical service and trouble shooting please call our **GH2 EXTREME** technical service representative at 1-801-974-9116.

<u>**GH2 EXTREME MENU OPTIONS**</u>

Menu options are displayed and modified using two buttons. The red button will cycle through the eight menu options advancing to the next option each time it is pressed. The yellow button will cycle through the available settings for the selected menu option. Pressing the yellow button on options 7 or 8, (the Small Prize and Grand Prize counters) will reset the count to zero.

GH2 EXTREME Options:

1. **Game Time**   (defines the length of play)
    1 = 15 sec.   5 = 75 sec.
    2 = 30 sec.   6 = 90 sec.
    3 = 45 sec.   (default)   7 = 105 sec.
    4 = 60 sec.   8 = 120 sec.

2. **Coins to Start**   (number of coins for one credit)
    1 = 1
    2 = 2   (default)
    3 = 3
    4 = 4

3. **Attract Mode**   (attract sound plays every 5 minutes for about 10 seconds)
    0 = Off
    1 = ON   (default)

4. **Winner Every Time** (dispenses a Small Prize with every play)
    0 = Off
    1 = On (default)

5. **Ball Kick Back**   (returns play ball for continued play if ball falls off in the first 10 seconds of play)
    0 = Off
    1 = On (default)

6. **Decreasing Time Option**   (play time decreases in 15 second intervals with each consecutive Grand
                                                        Prize win)
    0 = Off
    1 = On   (default)

7. **Small Prize Count***
    Displays the # of Small Prizes dispensed

8. **Grand Prize Count***
    Displays the # of Grand Prizes dispensed

9. **Prize Dump Switch**
    1. Small Prize
    2. Large Prize

* Displays 3 & 4 digit numbers by using top and bottom LEDs

OPERATING SUGGESTIONS

1. To change the degree of play difficulty
    ,   **Adjust the play time limit up or down**
    ,   **Add or remover rubber bumpers on Winners Circle**
    ,   **Adjust the slope of the track**
    ,   **Purchase new, more challenging play field**

2. To keep revenues up
    ,   **Change product and product display every two weeks**
    ,   **Licensed and premium prize mixes available**
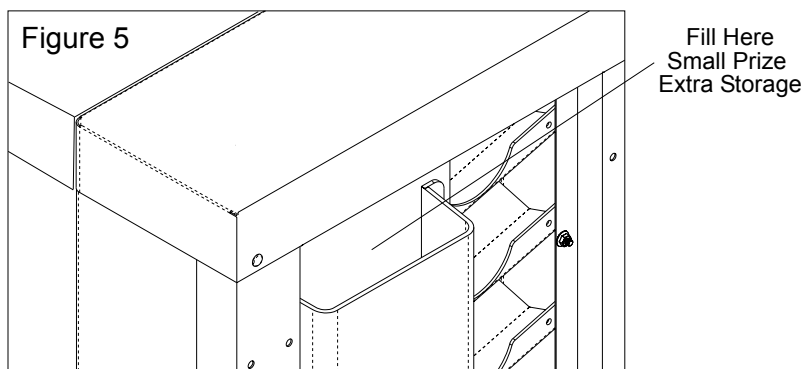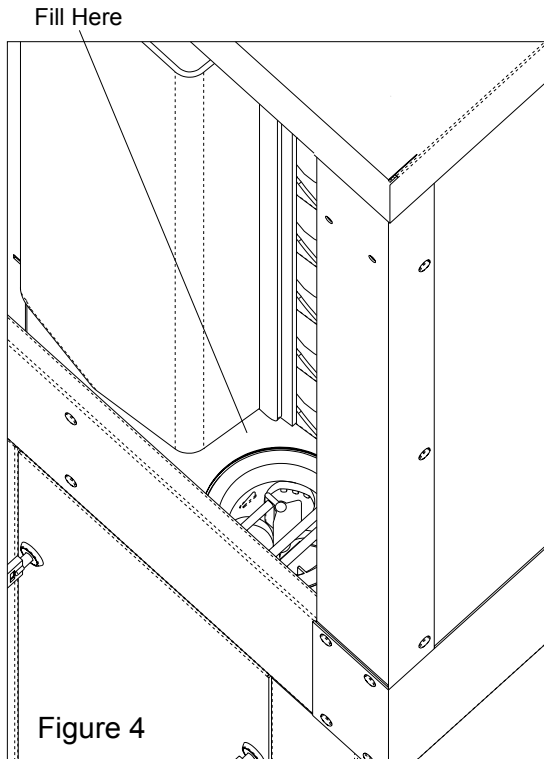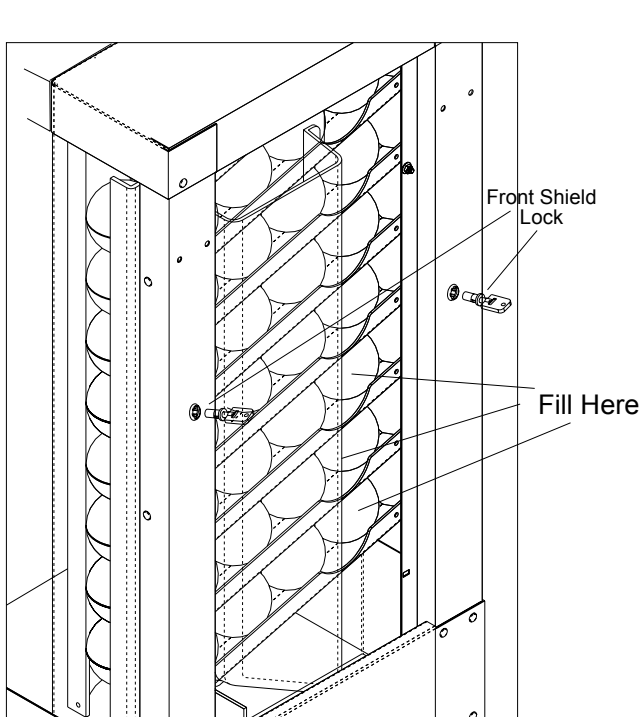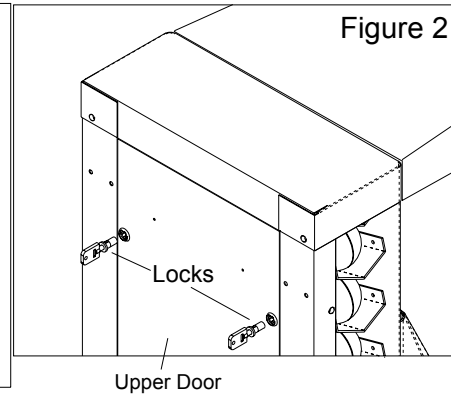
Stem Glide Levelers

Figure 1

Figure 2

Locks

Upper Door

Fill Here

Front Shield Lock

Fill Here

Figure 3

Fill Here

Figure 4

Figure 5

Fill Here
Small Prize
Extra Storage
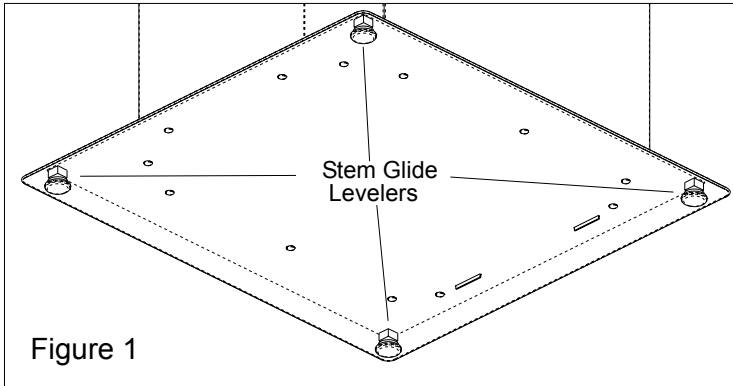
FIGURE 6

FIGURE 6A

FIGURE 7

FIGURE 7A

RUBBER
BUMPERS

GRAND PRIZE

3

GRAND

GRAND

PRIZE

PRISE

2

1

WINNER'S CIRCLE

FIGURE 8

PRIZE CHUTE

SMALL
PRIZE
MOTOR

PRIZE
CHUTE

CIRCUIT
BOARD
CAGE
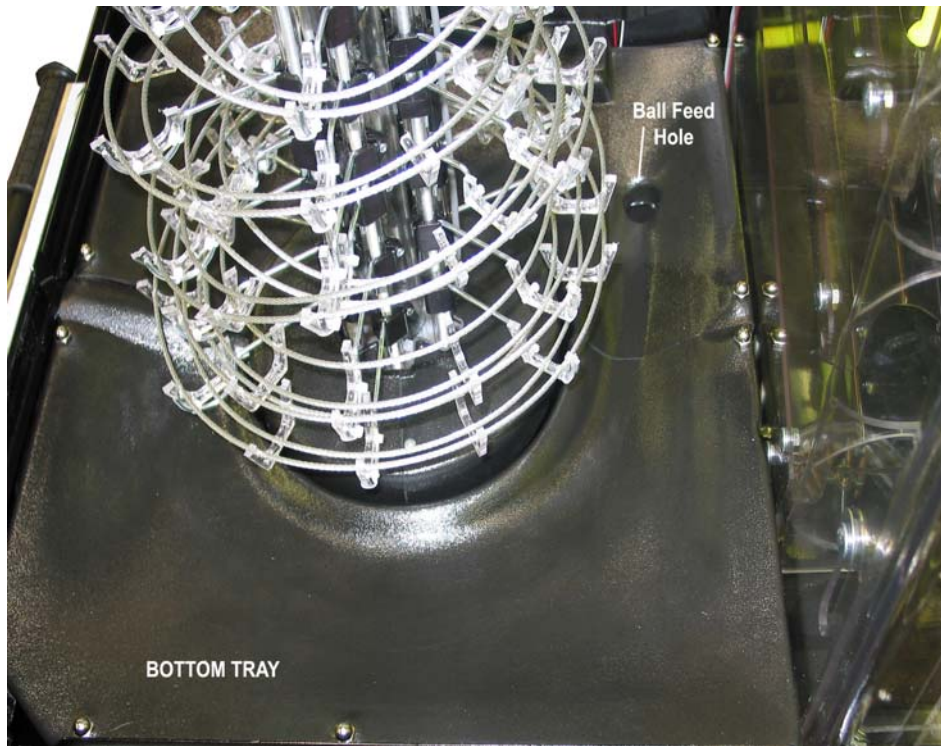
NEON TRANSFORMER
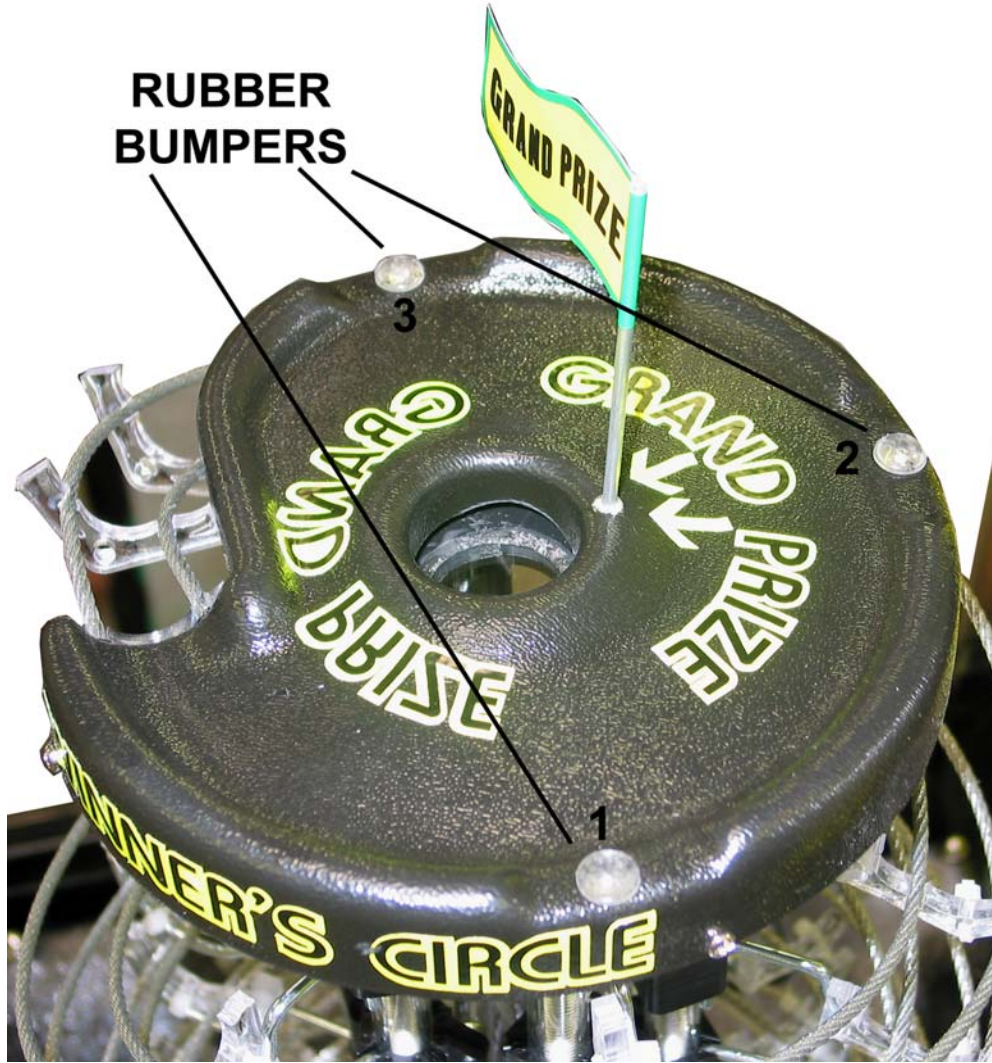
VOLUME
CONTROL

FIGURE 9

FIGURE 10

FIGURE 11

SPEAKER

COUNTER

MENU BUTTONS

COIN ACCEPTORS

COIN BOX

FIGURE 11A

COUNTER

999809

MENU BUTTONS

SETTING OPTION

GH2 MENU OPTIONS

Menu options are displayed and modified using two buttons.
Button 1 will cycle through the eight menu options advancing
to the next option each time it is pressed.
Button 2 will cycle through the available settings for the
selected menu option. Pressing button 2 on options 7 or 8,
the small prize and grand prize counters, will reset the count
to zero.

Gravity Hill Options
1. GAME TIME
   1 = 15 seconds
   2 = 30 sec.
   3 = 45 sec. (DEFAULT)
   4 = 60 sec.
   5 = 75 sec.
   6 = 90 sec.
   7 = 105 sec.
   8 = 120 sec.
2. COINS TO START
   1 = 1
   2 = 2 (DEFAULT)
   3 = 3
   4 = 4
3. ATTRACT MODE
   0 = Off
   1 = On (DEFAULT)
4. WINNER EVERY TIME
   0 = Off
   1 = On (DEFAULT)
5. BALL KICK BACK
   0 = Off
   1 = On (DEFAULT)
6. DECREASING TIME OPTION
   0 = Off
   1 = On (DEFAULT)
7. SMALL PRIZE COUNT*
   Displays # of small prizes
8. GRAND PRIZE COUNT*
   Displays # of grand prizes
   * Displays 3 & 4 digit numbers by using top & bottom LEDs
9. Prize Dump Switch
   1. Small Prize
   2. Large Prize

TO ORDER REFILL PRIZES CALL
O.K. MANUFACTURING
1 - 800 - 748 - 5480

GH2 EXTREME BOARD LAYOUT

Neon Transformer

Power Strip

999803
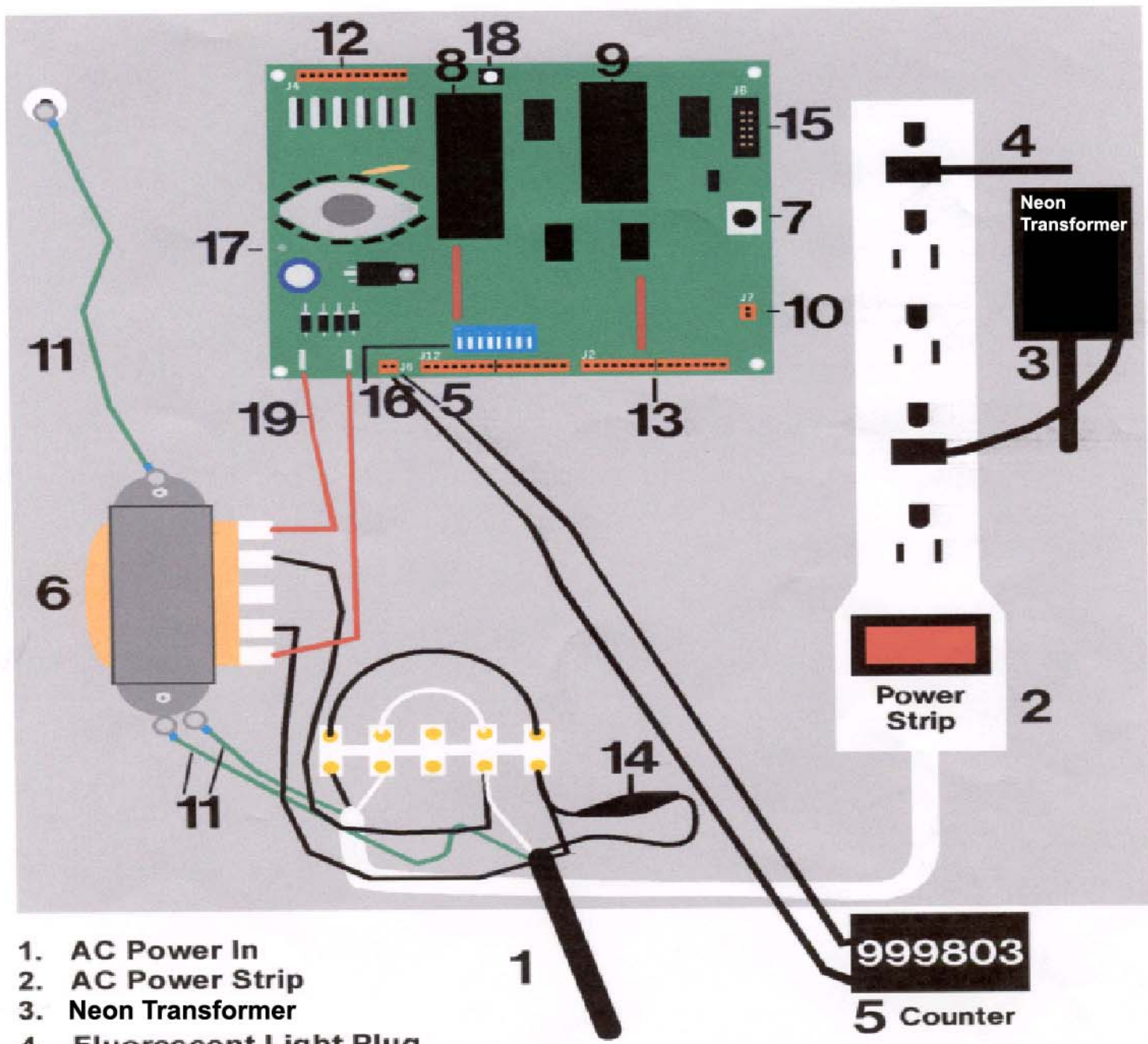
Counter

1. **AC Power In**
2. **AC Power Strip**
3. **Neon Transformer**
4. **Fluorescent Light Plug**
5. **Non-Resettable Counter**
6. **Transformer**
7. **Volume Control**
   Up--Clockwise
   Down--Counter Clockwise
8. **Processor Chip**
9. **Eprom/Music Chip**

10. **Speaker Out**
11. **Ground Wires**
12. **12 Volt Outputs**
13. **12 Volt Inputs**
14. **AC In-Line Fuse**
15. **Time & Credit Display**
16. **Dip Switches**
17. **Power On Light**
18. **Attract Music Selector**
19. **DC Power In**

Circuit Board
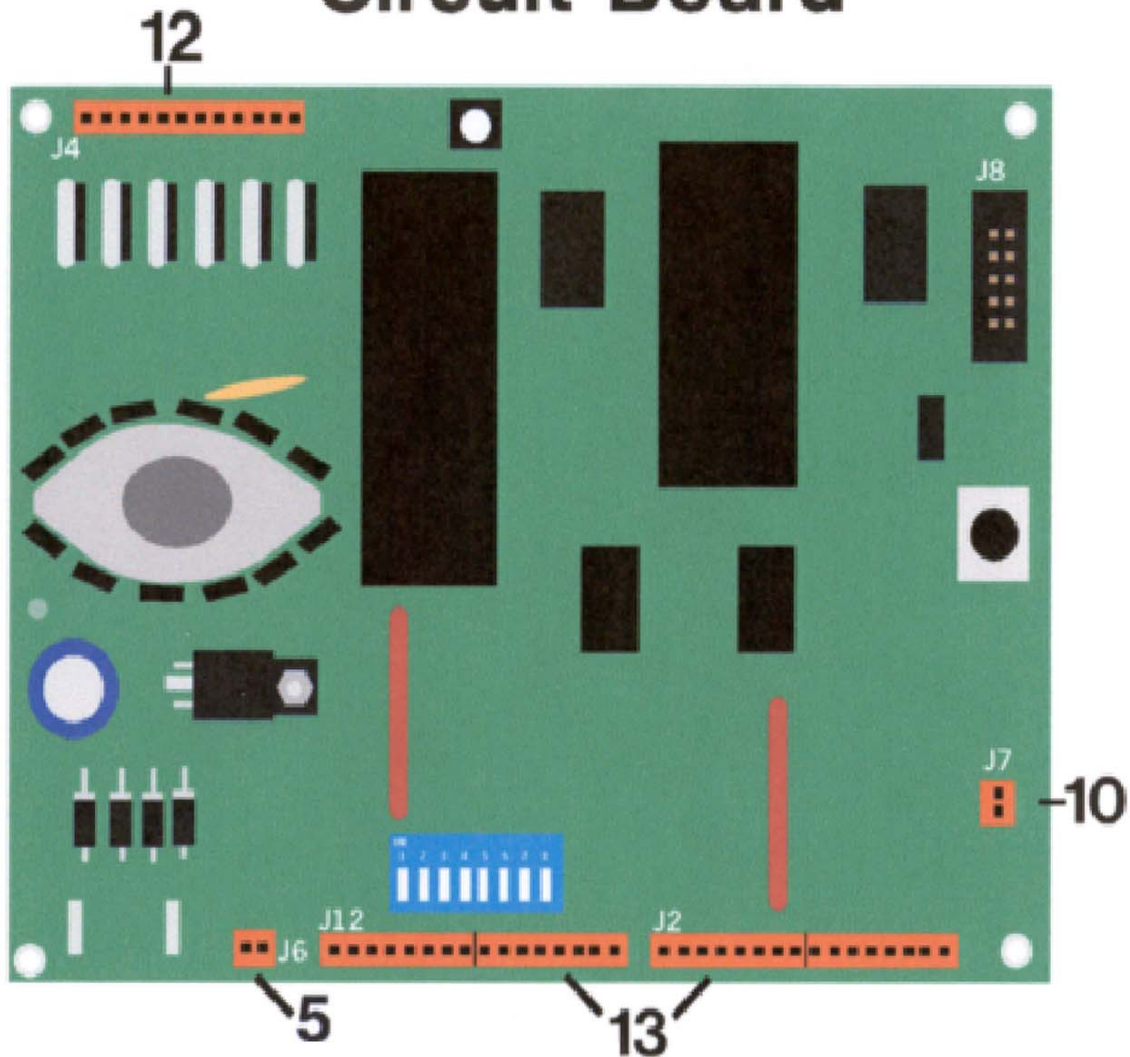
5. J6, Counter, white & white/black
10. J7, Speaker Out, Wire #15, white & brown/white
12. J4, 12 Volt Outputs (left to right)
    Not Used, Wire #9
    Not Used, Wire #10
    Game Ball Lift Motor, Wire #11, white & green/white
    Small Prize Motor, Wire #12, white & yellow/white
    Grand Prize Motor, Wire #13, white & orange/white
    Not Used, Wire #14
13. J12, 12 Volt Inputs (left to right)
    Not Used
    Not Used
    Not Used
    Not Used
    Not Used
    Dual Coin Mech, Wire #16
    Display, Menu Button #1, Wire #17, white & green/white
    Display, Menu Button #2, Wire #18, white & red/white
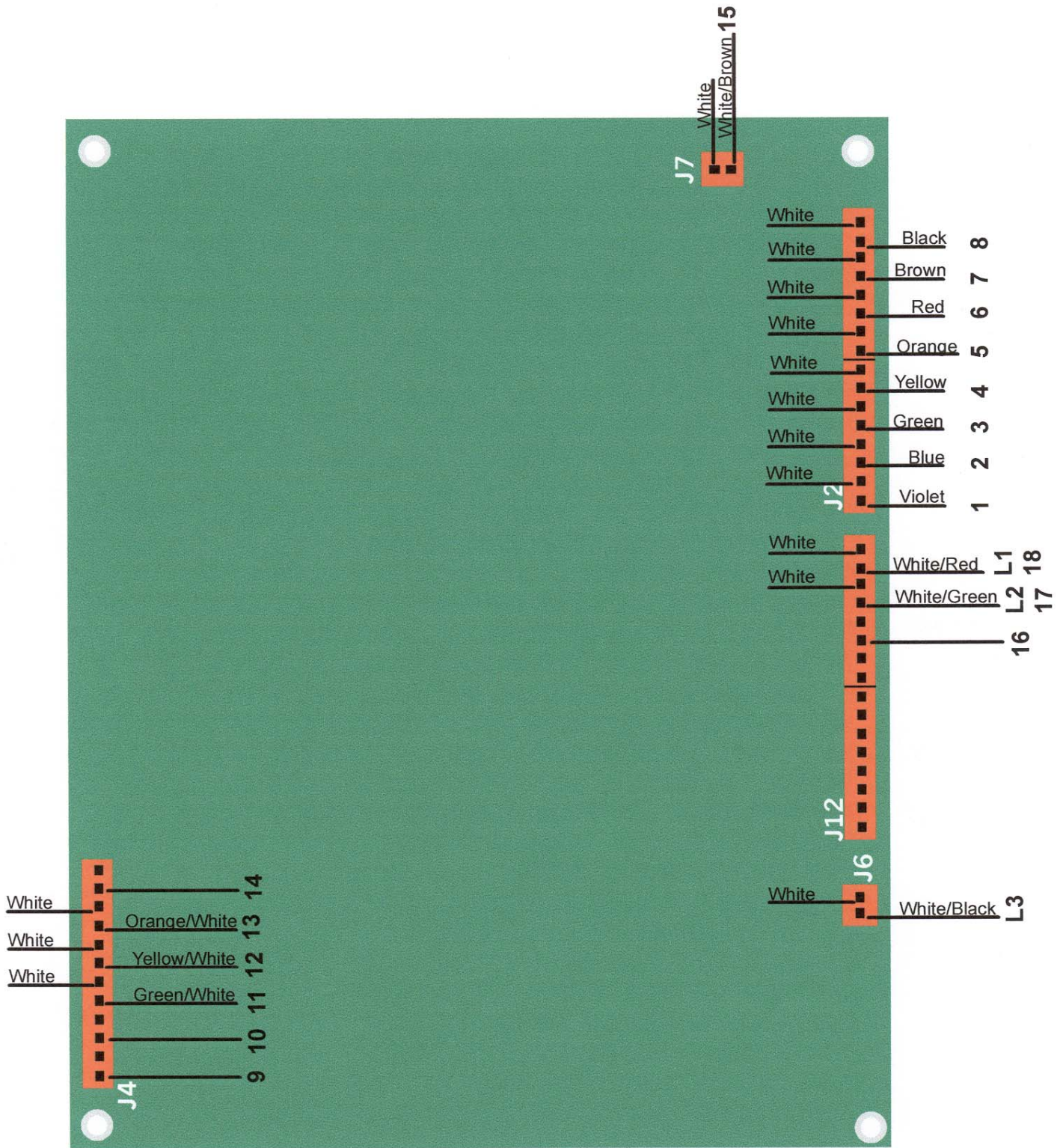
J2 (left to right)
    Coin Acceptor, Wire #1, white & violet
    Grand Prize Dispense, Wire #2, white & blue
    Bill Acceptor, Wire #3, white & green
    Small Prize Dispense, Wire #4, white & yellow
    Exit/Game Stop, Wire #5, white & orange
    Ball Lift Motor Stop Switch, Wire #6, white & red
    Small Prize Motor Off, Wire #7, white & brown
    Grand Prize Motor Off, Wire #8, white & black

Circuit Board
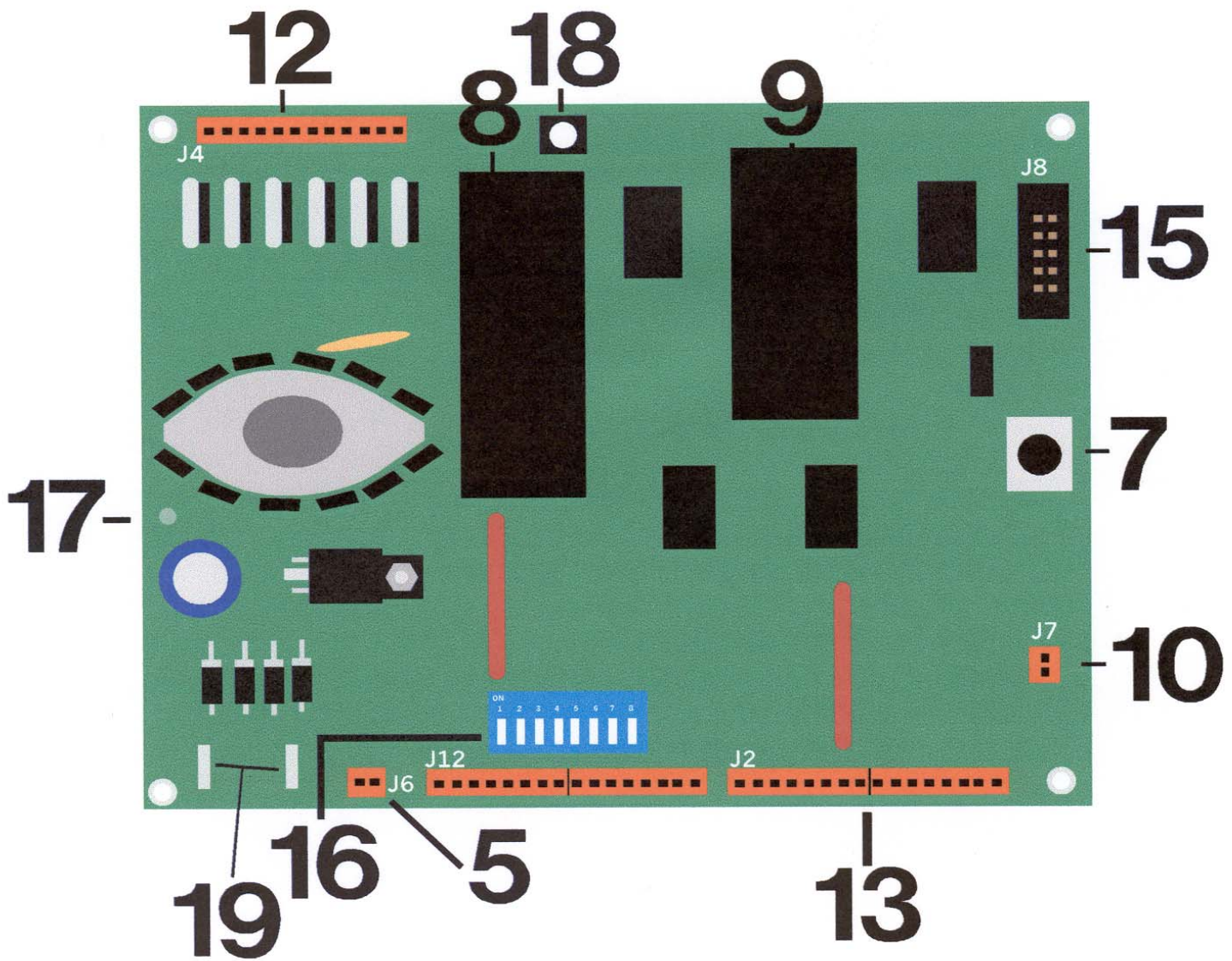
10. J7, Speaker Out, Wire #15
12. J4, 12 Volt Outputs (left to right)
    Not Used, Wire #9
    Not Used, Wire #10
    Game Ball Lift Motor, Wire #11
    Small Prize Motor, Wire #12
    Grand Prize Motor, Wire #13
    Not Used, Wire #14
13. J12, 12 Volt Inputs (left to right)
    Not Used
    Not Used
    Not Used
    Not Used
    Not Used
    Dual Coin Mech, Wire #16
    Display, Menu Button #1, Wire #17
    Display, Menu Button #2, Wire #18

J2 (left to right)
    Coin Acceptor, Wire #1
    Grand Prize Dispense, Wire #2
    Bill Acceptor, Wire #3
    Small Prize Dispense, Wire #4
    Exit/Game Stop, Wire #5
    Ball Lift Motor Stop Switch, Wire #6
    Small Prize Motor Off, Wire #7
    Grand Prize Motor Off, Wire #8
15. Time & Credit Display
16. Dip Switches, All Always Off
17. Power on Light
18. Atract Music Selector
19. DC Power In

J7 White / White/Brown **15**

J2 wiring:
- White — Black — 8
- White — Brown — 7
- White — Red — 6
- White — Orange — 5
- White — Yellow — 4
- White — Green — 3
- White — Blue — 2
- White — Violet — 1

J12:
- White — White/Red — L1 / 18
- White — White/Green — L2 / 17
- 16

J6 White — White/Black — L3

J4 wiring:
- White — 14
- White — Orange/White — 13
- White — Yellow/White — 12
- White — Green/White — 11
- 10
- 9

J2 Wire #

1. Coin Acceptor
2. Grand Prize Dispense
3. Bill Acceptor
4. Small Prize Dispense
5. Exit/Game Stop/Tilt
6. Ball Lift Motor Stop
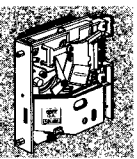7. Small Prize Motor Off
8. Grand Prize Motor Off

J4 Wire #

9. Not Used
10. Not Used
11. Game Ball Lift Motor
12. Small Prize Motor
13. Grand Prize Motor
14. Not Used

J6 Counter L3
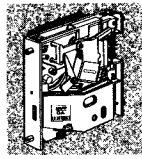
J7 Speaker #15

J12 Wire #

16. Dual Coin Acceptor
17. L2 Display, Menu Button 1
18. L1 Display, Menu Button 2

The Happ Controls $.25 US Ultimech, one of the most popular $.25 coin mechs in the amusement industry, is designed to detect and reject undesired coins and slugs while accepting virtually all genuine coins. The coins are discriminated by weight, diameter, thickness and metal content. Both brand new and greatly worn coins are equally accepted.

GENERAL
Each mech is individually adjusted at the factory to provide 99% acceptance of good coins and over 99% rejection of all known slugs. The Ultimech body is made from glass filled nylon providing strength, dimensional stability and long life. The cradle pins are made of brass and stainless steel. A steel plate is incorporated into the main plate opposite the magnet to enhance the magnetic field.

FEATURES
Each mech has special coin checking features including:
- A check for oversized or bent coins at the mech coin entry.
- Diameter and thickness check on the specially designed cradle (patent pending).
- Coin weight check by means of a counterweight on the cradle.
- Metal content check by a magnet used to generate eddy currents within a coin passing in front of it which slows the coin according to the metal content.
- Anti-stringing device which prevents a player from gaining credits by "stringing" the coin mech.
- Operating position: Upright within 2 degrees.

OPERATION
As the coin enters the mech, the entry slot restrictor checks it's size to prevent entry of grossly oversized coins. When the correct coin falls into the cradle, the cradle tips over to deliver the coin to the sizing lever and magnet.

If the coin is undersized, it will fall through the legs of the cradle and exit the mech through the reject side of the coin chute. If the coin is oversized in diameter or thickness, it will stop against the sizing lever. Underweight coins will not tip the cradle over. A good coin will be placed by the cradle on the rail.

A second thickness check is done as the coin passes between the gate assembly and the magnet holder to reject bent coins. Coins that are too thick will not pass between the magnet holder and the main plate and will be cleared when the reject lever is operated.

The coin then passes by the magnet. If the coin is not magnetic, the magnet will not slow the coin and it's speed when it leaves the rail will carry it past the accept side of the coin chute into the reject side. If a coin is ferromagnetic, such as a steel slug, it will stick to the magnet. The magnetic properties of a genuine US $.25 coin will slow the coin just enough to allow it to fall off the rail into the accept side of the coin chute.

The arc of the falling coin is further tested by the separator to make the final discrimination between good and bad coins. Any of the above fault conditions can be cleared by a single operation of the reject lever. The bad coin will fall through the reject side of the coin chute and exit the mech.

ADJUSTMENT

All Ultimechs are adjusted at the factory for maximum performance and no adjustment should be necessary. If the mech has been disassembled or if more critical adjustments are desired, the following adjustment procedure is recommended (make sure that the mech is upright and level):

GATE

To adjust for slightly thicker coins or improve acceptance, turn the gate adjustment screw clockwise. To adjust for thinner coins or improve security, turn the screw counterclockwise.

MAGNET

Turn the magnet holder adjust screw counterclockwise until a coin dropped into the mech will not pass. Turn the screw clockwise until the coin just passes through. Turn the screw a further 1/2 turn clockwise for proper operation.

SEPARATOR

Loosen the screw holding the separator. Align the right edge of the separator with the innermost mark on the back of the main bezel. This is the standard adjustment and should be acceptable for most locations. As coins are dropped through, observe where the coin hits the separator. By moving the separator back and forth slightly, the desired acceptance of good versus bad coins can be obtained. Tighten the screw and retest to be sure of proper operation.

The entry restrictor, cradle and sizing lever are specially tooled are not adjustable.

MAINTENANCE

The mech can be cleaned with any mild cleaner or even in a dishwasher. Rinse and dry completely. Make sure that the cradle and sizing lever move freely.

Do not use grease or oil on any part of the mech as this will attract dust and dirt which will slow down the coin and cause poor acceptance.

The magnet can be cleared of metal filings by guiding the edge of a screwdriver along the inside edges of the magnet holder. The filings will stick to the screwdriver.