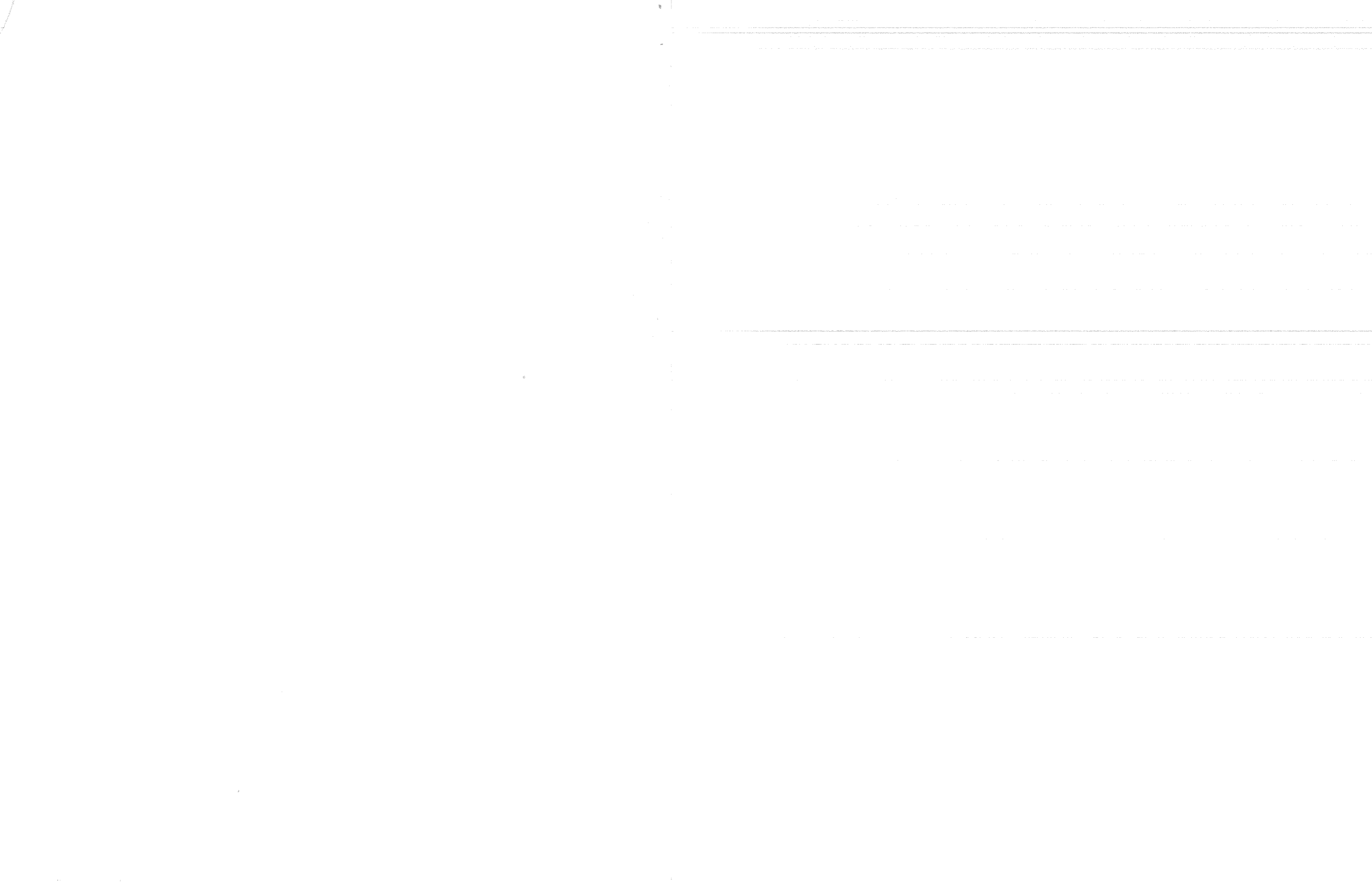


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ILLUSTRATIONS

1. Coin Acceptor
2. Wiring Diagram



NEW MACHINE CHECK-OUT PROCEDURES

After uncrating, save all packing materials in the event the machine needs to be returned.

Each machine receives thorough 100% inspection and adjustments at the factory. However, components may have been damaged or adjustments changed during shipment. Check out of machine should be done before placement on location.

Before plugging unit in, unlock back door. To gain entry into top of unit, remove wing nuts located near top front of cabinet. Inspect for any loose or damaged components.

Plug in machine and check game sequence, as follows:

DROP ZONE 4 - GAME SEQUENCE

Drop Zone 4 will display an attract mode when plugged in. The attract mode displays a plane carrying a bomb moving left to right, a bomb count, a score count, and three sets of moving targets. The targets move horizontally with different speeds and directions.

The game credit box will light up when a coin has been accepted. After a game credit has been registered, the score and bomb

counts will reset by pushing the "start game" button. The plane will now drop bombs when the "bomb release" button is pushed. If a target is hit by a bomb, the picture will flash and an explosion sound will occur. The time length of the explosion is determined by the target value hit. The bomb count will increase by one, and the score count will increase according to the target value hit. Another bomb will appear below the plane automatically.

If the bomb misses the target a splash sound will occur. The bomb count will increase one, and the score count will not change. Another bomb will appear below the plane automatically.

The plane increases horizontal speed when the score exceeds twenty points, and again after passing thirty points. When fifteen bombs have been dropped the "bomb release button is disabled.

A Game Credit is awarded if a player scores more than forty points, or if no points are made. Only one "game credit" is awarded for each coin. Therefore, a "game credit" cannot be given from a previously won game.

SERVICE ENTRY

To enter Drop Zone 4 cabinet; open back door. This will allow

access to monitor adjustment, volume adjustments, and P.C. Board replacements. For monitor and coin acceptor replacement, remove wing nuts that hold down on top of Drop Zone 4.

ADJUSTMENTS

MONITOR: See Motorola manual for location of adjustments.

VOLUME: Adjust trimmer pot on P.C. audio board for desired volume.

BRIGHTNESS: Adjust the brightness of the sky until it fades at the top of the screen.

CONTRAST: Adjust for clear images.

VERTICAL HOLD: Adjust if the screen is rolling.

HORIZONTAL HOLD: Adjust if the picture is off center, the images are warped, or if the picture is broken into diagonal lines.

STATIC GROUNDING HARNESS

To prevent static interference, the panel, speaker, coin acceptor, and monitor chassis have been grounded together on a separate harness. Removal of this harness may result in erratic game operation.

COIN ACCEPTOR OPERATION, ADJUSTMENT AND MAINTENANCE

OPERATION: The detection and rejection of undesired or counterfeit

coins are determined by size (both thickness and diameter), weight, and metallic composition. The transfer cradle (#9 in figure 4) is used to test both the size and weight of the coin. The quarter must first pivot an "undersize" lever (10) to unlock the transfer cradle. Undersize "quarters" will fail to unlock the transfer cradle and can be returned by actuating the wiper operating lever (17). Oversize diameter coins will fail to pass between the transfer cradle and the wiper can be returned by operating the wiper lever. Coins that are oversize in thickness will fail to pass between the magnet gate (11) and the main channel (5) and will have to be dislodged by actuating the wiper operating lever. Underweight coins will fail to overcome the transfer cradle counterweight and can be returned by operating the wiper lever.

A magnet is used to test the metallic composition of the coin. Highly magnetic coins, such as steel or iron, will be retained by the magnet and can be returned by actuating the wiper operating lever. Coins having comparatively high magnetic properties will be slowed down by the magnet and will drop off the rail short of the "accept" entrance and will be returned.

Coins having little or no magnetic properties, such as brass or zinc, will pass through the magnetic field so fast they will overshoot the accept entrance and will be returned.

ADJUSTMENT: All coin acceptors leave the factory adjusted for maximum performance. If, however, more critical adjustment is

desired, or if the unit has been disassembled for cleaning, the following adjustment procedure is suggested.

KICKER AND SEPARATOR:

- a. Set the acceptor on a level surface with the back of the unit facing you (the kicker and separator are on the back).
- b. Loosen the screws holding the kicker (1) and the separator (3) and move both the kicker (2) and the separator (4) as far to the right as they will go. Tighten the screws lightly.
- c. Insert several test coins (both old and new) and note that some are returned by striking the separator.
- d. Loosen the separator screw and move the separator a slight amount to the left. Retighten the screw.
- e. Insert the test coins again, and if some are still returned, repeat Step D until all the coins are accepted.
- f. Loosen the kicker screw and move the kicker a slight amount to the right. Retighten the screw.
- g. Insert test coins again, and if some of them are returned, repeat Step F until all coins are accepted.
- h. Be sure that both screws are tight after adjustments have been made.

TROUBLE SHOOTING

NO PICTURE: Check monitor adjustments, power, and monitor fuses.

Test continuity of harness, monitor connector pin #6 to logic

board pin #3 (5 volt supply), and monitor pin #1 to logic pin #14 (video). If adjustments and harness are good the fault is in the logic board or monitor.

NO SOUND: The audio board generates all sounds. This Board receives two signals from the logic board for either type of sound (explosion or splash) and also determines the length of the sound. If harness wires and connector from the audio board pass continuity test, then the trouble is most likely in the audio board itself. Check volume control adjustment on the audio board.

NO GAME CREDIT, START, OR BOMB RELEASE: Test harness wires and connector to each function. Check switches. If switches and harness are good, replace the logic board.

- 1 KICKER SCREW
- 2 KICKER
- 3 SEPARATOR SCREW
- 4 SEPARATOR
- 5 MAINPLATE ASSEMBLY
- 6 GATE ASSEMBLY
- 7 COVERPLATE ASSEMBLY
- 8 RAIL
- 9 CRADLE ASSEMBLY
- 10 UNDERSIZE LEVER
- 11 MAGNET GATE ASSEMBLY
- 12 MAGNET GATE ADJUSTER SCREW
- 13 LOWER GATE PIVOT SPRING
- 14 UPPER GATE PIVOT SPRING
- 15 GATE PIVOT PIN
- 16 WIPER LEVER SPRING
- 17 WIPER LEVER
- 18 WIPER

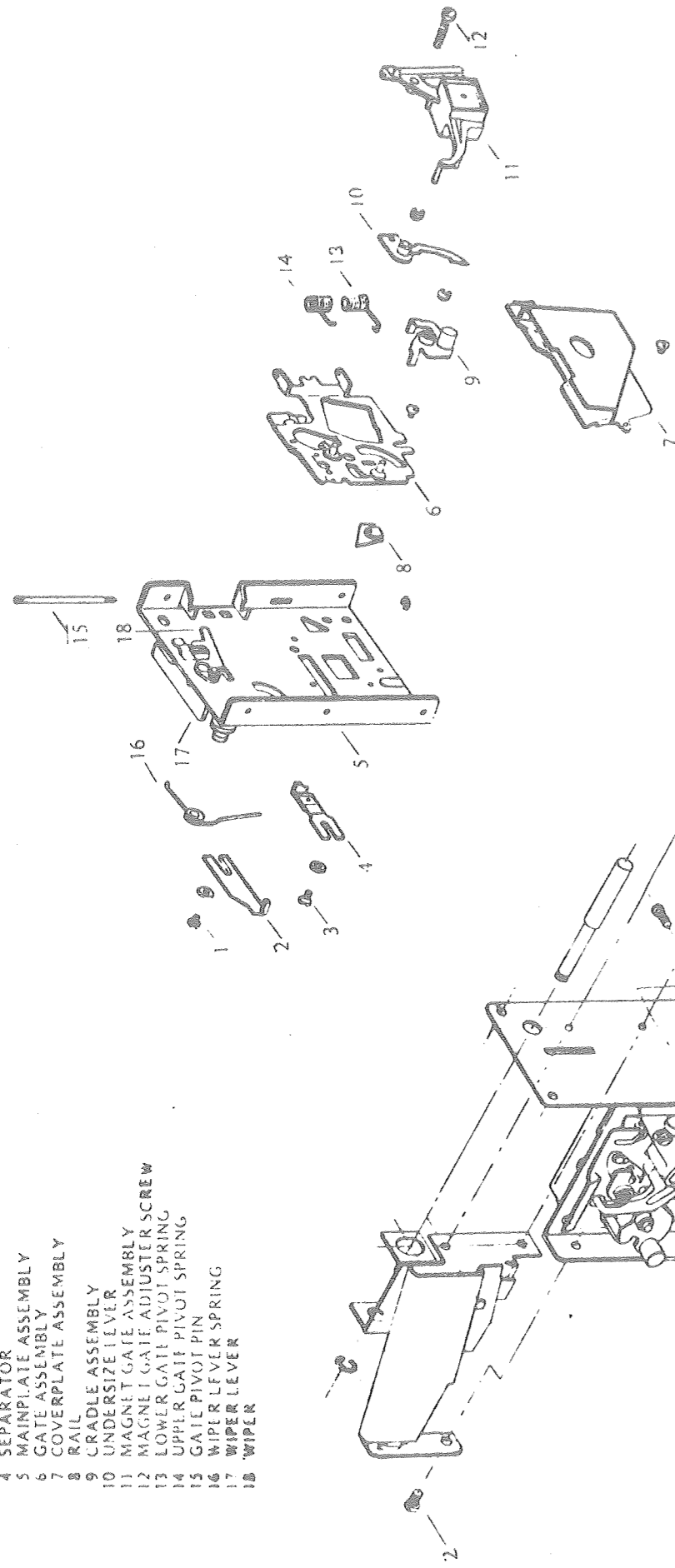


FIGURE #4 COIN ACCEPTOR - EXPLODED

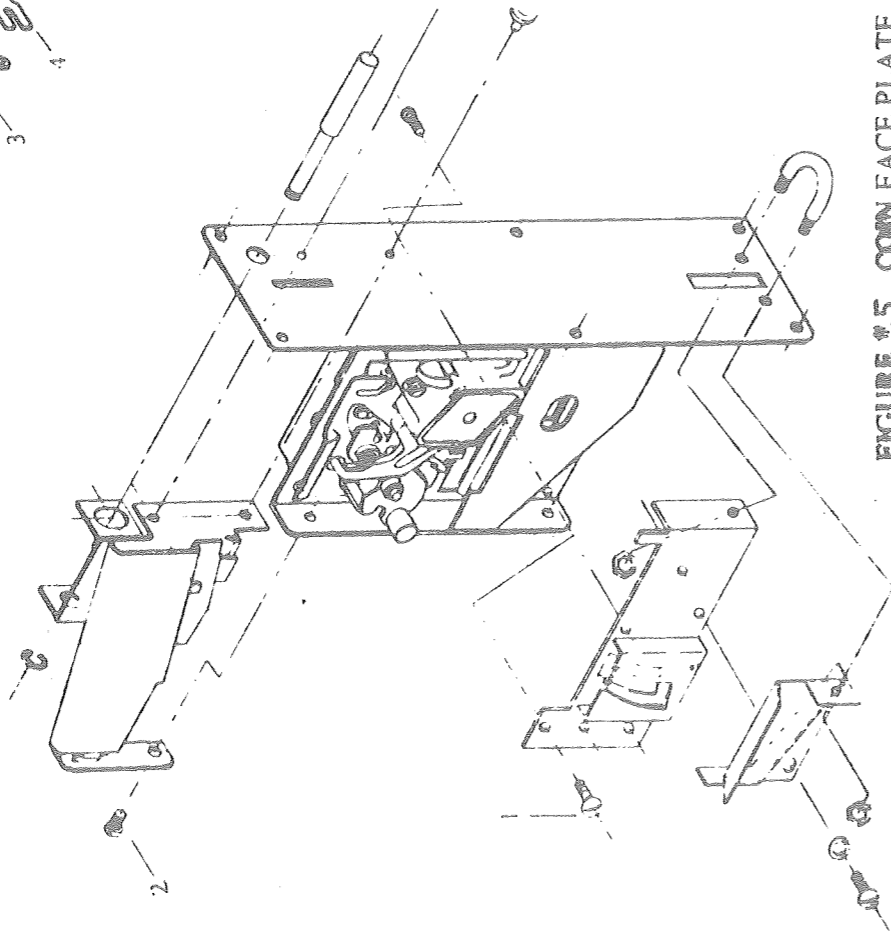


FIGURE #5 COIN FACE PLATE

TOLERANCES UNLESS OTHERWISE SPECIFIED		MEADOWS GAMES, INC.	
±	±	Coin Acceptor, exploded view	
±	±	SCALE	SIZE DRAWING NO.
APPROVALS	DATE	A	15-0009
DESIGNED		DO NOT SCALE DRAWING	
CHECKED		SHEET	

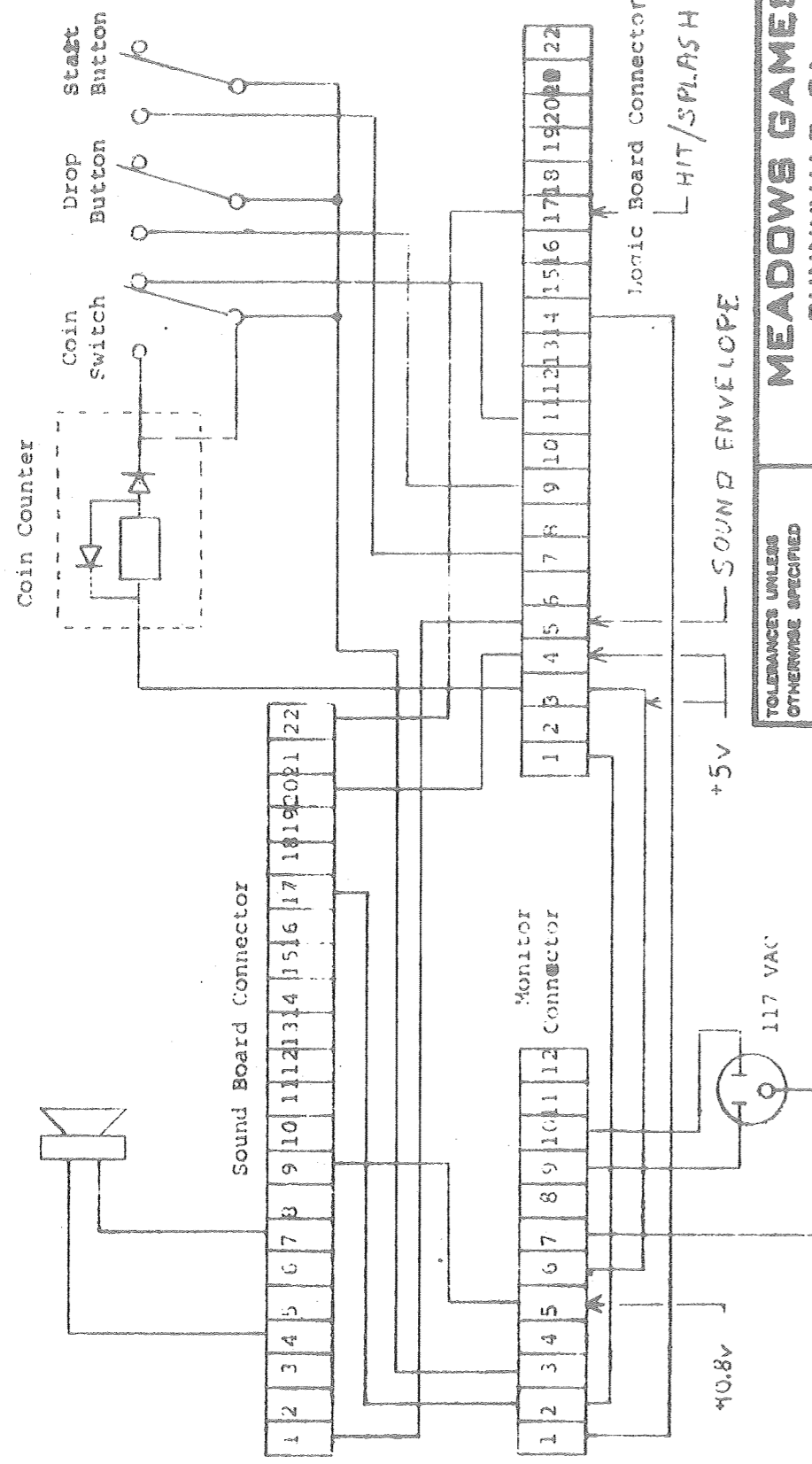
REVISIONS

DESCRIPTION

LTR

DATE

ATTACHED



MEADOWS GAMES
SUNNYVALE, CA.

TOLERANCES UNLESS
 OTHERWISE SPECIFIED
 FRACTIONS DEC ANGLES
 ± ± ± ±

APPROVALS

DATE

DRAWN 5/7/75

CHECKED

7/2/75

DROP ZONE 4 WIRING HARNESS

SCALE

SIZE

260001

DO NOT SCALE DRAWING

DATE