

SERVICE

INSTRUCTIONS



TAITO AMERICA CORPORATION

1256 Estes Avenue, Elk Grove Village, IL 60007

960026

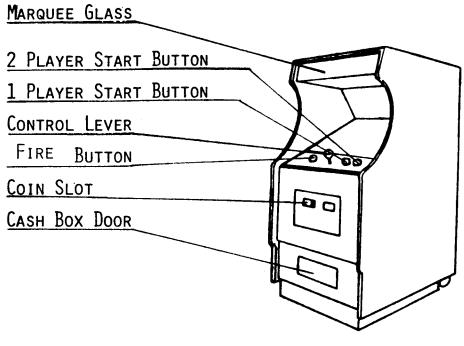


FIGURE 1

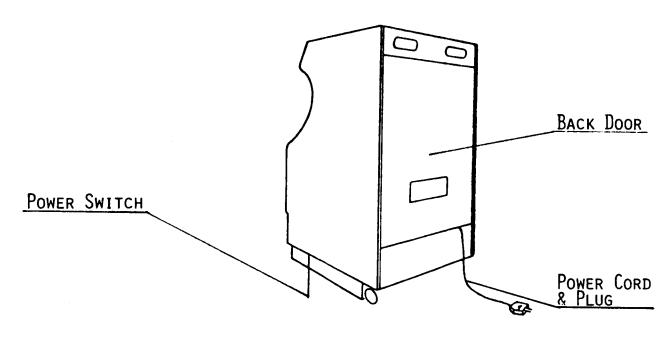


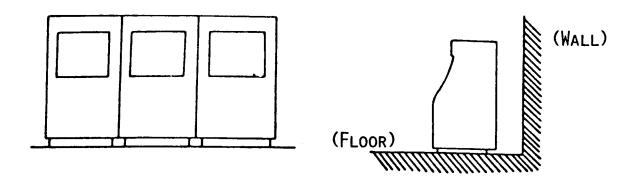
FIGURE 2

TRANSPORTATION AND INSTALLATION:

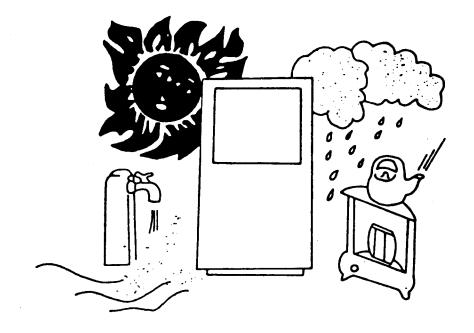
Avoid rough HANDLING IN TRANSPORTATION; THE PICTURE TUBE IS FRAGILE.

TAITO "LUNAR RESCUE" IS FOR INDOOR USE.

INSTALL THE MACHINE ON FLAT-SURFACED FLOOR AND PROVIDE SUITABLE SPACE IN FRONT OF THE MACHINE.



DO NOT INSTALL THE MACHINE IN A LOCATION WITH EXPOSURE TO DIRECT SUNLIGHT OR EXCESSIVE HEAT.



Ensure that all PCB connections are secure.

INSERT THE POWER PLUG INTO A PROPERLY GROUNDED OUTLET.

CIRCUIT INFORMATION:

A SCRAMBLED PICTURE MAY APPEAR ON THE SCREEN WHEN THE MACHINE IS FIRST SWITCHED ON. THIS IS TYPICAL OF THE CPU CIRCUITRY, AND WILL CORRECT ITSELF AUTOMATICALLY WHEN THE POWER IS SWITCHED OFF AND ON.

TAITO "LUNAR RESCUE" USES A CPU AND THE LATEST SOLID-STATE CIRCUITRY FOR LONG LIFE, HOWEVER, AS WITH SOPHISTICATED ELECTRONIC EQUIPMENT, CERTAIN PRECAUTIONS MUST BE OBSERVED TO AVOID DAMAGE.

- DO NOT ATTEMPT TO SERVICE WITH ORDINARY TESTING EQUIPMENT, SINCE THE INTERNAL VOLTAGE OF THE TESTING EQUIPMENT MAY CAUSE DAMAGE TO THE CIRCUITRY.
- 2. SERVICE SHOULD BE DONE BY A QUALIFIED TECHNICIAN.
- 3. TAITO AMERICA SERVICE DEPARTMENT CAN BE REACHED TOLLFREE OUTSIDE ILLINOIS AT: #800-323-0666, or IN ILLINOIS: #312-981-1000.
- 4. NEVER CONNECT OR DISCONNECT ANY OF THE SOLID-STATE MODULES WHILE THE POWER IS ON.

ROUTINE MAINENTANCE:

BECAUSE OF THE SOLID-STATE ELECTRONIC CIRCUITRY, THIS MACHINE SHOULD REQUIRE VERY LITTLE MAINTENANCE AND ONLY OCCASIONAL ADJUSTMENTS, HOWEVER, IT IS NECESSARY TO TAKE MEASURES TO INSURE THIS.

PLAYING INSTRUCTIONS:

ONE OR TWO PLAYERS,

INSERT COIN(S), AND SELECT ONE OR TWO PLAYER GAME.

1 COIN - 1 PLAY ... 3 RESCUE SHIPS (ADJUSTABLE)

2 COINS - 2 PLAYS (1 PLAYER GAME)

OR 1 PLAY (2 PLAYER GAME)

- · MOTHERSHIP, ASTEROIDS AND ASTRONAUTS WILL APPEAR ON THE SCREEN.
- PUSH FIRE BUTTON TO RELEASE RESCUESHIP FROM MOTHERSHIP TO RESCUE ASTRONAUTS.
- · CONTROL THE RESCUESHIP BY MOVING CONTROL LEVER.
- DESCEND TO A LANDING PAD, MANEUVERING RESCUECRAFT TO AVOID . ASTEROIDS AND STARS.
- THE RED BUTTON CONTROLS THE LANDING SPEED OF THE RESCUESHIP. (RETRO ROCKET).
- AFTER LANDING, RETURN TO MOTHER SHIP.
- IF RESCUE SHIP DOES NOT CLEAR ENTRANCE TO MOTHER SHIP, ASTRONAUT IS LOST.
- . IN TWO PLAYER MODE, PLAY ALTERNATES BETWEEN THE TWO PLAYERS.

FUNCTIONAL DESCRIPTION OF GAME:

- AFTER DESCENDING TO LANDING PAD, SIX (6) TIMES IN A FRAME, ASTRONAUT-RESCUE POINTS AND REMAINING FUEL POINTS ARE ADDED TO YOUR SCORE.
- WHEN ALL FUEL IS CONSUMED, CONTROL BECOMES INEFFECTIVE.
- POINTS ARE SCORED WHEN FLYING SAUCERS ARE DESTROYED:

= 50 POINTS

= 30 POINTS



- RESCUE ALL SIX (6) ASTRONAUTS IN A FRAME FOR BONUS POINTS.
- ONE ADDITIONAL RESCUE SHIP WILL BE AWARDED WHEN SCORE REACHED 3,000 POINTS.
- GAME IS OVER WHEN ALL RESCUE SHIPS ARE DESTROYED.

HI SCORE NAME REGISTRATION:

THE HIGH SCORER'S NAME CAN BE REGISTERED ON THE SCREEN.

ANY UNWANTED WORDING CAN BE CANCELLED BY TURNING THE GAME OFF AT THE SERVICE SWITCH, AND THE HIGH SCORE WILL THEN BE CANCELLED.

METHOD OF REGISTRATION:

- 1. THE LETTERS ("A" "Z"), "SPACE", "RUB", AND "END" WILL BE DISPLAYED ON THE SCREEN. BY MOVING THE CONTROL LEVER, MOVE THE UNDERLINE THROUGH THE ALPHABET ONE LETTER AT A TIME, SO THAT THE HIGH SCORER'S NAME CAN BE SPELLED.
- 2. A LETTER ABOVE THE UNDERLINE CAN BE REGISTERED ON THE SCREEN BY PUSHING THE FIRE BUTTON.
 - "RUB": IF A WRONG LETTER HAS BEEN REGISTERED, MOVE THE UNDERLINE TO THE WORD "RUB", THEN PUSH THE FIRE BUTTON AND THE LETTER WILL BE CANCELLED.
 - "END": TO FINISH THE HIGH SCORER'S NAME REGISTERATION MOVE THE UNDERLINE TO THE WORD "END" AND PUSH THE FIRE BUTTON.
- THE HIGH SCORER'S NAME REGISTER MUST BE PERFORMED WITHIN ONE AND ONE HALF MINUTES. AFTER ONE AND ONE HALF MINUTES HAVE PASSED, THE REGISTRATION WILL BE AUTOMATICALLY ENDED. (IN TOTAL, TEN LETTERS CAN BE REGISTERED). SEE FIGURE -3-.

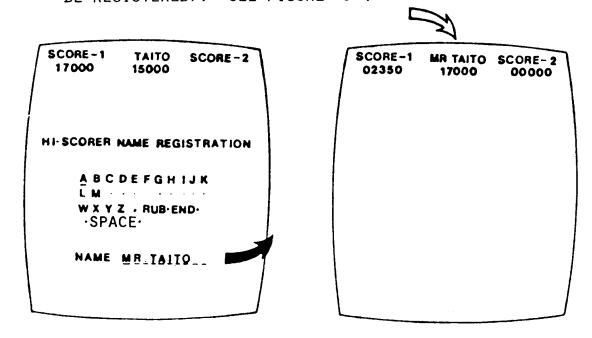


FIGURE -3-

ADJUSTMENTS ON SWITCHING REGULATOR PC BOARD:

(SEE FIGURE -4-)

CAUTION:

THE SUPPLY VOLTAGES SHOULD BE SET AT THE PROPER LIMITS. FAILURE TO DO SO MAY RESULT IN DESTRUCTION OF THE IC'S.

TO CHECK THE OUTPUT VOLTAGE, MEASURE THEM ON THE G CONNECTOR OR THE T CONNECTOR PINS.

(SEE THE ATTACHED WIRING DIAGRAM)

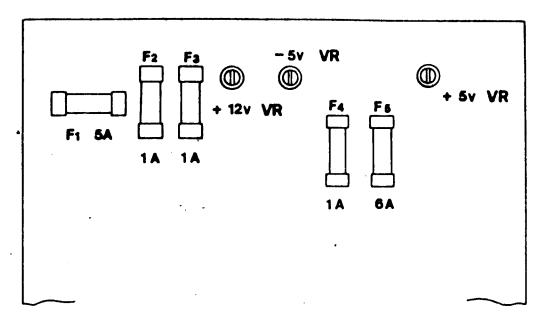


FIGURE -4-

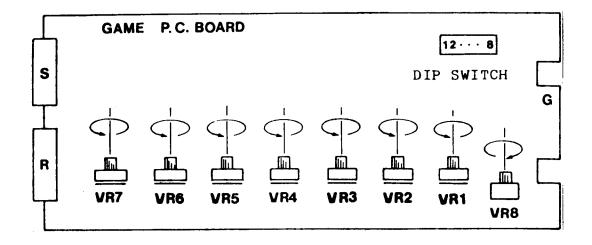
Pot for adjusting +5V DC. (adjustment range: +4.5v to +5.5v DC). Set approximately +5V. +5V VR ...

Pot for adjusting -5V DC. (adjustment range: -5.5v to -4.5v DC). Set approximately -5V. -5V VR ...

Pot for adjusting +12V DC. (adjustment range: +10.8v to +13.2v DC). Set approximately +12V. +12V VR...

· "LUNAR RESCUE"

ADJUSTMENTS ON GAME P.C. BOARD:



TO DECREASE THE SOUND, TURN EACH POT TO THE DIRECTION AS SHOWN ABOVE.

- *VR1... POT FOR ADJUSTING JET SOUNDS OF RESCUE SHIP WHEN DESCENDING.
- *VR2... POT FOR ADJUSTING SHOOTING SOUNDS OF BEAM GUN.
- *VR3... POT FOR ADJUSTING EXPLOSION SOUNDS OF RESCUE SHIP.
- *VR4... POT FOR ADJUSTING EXPLOSION SOUNDS OF FLYING OBJECTS.
- *VR5... POT FOR ADJUSTING BEEP SOUNDS WHEN PLAY TIME IS EXTENDED.
- *VR6... POT FOR ADJUSTING BONUS MUSIC, ASTRONAUT FOOTSTEP SOUNDS, AND DOCKING SOUNDS.
- *VR7... POT FOR ADJUSTING SHOOTING STAR SOUNDS AND RESCUE DESCENDING SOUNDS.
- *VR8... POT FOR ADJUSTING TOTAL SOUNDS.

SELECTION FOR NUMBER OF RESCUE SHIPS (ADJUSTABLE):

| Number | 3 | 4 | 5 | 6 |
|--------|----|-----|-----|-----|
| 5W1 | ON | OFF | ON | OFF |
| 8W2 | ON | ON | OFF | OFF |

NOTE: THE SWITCHES, SW3 - SW8 ARE FOR ADJUSTING SOLID-STATE MODULES. THESE SWITCHES ARE FOR THE FACTORY ADJUSTMENTS AND SHOULD BE SET ALWAYS AT "ON" POSITIONS.

COLOR VIDEO MONITOR ADJUSTMENTS

THE VIDEO MONITOR IS PROPERLY ADJUSTED BEFORE SHIPPING. OCCASIONALLY ADJUSTMENTS ARE NECESSARY AND FOR THIS REASON, A COMPLETE TECHNICAL MANUAL FOR THE MONITOR IS INCLUDED WITH EACH GAME

ALL ADJUSTMENT CONTROL LOCATIONS ARE SHOWN ON PAGE SEVEN (7) OF THE MONITOR MANUAL.

VERTICAL HOLD:

ADJUST VERTICAL HOLD IF PICTURE ROLLS VERTICALLY.

HORIZONTAL HOLD:

ADJUST HORIZONTAL OSCILLATOR IF THE PICTURE IS WARPED OR BROKEN INTO DIAGONAL LINES (USE CAUTION WHEN ADJUSTING THIS CONTROL).

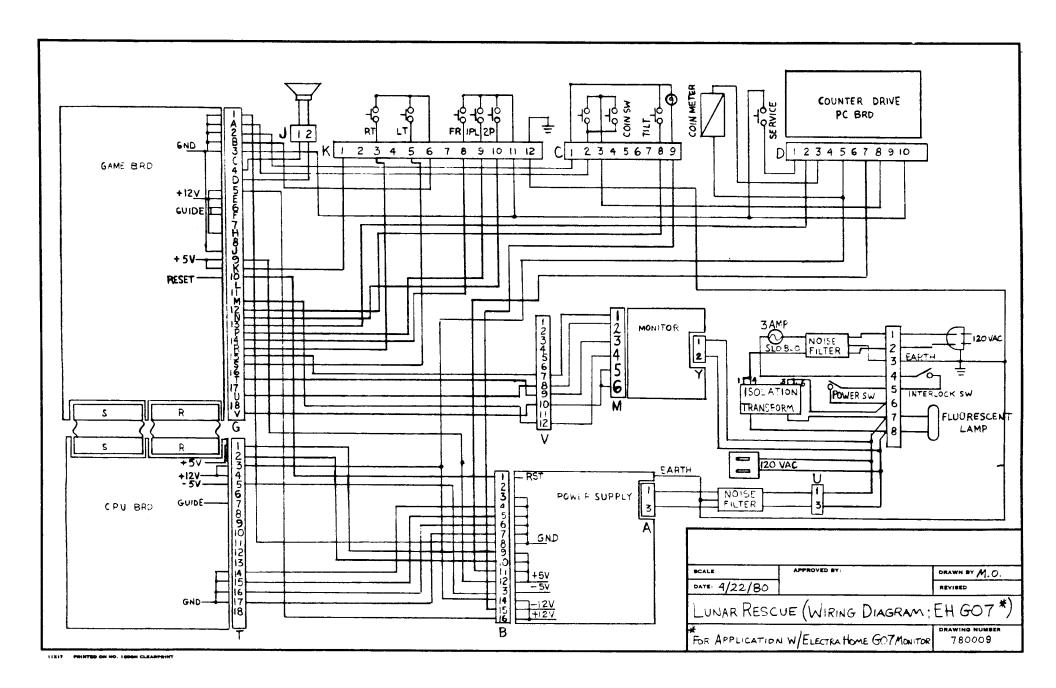
FOCUS:

ADJUST FOCUS IF PICTURE IS FUZZY.

RED, GREEN AND BLUE COLORS:

ADJUST RED SCREEN, GREEN SCREEN AND BLUE SCREEN CONTROLS.

FOR FURTHER ADJUSTMENTS AND INFORMATION, REFER TO THE MONITOR MANUAL.





PARTS

CATALOG



TAITO AMERICA CORPORATION

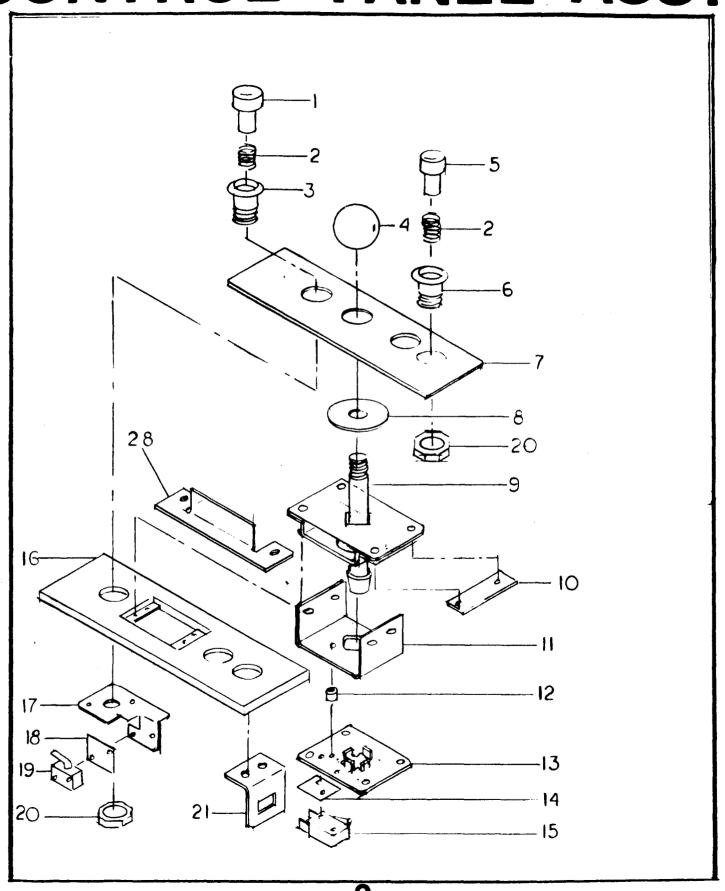
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CONTROL PANEL ASSY.

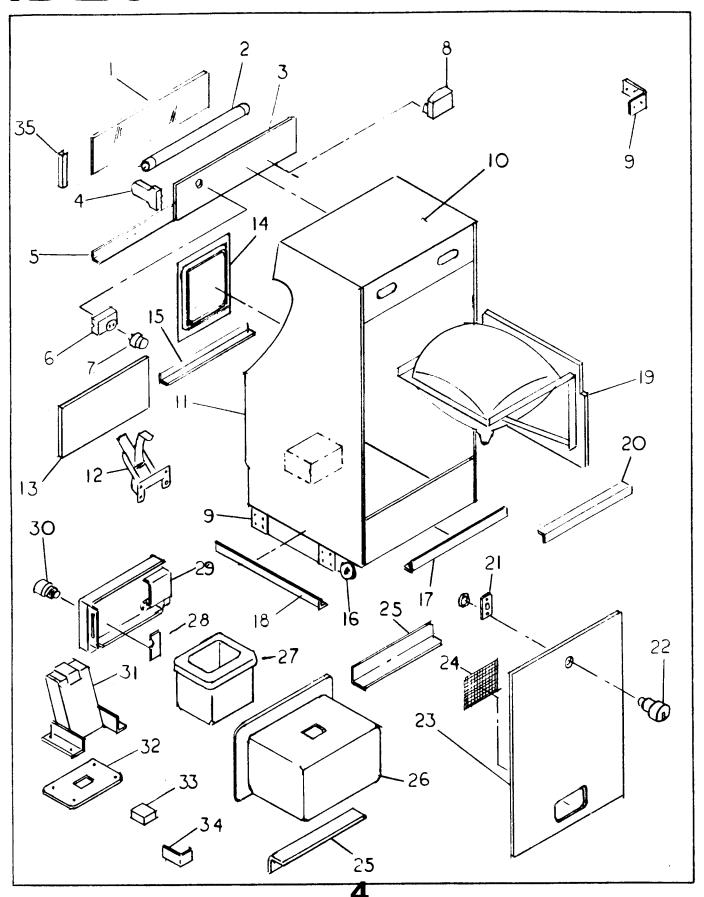


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CONTROL PANEL ASSEMBLY

| ITEM: | PART NO: | REF. NO: | DESCRIPTION: |
|------------|--------------------|----------|----------------------------------|
| 1. | 400012 | AA019533 | PUSH BUTTON, RED |
| 2. | 370000 | BP050001 | SPRING |
| 3. | 400013 | AA019534 | PUSH BUTTON HOUSING, RED |
| 4. | 400026 | BP090003 | COLOR BALL, WHITE |
| 5. | 400014 | TR090012 | PUSH BUTTON, WHITE |
| 6. | 400015 | TR090013 | PUSH BUTTON HOUSING, WHITE |
| 7. | 500067 | | CONTROL PANEL, SCREENED ALUMINUM |
| 8. | 400030 | RT090009 | MASK, BLACK |
| 9. | 850001-D | RT030005 | SWITCH BASE |
| 10. | 850001-B | RM030004 | STOP PLATE |
| 11. | 850001-C | RT030006 | BRACKET, SUPPORT |
| 12. | 850001-H | RT090010 | BUSHING, SPACER |
| 13. | 850001-E | | PLATE, SWITCH MOUNTING |
| 14. | 998520 | AA019504 | INSULATOR, TYPE V. |
| 15. | 020503 | AA052532 | SWITCH, MICRO |
| 16. | 140005 | | PANEL, WOOD DASH |
| 17. | 998682 | BP030002 | BRACKET, PUSHBUTTON MOUNTING |
| 18. | 998520 | AA019504 | INSULATOR, TYPE V. |
| 19. | 020501 | AA052531 | switch, micro, VL-11L |
| 20. | 850002-B | | NUT, M16THD |
| 21. | 390003 | RM030003 | STRIKE HOOK |
| 22. | 850001-A | RW020001 | CONTROL SHAFT |
| 23. | 400029 | RT090008 | SPACER (A), METAL |
| 24. | 200000 | RT080002 | VIBRATIONPROOF RUBBER |
| 25. | 850001-F | | STOP COLLAR |
| 26. | 400027 | RT090001 | SPACER (B) PLASTIC |
| 27. 28. | 850001-G 500063 | | COLLAR BRACKET RESTRAINT |

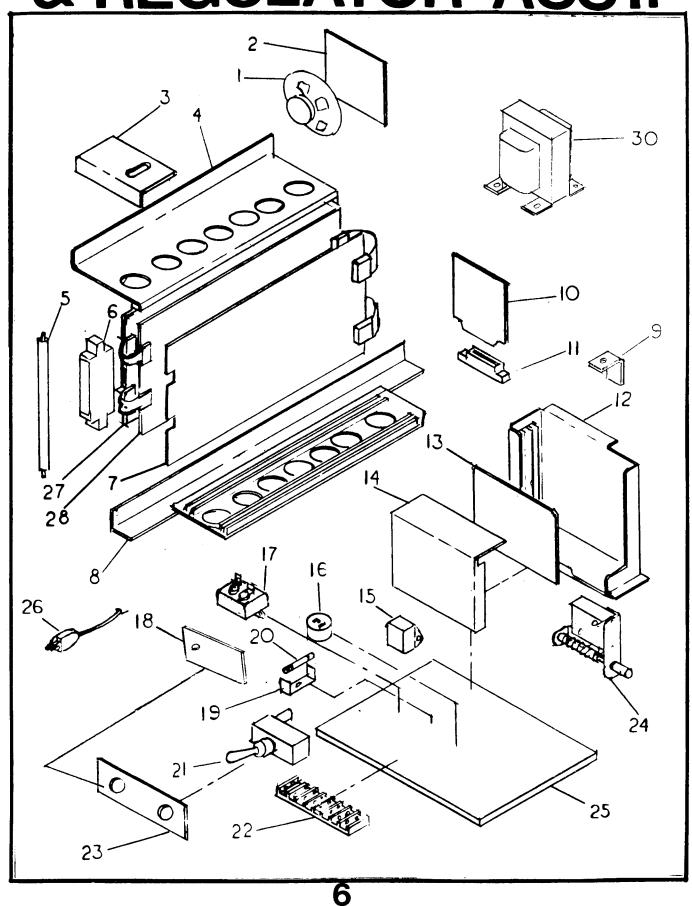
VIDEO & CABINET ASSY.



VIDEO AND CABINET ASSEMBLY

| ITEM: | | | DESCRIPTION: |
|-------|------------------|----------|--|
| | 400033 | | SCREENED ACRYLIC MARQUEE PANEL |
| 2. | | AAU54/11 | FLUORESCENT TUBE, STD., 15 WATT. |
| | 140006 | | FLUORESCENT LAMP PANEL. |
| | 113000 | | LAMP SOCKET (HOLDER). |
| | 500024 114001 | | GLASS STOP BRACKET |
| | 114001 | | STARTER SOCKET |
| | 010001 | | STARTER |
| | | 11758/i | BALLAST TRANSFORMER "L" BRACKET |
| 10. | | HAULUJOH | |
| | 400022 | | CABINET ASSEMBLY. |
| | 3900022 | | 5/8" T MOLDING, BLACK, TEXTURED. CLAMP FASTENER (BASSICK #HR-1) |
| | 148005 | | COVER GLASS ASSEMBLY. |
| | 400005 | | MONITOR SHROUD |
| | 500022 | | GLASS RETAINER BRACKET |
| | 520000 | | CASTERS |
| | 400031-A | | L MOLDING, BLACK, 22½"LONG. |
| | 400031-B | | L MOLDING, BLACK, 33-3/4" LONG. |
| | 620001 | | MONITOR, GO7-19" COLOR, ELECTROHOME |
| 20. | 500026-A | | VIDEO MOUNTING BRACKET. |
| 21. | 600005-C | | ANCHOR (PLATE). |
| 22. | 600005 | | LOCK(SERVICE) & KEY |
| 23. | 140004 | | CABINET BACK |
| 24. | 510003 | EP030010 | ventilator screen 5.9 x 9.8 |
| 25. | 500011-C | AA013580 | CASH BOX GUIDE |
| 26. | 500011-A | AA028507 | CASH BOX |
| 27. | 500011-B | AA028506 | CASH CASE |
| 28. | 600007 | AA013583 | LOCK PLATE |
| 29. | 500011-D | AA026512 | CASH BOX DOOR |
| 30. | | AA016545 | LOCK(CASH BOX) & KEY |
| 31. | 500060 | | COIN FUNNEL |
| 32. | 500061 | | COIN FUNNEL PLATE |
| 33. | 130000 | | COUNTER, 6V. DC |
| | 500065 | AA013608 | |
| 35. | 400025 | | U CHANNEL, 1/8 x 1/4 x 7½", BLACK |

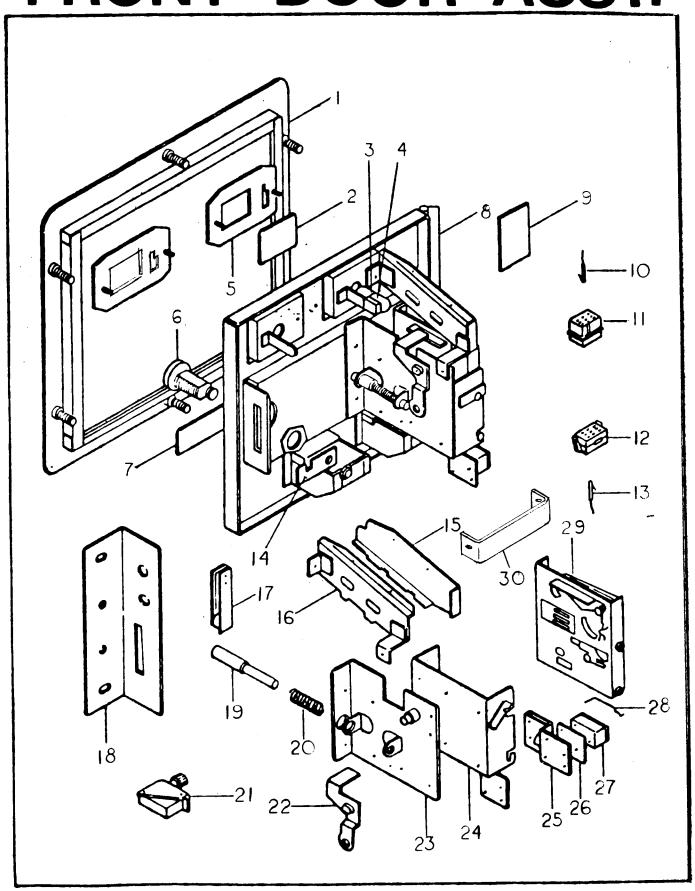
PRINTED CIRCUIT BOARD & REGULATOR ASSY.



PRINTED CIRCUIT BOARD AND REGULATOR ASSEMBLY

| ITEM: | PART_NO: | REF. NO: | DESCRIPTION: |
|-------|----------|----------|--------------------------------------|
| 1. | 014000 | AAT71011 | SPEAKER, 8 OHM, 20W., 16CM. |
| 2. | 500015 | | SPEAKER GRILLE |
| 3. | 500057 | CV030023 | STOP BRACKET |
| 4. | 850007 | WT090008 | P.C. BOARD GUIDE "B" |
| 5. | 500059 | TV020001 | SHAFT P.C. CHASSIS |
| 6. | 100030 | AA055949 | 18P. HOUSING CONNECTOR |
| | 800026 | | GAME P.C. BOARD ASSEMBLY |
| | 850006 | AA019547 | P.C. BOARD GUIDE "A" |
| 9. | 500035 | | "L" BRACKET |
| | 800011 | AAM50012 | COUNTER DRIVE CREDIT BOARD |
| 11. | | | =, =, |
| | 998702 | | |
| | | | SWITCHING REGULATOR ASSEMBLY |
| | | | SHIELD COVER |
| | | AAT61017 | NOISE FILTER, ZMB 2206-02 |
| | 210000 | | SERVICE OUTLET |
| | 019500 | | POWER LINE FILTER |
| 18. | 133007 | | INSULATOR |
| 19. | | | FUSE HOLDER |
| 20. | | | fuse, 3AMP, 3AG, 250V., slo-blo. |
| | 021500 | | TOGGLE SWITCH |
| 22. | | | BARRIER STRIP - 8 POSITION |
| 23. | 500025 | | TOGGLE SWITCH BRACKET (POWER SWITCH) |
| 24. | 024000 | | INTERLOCK SWITCH |
| 25. | 140011 | | POWER BOARD MOUNTING |
| 26. | 840002 | DTNOOOU | LINE CORD ASSEMBLY |
| 27. | 800024 | RTN00004 | CPU P.C. BOARD ASSEMBLY "A" |
| 28. | 800025 | RTN00005 | CPU P.C. BOARD ASSEMBLY "B" |
| 30. | 010002 | | ISOLATION TRANSFORMER |

COIN MECHANISM AND FRONT DOOR ASSY.



COIN MECHANISM AND FRONT DOOR ASSEMBLY:

| ITEM: | PART NO: RI | EF. NO: | DESCRIPTION: |
|-------|-------------|---------|-------------------------------|
| 1. | 500010 A/ | A026510 | DOOR FRAME |
| | | | PRICE CARD - U.S. 25¢ |
| 3. | 110000 AA | A054704 | PILOT LAMP, 12V., 150MA |
| | | | VINYL SOCKET |
| 5. | 500021-B | | COIN ENTRY PLATE FOR 25¢ |
| 6. | 500021-C A/ | A016558 | SERVICE LOCK AND KEY NO. 7900 |
| 7. | 120017 | | NAME TAG, TAITO |
| 8. | 500009 AA | A026511 | COIN REJECTOR DOOR |
| 9, | 500021-E A | A019522 | COVER PLATE |
| 10. | 104000 AA | A055789 | MATE-N-LOC PIN A |
| 11. | 103007 AA | A055581 | MATE-N-LOC HOUSING, 9P |
| 12. | 103008 AA | A055582 | MATE-N-LOC HOUSING, 9P |
| 13. | 104001 AA | A055790 | MATE-N-LOC PIN B |
| | | | LOCK PLATE |
| 15. | 500021-G AA | A025508 | COIN GUIDE (B) |
| 16. | 500021-H AA | A025507 | COIN GUIDE (A) |
| 17. | 500021-J AA | A068717 | TILT SWITCH |
| 18. | 500058 AA | A013577 | LOCK GUARD |
| 19. | 500021-K AA | A027504 | CANCEL ROD |
| 20. | 500021-L AA | A015504 | SPRING CANCEL HOLDER |
| 21. | 020501 AA | A052531 | SWITCH, SERVICE |
| 22. | 500021-M AA | A013557 | CANCEL LEVER |
| 23. | 500021-N AA | A013554 | REJECTOR BRACKET |
| 24. | 500021-P AA | A023501 | REJECTOR HOLDER |
| 25. | 500054 | | COIN GUIDE |
| 26. | 199005 AA | | INSULATOR |
| 27. | 020502 AA | A052512 | SWITCH, MICRO |
| 28. | 370002 AA | A053501 | ACTUATOR |
| 29. | 540000 | | REJECTOR |
| 30. | 500021-R | | CANCEL LEVER CONNECTOR |