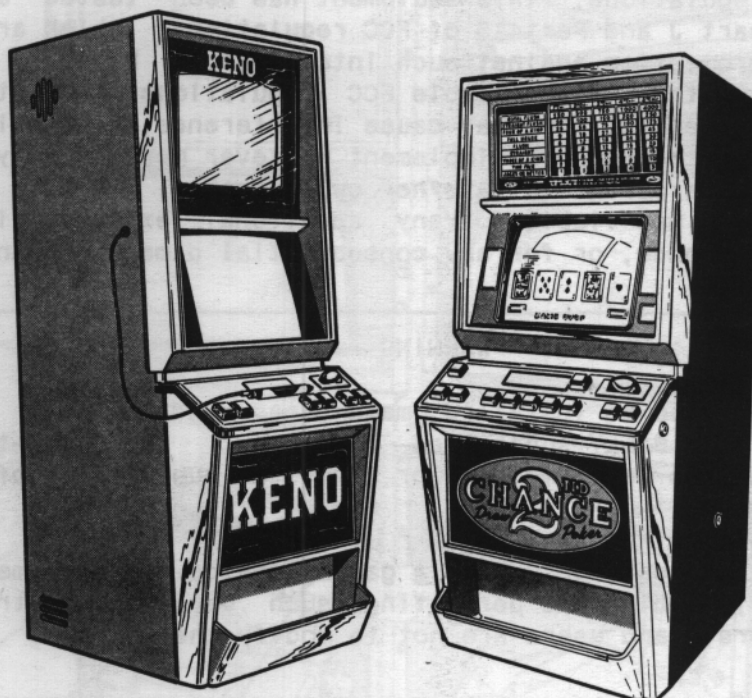


Bally 5000 *Plus*



V-5000 Models

INSTALLATION MANUAL

Bally

**MANUFACTURING CORPORATION
GAMING DIVISION**

**90 O'Leary Drive, Bensenville, Illinois 60106
Telephone: (312) 860-7777**

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-WARNING-

THIS MACHINE MUST BE GROUNDED! FAILURE TO DO SO MAY RESULT IN THE DESTRUCTION OF ELECTRONIC COMPONENTS.

RADIO INTERFERENCE NOTICE: This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the Instruction Manual, this equipment may cause interference to radio communications. As required by FCC regulations, this equipment has been tested and found in compliance with Subpart J and Part 15 of FCC regulations, which are designed to provide reasonable protection against such interference. However, although this equipment complies with all applicable FCC regulations, operation of this equipment in a residential area may cause interference, in which case the equipment user will be required to implement whatever measures may be necessary to eliminate said interference at his/her own expense. BALLY MANUFACTURING CORPORATION is in no way liable for any additional expenses involved with elimination of interference, or for any consequential damages or injuries.

- WARNING -

This equipment is to be installed, maintained, and serviced **ONLY** by BALLY-trained or BALLY-supervised personnel. All in-the-field modifications must be performed by, or under the supervision of, BALLY personnel.

This machine is intended for use as a gaming device for amusement only, to be sold in jurisdictions permitting such devices. Distributors, owners, operators, and users are not to modify the machine for any other use.

BALLY Manufacturing Corporation maintains a toll free telephone number which can be used to obtain service information for BALLY manufactured equipment at your location.

1-800-HOT-SLOT

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FOR PERMISSION REQUESTS WRITE:

**BALLY MFG. CORP.
GAMING DIVISION
90 O'LEARY DRIVE
BENSENVILLE, ILLINOIS 60106**

The enclosed information is to assist you in the installation of your BALLY 5000 Plus equipment. If you need addition information, please refer to your Operator Instructions Manual or your Troubleshooting Manual.

POKER, 2ND CHANCE, AND BLACKJACK

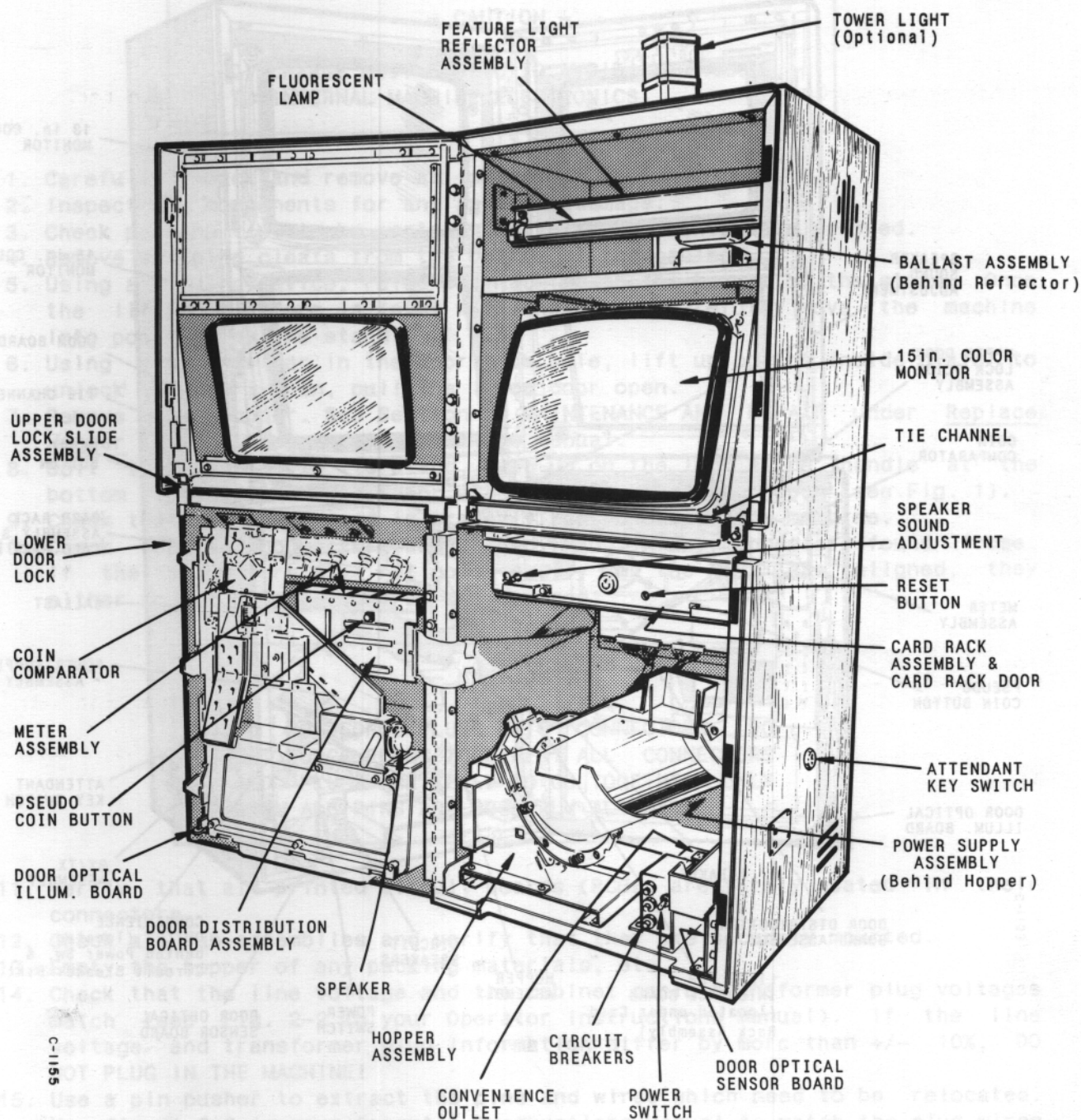


Fig. 1

KENO

The enclosed information is to assist you in the installation of your equipment. If you need additional information, please refer to your Operator Instructions Manual or your Technical Representative.

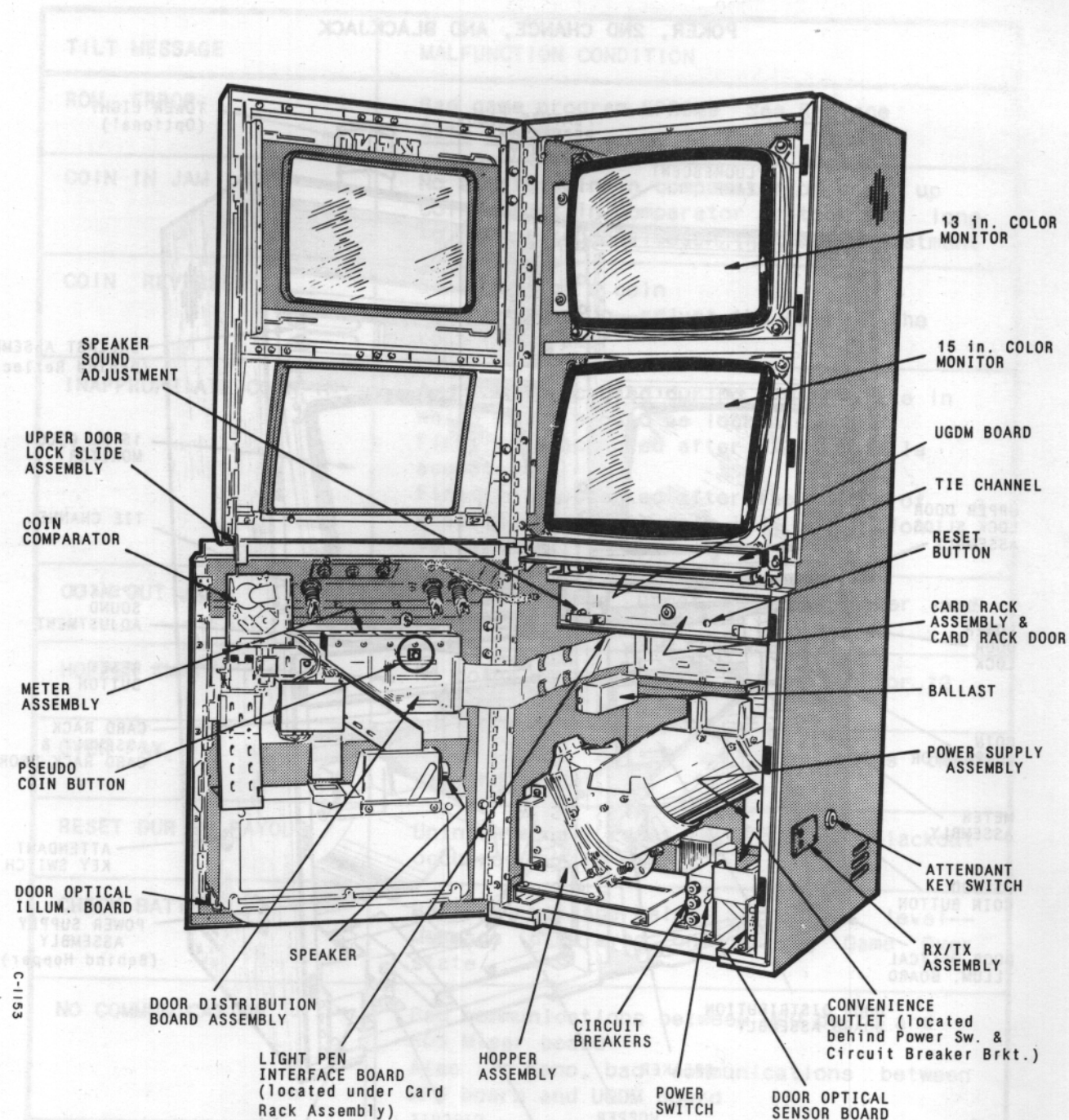


Fig. 2

Inspect Before Power Up

When inspecting BALLY 5000 Plus Video Poker, 2nd Chance, and Blackjack machines, follow these steps:

- CAUTION -

DISCHARGE BODY STATIC TO AVOID ANY DAMAGE
TO INTERNAL MACHINE ELECTRONICS.

1. Carefully unpack and remove all parts.
2. Inspect all components for any apparent damage.
3. Check packing list to be certain that all components have arrived.
4. Remove shipping cleats from the bottom of the cabinet.
5. Using a lifting device, raise the machine to the height of the stand. Once the lifting platform is level with the stand, carefully move the machine into position on the stand.
6. Using a screwdriver in the door lock hole, lift up on the inside plate to unlock the door; then, pull the lower door open.
7. Remove the hopper. See Section 5. MAINTENANCE AND REPAIR under Replace Hopper in your Operator Instructions Manual.
8. Bolt the machine to its stand. Push up on the lock slide handle at the bottom right of the upper door and pull the upper door open (see Fig. 1).
9. Check that the power cord is properly routed out of the machine.
10. Check that all connectors are joined. Plug in any connectors found loose. If the connectors will not go on easily and the keys are aligned, they either do not belong there or are damaged.

- CAUTION -

DO NOT FORCE PLUGS ONTO CONNECTORS. DO
NOT FORCE PLUGS TOGETHER. ALL CONNECTORS
AND PLUGS ARE KEYED TO GO TOGETHER ONLY
WHEN ALL PINS ARE PROPERLY ALIGNED.

11. Verify that all printed circuit boards (PCBs) are firmly seated in their connectors.
12. Check all sub-assemblies and verify that they are securely mounted.
13. Empty the hopper of any packing materials, etc.
14. Check that the line voltage and the cabinet cable transformer plug voltages match (see Fig. 2-2 in your Operator Instructions Manual). If the line voltage and transformer plug information differ by more than $\pm 10\%$, DO NOT PLUG IN THE MACHINE!
15. Use a pin pusher to extract the pins and wires which need to be relocated. Use figure 2-2 in your Operator Instructions Manual to match the plug wires and line voltage.

Inspect Before Power Up (cont'd)

16. Move the spring from the top of the door lock slide to the bottom. (Fig. 3)

- CAUTION -

MOVE THE SPRING BEFORE REMOVING THE
NO-LOCK PLATE; SO IF THE DOOR IS CLOSED,
IT CAN BE OPENED.

17. Remove the no-lock plate. (Fig. 3)

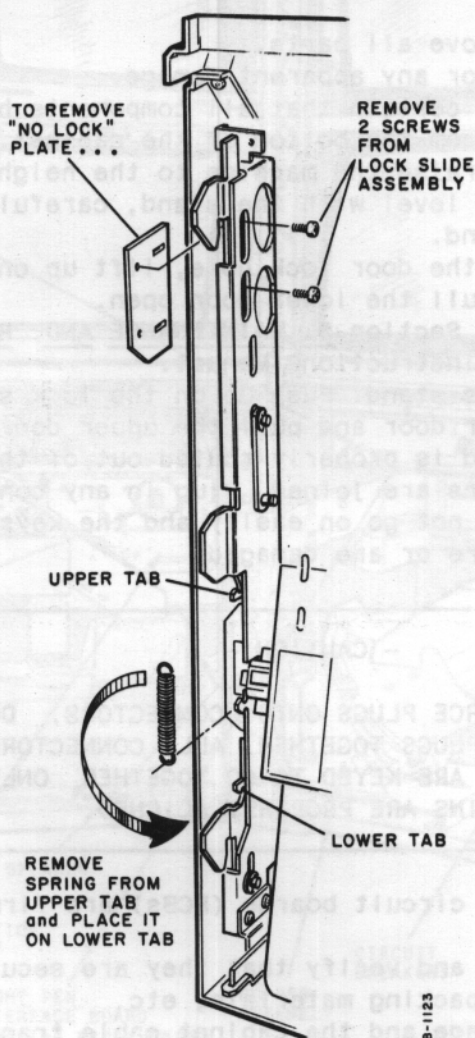


Fig. 3

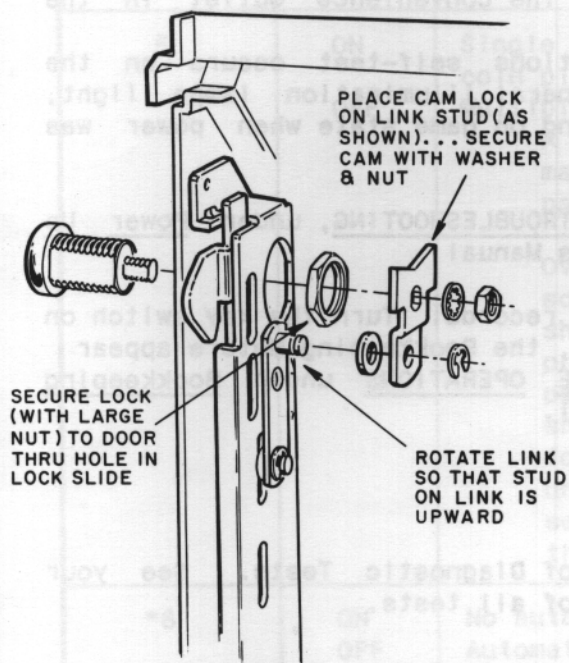
18. List all problems that cannot be corrected. Contact the BALLY distributor.

NOTE: When installing the lock mechanisms, check that no wires are pinched causing short circuits.

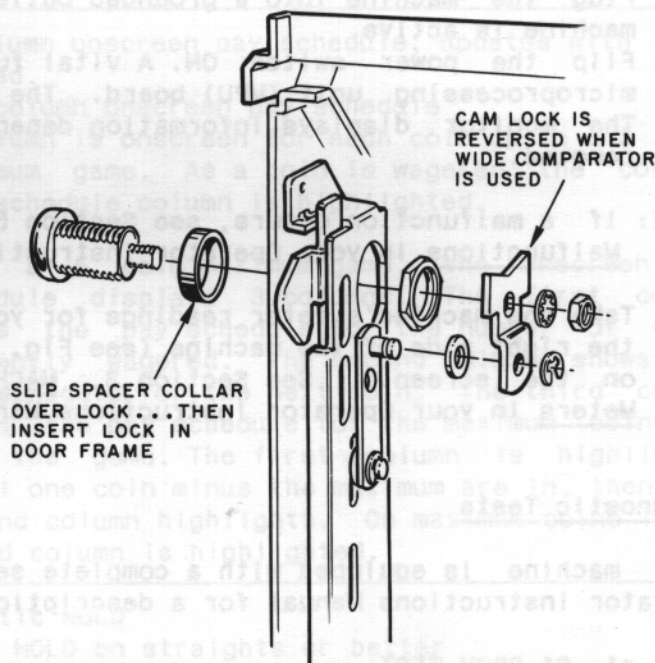
LOCK INSTALLATION

NOTE: BEFORE INSTALLING LOCK, REMOVE "NO LOCK PLATE" FROM THE LOCK SLIDE ASSEMBLY

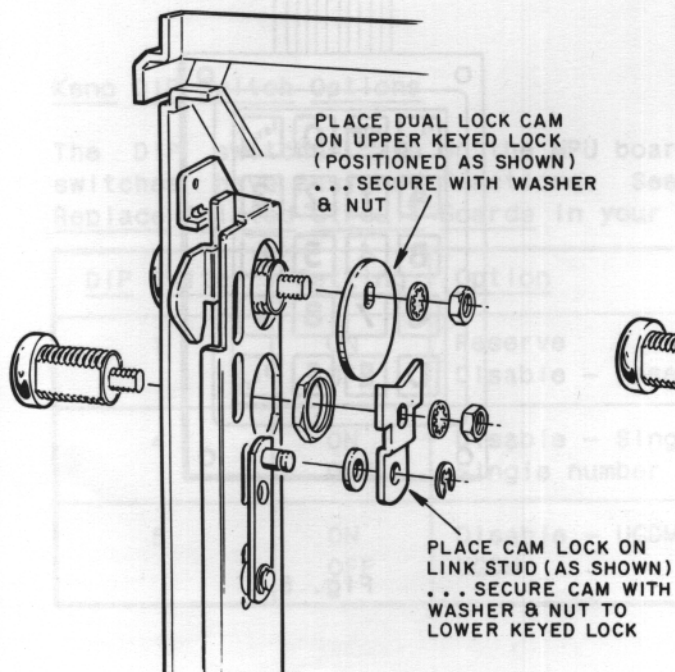
SINGLE LOCK



SINGLE LOCK - WIDE COMPARATOR



DOUBLE LOCK



DOUBLE LOCK - WIDE COMPARATOR

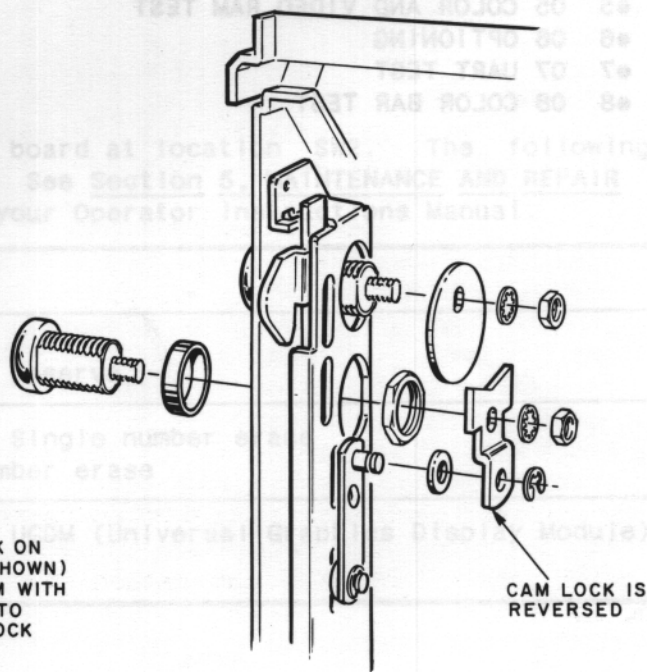


Fig. 4

Power Up

Follow these steps in powering up the machine.

- WARNING -

PLUG THE MACHINE INTO A GROUNDED
CIRCUIT.

1. Plug the machine into a grounded outlet. The convenience outlet in the machine is active.
2. Flip the power switch ON. A vital functions self-test occurs on the microprocessing unit (MPU) board. The general illumination lamps light, The monitor displays information depending on game state when power was removed.

NOTE: If a malfunction occurs, see Section 5, TROUBLESHOOTING, under Power Up Malfunctions in your Operator Instructions Manual.

3. Take the machine's meter readings for your records. Turn the key switch on the right side of the machine (see Fig. 5), the Bookkeeping Meters appear on the screen. See Section 3, MACHINE OPERATIONS under Bookkeeping Meters in your Operator Instructions Manual.

Diagnostic Tests

Your machine is equipped with a complete set of Diagnostic Tests. See your Operator Instructions Manual for a description of all tests.

- | | |
|---------|-----------------------------|
| Test #1 | 01 PROM TEST |
| Test #2 | 02 OUTPUT TEST |
| Test #3 | 03 INPUT TEST |
| Test #4 | 04 HOPPER TEST |
| Test #5 | 05 COLOR AND VIDEO RAM TEST |
| Test #6 | 06 OPTIONING |
| Test #7 | 07 UART TEST |
| Test #8 | 08 COLOR BAR TEST |

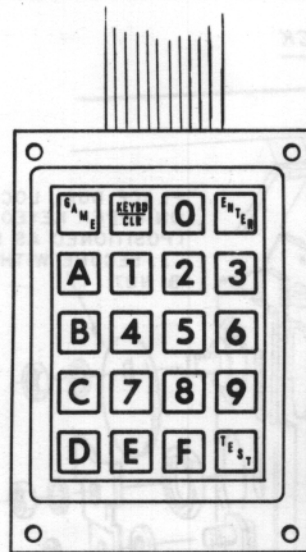


Fig. 5

Poker and 2nd Chance DIP Switch Options

The DIP switches are on the MPU board at location SW2. The following DIP switches have assigned functions. See Section 5, MAINTENANCE AND REPAIR under Replace Printed Circuit Boards in your Operator Instructions Manual.

<u>DIP Switch</u>	<u>Setting</u>	<u>Option</u>
1	ON OFF	Onscreen pay schedule No onscreen pay schedule
5	ON OFF	Single column onscreen pay schedule, updates with each coin played. Multiple column onscreen pay schedule A column is onscreen for each coin up to a 5 coin maximum game. As a coin is wagered the correct pay schedule column is highlighted. Over a 5 coin maximum game, the onscreen pay schedule displays 3 columns. The first column shows the pay schedule for the number of coins presently wagered. The second column shows the pay schedule for the next coin. The third column shows the pay schedule for the maximum coins in for the game. The first column is highlighted until one coin minus the maximum are in, then the second column highlights. On maximum coins in the third column is highlighted.
*6	ON OFF	No automatic HOLD Automatic HOLD on straights or better

* For New Jersey, DIP Switch 6 is disabled.

Keno DIP Switch Options

The DIP switches are on the MPU board at location SW2. The following DIP switches have assigned functions. See Section 5, MAINTENANCE AND REPAIR under Replace Printed Circuit Boards in your Operator Instructions Manual.

<u>DIP Switch</u>	<u>Setting</u>	<u>Option</u>
1	ON OFF	Reserve Disable - reserve
4	ON OFF	Disable - Single number erase Single number erase
5	ON OFF	Disable - UGDM (Universal Graphics Display Module) UGDM

UGDM Board DIP Switch Options

The DIP Switches are on the UGDM Board at location SW2. The following DIP switches have assigned functions. See Section 5, MAINTENANCE AND REPAIR under Replace Printed Circuit Boards in your Operator Instructions Manual.

<u>DIP Switch</u>	<u>Setting</u>	<u>Option</u>
1	ON OFF	Pay schedule condensed to leave room for animation Standard size pay schedule
2	ON OFF	Ticket amount appears in dollars (U.S. only) No ticket amount appears
4	ON OFF	Win amount appears in dollars (U.S. only) Win amount appears in number of coins

Blackjack DIP Switch Options

The DIP switches on the MPU board at location SW2 are not used with blackjack, so their settings have no effect on the game.

Initialize Keypad Options

Use the keypad to initialize options for the available commands. To initialize or check an option, follow these steps:

1. The machine must be in the Game Over state.
2. The credit meter must show "0" credits before opening the door.
3. Open the lower machine door.
4. Connect the keypad to the backplane at J14.
5. Press "GAME" and the Diagnostic menu appears.
6. Press "06" to select the "OPTIONING" item on the Main Diagnostic Menu.
7. Press the command numbers for the desired command. See **KEYPAD COMMAND/OPTION TABLE** in your Operator Instructions Manual. The command, its number, and the presently set option number appear.
8. If the option setting is correct, press "KEYBD/CLR" to return to the OPTIONS menu.
9. To change the option, press the option numbers. They appear beside "OPTION:" on the screen.
10. Press "ENTER". The new option numbers appear beside "SETTING:".
11. Press another command number or "KEYBD/CLR" to continue.

OPTIONS

ENTER COMMAND: 08

COLOR SELECTION

OPTION:

SETTING: 01

To return to the Game Over state, press "GAME" twice, remove the keypad, or close the door.

NOTE: Check that the option settings and the machine's display glass match.

POKER AND 2ND CHANCE

KEYPAD COMMAND/OPTION DEFAULT TABLE

	Commands	Command Number	Default	Option
NON-CREDIT GAME	Even hand pay	04	00	no even hand pay
	Extra coin option	05	00	extra coin credited to next game
	# of handpay lockups	07	00	no lockups for link or double progressive
	High lockup amount	56	0800	number of coins for a win to equal or exceed which locks up the machine
	High drop amount	54	0400	number of coins paid from hopper on a high lockup
	Low lockup amount	57	0400	number of coins for a win to equal or exceed which locks up the machine
	Low drop amount	55	0200	number of coins paid from hopper on a low lockup
CREDIT GAME	Credit type	27	00	non-credit
	Coin lockout/credit	52	0000	coins accepted with any number of credits
	Credit top limit	51	9999	maximum credits that can register on credit meter
	Credit game lockup	34	00	all wins paid to credit meter
	Collect lockup	59	1000	
	Collect drop amt	58	0200	number of coins paid from hopper on collect lockup
Either CREDIT or NON-CREDIT GAME	Mistake sound	31	00	same default for all sounds, which is sound 1
	Button sound	33		
	Coin in sound	35		
	Max coin in	36		
	Credit payout sound	39		
	Hopper payout sound	40		
	Attendant sound	41		
	Lockup sound	42		
	Super jackpot sound	43		
	Door open sound	44		
	Tilt sound	45		
	Color selection	08	00	blue
	Miser type	16	00	no miser
	Coin denomination	10	00	\$25. The bill changer does not accept any bills.
	Game speed	22	00	standard game speed
	Double or nothing	25	00	no double or nothing
	Auto start	32	00	no automatic start
	Set I.D.	50	0000	no identification number
	Lockup all bets	12	00	no lockup condition
	Lockup max bet	17	00	no lockup condition
	Partial meter return	83	00000000000000	all 13 bookkeeping meters are sent
	Maximum coin	60	The defaults for 60, 61, 71 are personality dependent.	
	Royal flush-base pay	61		
	Royal fl-max bet pay	71		

KENO

KEYPAD COMMAND/OPTION DEFAULT TABLE

	Commands	Command Number	Default	Option
NON-CREDIT GAME	Even hand pay	04	00	no even hand pay
	Extra coin option	05	00	extra coin credited to next game
	# of handpay lockups	07	00	no lockups for link or double progressive
	Maximum coin	60		The default is personality dependent
	High lockup amount	56	0800	number of coins for a win to equal or exceed which locks up the machine
	High drop amount	54	0400	number of coins paid from hopper on a high lockup
	Low lockup amount	57	0400	number of coins for a win to equal or exceed which locks up the machine
	Low drop amount	55	0200	number of coins paid from hopper on a low lockup
CREDIT GAME	Credit type	27	00	non-credit
	Coin lockout/credit	52	0000	coins accepted with any number of credits
	Credit top limit	51	9999	maximum credits that can register on credit meter
	Credit game lockup	34	00	all wins paid to credit meter
	Collect lockup	59	1000	
	Collect drop amt	58	0200	number of coins paid from hopper on collect lockup
Either CREDIT or NON-CREDIT GAME	Mistake sound	31	00	same default for all sounds, which is sound 1
	Button sound	33		
	Coin in sound	35		
	Max coin in	36		
	Credit payout sound	39		
	Hopper payout sound	40		
	Attendant sound	41		
	Lockup sound	42		
	Super jackpot sound	43		
	Door open sound	44		
	Tilt sound	45		
	Pick number sound	47		
	Match numbers sound	48		
	Color selection	08	00	blue
	Miser type	16	00	no miser
	Coin denomination	10	00	\$25. The bill changer does not accept any bills.
	Game speed	22	00	standard game speed
	Double or nothing	25	00	no double or nothing
	Set I.D.	50	0000	no identification number
	Partial meter return	83	000000000000	all 13 bookkeeping meters are sent

BLACKJACK

KEYPAD COMMAND/OPTION DEFAULT TABLE

	Commands	Command Number	Default	Option
NON-CREDIT GAME	Even hand pay	04	00	no even hand pay
	Extra coin option	05	00	extra coin credited to next game
	# of handpay lockups	07	00	no lockups for link or double progressive
	Maximum coin	60		The default is personality dependent
	High lockup amount	56	0800	number of coins for a win to equal or exceed which locks up the machine
	High drop amount	54	0400	number of coins paid from hopper on a high lockup
	Low lockup amount	57	0400	number of coins for a win to equal or exceed which locks up the machine
	Low drop amount	55	0200	number of coins paid from hopper on a low lockup
CREDIT GAME	Credit type	27	00	non-credit
	Coin lockout/credit	52	0000	coins accepted with any number of credits
	Credit top limit	51	9999	maximum credits that can register on credit meter
	Credit game lockup	34	00	all wins paid to credit meter
	Collect lockup	59	1000	
	Collect drop amt	58	0200	number of coins paid from hopper on collect lockup
Either CREDIT or NON-CREDIT GAME	Mistake sound	31	00	same default for all sounds, which is sound 1
	Button sound	33		
	Coin in sound	35		
	Max coin in	36		
	Credit payout sound	39		
	Hopper payout sound	40		
	Attendant sound	41		
	Lockup sound	42		
	Super jackpot sound	43		
	Door open sound	44		
	Tilt sound	45		
	Color selection	08	00	blue
	Miser type	16	00	no miser
	Coin denomination	10	00	\$25. The bill changer does not accept any bills.
	Game speed	22	00	standard game speed
	Auto start	32	00	no automatic start
	Set I.D.	50	0000	no identification number
	Partial meter return	83	00000000000000	all 13 bookkeeping meters are sent

KEYPAD ERROR MESSAGE TABLE

Message	Description	Procedure
INVALID TEST	The item number selected from the Diagnostic menu is not implemented.	Press "KEYBD/CLR" to begin again.
NOT IMPLEMENTED	The command number entered is not used.	Press "KEYBD/CLR" to begin again.
INVALID LENGTH	The length (number of digits) of the option is either too long or too short.	Press "KEYBD/CLR" to begin again.
INVALID OPTION	The option number entered is not valid for that particular command.	Press "KEYBD/CLR" to begin again.
NON NUMERIC OPTION	The option value entered is not a number.	Press "KEYBD/CLR" to begin again.
NON NUMERIC COMMAND	The command value entered is not a number.	Press "KEYBD/CLR" to begin again.
NOT PERMITTED-CHECK CREDITS	The credit meter must show "0" credits to set an option	Clear the credit meter by pressing the "COLLECT CREDITS" button.
NOT PERMITTED-CHECK STATE	Tried to set an option from a Tilt state	Press "Game" to return to Diagnostic menu.
KEYPAD REVERSED		Reverse the keypad connector

Bookkeeping Meters

To view the bookkeeping meters, actuate the key switch on the machine's side. The machine must be in the Game Over state, a Tilt state, or the Coining state. The bookkeeping meters account for all valid wagers and wins on a machine. These meters increment from 1 to 999,999 then rollover to begin at zero. They cannot be reset through a machine function. Coins are locked out when reading the bookkeeping meters.

NOTE: When the machine door is open, wagers and wins are not counted on any meters.

BOOKKEEPING METER TABLE

Message	Description
COIN IN	Records each coin/token inserted into the machine for the purpose of a valid wager
COIN OUT	Records each coin/token dispensed from the hopper including change
TOTAL GAMES	Records the total number of game cycles executed by the machine with the door closed. It is incremented as the "DEAL/DRAW" button is pressed.
TOTAL IN	Records total valid wagers, both coins/tokens and credits
TOTAL OUT	Records the total number of coins/tokens paid by the hopper, credits wagered, and change given both from the hopper and from the credit meter
DOOR OPEN	Records the number of times the front door of the machine is opened. It increments once each time the door status changes from closed to open.
SUPER JACKPOT	Records the number of highest attainable jackpot (Super Jackpot) lockup wins
ATTENDANT PAY	Records the total number of times an attendant has made a payout. It is incremented after the payout when the attendant actuates the key switch.
HAND PAID	Records the total amount paid by the attendant
COIN DROP	Records the each coin/token from a valid wager that fall to the cash bucket below the machine
GAMES PLAY RESET	Records the number of games played since a reset (power up or press "RESET" button)
GAMES PLAY CLOSE	Records the number of games played with the door closed. It resets to "0" with every door closing.

Poker and 2nd ChanceLast Game Record

To view the last game, press the "PRESS FOR SERVICE" button during or immediately after viewing the bookkeeping meters. The last game display appears. This includes the first hand and final hand of cards, coins/credits wagered, wins, second chance information, double or nothing information, paid meter, credit meter, cards held, and any information, such as tilts, door open, and reset.

Previous Game Record

To view the previous game (the game before the last game), press the "PRESS FOR SERVICE" button 2 times during or immediately after viewing the bookkeeping meters. The same types of information as the last game appears on the screen for the previous game.

Win Records

To view the win records, press the "PRESS FOR SERVICE" button 3 times during or immediately after viewing the bookkeeping meters.

The win records have several screens depending upon the maximum coins in optioned for the game. The first screen is always the Total. (Fig. 6)

Press "PRESS FOR SERVICE" for the next screens. For example, A game of 30 coins in maximum has 9 win record screens. The titles and their order of appearance are as follows:

WIN RECORD: TOTAL

WIN RECORD: 1

WIN RECORD: 2

WIN RECORD: 3

WIN RECORD: 4

WIN RECORD: 5

WIN RECORD: MAXBET

WIN RECORD: 1-19

WIN RECORD: 20-39

WIN RECORD: TOTAL

STD.

ROYAL FLUSH	0
5 OF A KIND	0
JOKER ROYAL	0
STRAIGHT FLUSH	0
4 OF A KIND	0
FULL HOUSE	0
FLUSH	0
STRAIGHT	1
3 OF A KIND	1
2 PAIR	3
HIGH PAIR	0

Fig. 6

Data Transmission from Machine

The Receive/Transmit (RX/TX) board on the machine's lower right side is where data is transmitted from the machine. Actuate the key switch on the side of the machine 1 time. The marketing meters appear on the screen and the following meters are transmitted through the RX/TX, in the order listed below, to the Hand Held Unit.

Poker:

- 1) One Coin Games played
- 2) Two Coin Games played
- 3) Three Coin Games Played
- 4) Four Coin Games played
- 5) Five Coin Games played
- 6) Max Coin Games played
- 7) Credit Collects
- 8) Play One Credit
- 9) Play Max Credit
- 10) Service Button
- 11) Resets
- 12) Power Ups
- 13) Pseudo Coin Button
- 14) Hopper Reverse (for autojam clear)
- 15) Coin In Jam Tilts
- 16) Coin Reverse Tilts
- 17) Inappropriate Coin In Tilts
- 18) Hopper Empty Tilts
- 19) Hopper Jam Tilts
- 20) Over Pay Tilts
- 21) Rest during Payout Tilts
- 22) Check Battery Tilts
- 23) Double Down Offered
- 24) Double Down Played

On Second Chance Poker:

- 23) Second Chance Offered
- 24) Second Chance Played

KenoLast Game Record

To view the last game, press the "PRESS FOR SERVICE" button during or immediately after viewing the bookkeeping meters. The last game display appears. This includes the Keno card screen with the numbers picked and hit, coins/credits wagered, wins, double or nothing information, paid meter, credit meter, and any information, such as tilts, door open, and reset.

Previous Game Record

To view the previous game (the game before the last game), press the "PRESS FOR SERVICE" button 2 times during or immediately after viewing the bookkeeping meters. The same types of information as the last game appears on the screen for the previous game.

Win Records

To view the win records, press the "PRESS FOR SERVICE" button 3 times during or immediately after viewing the bookkeeping meters.

The win records have several screens one for each amount of numbers that can be picked up to the maximum for the game. For example, if 1 to 10 numbers may be picked for one game, 10 screens would be available to view.

In a game with 6 numbers picked, the amount of numbers that can be matched are listed with the number of games in which their matching occurred. (Fig.7) The number of games is accumulated.

Press "PRESS FOR SERVICE" for the next screens. After the last screen which is the maximum number of picked numbers, the bookkeeping meters appear.

6 NUMBERS PICKED	
MATCHED	OCCURRENCE
0	0
1	2
3	0
4	1
5	1
6	0

Fig. 7

Data Transmission from Machine

The Receive/Transmit (RX/TX) board on the machine's lower right side is where data is transmitted from the machine. Actuate the key switch on the side of the machine 1 time. The marketing meters appear on the screen and the following meters are transmitted through the RX/TX, in the order listed below, to the Hand Held Unit.

Keno:

- 1) One Coin Games played
- 2) Two Coin Games played
- 3) Three Coin Games Played
- 4) Four Coin Games played
- 5) Five Coin Games played
- 6) Max Coin Games played
- 7) Credit Collects
- 8) Play One Credit
- 9) Play Max Credit
- 10) Service Button
- 11) Resets
- 12) Power Ups
- 13) Pseudo Coin Button
- 14) Hopper Reverse (for autojam clear)
- 15) Coin In Jam Tilts
- 16) Coin Reverse Tilts
- 17) Inappropriate Coin In Tilts
- 18) Hopper Empty Tilts
- 19) Hopper Jam Tilts
- 20) Over Pay Tilts
- 21) Rest during Payout Tilts
- 22) Check Battery Tilts
- 23) Double or Nothing Offered
- 24) Double or Nothing Played
- 25) Start Button
- 26) Start Screen
- 27) Erase Button
- 28) Erase Screen

KenoLast Game Record

To view the last game, press the "PRESS FOR SERVICE" button during or immediately after viewing the bookkeeping meters. The last game display appears. This includes the Keno card screen with the numbers picked and hit, coins/credits wagered, wins, double or nothing information, paid meter, credit meter, and any information, such as tilts, door open, and reset.

Previous Game Record

To view the previous game (the game before the last game), press the "PRESS FOR SERVICE" button 2 times during or immediately after viewing the bookkeeping meters. The same types of information as the last game appears on the screen for the previous game.

Win Records

To view the win records, press the "PRESS FOR SERVICE" button 3 times during or immediately after viewing the bookkeeping meters.

The win records have several screens one for each amount of numbers that can be picked up to the maximum for the game. For example, if 1 to 10 numbers may be picked for one game, 10 screens would be available to view.

In a game with 6 numbers picked, the amount of numbers that can be matched are listed with the number of games in which their matching occurred. (Fig.7) The number of games is accumulated.

Press "PRESS FOR SERVICE" for the next screens. After the last screen which is the maximum number of picked numbers, the bookkeeping meters appear.

6 NUMBERS PICKED	
MATCHED	OCCURRENCE
0	0
1	2
3	0
4	1
5	1
6	0

Fig. 7

Data Transmission from Machine

The Receive/Transmit (RX/TX) board on the machine's lower right side is where data is transmitted from the machine. Actuate the key switch on the side of the machine 1 time. The marketing meters appear on the screen and the following meters are transmitted through the RX/TX, in the order listed below, to the Hand Held Unit.

Keno:

- 1) One Coin Games played
- 2) Two Coin Games played
- 3) Three Coin Games Played
- 4) Four Coin Games played
- 5) Five Coin Games played
- 6) Max Coin Games played
- 7) Credit Collects
- 8) Play One Credit
- 9) Play Max Credit
- 10) Service Button
- 11) Resets
- 12) Power Ups
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- 16) Coin Reverse Tilts
- 17) Inappropriate Coin In Tilts
- 18) Hopper Empty Tilts
- 19) Hopper Jam Tilts
- 20) Over Pay Tilts
- 21) Rest during Payout Tilts
- 22) Check Battery Tilts
- 23) Double or Nothing Offered
- 24) Double or Nothing Played
- 25) Start Button
- 26) Start Screen
- 27) Erase Button
- 28) Erase Screen

BlackjackLast Game Record

To view the last game, press the "PRESS FOR SERVICE" button during or immediately after viewing the bookkeeping meters. The last game display appears. This includes the player and dealer hands, coins/credits wagered, wins, paid meter, credit meter, option used (insurance, split, double down, surrender) and any information, such as tilts, door open, and reset.

Previous Game Record

To view the previous game (the game before the last game), press the "PRESS FOR SERVICE" button 2 times during or immediately after viewing the bookkeeping meters. The same types of information as the last game appears on the screen for the previous game.

Data Transmission from Machine

The Receive/Transmit (RX/TX) board on the machine's lower right side is where data is transmitted from the machine. Actuate the key switch on the side of the machine 1 time. The marketing meters appear on the screen and the following meters are transmitted through the RX/TX, in the order listed below, to the Hand Held Unit.

Blackjack

- 1) One Coin Games played
- 2) Two Coin Games played
- 3) Three Coin Games Played
- 4) Four Coin Games played
- 5) Five Coin Games played
- 6) Max Coin Games played
- 7) Credit Collects
- 8) Play One Credit
- 9) Play Max Credit
- 10) Service Button
- 11) Resets
- 12) Power Ups
- 13) Pseudo Coin Button
- 14) Hopper Reverse (for autojam clear)
- 15) Coin In Jam Tilts
- 16) Coin Reverse Tilts
- 17) Inappropriate Coin In Tilts
- 18) Hopper Empty Tilts
- 19) Hopper Jam Tilts
- 20) Over Pay Tilts
- 21) Rest during Payout Tilts
- 22) Check Battery Tilts
- 23) Double or Nothing Offered
- 24) Double or Nothing Played
- 25) Split
- 26) Double Down
- 27) Insurance
- 28) Surrender

Electro-Mechanical Meters

These meters duplicate the corresponding electronic meters. These meters are displayed at the top left edge of the display glass on the lower front door. In order to read the meters, position oneself to look up under the top left edge of the display glass bracket. Reading the meters from left to right with the door closed, they are as follows.

TOTAL IN	TOTAL OUT	CASHBOX (DROP METER)	ATTENDANT PAID (HAND PAID) (LOCK UP)	GAMES PLAYED (TOTAL GAMES) (HANDLE PULLS)
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The meters are labeled on the meter assembly inside the lower door.

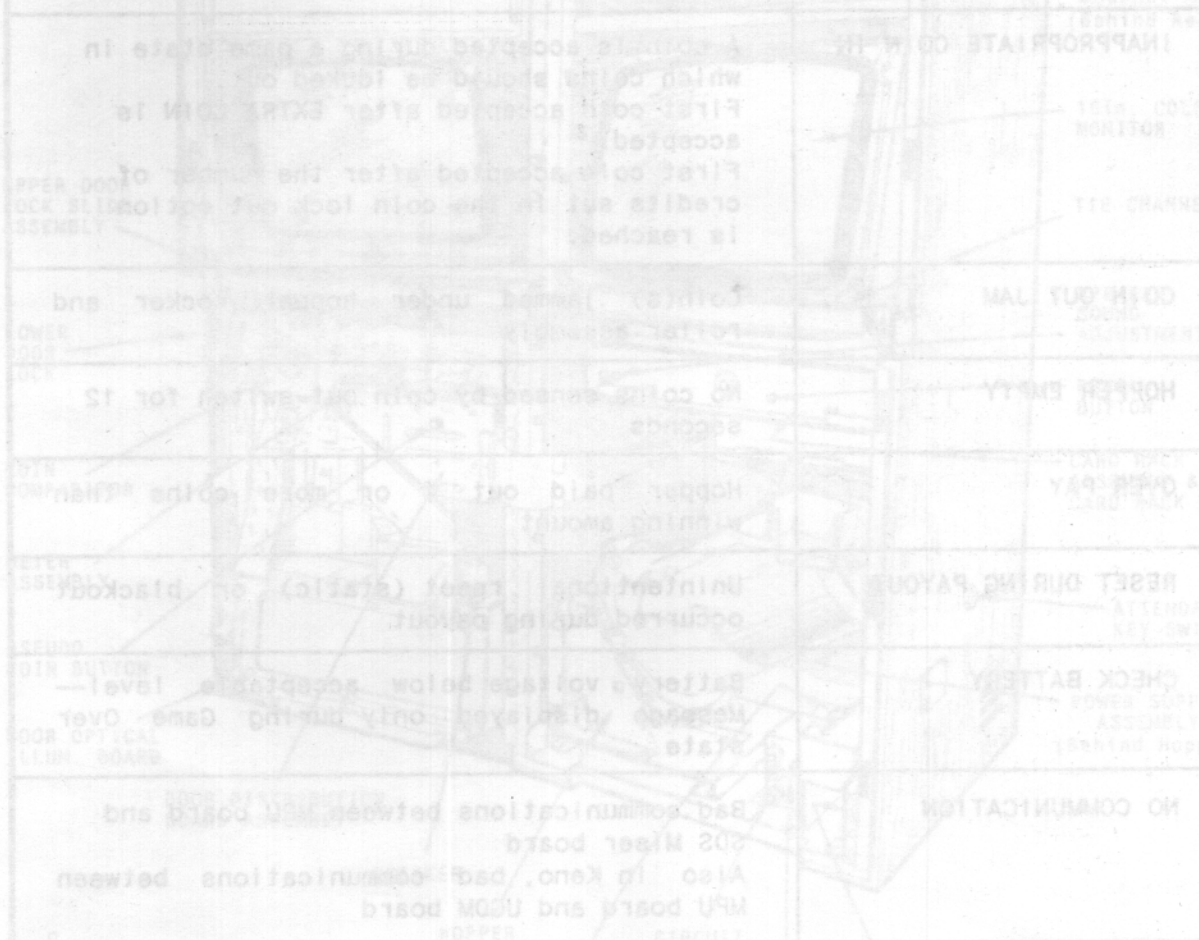


Fig. 1

Tilts (cont'd)

MALFUNCTION TILT TABLE

TILT MESSAGE	MALFUNCTION CONDITION
ROM ERROR	Bad game program EPROMs See <u>Replace Game EPROMs</u>
COIN IN JAM	No sample coin in comparator on power up Coin stuck in comparator or took too long to pass through--loosen the rail adjustment
COIN REVERSE	Stringing of a coin Coin bounced up--adjust the rail in the coin comparator
INAPPROPRIATE COIN IN	A coin is accepted during a game state in which coins should be locked out. First coin accepted after EXTRA COIN is accepted. First coin accepted after the number of credits set in the coin lock out option is reached.
COIN OUT JAM	Coin(s) jammed under hopper rocker and roller assembly
HOPPER EMPTY	No coins sensed by coin out switch for 12 seconds
OVER PAY	Hopper paid out 1 or more coins than winning amount
RESET DURING PAYOUT	Unintentional reset (static) or blackout occurred during payout
CHECK BATTERY	Battery voltage below acceptable level-- Message displayed only during Game Over state
NO COMMUNICATION	Bad communications between MPU board and SDS Miser board Also in Keno, bad communications between MPU board and UGDM board

LUBRICATION GUIDE

- (L) INDICATES ...USE HEAVY
DUTY HYDROTEX LUBE #651
- (O) ...USE MELVIS 1A OIL

BOTH ENDS OF SHAFT OF
LOCK PAWL ASSEMBLY
THAT COME THRU BUSHINGS
IN BOTH SIDE PLATES

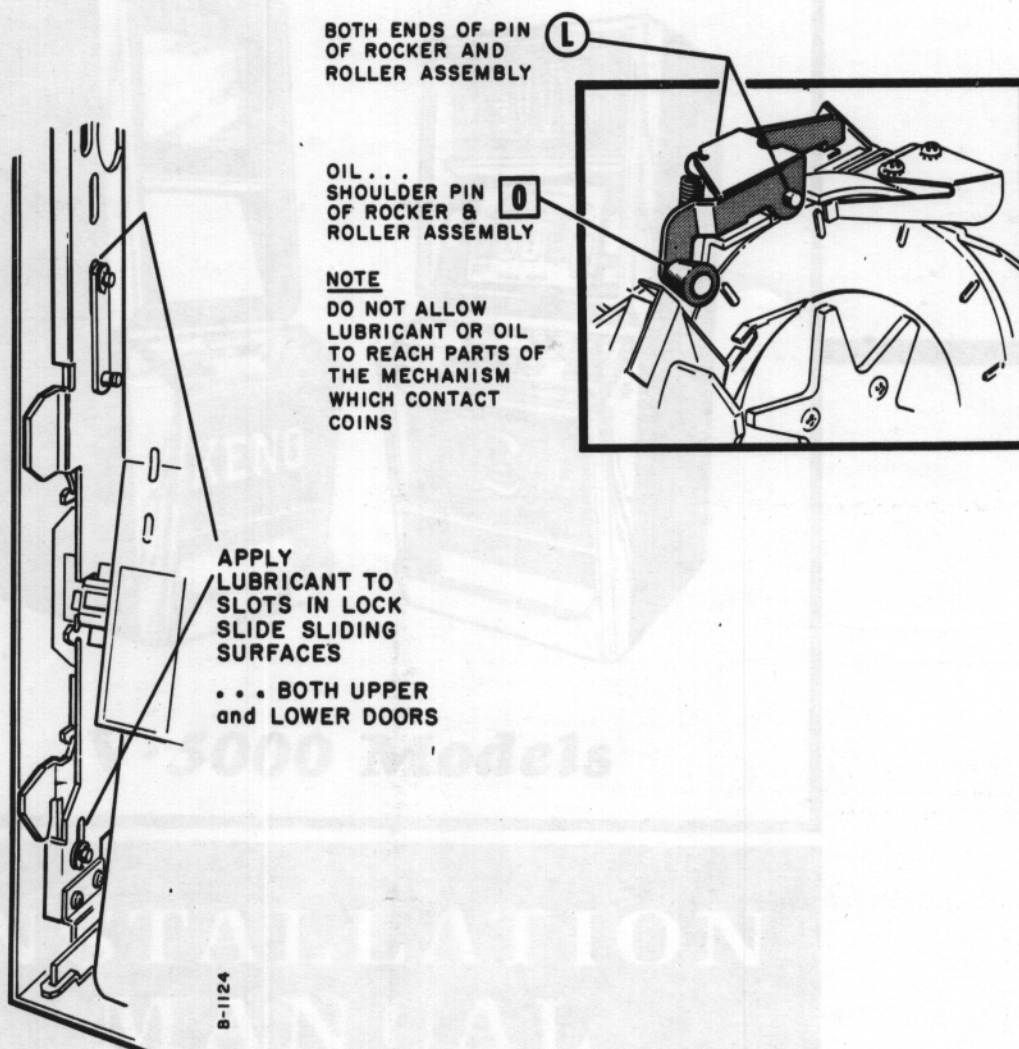
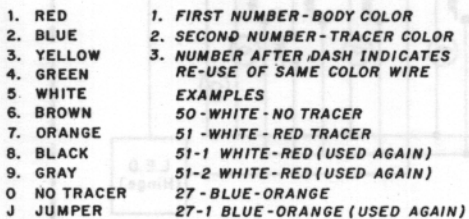
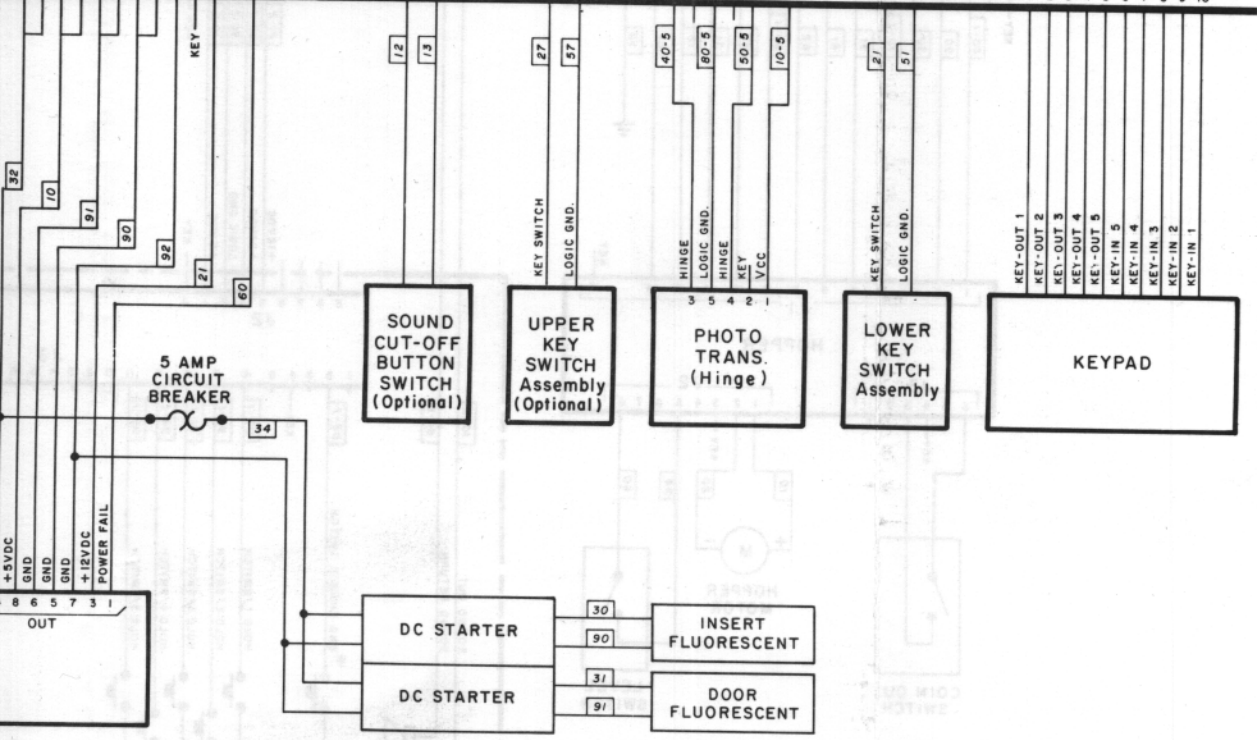
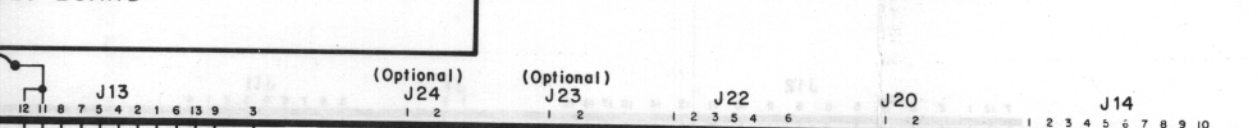
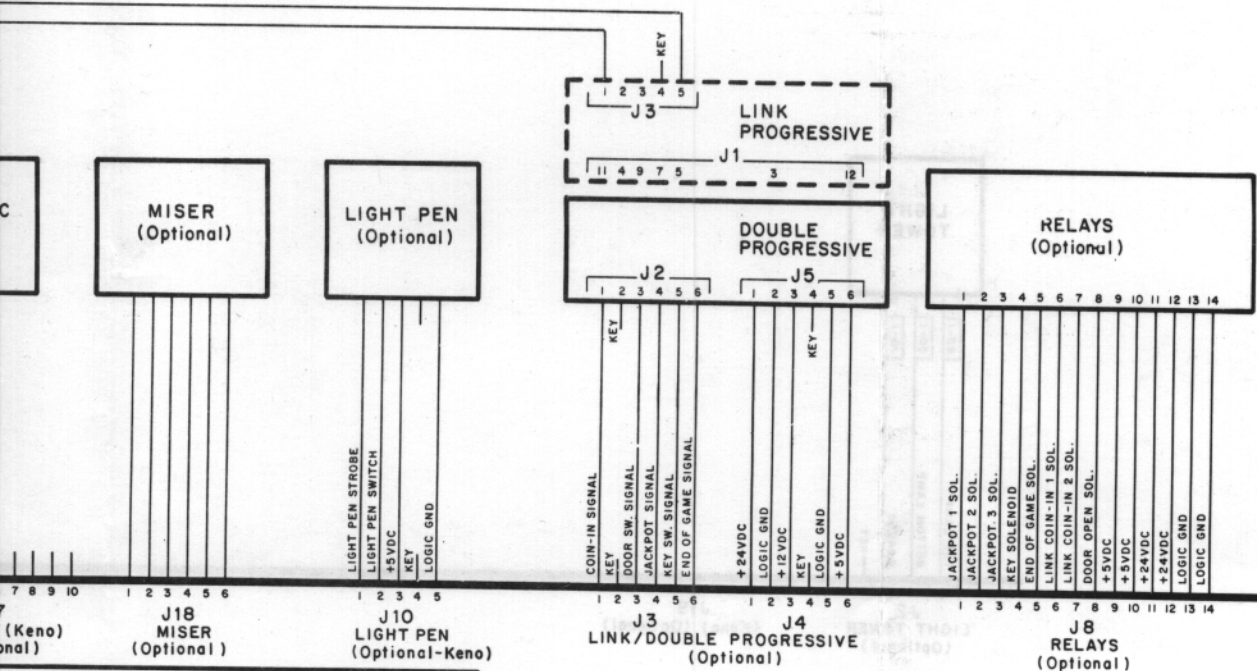
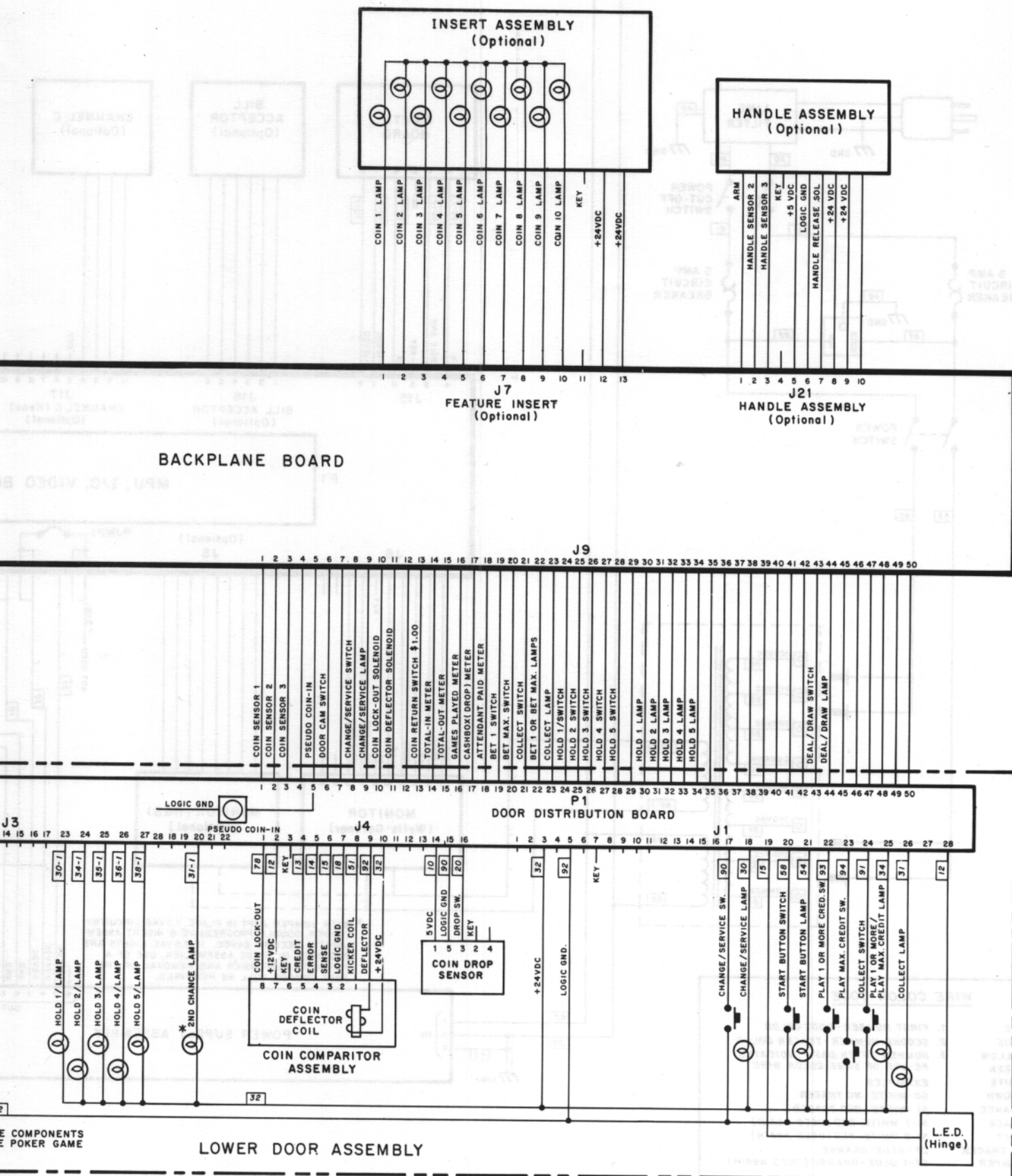
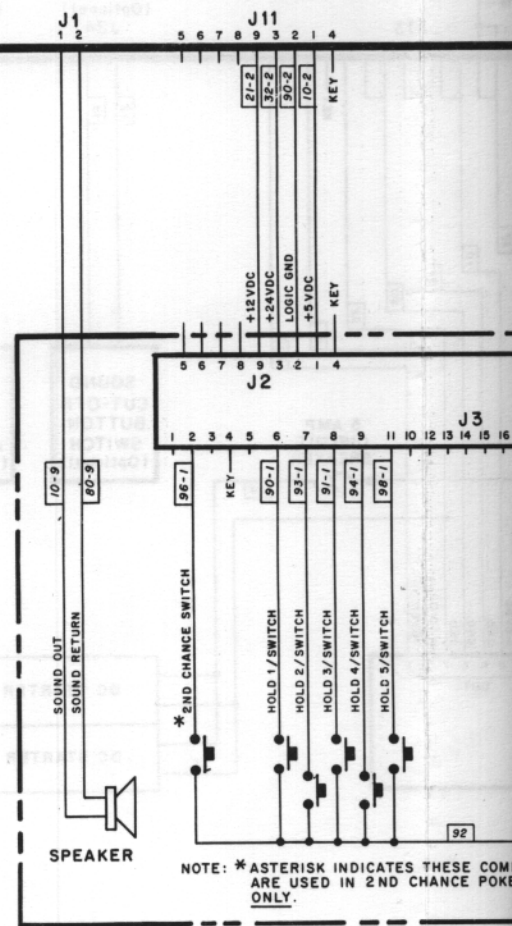
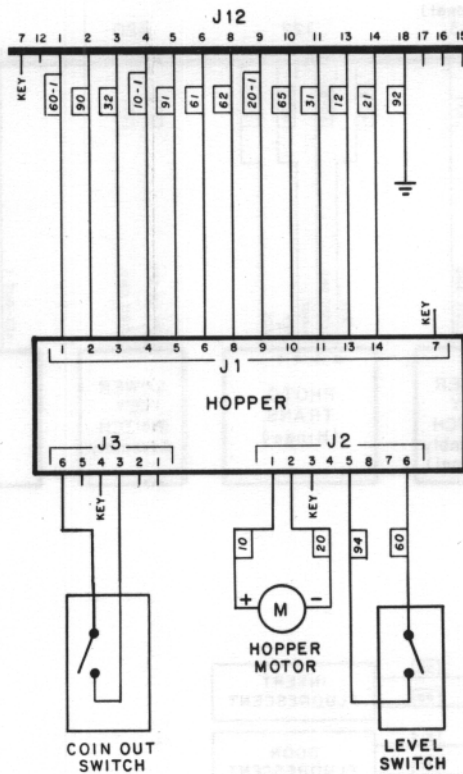
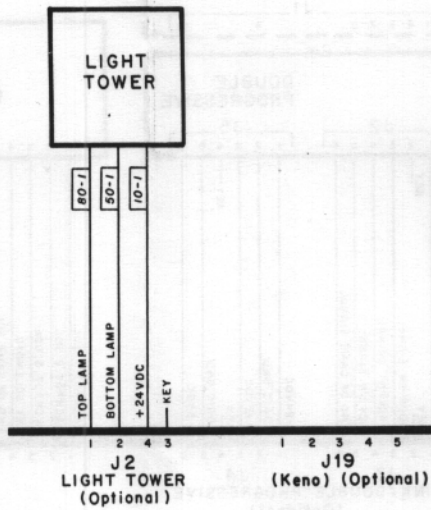


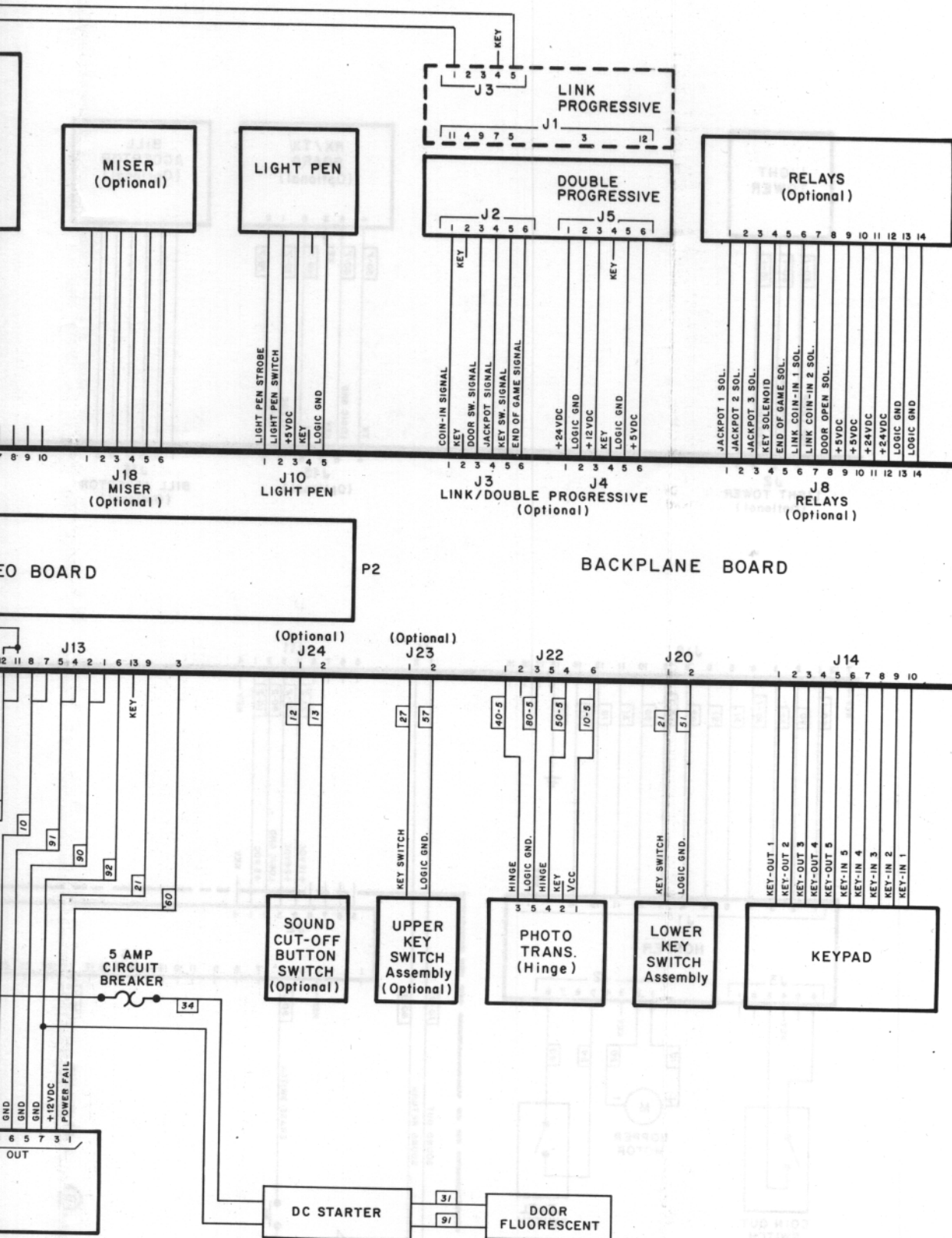
Fig. 8

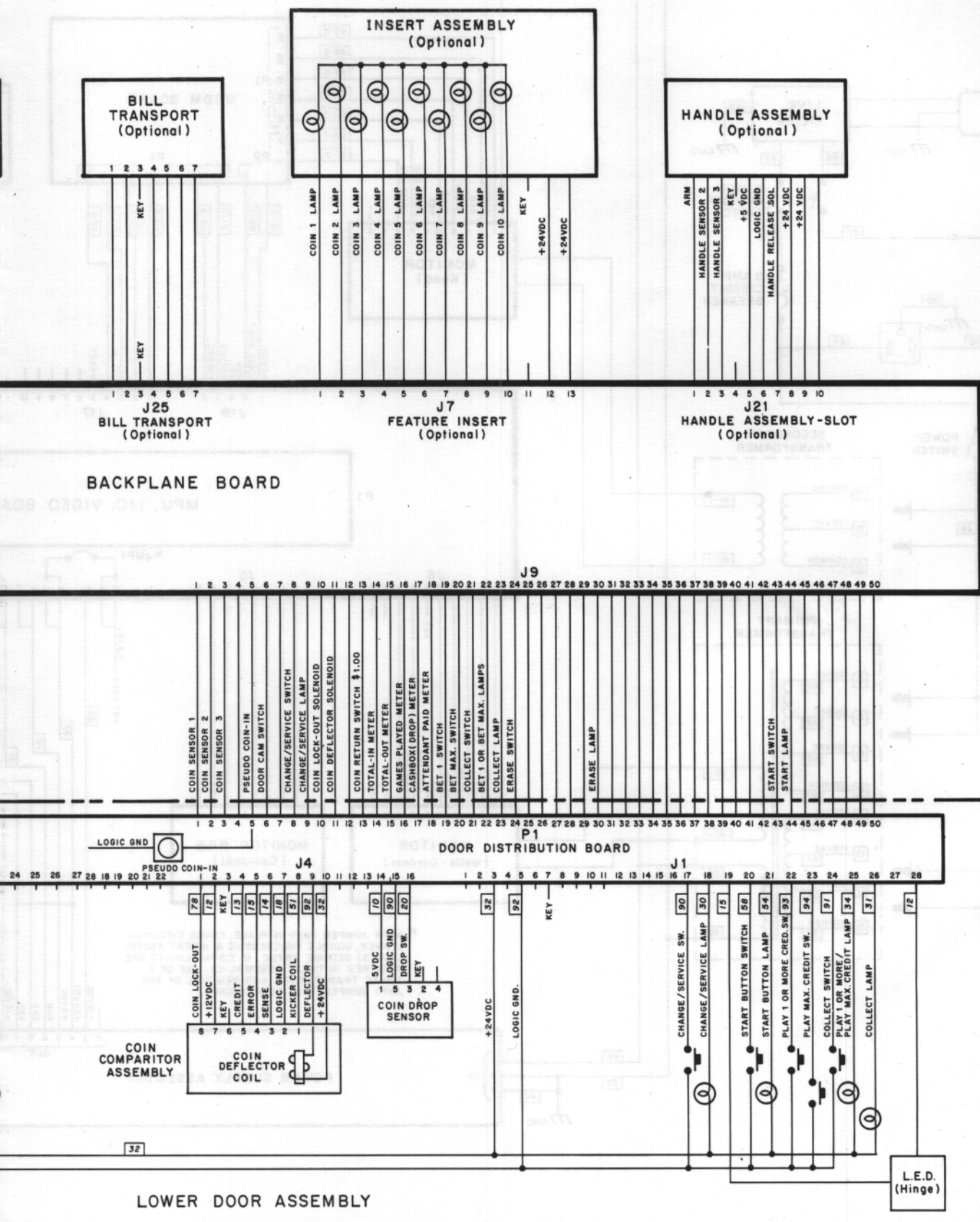


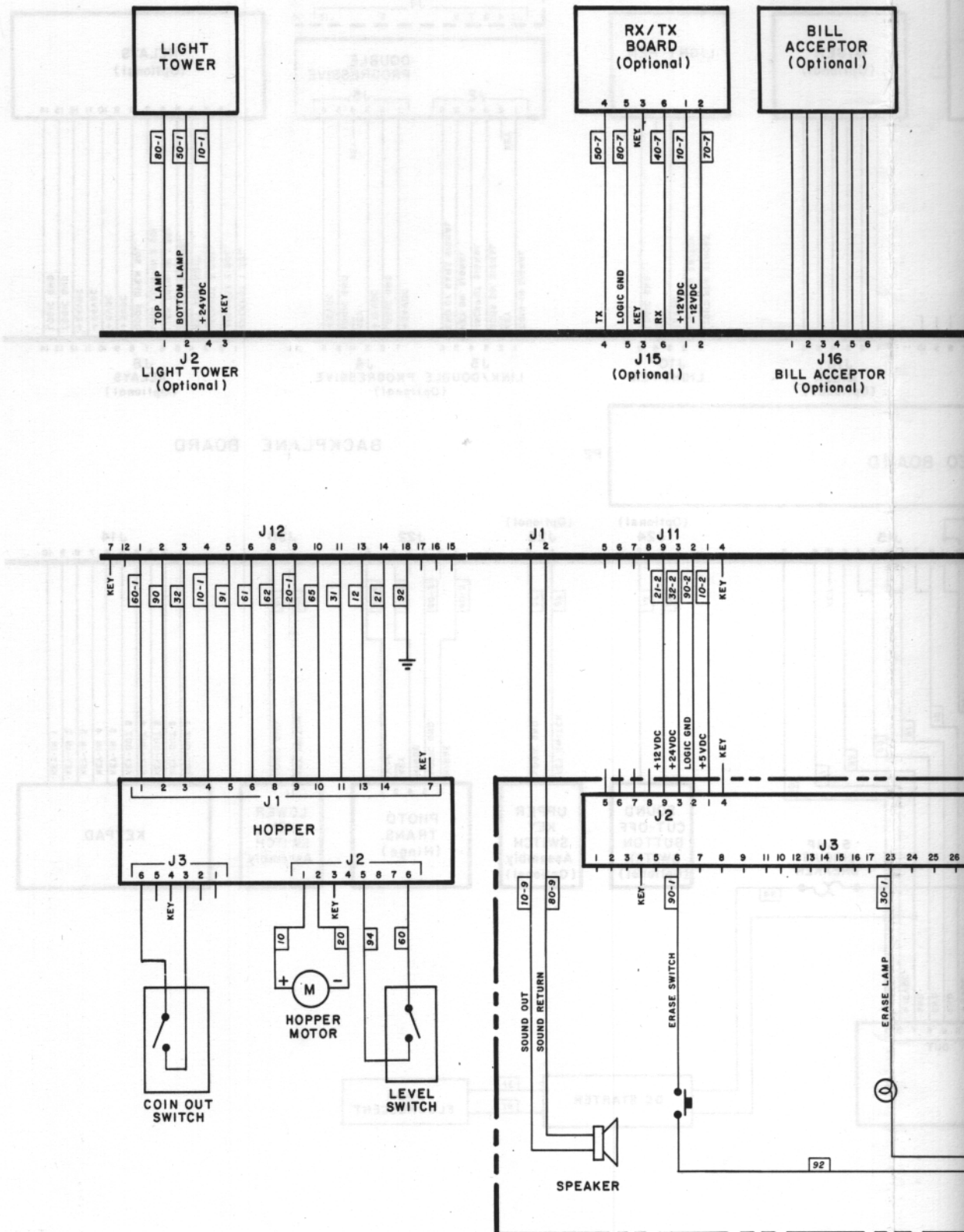


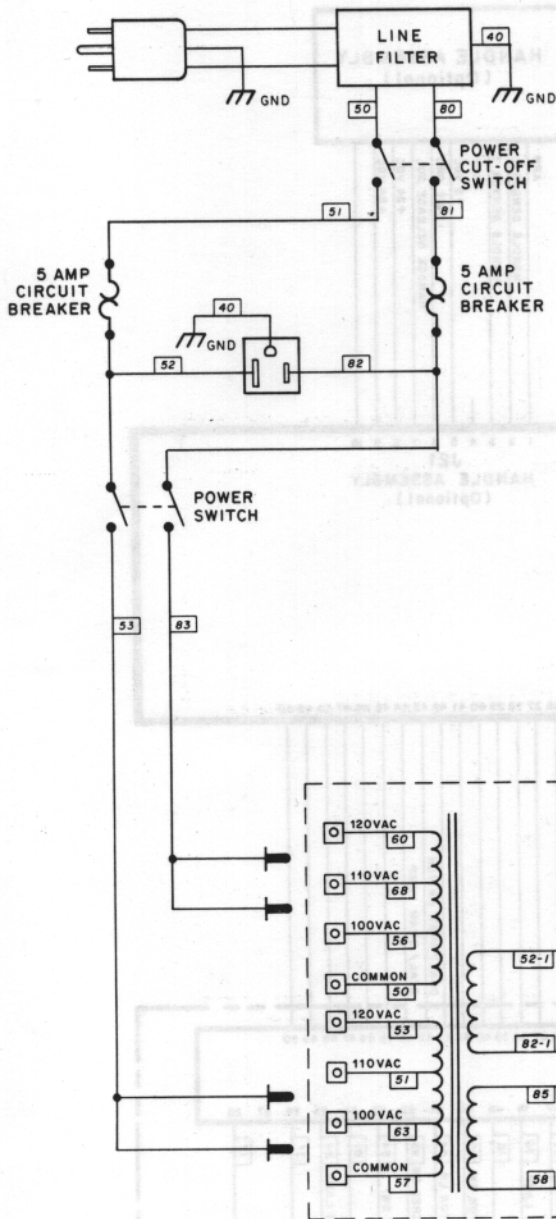












WIRE COLOR CODE

- | | |
|--------------|--|
| 1. RED | 1. FIRST NUMBER - BODY COLOR |
| 2. BLUE | 2. SECOND NUMBER - TRACER COLOR |
| 3. YELLOW | 3. NUMBER AFTER DASH INDICATES RE-USE OF SAME COLOR WIRE |
| 4. GREEN | |
| 5. WHITE | EXAMPLES |
| 6. BROWN | 50 - WHITE - NO TRACER |
| 7. ORANGE | 51 - WHITE - RED TRACER |
| 8. BLACK | 51-1 WHITE-RED (USED AGAIN) |
| 9. GRAY | 51-2 WHITE-RED (USED AGAIN) |
| 0. NO TRACER | 27 - BLUE-ORANGE |
| J. JUMPER | 27-1 BLUE-ORANGE (USED AGAIN) |

