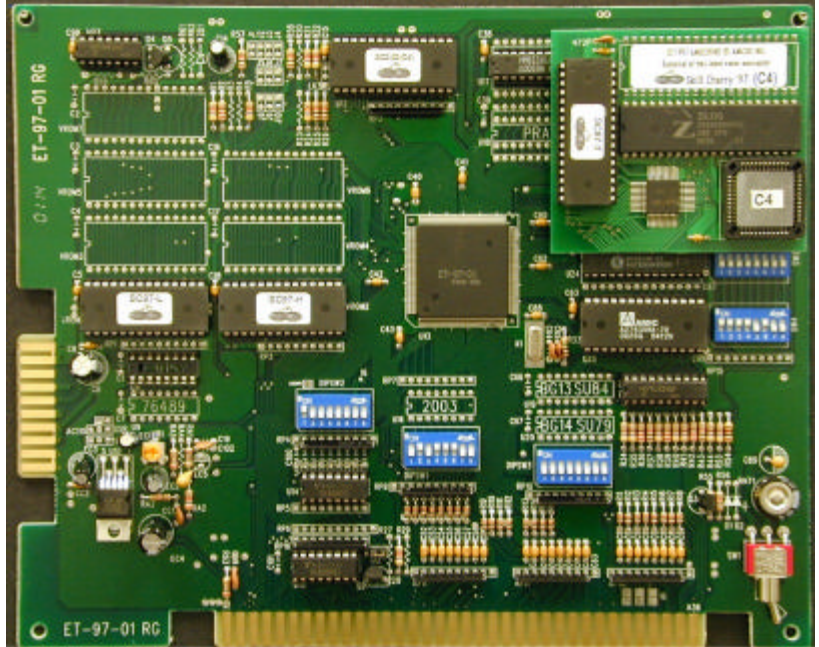


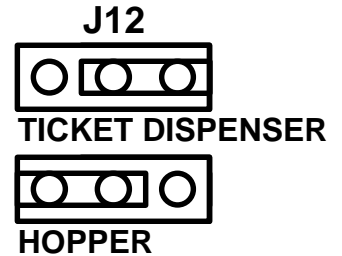
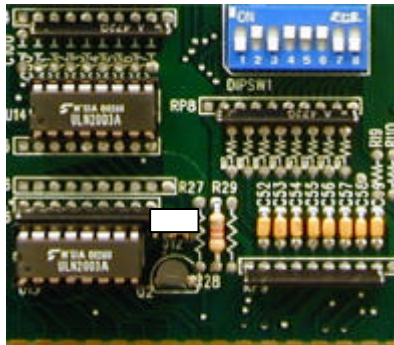
# SKILL '98™ ©1998 AMUCHINE® (A true skill game)

	PARTS SIDE	SOLDER SIDE	
1	VIDEO RED	VIDEO GREEN	1
2	VIDEO BLUE	VIDEO SYNC	2
3	SPEAKER+	SPEAKER-	3
4			4
5			5
6			6
7	<b>Ticket Out Button -on panel</b>		7
8	<b>Ticket Notch -from dispenser</b>		8
9	START		9
10	SMALL / STOP 2		10
11	PLAY		11
12	TAKE / STOP 3		12
13	DOUBLE / STOP 1		13
14	(must not connect to anything)		14
15	(must not connect to anything)		15
16	BIG / ALL STOP		16
17			17
18	COIN IN	NOTE IN	18
19	SERVICE IN (SE3 ONLY)		19
20	ACCOUNT	CONFIRM	20
21	HOPPER PAY	CLEAR SWITCH	21
22		HP SW	22
23	COIN IN METER		23
24	NOTE IN METER	HPSSR TYPE B BD	24
25			25
26			26
27	HOPPER METER		27
28	CLEAR / TICKET METER		28
29	START LAMP		29
30	SMALL / STOP 2 LAMP		30
31	PLAY LAMP		31
32	TAKE / STOP 3 LAMP		32
33	DOUBLE / STOP 1 LAMP		33
34	BIG / ALL STOP LAMP		34
35			35
36	GND	GND	36

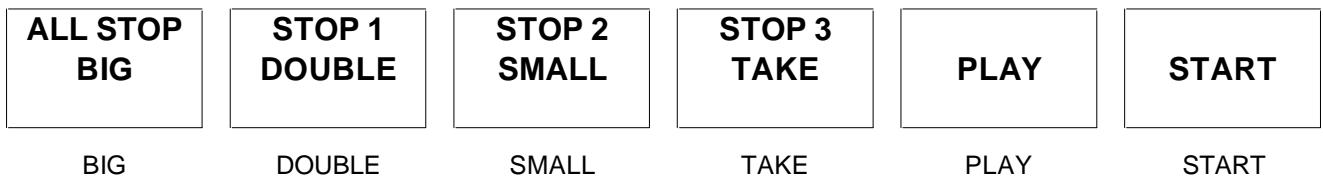
CURRENT PRODUCTION BOARD TYPE



JUMPER 12 POSITION: UNDERNEATH DIP SWITCH 1, CLOSE TO EDGE. MARK J12.



	PARTS SIDE	SOLDER SIDE	
1	GND	GND	1
2	GND	GND	2
3	+5V	+5V	3
4	+5V	+5V	4
5	+12V	+12V	5
6	+12V	+12V	6
7	<b>Ticket Dispenser Enable / HPSSR</b>		7
8			8
9	GND	GND	9
10	GND	GND	10



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DIP SW 1		1	2	3	4	5	6	7	8	
SKILL LEVEL	8	OFF	OFF	OFF	difficult					
	7	ON	OFF	OFF						
	6	OFF	ON	OFF						
	5	ON	ON	OFF						
	4	OFF	OFF	ON						
	3	ON	OFF	ON						
	2	OFF	ON	ON						
	1	ON	ON	ON	easy					
MAXIMUM PLAY	8				OFF	OFF	OFF			
	10				ON	OFF	OFF			
	24				OFF	ON	OFF			
	32				ON	ON	OFF			
	40				OFF	OFF	ON			
	48				ON	OFF	ON			
	64				OFF	ON	ON			
	80				ON	ON	ON			
MINIMUM PLAY FOR BONUS	8							OFF	OFF	
	10							ON	OFF	
	16							OFF	ON	
	24							ON	ON	

DIP SW 2		1	2	3	4	5	6	7	8	
DOUBLE GAME	NO	OFF								
	YES	ON								
USE PRINTER	NO		OFF							
	YES		ON							
COIN IN	1				OFF	OFF	OFF			
	2				ON	OFF	OFF			
	4				OFF	ON	OFF			
	5				ON	ON	OFF			
	10				OFF	OFF	ON			
	20				ON	OFF	ON			
	25				OFF	ON	ON			
	100				ON	ON	ON			
NOTE IN	100						OFF	OFF		
	200						ON	OFF		
	500						OFF	ON		
	1000						ON	ON		
<b>WARNING: THIS SWITCH MUST BE ALWAYS OFF</b>									OFF	

DIP SW 3		1	2	3	4	5	6	7	8	
MIN PLAY TO START	1	OFF	OFF							
	8	ON	OFF							
	10	OFF	ON							
	16	ON	ON							
MAX COIN IN & NOTE IN POINT (no more coin in / note in but not affect w in points)	1000				OFF	OFF				
	5000				ON	OFF				
	10000				OFF	ON				
	90000				ON	ON				
CLEAR / TICKET UNIT  SERVICE IN (EXCEPT 1)	1					OFF	OFF	OFF	OFF	
	4					ON	OFF	OFF	OFF	
	5					OFF	ON	OFF	OFF	
	10					ON	ON	OFF	OFF	
	15					OFF	OFF	ON	OFF	
	20					ON	OFF	ON	OFF	
	25					OFF	ON	ON	OFF	
	30					ON	ON	ON	OFF	
	40					OFF	OFF	OFF	ON	
	50					ON	OFF	OFF	ON	
	60					OFF	ON	OFF	ON	
	75					ON	ON	OFF	ON	
	80					OFF	OFF	ON	ON	
	100					ON	OFF	ON	ON	
	200					OFF	ON	ON	ON	
500					ON	ON	ON	ON		

Continue on next page, Dip Sw 4

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DIP SW 4		1	2	3	4	5	6	7	8
CHECK ACCOUNT	NO	OFF							
	YES	ON							
INITIAL BONUS SETTING AFTER RESET	TYPE 1				OFF	must reset program after change			
	TYPE 2				ON				
BONUS ACCUMULATION	NO				OFF	must reset program after change			
	YES				ON				
AUTO TICKET DISPENSE	NO	must reset program after change				OFF			
	YES					ON			
TICKET DISPENSE MODE	CONTINUOUS					OFF	OFF	OFF	
	MAX 1 TICKET PER GAME					ON	OFF	OFF	
	MAX 2 TICKETS PER GAME					OFF	ON	OFF	
	MAX 3 TICKETS PER GAME					ON	ON	OFF	
	MAX 4 TICKETS PER GAME					OFF	OFF	ON	
	MAX 5 TICKETS PER GAME					ON	OFF	ON	
	MAX 8 TICKETS PER GAME					OFF	ON	ON	
MAX 10 TICKETS PER GAME					ON	ON	ON		

Dip Sw 5 is underneath the Top Board. They can be easily adjusted by using a small screwdriver or toothpick. **Do not** take off the Top Board to adjust. **Must reset board after change of program ROM.** All versions after those specified above will have similar functions included. **Switches not shown are not used and should be set at OFF.** TURN OFF MACHINE WHEN CHANGING DIP SW. TURN ON AGAIN TO MAKE CHANGES EFFECTIVE.

Version 1.32 Dip Switch 5 # 4  
 #4 - ON = SLOW DOWN LAST COLUMN (of spinning reels)  
 #4 - OFF = DO NOT SLOW DOWN LAST COLUMN (of spinning reels)

DIP SW 5		2	3	4	5	6	7	8
Limit score to max 10 x Bet or \$5.00	NO	OFF	VERSION 1.31					
	YES	ON	(dip sw 4 # 5 must be ON)					
Play remaining score (credit = 0)	NO		OFF	VERSION 1.31				
	YES		ON	(dip sw 4 # 5 ON also)				
Auto press stop buttons	NO (default)				OFF	(Non-stop spin)		
	YES				ON	(SELF STOP)		
Reset remaining SCORE to 0	NO				OFF	ver 1.2		
	YES				ON	(sw 4 # 5)		
TALKING	VERY LITTLE					OFF		
	MORE					ON		
COUNT GAME TO ISSUE TICKET	NO						OFF	
	YES						ON	

## Characteristics of Skill '98

*The great distinction from all other games is that the game result is truly affected and determined by skill stop. There is no pre-determined game result. Reels are triggered to spin at a very high speed for several revolutions first then slow down to a slow speed (a speed all other pre-determined game cannot afford to use). Once in slow speed, skill stop can be accepted. If two columns have been stopped, the last column*

*will spin at a very slow speed (again, too slow for a pre-determined game to use because of easy visual detection). Reels will keep on spinning until being stopped by skill stop. (Ver. 1.2 - Optional self-stop available by dip sw 5 # 5 ON. Program will randomly press stop buttons for player. There is no detection or consideration of game result, which is not pre-determined. Of course, player can still press buttons by himself.) Skill stop response is instant. There is no delay employed.*

*Any symbol on or above the center line will be the symbol being stopped. It is practically very rare to stop a symbol when it is exactly on center line. Visual window of each reel is 64 pixels vertically. Visual range to stop a symbol is usually from 18 to 46.*

*Features which constitute part of the Main Game include Cherry Bonus, Bell Bonus, Diamond Bonus, 3 Coin Progressive Bonus and 888 Progressive Bonus. However, all these have to be obtained and then played by same kind of skill application described above.*

*(There is a symbol that is half coin and half plum. It acts as two symbols in one. Three coin-plums in a line means one Coin Line and one Plum Line. There is also a full coin symbol. 3 coins in a line has no winning but gets 3 Coin Bonus - min play for bonus required)*

## Standard Features:

- ⇒ Ticket Dispenser Direct Drive and "Ticket Empty" (no ticket) Detection. No interface board is required. A big savings and convenient way to use ticket dispenser. (See Connection Diagram of Ticket Dispenser Direct Drive) Revised TDDD can memorize last ticket out status when out of ticket and can continue to issue ticket after reload.
- ⇒ Ticket Dispense Mode can be set to CONTINUOUS (issue all tickets when Ticket Out Button is activated), MAX 1,2,3,4,5,8, or 10 TICKETS PER GAME.
- ⇒ Auto Ticket Dispense. (Use Ticket Dispenser Direct Drive or printer interface - select Use Printer by dip sw 2 # 2) When "ON", points won are collected separately to SCORE (will be on screen when Auto Ticket Dispense is "ON") first. When points in SCORE equal to or exceed Ticket Unit, ticket(s) will be dispensed as Ticket Dispense Mode selected. It is for no accumulation of points won back to POINTS for replay. (See Limit Score to max. 10 x Bet or \$5.00 as well)
- ⇒ Advanced Count Game Feature to limit reward of each game played (see page 5).
- ⇒ NEW Automatic warning system. When there is error in the program or mistake in computation, a message " ERROR - reset board now " will appear. When there is possibility of data overthrow, which will affect computation, a message " OVERTHROW - reset board now " will appear. By using version 3.6 users do not have to worry about when to reset board or shall it be reset. Only certain dip sw changes need to reset board (see dip sw diagrams), otherwise, reset when warning comes out. (Check account when PLAY (bet) is zero)
- ⇒ NEW Show LAST PLAYS on screen. To verify whether last play meets minimum for bonus requirement in case symbols, which shall get certain bonus are seen on screen.

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- ⇒ **NEW LIMIT SCORE TO MAX 10 X BET OR \$5.00 WHICHEVER IS LESS.** Dip Sw 5 # 2 and Dip Sw 4 # 5 must be both "ON" in order to use this option. For every game play (count each single bet), including double & bonus games, regardless of win points, only a maximum of 10 x bet or a maximum of \$5.00 equivalent whichever is less will be collected to SCORE. Any win point(s) in excess of permissible score will be added to CREDIT. Only points in SCORE can be redeemed for tickets; points in CREDIT can never be converted to tickets, they are used to play game only. Both Built-in TDDD and external interface can be used to dispense ticket. Dispense action must be activated manually; there is no auto ticket dispense action though dip sw 4 # 5 is ON. (When both Dip Sw 5 # 2 & Dip Sw 4 # 5 are ON, program will discard auto ticket dispense action.) However, when there is no credit and SCORE exceeds ticket unit set, program will assume player has finished playing and will issue eligible ticket(s) automatically. (That is why operator has to choose dip sw selection between use TDDD or interface.) Ticket Dispense Mode is usually set at CONTINUOUS and it is practically no need to count game. (If use interface, set interface 1:1 and set Ticket Unit)
- ⇒ At the end of game play, credit = 0 means end of playing to the program, remaining score can be reset to zero or kept on screen.
- ⇒ **NEW** An option to play remaining score when no credit can also be selected. Play score is limited to Min Play For Bonus or less. Also, it must be noted that only remaining score, which will be less than one eligible ticket, can be played.

COIN MODE	COIN IN SETTING (DIP SW 2 NO.345)	BILL ACCEPTOR SELECTION		\$1= ? POINT	MAX \$5.00
		\$1=1 PULSE	\$1=4 PULSES		
\$1=1PT.	1	YES	---	1	DON'T USE
\$0.50=1PT.	2	YES	---	2	10
\$0.25=1PT.	1	---	YES	4	20
\$0.25=1PT.	4	YES	---	4	20
\$0.10=1PT.	10	YES	---	10	50
\$0.05=1PT.	5	---	YES	20	100
\$0.05=1PT.	20	YES	---	20	100
\$0.01=1PT.	25	---	YES	100	500
\$0.01=1PT.	100	YES	---	100	500

Version 1.31 program uses the above table (coin in settings) to determine how many points are equivalent to \$5.00 value.

## Progressive Bonus

Max of 3 Coin Bonus, Base of 3 Coin Bonus, Max of 888 Bonus, and Base of 888 Bonus can be adjusted individually in Confirm Screen. (Instructions are shown on Confirm Screen.)

If present Bonus Point is lower than newly changed Base, Bonus Point will be changed to new Base immediately. If present Bonus Point is higher than newly changed Base, new Base will be used only after Bonus hit.

If present Bonus Point is higher than newly changed Max, Bonus Point will be changed to new Max immediately.

Caution: Always set Max higher than Base.

Range of Base: 200, 300, 400, 500, 1000, 1500, 2000, and 3000.

Range of Max: 1000, 1500, 2000, 3000, 4000, 5000, 6000, and 8000.

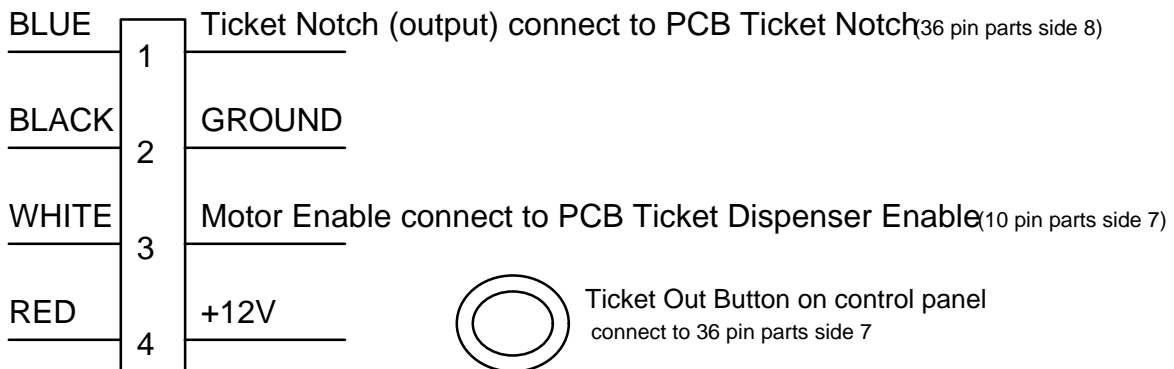
Initial Setting by dip sw (Dip Sw 4 No. 3):

	3 Coin Base	3 Coin Max	888 Base	888 Max
Type 1:	500	2000	1000	2000
Type 2:	1000	3000	1000	3000

**NEW** Automatically detect program error and data overthrow. A message will be shown on Check Account screen if there is a program error or data overthrow. Reset board when message comes up.

## **Ticket Dispenser Direct Drive Connection Diagram**

### DL-1275



When connecting ticket dispenser, check manual of ticket dispenser. Colors may be different from diagram shown. Thickness, width, and paper quality of ticket can affect accurate counting. Crumpled and used tickets cannot be used.

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## NEW SKILL '98 with Advanced Count Game Feature & new TDDD

Advanced Count game feature is used to regulate how many clear / ticket units can be issued per game played. It works in both Clear Switch out (interface board) and Ticket Dispenser Direct Drive (TDDD). It reads Ticket Dispense Mode (Dip Sw 4 #6 #7 #8) selected to determine how many clear / ticket units can be issued per game played. Auto Ticket Dispense (Dip Sw 4 #5 -using SCORE) can also be used with Advanced Count Game Feature.

### Example 1:

Ticket Dispense Mode = Max 5 tickets per game; Clear / Ticket Unit = 20; Auto Ticket Dispense = NO; Count Game = 10; Points = 1234. When activate Clear Switch or Ticket Out Button, 10 games x 5 tickets = max 50 tickets out, 50 tickets x 20 = 1000 points. Points left = 1234-1000 = 234; Count Game = 0.

### Example 2:

Ticket Dispense Mode = Max 5 tickets per game; Clear / Ticket Unit = 20; Auto Ticket Dispense = NO; Count Game = 53; Points = 1234. When activate Clear Switch or Ticket Out Button, 53 games x 5 tickets = max 265 tickets out, 265 tickets x 20 = 5300 points. However, Points is only 1234, less than eligible out. Thus, 1234 / 20 = 61 tickets; 60 tickets = 12 games; last 1 ticket = 1 game. Total 61 tickets out and 13 games deducted. Please note that the 13th game only gives out 1 ticket. (Always remember Max 5 tickets per game means it can be less but not over 5) Points left = 14. Count Game = 40.

### Example 3:

Ticket Dispense Mode = Max 5 tickets per game; Clear / Ticket Unit = 20; Auto Ticket Dispense = **YES**; Count Game = 53; **Score** = 185. Whenever **Score** equals to or greater than Clear / Ticket Unit, ticket dispenser will be activated automatically. 185 / 20 = 9 tickets; 5 tickets = 1 game; last 4 tickets = 1 game. Total 9 tickets out and 2 games deducted. Points left = 5. Count Game = 51.

The above examples use Max 5 tickets per game to illustrate the flexibility of Advanced Count Game Feature. It would be much simpler if using Max 1 ticket per game. However, there is actually a slight difference in choosing Max 5 tickets per game with Clear / Ticket Unit = 20 and Max 1 ticket per game with Clear / Ticket Unit = 100.

If there is only 80 points and player really wants to quit, the first combination will justify both the player and certain regulations; the second one is to enforce only the maximum permitted.

What happens if running out of ticket during dispensing?

In case of Clear Switch with interface board, feedback through Service In (interface board 1 signal 1 pulse) will put points back to machine but NOT games deducted. This is a security measure to ensure Count Game can only be accumulated through actual game play and no other means.

In case of TDDD, dispensing will stop automatically when out of ticket. **SKILL '98 has a revised TDDD, which can memorize the status of dispensing**. When tickets are reloaded (machine off & on again) a message "CONTINUE LAST TICKET OUT?" will be shown. Press Ticket Out Button again to continue last ticket out process (better done by attendant; press START will skip the process and erase memory of last dispensing status). This newly added function is very useful in Count Game and Max more than one ticket per game. Auto Ticket Dispense = YES will continue last ticket out automatically after reloading tickets (machine off & on again).

**WARNING: REMOVAL OF ORIGINAL STICKERS ON BOARD VOIDS WARRANTY!**