

ICE COLD BEER



OWNERS AND SERVICE MANUAL INNOVATIVE CONCEPTS IN ENTERTAINMENT INC.

10123 MAIN STREET, CLARENCE, NY 14031

SERVICE: 1-716-759-0360

FAX: 1-716-759-0884

E-MAIL: service@icegame.com

WEBSITE: www.icegame.com

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TABLE OF CONTENTS

INTRODUCTION.....	PAGE 3
GAME SET-UP & PROGRAMMING.....	PAGE 4
PROGRAMMING OPTIONS.....	PAGE 5 - 9
• HOW TO USE THE CHART	
• HOW TO ADJUST OPTIONS	
• USE THE PROGRAMMING OPTIONS	
• ERROR CODES	
QUICK TROUBLESHOOTING.....	PAGE 10 & 11
GAME REPAIR.....	PAGE 12 - 15
• OPERATIONAL BACKGROUND	
• TROUBLESHOOTING PHILOSOPHY	
• REPAIR	
SPARE PARTS LISTINGS.....	PAGE 16
WIRING DIAGRAMS.....	PAGE 17 - 21
SCHEMATICS.....	PAGE 22 - 30
WARRANTY INFORMATION.....	PAGE 31 & 32

INTRODUCTION & GAME PLAY

INTRODUCTION

Thank you for purchasing the NEW Ice Cold Beer™ game from I.C.E. Originally sold in 1984, Ice Cold Beer was a tremendous earnings success. We have taken the game of yesterday and updated it to fit well into the market of today. We have added many features and enhancements and have highlighted many of them below.

CABINET - The new cabinet design was sculpted to fit into more contemporary surroundings and features a modern look. We have made the game taller with an oversized header display sign for greater visibility in your location. The black cabinet with gold trim and wood grain control panel give the game an attractive look that fits in anywhere.

PLAYFIELD - The basic premise of the playfield layout was left the same as the original because the original was extremely successful. We have added side lighting for darkly lit locations and have added flashing lights at the top of the playfield to grab attention.

OPTICAL SCORING SYSTEM - The new playfield uses optical detectors for increased reliability and zero maintenance.

HOLE LIGHTING - The original game lit the inside of the hole that was the one to try for. We have moved the light to the outside of the hole right above it for much better visibility and comprehension of the game.

JOYSTICKS - The new joysticks use micro switches rather than leaf switches as the earlier game used. This provides a much better feel in the game and drastically improves reliability in this area.

TICKET DISPENSING - While the original game was built at the infancy of redemption, the new version exploits redemption's coming of age. The game is fully Ticket dispenser ready, and if you have not received one with your game, you can order one at any time.

SOLID STATE ELECTRONICS - The new electronics are much more highly integrated than the originals. The new P.C. Board is about 1/4 the size of the original and has about 1/8 the components resulting in a much more reliable product

PROGRAMMABILITY - The new electronics have a high degree of adjustability making it possible to better tailor the game to your location.

GAME SET-UP & PROGRAMMING

SAFETY PRECAUTIONS

IMPORTANT: FAILURE TO FOLLOW THESE DIRECTIONS CLOSELY COULD CAUSE SERIOUS DAMAGE TO YOUR GAME.

WARNING: WHEN INSTALLING THIS GAME, A 3 PRONG GROUNDED RECEPTACLE MUST BE USED. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY TO YOURSELF OR OTHERS. FAILURE TO USE A GROUNDED RECEPTACLE COULD ALSO CAUSE IMPROPER GAME OPERATION, OR DAMAGE TO THE ELECTRONICS.

DO NOT DEFEAT OF REMOVE THE GROUNDING PRONG ON THE POWER CORD FOR THE SAME REASONS AS GIVEN ABOVE. USING AN IMPROPERLY GROUNDED GAME COULD VOID YOUR WARRANTY.

MAKE SURE THE VOLTAGE AT YOU'RE A.C. OUTLET MATCHES THE VOLTAGE LISTED ON THE BACK OF THE GAME.

WHEN USING AN EXTENSION CORD USE ONLY A GROUNDED 16 GA. LISTED CORD SET.

SET-UP

Set-up is simple and straight forward. The only thing really important is to make sure that the game is level. If the floor is not level, use the adjustable feet to stabilize the game.

NOTE: SINCE THE GAME IS TALL, IT ADVISABLE TO PLACE THE GAME ON A FLOOR RATHER THAN CARPET FOR GREATER STABILITY. IF THE GAME MUST BE PLACED ON A CARPET, CONSIDER ANCHORING THE GAME TO THE WALL WITH AN "L" BRACKET.

Turn the power on and check that the game seems to be operating properly. If you notice any unusual or abnormal sounds, turn off and unplug the game and call our service department.

You are now ready to program the game.....

PROGRAMMING

IMPORTANT: PLEASE READ THE SET UP DIRECTIONS BELOW CAREFULLY TO PROGRAM YOUR GAME PROPERLY. AFTER READING THE DESCRIPTION OF THE OPTION, USE THE CHART TO SEE HOW TO CHANGE THE DIP SWITCHES.

IT IS IMPORTANT TO FOLLOW THE DIP SWITCH CHARTS EXACTLY. FAILURE TO DO SO CAN RESULT IN UNPREDICTABLE BEHAVIOR BY THE GAME.

Whenever making changes to the dip switches, follow this procedure:

1. Turn power off.
2. Change dip switch as desired.
3. Turn power back on and check for proper operation.

FAILURE TO TURN POWER OFF WHEN CHANGING SWITCH SETTINGS WILL RESULT IN IMPROPER RESULTS.

PROGRAMMING OPTIONS

NOTE: DEFAULT FACTORY SETTINGS DENOTED BY (*)

TG-E99	DIP SW1	1	2	3	4	5	6	7	8
Number of balls per credit	1 credit 1 ball	ON	ON						
	1 credit 2 balls	OFF	ON						
	1 credit 3 balls*	ON	OFF						
	1 credit 4 balls	OFF	OFF						
RESERVED	FIXED			OFF	OFF				
HEIGHT EACH TIME THE BALANCE BAR JUMPS	1 inch					ON	ON		
	3/4 inch					OFF	ON		
	1/2 inch					ON	OFF		
	3/8 inch*					OFF	OFF		
DIFFICULTY	VERY EASY*							ON	ON
	EASY							OFF	ON
	DIFFICULT							ON	OFF

NOTES :

1. NUMBER OF BALL PER CREDIT: This provides adjustment to number of ball (s) per credit.
2. HEIGHT EACH TIME THE BALANCE BAR JUMPS: You can change the distance that the balance bar moves up automatically when the player didn't move the joystick within the limited time.
3. DIFFICULTY: Use DIP SW4, switch #6 **【Level of difficulty】** to setup the difficulty level of the game. Please use the following comparison table to see the difficulty between each level:

DIFFICULTY	DIP SW4—SWITCH #6 OFF* [LEVEL OF DIFFICULTY] EASY	DIP SW4—SWITCH #6 ON [LEVEL OF DIFFICULTY] HARD
Very Easy	Automatic jumping activated	Auto jumping every 4 seconds
Easy	Auto jumping every 80 seconds	Auto jumping every 3 seconds
Difficult	Auto jumping every 60 seconds	Auto jumping every 2 seconds
Very Difficult	Auto jumping every 30 seconds	Random Auto jumping every 1 - 4 seconds

PROGRAMMING OPTIONS

TG-E99	DIP SW2	1	2	3	4	5	6	7	8
Number of tickets per credit after coin in	1 credit 3 tickets	ON	ON						
	1 credit 2 tickets	OFF	ON						
	1 credit 1 ticket	ON	OFF						
	1 credit 0 ticket*	OFF	OFF						
CONTINUE	Not Permitted			ON	ON				
	30 sec. 10-sec.*			OFF	ON				
	20 sec.			ON	OFF				
	10 sec. 30-sec.			OFF	OFF				
Number of coins per credit	4 coins 1 credit					ON	ON		
	3 coins 1 credit					OFF	ON		
	2 coins 1 credit*					ON	OFF		
	1 coin 1 credit					OFF	OFF		
RESERVED	FIXED						OFF	OFF	

NOTE:

- Number of ticket per credit after coin in: You can setup how many tickets the game will payout per credit immediately after coin/s are taken. This is only used when local regulation specifies that the game must give out a predetermined amount of tickets no matter if the player wins or loses.
- CONTINUE: The duration of time the game will wait for the player to decide either to continue or not the game. When game is over, CREDIT=0, the display will count down the time setup here. Introduce more coins before time ends. CONTINUE will count down 20 seconds again. Within 20 seconds the player must push **【START】** button to keep challenging the last hole left in last game. However if this dip switch is in "Not permitted", every time the player loses, he must re-start the game from the 1st hole.
- PS. If after the last stage of the game, CREDIT > 0 and this is adjustment is not in 『Not permitted』, it will count down another 20 seconds. Within 20 seconds the player must push **【START】** button to keep the last hole left. Otherwise, he must re-start the game from the 1st hole.
- Number of coins per credit: Adjustment to setup how many coins are required for each game.

PROGRAMMING OPTIONS

TG-E981	DIP SW3	1	2	3	4	5	6	7	8
TICKETS PAYOUT	4 tickets / hole	ON	ON						
	3 tickets / hole	OFF	ON						
	2 tickets / hole	ON	OFF						
	1 ticket / hole*	OFF	OFF						
Double the amount of tickets if the top hole is made	YES*			ON					
	NO			OFF					
Tickets payout timing	Instantly				ON				
	When game ends*				OFF				
1 Ticket for top hole only	YES					ON			
	NO*					OFF			
RESERVED	FIXED						OFF	OFF	OFF

NOTES:

- When pin #3 is ON "double the amount of tickets won if top hole made" and pin #4 is set to ON "instantly", tickets dispenser will bring up to the double of total tickets won from hole #1 to #11. (i.e. Tickets per hole= 4 and tickets payout timing set to "instantly", when top hole is made, 52 tickets will be payout because of 4 tickets* 12 holes *2 - 44 tickets already paid instantly after each hole from #1~#11 made.)

"1 ticket for top hole only": if setup is YES, DIP SW3 PIN 1~4 will be invalid. One ticket will be given out during the whole game, only if the player makes the top hole.

TG-E99	SW4	1	2	3	4	5	6	7	8
GAME OVER SOUND	GAMEOVER*	ON							
	ALTLOOS								
TICKET EMPTY WARNING	YES		ON						
	NO*			OFF					
	YES				ON				
	NO*				OFF				
KEEP CREDIT	YES*				ON				
	NO				OFF				
ATTRACT SOUND	YES*								
	NO								
RESERVED	FIXED						OFF		
	HARD							ON	
DIFFICULTY	EASY*							OFF	
	EASY*								ON
AUTO JUMP	DIFFICULT								OFF
	YES								ON
TICKET DISPENSER	NO*								OFF
									ON

PROGRAMMING OPTIONS

NOTE:

1. **GAME OVER SOUND:** Adjustment to choose the sound when game is over.
2. **TICKET EMPTY WARNING:** You can decide either to have or not a warning sound and error code 『O5』 showing on display when the ticket bin is empty.
3. **KEEP CREDIT:** Credits remained can be save or contrary be reset after power is off.
4. **ATTRACT SOUND:** Attract voice every 5 minutes and attract music every 25 minutes.
5. **LEVEL OF DIFFICULTY:** In coordination with DIP SW1 switches #7 & 8. Please refer to the explanation of **【DIFFICULTY】** .
6. **AUTO JUMP:** Adjust automatic jumping to control the difficulty of the game.

『EASY』 : Whenever the player move the joystick, the auto jumping will be reset. Consequently the balance bar will only jump up if the joystick is not moved with auto jumping time.

『DIFFICULT』 : No matter if the joystick is moved or not, auto jumping will act following the automatic jumping setup time.
7. **TICKET DISPENSER:** This is related to how credits will be handled with.

YES: Credits will be paid out by tickets.

NO: Best 5 high scores can be entered to the display. Points shown on SCORE pool will only disappear when next game begins.

PROGRAMMING OPTIONS

ERROR CODES

The system will check all the functions itself automatically. When an error is found, an error code will be shown on display TIMER as following :

Error Code	Checking Items	Checking Time	Reason for the ERROR	Basic repairing
01	LEFT-UP STOP SW	When powering on	SW is at N.C. but when it is pressed down (touched) it is at N.O., otherwise error code will appear.	<ol style="list-style-type: none"> 1. Check if connection pins are properly connected. 2. Check if N.O./N.C. is at its proper state.
02	RIGHT-UP STOP SW			
03	LEFT-DOWN STOP SW			
04	RIGHT-DOWN STOP SW			
05	No card / ticket left	When game is over	When DIP SW4 pin 2 is set at ON and no cards / tickets left to dispense, the warning alarm is on as soon as game is over.	<ol style="list-style-type: none"> 1. Check if dispenser has any cards/tickets left. 2. Check if cards/tickets are stuck.
91	COIN meter	When Credit = 0	Program runs a self-check the condition of all meter connection pins when no one plays the game. Error code shows up when they are out of condition.	Check if the connection pin of meters is properly connected.
92	Card / Ticket meter			
93	PRIZE meter			

QUICK TROUBLESHOOTING

<p>GAME WILL NOT POWER UP CORRECTLY</p>	<p>NO A.C. POWER BAD A.C. POWER FUSE POWER SWITCH ON BACK OF GAME OFF BAD MAIN OR DISPLAY P.C. BOARD LOOSE CONNECTOR TO P.C. BOARDS NO BALL IN GAME BAD PLAYFIELD SENSOR (see repair sec.)</p>	<p>CHECK FOR VOLTAGE AT OUTLET CHECK AND / OR REPLACE FUSE TURN ON SWITCH CHECK AND REPAIR OR REPLACE BOARDS CHECK CONNECTORS CHECK CABINET BOTTOM FOR BALL CHECK PLAYFIELD SENSORS</p>
<p>GAME WILL NOT TAKE OR ADD MONEY CORRECTLY</p>	<p>SOFTWARE NOT SET RIGHT STUCK OR BROKEN COIN SWITCH BAD MAIN P.C. BOARD BAD HARNESSING</p>	<p>CHECK MANUAL FOR PROPER SETTING REPAIR OR REPLACE SWITCH REPAIR OR REPLACE MAIN P.C. BOARD REPAIR HARNESSING</p>
<p>GAME SOUND NOT WORKING PROPERLY</p>	<p>BAD SPEAKER BAD MAIN P.C. BOARD BAD HARNESSING BAD VOLUME POTENTIOMETER</p>	<p>REPLACE SPEAKER REPAIR OR REPLACE MAIN P.C. BOARD REPAIR OR REPLACE HARNESSING REPLACE VOLUME POTENTIOMETER</p>
<p>ERROR CODE 1 SHOWS ON THE DISPLAY ON POWER UP</p>	<p>BAD UPPER LEFT MICRO SWITCH MICRO SWITCH WIRE BENT WRONG BAD HARNESSING BAD DISPLAY P.C. BOARD BAD MAIN P.C. BOARD BAD DRIVE MOTOR BAD DRIVE BELT</p>	<p>REPLACE MICRO SWITCH RE-BEND WIRE REPAIR OR REPLACE HARNESSING REPLACE DISPLAY P.C. BOARD REPLACE MAIN P.C. BOARD REPLACE MOTOR REPLACE BELT</p>
<p>ERROR CODE 2 SHOWS ON THE DISPLAY ON POWER UP</p>	<p>BAD UPPER RIGHT MICRO SWITCH MICRO SWITCH WIRE BENT WRONG BAD HARNESSING BAD DISPLAY P.C. BOARD BAD MAIN P.C. BOARD BAD DRIVE MOTOR BAD DRIVE BELT</p>	<p>REPLACE MICRO SWITCH RE-BEND WIRE REPAIR OR REPLACE HARNESSING REPLACE DISPLAY P.C. BOARD REPLACE MAIN P.C. BOARD REPLACE MOTOR REPLACE BELT</p>
<p>ERROR CODE 3 SHOWS ON THE DISPLAY ON POWER UP</p>	<p>BAD LOWER LEFT MICRO SWITCH MICRO SWITCH WIRE BENT WRONG BAD HARNESSING BAD DISPLAY P.C. BOARD BAD MAIN P.C. BOARD BAD DRIVE MOTOR BAD DRIVE BELT</p>	<p>REPLACE MICRO SWITCH RE-BEND WIRE REPAIR OR REPLACE HARNESSING REPLACE DISPLAY P.C. BOARD REPLACE MAIN P.C. BOARD REPLACE MOTOR REPLACE BELT</p>
<p>ERROR CODE 4 SHOWS ON THE DISPLAY ON POWER UP</p>	<p>BAD LOWER RIGHT MICRO SWITCH MICRO SWITCH WIRE BENT WRONG BAD HARNESSING BAD DISPLAY P.C. BOARD BAD MAIN P.C. BOARD BAD DRIVE MOTOR BAD DRIVE BELT</p>	<p>REPLACE MICRO SWITCH RE-BEND WIRE REPAIR OR REPLACE HARNESSING REPLACE DISPLAY P.C. BOARD REPLACE MAIN P.C. BOARD REPLACE MOTOR REPLACE BELT</p>
<p>ERROR CODE 5 SHOWS ON THE DISPLAY ON POWER UP AND OUT OF TICKET WARNING OPTION HAS BEEN SELECTED</p>	<p>OUT OF TICKETS TICKET DISPENSER JAM BAD TICKET DISPENSER BAD HARNESSING BAD MAIN P.C. BOARD</p>	<p>ADD MORE TICKETS REPAIR DISPENSER REPLACE TICKET DISPENSER REPAIR HARNESSING REPAIR MAIN P.C. BOARD</p>

QUICK TROUBLESHOOTING

<p>ERROR CODE 91 SHOWS ON THE DISPLAY ON POWER UP</p>	<p>BAD COIN METER #1 COUNTER DISCONNECTED</p>	<p>REPLACE COIN METER CHECK AND REPAIR HARNESSING</p>
<p>ERROR CODE 92 SHOWS ON THE DISPLAY ON POWER UP</p>	<p>BAD COIN METER #2 (DBV) COUNTER DISCONNECTED</p>	<p>REPLACE COIN METER CHECK AND REPAIR HARNESSING</p>
<p>ERROR CODE 93 SHOWS ON THE DISPLAY ON POWER UP</p>	<p>BAD TICKET METER COUNTER DISCONNECTED</p>	<p>REPLACE TICKET METER CHECK AND REPAIR HARNESSING</p>
<p>GAME FREEZES UP IN THE MIDDLE OF PLAY AND WILL NOT CONTINUE</p>	<p>BALL IS LOST BALL RETURN MICRO SWITCH BAD MICRO SWITCH WIRE BENT RAIL MOTOR FAILS URETHANE DRIVE BELT BREAKS BAD DISPLAY P.C. BOARD BAD MAIN P.C. BOARD BAD JOYSTICK MICRO SWITCH BAD JOYSTICK HARNESSING</p>	<p>REPLACE BALL REPLACE MICRO SWITCH RE-BEND WIRE PROPERLY REPLACE MOTOR REPLACE URETHANE DRIVE BELT REPAIR OR REPLACE DISPLAY P.C. BOARD REPAIR OR REPLACE MAIN P.C. BOARD REPAIR OR REPLACE JOYSTICK REPAIR HARNESSING</p>
<p>DOLLAR BILL VALIDATOR DOES NOT WORK PROPERLY</p>	<p>DBV NOT PROGRAMMED PROPERLY DOLLAR BILL PATH DIRTY BAD DBV HARNESSING DBV FULL (GREAT PROBLEM TO HAVE)</p>	<p>REPROGRAM AS PER MFG. INSTRUCTIONS CLEAN PATH AND SENSORS REPAIR OR REPLACE HARNESSING EMPTY DBV</p>

GAME REPAIR

WARNING: ALWAYS REMOVE POWER TO THE GAME BEFORE ATTEMPTING ANY SERVICE, UNLESS NEEDED FOR SPECIFIC TESTING. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SERIOUS INJURY TO YOURSELF OR OTHERS.

TROUBLESHOOTING PHILOSOPHY

To find problems with the game, always first check what should be obvious. See that the game is plugged in, and that all of the fuses on the game are good. This includes the fuse that is located **INSIDE** the power module.

Next, check to see that all of the connectors are firmly seated and that none of the wires have been pulled out of them.

When trying to find out if specific components are bad or not, try swapping them with components from another player station to see if the problem moves with the component, or stays where it was. This will help you to know if you have a problem with a specific component, or maybe a problem with either the wiring or the Main P.C. Board.

OPERATIONAL BACKGROUND

ICE COLD BEER™ has been manufactured with modular design in mind. Almost everything in the game can be **EASILY** removed for servicing. This makes it much easier for the repairman as he /she can work in a quieter less distracting environment away from the Game Room floor.

The game relies on brushed DC gear motors for all of the mechanical operation of the game. All of these motors can be accessed easily for service.

Some of the game sensing is done with conventional micro switches. In all areas of critical importance, custom optical sensors were developed specifically, and optimized for their particular application.

All P.C. Boards are made of extra thick board material and use time proven components to assure you of the most reliable designs possible.

We have put forth our best efforts and tested this game extensively to assure the best possible performance under the widest variety of operating conditions. We are **ALWAYS** however interested in our customers input for product improvement. If you have any questions or comments please feel free to contact our service department.

Use extreme caution when using probes or voltmeters if the game is powered up. If doing continuity checks, it is important to disconnect the harnessing at both ends, as attached they may yield erroneous results.

If a P.C. Board is suspected as the cause of a problem, check to see that all of the components on the board are firmly attached. Pay special attention to any socketed devices.

If light bulbs are suspected, swap them with one that is known to work to narrow the problem down to either a bulb or P.C. Board.

I.C.E. SERVICE DEPARTMENT

716-759-0360

**NORMAL BUSINESS HOURS ARE:
MONDAY – FRIDAY, 8:00 AM TO 5:00 PM**

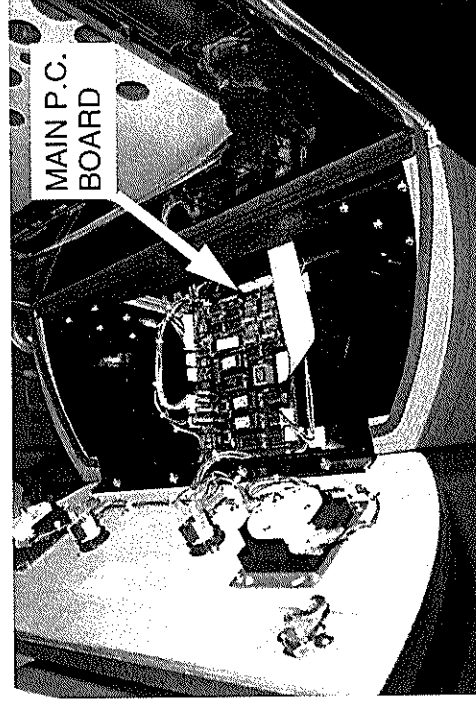
GAME REPAIR

MAIN P.C. BOARD REPLACEMENT

The Main P.C. Board is located inside the control panel in the front of the game.

NOTE: TURN OFF A.C. POWER TO THE GAME BEFORE REPLACING THE MAIN P.C. BOARD

1. To access the P.C. Board, open the control panel cover by using two keys to open the control panel cover locks.

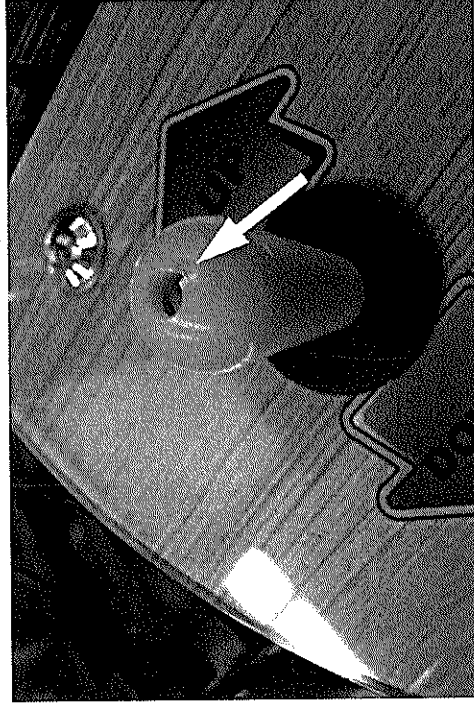


2. Remove the (4) screws that secure the cover over the Main P.C. Board.
3. Remove all of the connectors from the P.C. Board.
4. Remove the (4) screws that secure the P.C. Board to the control panel cabinet.
5. Re-assembly is in reverse order.

NOTE: If you are replacing the P.C. Board, make sure the dip switch settings are set the same as your old board.

JOYSTICK AND PUSH BUTTON SERVICE

1. Open the control panel cover using 2 keys.
2. When replacing the joystick or button micro switches be sure that the proper terminals are used.
3. When replacing the joystick assembly, follow the steps below.
 - a) Drill a small hole, at an angle, in the top of the joystick handle. Pop out the plug in the center of the handle. This will reveal the screw that retains the handle to the joystick shaft.



- b) Remove the screws that hold the joystick to the control panel cover.

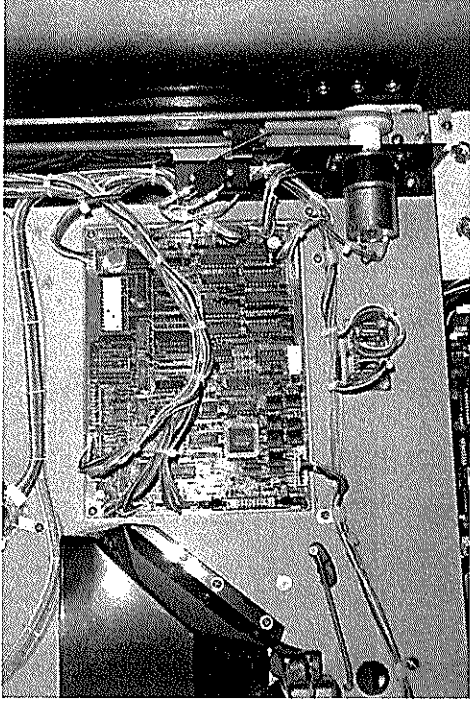
HINT: Leave the harnessing connected to the old joystick for now. This will make it easier to hook up the wires in the correct location later.

- c) Screw the new joystick into the control panel cover making sure it is oriented properly. (Be sure it moves up and down freely).
- d) Move the wires from the old joystick to the new joystick one at a time. Be sure they are in the correct locations and on the proper terminals. (normally open.)
- e) Re-assemble in reverse order.

GAME REPAIR

DISPLAY P.C. BOARD REPLACEMENT

The display P.C. Board is accessed through the rear of the cabinet.



NOTE: TURN OFF A.C. POWER TO THE GAME BEFORE SERVICING THE DISPLAY P.C. BOARD

1. Open the rear access panel.
2. Locate the display P.C. Board at the lower right hand corner of the playfield assembly.
3. Remove all connectors from the board. Be sure to note where they are connected to on the board.
4. Remove the (4) screws that secure the Display P.C. Board to the playfield.
5. Remove the Display P.C. Board.
6. Re-assemble in reverse order.

PLAYFIELD HOLE SENSOR SERVICE

SENSOR TROUBLESHOOTING

Troubleshooting to identify a shorted sensor is relatively easy.

When the game is first powered on, all of the hole sensors are tested. If any of them fail, the L.E.D. located over the hole will flash red and the game will not work.

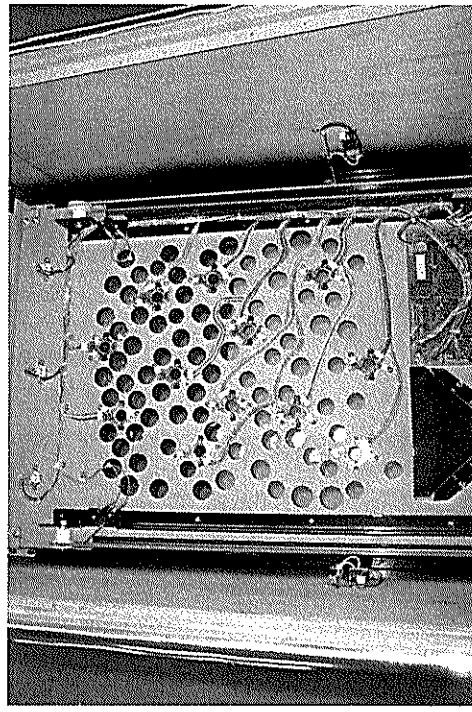
Please repair as indicated in the section to follow.

SENSOR REPLACEMENT

The HOLE SENSOR boards are accessed through the rear of the cabinet.

NOTE: TURN OFF A.C. POWER TO THE GAME BEFORE SERVICING THE DISPLAY P.C. BOARD

1. Open the rear access panel USING A KEY.
2. Remove the (4) screws that hold the playfield rear cover in place.
3. Remove the rear cover. Be careful not to loose the playfield ball. The sensors are now exposed.

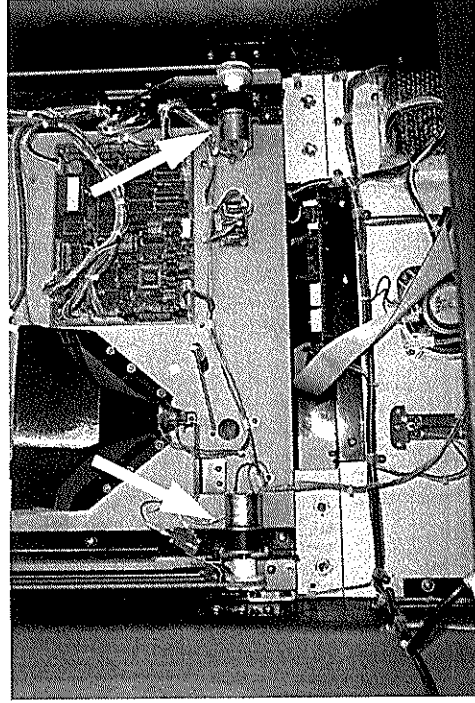


4. Remove the (2) screws that hold the hole sensor in place. Unplug the sensor and replace.
5. Re-assemble in reverse order.

GAME REPAIR

DRIVE MOTOR SERVICE

The drive motors are accessed through the rear of the cabinet.



NOTE: TURN OFF A.C. POWER TO THE GAME BEFORE SERVICING THE DISPLAY P.C. BOARD

1. Open the rear access panel **USING A KEY.**
 2. Carefully unsolder the motor wires from the motor.
- NOTE: PLEASE NOTE THE POLARITY OF THE WIRES TO THE MOTOR.**
3. Remove the drive belt from the motor.
 4. Remove the (4) screws that retain the motor to the playfield frame.
 5. Remove the pulley from the motor and install onto the new motor.

6. Re-assemble in reverse order.

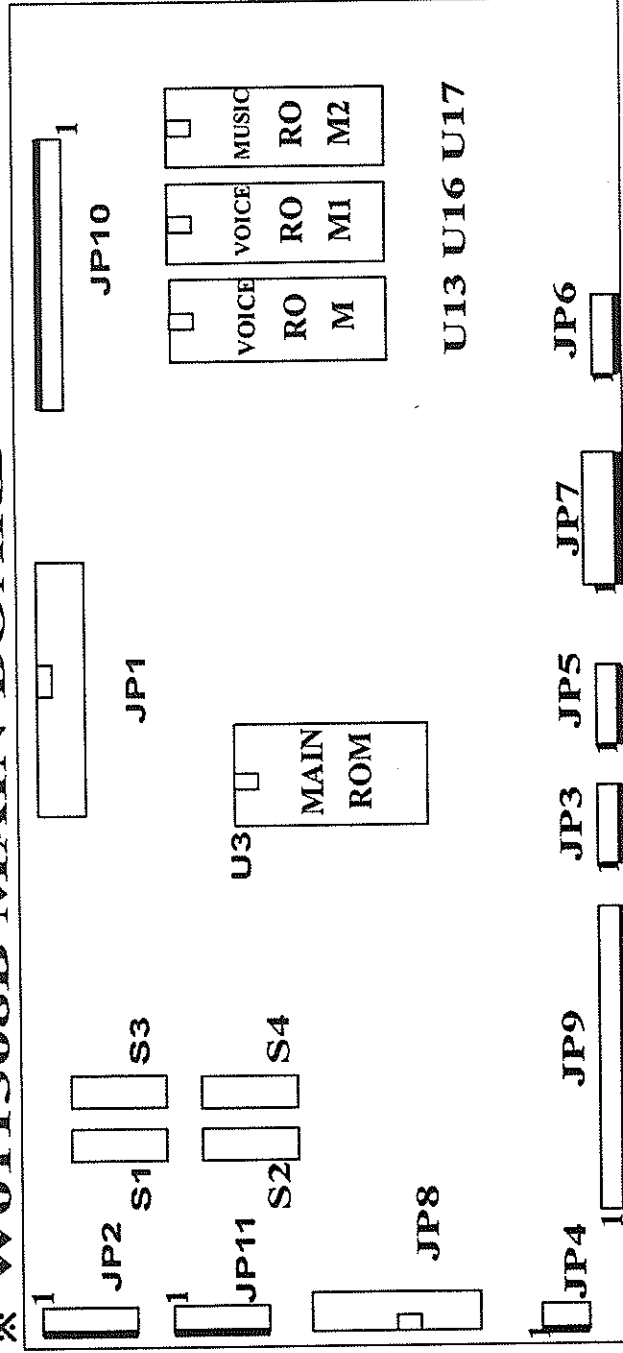
SPARE PARTS LISTING

Below is a list of the common spare parts available for ICE COLD BEER™. For additional parts, please call our Service department at 1-716-759-0360

XPk000050	JOYSTICK
XPk006010	LOCK
XPk006011	KEY
XPk601001010	PLAYFIELD GLASS
XPk01000950	PLAYFIELD
XPk01000020	POWER SUPPLY
XPk000010	MICRO SWITCH
XPk000135	SWITCH W / PLATE
XPk000650	MOTOR
XPk0001000	POLYURETHANE DRIVE BELT
XPk1000	STAINLESS STEEL BALL
XPk2034X	MAIN P.C. BOARD
XPk021509	DISPLAY P.C. BOARD
XPk011408	HOLE SENSOR P.C. BOARD

WIRING DIAGRAM

※ W011308B MAIN BOARD



JP1	COLOR	CONNECTION PIN
26PIN CABLE		
Connect to Display Board JP2		

JP5 / JP3	CONNECTION PIN
1 ~ 7	RESERVE.

JP10	COLOR	CONNECTION PIN
1	BLACK	GND (SW COM.)
2	BROWN	START SW (N.O.)
3	ORANGE	PRIZE SW (N.O.)
4	YELLOW	CANCEL SW (N.O.)
5	WHITE	Payout Gold Coin H.P. SW (N.O.)
6	BE/OE	TILT SW (N.O.)
7		
8		
9		
10	GREEN	RIGHT Joystick UP SW (N.O.)
11	BLUE	RIGHT Joystick DOWN SW (N.O.)
12	PURPLE	LEFT Joystick UP SW (N.O.)
13	GRAY	LEFT Joystick DOWN SW (N.O.)
14	BLACK	JOYSTICK SW COM.

JP6	COLOR	CONNECTION PIN
1	BLACK	VOLUME VR PIN3
2	RED	VOLUME VR PIN2
3	WHITE	VOLUME VR PIN1
4	PURPL	SPEAKER +

JP9	COLOR	CONNECTION PIN
1	BLACK	GND
2	WHITE	COIN1 SIGNAL
3	GN/WE	INHIBIT
4		
5	RED	+12V
6	RED	+12V
7	BE/WE	COIN3 SIGNAL
8	BLACK	GND
9	BLACK	GND
10	GREEN	OUT
11	WHITE	IN
12	RED	+12V
13	RED	+12V
14	OE/WE	COIN2 SIGNAL
15	BLACK	GND
16	BROWN	START LIGHT SIGNAL
17	BE/OE	PRIZE LIGHT SIGNAL
18	RD/BK	LIGHT COM. □+12V □

JP4	COLOR	CONNECTION PIN

5	E	BLACK	SPEAKER -
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1			
2	GREEN		GOLD COIN HOPPER SSR IN
3	RED	+12V	

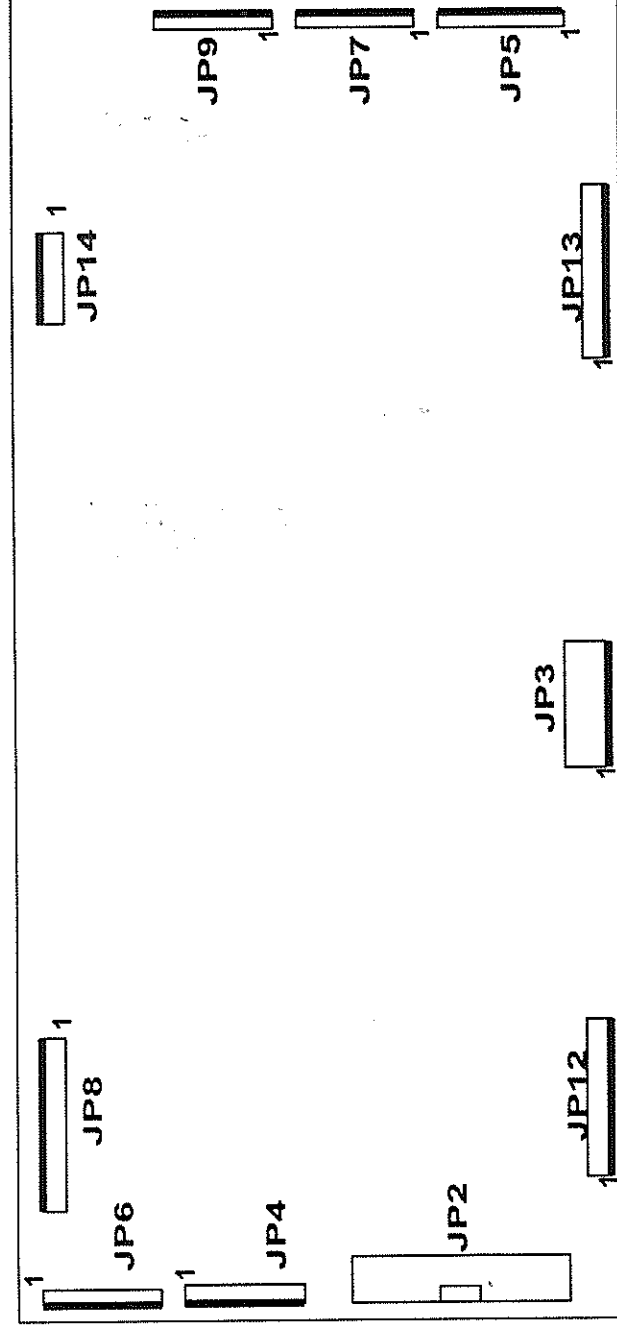
JP7	COLOR	CONNECTION PIN
1	RED	+12V INPUT
2		+5V INPUT
3	YELLOW	+5V INPUT
4		GND
5		GND
6	BLACK	GND

JP8	COLOR	CONNECTION PIN
		Connect to LIGHT Control Board JP5 □ W011709 □

JP11	RESERVE.
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JP2	RESERVE.
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※ W051509B DISPLAY BOARD



JP4	COLOR	CONNECTION PIN
1	BLACK	
2	BROWN	
3	RED	Connect to □ Hole#1 optic board □
4	ORANGE	
5	YELLOW	
6	GREEN	
7	BN/WE	
8	RD/WE	
9	OE/WE	Connect to □ Hole#2 optic board □
10	YW/GN	
11	GN/WE	
12	WE/BE	

JP6	COLOR	CONNECTION PIN
1	ORANGE	
2	YELLOW	
3	GREEN	Connect to □ Hole#5 optic board □
4	BLUE	
5	PURPLE	
6	GURY	
7	YW/GN	
8	GN/WE	
9	BE/WE	Connect to □ Hole#6 optic board □
10	PE/WE	
11	GY/BK	
12	WE/GN	

JP5	COLOR	CONNECTION PIN
1	RED	Connect to □ Hole#3 optic board □
2	ORANGE	

JP7	COLOR	CONNECTION PIN
1	YELLOW	Connect to □ Hole#7 optic board □
2	GREEN	

3	YELLOW	Connect to □ Hole#4 optic board □
4	GREEN	
5	BLUE	
6	PURPLE	
7	OE/WE	
8	YW/GN	
9	GN/WE	
10	BE/WE	
11	PE/WE	
12	WE/RD	

3	BLUE	Connect to □ Hole#8 optic board □
4	PURPLE	
5	GURY	
6	PINK	
7	WE/BN	
8	PK/BE	
9	GY/BK	
10	RD/WE	
11	BN/WE	
12	YW/GN	

JP8	COLOR	CONNECTING PIN
1	YELLOW	Connect to □ Hole#9 optic board □
2	GREEN	
3	PURPLE	
4	GRAY	
5	WHITE	
6	BLACK	
7	BN/WE	
8	RD/WE	
9	OE/WE	
10	PK/BE	
11	WE/BE	
12	RD/YW	

JP9	COLOR	CONNECTING PIN
1	GREEN	Connect to □ Hole#11 optic board □
2	PURPLE	
3	GRAY	
4	WHITE	
5	PINK	
6	BROWN	
7	YW/GN	
8	GY/BK	
9	PK/BE	
10	RD/YW	
11	BN/WE	
12	WE/PE	

JP2	COLOR	CONNECTING PIN
26PIN CABLE		Connect to □ Main board JP1 □

JP13	COLOR	CONNECTION PIN
1	1	GY/BK
2	RD/WE	SPARE METER (COIN3 METER)
3	OE/WE	SPARE METER (COIN2 METER)
4	YW/GN	COIN IN METER (CI, C2 & C3)
5	GN/WE	METER OF COM.
6	NE/WE	LEFT MOTOR SIGNAL -
7	PE/WE	LEFT MOTOR SIGNAL +
8	GY/BK	LEFT UP-STOP SW (N.C.)
9	WE/RD	LEFT DOWN-STOP SW (N.C.)

JP3	COLOR	CONNECTING PIN
1	YELLOW	+5V INPUT
2	RED	+12V INPUT
3		
4		GND
5	BLACK	GND

JP12	COLOR	CONNECTION PIN
1	BLACK	RIGHT MOTOR SIGNAL -
2	BROWN	RIGHT MOTOR SIGNAL +
3	RD/YW	RIGHT DOWN-STOP SW (N.C.)
4	ORANGE	RIGHT UP-STOP SW (N.C.)
5	YELLOW	RIGHT DOWN-STOP SW (COM.)
6	GN/WE	RIGHT UP-STOP SW (COM.)
7	BLUE	RETURN SW (COM.)
8	PURPLE	RETURN SW (N.O.)
9	GRAY	CARD/TICKET METER
10		

10	PK/BE	LEFT UP-STOP (COM.)	SW
11	BN/WE	LEFT DOWN-STOP (COM.)	SW

JP14	COLOR	CONNECTING PIN
1		Connect to AD lamp board W011709-3 JP1
2		
3		
4		
5		

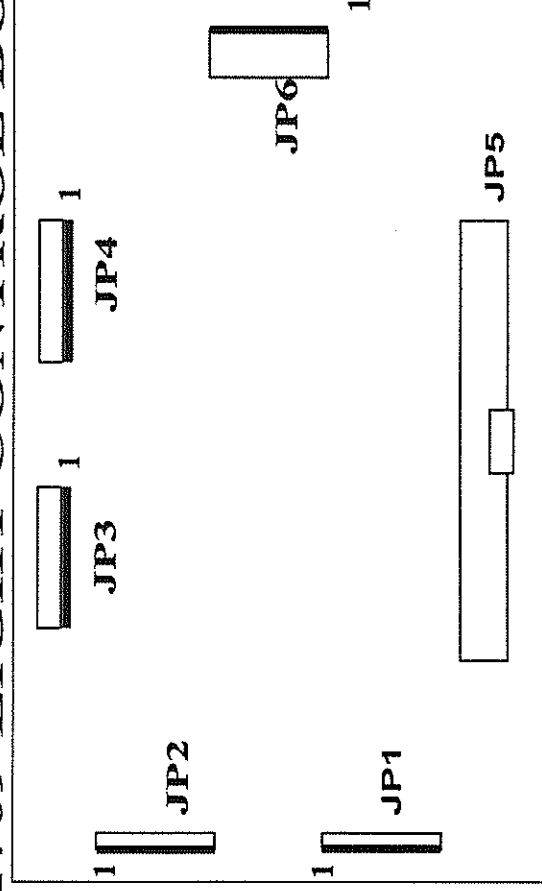
□ COLOR:

BN/WE	BROWN/WHITE
RD/WE	RED/WHITE
OE/WE	ORANGE/WHITE
GN/WE	GREEN/WHITE
BE/WE	BLUE/WHITE
PE/WE	PURPLE/WHITE

RD/YW	RED/YELLOW
RD/BK	RED/BLACK
PK/BE	PINK/BLUE
GY/BK	GRAY/BLACK
YW/GN	YELLOW/GREEN
RD/YW	RED/YELLOW

WE/GN	WHITE/GREEN
WE/BE	WHITE/BLUE
WE/PE	WHITE/PURPLE
WE/BN	WHITE/BROWN

□ W011709 LIGHT CONTROL BOARD



JP1	COLOR	CONNECTION PIN
1		
2		
3		
4	ORANGE	No.1 LIGHT -
5	YELLOW	No.1 LIGHT +

JP2	COLOR	CONNECTION PIN
1		
2		
3		
4	GRAY	No.2 LIGHT -
5	WE/GN	No.2 LIGHT +

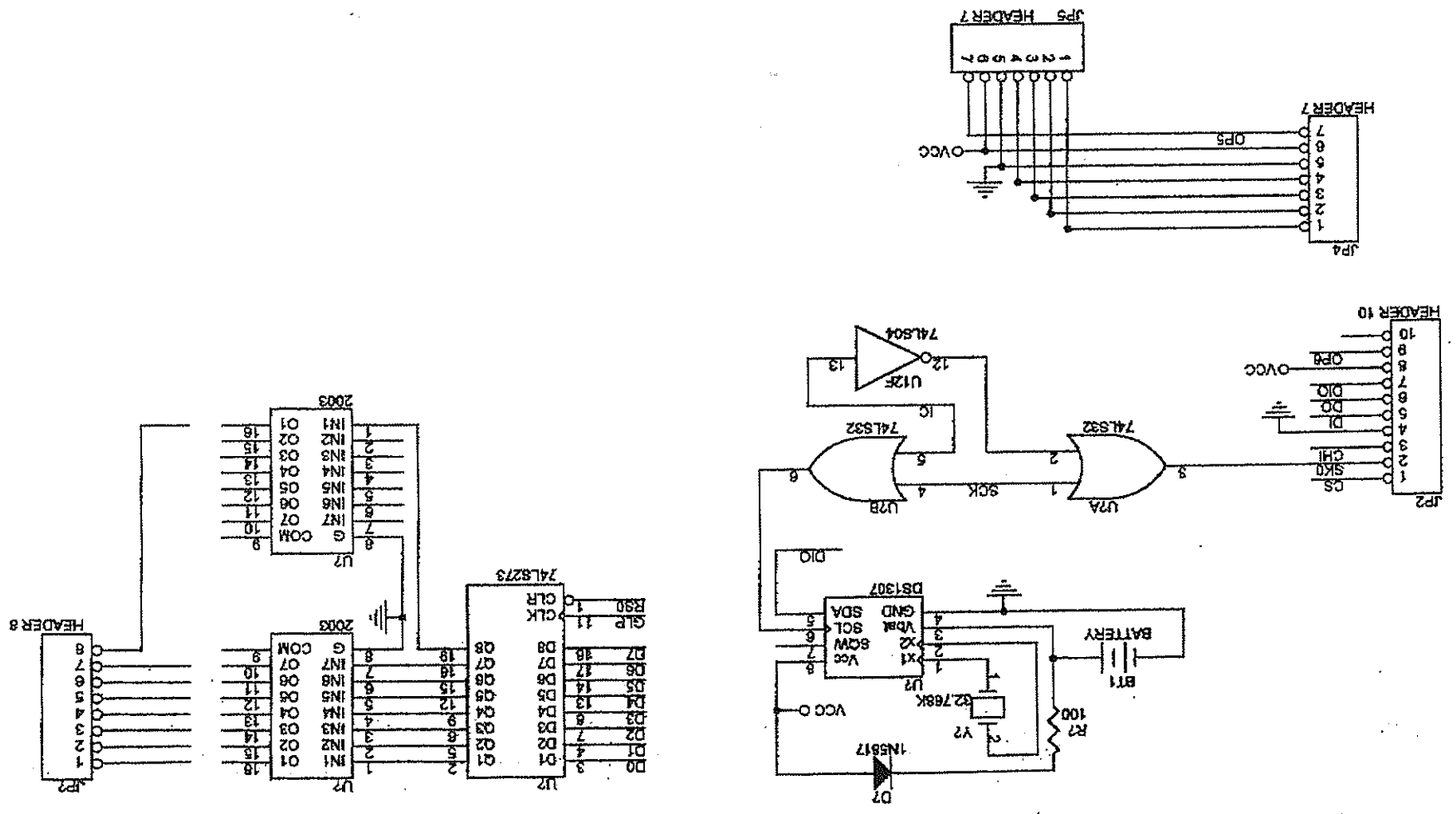
JP3	COLOR	CONNECTION PIN
1		
2		
3		
4	OE/WE	No.3 LIGHT -
5	YW/GN	No.3 LIGHT +

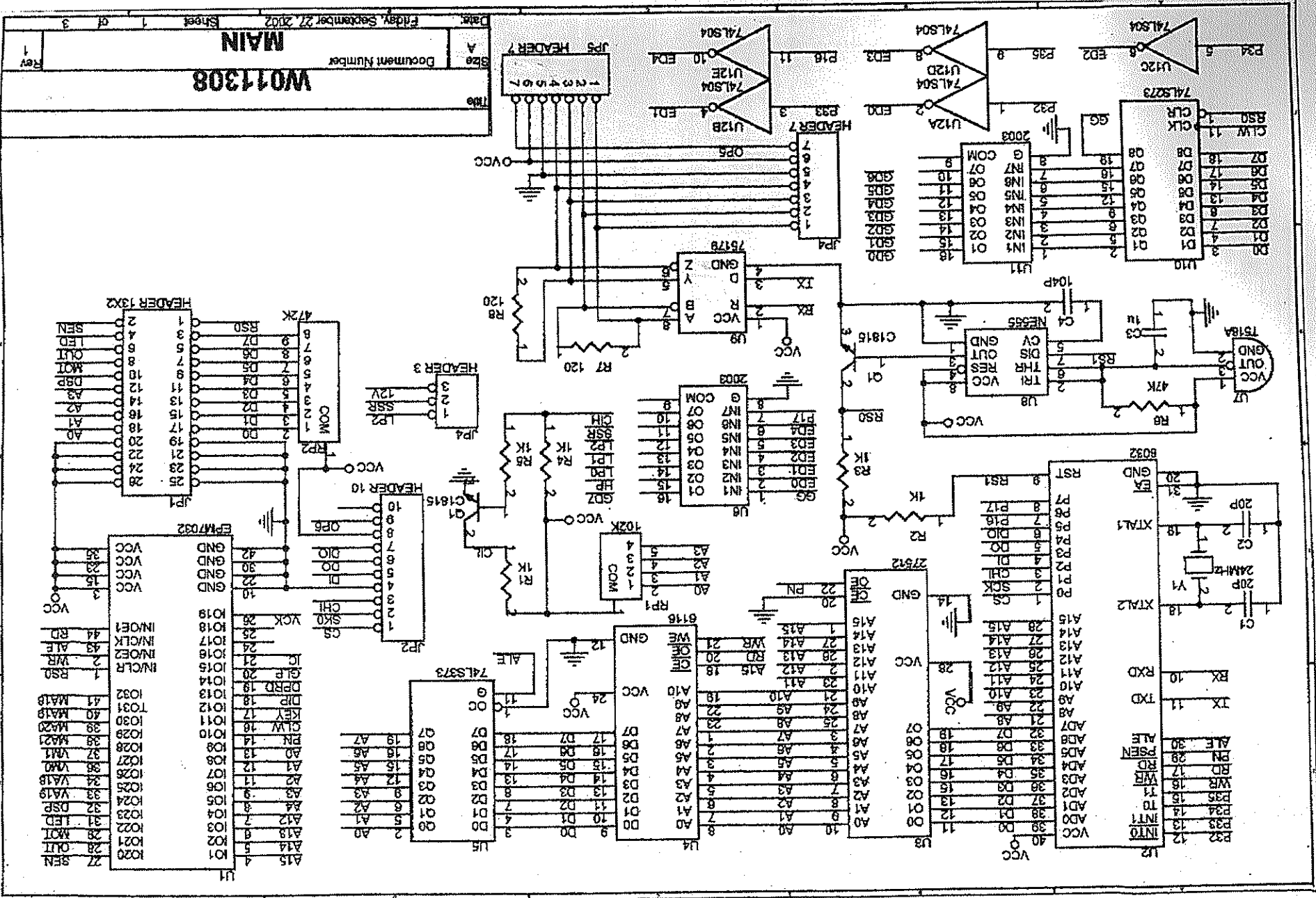
JP4	COLOR	CONNECTION PIN
1		
2		
3		NOT USED
4		
5		

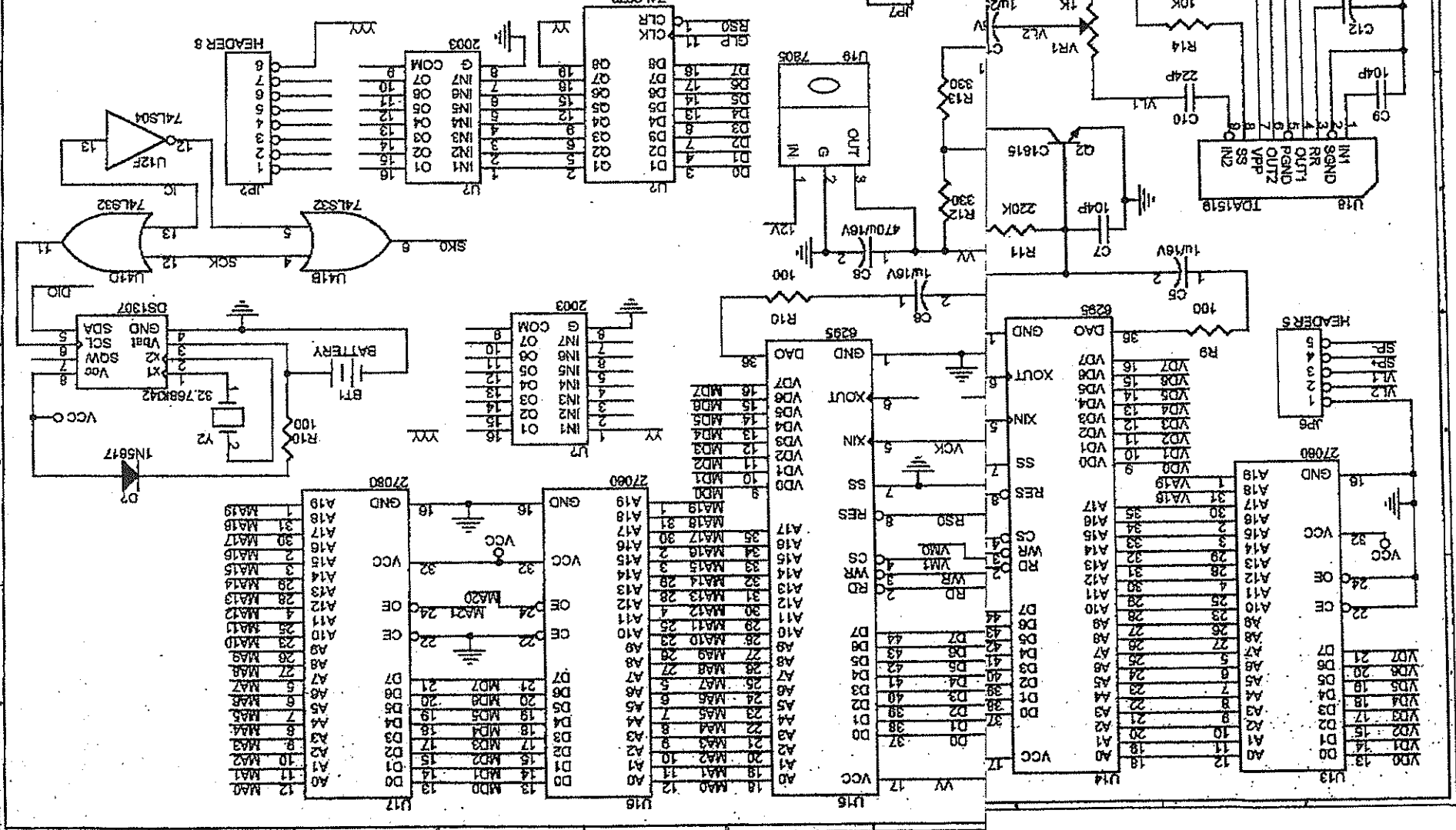
JP6	COLOR	CONNECTION PIN
1	RED	+12V INPUT
2		GND
3	BLACK	GND

JP5	COLOR	CONNECTION PIN
24PIN CABLE		Connect to MAIN BOARD JP8

Title		Date: Friday, September 27, 2002	
Size A		Sheet 1 of 1	
Document Number		Rev	
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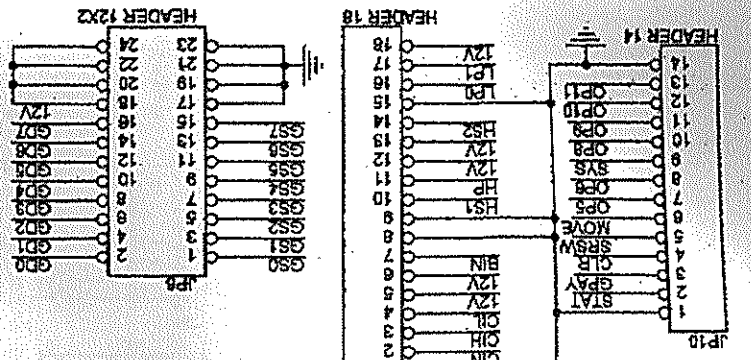
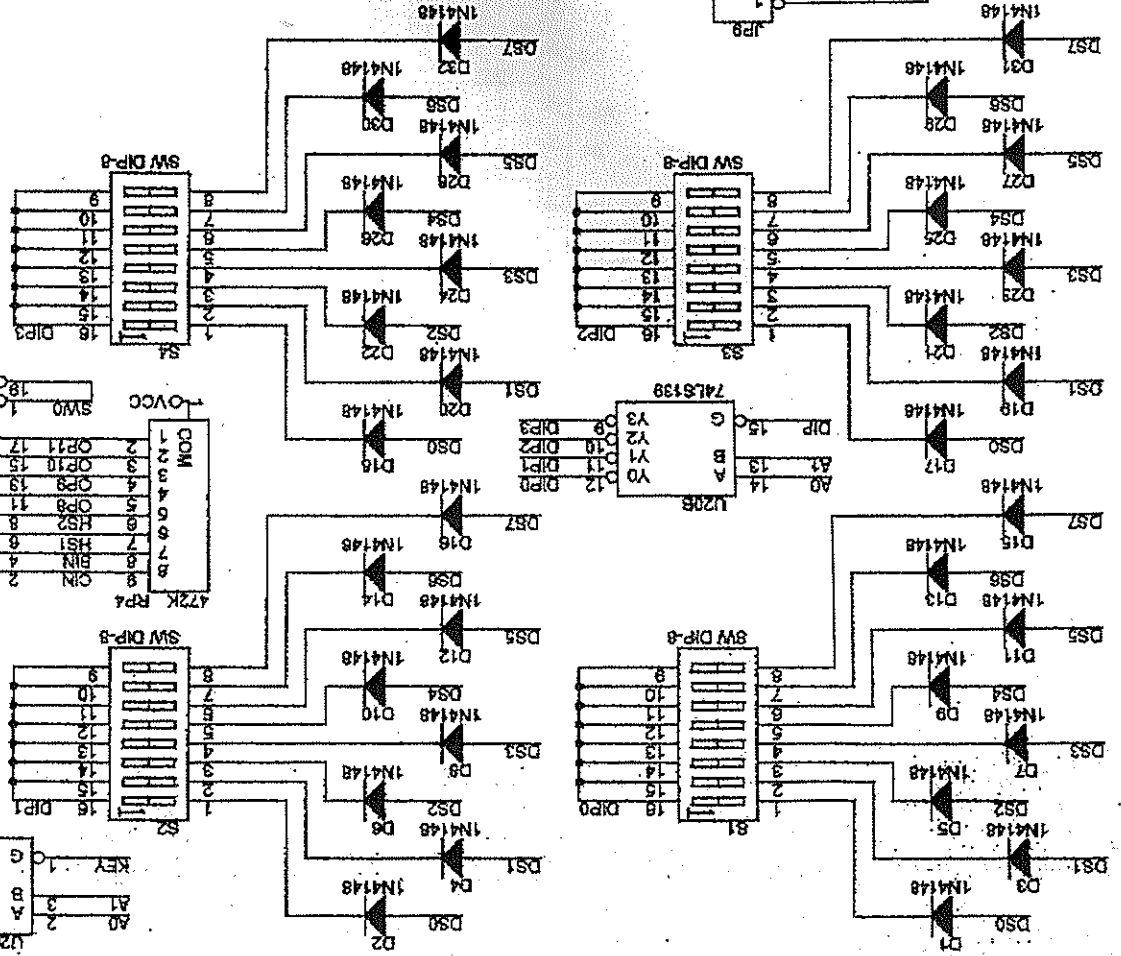
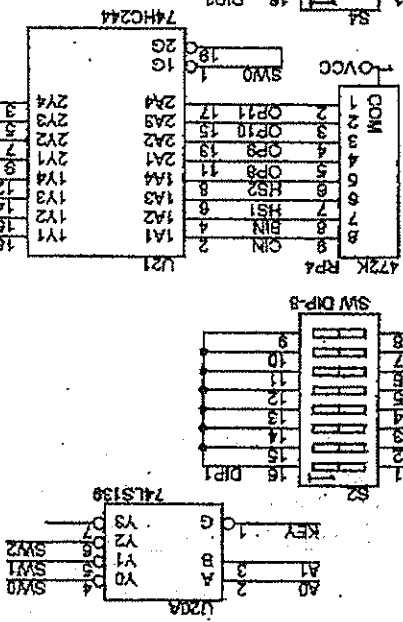
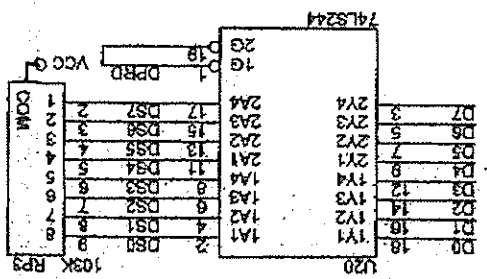
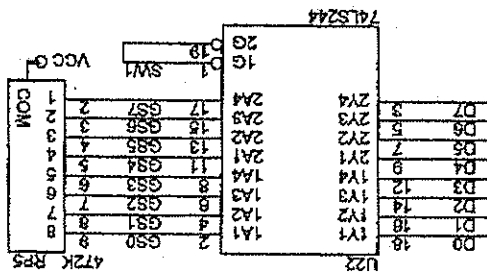
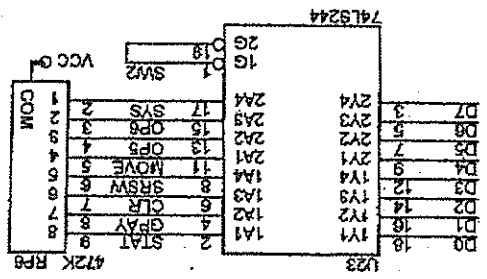
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Document Number

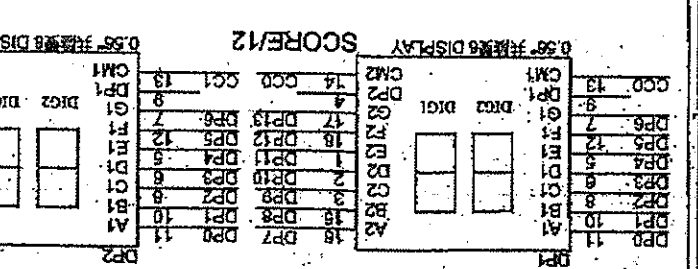
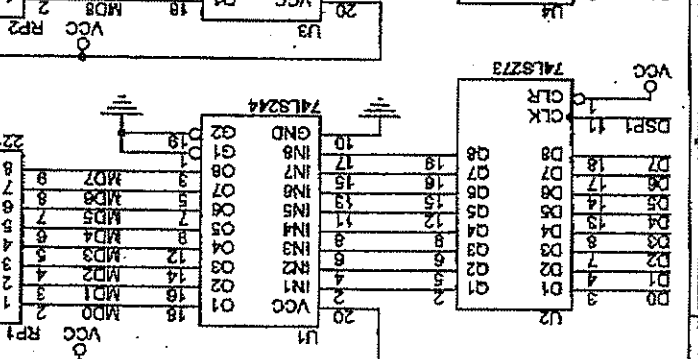
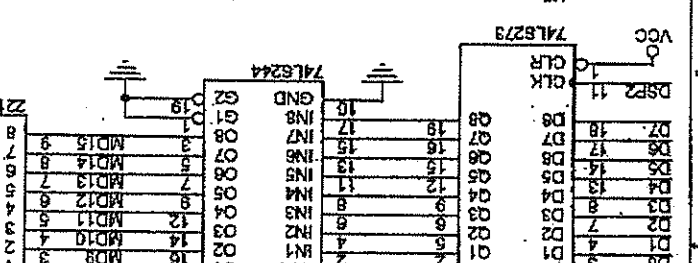
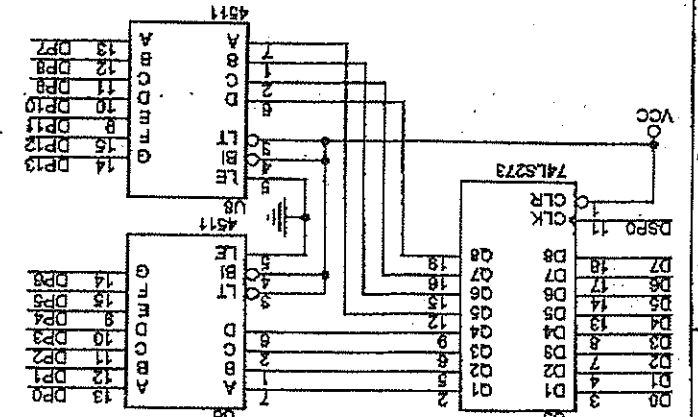
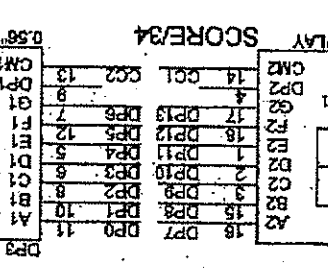
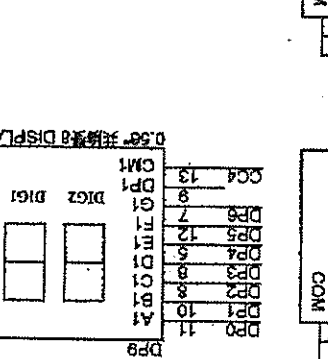
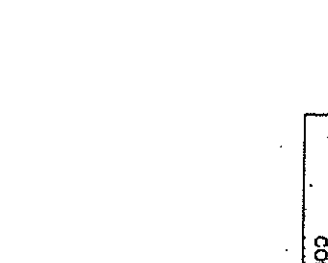
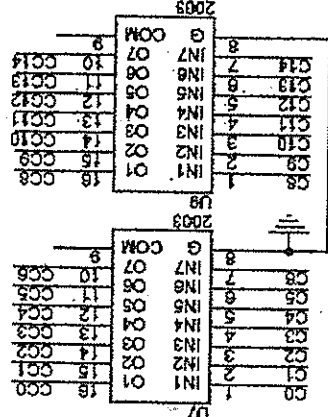
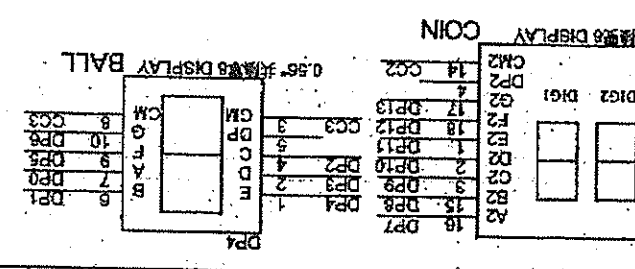
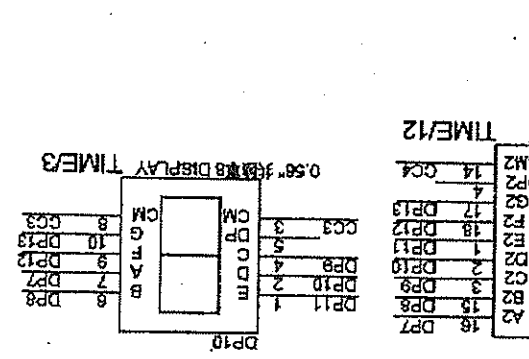
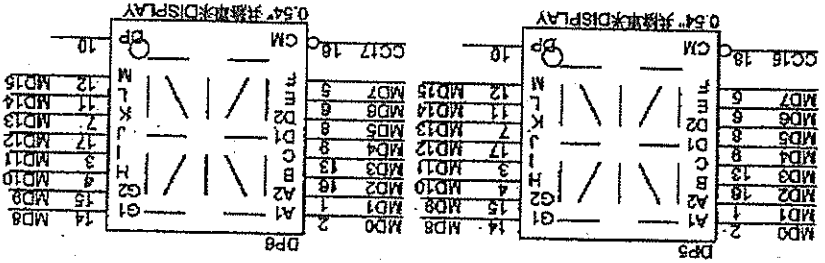
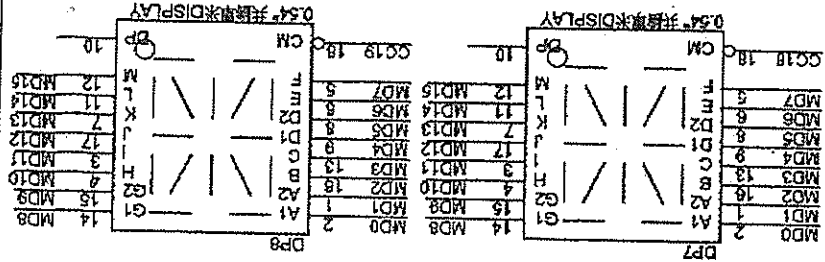
Rev 1

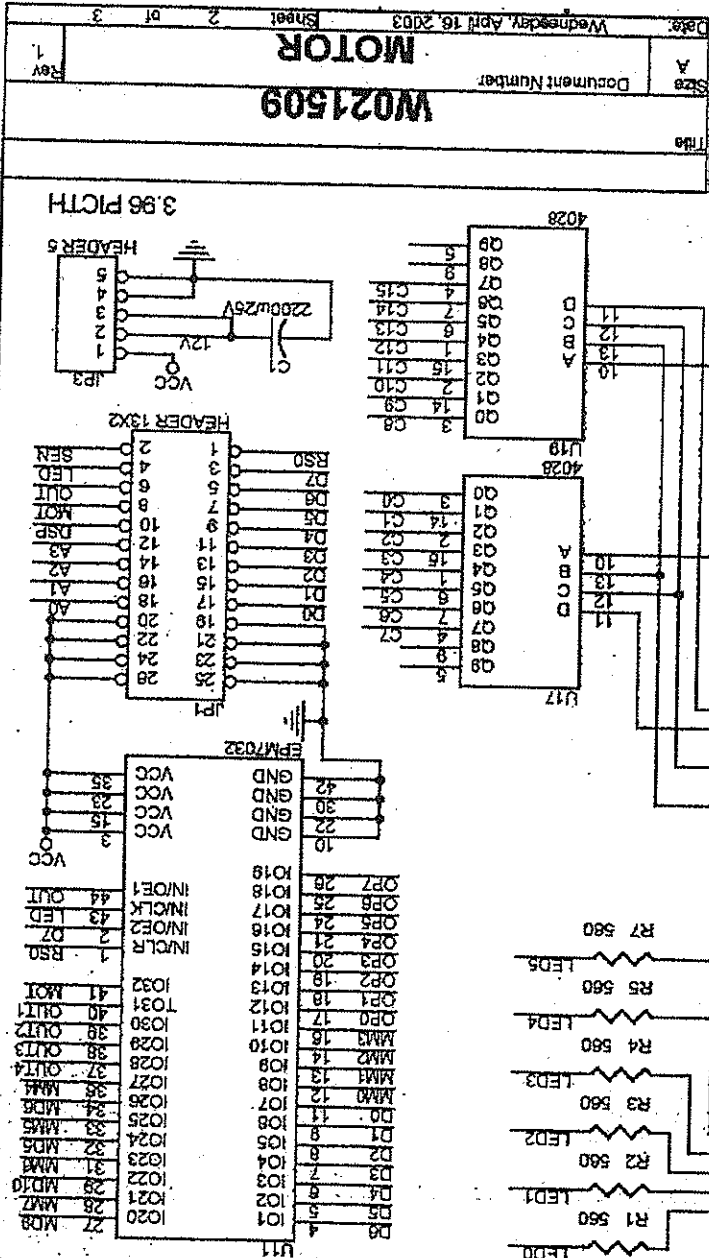
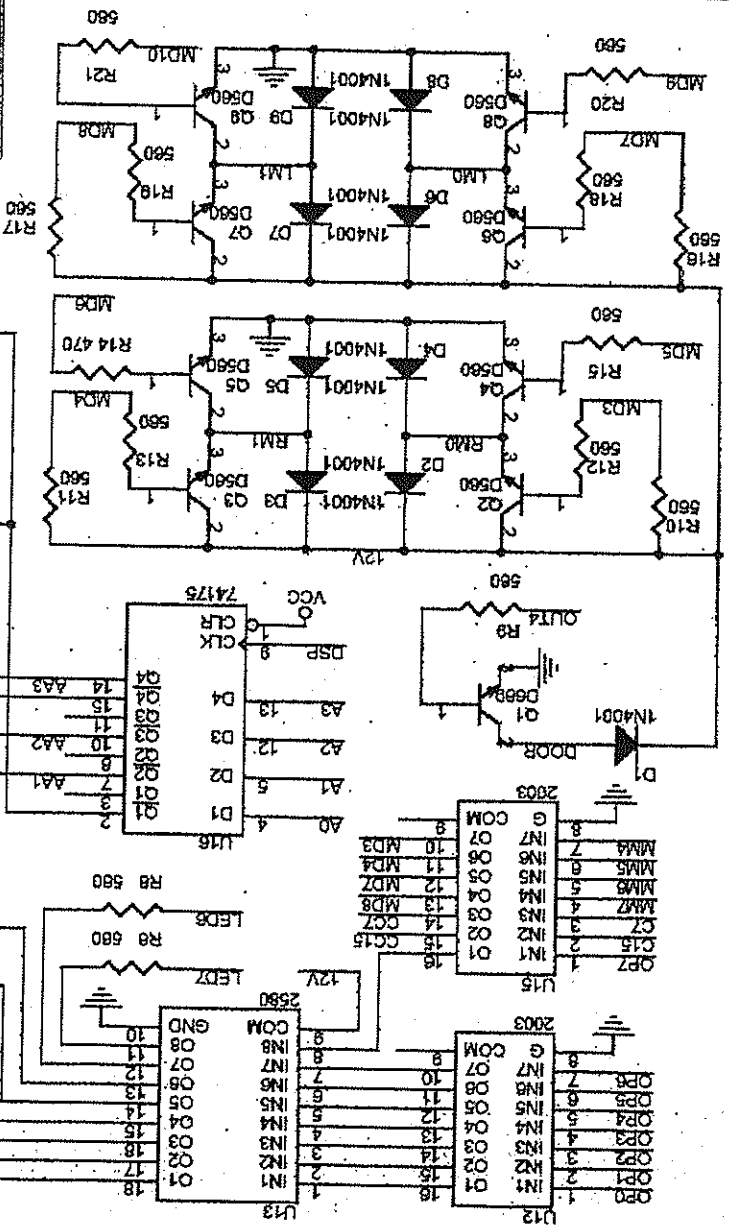
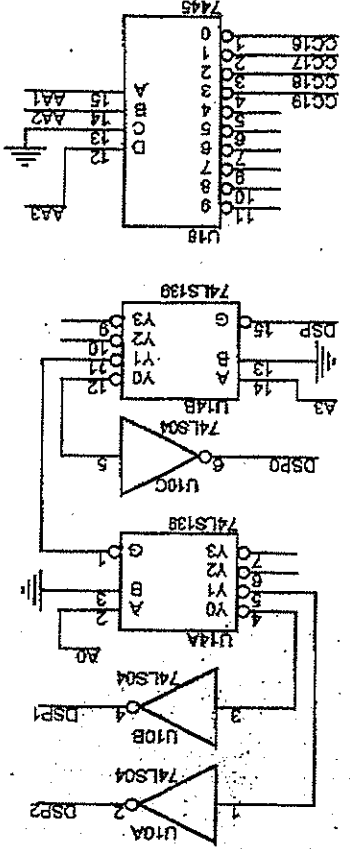
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Sheet 3 of 3



Title: **W021509**
 Document Number: **DISPLAY**
 Date: Wednesday, October 02, 2002
 Sheet 1 of 3
 Rev: (Rev)





W021509
 Document Number

3.96 PICTH
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Rev 1

Sheet 2 of 3

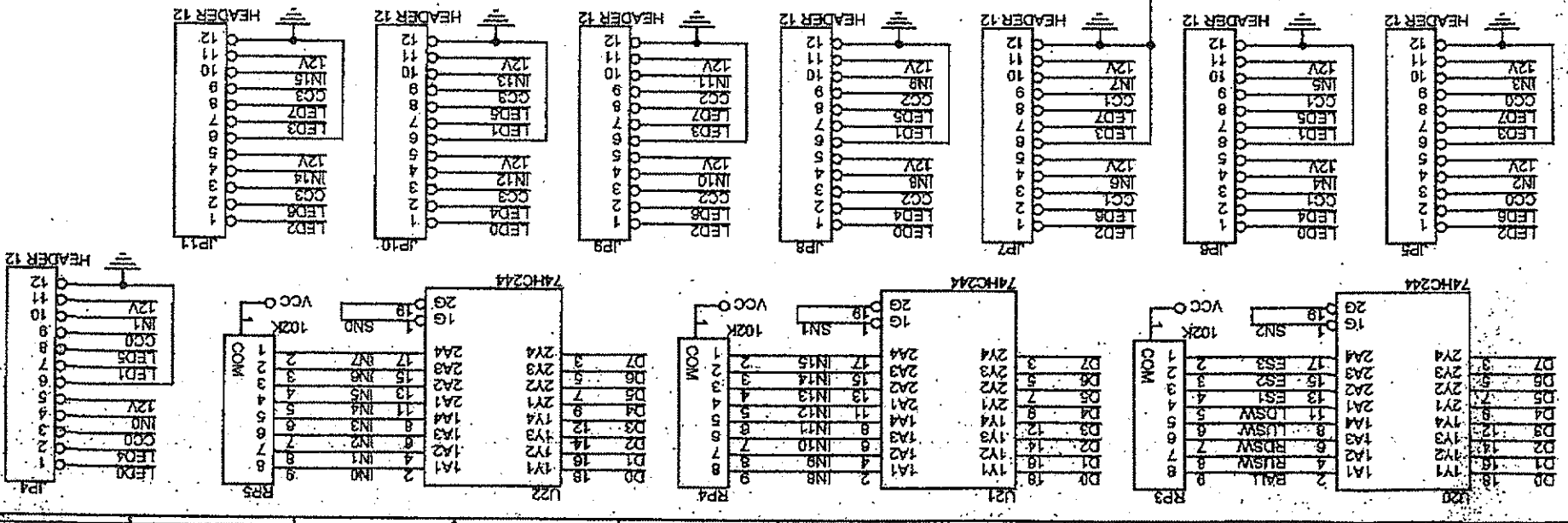
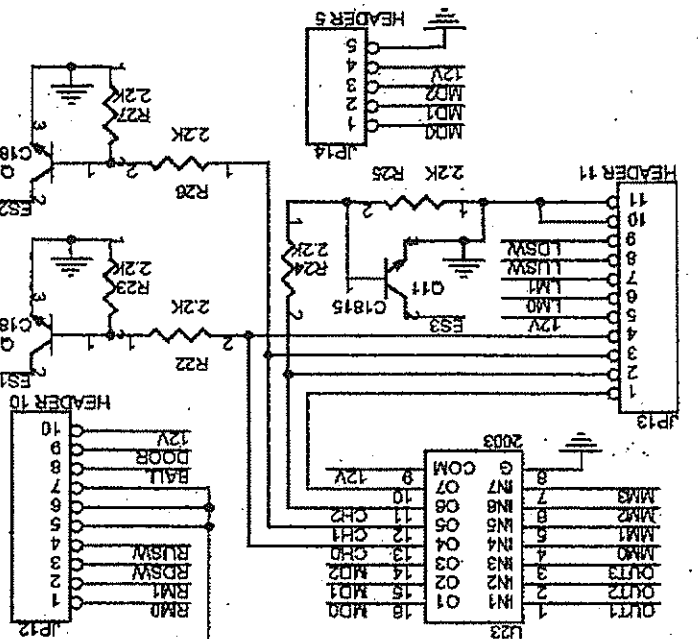
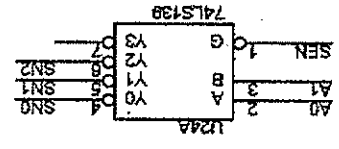
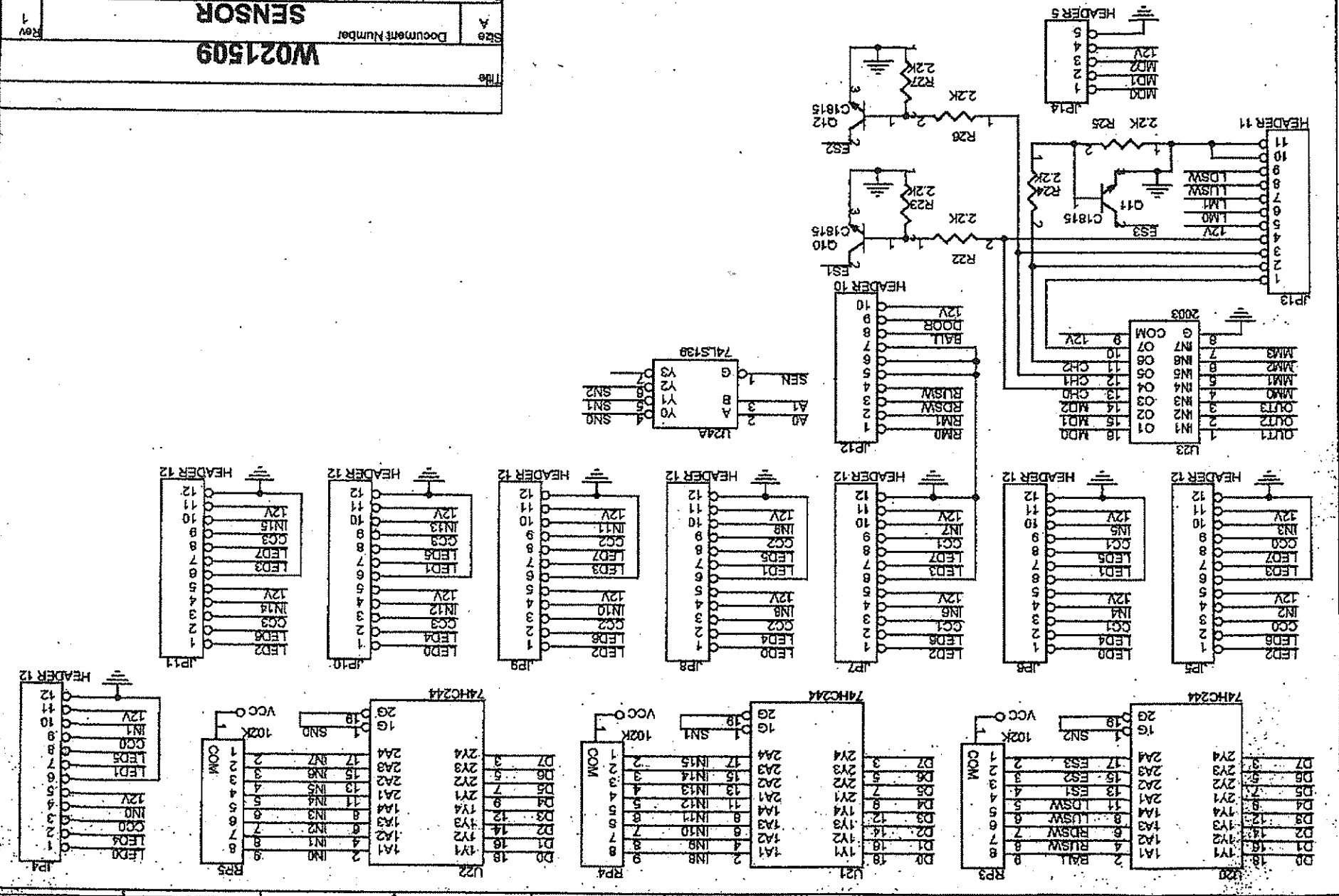
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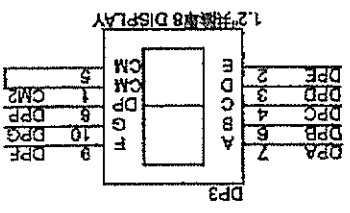
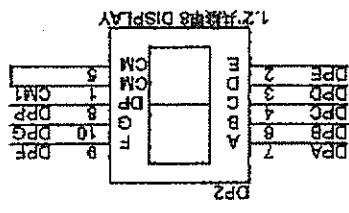
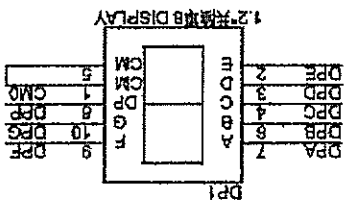
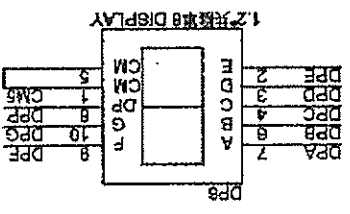
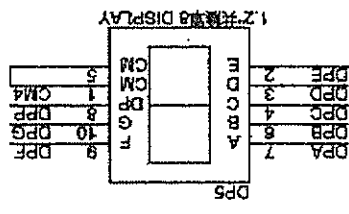
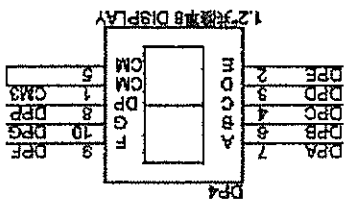
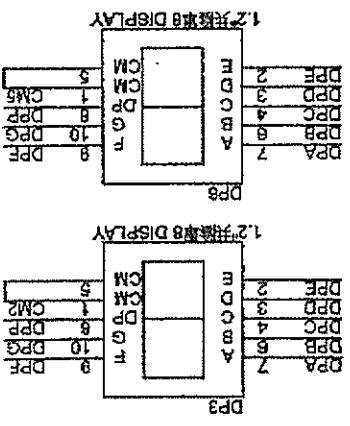
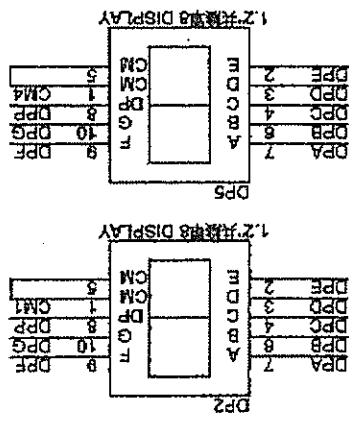
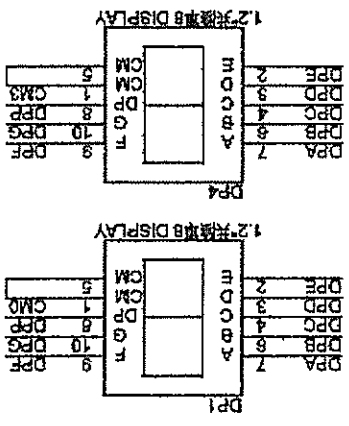
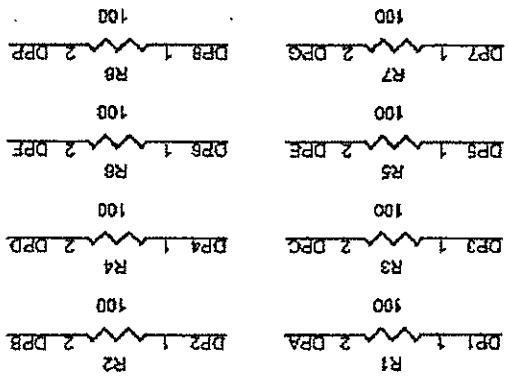
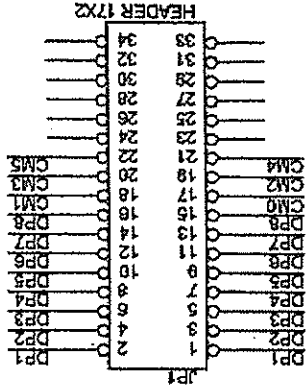
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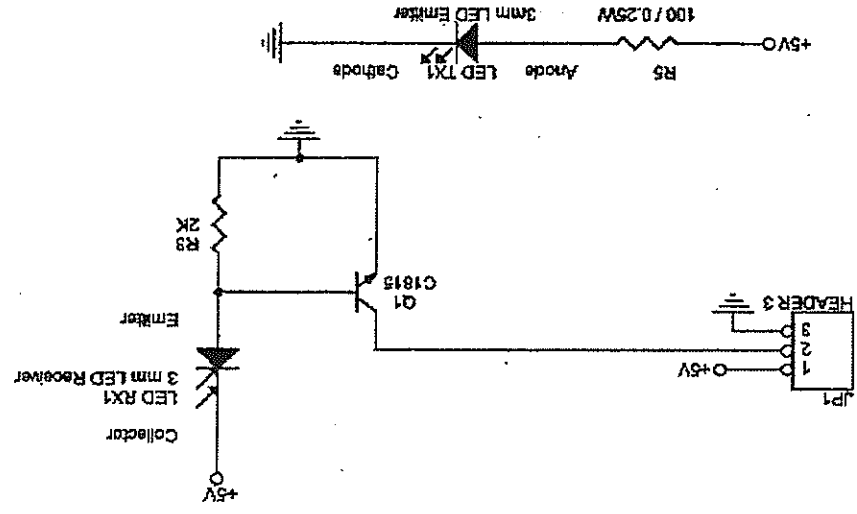
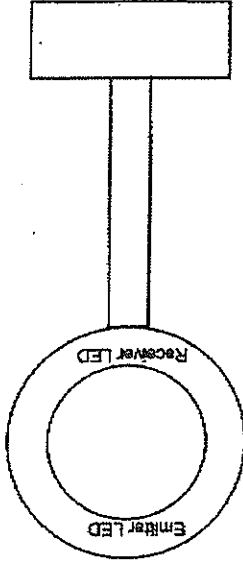
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Title		W021509	
Size	Document Number	A	
Date: Wednesday, April 16, 2003			
Sheet		3 of 3	
Rev	1		





Size	A	Date:	Monday, April 14, 2003
Sheet	1	Sheet	1
Document Number	W012111	Rev	1



Warranty

I.C.E warrants all components in the **ICE COLD BEER™** game to be free of defects in materials and workmanship for a period of 90 days from the date of purchase. Furthermore, all MAIN P.C. BOARDS are warranted for 180 days.

This warranty does not cover items damaged due to normal wear and tear, subjected to abuse, improperly assembled by the end user, modified, repaired, or operated in a fashion other than that described in the service manual.

If your **ICE COLD BEER™** game fails to conform to the above-mentioned warranty, I.C.E.'s sole responsibility shall be at its discretion to repair or replace any defective component with a new or remanufactured component of equal to or greater O.E.M. specification.

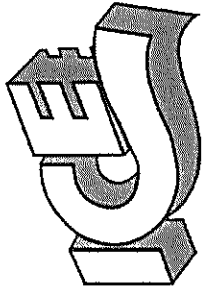
I.C.E. will assume no liability whatsoever, for costs associated with labor to replace defective parts, or travel time associated therein.

I.C.E.'s obligation will be to ship free of charge, replacement parts by U.P.S. Ground, U.S. mail, or other comparable shipping means. Any express mail or overnight shipping expense is at the cost of the purchaser.

Products will be covered under warranty only when:

- The serial number of the game with the defective parts is given.
- The serial number of the defective part, if applicable, is given.
- Defective parts are returned to I.C.E., shipping pre-paid, in a timely fashion, if requested by I.C.E.
- A copy of the sales receipt is available as proof of purchase upon request of I.C.E.

I.C.E. distributors are independent, privately owned and operated. In their judgment, they may sell parts or accessories other than those manufactured by I.C.E. We cannot be responsible for the quality, suitability, or safety of any non-I.C.E. part, or any modification, including labor, which is performed by such a distributor.



WARRANTY

ICE Inc warrants that all of its products will be free from defects in material and workmanship.

When placing a warranty request, please be prepared to provide the following information:

- Serial Number of Game or Bill of Sale
- Machine Type
- A Detailed Description of the Equipment Fault Symptoms

ICE product, including Cromptons, Sam's Billiards, Uniana and Bell Fruit is warranted as follows:

- 180 days on the Main PCB and Computers
- 90 days on all other components (i.e. DBV's, Ticket Dispensers, etc)
- 30 days on repaired items
- 3 years on all Crane Harnessing
- 9 Months on Printers

DKS cashless systems offer a 3-year warranty on all components.

ICE Inc shall not be obligated to furnish a warranty request under the following conditions:

- Equipment has been subjected to unwarranted stress through abuse or neglect
- Equipment has been damaged as a result of arbitrary repair/modification attempts
- Equipment that has failed through normal wear and tear

ICE Inc will assume no liability whatsoever for costs associated with labor to replace defective parts or travel time associated therein.

All defective warranty covered components will be replaced with new or factory refurbished components equal to OEM specifications. ICE Inc will cover all UPS ground, or comparable shipping means, freight costs during the warranty period. Expedited shipments are available for an additional charge.

Defective parts are returned to ICE Inc, at the customer's expense, in a timely fashion.

ICE distributors are independent, privately owned and operated. In their judgment, they may sell parts and/or accessories other than those manufactured by ICE Inc. We cannot be responsible for the quality, suitability or safety of any non-ICE part, modification (including labor) that is performed by such a distributor.

I.C.E. Parts/Service Dept.
Innovative Concepts in Entertainment
10123 Main St.
Clarence, NY 14031
Phone #: (716) - 759 - 0360
Fax #: (716) - 759 - 0884