

Super **TOUCHDOWN**

OWNER'S MANUAL & REFERENCE GUIDE

REVISION 1.2

 **GL Technology, Inc.**
the Games you Love to play...

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Made In U.S.A.
U.S. & Foreign Patents Pending

CONTENTS

I. Introduction	3
II. Game Description	3
III. Game Components	4
IV. Installation & Set-Up	5-8
V. Diagnostic Buttons	8
VI. Diagnostic Procedures	9-14
VII. Self Test	14
VIII. Accounting Features	15
IX. Screen Display	16
X. Converting Between Redemption & Football Game Mode	17
XI. Playing The Game	18
XII. Scoring	18
XIII. Maintenance	18
XIV. Troubleshooting	19
XV. Parts List	20
XVI. Customer Support	21
XVII. Schematics / Wiring Diagrams	21-26

Super **TOUCHDOWN**

OWNER'S MANUAL & REFERENCE GUIDE

I. INTRODUCTION

Thank you for purchasing *Super Touchdown*™. We sincerely appreciate your business.

Super Touchdown™ may be easily assembled by one person in just five minutes. The game design features built-in wheels to make the unit easily transportable for your convenience.

Please read this manual thoroughly before beginning to assemble or operate your *Super Touchdown*™. *Failure to follow these instructions could result in incorrect assembly and/or game damage which may void the warranty.*

II. GAME DESCRIPTION

Super Touchdown™ is a football game which features both Full Game and Redemption mode options. Operators set the game on Full Game or Redemption mode. In Full Game mode, players can choose to play 1, 2, 3 quarters or a complete game (4 quarters) depending on the number of credits entered. In Redemption Mode, if the game is equipped with a ticket dispenser, the Operator can set the number of balls per credit and the number of tickets dispensed.

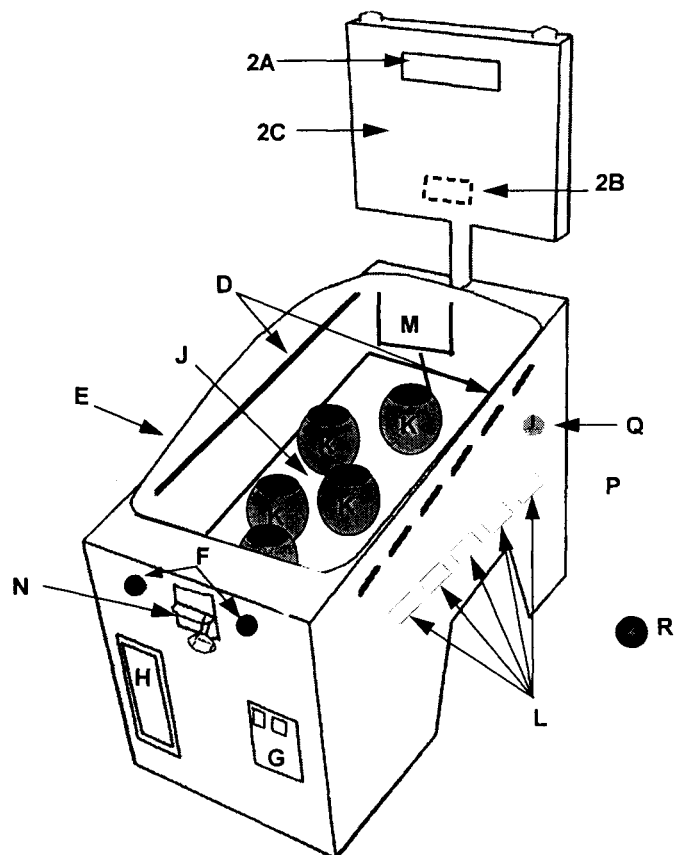
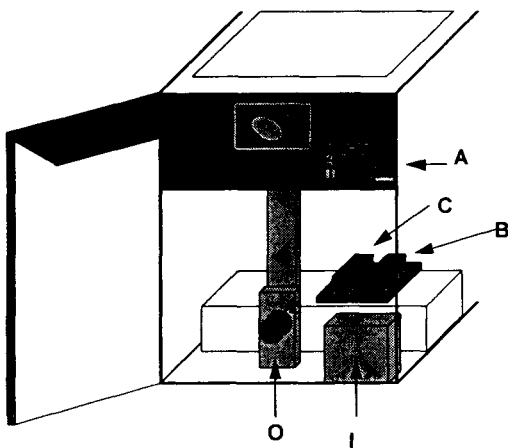
III. GAME COMPONENTS

1. CABINET

- A. Main CPU Board
- B. Transformer
- C. High Voltage Transformer for Neon
- D. Neon Lights (2)
- E. Cover Glass (Dome)
- F. Control Buttons (1 Player & 2 Player)
- G. Coin Door #1
- H. Coin Door #2 (Options: Bill Acceptor or Ticket Dispenser)
- I. Coin Box
- J. Playfield
- K. Football Helmets (5)
- L. Gear Motors Assembly (5)
- M. Goal Post
- N. Ball Shooter Assembly
- O. Ball Lifter Assembly
- P. Power Cord
- Q. Main Power Switch with Fuse
- R. Ball

2. DISPLAY BOX

- A. Dot Matrix Display
- B. Display Board
- C. "S" Shaped Neon Light



IV. INSTALLATION & SET-UP

WARNING

A three-prong grounded outlet is required to power this machine. Failure to use a grounded outlet may cause personal injury or game damage. If in doubt, please consult a qualified electrician to determine if your outlet is properly grounded. Additionally, for safety and proper operation, the voltage rating on your machine must match the voltage of your power outlet.

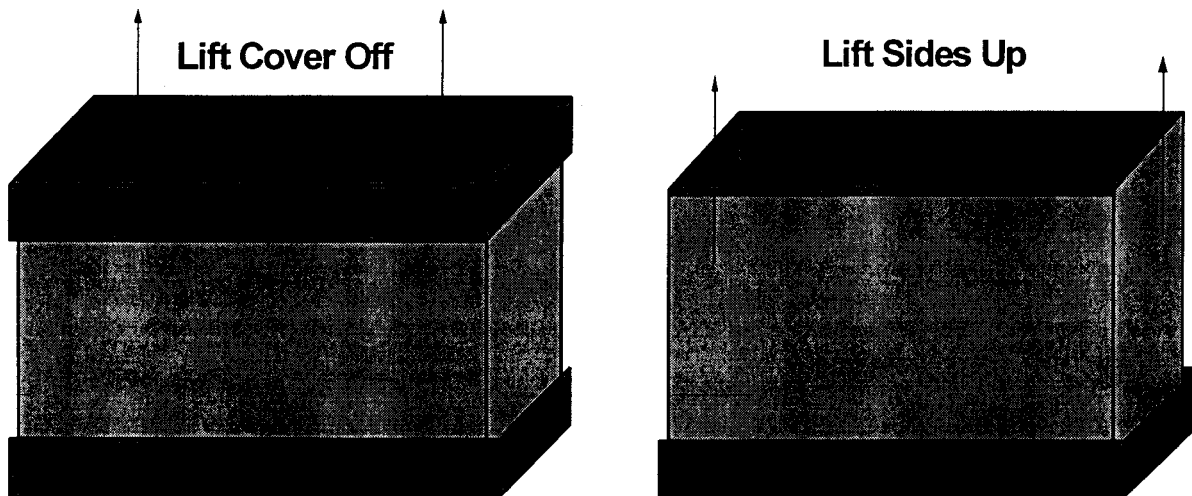
NOTICE

- *Super Touchdown™* requires a *level* floor space of approximately 3 x 5ft.

INSTRUCTIONS FOR SET-UP

1. Unpack Unit From Shipping Container.

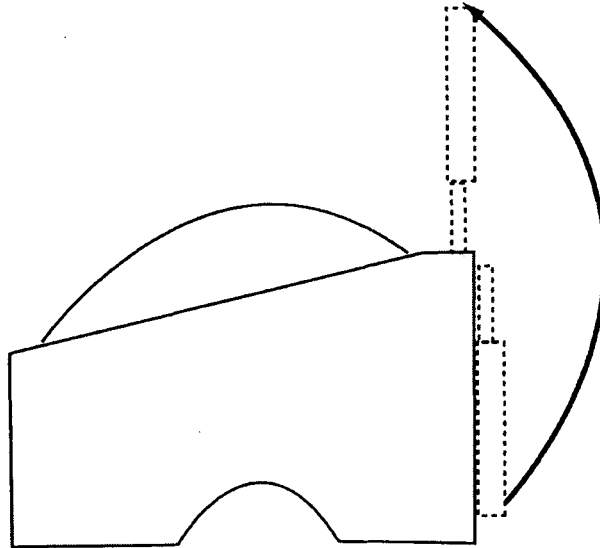
- 1.1 Remove cover and lift sides over unit.



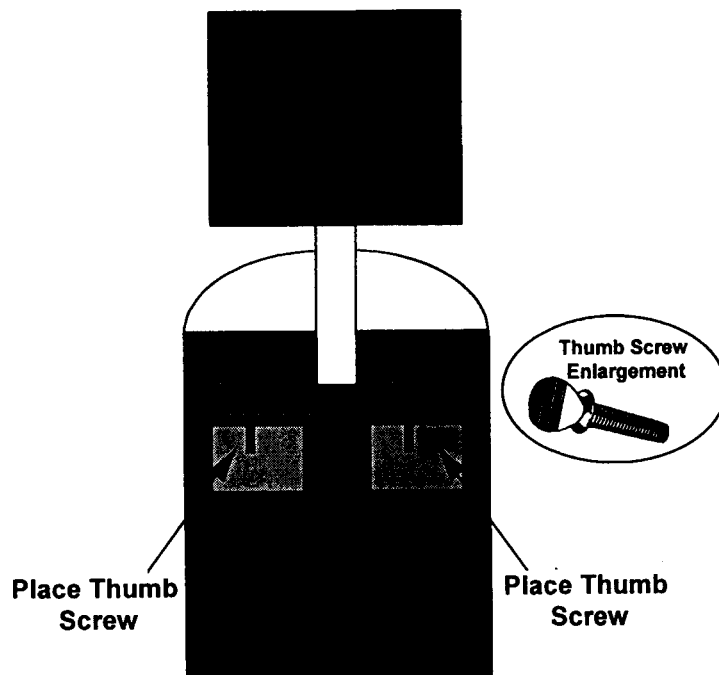
- 1.2 Slide unit off of bottom piece and place in desired location.

2. Raise Back Display.

2.1 Lift display so it is in the full upright position.

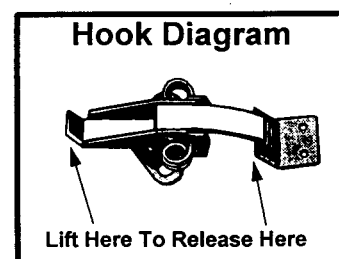
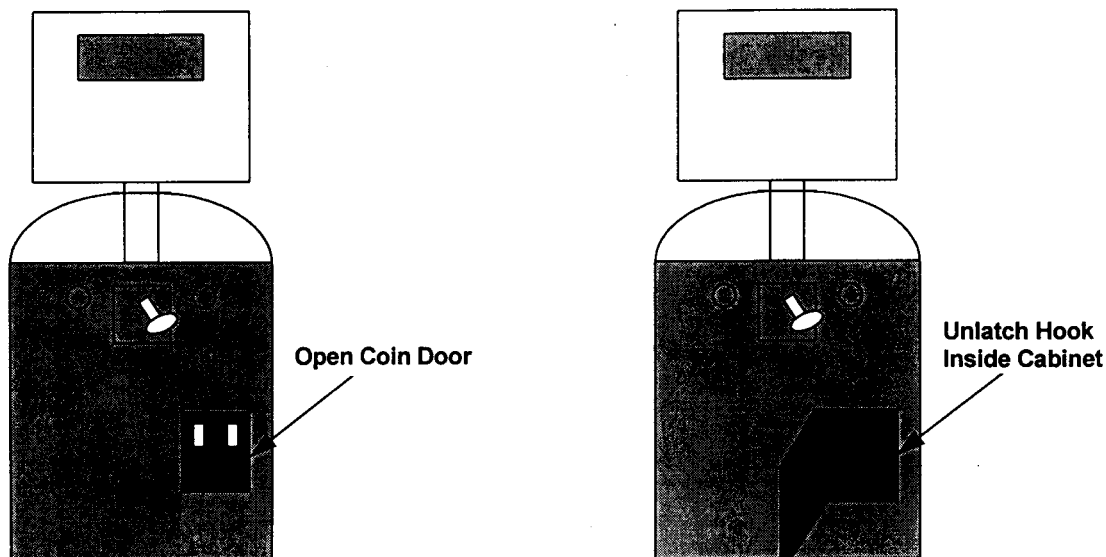


2.2 Place attached screws into holes in back of cabinet and screw display into place.

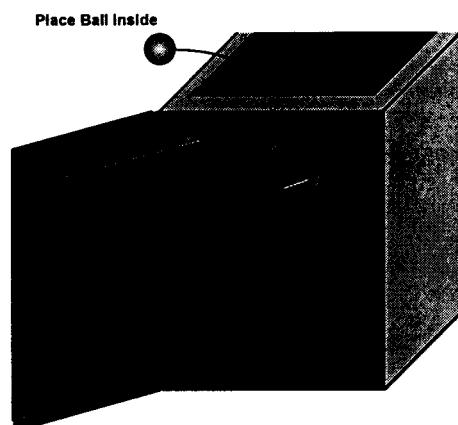


3. Place Ball Into Playfield.

- 3.1 Remove keys from ball shooter assembly and unlock coin door.
- 3.2 Open coin door and unlatch hook inside cabinet.



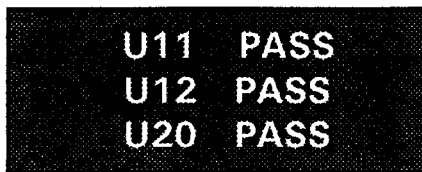
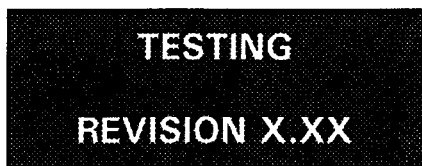
- 3.3 Open front door, locate the coin box, and remove plastic bag. The ball is inside the plastic bag. Lift dome and drop ball inside onto playfield.



- 3.4 Replace dome and close front door

- 4. Plug power cord into three-prong (grounded) outlet.
- 5. Turn power on using main power switch located in back of cabinet.

**Display will show a testing screen which indicates game is in operating condition. If U11, U12 and/or U20 display "FAIL", contact our technical service at 800-346-5303. Do not insert coins until the power up testing is complete. If coins are inserted too early "fail" may appear.



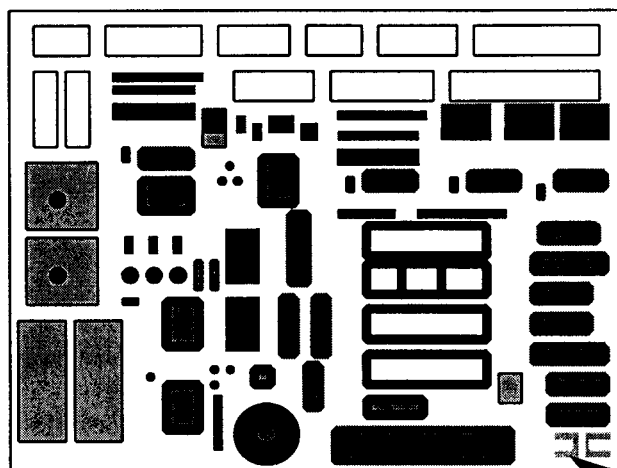
V. DIAGNOSTIC BUTTONS

- 1. Open coin door using keys removed from the ball shooter on the front of the cabinet.
- 2. Find the white test button located on the bottom right corner of the CPU board.

TEST/MENU: (Left Button)

GAME OPTIONS MENU may be accessed by pressing this button. If button is pressed a second time, GAME OPTIONS MENU will be exited. You can not enter game options menu while the power up test screen is displayed or while a game is in play.

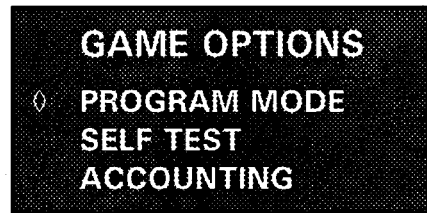
Main CPU PCB



Test/MenuButton

VI. DIAGNOSTIC PROCEDURES

Press TEST/MENU button to bring up GAME OPTIONS MENU display:



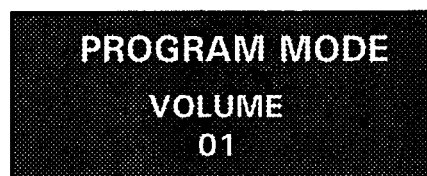
■ PROGRAM MODE

Press *Player 2* to access PROGRAM MODE. The first “adjustable game option” -- “Volume Control” will appear. To make changes within the following “adjustable game options”, press *Player 2* to scroll through the available settings. Press *Player 1* to advance to the next “adjustable game option”.

ADJUSTABLE GAME OPTIONS	
1	VOLUME CONTROL
2	GAME PRICING
3	ATTRACTION MODE
4	BALLS PER CREDIT
5	TICKET DISPENSING
6	GAME TIME
7	GAME MODE TICKETS
8	GAME TYPE
9	ACCOUNTING RESET
10	FACTORY DEFAULTS

After all adjustments are made, exit PROGRAM MODE by pressing TEST/MENU button at any time to store and initiate changes.

1. VOLUME CONTROL



- Default Setting: 4
- Setting Options: 0-9

2. GAME PRICING

- **COINS PER 1 CREDIT FOR COIN DOOR**

The value set is the amount of coins needed for one credit.

```

PROGRAM MODE
COIN
01
  
```

- Default Setting: 1 COIN = 1 CREDIT
- Setting Options: 0-9

- **BILL SETTING OPTION**

When coin door is set at 01, the values set is the amount of credits received for \$1.00. If you increase the setting for coin you will need to increase the bill setting to keep the value even.

```

PROGRAM MODE
BILL
04
  
```

- Default Setting: 0 = 1 BILL
- Setting Options: 0-25 = 1 BILL

3. ATTRACTION & SOUND MODE

When *Super Touchdown*[™] is not in play, the "Attraction & Sound Mode" is programmed to draw attention to the game. Within a designated time interval, the game announcer and crowd sound effects are heard.

```

PROGRAM MODE
ATTRACT INTERVAL
5
  
```

- Default Setting: INTERVAL = EVERY 5 MINUTES
- Setting Options: INTERVAL = EVERY 0-60 MIN. (In 5 Min. Increments)

4. BALLS PER CREDIT MODE

For use in Redemption Mode. Set the number of balls that each player will receive.

PROGRAM MODE
BALLS / CREDIT
 5

- Default Setting: 1 BALLS
- Setting Options: 1-5 BALLS

5. TICKET DISPENSING OPTION

- **MINIMUM TICKET SETTING**

The player will be awarded a designated minimum number of tickets just for playing.

PROGRAM MODE
MINIMUM TICKETS
 3

- Default Setting: 3 TICKETS
- Setting Options: 0-10 TICKETS

- **TICKET / HELMET SETTING**

PROGRAM MODE
TICKETS HELMET XX
 XX

- Default Setting:
 - Helmet 1 = 6 TICKETS
 - Helmet 2 = 8 TICKETS
 - Helmet 3 = 10 TICKETS
 - Helmet 4 = 12 TICKETS
- Setting Options: 0-50 TICKETS (all helmets)

- **TICKETS FOR FIELD GOAL SETTING**

PROGRAM MODE
TICKETS FIELD GOALS
 5

- Default Setting: 5 TICKETS
- Setting Options: 0-50 TICKETS

■ **JACKPOT TICKET SETTING**

PROGRAM MODE
JACKPOT TICKETS
 0

- Default Setting: 100 TICKETS
- Setting Options: 0-300 TICKETS
(increments of 25)

■ **JACKPOT CAP SETTING**

Set "Jackpot Cap" to stop the progressive jackpot from increasing once it reaches the value you set.

PROGRAM MODE
JACKPOT CAP
 0

- Default Setting: 0 TICKETS
- Setting Options: 0-1000 TICKETS
(increments of 50)

6. GAME TIME SETTING

The time is set for a 1 player game. If a 2 player game is selected the time will automatically double.

PROGRAM MODE
GAME TIME
 30

- Default Setting: 60 SECONDS
- Setting Options: 30-90 (In 10 Second Increments)

7. GAME MODE TICKETS

This option will dispense tickets to the winner of the game. If there is a tie after a 1 player game only half of the ticket amount will be dispensed to the player.

PROGRAM MODE
GAME MODE TICKETS
 00

- Default Setting: 0 TICKETS
- Setting Options: 0-20 TICKETS (2 Ticket Increments)

8. GAME TYPE

The game can be set on Full Game Mode or Redemption Mode.

PROGRAM MODE
GAME TYPE
 0

- Default Setting: FULL GAME MODE = 0
- Setting Options: FULL GAME MODE = 0
 REDEMPTION MODE = 1

9. RESET FUNCTIONS

For all reset functions, settings will revert to zero upon exiting PROGRAM MODE.

■ CLEAR ACCOUNTING VALUE SETTING

These values are found in ACCOUNTING under the GAME OPTIONS MENU.

PROGRAM MODE
ACCOUNTING RESET
 0

- Default Setting: KEEP STORED ACCOUNTING VALUES = 0
- Setting Options: KEEP STORED ACCOUNTING VALUES = 0
 CLEAR STORED ACCOUNTING VALUES = 1

10. RESTORE FACTORY DEFAULT SETTING

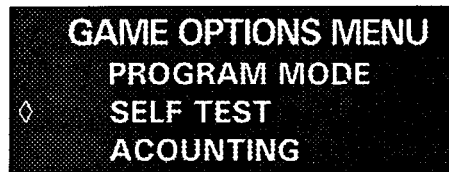
The "Factory Default Setting" is provided so that all PROGRAM MODE changes may be easily restored to the Default Setting values.

PROGRAM MODE
FACTORY DEFAULT
 0

- Default Setting: MAINTAIN CURRENT VALUES = 0
- Setting Options: MAINTAIN CURRENT VALUES = 0
 RESTORE FACTORY SETTING = 1

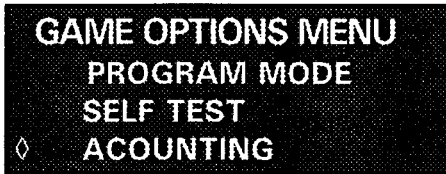
Exit PROGRAM MODE by pushing TEST/MENU button located in right coin door.

VII. SELF TEST



1. Press *1 Player button* to scroll to SELF TEST mode, then press *2 Player button*. The game will announce a number between 1 and 9 indicating that the function being tested is working correctly. All helmets will be moving during self test.
 - 1 TESTS PLAYER 1 BUTTON
(Press *Player 1*.)
 - 2 TESTS PLAYER 2 BUTTON
(Press *Player 2*.)
 - 3 TESTS BALL SHOOTER SENSOR
(Pass hand by sensor.)
 - 4 TESTS HELMET 1 SENSOR
(Pass hand by sensor.)
 - 5 TESTS HELMET 2 SENSOR
(Pass hand by sensor.)
 - 6 TESTS HELMET 3 SENSOR
(Pass hand by sensor.)
 - 7 TESTS HELMET 4 SENSOR
(Pass hand by sensor.)
 - 8 TESTS HELMET 5 SENSOR
(Pass hand by sensor.)
 - 9 TESTS GOAL POST SENSOR
(Pass hand by sensor.)
 - 10 TESTS BALL LIFTER AND ITS SENSOR
(Pass hand by sensor; if it goes up, down and stops it is working)
2. To test the Dot Matrix Display press the small white button in the bottom left corner of the Display PCB.
3. Exit SELF TEST mode by pushing TEST/MENU button located on the Main PCB behind right coin door.

VIII. ACCOUNTING



■ GAME OPTIONS ACCOUNTING FEATURES

1. Press *1 Player Button* to scroll down to ACCOUNTING and press *2 Player Button*.

■ The following information can be retrieved:

- ◆ Total Credits
- ◆ Total Tickets
- ◆ Total Helmet 1
- ◆ Total Helmet 2
- ◆ Total Helmet 3
- ◆ Total Helmet 4
- ◆ Total Helmet 5
- ◆ Total Field Goal

2. To exit ACCOUNTING, push TEST/MENU button located on Main PCB behind right coin door.

■ COIN COUNTER ACCOUNTING FEATURE

- Located on inside of coin door.
- Keeps track of TOTAL NUMBER OF GAMES PLAYED.

■ TICKET COUNTER ACCOUNTING FEATURE

Available only when machine is equipped with a ticket dispenser.

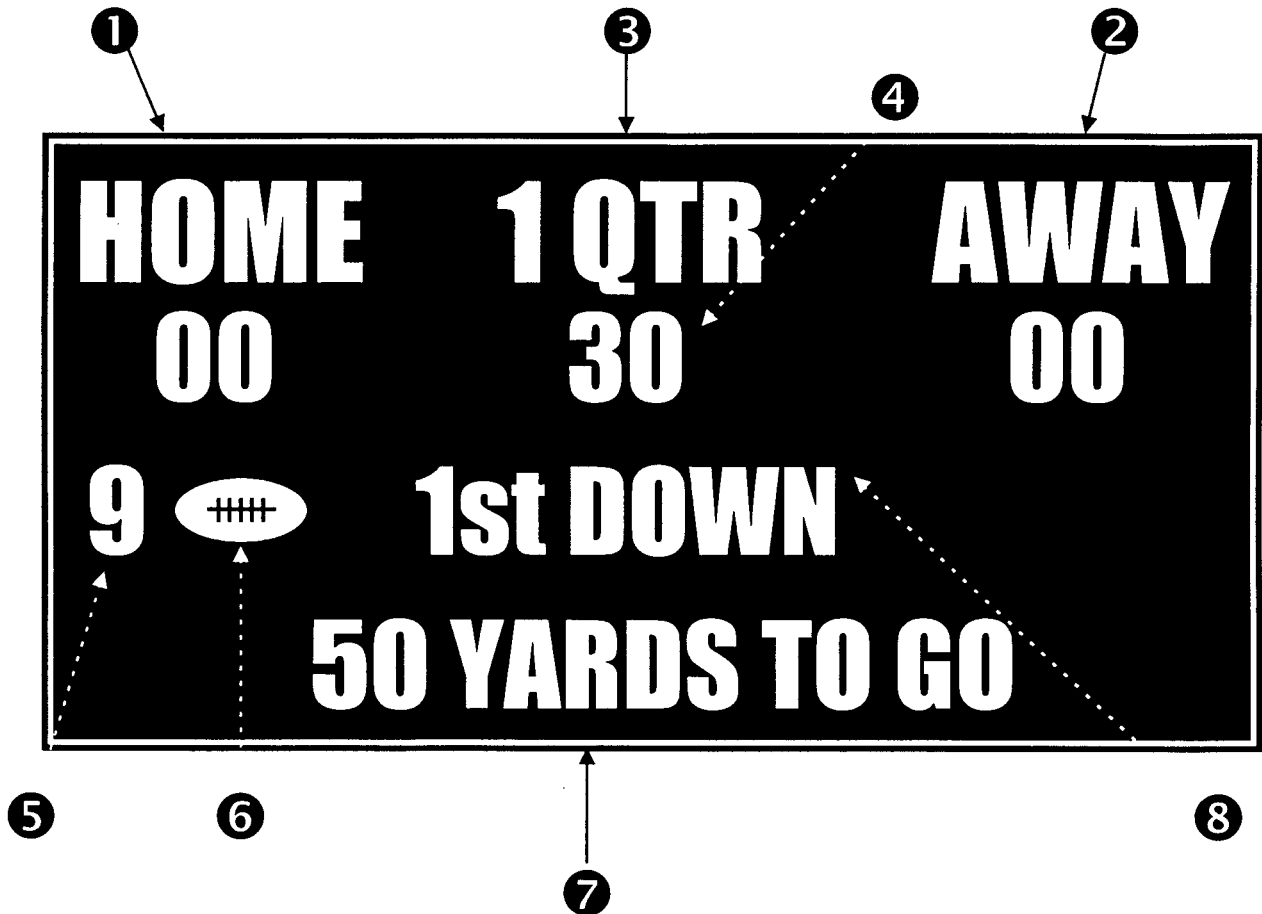
- Located on inside of ticket dispenser door.
- Keeps track of TOTAL NUMBER OF TICKETS DISPENSED.

Both the coin counter and the ticket counter cannot be reset. This ensures an accurate, cumulative count.

IX. SCREEN DISPLAY

During Full Game Mode play, the following information appears on the display:

- ① PLAYER 1 SCORE
- ② PLAYER 2 SCORE
- ③ QUARTER OF GAME
- ④ GAME CLOCK
- ⑤ POSSESSION CLOCK (*Holding ball more than 10 seconds results in a loss of down.*)
- ⑥ POSSESSION INDICATOR
- ⑦ YARDS TO GO FOR TOUCHDOWN
- ⑧ DOWN INDICATOR



X. CONVERTING YOUR GAME

REDEMPTION ⇒ FOOTBALL GAME MODE	FOOTBALL GAME MODE ⇒ REDEMPTION
<p>1. <u>Remove Original Decals</u></p> <ul style="list-style-type: none"> - Remove original decals. (6) (all helmet & goal post decals) <p>2. <u>Install New Decals & Instruction Cards</u></p> <ul style="list-style-type: none"> - Use yardage decals on the first four helmets. (start with "10" on the front helmet) - Place "Touchdown" decal on last helmet. - Place "Field Goal" decal between goal posts on back of cabinet. - Slide the yellow Instruction Cards over the existing cards. <p>3. <u>Set Ticket Quantity</u> (optional) see page 12 of owner's manual To dispense tickets to the winning player, set ticket quantity as follows:</p> <ul style="list-style-type: none"> - Open the front door and find the two white buttons on the bottom-right corner of the CPU Board. (Use the left button as your test-button). - Press Test button once to enter the Game Options Menu. - Press Player 2 button to access Program Mode. - Volume Control screen will appear. - Press Player 1 button to scroll through the adjustable game options until "Game Mode Tickets" screen appears. - Press Player 2 button to increase the number of tickets. (2 ticket increments up to 20) If you do not wish to award tickets set this number at "0" <p>4. <u>Set Game Type</u> see page 13 of owner's manual</p> <ul style="list-style-type: none"> - While you are still in the Adjustable Game options, press the Player 1 button again to scroll to Game Type Screen. - Press Player 2 to set Game type to "0" (Game Mode) - Press Test button to exit Program Mode. 	<p>1. <u>Remove Original Decals</u></p> <ul style="list-style-type: none"> - Remove Original Decals (6) (all helmet & goal post decals) <p>2. <u>Install New Decals & Instruction Cards</u></p> <ul style="list-style-type: none"> - Use number decals on first 4 helmets and field goal area. (We suggest you use the numbers 4,6,8 & 10 for the helmets and 3 for the field goal.) - Use "Jackpot" decal on last helmet. - Slide the yellow Instruction Cards over the existing cards. <p>3. <u>Set Ticket Quantities</u> see pages 11-12 of owner's manual</p> <ul style="list-style-type: none"> - Open the front door and find the white Test button on the bottom-right corner of the CPU Board. (the left one is the Test Button) - Press Test button once to enter the Game Options Menu. - Press Player 2 button to access Program Mode. - Volume Control screen will appear. - Press Player 1 button to scroll through the adjustable game options until "Minimum Tickets" screen appears. - Press Player 2 button to set the number of tickets, we suggest you use 2 for this setting. - Press Player 1 button again to advance screen to "Tickets Helmet 1". - Press Player 2 button to set the number of tickets, we suggest you use 4 for this setting. Repeat this step for other helmets, field goal, and Jackpot settings. (Suggest 100 tickets). <p>4. <u>Set Game Type</u> see page 13 of owner's manual</p> <ul style="list-style-type: none"> - While you are still in the Adjustable Game options, press the Player button again to scroll to Game Type Screen. - Press Player 2 to set Game Type to "1" (Redemption Mode) - Press Test button to exit Program Mode.

XI. PLAYING THE GAME

■ DEPOSIT COINS/BILLS

(1 credit per player for each Quarter of playing time.)

XII. SCORING

■ FULL GAME MODE

The objective is to attain the *highest* score. Scores are calculated based on the following point system:

■ TOUCHDOWN = 6 POINTS

player gains at least 50 yards

■ EXTRA POINT = 1 POINT

player kicks ball through goal posts after Touchdown

■ FIELD GOAL = 3 POINTS

player kicks ball through goal posts

■ OVERTIME

If score is tied at the end of regulation time, in overtime the first player to score wins the game. Only one overtime is allowed per game.

■ FINAL SCORES of each player are displayed at the end of the game.

XIII. MAINTENANCE

Super Touchdown™ is virtually maintenance-free, but regular cleaning will help keep your unit looking new:

- Clean the cover glass and back glass with water and a mild detergent using a soft cloth.
- Lubricate the Ball Lifter Shaft and the Ball Shooter.

IV. TROUBLESHOOTING

POSSIBLE HARDWARE PROBLEMS AT POWER UP OR DURING GAME MODE:

SYMPTOM:

GAME IS COMPLETELY DEAD...

POSSIBLE FAULT & SOLUTION:

- Check AC power to the game.
- Check 4 ampere fuse located next to the ON/OFF power toggle switch.
- Check LED1, LED2, LED8 on the main CPU PCB, they indicate status of DC voltages. If the LEDs are OFF, check fuses F1 and F2 on the main CPU PCB.

FOOTBALL HELMETS DO NOT MOVE SIDE WAYS....

LED 1 ON
LED 2 OFF
LED 8 ON

- Blown 4Amp fuse on the main CPU PCB.
- Replace F1 fuse.
- Check wire connection to the motors under the play field.
- Check motor pulley drive cables on the slide assemblies.

NO INFORMATION ON GAS PLASMA DISPLAY, LOUD HUMMING SOUND FROM SPEAKERS.....

LED1 OFF
LED2 ON
LED8 ON

- Defective CPU PCB.
- Blown F2 fuse on the CPU PCB.
- Replace fuse.
- Check data cable and power connection.
- Defective gas plasma driver PCB.

NO SOUND.....

- Check speaker connection P1 on the main CPU.
- Check F2 fuse on the main CPU PCB.

NO SCORING WHEN BALL FALLS THROUGH THE HELMET....

- Defective optical PCB.
- Check wire connection to the optical sensor PCB inside the helmet.
- Check alignment of infrared LED and photo - transistor.

NO SCORING WHEN BALL FALLS THROUGH THE FIELD GOAL.....

- Defective optical PCB.
- Check wire connection to the sensor PCB.
- Check alignment of infrared LED and photo transistor.

BALL LIFT DOES NOT MOVE....

- Check wire connection to the lift motor.
- Check fuses on main CPU PCB.
- Make sure that motor switch (located next to the motor) is functional.
- Check fuses on the main CPU PCB.
- Make sure that motor is functional.

BALL LIFT CONTINUOUSLY RUNS UP AND DOWN, DOES NOT STOP....

- Check the alignment of infrared LED and photo- transistor.
- Check the ball lift assembly micro switch.
- Make sure that ball lift mechanism is properly aligned.

XV. PARTS LIST

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY PER GAME</u>
PL-1003-01	NYLON BALL, 7/8" DIAMETER	1
EL-2004-01	TRANSFORMER	1
EL-2005-01	TRANSFORMER FOR NEON LIGHTS	1
EB-1001-03	PCB, MAIN CPU	1
EB-1002-03	PCB, DISPLAY CONTROLLER	1
EL-2013-01	PCB, DOT MATRIX DISPLAY	1
EL-2054-01	PCB, + 5VDC REGULATOR	1
EB-1013-01	PCB, BALL SENSOR	1
EB-1009-01	PCB, HELMET BALL SENSOR	5
EB-1009-01	PCB, FIELD GOAL SENSOR	1
EB-1009-01	PCB HOME POSITION SENSOR, BALL LIFT	1
EL-2046-01	NEON TUBE, BLUE FOR CABINET	2
EL-2046-02	NEON TUBE, (S-SHAPED) BEHIND MARQUEE	1
20-1010-01	PLAYFIELD COVER, LEFT (NO ARTWORK)	1
20-1011-01	PLAYFIELD COVER, RIGHT (NO ARTWORK)	1
20-4000-01	SHOOTER ASSY.	1
GE-2027-01	SHOOT HANDLE, FOOTBALL	1
RB-1002-01	TIP, BLACK FOR BALL SHOOTER	1
20-5000-01	BALL LIFT ASSY.	1
EL-2006-50	MOTOR W/SWITCH, BALL LIFTER	1
PM-2020-01	BALL NEST, (BLACK) FOR BALL LIFTER	1
20-6000-01	HELMET ASSY.	5
20-7000-01	SLIDE ASSY.	5
EL-2006-11	DC MOTOR W/SWITCH FOR SLIDES	5
GE-2029-01	NYLON ROPE FOR SLIDES	5
DE-1022-01	DECAL, SIDE CABINET	2
DE-1019-01	DECAL, CABINET INTERIOR, SIDE	2
DE-1020-01	DECAL, CABINET INTERIOR, BACK	1
DE-1023-01	DECAL, LEFT PLAYFIELD	1
DE-1024-01	DECAL, RIGHT PLAYFIELD	1
DE-1017-01	DECAL FRONT, T-SHAPED FOR DOOR	1
DE-1043-01	DECAL, SHOOTING GUAGE, YELLOW	1
DE-1021-01	DECAL FOR SIDE HELMET	10
DE-1027-01	HELMET, NUMBER 10, DECAL	1
DE-1027-02	HELMET, NUMBER 20, DECAL	1
DE-1027-03	HELMET, NUMBER 30, DECAL	1
DE-1027-04	HELMET, NUMBER 40, DECAL	1
DE-1027-05	HELMET, NUMBER 50, DECAL	1
DE-1040-01	SCORING DECAL, YELLOW	1
DE-1039-01	FOOTBALL INSTRUCTION DECAL, YELLOW	1
DE-1042-01	REDEMPTION INSTRUCTION DECAL YELLOW	1
DE-1041-01	NUMBER DECALS (1-10) & "JACKPOT"	1
DE-1044-01	FIELD GOAL, DECAL	1
PF-1009-01	PLASTIC DOME	1

XVI. CUSTOMER SUPPORT

If you have any questions, please do not hesitate to call G.L. Technology, Inc.

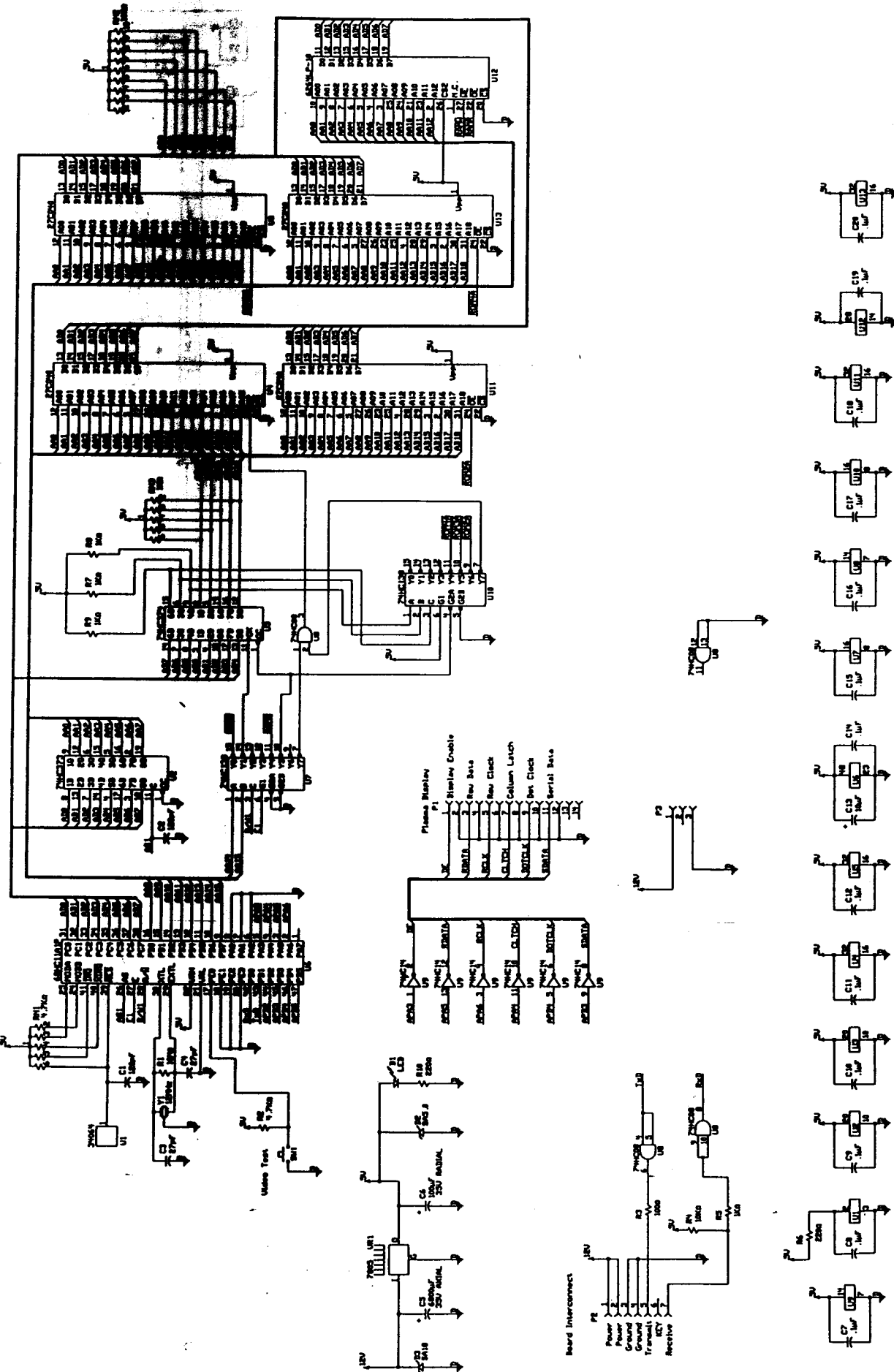
1-800-346-5303

**8:00 a.m. - 5:00 p.m. CST
Monday - Friday**

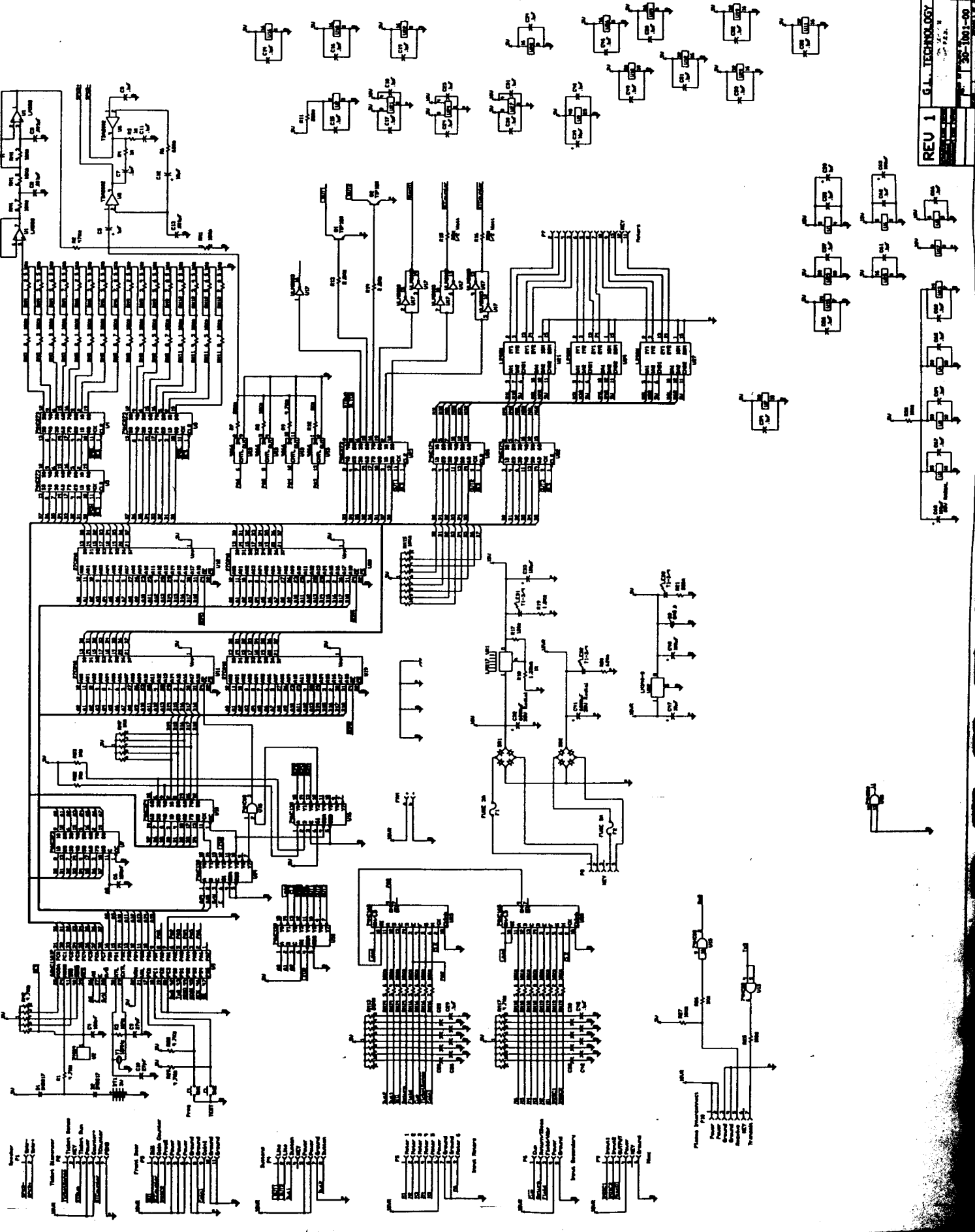
XVII. SCHEMATICS

The following schematics are on the pages to follow:

- A. Plasma Display
- B. Main Logic P.C.B.
- C. Playfield Optical Sensor
- D. Optical Ball Sensor
- E. Wiring Diagram



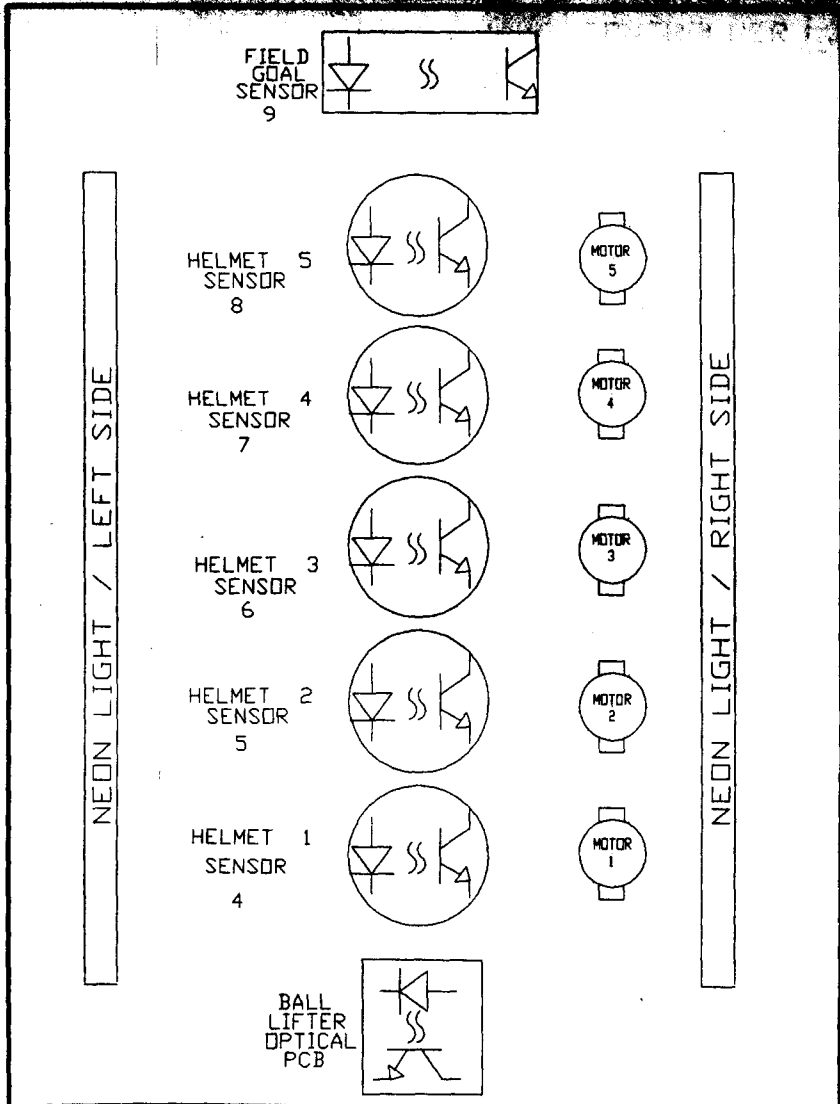
REV 1
G.L. TECHNOLOGY
Football/PC2
PLASMA DISPLAY
 30-1002-00



- Pin 1
- Pin 2
- Pin 3
- Pin 4
- Pin 5
- Pin 6
- Pin 7
- Pin 8
- Pin 9
- Pin 10
- Pin 11
- Pin 12
- Pin 13
- Pin 14
- Pin 15
- Pin 16
- Pin 17
- Pin 18
- Pin 19
- Pin 20
- Pin 21
- Pin 22
- Pin 23
- Pin 24
- Pin 25
- Pin 26
- Pin 27
- Pin 28
- Pin 29
- Pin 30
- Pin 31
- Pin 32

NOTES:

PLAY FIELD OPTICAL SENSOR PCB LOCATIONS AND LAYOUT.



D

C

B

A

D

C

B

A

8

7

6

5

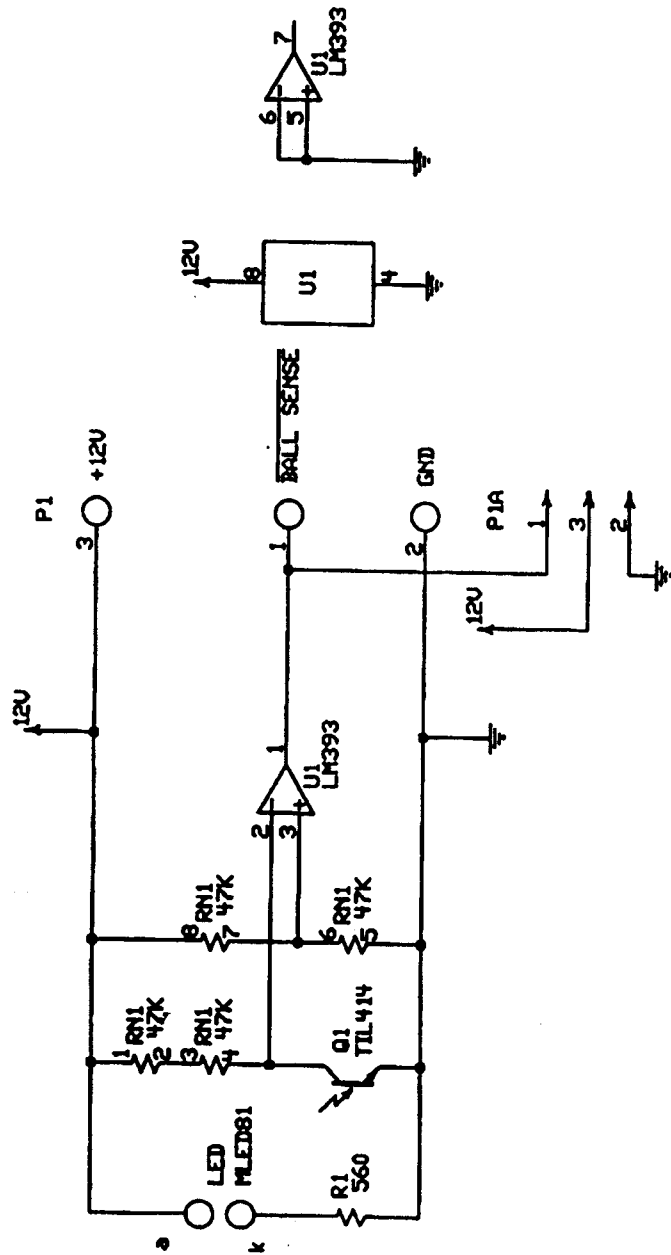
4

3

2

1

zone	yr	description	date	approved



REV B	G.L. Technology	
	OPTICAL BALL SENSOR SCHEMATIC	
prepared 1-92	checked	engineer
size code id drawing no.		A
Scale		Sheet 1 of 1

