PUTTING CHALLENGE® II

OWNER'S MANUAL
&
REFERENCE GUIDE

Revision 2.4

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

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Made In U.S.A.
US Patents 5,087,045; 5,100,145; 5,301,947; 5,318,303
Other U.S. & Foreign Patents Pending

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I. INTRODUCTION

Thank you for purchasing ***PUTTING CHALLENGE II®***! We sincerely appreciate your business.

PUTTING CHALLENGE II® 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.

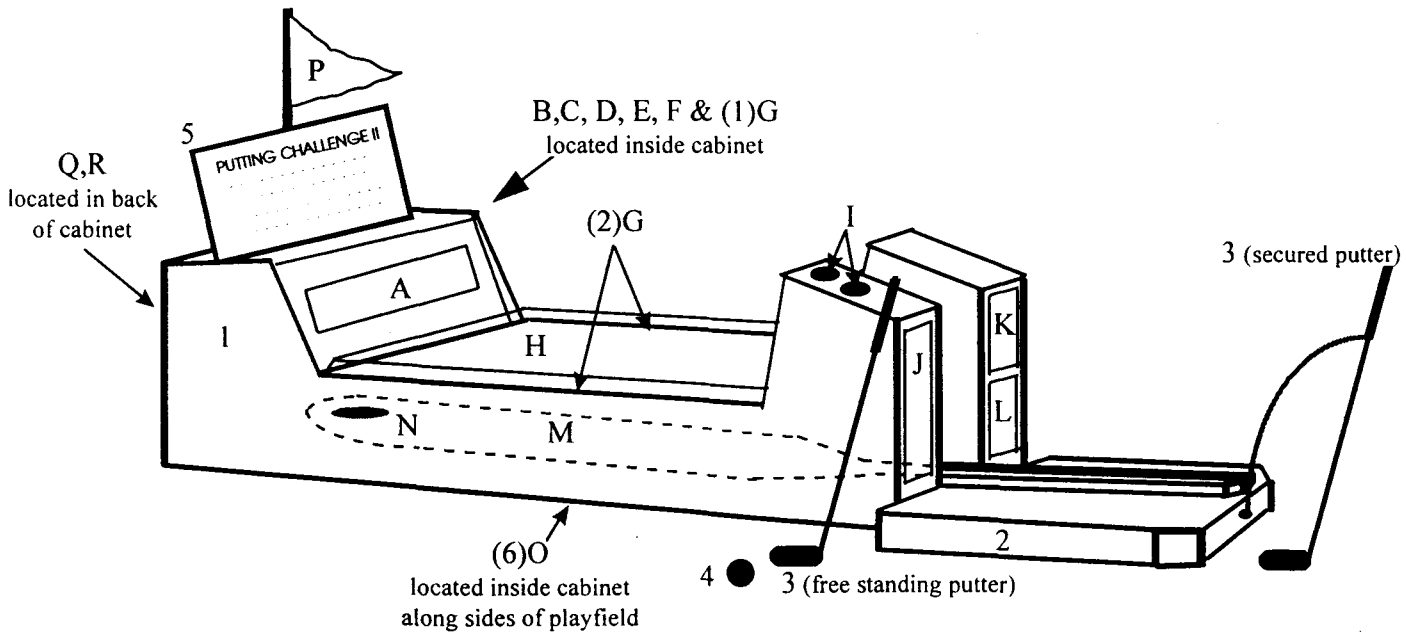
Please read this manual thoroughly before beginning to assemble or operate your ***PUTTING CHALLENGE II®***. *Failure to follow these instructions could result in incorrect assembly and/or game damage which may void the warranty.*

II. GAME DESCRIPTION

PUTTING CHALLENGE II® is an 18-hole mini-golf game which features both game play and practice options. Players can choose to play a 9-hole or an 18-hole game on one of six courses depending on the number of credits entered.

PUTTING CHALLENGE II® incorporates a patented moveable putting surface. During game play, a series of six motors raise, lower, angle and slope the playfield to create up to 108 green contours on which one to four players can either compete or practice. The unique game design features an oversurface automatic ball return and authentic crowd cheers, comments and clapping in response to each putt.

1. CABINET
   A. Gas Plasma Display
   B. Display Board
   C. Main CPU Board
   D. Transformer
   E. High Voltage Transformer for Neon
   F. Fan
   G. Neon Lights (3)
   H. Cover Glass
   I. Control Buttons (Select & Enter)
   J. Coin#2 Door (Options: Bill Acceptor or Ticket Dispenser)
   K. Coin#1 Door
   L. Coin Box
   M. Playfield
   N. Ball Cup
   O. Gear Motors w/Arms (6)
   P. Flag
   Q. Power Cord
   R. Main Power Switch
2. PLATFORM (attaches to cabinet)
3. PUTTER (Options: Secured or Free Standing)
4. GOLF BALL
5. GAME INSTRUCTION SIGN



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

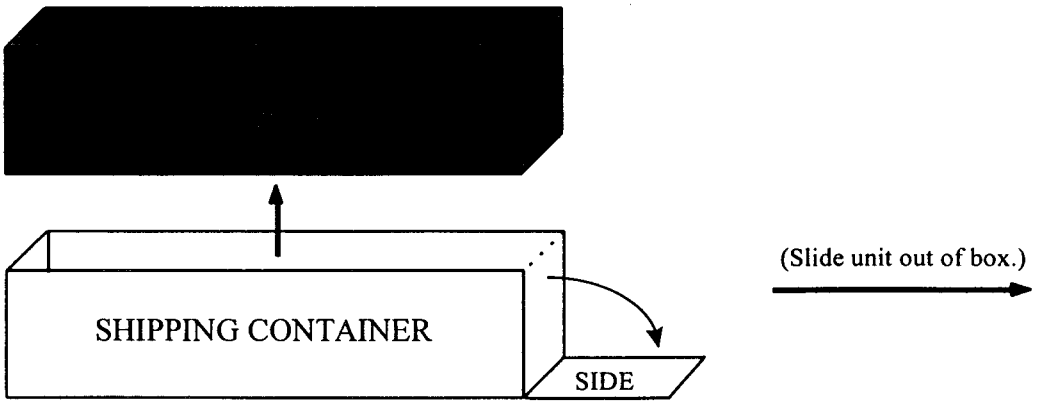
- ***PUTTING CHALLENGE II®*** requires a *level* floor space of approximately 4 x 8 ½ feet. If the floor is uneven, adjust the four leg levelers located by each wheel.
- ***PUTTING CHALLENGE II®*** comes equipped with a cooling fan attached to the back of the main cabinet. To prevent overheating, *the unit must be placed at least 1 inch away from the wall*.

INSTRUCTIONS FOR SET-UP

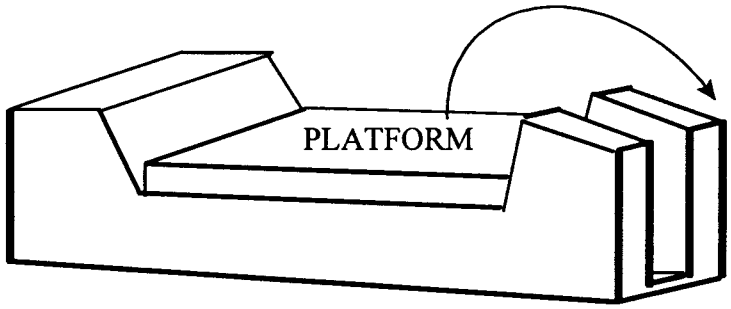
1. Unpack unit from shipping container.

   1.1. Remove cover and open one side.

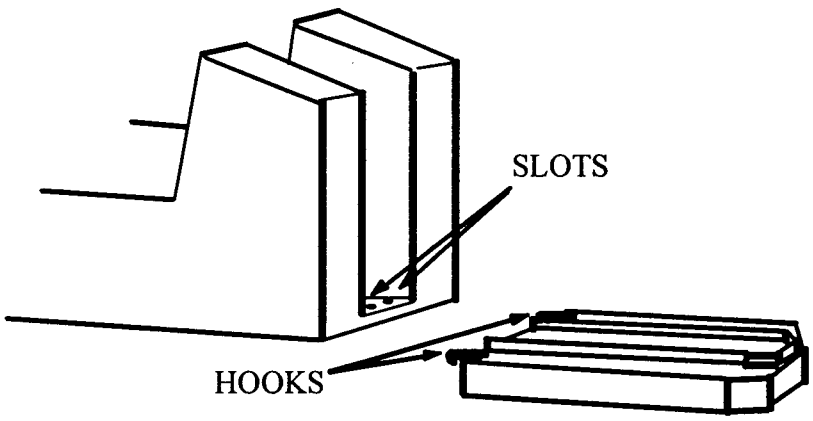
   1.2. Slide unit out and place in desired location.



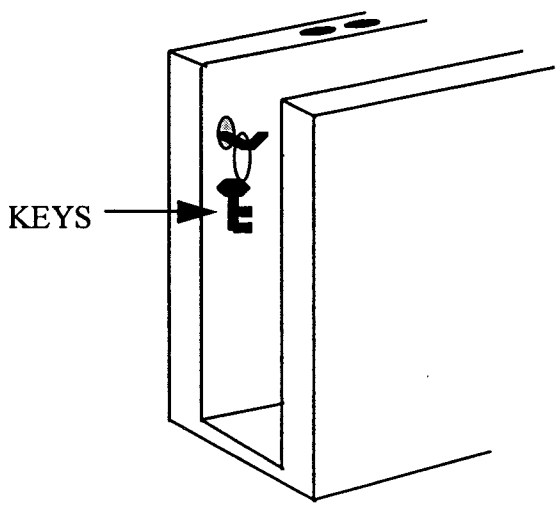
2. Remove platform from top of cabinet.



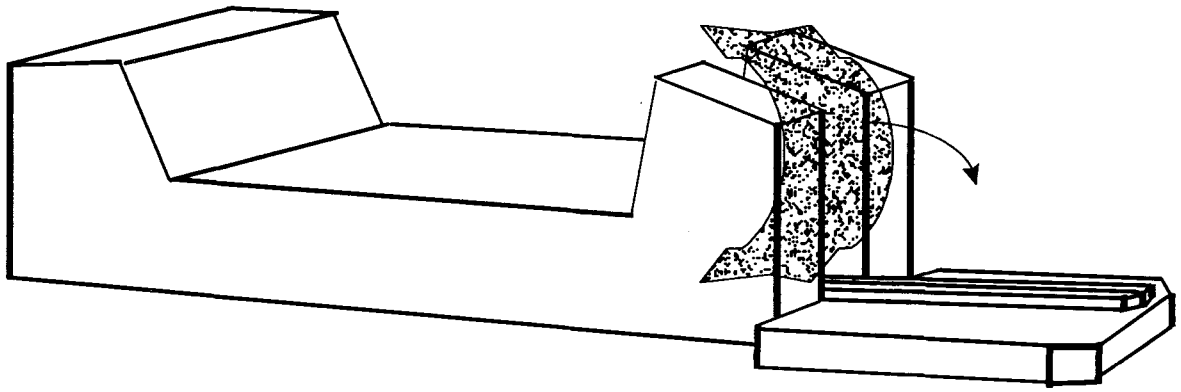
3. Align two hooks on platform with two slots in cabinet and insert.



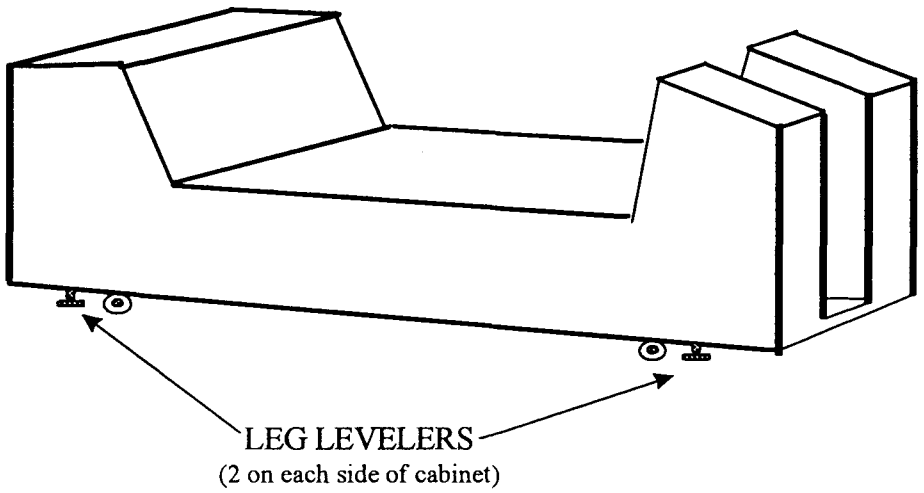
4. Remove keys from putter hook.
   Use keys to open coin box door where you will find 1 golf ball and 2 more sets of keys for coin door and ticket door (or bill acceptor door).



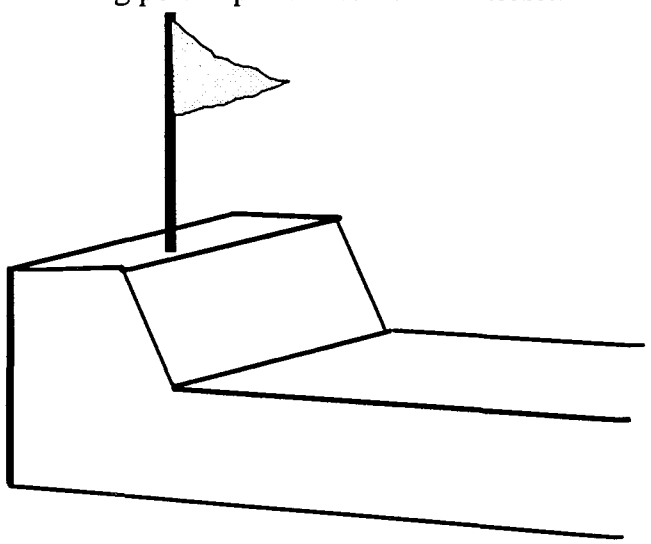
5. Flip end of carpet over to cover platform.



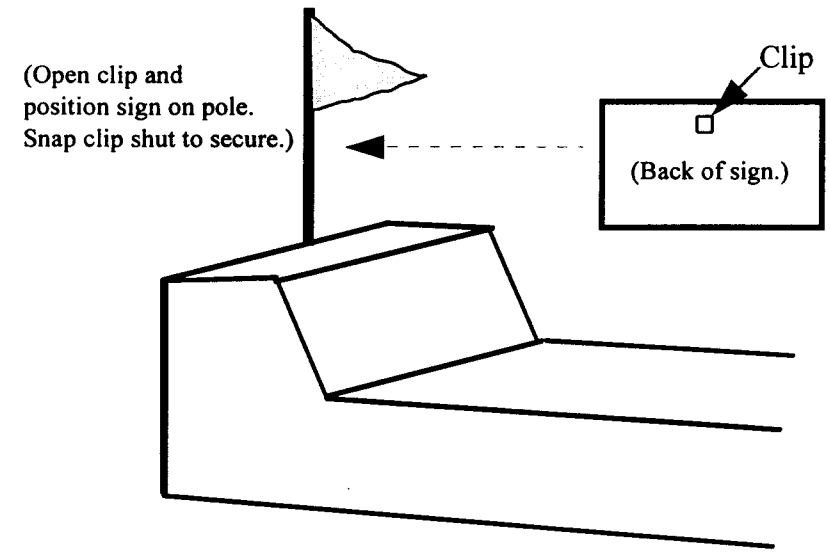
6. If floor is uneven, adjust four leg levelers and tighten with hex nut.



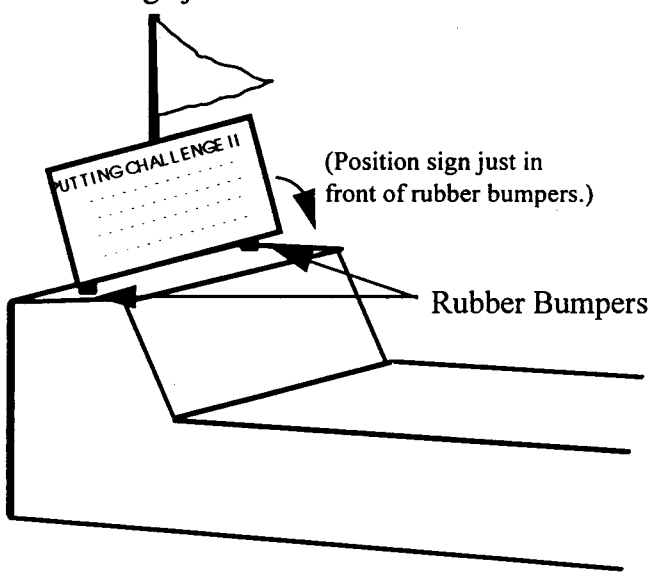
7. Place flag pole in pre-drilled hole in cabinet.



8. Locate clip on back of Game Instruction Sign. Secure sign to flag pole by snapping clip shut.



9. Position sign just in front of the two clear rubber bumpers.



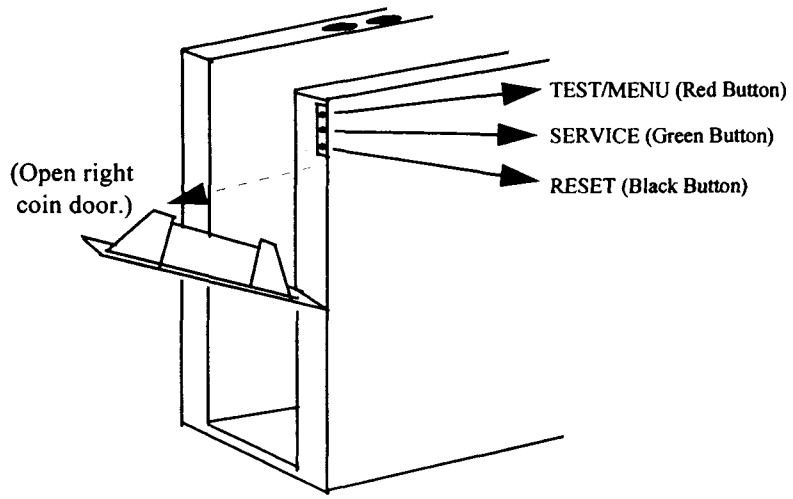
10. Plug power cord into three-prong outlet.

11. Turn power on using main power switch located in back of cabinet.
    ** Display will flash a testing screen which indicates game is in operating condition. If U12 and/or U20 display "FAIL", contact our technical service at 800-346-5303.

REV	XXX
U12	PASS
U20	PASS

V. DIAGNOSTIC BUTTONS

1. Open coin door using keys removed from end of cabinet playfield.
2. Find buttons located inside right coin door:



- TEST/MENU: (Top Red Button) — GAME OPTIONS MENU may be accessed by pressing this button. If button is pressed a second time, GAME OPTIONS MENU will be exited.

- SERVICE: (Middle Green Button) — Gives machine one free credit. When playing a game off of this credit, the accounting totals and mechanical coin counters will not reflect that a game was played.

- RESET: (Bottom Black Button) — A game can be reset by pressing this button. Full credits of current game will be awarded and a new game will start from the first green.

  If the old game needs to be restored, press RESET button and then press TEST/MENU button. Use *Select* to scroll down and choose RESTORE LAST GAME in the GAME OPTIONS MENU (game will restore scores where it left off). RESTORE LAST GAME only appears when using the RESET button. *The ball must be under the cover glass prior to resetting or restoring the game.*

VI. DIAGNOSTIC PROCEDURES

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

```
   GAME OPTIONS MENU
⇒  PROGRAM MODE
   SELF TEST
   ACCOUNTING
```

■ PROGRAM MODE

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

	ADJUSTABLE GAME OPTIONS
1	VOLUME CONTROL
2	GAME PRICING
3	ATTRACTION & SOUND MODE
4	TICKET DISPENSING
5	LIFT UP
6	PRACTICE ENABLE
7	FREE GAME SETTINGS
8	TAMPER ALARM
9	BALL GATE ENABLE
10	RESET
11	HONORS SEQUENCE
12	BALLS PER CREDIT
13	GAME SET-UP

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

■ VOLUME CONTROL

```
   PROGRAM MODE

   VOLUME
   4
```

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

■ GAME PRICING

NOTE: GAME PLAY PER CREDIT is NOT an adjustable setting; however, the VALUE PER CREDIT is adjustable.

PUTTING CHALLENGE II® features the following GAME PLAY PER CREDIT:

- 1 CREDIT = 9 Holes per 1 Player
- 2 CREDITS = 18 Holes per 1 Player
  or
  9 Holes per 2 Players

VALUE PER CREDIT TABLE

NOTE: Use this table to assist in setting value of one credit.
The numbers below represent the ***number of pulses*** required.
These settings are based on conversions using quarters.

Value Per Credit	Coin#1 Setting	Bill Setting	
	1st Coin Door	*2nd Coin Door*	*Bill Acceptor*
$1	4 pulses	1 pulse	4 pulses
$2	8 pulses	1 pulse	4 pulses
$.50	2 pulses	1 pulse	4 pulses (2 credits)
FREE	0	0	0

■ COINS PER 1 CREDIT FOR RIGHT COIN DOOR

PROGRAM MODE

COIN#1
4

- Default Setting: 4 COINS = 1 CREDIT
- Setting Options: 0-25 COINS = 1 CREDIT

- **BILL SETTING OPTION**
  (See VALUE PER CREDIT TABLE.)

PROGRAM MODE
BILL 4

- Default Setting: 4 = 1 BILL
- Setting Options: 0-25 = 1 BILL

■ ATTRACTION & SOUND MODE

When ***PUTTING CHALLENGE II®*** is not in play, the "Attraction & Sound Mode" is programmed to draw attention to the game. Within a designated time interval, crowd sound effects are heard.

PROGRAM MODE
ATRACT SOUND 5

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

■ TICKET DISPENSING OPTION (Amateur/Pro/Champion Skill Levels)

Note that these ticket settings are for the AMATEUR and PRO skill levels. *Tickets awarded at the CHAMPION skill level are automatically set at* ***twice*** *that of the amateur & pro level tickets awarded at each setting.*

**** If unit does not have a ticket dispenser, set the following ticket options at zero.***

- **HOLE IN ONE TICKET SETTING**

PROGRAM MODE
1 PUTT TICKETS 0

5

- Default Setting: 0 TICKETS
- Setting Options: 0-20 TICKETS

- **2-PUTT TICKET SETTING**

PROGRAM MODE
2 PUTT TICKETS 04

- Default Setting: 0 TICKETS
- Setting Options: 0-20 TICKETS

- **PRACTICE GREEN TICKET SETTING**

PROGRAM MODE
PRACTICE TICKETS 03

- Default Setting: 0 TICKETS
- Setting Options: 0-20 TICKETS

- **TICKETS DISPENSED JUST FOR PLAYING**

A player who does not win any tickets will be awarded a designated minimum number of tickets just for playing.

PROGRAM MODE
MINIMUM TICKETS 0

5

- Default Setting: 0 TICKETS
- Setting Options: 0-20 TICKETS

■ BALL RETURN HEIGHT SETTING

The "Ball Return Height Setting" is provided to accommodate variations in the voltages used in different countries and different locations. The playfield must raise itself up high enough to allow the ball to roll back to the player from the ball cup. The playfield rim should raise just below the ceiling of the cabinet. If the ball does not roll back easily, raise the lift up setting one increment of five and test the return again. If the playfield rim touches the ceiling of the cabinet and raises slightly in the center of the playfield, lower the lift up setting one increment of five.

PROGRAM MODE
LIFT UP 15

30

- Default Setting: HEIGHT LEVEL = 15
- Setting Options: HEIGHT LEVEL = 0-50 (In 5 Level Increments)

■ PRACTICE ENABLE SETTING

The "Practice Enable Setting" is provided to allow the removal of the Practice Green option from the course select screen. The player will then choose between Course 1 and Course 2 only.

PROGRAM MODE
PRACTICE ENABLE 1

- Default Setting: PRACTICE OPTION AVAILABLE = 1
- Setting Options: PRACTICE OPTION AVAILABLE = 1
  REMOVE PRACTICE OPTION = 0

■ FREE GAME SETTINGS

The "Free Game Settings" are provided to award a free game to players achieving a preset low score. The value entered is for a 9-Hole game. This score is automatically multiplied by two for an 18-hole game. If a low score is entered for just one skill level, the other two skill levels will default to a low score of 9. These low scores are adjustable. To disable the free game option, all 3 skill levels must be set at zero.

- **AMATEUR FREE GAME SETTING**

PROGRAM MODE
AMA FREE GAME 0

- Default Setting: NO FREE GAME = 0
- Setting Options: NO FREE GAME = 0
  LOW SCORE = 9-27

- **PRO FREE GAME SETTING**

PROGRAM MODE
PRO FREE GAME 0

- Default Setting: NO FREE GAME = 0
- Setting Options: NO FREE GAME = 0
  LOW SCORE = 9-27

- **CHAMPION FREE GAME SETTING**

PROGRAM MODE
CHAMP FREE GAME 0

- Default Setting: NO FREE GAME = 0
- Setting Options: LOW SCORE = 9-27

- **TAMPER ALARM VOLUME SETTING**

A warning alert will sound if a player places putter under cover glass when game is not in play. The volume of the alarm is adjustable.

PROGRAM MODE
TAMPER ALARM 9

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

■ BALL GATE ENABLE SETTING

When the game is not in play, the playfield raises to meet the cover glass. This option is available to prevent players from retrieving the ball with the putter.

PROGRAM MODE
BALL GATE ENABLE 0

- Default Setting: OFF = 0
- Setting Options: ON = 1

■ RESET FUNCTIONS

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

■ CLEAR CURRENT BEST SCORE SETTING

PROGRAM MODE
RESET BEST SCORE 0

- Default Setting: KEEP BEST SCORES = 0
- Setting Options: KEEP BEST SCORES = 0
CLEAR BEST SCORES = 1

■ CLEAR ACCOUNTING VALUE SETTING

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

PROGRAM MODE
RESET ACCOUNTING 0

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

- **RESTORE DEFAULT SETTING**

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

PROGRAM MODE
RESET DEFAULT 0

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

HONORS SEQUENCE SETTING

Honors sequencing changes the order in which multiple players putt. The order is determined by the players score at the end of each green. The lowest score putts first. Honors sequencing is not available in the Practice Green option.

PROGRAM MODE
HONORS SEQUENCE 0

- Default Setting: OFF = 0
- Setting Options: OFF = 0
ON = 1

BALLS PER CREDIT SETTING

Set the number of balls that the players are to receive per credit. Set at 9 for a normal game or 1-8 for Redemption mode. Honors Sequencing and Free Game settings are not available in Redemption mode.

PROGRAM MODE
BALLS PER CREDIT 1

- Default Setting: 9
- Setting Options: 1-9

- **GAME SET-UP**

  This screen is valid only in Redemption mode. Operator presets the Difficulty Level, Course Number and Hole Setting.

  To make changes in the following "game set-up" settings, press the *Select* button to scroll through the available options. Press *Enter* to advance arrow to next available setting.

  The settings on this screen will not affect settings in normal game play.

  - **DIFFICULTY LEVEL SETTING**

	GAME SET UP
⇒	AMATEUR
	COURSE 1
	FRONT NINE

    - Default Settings: AMATEUR
    - Setting Options: AMATEUR, PRO, CHAMPION

  - **COURSE SETTING**

	GAME SET UP
	AMATEUR
⇒	COURSE 1
	FRONT NINE

    - Default Settings: COURSE 1
    - Setting Options: COURSE 1, COURSE 2

  - **HOLE SETTING**

	GAME SET UP
	AMATEUR
	COURSE 1
⇒	FRONT NINE

    - Default Settings: FRONT NINE
    - Setting Options: FRONT NINE, BACK NINE

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

VII. SELF TEST

GAME OPTIONS MENU
PROGRAM MODE
⇒ SELF TEST
ACCOUNTING

1. Press *Select* to enter SELF TESTmode, then press *Enter.*

** The game will announce a number between 1 and 12 indicating that the function being tested is working correctly:

- 1-6 TESTS EACH MOTOR
- 7 TESTS BALL CUP
  (Place ball into ball cup.)
- 8 TESTS PLAYFIELD RIM
  (Roll ball into rim.)
- 9 TESTS OUTER OPTICAL SENSOR (closest to platform)
  (Pass hand by sensor.)
- 10 TESTS INNER OPTICAL SENSOR (closest to ball cup)
  (Pass hand by sensor.)
- 11 TESTS "SELECT" BUTTON
  (Press *Select.*)
- 12 TESTS "ENTER" BUTTON
  (Press *Enter.*)

2. Exit SELF TEST mode by pushing TEST/MENU button located in right coin door.

VIII. ACCOUNTING

GAME OPTIONS MENU
PROGRAM MODE
SELF TEST
⇒ ACCOUNTING

■ GAME OPTIONS ACCOUNTING FEATURES

1. Press *Select* to scroll down to ACCOUNTING and press *Enter*.

   - Accounting keeps track of the TOTAL NUMBER OF GAMES PLAYED.
   - The following information can be retrieved by pressing *Enter*:

     - Total Credits
     - Total Tickets
     - Total Course 1
     - Total Course 2
     - Total Practice
     - Total 1 Player
     - Total 2 Player
     - Total 3 Player
     - Total 4 Player
     - Total 9-Hole
     - Total 18-Hole
     - Total Amateur
     - Total Pro
     - Total Champ
     - Ama Free Games
     - Pro Free Games
     - Champ Free Games

2. To exit ACCOUNTING, push TEST/MENU button located in right coin door.

- **COIN COUNTER ACCOUNTING FEATURE**
  - Located in coin door.
  - Keeps track of TOTAL NUMBER OF GAMES PLAYED.

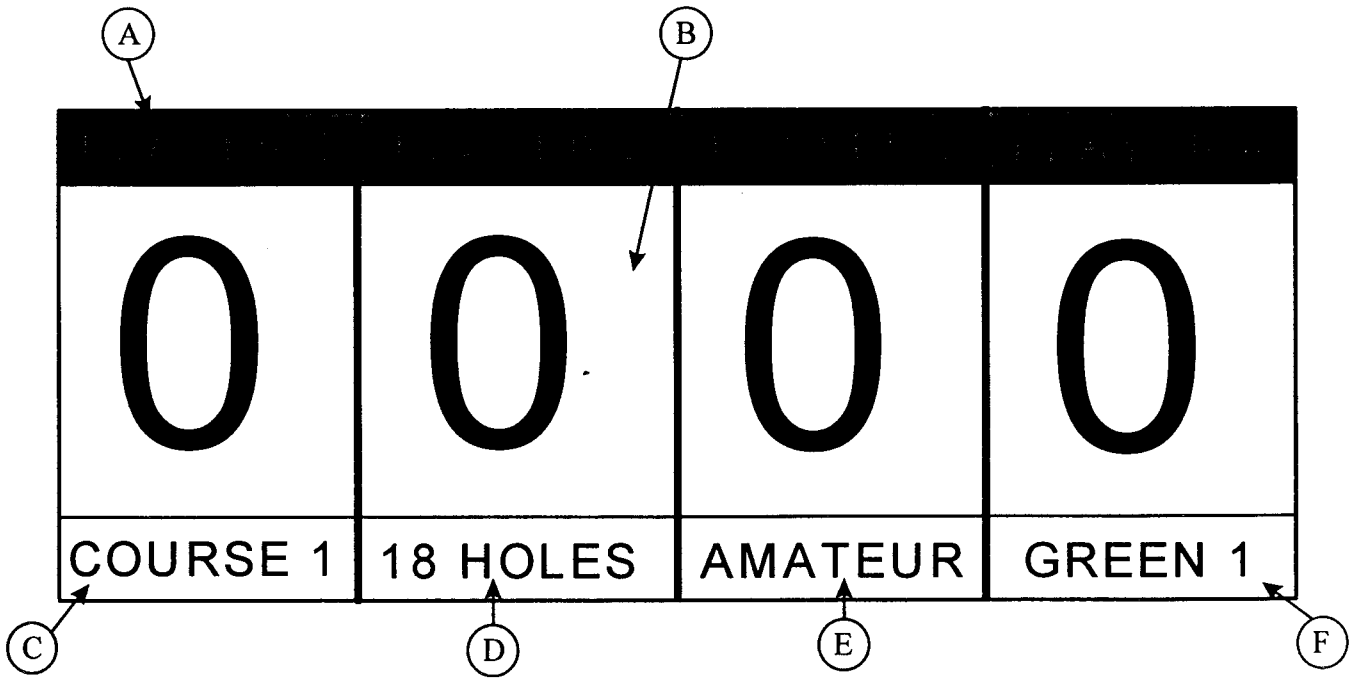
- **TICKET COUNTER ACCOUNTING FEATURE**
  - Located in ticket dispenser door.
  - Keeps track of TOTAL NUMBER OF TICKETS DISPENSED.

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

IX. SCREEN DISPLAY

During game play, the following information appears on the display:

A. NUMBER OF PLAYERS
B. SCORES
C. GAME OPTION
D. HOLE OPTION
E. SKILL LEVEL
F. GREEN NUMBER



X. PLAYING THE GAME

- **DEPOSIT COINS/BILLS** (1 credit = 9 holes / 2 credits = 18 holes).

- **SELECT GAME OPTIONS** according to instructions on display by using *Select* button to scroll through options and *Enter* button to make selection. Screens advance as each selection is entered. Players are given the following game options:

SELECT & ENTER
→ AMATEUR
PRO
CHAMPION

SELECT & ENTER
→ COURSE #1
COURSE #2
PRACTICE GREEN

SELECT & ENTER
→ FRONT 9
BACK 9
18 HOLES

SELECT & ENTER
 # OF PLAYERS
(1-4)
1

SELECT & ENTER
→ START GAME
CHANGE OPTIONS*

* *CHANGE OPTIONS will take player(s) through selections again, beginning with the first screen.*

- **HAZARD AREA** -- area on green just in front of cover glass
  -- if putt is too short and ball comes to rest in this area, player must retrieve ball and try again (this has no effect on scoring)

- **AUTOMATIC BALL RETURN** sends ball back to player after each putt.

- **EMERGENCY BALL RETURN** option is used when club is placed under glass in error causing game to run out of sequence. Player simply presses *Enter* button to retrieve ball and stop undulation.

- **COURSE #1 & COURSE #2** options feature automatic advancing of putting surface to next green after all players have taken turns on same green. The game ends when all players have completed their respective rounds.

- **PRACTICE GREEN** option allows players to choose the green on which they want to play/practice. Players can play their entire game on one green or advance to another green by pressing *Select* button.

- **GAME ENDS** when either 9 or 18 holes have been played (depending on number of credits entered).

- **BEST SCORE** feature allows a player who has achieved the lowest score on a particular course to enter their initials after the game has ended. If an incorrect initial is entered, the player can select "<" to back space and scroll through letter options again. Their score will be listed until they are reset in PROGRAM MODE. Players may not tie -- they must beat the best score to enter their initials.

- **FREE PLAY** is offered to players achieving a preset low score. The set score to beat is displayed after the "Start Game" option is entered. *Note: Free Play is not available in the Practice Green option.*

XI. SCORING

- **COURSE #1 & COURSE #2**

While putting in turn, the objective is to attain the *lowest* score. Scores are calculated based on the following point ("putt") system:

- **1 PUTT = HOLE IN ONE**
  player sinks putt
- **2 PUTT = GIMME**
  ball stays on green without hitting frame
- **3 PUTT = OUT OF BOUNDS**
  ball hits frame
- **1 PUTT = PENALTY**
  putt is too short and comes to rest just under cover glass; ball is automatically returned and player must putt again on same green

- **PRACTICE GREEN**

  While putting in turn, the objective is to attain the *highest* score. Players can score only by sinking a putt.

  - **1 PUTT = HOLE IN ONE**
    player sinks putt

- **FINAL SCORES** and **PUTTING AVERAGES** of each player are displayed at the end of the game.

XII. MAINTENANCE

PUTTING CHALLENGE II® is virtually maintenance-free, but regular cleaning will help keep your unit looking new:

- Clean the cover glass with water and a mild detergent using a soft cloth.
- Vacuum the playfield regularly.
- Vacuum the platform daily.

XIII. 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

XIV. SCHEMATICS

The following schematics are included in this manual:

A. Block Diagram

B. Plasma Display

C. Main Logic P.C.B.

D. Playfield Sensor

E. Optical Ball Transmit - Opto Transmitter Circuit

F. Optical Ball Sensor - Opto Receiver Circuit

G. Transformer Connections for Power Mains

H. Motor In Wiring / Motor Out Wiring

I. Mother Board AC Power Wiring Harness / Playfield Sensor Board Wiring Harness / Coin Door Wiring Harness

J. AC Power In Wiring

K. Coin Door #2 Wiring Harness / Playfield Wiring Harness

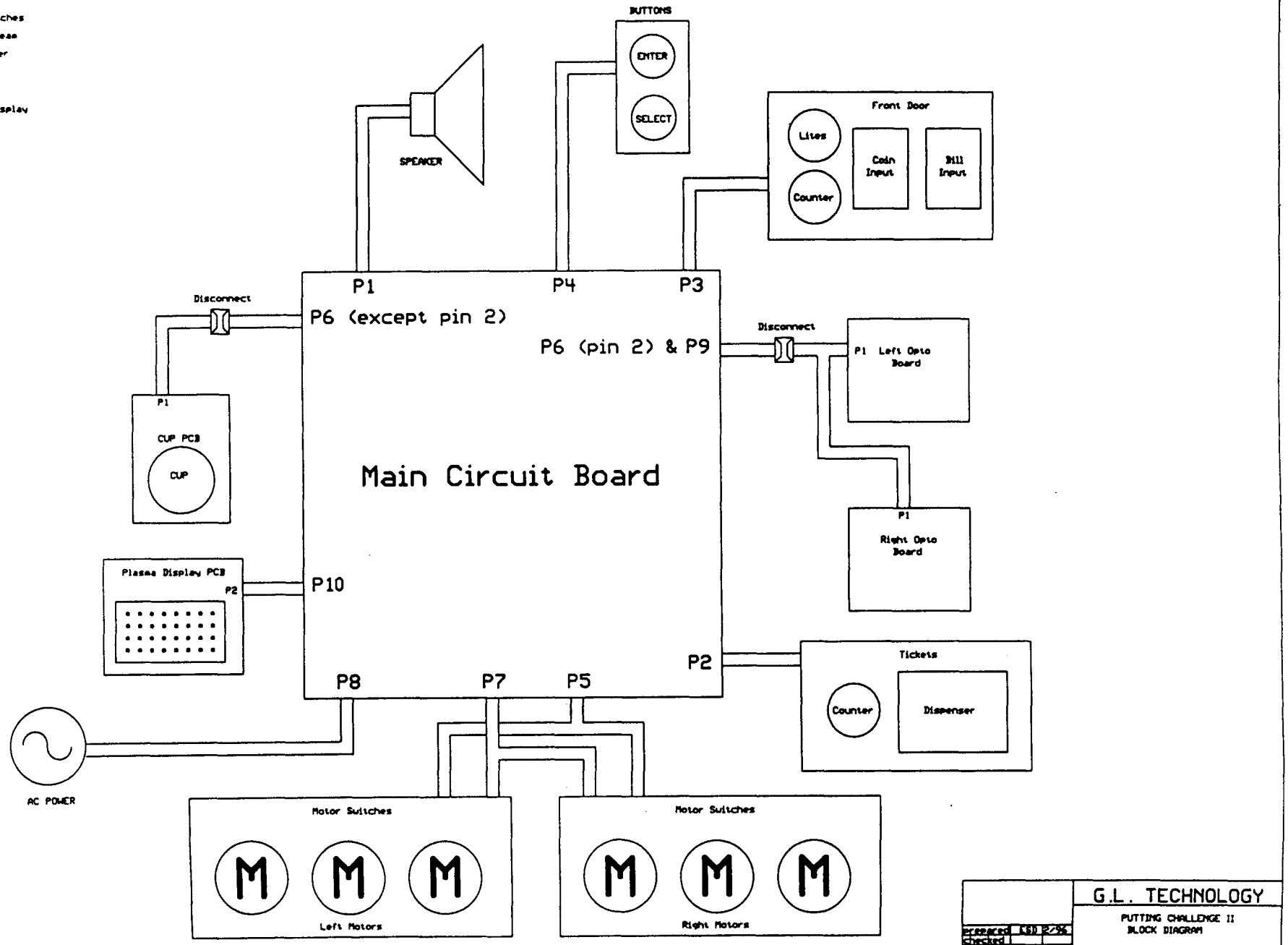
L. Speaker Wiring Harness / Main Board To Display Driver Board Wiring Harness / Plasma Display Power Wiring Harness

M. Opto Sensors Wiring Harness

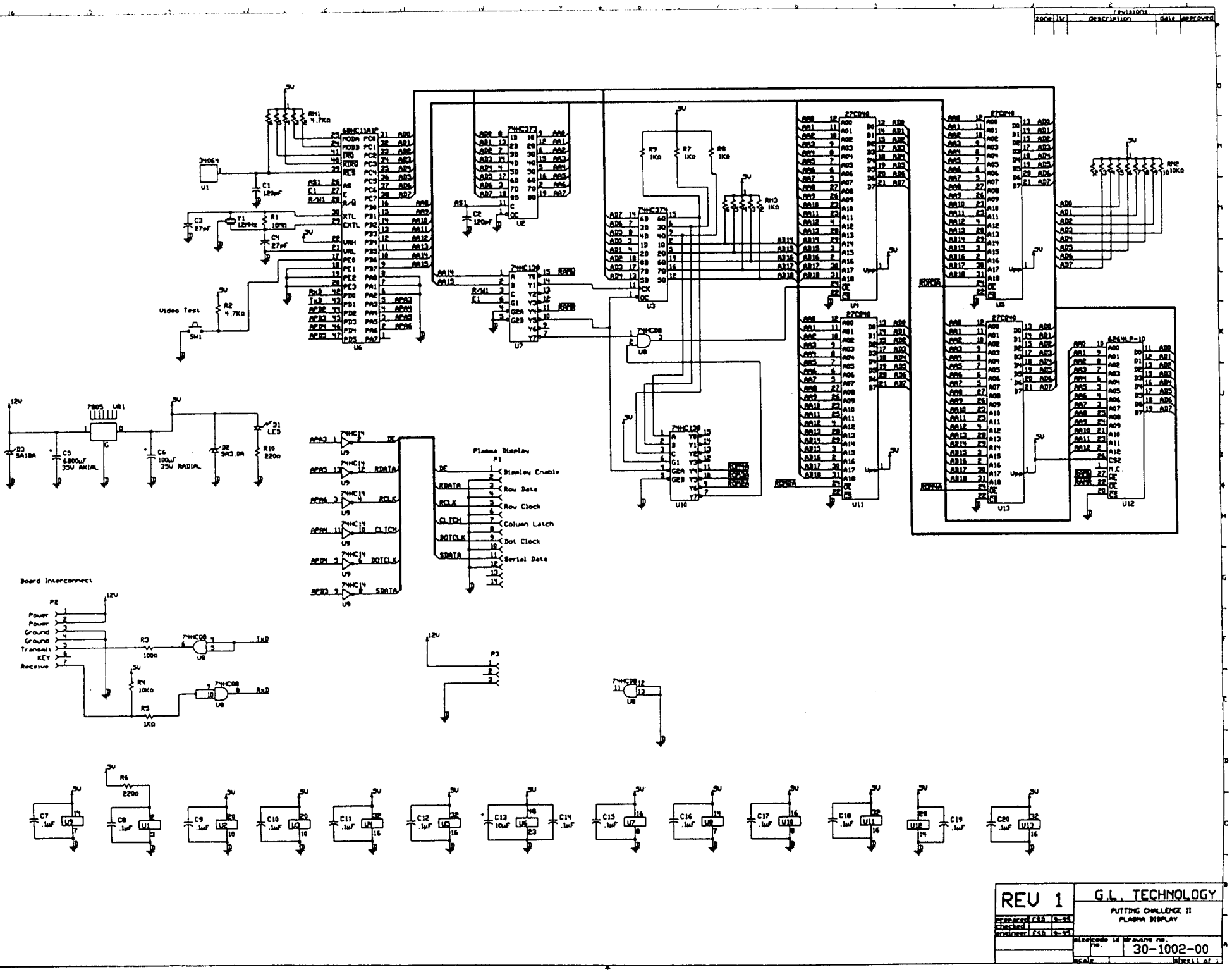
N. Earth Ground Wiring Harness

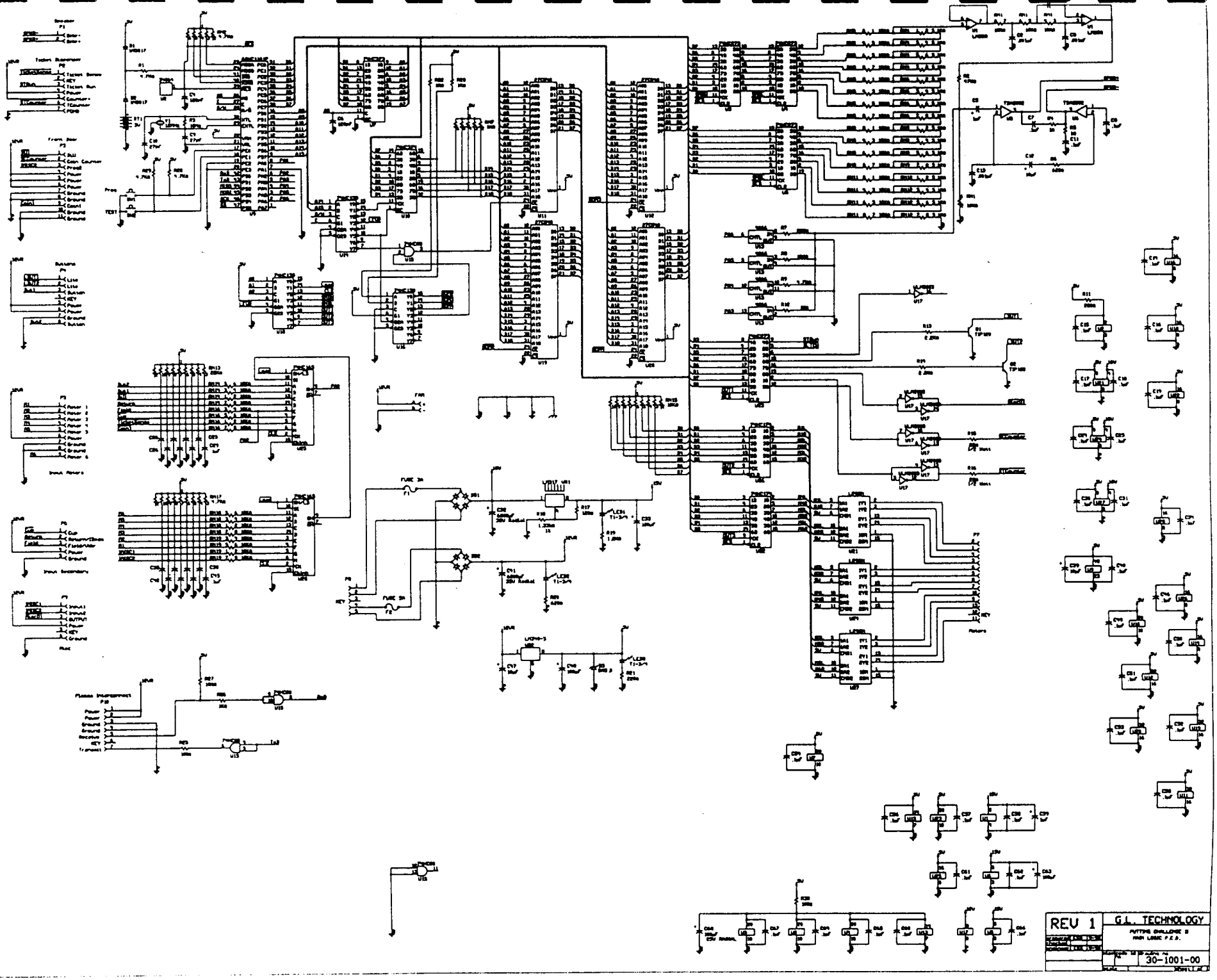
O. High Voltage Transformer For Argon Gas Tubes (Neon Lamps)

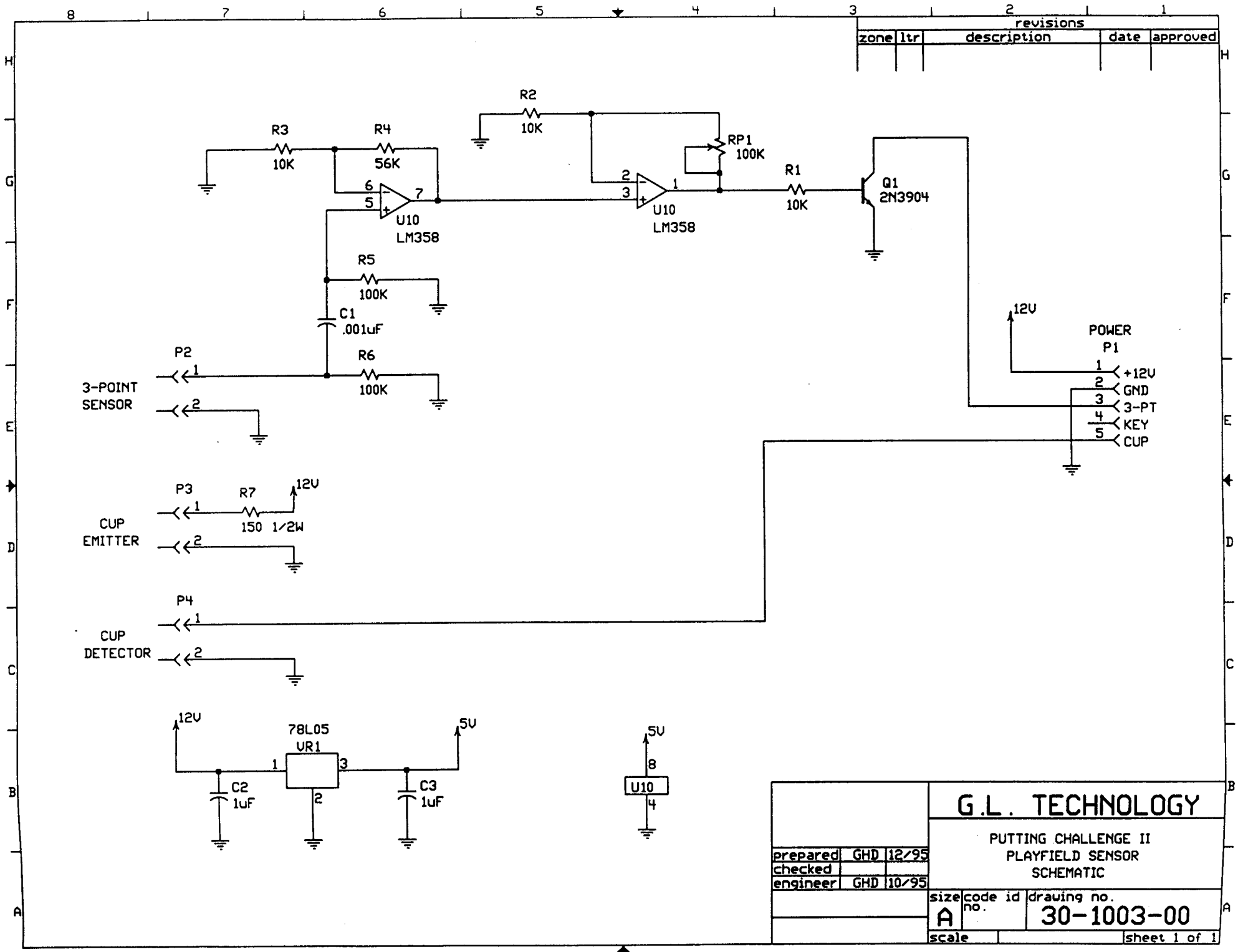
P1 - Speaker
P2 - Tickets
P3 - Front Door
P4 - Buttons
P5 - Motor Switches
P6 - Cup/Eye Beam
P7 - Motor Power
P8 - AC Power
P9 - Eye Beam
P10 - Plasma Display



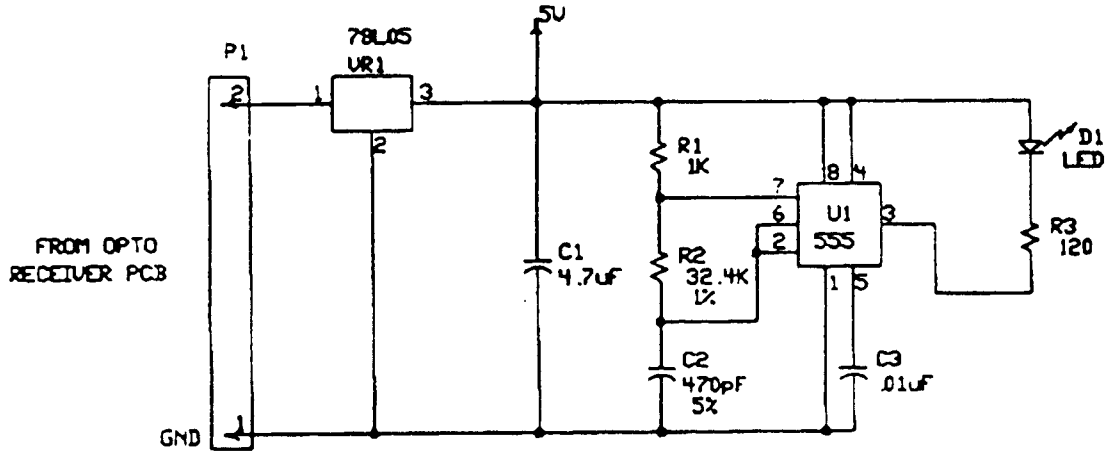
		G.L. TECHNOLOGY
prepared	KBD 2/96	PUTTING CHALLENGE II
checked		BLOCK DIAGRAM
engineer	GHD 2/96	
		size code id: A / no. / drawing no.
		scale / sheet 1 of 1


Video Test
Plasma Display
P1
Display Enable
Row Data
Row Clock
Column Latch
Dot Clock
Serial Data
Board Interconnect
Power
Power
Ground
Ground
Transmit
KEY
Receive
TxD
RxD
REV 1
G.L. TECHNOLOGY
PUTTING CHALLENGE II
PLASMA DISPLAY
30-1002-00


REV 1
G.L. TECHNOLOGY
30-1001-00


revisions
zone | ltr | description | date | approved
R2
10K
R3
10K
R4
56K
RP1
100K
R1
10K
Q1
2N3904
U10
LM358
U10
LM358
R5
100K
C1
.001uF
R6
100K
P2
3-POINT
SENSOR
12V
POWER
P1
+12V
GND
3-PT
KEY
CUP
P3
R7
150 1/2W
12V
CUP
EMITTER
P4
CUP
DETECTOR
12V
78L05
VR1
5V
C2
1uF
C3
1uF
5V
U10
G.L. TECHNOLOGY
PUTTING CHALLENGE II
PLAYFIELD SENSOR
SCHEMATIC
prepared GHD 12/95
checked
engineer GHD 10/95
size A
code id no.
drawing no. 30-1003-00
scale
sheet 1 of 1

revisions				
zone	ltr	description	date	approved



prepared	GHD	03-96
checked		
engineer		

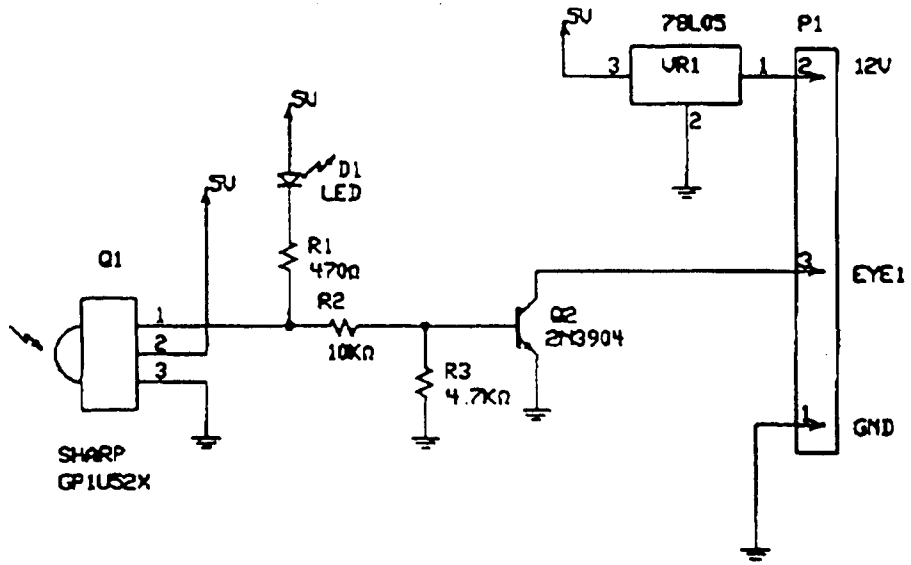
G.L. TECHNOLOGY

HOME PUTTING CHALLANGE
OPTICAL BALL TRANSMIT
OPTO TRANSMITTER CIRCUIT

size	code id no.	drawing no.
A		30-10XX-00

scale NA | sheet1 OF 1

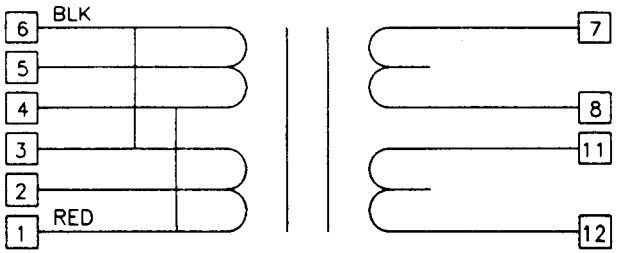
revisions				
zone	ltr	description	date	approved



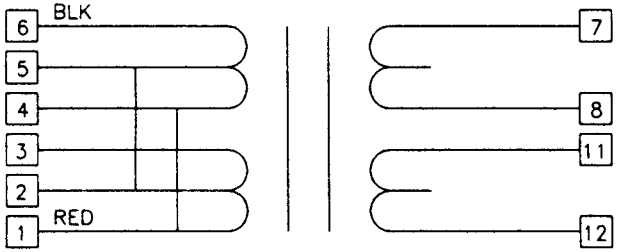
prepared	GHD	03-96	G.L. TECHNOLOGY
checked			HOME PUTTING CHALLANGE
engineer			OPTICAL BALL SENSOR
			OPTO RECEIVER CIRCUIT
size A	code id no.	drawing no. 30-10XX-00	
scale NA		sheet 1 OF 1	

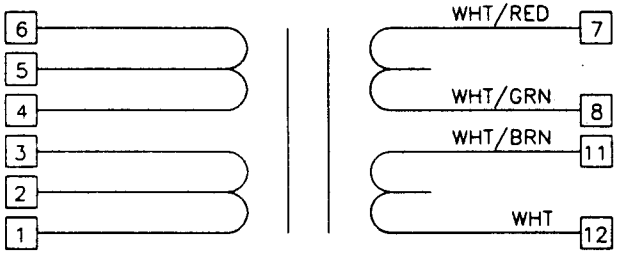
REVISION			
REV	DESCRIPTION	DATE	APPROVAL

120V INPUT

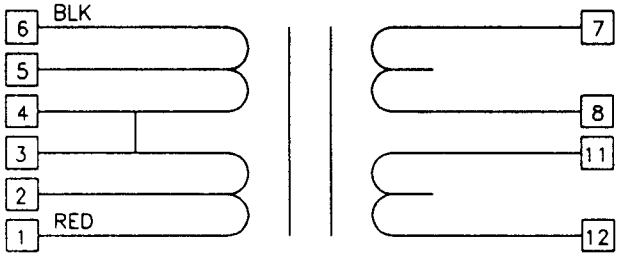


100V INPUT

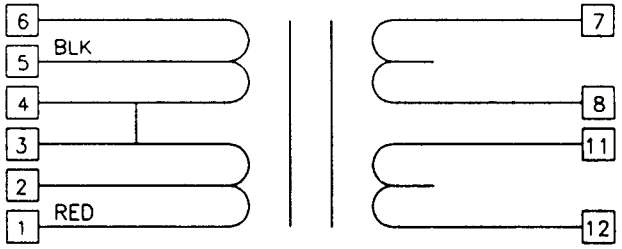




230V INPUT & 240V INPUT



220V INPUT



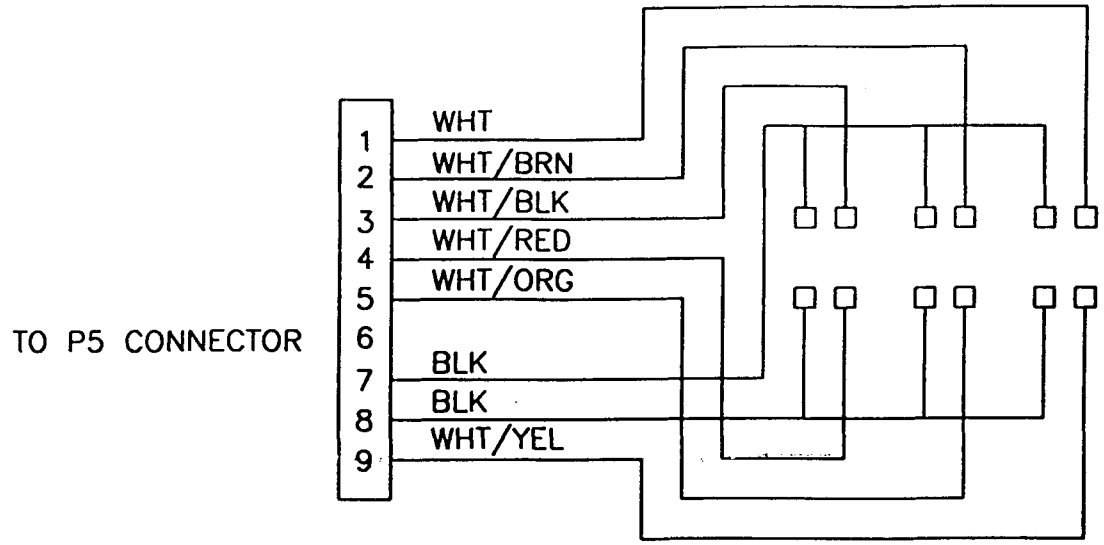
NOTE:

NO CONNECTION ON PINS NINE (9) AND TEN (10).

USE SAME TRANSFORMER CONNECTION FOR 230V AND 240V.

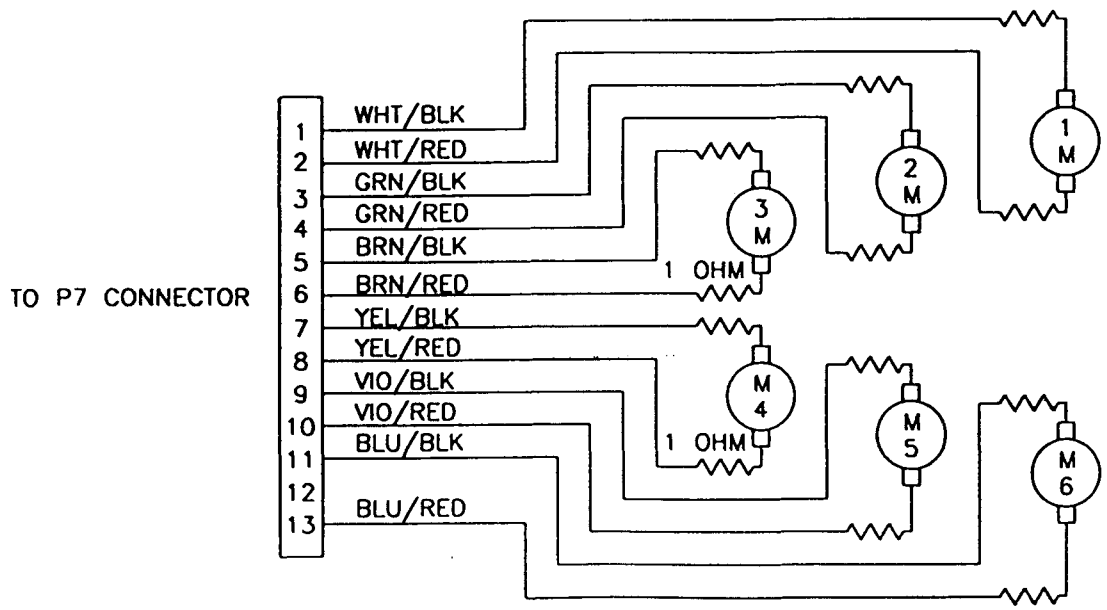
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES TOLERANCES: DECIMALS .XX ± .01 DECIMALS .XXX ± .005 ANGLES ± 30'	G. L. TECHNOLOGY 2255-3 LOIS DRIVE ROLLING MEADOWS, IL 60008
DRAWN AAR / DATE 06-10-96	TITLE: TRANSFORMER CONNECTIONS FOR POWER MAINS
APPROVED / DATE	
PC II	SIZE A / DWG NO. / REV A
	SCALE 1/1 / DO NOT SCALE DRAWING / SHEET 1 OF 1

MOTOR IN WIRING
EC-3008-01



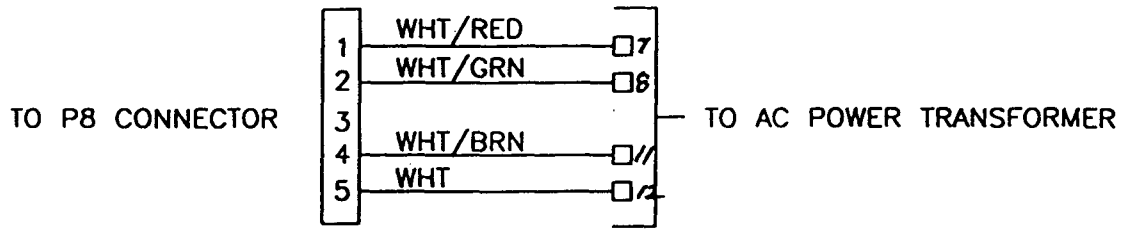
NOTE: CONNECT TO SWITCHES ON MOTOR

MOTOR OUT WIRING
EC-3007-01

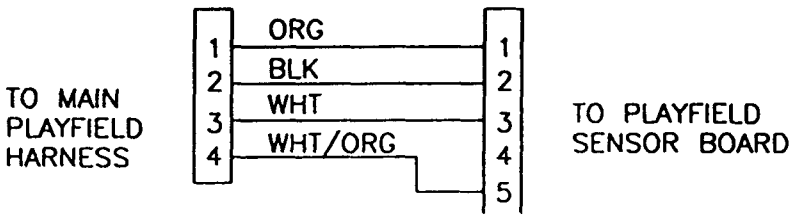


NOTE: RED STRIP WIRE ON EACH PAIR CONNECTS ON MOTOR TOWARDS CENTER OF MACHINE.

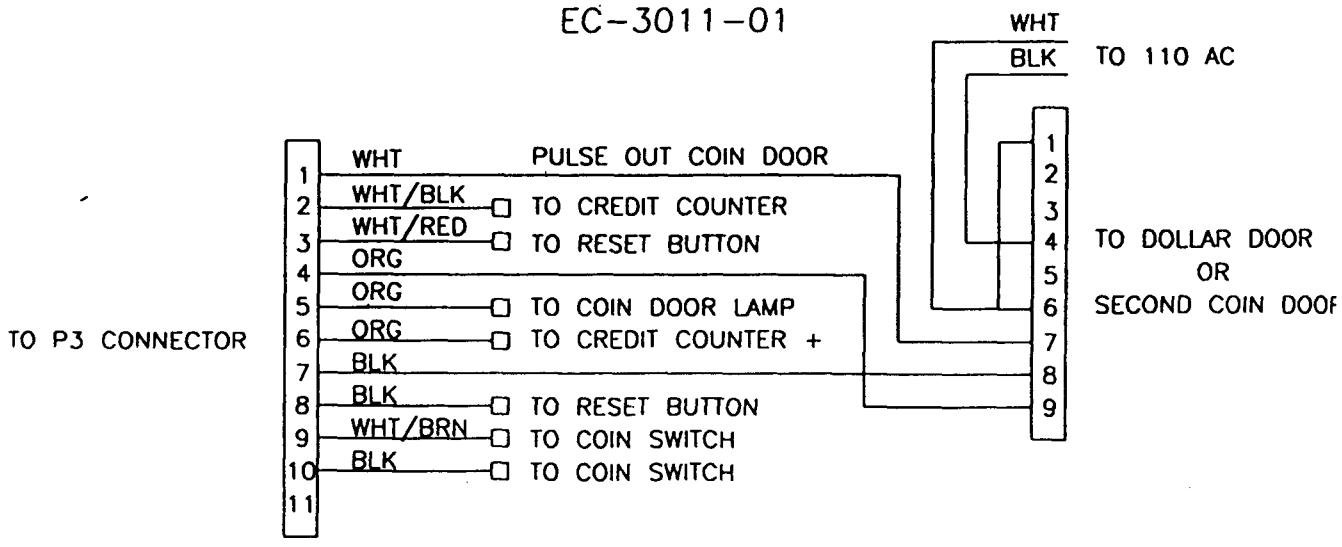
MOTHER BOARD AC POWER WIRING HARNESS
EC-3015-01



PLAYFIELD SENSOR BOARD WIRING HARNESS
EC-3005-01

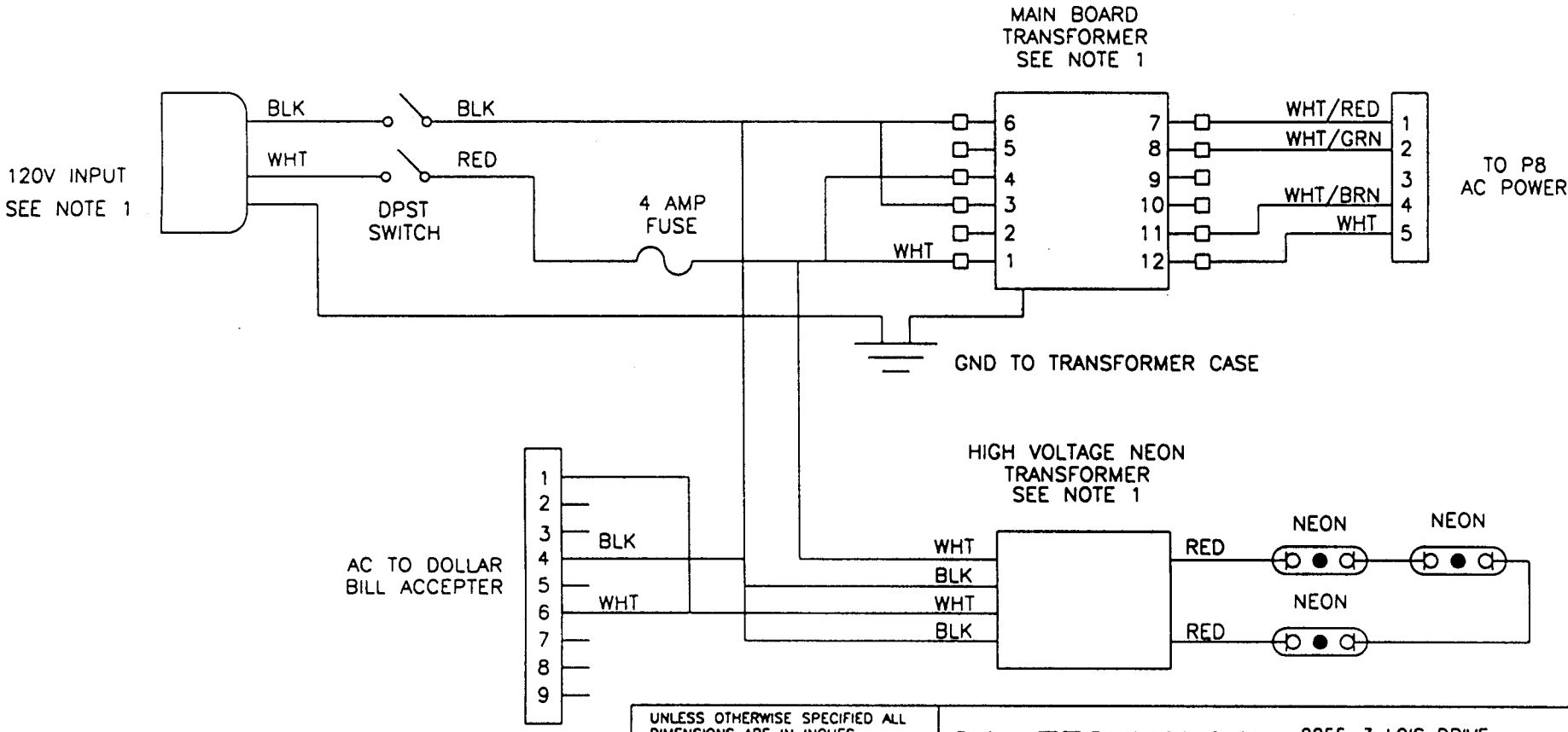


COIN DOOR WIRING HARNESS
EC-3011-01



NOTE:
1. REFER TO DRAWING NUMBER XXXX FOR CONNECTING TRANSFORMER TO 100V, 220V, 230V, 240V INPUTS

REVISION			
REV	DESCRIPTION	DATE	APPROVAL



UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
DECIMALS .XX ± .01
DECIMALS .XXX ± .005
ANGLES ± 30'

DRAWN	DATE
APPROVED	DATE

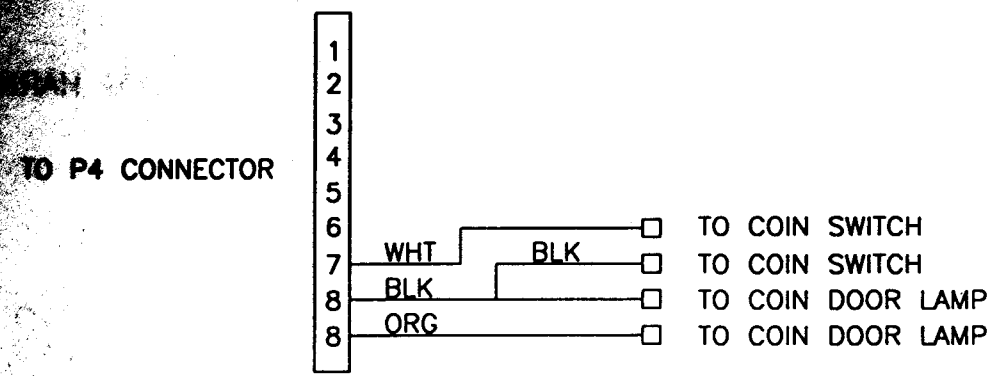
G.L. TECHNOLOGY
2255-3 LOIS DRIVE
ROLLING MEADOWS, IL 60008

TITLE: AC POWER IN WIRING

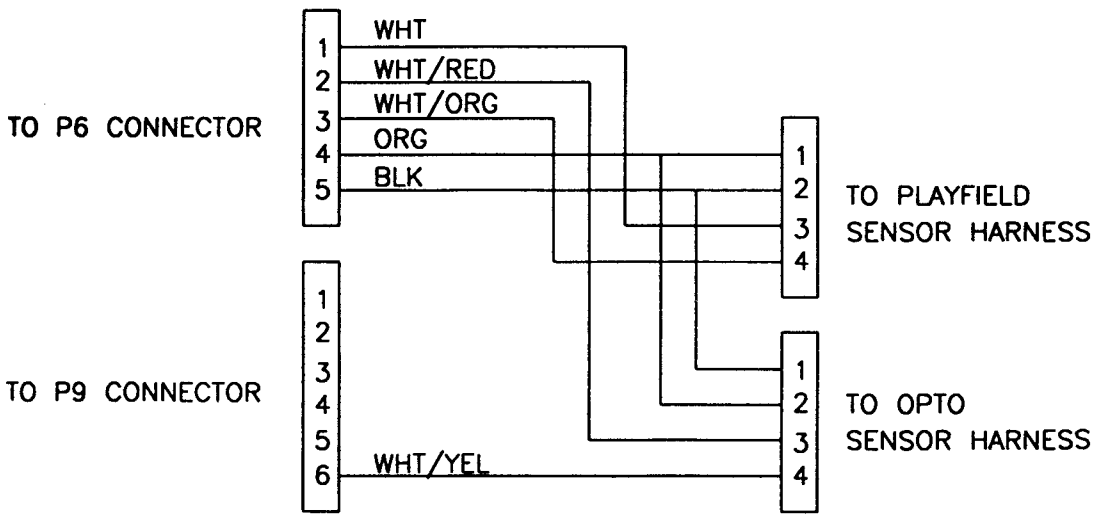
SIZE	DWG NO.	REV
A	EC-3016-01	

SCALE | DO NOT SCALE DRAWING | SHEET

COIN DOOR #2 WIRING HARNESS
EC-3021-01

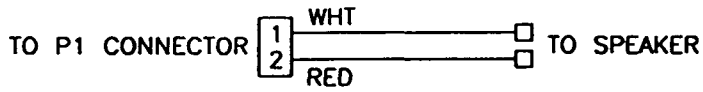


PLAYFIELD WIRING HARNESS
EC-3014-01

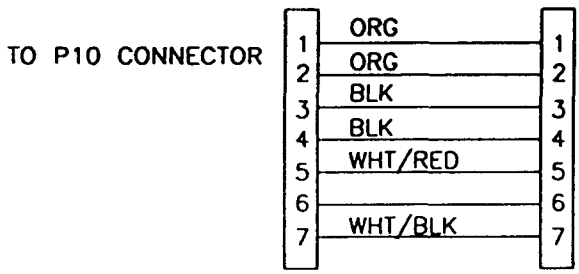


REVISION			
REV	DESCRIPTION	DATE	APPROVAL

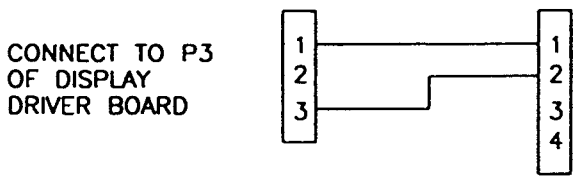
SPEAKER WIRING HARNESS
EC-3010-01



MAIN BOARD TO DISPLAY DRIVER BOARD WIRING HARNESS
EC-3017-01

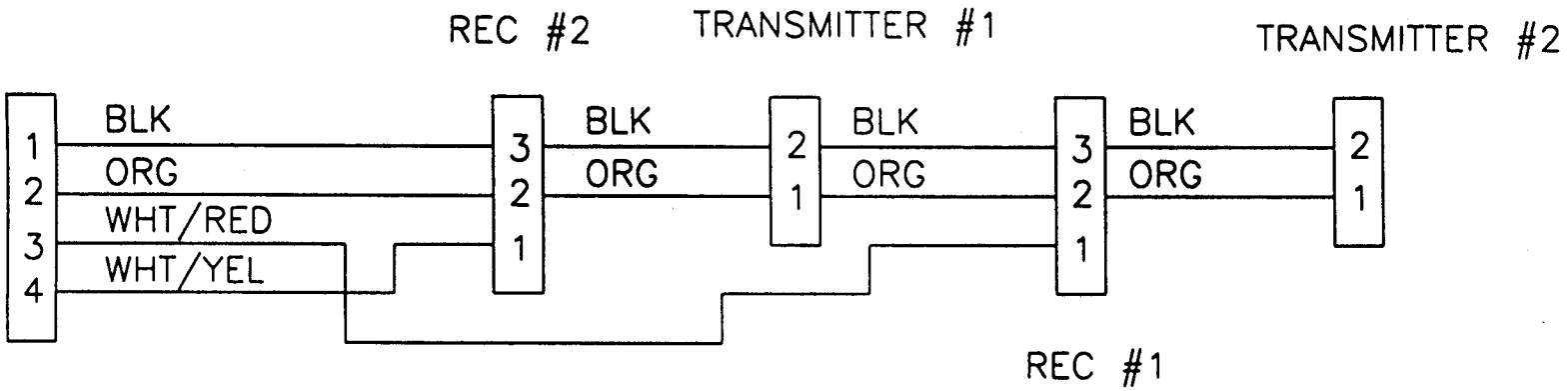


PLASMA DISPLAY POWER WIRING HARNESS
EC-3019-01

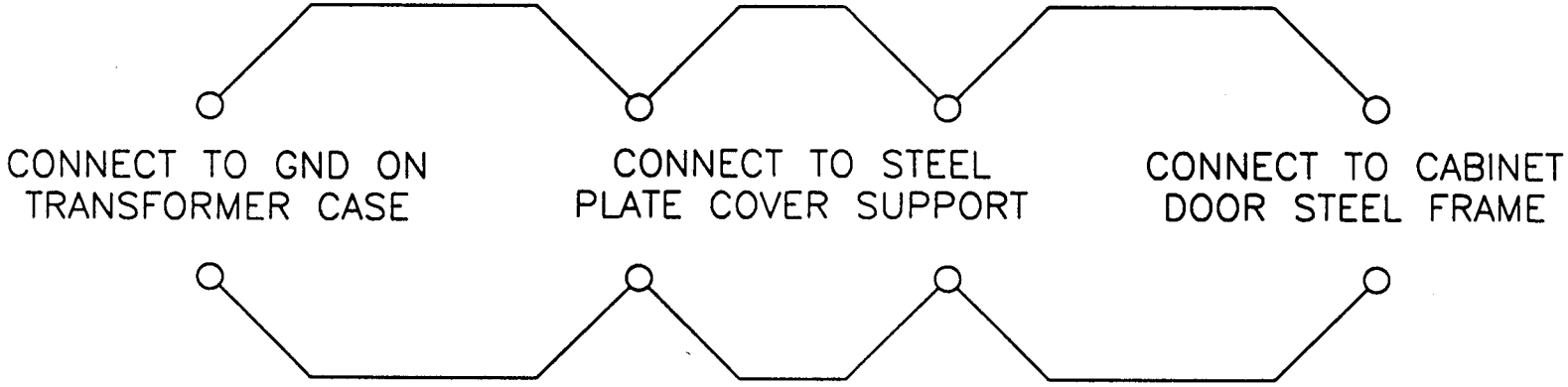


UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES TOLERANCES: DECIMALS .XX ± .01 DECIMALS .XXX ± .005 ANGLES ± 30'	G.L. TECHNOLOGY	2255-3 LOIS DRIVE ROLLING MEADOWS, IL 60008	
DRAWN / DATE	TITLE		
APPROVED / DATE	SIZE A	DWG NO.	REV
	SCALE	DO NOT SCALE DRAWING	SHEET

OPTO SENSORS WIRING HARNESS
EC-3020-02



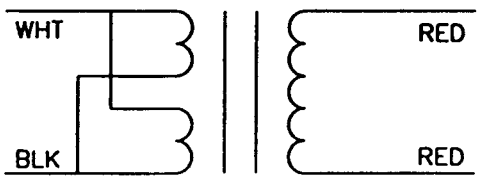
EARTH GROUND WIRING HARNESS
EC-3013-01



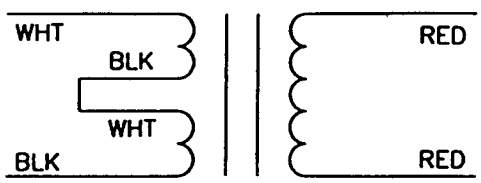
REVISION			
REV	DESCRIPTION	DATE	APPROVAL

HIGH VOLTAGE TRANSFORMER
FOR ARGON GAS TUBES (NEON LAMPS)

100V / 120V



240V / 230V / 240V



UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES TOLERANCES: DECIMALS .XX ± .01 DECIMALS .XXX ± .005 ANGLES ± 30°	G.L. TECHNOLOGY	2255-3 LOIS DRIVE ROLLING MEADOWS, IL 60008	
DRAWN / DATE	TITLE		
APPROVED / DATE	SIZE A	DWG NO.	REV
	SCALE	DO NOT SCALE DRAWING	SHEET