## SOFT-TIP ELECTRONIC DART GAME <br> FH-9600 Series

The history of darts goes back hundreds of years. Henry VIII of England and Charles VI of France were said to be among the dart throwers. The game was likely evolved from archery and spear throwing. Moreover, the development of modern darts was closely associated with English pubs. To hit the center of the board (called "Bull's Eye", used to be made from cork) with a dart was once thought to be purely lucky. Yet, to the English Court's satisfaction in 1908, a Leeds innkeeper demonstrated that it is indeed a game of skill. Ever since, dart playing has been accepted as a popular social and sporting activity. There are tournaments in every country, and the game is enjoyed by millions of people worldwide.

Revolution in electronics has elevated the joy and fun of playing darts. New and exciting games are being added to the collection. Automatic score-keeping and hints for rules are making it ever so easy to play. From young to old, for men and women, competing as individual or team, darts brings friends together. It is no wander, in darts tradition, that each game begins and ends with a handshake.

WARNING: DARTS IS AN ADULT SPORT, NOT A TOY FOR USE BY CHILDREN WITHOUT ADULT SUPERVISION. DO NOT AIM DARTS AT ANY PERSON. THAT MIGHT LEAD TO SERIOUS INJURIES. PLEASE READ INSTRUCTIONS CAREFULLY.

Carefully unpack your new dartboard and familiarize yourself with its function and controls before use. Should you suspect the dartboard does not work correctly, please refer to the TROUBLE SHOOTING section in this manual first.

## CARING FOR YOUR DARTBOARD

IMPORTANT! This game is designed for use with SOFT-TIP DARTS ONLY. Use of steel tip darts will cause permanent damage to the board.

Apply proper force and stance to throw darts. It is not necessary to throw hard for the darts to stick in the board. The recommended weight of soft-tip dart is no more than 16 grams (official standard for many dart organizations and tournaments). (See TIPS AND TECHNIQUES.)
_ Use proper replacement tips. To reduce bounce-outs, you shall use the same kinds of soft tips as those come with the game or those packed with SMARTNESS label. Long tips are not recommended for electronic dartboards. They break or crook more easily. (See TROUBLE SHOOTING for removing broken tips.)

## Use only the AC adapter that comes with the game set.

Avoid dartboard being subjected to extreme weather or temperature.
Avoid dartboard being subjected to liquid or excessive moisture.
Clean dartboard with damp cloth and/or mild detergent only.

## TIPS AND TECHNIQUES

TIP 1: A proper stance is to align your hand, elbow, shoulder, hip and foot. If you are using right hand, then turn the right side of your body facing the board. Put your weight on your right foot in the front, slightly lean forward, and balance with the left foot. If you are using left hand, then do it vice versa.

TIP 2: The throwing motion should be from your elbow out. Keep your body steady and use only your hand, wrist and forearm. Bring your forearm slightly back, and with a fluid motion throw the dart toward the board. Follow through the throw by pointing the index finger at the area that you are aiming.
TIP 3: When removing dart from the board, apply a little twist to the right while pulling the dart out will make it easier.

TIP 4: Practice, Practice, Practice! Practice makes you a better dart player.

## HOW TO TURN POWER ON

This electronic dartboard is equipped with automatic turn-off function (sleeping mode). There is no power switch. Simply plug in the AC adapter and the DC plug, and then the board is turned on. If the board is left inactive over 5 minutes, the displays and peripheries will shut off automatically, into the sleeping mode. As long as the power is remained connected, the board will remember the state of the game where it was left. By pushing the GAME button, the board will wake up and resume playing.

## GETTING STARTED

## GAME SETUP



Push this button to select one of the group of games. The first option of the group will appear on the display.
Push this button to select other options in the group. The games are code-named. Check with TABLE 2 for available games.

Push this button to select the number of players. The computer will automatically assign players to a number of teams (see TABLE 1).

If you wish to change the pre-set number of teams (the "Default" setting), push this button to make the selection (see TABLE 1).


If desired, you may set the difficulty level of the game differently for each team. Push the HANDICAP button and the display shows which team is up for change. Use the OPTION button to set the handicap value (see TABLE 2 for available settings).

When game setup is completed, push the HOLD/START button to begin the play.

Note: Refer to the DESCRIPTION section and illustration for the descriptions of "Setup Windows".

## Example:

1. Push GAME to select the "_01" game. Then, push OPTION to set the initial value of the score to "501".
2. Push PLAYER and set the number of players to 5 . The computer automatically assigns 4 teams and puts Player 1 (P1) and Player 5 (P5) on the same team, Team 1.
3. Player 1 and Player 5 are beginners. Push HANDICAP and "Sr1" (for SCORE 1) appears on display. Push OPTION to change the initial value of SCORE 1 to "301". Team 1 will now play the game starting from 301 points.
4. Player $3(\mathrm{P} 3)$ is a better player. Push HANDICAP until "Sr3" appears. Push OPTION and set the initial value of SCORE 3 to "701"
5. No handicapping is set for Player 2 and Player 4 (P2 and P4). Hence, The initial points of SCORE 2 and SCORE 4 are "501".
6. Push HOLD/START to begin the game.

TABLE 1: Team Assignment

| No. Players | No. Teams | $\begin{gathered} \text { Team } 1 \\ \text { (SCORE 1) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Team } 2 \\ \text { (SCORE 2) } \end{gathered}$ | $\begin{gathered} \text { Team } 3 \\ \text { (SCORE 3) } \end{gathered}$ | $\begin{gathered} \text { Team } 4 \\ \text { (SCORE 4) } \end{gathered}$ | Remark |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1_P | 1_t | P1 |  |  |  | by default |
| 2_P | 2_t | P1 | P2 |  |  | by default |
| 3_P | $\begin{aligned} & 3 \_t \\ & 2 \_t \end{aligned}$ | $\begin{gathered} \mathrm{P} 1 \\ \mathrm{P} 1, \mathrm{P} 3 \\ \hline \end{gathered}$ | $\begin{aligned} & \mathrm{P} 2 \\ & \mathrm{P} 2 \\ & \hline \end{aligned}$ | P3 |  | by default |
| 4_P | $\begin{aligned} & 4 \_t \\ & 3 \_t \\ & 2 \_t \end{aligned}$ | $\begin{gathered} \mathrm{P} 1 \\ \mathrm{P} 1, \mathrm{P} 4 \\ \mathrm{P} 1, \mathrm{P} 3 \\ \hline \end{gathered}$ | $\begin{array}{r} \mathrm{P} 2 \\ \mathrm{P} 2 \\ \mathrm{P} 2, \quad \mathrm{P} 4 \\ \hline \end{array}$ | $\begin{aligned} & \text { P3 } \\ & \text { P3 } \end{aligned}$ | P4 | by default |
| 5_P | $\begin{aligned} & 4 \_t \\ & 3 \_t \\ & 2 \_t \end{aligned}$ | $\begin{gathered} \mathrm{P} 1, \mathrm{P} 5 \\ \mathrm{P} 1, \mathrm{P} 4 \\ \mathrm{P} 1, \mathrm{P} 3, \mathrm{P} 5 \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{P} 2 \\ \mathrm{P} 2, \mathrm{P} 5 \\ \mathrm{P} 2, \mathrm{P} 4 \\ \hline \end{gathered}$ | $\begin{aligned} & \text { P3 } \\ & \text { P3 } \end{aligned}$ | P4 | by default |
| 6_P | $\begin{aligned} & 4 \_t \\ & 3 \_t \\ & 2 \_t \\ & \hline \end{aligned}$ | $\begin{gathered} \mathrm{P} 1, \mathrm{P} 5 \\ \mathrm{P} 1, \mathrm{P} 4 \\ \mathrm{P} 1, \mathrm{P} 3, \mathrm{P} 5 \\ \hline \end{gathered}$ | $\begin{array}{cc} \mathrm{P} 2, & \mathrm{P} 6 \\ \mathrm{P} 2, & \mathrm{P} 5 \\ \mathrm{P} 2, & \mathrm{P} 4, \\ \hline \end{array}$ | $\begin{gathered} \text { P3 } \\ \text { P3, P6 } \end{gathered}$ | P4 | by default |
| 7_P | $\begin{aligned} & 4 \_t \\ & \text { 3_t } t \\ & 2 \_t \end{aligned}$ | $\begin{gathered} \mathrm{P} 1, \mathrm{P} 5 \\ \mathrm{P} 1, \mathrm{P} 4, \mathrm{P} 7 \\ \mathrm{P} 1, \mathrm{P} 3, \\ \mathrm{P} 5, \mathrm{P} 7 \\ \hline \end{gathered}$ | $\left\|\begin{array}{c} \mathrm{P} 2, \mathrm{P} 6 \\ \mathrm{P} 2, \mathrm{P} 5 \\ \mathrm{P} 2, \mathrm{P} 4, \end{array}\right\|$ | $\begin{aligned} & \text { P3, P7 } \\ & \text { P3, P6 } \end{aligned}$ | P4 | by default |
| 8_P | 4_t | P1, P5 | P2, P6 | P3, P7 | P4, P8 | by default |



TABLE 2: Game Selection and Handicapping List

| GAME | OPTION |  | HANDICAP |  |
| :---: | :---: | :---: | :---: | :---: |
| Group | Code | Dart Game | Range | Step |
| _01 | $\begin{gathered} 301 \\ 501 \\ 601 \\ 701 \\ 801 \\ 901 \\ 1001 \end{gathered}$ | 301 <br> 501 <br> 601 <br> 701 <br> 801 <br> 901 <br> 1001 | 301 to 1001 <br> 301 to 1001 <br> 301 to 1001 <br> 301 to 1001 <br> 301 to 1001 <br> 301 to 1001 <br> 301 to 1001 | change by 100 points change by 100 points change by 100 points change by 100 points change by 100 points change by 100 points change by 100 points |
| 1ea | $\begin{gathered} 301 \\ 501 \\ 601 \\ 701 \\ 801 \\ 901 \\ 1001 \end{gathered}$ | League 301 <br> League 501 <br> League 601 <br> League 701 <br> League 801 <br> League 901 <br> League 1001 | 301 to 1001 <br> 301 to 1001 <br> 301 to 1001 <br> 301 to 1001 <br> 301 to 1001 <br> 301 to 1001 <br> 301 to 1001 | change by 100 points change by 100 points change by 100 points change by 100 points change by 100 points change by 100 points change by 100 points |
| rc | $\begin{gathered} r c \\ \text { s_o } \\ \text { SH } \\ 1-2 \\ \hline \end{gathered}$ | Round the Clock <br> Shoot-Out <br> Shanghai <br> Halve-lt | No. 1 to 9 0 to 9 points No. 1 to 9 0 to 950 points | advance 1 number add 1 point advance 1 number add 50 points |
| Cu2 | $\begin{gathered} \mathrm{C} u 2 \\ \mathrm{C} u 4 \\ \mathrm{Cu} 6 \\ \mathrm{C} u 8 \\ \mathrm{C} 40 \\ \mathrm{Hi} \\ \hline \end{gathered}$ | Count Up 200 <br> Count Up 400 <br> Count Up 600 <br> Count Up 800 <br> Count Up 1000 <br> High Score | 0 to 150 points 0 to 350 points 0 to 550 points 0 to 750 points 0 to 950 points 0 to 500 points | add 50 points add 50 points add 50 points add 50 points add 50 points add 50 points |
| $0^{-}$ | $\begin{gathered} 0^{-} \\ \mathrm{U}_{-} \\ b-6 \end{gathered}$ | Overs <br> Unders <br> Big-6 | 3 to 7 lives 3 to 7 lives 3 to 7 lives | add 1 life add 1 life add 1 life |
| Cri | $\begin{aligned} & \text { Cri } \\ & \text { no } \\ & \text { Cut } \\ & \text { PuP } \end{aligned}$ | Cricket -(Standard) No Score Cricket Cut Throat Cricket Killer Cricket | $\begin{aligned} & 0,20,25 \\ & 0,20,25 \\ & 0,20,25 \\ & 0,20,25 \end{aligned}$ | (see Note) (see Note) (see Note) (see Note) |


|  |  |  | Note: "0": no specific order. <br> "20": must close numbers from 20, 19, 18, 17, 16, 15 to Bull. <br> " 25 ": must close numbers from Bull, $15,16,17,18,19$ to 20. |  |
| :---: | :---: | :---: | :---: | :---: |
| biL | $\begin{gathered} \text { biL } \\ m f \\ \text { PAC } \\ \text { Hot } \\ \hline \end{gathered}$ | Billiard <br> Minefield <br> Pachisi <br> Hot Potato | spot No. 20 to 11 spot No. 20 to 11 spot No. 20 to 11 spot No. 20 to 11 | fill 1 spot fill 1 spot fill 1 spot fill 1 spot |

## SPECIAL FUNCTIONS

DOUBLE
For the games, 301-1001 and League 301-1001, you can choose additional settings to make the game more challenging (see GAME INSTRUCTIONS). You may change this setting anytime before or during the game to give the less skillful player a break. The available settings are:

Open In / Open Out
Open In / Double Out (DO)
Open In / Master Out (MO)

Double In (DI) / Open Out
Double In (DI) / Double Out (DO)
Double In (DI) / Master Out (MO)


## SOLITAIRE

HOLD

RESET

## SOUND VOLUME

Push this button before next throw allowing you to discard the score registered by the dart that does not stay on the board. In many tournaments, bounce-out scores are not counted.

Push this button to turn on the automatic player change function. When 3 throws are registered on the board, the computer will change player automatically. This is ideal for a single player with a handful of darts in practice. This function is only valid after the game starts.

This button allows you to adjust speaker volume. There are 7 levels between sound-off and the maximum volume.

During a play, a push on the HOLD/START button provides a pause to the game. This is typically useful to avoid accidentally touching off scoring when removing darts. A push on the button again will resume the game.
A push on this button will cause interruption and prompt up the setup mode. All the settings remain the same as the last game. You may choose to change settings, or you may simply push the START button to start the same game again. Push the RESET button twice will clear the HANDICAP settings.

## PLAYING GAME

1. A larger dot in the corresponding SCORE window shows which Team is up, and the sign, "P_1", "P_2", etc., shows which Player is up for throwing the darts.

Each player is entitled to throw 3 darts per turn. The three small dots on the "Actual Score" display are indicating remaining throws available for the turn.
2. This smart dart game can track cumulative scores and reveal target or hints automatically (see TABLE 3). Single, double, or triple is marked with a precursor before the digits. A single is shown with a lower bar, for example "_18" is indicating Single 18. A double is marked with 2 bars or a " $d$ ", such as " $=18$ " or " $d 18$ ". A triple is marked with 3 bars or a " $t$ ". Single Bull's Eye is indicated by its face value - " 25 ".
3. Always wait for the finish of the ready signal before throwing darts.
4. At the end of one's turn, the board is automatically on hold (unless you have turn on the Solitaire function). Pull out the darts and press the PLAYER button to advance the play.
5. The game ends when the finishing placement of all teams becomes determined. Each display will then alternately show the final score and the placement of the corresponding team.

TABLE 3: Information Shown on Displays

| Dart Game | Actual Score | Player/Team Score | Cricket Score Board |
| :--- | :--- | :--- | :--- |
| 301-1001, <br> League 301-1001 | (Dart-Out Tip) $\rightarrow$ <br> Score of a Hit $\rightarrow$ <br> Turn Total | Cumulative Score | Mark Double In/Out <br> or Master Out Setting |
| Round the Clock | Number Hit | Target |  |
| Shoot-Out, Shanghai, <br> Halve-lt | Target $\rightarrow$ <br> Number Hit | Cumulative Score |  |
| Count-Up, High Score | Turn Total | Cumulative Score |  |
| Overs, Unders | Score of a Hit | Target $\rightarrow$ 3-Dart <br> Total | Remaining Lives |
| Big-6 | Number Hit | Target | Remaining Lives |
| Cricket: Standard and <br> Cut Throat | Number Hit | Cumulative Score | Cricket Marking |
| Cricket: No Score <br> and Killer | Number Hit | 0 | Cricket Marking |
| Billiard, Pachisi, <br> Hot Potato | Hint $\rightarrow$ Nit <br> Number Hit | End Point Position | Game Road Map <br> (Marks cursor, barrier <br> and achievement). |
| Minefield | Hint $\rightarrow$ <br> Number Hit | Remaining Lives | Game Road Map <br> (Marks cursor, traps <br> and achievement). |

GAME INSTRUCTIONS

This is the most popular dart game, played in most leagues and tournaments. Each player starts the game with 301 points (or 501,601 , etc.). At the end of each player's turn, the sum of the three darts thrown is subtracted from the player's score. The player who reaches exactly zero first wins. The play can continue until the 2nd, $3 r d$, and 4th places are determined.

Busting Rule: When a player exceeds the score needed to reach exactly zero, the turn is a "bust" and the score reverts back to what it was before the turn.

To make the game more challenging, you may use the DOUBLE button to set additional restrictions on how to start and end the game. The choices are:

Open In: The scoring begins when any number is hit.
Open Out: The player can finish the game with a hit on any number that reduces the score to exactly zero.

Double In: To start, the player must hit a number in the double ring or a double Bull's Eye. No score will be counted until this condition is satisfied.

Double Out: To win, the player must hit a double or a double Bull's Eye that reduces the score to exactly zero. A score leaving the player with "1" will BUST.

Master Out: To win, the player must hit a double, a double Bull's Eye, or a triple that reduces the score to exactly zero. A residual score of "1" will BUST.

Dart Out Feature: In professional competitions, the game is usually played with Double Out. When the score dropped below 170 points, the player can get a double out and win the game within the three throws for that turn. The board will automatically calculate and show hints for Dart Out. The hints will be shown, one at a time per throw, in its suggested order. If the player misses the first suggestion and still has the chance to finish with the remaining two throws, the board will re-calculate hints for Dart Out. No hints will be provided for score below 40, since it will be very easy to figure out the combination.

## LEAGUE 301-1001

This is a team play of the 301-1001 game, very popular among dart leagues. There are always 2 teams and 4 scores to track. Player 1 and Player 3 play against Player 2 and Player 4. The game is played the same way as the individual 301-1001 game. Any player reducing his/her score to exact zero first makes his/her team a winner, BUT a "Freeze Rule" applies.

Freeze Rule: A player can not go out the game when the partner's residual score is higher than the sum of their opponents' residual scores. (A tie is OK to go out.) A "frozen" player can only try to get his/her score as low as possible and hope his/her partner can win. If a player is frozen and reaches zero, then the game is Burst on that player.

The rule is to ensure that the winning team has the best combined performance, and none can win the game without the help of his/her partner. Moreover, this dartboard allows handicapping each player separately for the League play. The team play can also take 8 players, with two each on one score and four in a team.

## ROUND THE CLOCK

The player tries to hit the numbers from 1 to 20 in order. When a number is hit, then the game is advanced for shooting the next number. The player reaches and hits 20 first is the winner. Double and triple are treated the same as a single, being counted as one hit.

## SHOOT-OUT

With the help of smart electronics, this game is invented and is more exciting than Round-The-Clock. The target is being randomly picked by the on-board computer. There are 10 seconds for you to throw the dart. A hit on the target counts as 1 point. Double and triple are treated the same as a single. If the 10 -second time expires, it is considered a throw has made and missed. The target is renewed after each throw. The player to accumulate 15 points first wins.

## SHANGHAI

The game is similar to Round-The-Clock, except scores are being cumulated and the game is limited to 7 rounds, or 21 shots. Player starts shooting with the number 1 and progress toward 20 and Bull's Eye. No hit is counted when it is out of the numbering sequence. A hit on a double or a triple is counted as $2 x$ or $3 x$ the number. Example: A hit on double 3 counts as $2 \times 3=6$ points. By the end of the 7 th round, the player who accumulates the most points wins.

## HALVE-IT

The game is like playing Jeopardy. A total miss with three throws can send your score tumbling down. Everybody starts the game by shooting the number 12, and then 13, 14, any Doubles, 15, 16, 17, any Triples, 18, 19, 20 and Bull's Eye. Each player throws three darts at the same number, and then progress to the next number in the next round. A hit on a double or triple counts as $2 x$ or $3 x$ the points. If a player misses all three throws on the specific target in a round, his/her scores will be cut in half. The more score you have accumulated, the more serious is the result, should you miss any hit completely in a turn. At the end of the game, the player who accumulates the most points is the winner.

## COUNT-UP

This is a simple game that anybody can play. The objective is to beat other players by reaching a preset score first. The available settings are: 200, 400, 600, 800 and 1000. Each player tries to score as high as possible in his/her turns, and the final total score is allowed to be more than the preset score.

## HIGH SCORE

This game is much like Count-Up, except that the game ends at the finish of the 7th round. The player who accumulates the highest total scores wins.

## OVERS

This is a simple and quick game. The player should try to score higher than or equal to the pervious highest score made in a turn. When a player scores less than the record of three-dart total, a "Life" is then taken away from the player. By
default, each player has 3 lives to spare. However, Handicaping can extend the player's lives up to 7 . The last player stands to be alive in the game is the winner.

## UNDERS

The game is similar to Overs, except the objective is to beat the lowest record of three-dart total. When the three-dart total is higher than the record, then a "Life" is taken away from the player. A pass of a throw, a hit outside the scoring area, or a discarded bounce-out dart (i.e., the bounce-out button was pushed) is penalized with 60 points ( $3 \times 20$, the highest possible one-dart score). The last player stands to be alive in the game is the winner.

## BIG-6

The player tries to earn the chance of picking the next target by making a hit on the current target first. Single-6 is the first target when the game starts. Within the three throws, the player has to hit the target once to save his/her lives. As long as the hit is made by the first or the second throw, the player has a chance with one throw to select the next target. Singles, Doubles and Triples are all considered as different targets. The strategy is to pick the toughest target for the opponents as possible, such as "triple-20" or "double-Bull's Eye". The last player stands to be alive in the game is the winner.

## CRICKET - (Standard)

Cricket is a game that is extremely popular in America and Central Europe. Players adopt defensive or attacking strategy, depending on the state of the game. At any point in the game, each player can make effort to increase the score or to attempt blocking other players from scoring.

The game is played with the numbers 15 through 20 and the Bull's Eye. Each player must mark a number 3 times to CLOSE it. A hit of a single counts as 1 mark; a double counts as 2 marks and a triple counts as 3 marks. After a number is closed, additional "markings" are converted into scores that is equal to the number. However, when a number is closed by all players (ALL CLOSED), that number is then no longer available for cumulating scores. The winner is who has the highest score and closed all the numbers first. If scores are even, the player who closes all the numbers first wins.

The strategy can be very different if the game is being played with the restriction that is to close each number in a specific order. Use HANDICAP function to choose such variations: playing " 20 down to 15 then Bull" or "Bull and then 15 up to 20". Close the numbers in the set sequence. You will see the difference after playing couple games in this fashion.

NOTE: See the DESCRIPTION section for notes on Cricket Score Board.

## NO SCORE CRICKET

This is a simplified version of Cricket. The objective is to close all the numbers as soon as possible. No score is given for hit on a closed number at any time.

## CUT THROAT CRICKET

This is a reversed version of Cricket in scoring. Most popularly being played with 3 players. Two of the players may joint up and sack another player before they turn to each other for a fight.

After a number is closed, a hit for the scoring is being add to the opponents' scores. The higher cumulative score is on the losing side. However, no score will be added to a player who has the number already closed. The winner is who has the lowest score and closed all the numbers first. If a player closed all the numbers first but also has a higher score, he/she must keep on scoring to bring opponents' scores surge over or equal to his/her score. Hence, the best strategy is to close the numbers as soon as possible to block others from giving you points, while adding the chance to penalize others.

## KILLER CRICKET

This game is much like the No Score Cricket with an added twist. When a number is closed, the player has a chance to eliminate opponents' marking by hitting the same number again. However, if the opponent has the number closed as well, then no marks will be taken away from that player. Noticing that, instead of turning on a light, each positive marking will turn off a light on the Cricket Score Board. The player who closes all the numbers first is the winner.

Example: For the number 19, Player 1 has 1 hit (hence 1 light off), Player 2 has 2 hits (hence 2 lights off), and Player 3 has number 19 closed ( 3 lights off). Player 4 comes up and hits a triple 19, closed number 19 too. Player 4 then aims and hits single 19 again. In consequence, Player 1 and 2 are being put back one light on 19, and Player 3 is not affected. Which means, Player 1 and 2 are being pushed back 1 hit away from closing 19.

## BILLIARD

This and the next 3 games are new creations that belong to a whole new ballpark. The goal is to move the cursor from the starting position to fill a vacant spot at the end point. A hit on any number will move the cursor the exact steps as the number indicates. Double and triple are no differences than a single. If the move falls short from landing the cursor on the end point, then make another throw and try to make up the steps. If a hit overshoots the number of steps needed, the cursor will then rebound with the excessive steps from the end point. The cursor is moved along the path as shown in the illustration. When the spot at the end point is filled, the end point is then moved one step closer toward the starting point. The winner is who fills all the vacant spots and moves the end point to the starting point first.

## Example:

1. Player 1 starts the

game. The display is showing " 20 " that advises Player 1 to hit 20 in order to fill the first spot. Player throws the first dart and hits 5. The cursor is moved to the spot marked " 5 " in the illustration.
2. The board automatically calculates the difference and advises Player 1 with "_15" to shoot at. Player 1 aims at 15, but hits 17 . The cursor moves 15 steps and bounces off the end point 2 steps to land on the spot "18".
3. Now, the display is showing "_2". Player 1 throws a third dart and hits the number "2". The cursor lands exactly on the spot "20" and a cheering tune played. The display is now showing "19", indicating the end point has moved a step forward, and flashing for player change.

## MINEFIELD

Essentially, this game is played the same way as Billiard. The exception is that there are 6 mines being planted randomly. You can pass over a mine but do not stop on it. If the cursor happened to land on a mine, the mine explodes and a "Life" is lost. Each player has 3 lives for spare. If the player loses all 3 lives before finishing filling spots, he/she is then out of the game. After the explosion, the spot is safe as a regular one.

When the end point encounters a mined spot, the end point passes the mine and settles on the next spot. Hence, you do not need to fill the mined spots. However, if explosion happens, the spot is then evacuated and needs to be filled. The player who fills all the spots first or stays to be the last one alive is the winner.

## PACHISI

The concept was inspired from an old Indian game with the same name and that has a German name equivalent to say "Don't Bother Me!" The rules are similar to Billiard. In addition, there is a barrier between the cursor and the end point. You need to land on the barrier in order to pass this trouble to the next player. Otherwise, the cursor can only be bouncing between the starting point and the barrier but never get over to the end point. The player who finishes filling spots and moves the end point to the starting point first is the winner.

The trouble barrier is always located between the cursor and the end point. When the next player gets the barrier, its position is being calculated with the with the rules as follows: (a) Count the barrier's previous position from the starting point as "x". (b) Count "x" steps starting from the cursor's location of the player who receives it. (c) If " $x$ " is more than the steps between cursor and end point, the barrier is bouncing back and forth between the two points for "x" steps. These rules ensure that the barrier will not always appear on the same spot.

## НОT РОTATO

This game is similar to Pachisi, only that the barrier is now called "Hot Potato" and does more harm. During relocation, if the "Hot Potato" bounces a filled spot, it will dig out the fill and push the end point one step back.

## TROUBLE SHOOTING

No Power Check and make sure the AC adapter is properly plugged in to the electrical outlet, and the DC plug is properly connected to the DC Jack on the board.

Game Will Check to see if the game is in the setup mode or if the game is on

Stuck
Segment or Button

Removing Broken Tips hold. You may also check to see if any scoring segments or function buttons are stuck.
During shipping or in the course of normal play, it is possible for the scoring segments to become temporarily jammed. If such situation happens, all automated scoring ceases. A warning signal sounds and the display begins flashing with the indication of which number is stuck. By gently removing the dart or wiggling the segment with your finger, you will be able to free the segment. The game may then be resumed and scoring will not be affected.
A stuck function button will result in a frozen board as well. The flashing display shows "-F-" with a warning sound. Apply the same technique gently to free the stuck button.
Plastic tip is safer but does not last forever. If a tip breaks and remains in the board, try to pull it out gently with a pair of pliers. However, for a short broken tip that sticks flush with the segment surface, you may push it through the hole into the board. The soft tip will not hurt the circuit behind the segment. Nevertheless, we recommend you to use a good SOFT TIP on a dart to push the broken one through. Be careful, not to use a pointed metal object to do the job. A pointed object may cause damage if being stuck too deep into the board. Remember, the heavier the dart is, the higher the chance that the tip will break.


#### Abstract

Power or Electro- magnetic Interference

Under extreme situation of electromagnetic interference, the electronics of the dartboard may show erratic behavior or fail to continue working. The examples of these situations may be: heavy thunderstorm, power line surge, rolling brown out, or too close to an electrical motor or microwave. To restore the game to normal operation, unplug the AC adapter for several seconds and then reconnect the power again. Be sure to remove the source that causes the interference as well.


## DESCRIPTIONS

1) Single: Score as number shown.
2) Double: Score $\times 2$.
3) Triple: Score $\times 3$.
4) Bull's Eye: The outer bull is 25 points; the center double bull is 50 points.
5) Catch-Ring: Catch missed dart, no score.
6) Function Buttons: (see sections of GETTING STARTED).
7) Actual Score: (see Table 3)
8) Player/Team Scores (SCORE 1-4): (see Table 3)
9) Turn indicator: show who is up for the throw.
10) Dart Indicators: Show how many throws remain for the turn.
11) Cricket Score Board: (see Table 3)
12) Indicators for Double In (DI), Double Out (DO) and Master Out (MO).
13) DC Jack: For connecting AC adapter.
14) Setup Windows: (a) number of players, (b) number of teams, (c) team score selection for handicap setting, (d) initial score, (e) dart game code-name.

The product complies to the requirements of the EC EMC Directives 89/336/EEC and 93/68/EEC, and carries the CE marking accordingly.

