



# Touch Chess Operating Manual

Model 404



Congratulations on your purchase of Excalibur Electronics' Touch Chess! You've purchased both your own personal chess trainer and a partner who's always ready for a game—and who can improve as you do!

## Install the Batteries

If your unit has a Pull Tab, simply pull the tab. You may discard the tab once it has been pulled out. If there is no Pull Tab, or to replace batteries, the procedure is as follows: Using a small Phillips screwdriver, remove the battery-compartment panel screws on the back of Touch Chess. Then remove the panel by pulling gently from the top. Install three fresh AG13 batteries, making sure to follow the diagram in each battery slot so that the polarity (+ or -) of the batteries is correct.

## Play a Game Right Away

After you have installed the batteries, the display will show the chess board with all the pieces on their starting squares. The LCD will also show 01CHESS. This indicates you are at the first move of the game and ready to play chess.

**Adjust the display contrast for best viewing. The contrast control is on the bottom of the unit.**

Touch Chess gives you the White pieces—the ones at the bottom of the board. White always moves first.

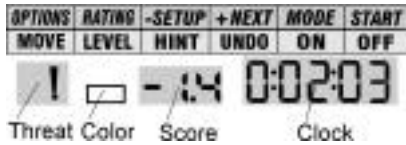
The way you select and make your move is very simple. Think of communicating your move as a two-step process—registering the *from* square and then registering the *to* square of the move you wish to make.

Using the supplied stylus (plastic pen), press down gently on the center of the square for the piece or pawn you wish to move. You'll hear a beep and the piece or pawn will flash. If you hear an error buzz, and the piece does not flash, then that piece cannot legally move anywhere. If you change your mind and want to move a different piece, simply press the *from* square again to cancel it.

Now gently press on the center of the square you want to move it *to*. You'll hear a beep letting you know your move has been registered.

After you make your move, Touch Chess will reply with its move automatically. You'll see the piece flash on its *from* square and move to its *to* square. During the game, the display shows the move number and the elapsed time for each move.





Your Touch Chess partner is packed with valuable special features that can help you learn to play better and better chess—and to have a lot of fun!

### Special Touch Areas

Features are controlled by four special areas above the chess board and six *function keys*. The four special areas are shown in the above figure and perform as follows:

#### THREAT AREA

If the Threat Warning indicator ‘1’ is on, pressing the center of this area will flash the threatening move on the chess board.

#### COLOR AREA

Press this area during Setup mode to change the color of the side to move.

#### SCORE AREA

Press the center of this area to change between displaying the number of the current move, to displaying the position score. Pressing it again will return the display to the move number.

The scoring totals the following values: Pawns—1, Knights—3, Bishops—3, Rooks—5, and Queen—9.

#### CLOCK AREA

Your Touch Chess normally shows the time taken for each *move*. Press the center of this area to instead show the total *game* time. Press it again to return to *move* time.

### Function Keys

There are more special features than there are function keys! So each key has two labels.

The bottom label shows the primary function of the key. The top label its secondary function.

Below are the features available to you through the primary functions. Remember, to access any of these features, you simply press the proper key, looking at the *bottom* label.

#### Primary Key Functions

##### OFF KEY

This key turns the unit off, automatically saving a game in progress. If it is not "thinking," Touch Chess will automatically turn off after a period of time, saving your game position. Use the **ON** key to resume the game.

##### MODE/ON KEY

Use this key to turn on Touch Chess. Also use it to select the secondary function mode of the other keys. (See "Secondary Functions," page 3.) You can even use it as a clear or "escape" key to exit any of the special modes like **OPTIONS**, **SETUP**, **LEVEL**, and **RATING**.

##### UNDO KEY

This key lets you take back a move or moves you've decided against. Press this key repeatedly to continue taking back moves. After you take back a move, you can use the **MOVE** key to replay the taken-back move or moves.

##### HINT KEY

Press this key if you want to get hints from your Touch Chess partner. It displays **HINT** and flashes a recommended

**Your Excalibur Touch Chess is packed with features! Each key has two labels. To activate the feature named at the bottom label, just press the key. For the feature given at the top label, first press *MODE* and then the key.**

move on the screen. To make the hint move, just press the **MOVE** key.

If the hint is a book move or a replay move, **OPEN** or **REPLAY** will be shown instead of **HINT**.

##### MOVE KEY

Press this key to switch sides (colors) with your computer. Also use **MOVE** to replay moves in the undo move mode (see "**UNDO**," left).

##### LEVEL KEY

Use this key to set the level of play (for more information, see "*Levels of Play*," page 5). Press **LEVEL** again to change the level by one. Use the **NEXT+** or **SETUP-** keys to change the level by ten. Also use the **LEVEL** key to enter level option mode.

#### How to Change Level Options:

When the level is displayed, pressing the **OPTIONS** key shows:

**FAST:** In this mode, Touch Chess uses a more selective search for thinking. It may miss a tactical move, but it can look more deeply into the position. Press **+NEXT** to turn **FAST** on or off. Or press the **OPTIONS** key again to show:

**rAnd:** Allows the computer to randomly choose between two good moves so that you get to practice and play against different responses. Press the **+NEXT** key to turn random on or off.

#### Secondary Key Functions

Below are the features available to you through the secondary functions. To access any of these features, you first press the **MODE** key and then press the indicated key, looking at the *top* label. You may press **MODE** again to stop using a secondary function.

##### OPTIONS KEY

Pressing the **OPTIONS** key repeatedly will display all selectable options. To select or change an option, use the **+NEXT** key.

##### Options Before the Game Starts

**OPEN:** Select one of 34 book opening lines of play. (See page 5.)

**GAME:** Select one of 16 Great Games. (See page 6.)

**MATE:** Select one of 31 mate-in-2 problems. Problem 32 is a mate-in-3 problem. If you can't find the solution, make Touch Chess show you the correct moves to a problem by setting the level to 73, and then pressing the **MOVE** key.

**TrAIIn:** Select one of eight training positions. Positions with the Black king in the middle give you practice in check-mating the Black king.

##### Options Before and During the Game

**PLAYr:** Select between: '1'—Human vs Computer; '2'—Human vs Human; '0'—Computer vs Computer.

**HELP:** When this option is turned on , all legal moves for the selected piece will be shown at one time.

**INFD:** When turned on, this option will display the score, depth of search (number of moves Touch Chess is "thinking ahead"), best move it is considering playing, and clock times. These will be displayed while the computer is thinking at its higher levels.

**CLrBr:** Use this option to clear the chess board for easier problem setup. Pressing the **-SETUP** key now, will enter setup mode with the chess board cleared of all pieces. You must place a White and Black king on the board to exit setup mode.

**SOUND:** Select between: ‘2’—All sound on; ‘1’—No sound on key presses; ‘0’—No sound, except for error buzzes.

**SLEEP:** Adjust the automatic shut off time with this key. Setting it to ‘0’ will disable auto shut-off altogether.

#### **-SETUP KEY**

Press this keys to promote a pawn that reaches your opponent’s back rank to a piece other than a queen. (The promotion to a queen is the most common, so it is automatic.) You can also use this key to set up special positions (see “SETUP” section on page 9).

#### **START KEY**

Use this key to start a new game.

#### **RATING KEY**

Touch Chess rates your play! Use this key to view your current rating. Also use it to enter game results for a new rating if the ‘O’ symbol is on, showing you played a ratable game with no hints or take-

backs.

#### **How to Update Your Rating:**

While viewing your rating with the ‘O’ symbol on, the first press of the **OPTIONS** key shows:

**Win**—If you won the game, press the **RATING** key to see your new rating. Or press **OPTIONS** a second time to show:

**LOSE**—If you lost the game, press the **RATING** key to see your new rating. Or press **OPTIONS** a third time to show:

**DrAw**—If you drew the game, press the **RATING** key to see your new rating. Or press **OPTIONS** to return to your unchanged rating display.

#### **Playing the Black Pieces**

When you want to play the Black pieces (to let Touch Chess move first) press the **MOVE** key before you make your first move as White. You’ll see the White and Black pieces switch places immediately!

#### **Draw Messages**

During the game, your Touch Chess will display the word **DrAw** if a three-time repetition of position occurs, or if there has been no pawn moved and no exchanges for 50 moves. When either of these situation takes place, the rules of chess state that a player can claim a draw. If you wish, you can ignore the message and continue the game. When a stalemate is reached, the display will read **StAlE**.

#### **Game-Ending Messages**

Touch Chess will announce mate in two (**MAtE2**) and mate in three (**MAtE3**). It will also display **+MAtE** when executing a checkmate. When you checkmate Touch Chess, it will display **LOSE**.

When you want to claim a win, draw, or want to resign—press the **MODE** key and then **START**.

#### **Screen symbols**

When a ‘+’ appears on the screen, it is a reminder that you are in check. When an ‘O’ appears on the screen, the game you are playing can be rated. When an ‘=’ appears, it indicates you are in two human player mode. And lastly when an ‘!’ appears on the screen, you are being warned that one of your pieces is threatened with capture. (This is similar to the friendly "en garde" warning sometimes used by human players when they are attacking an opponent’s queen.)

#### **Levels of Play**

Generally, the higher the level you select, the better your Touch Chess will play, and the longer it will think during its moves. The first four levels (1, 2, 3 and 4) are beginner levels and take approximately 4, 8, 12 and 16 seconds per move, respectively. Level 5 is a fixed 1-ply (one-half move) search. Levels 6 through 15 take about 1 second per level number, so level 10 will average about 10 seconds per move. Levels 16 through 72 take about 2 seconds per level number. The amount of time taken will vary depending on the position, the stage of the game, and whether or not the **FAST** level option is on. (See “Level Options,” page 3)

Level 73 is an infinite level. Touch Chess will take as long to move as you want it to, or until it finds a mate position in its search. Level 73 is good for problem solving (like the **MATE** problems available under **OPTIONS**), or it can be used to play against. When you are tired of waiting, press the **MOVE** key while the

computer is thinking, and the computer will stop thinking and play the best move it’s found so far.

#### **Auto Play**

If you would like to watch the computer finish a game for you automatically, press the **MODE** key, then press **OPTIONS**, until the option **PLAYr** is showing. Use the **+NEXT** key to change the number of players to zero. Press **MODE** to exit the **OPTIONS** mode. Now press the **MOVE** key and watch the game play itself. You may stop auto play at any time by pressing the **MOVE** key. Doing so will set the number of players back to one.

#### **Book Opening Trainer**

Touch Chess makes it easy for you to learn the same openings that world chess champions play! At the beginning of a game, you may choose to learn one of 34 popular book openings—ways to begin the game—used by chess masters. Press **MODE**, then **OPTIONS**, to display **OPEn**, and then press the **+NEXT** or **-SETUP** keys to select the number of the opening you want to learn. Then press the **MODE** key to return to normal play.

Now play a move. If your move is not the correct opening move, an error buzz will sound. To learn the correct move press **HINT**. When the computer comes back with its move, you will briefly see the word **OPEn** on the screen if you have another opening move to make. If the word **OPEn** does not appear, you may continue normal play. You have completed the training for that opening line.

The names of the openings are:

1. Ruy Lopez, Exchange Variation
2. Ruy Lopez, Closed Defense
3. Ruy Lopez, Open Defense

4. Ruy Lopez Archangel Defense
5. Giuoco Piano
6. Scotch Game
7. Four Knights
8. Petroff Defense
9. Vienna Game
10. Sicilian, Classical Defense
11. Sicilian, Accelerated Dragon
12. Sicilian, Rossolimo Attack
13. Sicilian, Dragon Variation
14. Sicilian, Scheveningen Variation
15. Sicilian, Najdorf Variation
16. Sicilian, Moscow Variation
17. Caro-Kann Defense
18. Panov-Botvinnik Attack
19. French Defense, Winawer Variation
20. French Defense, Classical Defense
21. French Defense, McCutcheon Variation
22. French Defense, Tarrasch Variation
23. Queen's Gambit Accepted
24. Queen's Gambit Declined
25. Queen's Gambit, Semi-Slav Defense
26. Queen's Gambit, Tarrasch Defense
27. Queen's Gambit, Slav Defense
28. Nimzo-Indian Defense, Rubinstein Var.
29. Nimzo-Indian Defense, Classical Var.
30. Queen's Indian Defense
31. Queen's Indian Defense, Petrosian Var.
32. Bogo-Indian Defense
33. Gruenfeld Defense
34. King's Indian Defense

The moves and explanations of these famous openings are given in many books on chess.

## Entering Your Own Opening

Touch Chess also allows you to set up any book opening you want—or even an opening you invent—to practice. Press **MODE** then **OPTIONS** until the display reads **PLAYn**. Use **+NEXT** to set the number of players to 2. Press **MODE**, then make moves for both sides until the opening position you want to practice is

reached. Now press **MODE** then **OPTIONS** until the display reads **PLAYn**. Use **+NEXT** to set the number of players to 1. Press **MODE** and play against the computer in this position.

## Great Games

At the beginning of the game, you may select one of sixteen of the world's greatest chess games by pressing **MODE**, then **OPTIONS** to display **GAME**, and then pressing the **+NEXT** or **-SETUP** key to select a game number.

Along with the game number, you will see the position of the game after the first two moves were played. Press the **MODE** key to return to normal play starting at move three. You take the winning side. The display will show your total great-game score in two digits (zero at the start) on the left. On the right, the display also shows the amount of points you will win if you play the correct next great-game move.

If you don't play the correct great-game move, an error buzz will sound and the points for this move will be divided in half. If the bonus goes to zero, the correct move will automatically flash. Most moves start with 4 bonus points, but some brilliant moves start with 8 points.

The number, players, locations, and dates of the great games are given below, along with a brief explanation of each game. (All game explanations are © 2000 by Al Lawrence; all rights reserved.)

### 1. Adolf Anderssen vs. Lionel Kieseritsky, London, 1851

This marvelous attacking game, a King's Gambit, is widely known as "The Immortal Game." Both players show the 19th-century

preference for attack at all costs, and Anderssen was one of the most ingenious attackers of all time. After 18. Bd6, he gives away both of his rooks and his queen! In the final position, his tiny force is deployed in just the right way to bring the complete Black army to its knees.

### 2. Adolf Anderssen vs. J. Dufresne, Berlin, 1852

Again we see Anderssen bamboozling his opponent. The game starts as an Evan's Gambit, a form of the Giuoco Piano. White's 19th move, Rad1!! is one of the most celebrated in the history of the game. With his reply, ... Qxf3, Black actually wins a knight and threatens mate. You'd think that would be enough! But Anderssen follows with a rook and queen sacrifice that forces checkmate in a shower of brilliant blows. This classic is known as the "Evergreen Game."

### 3. Paul Morphy vs. Duke Karl & Count Isouard, Paris, 1858

While in Paris at the opera, the brilliant, unofficial world champion from New Orleans plays an offhand game against two noblemen. In this case, we're sure it was over before the fat lady sang! In a Philidor Defense, the team of two played a weak 3. ... Bg5 that left Morphy with superior *development* (more of his pieces are deployed) and the *bishop pair* (two bishops against a bishop and knight). These two important advantages were all Morphy needed. After Black wastes even more time with another pawn move, 9. ... b5?, Morphy hits the duo with a series of brilliant sacrifices to mate. Victory of mind over material is the poetry of chess.

### 4. Wilhelm Steinitz vs. Kurt von Bardeleben, Hastings, 1895

Wilhelm Steinitz, the first official world champion, begins this game as a Giuoco Piano. He maneuvers deftly to keep his opponent from castling into safety. Then he sacrifices his pawn on d5 so that he can make the square available for his knight. But the most brilliant move of the game is 22. Rxe7+. At first glance, it simply looks like a blunder. All of White's pieces are attacked, and if Black wasn't in

check, he could play ... Rxc1+ with mate next. But if Black can't take the rook—with either his king or queen—he loses in all variations. And by not taking it, he is eventually mated anyway. If you're interested in these complex lines, you can find a complete explanation of this classic game in many books.

### 5. Alexander Alekhine vs. O. Tenner, Cologne, 1911

World Champion Alekhine was a chess fanatic (he even named his cat "Chess") and one of the greatest attacking players of all time. Here he plays the unusual Bishop's Opening and seems to be developing quietly. Black even appears to be getting a good game just at the time Alekhine is able to play the swashbuckling 11. Nxe5, allowing Black to capture his queen. Black's king is forced to march to the center of the board, an unhealthy spot for a monarch when so many pieces are still on the board, where he is mated. It's important to understand that such sacrifices don't just happen illogically. White's pieces again had a dominating command of the board, and Black allowed White's pressure on f7, Black's most sensitive defensive square when he hasn't castled, to build into an explosion.

### 6. Gaudersen vs. Paul, Melbourne, 1928

This "miniature" of only 15 moves, starts off as a French Defense in which White plays the Advance Variation, placing his pawns on d4 and e5. Black's 8th move, castling, was in this case a blunder because his kingside is attacked by many pieces and not effectively defended. White's sparkling 9. Bxh7+ is an example of a bishop sacrifice that's happened so often it has a name—the "Greek Gift." White's 14. Nxe6+ is an example of a *discovered check*, the diver bomber of the chessboard. White's amusing 15th move is a very rare example of checkmate with the *en passant capture*.

### 7. Edward Lasker vs. George Thomas, London, 1910

This masterpiece, a Dutch Defense, features a famous example of the king's walk to mate. Edward, an American distant cousin of the great world champion Emmanuel Lasker, gets his pieces activated against Black's kingside

while the English champion Thomas *develops* (gets his pieces off the back rank and into play) too slowly. By 10. Qh5, White is already threatening an all-out blitzkrieg. His brilliant queen sacrifice 11. Qxh7 is followed by a devastating *discovered double check*, 12. Nxf6++. Then Black's king has to walk the plank, all the way across the board to g1, the normal spot for the White king! Here he breathes his last.

#### **8. Wilhelm Steinitz vs. A. Mongredien, London, 1862**

This games starts out as a Center Counter (also called Scandinavian Defense). Black loses too much time developing his pieces, while White gets his into play aggressively. Indeed, White's army dominates the all-important center of the board as well as the king's side. This sets the stage for a mating attack. White's two-move maneuver 13. Rf3 and 14. Rh3 is called a *rook lift*, and is a typical attacking strategy. This rook then sacrifices itself on h7 in a way that allows Steinitz to bring his other rook quickly into the fray. White is a rook down, but all of his forces take part in the assault, while the Black queen's rook and bishop seem to be waiting for the next game. They don't have long to wait.

#### **9. Aaron Nimzovich vs. S. Alapin, Riga, 1913**

Another French Defense. In this one, the great Latvian player and writer Nimzovich (after whom the Nimzo-Indian Opening is named—see page 6) plays an opponent who wastes time stealing a pawn with 9. ... Qxg2. "Nimzo" plays a punishing 12. O-O-O!, sacrificing his knight. He finishes up with a convincing queen sacrifice that forces checkmate.

#### **10. Jose Capablanca vs. Herman Steiner, Los Angeles, 1933**

The handsome Cuban World Champion Jose Capablanca had a deceptively simple style. Here we see him playing the old-fashioned Four Knights' game and opening up his opponent's kingside pawn protection by move 11! His first rook sacrifice, 17. Rxf6!, can't be refused and forces Black's king into a deadly crossfire. With 23. Qxb7!, Capa offers a second rook, which can't be taken immediately because of 23. ... Qxf6? 24. Qb4 checkmate.

But Black is forced to take the rook a move later and mate follows on the same square.

#### **11. Mikhail Botvinnik vs. Paul Keres, The Hague, 1948**

Botvinnik won the world championship a record three times. His opponent here is possibly the strongest 20th-century chess player who did not become world champion. The opening is a Nimzo-Indian. White's *doubled pawns* are potentially a long-term weakness, but in the short term they control a good many all-important central squares. White plays cleverly to keep a grip on the position and breaks through on the queenside with his pawn-push 17. c4-c5. This gives him a chance to bring his queenside rook into action. He swings it against the kingside, sacrificing it on g7 to win. In the final position, Black's king will be mated by the White queen, supported by the bishop on c1. Where did Black go wrong? Take a look at his "unemployed" queen and rook on a8 and b8!

#### **12. J. Banas vs. P. Lukacs, Trnava, 1986**

In a Four Knights' Game, Black gets his king into safety by castling and takes advantage of White's awkward piece placement by sacrificing his knight with 9. ... Nf3+. Then he allows White to take his bishop on c5. But by that time, White's king is surrounded. In the final position, after 13. ... Ng4, White's only effective defender, his knight on e3, is forced from its square, allowing ... Qg2 mate.

#### **13. Anatoly Karpov vs. Victor Kortchnoi, Moscow, 1974**

Twentieth-century chess perfected defense. It is no longer typical to see top-level players playing *only* for the attack. In fact, Kortchnoi at the time of this game was one of the best in the world, and his *forte* was defense. Many fine players would attack him ingeniously, only to break up on his rock-like fortifications. Still, World Champion Karpov crushes him in only 27 moves with a mating attack! In a classic manner against Black's Sicilian Dragon defense (so named probably because of the "tail" of control Black's bishop makes from g7 to a1), Karpov plays the St. George attack, castling queenside and prying open the h-file

to slay the dragon.

#### **14. Boris Spassky vs. Tigran Petrosian, Moscow, 1969**

Spassky won the world championship from Petrosian in the match that produced this game. In this English Opening that becomes a Queen's Gambit, you'll see that once again White gets a *strong center* and quick *development* of his pieces. As early as 13. Rd1, you can sense that Black is in danger. His king has no piece defenders; his forces seem passive while White's are aggressively coordinated. As often happens in such situations, White breaks through with a pawn push in the center, in this case 15. d4-d5!. It clears the board for White's more active forces. Petrosian, one of the best defenders of all time, tries repeatedly to trade queens, but White wisely rebuffs these offers, which would take much of the power off the board. White's d-pawn becomes a star, advancing all the way to the 7th rank. Because of this queening threat, White is able to sacrifice his queen for one of Black's defending rooks. In the final position, it's hopeless for Black because White will either promote his pawn to a queen or capture whatever Black uses to block on d8.

#### **15. Robert Fischervs. Reuben Fine, New York, 1963**

Nine years before winning the world championship, Bobby Fischer played this Evan's Gambit (a variation of the Giuoco Piano) against his famous elder. Bobby sacrifices two pawns in order to get his pieces out quickly. Then he plays 14. h2-h4!, sacrificing another pawn to force the Black queen away from the g7-square. After that, Black's king will be stuck in the center and in danger of the h4-d8 diagonal. Bobby's final move, 17. Qg3!, forces Fine to resign, because he must move his queen from the critical black diagonal h4-d8. Even on 17. ... Qxg3, White ignores the capture of his own queen and plays 18. Bf6 mate!

#### **16. Lajos Portisch vs. Johannessen, Havana, 1966**

During the first half of this game, a Queen's Gambit Slav, the great Hungarian grandmaster Lajos Portisch locks up the center with a d4-e5

structure by move 14. This gives him a "beach-head" on e5 and makes it hard for Black to counterattack in the center, which is the standard antidote for an attack on the wing. The next stage starts with 16. h4. Portisch announces his intention to attack on the kingside. He refrains from castling his own king into safety because he knows it's safe enough in the center, at least for the time it will take him to break through with his attack. When Black tries to trade off pieces with 17. ... Bxf3, Portisch sacrifices a knight for an unstoppable attack with 18. Bxh6 and then calmly moves his king to the second rank to bring his other rook into the game. His Rxh4 was another brilliant sacrifice that crushes any hope of defense. In the final position, Black resigns because White will simply play 26. Rxh6+, winning the Black queen. If 26. ... Qxh6, then White plays 27. Qxh6+ and will mate on h7.

**Computers can sometimes "lock up" due to static discharge or other electrical disturbances. If this should happen, use a slim, pointed object to press the button marked "ACL" on the bottom of the unit.**

#### **Using Setup Mode**

At any time during a game when it is your move, you may change the position on the board by adding a piece or pieces, removing one or more pieces, or even changing any of the pieces—for example, from a queen to a knight.

#### *Removing A Piece*

Press **MODE** then the **-SETUP** key. Now repeatedly press the square the piece is on until the square on your display is empty. Press **MODE** to continue the game.

### Adding or Changing a Piece

Press **MODE** then the **-SETUP** key. Now press the square you want to modify. Use the **-SETUP** or **+NEXT** keys to choose the correct piece. Press the **MODE** key to continue.

### Setting Up Special Positions

This is another terrific feature that allows you to solve problems that you see in magazines or newspapers, or that you make up yourself. It also allows you to enter game positions you want to play, or that you want Touch Chess to look at, perhaps using the Infinite Search level.

Normally, it is easier to start from an empty board to set up such problems. So first, press **MODE** then **OPTIONS** until **CLrBr** (clear board) is displayed. Then press the **-SETUP** key. You'll see that your display board is automatically cleared. The word **n□nE** will appear.

You're ready to set up the kings in the new position. Press the square on which the White king should stand. Then press the square on which the Black king should stand; repeatedly press it until the king is the correct color. (You can't leave the **SETUP** mode until both the White and Black king are placed.)

Next, pick out another piece in the problem or position you want to set up, and press the square it is on. Use the **-SETUP** or **+NEXT** keys to change the piece to the correct type. Press on each square that has this piece type. You may also repeatedly press the square until the piece appears in the right color on your display.

Follow this procedure until all the pieces

in the problem or position are completely set up. Finally, press **MODE** to play or to have Touch Chess analyze the position.

Make sure that Touch Chess knows which color is to move. While in Setup Mode, you may change the color of the side to move by pressing the **COLOR AREA** (see page 2.)

### General Rules of Chess

1. The two players must alternate in making one move at a time. The player with the white pieces moves first to start the game.
2. With the exception of castling (see below), a move is the transfer of a piece from one square to another square which is vacant or occupied by an enemy piece.
3. No piece, except the Rook when castling and the Knight may cross a square occupied by another piece.
4. A piece moved to a square occupied by an enemy piece captures it as part of the same move. The captured piece must be immediately removed from the chessboard by the player making the capture.
5. When one player moves into a position whereby he can attack the King, the King is in "Check". His opponent must either
  - a) move the King
  - b) block the path of the attacking piece with another piece, or
  - c) capture the attacking piece.
6. The game is over when there is no escape for the King from an attacking piece. This is known as "Checkmate".
7. The game is over when the king of the player whose turn it is to move is not in check and the player cannot make any legal moves. This is known as "Stalemate" and is considered a drawn

game.

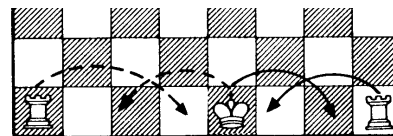
### Individual Moves

Turn on the **HELP** feature under **OPTIONS**(see page 4.) All legal moves for each selected piece will be shown at one time. You will quickly "learn by doing" the movements of all pieces.

1. The Queen can move to any square along the same row, column, or diagonals on which it stands, but cannot pass over an enemy piece.
2. The Rook can move to any square along the same row or column on which it stands, but cannot pass over an enemy piece. See also Castling (below.)
3. The Bishop can move to any square along the diagonals on which it stands, but cannot pass over an enemy piece.
4. The Knight move is in the shape of an "L", moving two squares up or down, and then one square over. Or it can be one square up or down, and then two over.
5. The Pawn can move one square forward. On it's first move it may move two squares forward. When capturing, it moves diagonally (forward) one square. See also *en passant* (below.)
6. The King can move one square in any direction, as long as it is not attacked by an enemy piece. See also Castling(below)

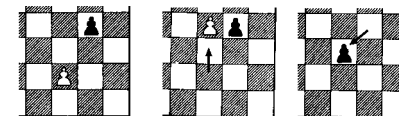
### Special Moves

1. Castling is a move of both the King and either Rook which counts as a single move (of the King) and is executed as diagrammed below:



Castling cannot occur if:

- a) the King has already been moved.
  - b) the Rook has already been moved.
  - c) there is any piece between the King and the Rook.
  - d) the King's original square, or the square which the King must cross, or the one which it is to occupy is attacked by an enemy piece.
2. A Pawn may make an *en passant* capture if it is a reply move to a double pawn move, and it is a Pawn which is side-by-side with the Pawn which made the double pawn move. The capture of a white Pawn is diagrammed below:



3. A Pawn can be promoted if it advances all the way to the far side of the board. It is immediately promoted, as part of the same move, into a Queen, Rook, Bishop, or Knight, whichever its owner chooses. Since a Queen is the most powerful piece, it is nearly always chosen as the promotion piece. Through the promotion process, there may be more than one Queen on the board at the same time.

### Some Tips on Chess

1. Castle your King into safety as soon as possible.
2. If you control the center squares you will achieve an advantage. To do this move your center Pawns and develop your Bishops and Knights early in the game.
3. Take advantage of capture situations, particularly if you will gain material.

## ***Special Care***

- Avoid rough handling such as bumping or dropping.
- Avoid moisture and extreme temperatures. For best results, use between the temperatures of 39°F and 100°F (4°C and 38°C).
- Clean using only a slightly damp cloth. Do not use cleaners with chemical agents.

## ***Battery Information***

- Your Touch Chess uses 3 AG-13 batteries.
- Do not mix old and new batteries.
- Install batteries so that the polarity (+ and -) matches the diagrams in the battery compartment.
- Use only batteries of the same type and equivalency.
- Remove exhausted batteries from the unit.
- Do not short circuit battery terminals.

*Excalibur Electronics reserves the right to make technical changes without notice in the interest of progress.*

## ***Limited One-Year Warranty***

EXCALIBUR ELECTRONICS, INC., warrants to the original consumer that its products are free from any electrical or mechanical defects for a period of ONE YEAR from the date of purchase. If any such defect is discovered within the warranty period, EXCALIBUR ELECTRONICS, INC., will repair or replace the unit free of charge upon receipt of the unit, shipped postage prepaid and insured to the factory address shown at right.

The warranty covers normal consumer use and does not cover damage that occurs in shipment or failure that results from alterations, accident, misuse, abuse, neglect, wear and tear, inadequate maintenance, commercial use, or unreasonable use of the unit. Removal of the top panel voids all warranties. This warranty does not cover cost of repairs made or attempted outside of the factory.

Any applicable implied warranties, including warranties of merchantability and fitness, are hereby limited to ONE YEAR from the date of purchase. Consequential or incidental damages resulting from a breach of any applicable express or implied warranties are hereby excluded. Some states do not allow limitations on the duration of implied warranties and do not allow exclusion of incidental or consequential damages, so the above limitations and exclusions in these instances may not apply.

The only authorized service center in the United States is:

**ExcaliburElectronics, Inc.**  
**13755 SW 119th Ave**  
**Miami, Florida 33186 U.S.A.**  
**Phone: 305.477.8080**  
**Fax: 305.477.9516**

**[www.ExcaliburElectronics.com](http://www.ExcaliburElectronics.com)**

Ship the unit carefully packed, preferably in the original carton, and send it prepaid, and adequately insured. Include a letter, detailing the complaint and including your daytime telephone number, inside the shipping carton.

If your warranty has expired and you want an estimated fee for service, write to the above address, specifying the model and the problem.

PLEASE DO NOT SEND YOUR  
TOUCH CHESS WITHOUT RECEIVING  
AN ESTIMATE FOR SERVICING.  
WE CANNOT STORE YOUR UNIT.