fig. 2
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FEATURES AND CONTROL KEYS

See the illustration inside the front cover of this manual.

1. LCD Screen
   When power is on this displays all the information needed to play.

2. Suit Keys
   Each suit has its own key, plus there is a NO TRUMP key.

3. Value Keys
   Each card value from the two to the Ace has a separate key. There is also a ‘1’ key for use in bidding.

PASS
   Lets you pass at your turn to bid. A pass is indicated by a ‘-’ on the screen.

DOUBLE
   Lets you double the previous bid. A double is indicated by a ‘d’ on the screen. Also lets you re-double, indicated by an ‘R’.

CLAIM
   Lets you claim the remaining tricks. The computer will credit you with them and display the final result.

DEAL
   Randomly deals the four hands and displays your hand as South. Vulnerability, if applicable, is indicated and a flashing sign indicates which hand is to bid.

SCORE
   Lets you display the scores for the game just played and in total.

VIEW HANDS
   Displays the unseen hands. One press shows North and South, the next East and West (East uppermost).

VIEW
   During play, displays the final contract.

CONTRACT
   During play, displays the number of tricks the declarer has made so far.

MADE
   Switches the computer on with the first press and off with the second.

GO/STOP
   Your computer has eight levels of play reached by repeatedly pressing this key (section 3).

LEVEL
   Starts the same hand again.

REBID
   All correct bids and play are signalled with a high-pitched tone. All illegal plays are indicated by a lower note. This key turns the sound on and off.

ENTER
   Enters the bid or play into the computer. A prompting message is displayed on the screen to remind you in other cases.

4. ACL
   Resets the computer (located in base of set).

Battery
   Located in the base of the computer.
1. INTRODUCTION
Your Bridge Shadow, despite the fact that it is truly pocket-sized, is a sophisticated device using the very latest technology. It will give endless entertainment and instruction to the beginner, yet, at the touch of a key, it is capable of competing with the exacting standards of a club player.

During the bidding sequence, you will see your hand displayed on the LCD screen with the bids as they are made. If you wish you may examine the two remaining hands as well. After the first card is played, just as in an actual game, you see your hand and that of the dummy.

The following pages describe the operating controls of your computer game, how they are used, and give a detailed description of its features. Read the companion manual “Introduction to Bridge” carefully if you are a beginner or an occasional player. As you play, you will quickly discover the particular playing style of the computer and will find that you are able to analyze the bidding and the play of the cards in ways which will make your own game stronger and more decisive.

2. A QUICK GUIDE TO GETTING STARTED
This section is a quick guide to enable you to play a game of bridge right away, before you read the whole manual.

1. Battery Installation
Insert four batteries into the computer (fig. 1). Press ACL if necessary (section 8.2). You will see two sets of suit symbols and the words 'SOUTH WEST NORTH EAST' displayed.

2. Dealing and bidding
Press DEAL. You will see the South hand, which you will bid and play, displayed.

If you don't like the hand, press DEAL again and a new hand will appear.

The word 'SOUTH' will be flashing to show you that it is your bid, and the vulnerability, if any, will also be shown. Make your bid by pressing the appropriate suit key and value key. If you cannot open the bidding, press PASS, and then ENTER.

The computer will then bid the remaining hands. Again you must ENTER each bid (the computer will remind you to press ENTER if you forget).
3. Playing the hand
Continue bidding until there have been three consecutive passes, then the computer will automatically start to play the hand.

If it is your opening lead, 'SOUTH' will flash, otherwise the computer will make the lead. When the play is made, press ENTER; the dummy's hand will be displayed at the top of the screen while your hand remains at the bottom. If North - your partner - becomes declarer, the table is shown from North's point of view for ease of play. The trump suit, if any, is shown by an underscoring of the suit symbol on the left-hand side of the screen. At this stage, you can pause to plan the way in which you will play the hand to try to defeat the computer.

After each trick, the computer shows which hand has the lead and, unless it is your turn to play, will choose and play the card. It will always follow suit if it can and expects you to do the same (section 4.3).

If you wish to confirm the final contract or check the number of tricks the declarer has made during a game, press VIEW CONTRACT or TRICKS MADE.

Continue until all thirteen cards have been played from each hand (the computer helps by playing the final round for you).

4. The end of the game
Now the result is automatically displayed and the score kept. Undertricks are shown by a 'd' and a rubber is shown by an 'R' with the number of tricks in each case. When overtricks are made, only the number of overtricks is displayed. You can also view and clear the scores at this stage (section 6.6).

If you want to bid and play the same hand again, press REBID, otherwise press DEAL for the computer to shuffle the pack and display a new hand.

5. Sound
Your computer is equipped with two audible tones. Each time you make a legal play, this will be signalled with a high-pitched note. If, however, you make an error - for example, not following suit when you can - you will hear a low-pitched tone and you will have to correct your play to one which is acceptable.

If you find the "beeps" distracting, just press SOUND and the computer will function silently. A second press will restore the usual tones.

6. Switching off the long-term memory
To switch off simply press GO/STOP. Your computer has a built-in long-term memory which remembers the position in a game for up to one year, even after switching off.
Press GO/STOP whenever you interrupt a game for more than a few moments to conserve power.

3. SETTING THE LEVEL OF SKILL
One of the most valuable features of your computer is that you can set the level of skill and aggressiveness to suit your own game. It has eight levels:

Level 1 play on a standard level of skill
Level 2 play on the standard level but with East/West playing an aggressive game, i.e. when calculating an opening or responding bid an additional two points are allowed for
Level 3 as 1, but with North/South playing the aggressive game
Level 4 as 1, but with all hands bidding aggressively
Level 5 play on a higher skill level approximately equalling that of a good club player
Level 6 as 5, but with East/West playing an aggressive game
Level 7 as 5, but with North/South playing aggressively
Level 8 as 5, but with all hands bidding aggressively

Press LEVEL until the required level, as shown on the screen, is reached. You must set it before pressing DEAL (fig. 2). You cannot change it during bidding and play, but only during scoring.

In some instances, the bidding on Levels 2, 3, 4 and 6, 7, 8 can lead to sacrificial bids, that is, bids which are designed to keep the opponents out of a contract they are likely to make. Such contracts are almost impossible, but remember that sacrifices can be very much a part of bridge, as they reduce the opponents’ gains. In such cases the computer may ignore the normal ‘point-counting’ rules.

4. BIDDING AND PLAYING SYSTEM
4.1 American Standard - The bidding system
Your computer plays bridge using the 5-card majors American Standard bidding system. Beginners and occasional players should carefully read “Introduction to Bridge” (included).

This is based on five card major suits (Spades or Hearts). In other words, (provided you have the necessary point count) in order to open One Spade or One Heart, you must have a minimum of five cards in the suit you are bidding.

The system your computer uses plays a strong No Trump - counting 16-18 points - whether vulnerable or non-vulnerable. In certain circumstances, this can mean opening the bidding showing a threecard suit. With, for example, a 4:4:2:3 distribution
and 12-15 points, the only reasonable opening bid is One Club, rebidding either One No Trumps or showing support for the partner’s major suit response.

The computer recognizes an opening bid of two of a suit as strong and forcing for one round of bidding.

**Points to note**

a. To bid No Trumps the computer will favor having no void, no singleton, no seven (or more) card suit, and no pointless doubleton.

b. An opening bid of three of a suit is recognized as being pre-emptive.

4.2 A quick summary for experts

The basic bidding features:
(a) Five card major suit openings
(b) 16-18 point no Trumps
(c) Stayman over opening 1NT
(d) Blackwood 4NT/5NT
(e) Strong two openings

In the initial rounds of bidding, the system is adhered to, but in later rounds the program exercises judgment in making decisions about further bidding.

In the play, there is no specific signalling system. Tops of sequences are played on leading, bottoms of sequences are played on following suit.

The lead of a small card does not necessarily indicate possession of an honor card.

4.3 Important note

The computer is programmed with the standard rules of play. Therefore, if you attempt to make an illegal bid, or fail to follow suit when you can, the low pitched tone will sound and you will be given the opportunity to change your choice to one which is acceptable.

5. MORE ON BIDDING FEATURES

5.1 Dealing and bidding

Having set the level (section 3 above), press DEAL and the South hand, which you will always bid, is displayed together with the vulnerability, if any, and the words ‘BIDDING SOUTH WEST NORTH EAST.’ Each deal is truly random and will give hands just as a well-shuffled pack would do. If you do not want to play the cards the computer deals, then a further press of DEAL will show a completely new hand.

SOUTH will be flashing to indicate that it is your turn to open the bidding. For subsequent deals, the
opening bid will rotate to West, then North, then East, when the computer will automatically make the opening bid.

If you decide that your hand is good enough to make an opening bid, then enter this by pressing the appropriate keys, (e.g. one and the Heart symbol to indicate One Heart, and ENTER). The computer will then make the appropriate bid for the other three hands in turn. As each bid is shown, you must press ENTER before the next bid can be made. If your hand is not strong enough to bid, then PASS.

5.2 Changing your bid
If you wish to amend your bidding, there are two ways this can be done. Firstly, if you have selected your bid but not yet pressed ENTER, then just press the keys for the alternative bid and press ENTER. Secondly, if the bid has been entered, press REBID for the bidding sequence to start from the beginning again.

5.3 Doubles
Since there are a number of conventional meanings to a double in the game of bridge, the DOUBLE key has specific meanings as follows: A double is for take-out, provided the partner has made no bid other than to pass. If the bidding has exceeded the two level and/or if the partner has made a bid, the double is always for penalties.

5.4 Viewing all hands
At any time before the end of the bidding, all four hands may be displayed on the screen. One press of VIEW HANDS will display the North/South cards and a second press will show the East/West pairing. The display will remain on the screen until the key is released. Once play of the cards has started, this option is not available except by means of REBID.

5.5 Constructive bidding
The computer will always look for a 'fit' with a suit you have called, and will respond in that suit if it can. If it is unable to do so, it will look for a biddable suit and will bid that. If neither of these bids is possible, then the response will be in No Trumps.
You can experiment yourself by varying your bid to see what steps the computer will take to combat your choice. By playing the same hand in various ways, you can try several different approaches to see which is the most successful. Remember that certain bids are forcing - in other words they demand a response (see CONVENTIONS).
Take notice of the responding bids the computer makes as your partner North to try to arrive at the best possible contract.

5.6 End of bidding sequence
The bidding sequence is ended after three consecutive passes, shown as dashes on the screen.

6. MORE ON PLAYING FEATURES
6.1 Playing the hand
Once the bidding is over, the computer automatically starts to play the hand.

The computer will show which hand is to lead by a flashing sign. Dummy is also marked.

If you as South are to make the lead, then enter the card you have chosen from your displayed hand by pressing the suit symbol key and then the value, then ENTER (or you may press value, suit and ENTER). If the lead is to come from another hand, the chosen card will be displayed, but again you must press ENTER. The computer reminds you of this by displaying a PRESS ENTER signal.

Should North become declarer, then 'PRESS ENTER TO CHANGE SIDES' is displayed; and when ENTER is pressed, the table display is rotated so North is at the bottom.

Cards are played from the four hands in rotation with you playing your hand and, if you are declarer, that of dummy, and the computer playing the others. Whenever there is only one card in your hand of a suit which has been led, the computer will automatically play the card for you.

Play continues as above, with the lead changing each time according to which hand took the previous trick, until the final four cards are automatically played for you by the computer - all you have to do is to press ENTER each time. During the play of the final trick, the TRICKS MADE and VIEW CONTRACT keys are inoperative. When the computer leads, the suit is preset for you unless you have no card in that suit. While Bridge Shadow will use all legal methods to defeat you - pre-emptive bidding, standard leads, ducking, etc. - it will always follow the rules of play and will never cheat.

6.2 Confirming contract or tricks
At any time during the play of the cards, you may confirm the original contract or the number of tricks you have made to date by pressing VIEW CONTRACT or TRICKS MADE. Either display will remain on the screen until the key is released.
6.3 Claiming the remaining tricks
If, during the game, you decide that you cannot take the remaining tricks, you may press CLAIM. The remaining tricks will then be credited to you and the result displayed.

6.4 Discontinuing the game
If you wish to discontinue a game part way through, press DEAL and fresh cards will be dealt and displayed for you to bid and play.

6.5 The REBID key
At any stage during either the bidding or the play — until a new deal has been entered — by pressing REBID, you can return to the initial stage at which your hand is displayed and the bidding commences. This is particularly useful if you wish to examine the hands after the game has been played in order to analyze the result, and makes Bridge Shadow an invaluable self-teaching aid. You can rebid and replay the hand any number of times.

6.6 Viewing the scores
At the end of each game, the computer will calculate the score for each side for that game and any running total. Pressing SCORE will display the results (fig 2).

The first press shows the North/South 'below the line' score for the game just completed, and the second press shows the points credited to East/West.

The third press displays the North/South 'above the line' score and the fourth that of East/West. These include the standard scores for overtricks, bonuses and penalties, but note that Bridge Shadow does not include any bonus for honor cards held in one hand and unfinished Rubber.

The fifth press shows the total North/South score, and the sixth that of your opponents below the line, and the seventh and eighth show the total score above the line.

A ninth press shows CLR. If you wish to reset the scores to zero press ENTER.

Note that the game will only display the score to four digits. If you reach a score greater than 99999, only the final figures will show (e.g. a score of 10026 will display as 26).

7. FOR THOSE PLAYERS USING THE ACOL SYSTEM
Although there are only one or two differences between American Standard and ACOL, those players familiar with ACOL will realize that the Two
Club opening showing 23+ points or five quick tricks is not used.

Secondly, it is more usual in the U.K. to play a weak No Trumps of 12-14 points (although some do play 'strong') and, thirdly, ACOL opens with just a four-card major suit.

8. SOME TECHNICAL DETAILS
8.1 Changing the batteries
Weak batteries can cause incorrect displays on the LCD screen or wrong bids and responses. They should always be replaced promptly, as they may also leak and cause damage to the computer.

If you do not intend to use the computer for any length of time, always remove the batteries until you wish to use it again.

8.2 ACL
If the computer locks up because of static discharge, take out the batteries for a few minutes and use a paper-clip or any other sharp object to press and hold in the ACL key on the base for a few seconds. This resets the computer and should solve the problem. It also clears the scores and the deal.

8.3 Care and maintenance
Your Bridge Shadow is a precision electronic device and should not be subjected to extremes of temperature or to rough handling. Do not use any chemical cleaning agents as this may damage the casing.

8.4 Technical specifications
Processor speed: 3.58 MHz
Screen: Liquid Crystal Display (LCD)
Keys: 32
Power consumption: 70 mW max.
Batteries: 4 x 1.5 V alkaline type minipenlite AAA/AM4/RO3
Dimensions: 200 x 99 x 28 mm
Weight: 0.26 kg

Saitek reserves the right to make technical changes without notice in the interest of progress.

Do not use rechargeable batteries.
### 8.5 Troubleshooting Guide

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Possible Cause</th>
<th>What You Should Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The unit will not turn on</td>
<td>Batteries weak or dead</td>
<td>Replace batteries</td>
</tr>
<tr>
<td></td>
<td>Batteries not inserted properly</td>
<td>See fig. 1</td>
</tr>
<tr>
<td></td>
<td>Battery connectors poor contact</td>
<td>Check battery connectors</td>
</tr>
<tr>
<td>2. Wrong Display on LCD</td>
<td>Batteries exhausted</td>
<td>Replace batteries</td>
</tr>
<tr>
<td>3. Illegal bidding</td>
<td>Batteries exhausted</td>
<td>Replace batteries If error persists, consult service center</td>
</tr>
<tr>
<td>4. No response or improper response</td>
<td>Batteries exhausted</td>
<td>Replace batteries</td>
</tr>
<tr>
<td></td>
<td>Electrostatic discharge</td>
<td>Press ACL key, see Section 8.2 If error persists, consult service center</td>
</tr>
<tr>
<td>5. Display is dim</td>
<td>Batteries weak</td>
<td>Replace batteries</td>
</tr>
<tr>
<td>6. Rejects the card you selected</td>
<td>You do not have that card (e.g. card in dummy’s hand)</td>
<td>Key in correct card, ENTER</td>
</tr>
<tr>
<td></td>
<td>You are not following suit</td>
<td>Key in correct card, ENTER</td>
</tr>
</tbody>
</table>