BRIDGE CHALLENGER®

MODELS UBC, VBRC BRIDGE CHALLENGER®

ADVANCED BRIDGE CHALLENGER®

VOICE BRIDGE CHALLENGER®

QUALITY MADE IN U.S.A.

WELCOME TO THE FUTURE...

Your Bridge Challenger® is programmed to provide you with a worthy opponent or partner. Bridge Challenger® will play one, two, or three hands against one, two, or three human opponents. If desired, it will play all four hands while you observe its bids and plays.

Bridge Challenger® does it all...it bids, plays the hand (or hands), and it even keeps score. Use it to practice or play serious bridge by yourself or with friends.

In order to more fully enjoy the many features in Bridge Challenger, we recommend that you familiarize yourself with this instruction manual before starting to play.

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INTRODUCTION

This Instruction Manual is used for the Model VBRC Voice Bridge Challenger® and the Model UBC Advanced Bridge Challenger® The only difference between the two models is that the Model UBC does not have the voice feature.

The Display Window, Card Scanner, Keys and Indicators, and Voice feature (in the Model VBRC) serve as a means of communication between the players and Challenger® The instructions contained in this Manual describe how to operate and communicate with Challenger® and do not relate to actual playing strategies of the game of bridge.

Input is accomplished via the keyboard and the Card Scanner. Bridge Challenger® responds via the illuminated Display and Indicators, and voice announcements in the Model VBRC.

We recommend that, at first, you read only up to the section entitled SPECIAL FEATURES. After you have become familiar with the basic operation, the Special Features section will explain additional features and variations which will make your Challenger® a versatile and innovative companion for many years.

A handy booklet entitled "Bridge Challenger® Bidding System" is included with your Bridge Challenger® The booklet describes the method of bidding used by Challenger® It is intended to enhance your understanding of what is likely to be meant by any bid made by Challenger® However, it is not required reading for you to start enjoying your game immediately and may be studied at your leisure when it is convenient.

POWER ON

The game is turned on when the transformer is plugged into an AC wall outlet and the transformer line cord is plugged into the game. A new game is started when you first plug in Challenger® or when the RESET ⊞ Key is pressed. Challenger® will introduce itself by saying "I AM FIDELITY'S BRIDGE CHALLENGER, YOUR COMPUTER OPPONENT OR PARTNER" (in the Model VBRC) and presenting a rotating message in the Display Window. Each of the eight Indicator Lights flashes in turn until the first entry is made to start play.
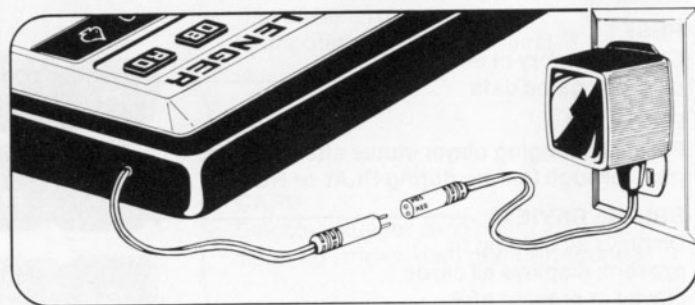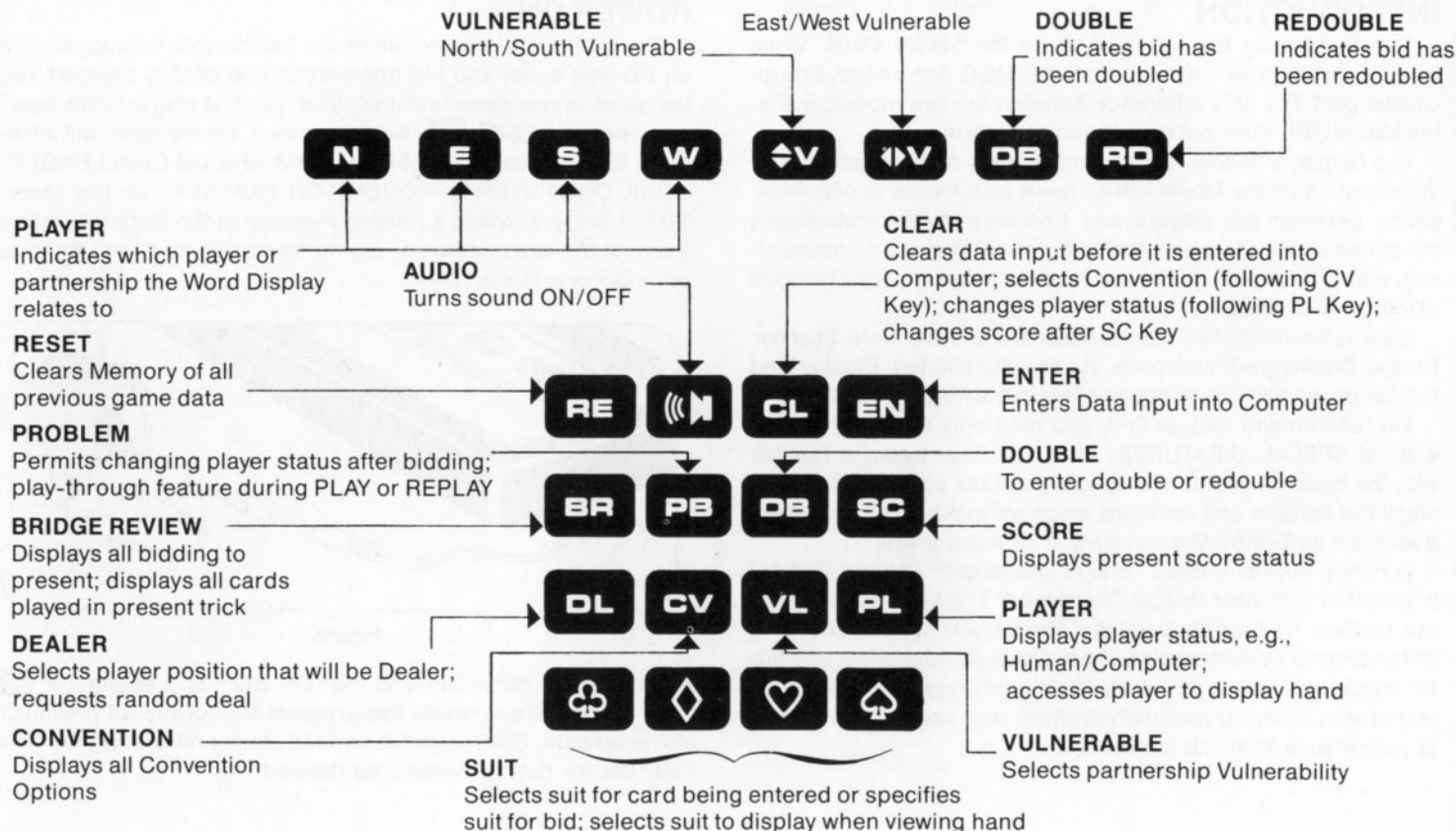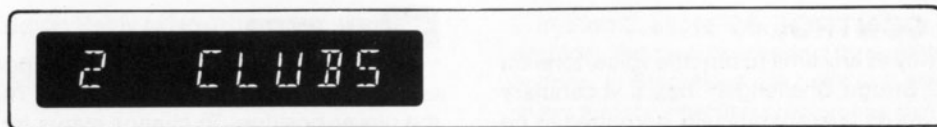

Figure 1

Turning the game OFF and then ON again or pressing the ⊞ Key automatically resets the program and clears all previously entered data. Challenger® is all solid state, and is designed to be left ON for days or weeks, as desired.

INDICATORS, KEYS, DISPLAY, Etc.

VULNERABLE
North/South Vulnerable

East/West Vulnerable

DOUBLE
Indicates bid has
been doubled

REDOUBLE
Indicates bid has
been redoubled

N E S W ⬍V ◆V DB RD

PLAYER
Indicates which player or
partnership the Word Display
relates to

AUDIO
Turns sound ON/OFF

CLEAR
Clears data input before it is entered into
Computer; selects Convention (following CV
Key); changes player status (following PL Key);
changes score after SC Key

RESET
Clears Memory of all
previous game data

RE ((◖)) CL EN

ENTER
Enters Data Input into Computer

PROBLEM
Permits changing player status after bidding;
play-through feature during PLAY or REPLAY

DOUBLE
To enter double or redouble

BRIDGE REVIEW
Displays all bidding to
present; displays all cards
played in present trick

BR PB DB SC

SCORE
Displays present score status

DEALER
Selects player position that will be Dealer;
requests random deal

DL CV VL PL

PLAYER
Displays player status, e.g.,
Human/Computer;
accesses player to display hand

CONVENTION
Displays all Convention
Options

♣ ♦ ♥ ♠

VULNERABLE
Selects partnership Vulnerability

SUIT
Selects suit for card being entered or specifies
suit for bid; selects suit to display when viewing hand

2

```
2  CLUBS
```

DISPLAY
Lighted Visual Word Display

ACE
Also used to acknowledge
that players respond to
Computer's action or request

TEN
Also 0 for number entries

CARD
Selects value for card being entered,
claiming tricks, deal number, scoring

NO-TRUMP
Advises Computer of
No-Trump bid

J   Q   K   A

7   8   9   10

3   4   5   6

NT   P   I   2

PASS
Advises Computer of Pass
bid; enables Quit mode

NUMBERS ONE THRU SEVEN
Used in bidding, e.g.,
1 Heart, 1 Diamond, etc.

((•)) VOICE/TONE CONTROL

Press the TONE ((•)) Key at any time to turn the voice/tone off or on. The Model VBRC Bridge Challenger® has a vocabulary that includes only those words that are officially permitted to be spoken during bidding.

INITIAL ENTRIES

As in any game of bridge, certain parameters or playing options are discussed and decided upon before the game begins. These are referred to as Initial Entries (for example, who will be Dealer, which conventions, if any, will be used, etc.). The same sort of pre-game decisions are made with Challenger, including which positions will be played by Challenger® (North, South, East or West). Challenger® can, of course, play as many of the four positions as you select.
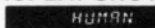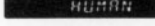
Initial entries are made using the four keys described below (in any order). You may select none or any combination of the following Initial Entry options.

DL DEALER

Press the DL Key. The Indicator Light shows the player position which is to deal next, and the Display reads **DEALER**. Continue to press the DL Key until the desired Position Indicator is lit indicating the player you wish to be the Dealer. Selection is accomplished when the desired Position Indicator is lit and **DEALER** is displayed. If no particular Dealer position is desired, Challenger® will initially assign North N as the Dealer at the beginning of a new game. The Dealer will be rotated with each new deal.

PL PLAYER

Press the PL Key. The Display Window displays the status of each player, (HUMAN/COMPUTER). The Indicator Light shows the player position. To change status for that position, press the CL Key, then press the PL Key again to select the next player position. For example, assume the North Player Indicator is lit:

PRESS KEY	DISPLAY SHOWS	INDICATOR LIT
1. PL	HUMAN	N
2. PL	HUMAN	E
3. CL	COMPUTER	E
4. PL	HUMAN	S
5. CL	COMPUTER	S
6. PL	HUMAN	W

In this example, we have selected East and South to be played by computer. Thus, North and West will each have a computer as a partner.

CV CONVENTIONS

When appropriate, Challenger® will always use three of the more widely known conventions: Stayman, Gerber, and Blackwood. There are six additional convention options (one or more may be used) which are selectable for each partnership, if desired.

5-MAJOR	5-Card Majors
2 CLUBS	Strong 2-Club Opening
WEAK 1 NT	Weak 1 No-Trump Opening
JACOBY	Jacoby transfers after 1 No-Trump Opening

BARON............. Baron Reply to No-Trump Opening
2 NT-13

or .... Strength of 2 No-Trump Response
2 NT-11

To select a convention, simply press the `CV` Key repeatedly. Each time the key is pressed, a different convention is displayed until the Display rotates through all six conventions. Selection is accomplished by pressing the `CL` Key when the desired convention is displayed. An asterisk (*) appears in the Display when one of the first five conventions is selected. Pressing `CL` when the sixth convention is displayed will change the Display from 2 NT-13 to 2 NT-11 or vice-versa. You may select one or more conventions for each partnership.

All six conventions are displayed, in turn, for each partnership. For example, if the North/South Position Indicators are lit, pressing `CV` repeatedly will display each convention for N/S. When the last of the six conventions is displayed, pressing `CV` once more will display the first of the six conventions again, but the East/West Position Indicators will now be lit. This process will continue indefinitely through each partnership, in turn, as long as `CV` continues to be pressed. To illustrate:

PRESS KEY	DISPLAY SHOWS	INDICATOR LIT
1. `CV`	S-MAJOR	N S
2. `CV`	2 CLUBS	N S
3. `CL`	2 CLUBS*	N S
4. `CV`	WEAK INT	N S
5. `CV`	JACOBY	N S
6. `CV`	BARON	N S
7. `CV`	2NT - 13	N S
8. `CV`	S-MAJOR	E W

In Step 3, above, the 2-Club opener was selected for the N/S position, then we proceeded through the remaining convention options. In Step 8, we are back to 5-Major, but now the Indicator shows that the selection process has shifted to the E/W partnership.

If the `CV` Key is not used, or no selection is made, then the list of conventions is **not** selected and 2 NT-13 is in effect.

VULNERABILITY

If desired, vulnerability may be established during the Initial Entry stage by pressing the `VL` Key. Each time the `VL` Key is pressed, the Vulnerability Indicator Lights show the change in vulnerability status for the partnerships.

PRESS KEY	DISPLAY SHOWS	INDICATOR LIT
1. `VL`	No change	⬦V
	⬦V lit = East/West vulnerable	
2. `VL`	No change	⬦V
	⬦V lit = North/South vulnerable	
3. `VL`	No change	⬦V ⬦V
	⬦V ⬦V lit = Both sides vulnerable	
4. `VL`	No change	

No Indicator lit = nobody vulnerable

After the desired Initial Entry options have been selected, press the ENTER `EN` Key to record the selections in the Computer. The word **DEAL?** will appear in the Display Window. You now have the option of letting the Computer shuffle and deal the cards internally (without using actual cards) for practice purposes (see AUTOMATIC DEALING). If, instead, you are playing a game with actual cards, press `EN` again. The word **CARDS—** will be displayed if there is to be at least one hand played by Challenger®

CARDS— means that Challenger® wants to look at the hand that it was dealt.

AUTOMATIC DEALING

The Computer can generate either random deals, or up to ten thousand deals that can be precisely replayed by using a 4-digit code number. For practice, select one of the two methods below:

NUMBERED COMPUTER DEALS

Enter 1-4 digits. Use Card Keys 1-9 for digits 1-9. Card Key **IO** is used for the digit 0. Then press the **EN** Key. The word **DEALING** will be displayed while the Computer is generating the deal. Any time the same deal is desired, press the same 4-digit number, followed by the **EN** Key, when **DEAL?** is displayed. NOTE: If you desire to repeat the hand exactly as previously dealt, remember to set the same Dealer Position Indicator.

RANDOM COMPUTER DEALS

When **DEAL?** appears in the Display Window, press the **DL** Key for a random shuffle of the cards internally. The hands dealt at random will be different each time.

When the internal dealing is completed, the word **BID** will appear in the Display Window if it is a human player's turn, or an actual bid will be displayed if it is a computer player's turn. To see the cards in a hand dealt to human players, refer to VIEW/PEEK section under SPECIAL FEATURES.

CARD INPUT FOR BIDDING
(When AUTOMATIC DEALING is not used)

Deal a hand to each player position, observing the rule that the first card is dealt to the player to the left of the Dealer. Enter the cards dealt to Challenger® into the Computer's memory by means of the electronic Card Scanner.

Each of the thirteen cards dealt to a computer "player" is passed through the Scanning Track, face down, at rapid hand speed (Figure 2). Hold the card flat against the track surface so the specially coded card edge can be "read" by the Computer. As each card is read into the Computer's memory, the Display indicates **PAD 1**, **PAD 2**, etc., which tells you where that card should be placed on the Locator Mat (Figure 3). Cards should be placed on the Mat face down, of course, since you may not look at another player's hand. When all thirteen cards have been read, press the **EN** Key. The Display will again read **CARDS**— if there is more than one computer "player." Repeat the scanning procedure for each computer "player."
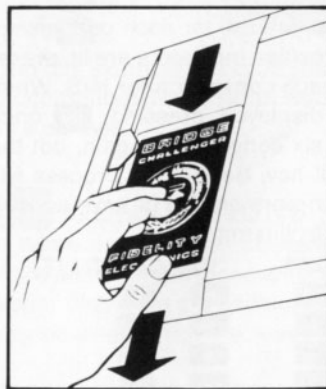

Figure 2

If a card is improperly "read" by the Computer, **RESCAN** will be displayed. Pass the card through the Scanning Track again until the card is accepted.

The Locator Mat, with numbered pads for 13 cards, is used to organize the hand for each computer "player." As each card is entered into the Computer, it is placed, face down, on the assigned Pad. The reason for this is that, during the game, Challenger® will identify a card it wishes to play by displaying the pad location number as well as the suit and value of the card. For example, if Challenger® is in the "South" position, the Display and Indicators will appear as follows:

6-HE 5		S

This means that South wishes to play the card found on Pad position number 6, and the card is the 5 of Hearts. This enables you to play the correct card for the computer players without having to look, illegally, at their entire hands.
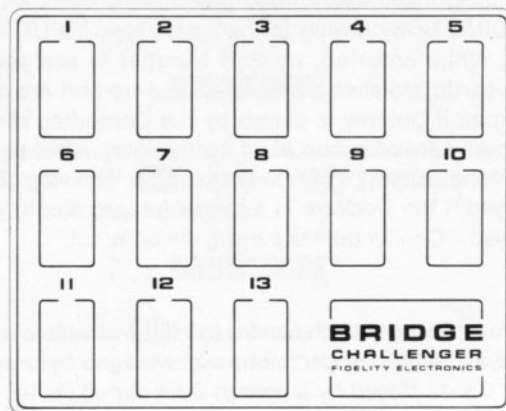
Figure 3

BIDDING

When card entry is completed, if the Dealer is human, the word **BID** will appear in the Display. The Position Indicator of the Dealer will light. Or, if the Computer was selected as Dealer, the opening bid will be displayed. Press the ACKNOWLEDGE **A** Key to acknowledge the Computer's bid. The Indicator for the next position will light, and **BID** will again be displayed if this player is human. Again, if this player is "computer," the bid will appear in the Display Window. Press **A** to acknowledge.

Human player's bids are entered via the keyboard by pressing **P** ; **DB** ; or a digit key (from **1** to **7**), followed by a suit or the NO-TRUMP **NT** Key. Then press **EN** . For example, assume two human and two computer players: North is human and is the Dealer. Step 1, below, shows the Display and Indicators just after **EN** is pressed following card entry:

PRESS KEY	DISPLAY SHOWS	INDICATOR LIT
1. **EN**	BID	N
2. **1**	1	N
3. **♡**	1 HEART	N
4. **EN**	2 DIAMS	E
5. **A**	BID	S
6. **P**	PASS	S
7. **EN**	PASS	W
8. **A**	BID	N

In this example, North's opening bid of 1 Heart is entered by pressing the **1** Key, then the **♡** Key, then the **EN** Key (Steps 2, 3, 4). East (played by computer) follows with a bid of

2 Diamonds. The Computer's bid is acknowledged by pressing the ⬛ A Key (Step 5), and the bid passes to South. A human playing South, passes by pressing the ⬛ P Key (Step 6), and enters the pass bid by pressing ⬛ EN (Step 7). West, played by computer, also passes, and the Computer's bid is acknowledged (Step 8) by pressing the ⬛ A Key.

To restate the method of bidding: A human bids by pressing (1) a number key; (2) a suit key; and (3) the ⬛ EN Key to enter the bid. The Computer bids by displaying its bid (in the Model VBRC all bids are also announced), and the bid must be acknowledged by pressing the ⬛ A Key. However, any bid may be changed until you press the ⬛ EN Key (human player) or the ⬛ A Key (computer player). Refer to section on CLEARING A BID.

When the bidding is completed, the final contract is displayed and the Declarer's Indicator is lit. Play begins when the ⬛ A Key is pressed to acknowledge the contract.

CLEARING A BID

Any bid, human or computer, may be cleared or changed by pressing the ⬛ CL Key and entering a new bid **before** you press the ⬛ EN Key (human player) or the ⬛ A Key (computer player). The bid is **not** entered into the Computer until one of these keys is pressed. After clearing a computer bid, the new bid is entered in the same manner as for a human bid.

OPENING LEAD

If a human is to make the opening lead, the Display will exhibit **LEAD** (see paragraph on PLAY). If Challenger® makes the opening lead, the Display will indicate the card Challenger® plays by denoting the Pad Number and face value of the card (e.g., 3-HE 10).

Press the ⬛ A Key to acknowledge. The Model VBRC will announce each play. However, as with the bidding, a play is **not** entered until either the ⬛ EN Key or the ⬛ A Key is pressed.

DUMMY CARD INPUT

Immediately following the opening lead, when the Dummy's cards are unknown to Challenger®, the Display will again read **CARDS—**. This means, of course, that Challenger® wants to see the Dummy hand held by a human player. If the Dummy hand is held by a computer player or the Automatic Dealing option was used, or if it is a replay of a hand, there is no need to input that hand, since the Dummy's cards are already in the Computer's memory and **CARDS—** will not be displayed.

Challenger® can be shown the Dummy's cards by using the same scanning method described previously under CARD INPUT FOR BIDDING or by keying in the cards (see INPUT VIA KEYBOARD). While entering, no Pad Number is assigned since Dummy's cards are always arranged face-up and are displayed in full format. If Dummy is played by the Computer, simply turn the Dummy's cards face up as in normal play. After entering all thirteen of the Dummy's cards, press ⬛ EN. The word **PLAY** will be displayed if the Declarer is a human player; a card value will be displayed if Challenger® is playing the contract.

PLAY

The actual playing of each hand is the same as with four humans. Cards played by Challenger® are acknowledged by pressing the ⬛ A Key. Cards played by a human are entered via the Scanner or the keyboard and registered by pressing the ⬛ EN Key. To enter via the keyboard, press a suit key, a value key, and the

EN Key. This is opposite from the way bids are entered. Cards played by a human are displayed in full format when entered (e.g., **HEART 10**).

Remember that, as in bidding, one of the Position Indicators (N, E, S, W) will be lit to show whose turn it is.

A typical sequence, once around the table, occurs as follows (East and West are played by computer, North and South are human):

1. Suppose the Computer, playing East, leads the King of Clubs. The Display will read

```
S-CL K
```

showing that the King of Clubs is on Pad 5. Place the card in the center of the table. Press the **A** Key to acknowledge. Since a human is next, the Display will now read

```
PLAY
```

2. Suppose South plays the 2 of Clubs; pass the card through the Scanner or press the Club **♣** Key and then the **2** Key. The Display will read

```
CLUB 2
```

Then press the **EN** Key to enter that card.

3. West, played by the Computer, plays the 8 of Clubs from West's Pad 7. The Display shows

```
7-CL 8
```

Press the **A** Key to acknowledge. The Display now reads

```
PLAY
```

and it is North's turn to play a card.

4. North, a human player, plays the 3 of Clubs. Enter the card via the Scanner or by pressing the **♣** Key and then the **3** Key. The Display will read

```
CLUB 3
```

Press **EN** to enter this last card of the trick. East, played by Computer, will respond immediately with its lead to the next trick.

This example assumes that East, who played the first card, won the trick and thus leads again. If another player (human) had won the trick, the word **LEAD** would be displayed and the player taking the previous trick would lead.

The method of entering a card played can be simplified if you are merely following suit. For example: If a club is played by the previous player, computer or human, you need only press a value key and then the **EN** Key. The Computer will recognize that you are following suit.

In every instance, the Position Indicators will always show whose turn is next, regardless of whether human or computer plays that position.

Play continues until the final trick is completed.

SCORING

Challenger® maintains the score according to the rules of Rubber Bridge. After the final trick is played, the Computer summarizes the hand results.

The ▪A▪ Key is used repeatedly at this time to provide a complete readout of the entire scoring history. The scoring information will appear in the Display Window and the Position Indicators will show which partnership the displayed information refers to. The sequence occurs as follows:

1. Press A	Initial contract displayed	`BID 2`
2. Press A	Number of tricks made	`MADE 3`
	–OR–	
	Number of tricks set	`SET 1`
3. Press A	Do you want the score tabulated and added to the score sheet? If so, press A; if not, press EN.	`SCORE?`
4. Press A	If the contract was made, the Declarer's below-the-line score is displayed.	▼ 60
5. Press A	Declarer's above-the-line score is displayed. If the contract was set, the Defender's scores are displayed in Steps 4 and 5.	▲ 30

NOTE: The triangular symbol prefixing the score indicates below-the-line (▼) or above-the-line (▲).

By repeatedly pressing the ▪A▪ Key, the total scores are displayed in the following sequence:

Press A ...... Displays total N/S above-the-line score.
Press A ...... Displays total N/S below-the-line score.
Press A ...... Displays total E/W above-the-line score.
Press A ...... Displays total E/W below-the-line score.

CHANGING SCORE

The present score may be checked at any time by pressing ▪SC▪ . The Display will exhibit N/S above-the-line. Successive A's will display all above-the-line/below-the-line scores as previously described in SCORING above.

To change a score: When a score is displayed, press the CLEAR ▪CL▪ Key. This will zero the score display. Enter a new score by pressing digit keys 1 through 10 (the 10 Key counts as zero). Press ▪EN▪ ; this score is entered and the Display returns to N/S above-the-line with the new score. If ▪EN▪ is pressed directly after ▪CL▪ , the existing score will be zeroed. Press ▪SC▪ to return to the previous mode.

FINALIZING THE HAND

To exit the scoring mode and finalize the hand, press the ▪EN▪ Key. Challenger® will display the question REPLAY?. At this point, you may elect to replay the hand or start a new deal. To replay the same hand, press the A Key and follow the instructions under REPLAY, below.

If you would like to have Challenger® replay all four hands, refer to AUTOMATIC PLAYOUT, Item 2, when REPLAY? is shown.

PLAYING THE NEXT HAND

To start a new deal and play the next hand, press the ▪EN▪ Key when the question REPLAY? is displayed. DEALER will be displayed. At this point, before pressing ▪EN▪ , you may change any

of the Initial Entry options (Dealer, Human/Computer, Conventions, Vulnerability), by pressing the appropriate keys as in the Initial Entry stage. After selections are made, press ⬛ **EN**. **DEAL?** will be displayed, and you may again either choose Automatic Dealing or play with actual cards.

REPLAY

You may replay a deal as many times as you wish, changing some, all or none of the previous bids and plays. You may exercise this option when **REPLAY?** appears in the Display, as follows:

PRESS KEY	DISPLAY SHOWS	INDICATOR LIT
	`REPLAY?`	
1. **A**	`DEALER`	DEALER'S

2. At this point, you may change player positions, conventions, etc., as desired, as in the Initial Entry phase.
3. **EN** The bidding sequence will begin again and the Display will show either the word **BID** if it is a human's turn, or the Computer's bid if it is a computer's turn.

NOTE: Challenger® will not cheat. Thus, if you should decide to change positions and a human is now holding a hand previously played by Challenger® the Computer will not "peek" at that hand.

PROBLEM MODE

If desired, the PROBLEM **PB** Key may be used to reenter the Initial Entry phase, after bidding, in order to change player status and allow a human to take over one of Challenger's® hands. Before pressing the **A** Key to acknowledge the final contract shown in the Display Window, press the **PB** Key. The status of the Declarer (Human/Computer) will be displayed. Continue to press **CL** to display the status of each player in succession until the desired player is indicated, then press **CL** to change status if desired. Press **EN** to return to normal play. Display will again show the final contract. Press **A** to acknowledge and continue play.

VIEW/PEEK

Cards may be viewed in any hand known to Challenger® (via a computer deal, random deal, replay, etc.) by utilizing the VIEW/PEEK option. VIEW is a "legal" look at a human hand or the Dummy's hand; PEEK is an "illegal" look at a computer hand. The VIEW/PEEK Mode may be invoked during one of the following conditions:

1. When a computer bid is displayed (not final contract).
2. When **BID** is displayed.
3. When a computer-played card is displayed.
4. When **LEAD** or **PLAY** is displayed.

To enter VIEW/PEEK, press the **PL** Key unti the Player Indicator for the hand to be viewed is lit. Press each suit key in turn to view the cards in that suit contained in that hand. Up to seven cards can be displayed. If there are more than seven cards in one suit, the Display will end with an asterisk (*) and the same suit key must be pressed to view the remaining cards. **VOID** is displayed if there are no cards in the suit. **UNKNOWN** is displayed if the hand is not known to the Computer.

A handy pad of Reference Sheets is provided to record computer-dealt hands and related data.

To exit the VIEW/PEEK Mode, press the **EN** Key.

AUTOMATIC PLAYOUT

Challenger® has the ability to play out a deal automatically and display the results if all hands are known to the Computer (i.e., a computer deal, replay, etc.). If the hands are not known, a question mark (?) is displayed when this feature is attempted.

To activate:
1. Press the PROBLEM **PB** Key during the play of the hand when it is the Computer's turn to play. The Computer will take over the play of all four hands and display the final result. **PLAYING** will appear in the Display.
2. Or press the PROBLEM **PB** Key when **REPLAY?** is displayed after the hand is completed. This will enter Replay Mode with the Computer bidding and playing all four hands. Each bid must still be ACKNOWLEDGED (by pressing the **A** Key) or CLEARED and changed (by pressing the **CL** Key and entering a new bid). The final contract will be displayed and must be acknowledged. The opening lead will then be displayed. After acknowledging (or changing the lead and pressing the **EN** Key), the Computer will play through the hand and display the final result. **PLAYING** will appear in the Display.

FOURTH HAND

When the Computer is playing all four hands and cards are being entered, only the first three hands need to be entered. The fourth hand will be generated from the remaining 13 cards.

CHEATING

Challenger® will not cheat. Certain features (e.g., random dealing, numbered computer deals, peek, view, illegal card checking, fourth hand generation) are provided for the human player's convenience. The Computer never makes use of this knowledge in bidding or playing.

CLAIMING A HAND (see ABANDON PLAY)

ABANDON PLAY

Play may be abandoned at any time (except during the bidding) by pressing the PASS **P** Key. Challenger® will request confirmation by displaying **QUIT?**. If "**QUIT**" is acknowledged (by pressing **A**), processing moves to the end of play and **TRICKS?** is displayed. Enter the number of tricks claimed by Declarer using the Card Keys 1-10 (using the **10** Key for ten and two keys for 11, 12, and 13) then press the **EN** Key. If no tricks are claimed, press **EN** and zero tricks will be entered. After **EN** is pressed, the number of tricks made or set will be displayed (see SCORING).

The ABANDON PLAY feature may not be used during bidding where PASS has a significant value.

REVOKE

If two or more hands are played by humans and a revoke becomes established, (a player could have followed suit on a previous trick but failed to do so), Challenger® will display **REVOKE**. Acknowledge by pressing the **A** Key, and Challenger® will display the number of the trick on which the revoke occurred. Press **A** again, and the card played to cause **REVOKE** will be displayed. Now you can either continue the game (press **CL** and play a card in the usual way) or abandon play (press **P**). No penalty will be levied in the scoring.

If the Computer knows three or four hands, it will not permit a revoke. Instead, **?PLAY** will appear when the revoke is attempted. Enter the correct card.

BRIDGE REVIEW

During the bidding sequence, the BRIDGE REVIEW **BR** Key causes display of all bids entered to this point. To activate, press **BR** ; to continue review of each bid, repeat **BR** . Enter the next bid (if bidding is not complete). Press **A** to acknowledge final contract.

During play, pressing the **BR** Key will display all the cards played up to that trick. The Player Indicators will light to show which player played each card. If pressed just before the next lead, **BR** will display all four cards of the previous trick; repeat **BR** for each card until **PLAY** is displayed or enter the next card to exit the **BR** mode and continue play. If the trick is not complete, a dash will be displayed for each position which has not yet played.

INPUT VIA KEYBOARD

Cards may be entered, via the keyboard, in any order. However, entry is simplified if cards are arranged according to suits. For example, the first suit may include the King, Queen, and 9 of Spades:

PRESS KEY	DISPLAY SHOWS
1. ♠	No Change
2. K	`1-SP K`
3. Q	`2-SP Q`
4. 9	`3-SP 9`

As each key is pressed, note that the Display indicates the Pad Number where that card should be placed on the Card Locator Mat, the suit, and the face value of the card. NOTE: Pad Number is not shown when entering Dummy cards, nor for cards entered during play.

For the next suit, press the appropriate suit key and then press each card value in turn as above.

If an incorrect entry is made, simply press the CLEAR **CL** Key and reenter the correct card. In fact, you can delete the cards as far back as desired for this particular hand, by successively pressing the **CL** Key.

ERROR INDICATIONS

Operation of Bridge Challenger® is simple once the player is familiar with the various keys and functions of the keyboard. Error possibility is minimal and generally occurs because of an incorrect entry or function request. If an error is made, the following Error Statements will be displayed and the Player Indicator will indicate the player responsible for the error:

QUESTION MARK   ?

1. Denotes an incorrect card entry during card input, such as a card already in a computer hand. Enter the correct card.
2. Denotes an incorrect attempt to enter during Automatic Playout.

BID REPEAT   ?BID

Denotes an incorrect bid entry, such as an invalid or insufficient bid. Enter the correct bid.

PLAY REPEAT   ?PLAY

Denotes that the card entered is either in a different (computer) hand or has already been played. Enter the correct card.

NO RESPONSE

(Display does not change.) Indicates wrong key being pressed or improper function request.

RESCAN

Indicates Scanner did not "read" card correctly. Rescan the card or enter via the keyboard.

PREFERRED CONVENTIONS

When Bridge Challenger® is playing two computer positions in a partnership in normal play or in duplicate play, its best bidding conventions are:

> 5 MAJOR
> 2 CLUBS
> JACOBY
> BARON
> 2 NT-13

DUPLICATE BRIDGE AND TEAM-OF-FOUR

To further enjoy your Bridge Challenger® when you are using Challenger® by yourself and it is playing the other three hands, we suggest you try the following:

MATCH-POINT BRIDGE. Using the automatic dealing feature, enter a specific deal number into the Computer. Record the deal number, dealer, and your hand on the Reference Sheet provided. Then bid as in normal use and record final contract. After the opening lead, record Dummy's hand and opening lead on the Reference Sheet and proceed to play out the hand. At the end of play, record the final result and when **REPLAY?** message is displayed, press **PB** Key to request AUTOMATIC PLAYOUT.

Acknowledge all bids and final contract, making sure to record the final contract. Acknowledge opening lead and wait for the Computer to display the final result.

If you scored more points when you played the deal than the Computer did when it played your hand, score 1 match-point. (A vulnerable game is worth 500 points, a non-vulnerable game is worth 300 points, and a part score is worth 50 points.) Example: You bid 4 Hearts and made five not vulnerable, for 300 + 150 = 450 points. On the replay, with your cards, the Computer bid and made 3 Hearts, for 90 + 50 = 140 points.

If your result was exactly the same as the Computer, score 1/2 match-point.

If you scored fewer points than the Computer, score 0 match-points. Example: You bid 3 Hearts and went down one, for minus 50; on the replay, the Computer bid 2 Hearts with your cards and made it, for plus 110.

After playing a number of deals, determine your final standing as follows:

FIDELITY RATING SCALE

$$\text{Your Percent} = \frac{\text{Your Total Match-Point Score}}{\text{Number of Deals Played}} \times 100$$

70% or more	— Excellent
60%	— Very Good
55%	— Above Average
50%	— Average
Below 50%	— Below Average

SWISS TEAM OF FOUR. Follow the same procedure as for Match-Point Bridge, but score the results in terms of total points. Example: You bid and make 4 Hearts, not vulnerable (120 + 300 = 420 points). On the replay, the Computer bids 2 Hearts with your cards and makes 4 (120 + 50 = 170 points). You win 420*— 170 or 250 points. At the end of 7 deals, if you are ahead (even by 10 points), you win the match. If Challenger® is ahead (even by 10 points), it wins the match. If the result is an exact tie, hold a sudden-death playoff to determine the winner: play one additional deal (or more if necessary), with the first side to score any points winning the match.

TEST PROGRAM

The sophisticated program and solid state system with its miniaturized computer are thoroughly tested at the Factory. The possibility of a computer electronic error is remote. If you suspect that your game is responding improperly, we suggest that you reread the instructions carefully to ensure correct operation.

The following is a test program to verify correct component function within the microprocessor unit. Press each key in succession, starting with item 1, and observe that the appropriate Indicator Lights (the dot shows which Indicator is lit) and the correct readout are displayed.

TEST PROGRAM

ITEM	KEY	N	E	S	W	↕V	↔V	DB	RD
1.	RE	●	●	●	●	●	●	●	●
2.	EN	●							
3.	EN	●							
4.	1	●							
5.	NT	●							
6.	EN		●						
7.	P		●						
8.	EN			●					
9.	P			●					
10.	EN				●				
11.	P				●				
12.	EN	●							
13.	A		●						
14.	scan a card		●						
15.	EN			●					
16.	scan 13 cards			●					
17.	EN			●					

DISPLAY READOUT

F	I	D	E	L	I	T	Y
			D	E	A	L	?
			B	I	D		
						1	
				1		N	T
			B	I	D		
				P	A	S	S
			B	I	D		
				P	A	S	S
			B	I	D		
				P	A	S	S
					1	N	T
				L	E	A	D

card suit and value

		C	A	R	D	S	—

each card—suit & value

				P	L	A	Y

SPECIFICATIONS

POWER SOURCE: Operates on 110, 220, or 240 volt AC house power (depending upon transformer used), 50-60 Hz, 8 watts, continuous use.

ELECTRONICS: All solid state. 192K-bit Read Only Memory Unit for program and operational stages; 8K-bit Random Access Memory for Scratch Pad and Intermediate Storage; Z80 8-bit Central Processing Unit; 32K-bit Read Only Memory for voice reproduction.

READOUT: Eight character 14-segment alphanumeric, vacuum fluorescent display; eight L.E.D. indicators; voice generator; 2-inch, 8 ohm speaker, fixed volume (VBRC only).

CARD READER: Optical scanner.

KEYBOARD: Thirty-two key tactile.

SIZE: 13⅛ x 7 x 1¼ inches.

WEIGHT: Housing, transformer, cards, playing mats, and carrying case: Six pounds.

FIDELITY ELECTRONICS, LTD.

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