IMPORTANT

The Duplimate MUST be 100% on line with the computer's central unit (the CPU). This is not always the case with later generations of hi-tech computers. Here is a summary of things to watch out for:

WINDOWS (or similar)
The Duplimate can be run under Windows only if you give the DUP.EXE program an "exclusive mode" status.
　　Alternatively you can avoid loading Windows by booting from a diskette with pure DOS. Note that it will not help to leave Windows when it has been loaded.

"SMART" FUNCTIONS
Generally speaking "smart" functions, as for example the cache memory and turbo mode, are no good in combination with the Duplimate. Therefore, disable/disconnect all such devices when "Duplimating".

BUS SPEED
As a rule of thumb the bus speed should be about 10MHz.

NETWORK
If your computer has a LAN-card it might be necessary to remove the card, or to change its addresses.

ACCESSORIES
The "cleaner" your computer and your computer-environment is, the better. All accessories can disturb the duplication. Therefore, if you have problems, remove all extra electronical cards in the computer and disable all extra functions in the system set-up. (Later you can bring them back into function one by one to pin-point what disturbes the duplication.) An example of an accessory that can disturb the duplication is the mouse-drive.

SUPPORT
If you need help with setting up your computer to fit the Duplimate, please ask your local computer dealer for advice.

Owner's manual

UNPACKING
Check that you have got:
 1 Duplimate
 1 Power supply cable
 1 Carpet
 1 Expansion card
 1 Computer cable
 1 Program diskette
 1 Pedal
 1 Print example

Installation

1. Copy the program diskette and keep the original as a safety copy. Then copy DUP.EXE, BRUN20.EXE and BRIDGES.INI to your harddisk.

2. Mount the enclosed expansion card (and don't change anything on the card) in one of the computer's expansion slots.

> **IMPORTANT NOTE 1**
> Switch off the power on the DM <u>and</u> the computer before connecting the computer cable.

3. Connect the Duplimate, herinafter called the DM, to the computer over the expansion card (cf. 2) with the computer cable.

4. Connect the computer and the DM to an <u>earthgrounded</u> (this is important for the function) 220-240 V socket.

THE INSTALLATION MENU
Before you can start 'duplimating', you have to set some values in the Installation menu.

When you choose *Installation* from the head meny, you will get this:

```
I/O PORT TYPE B/C/D/E/F/G              G
NATIONAL CODE? ENGLISH=E  FRENCH=F
PRINTER PRINTS ♠ ♥ ♦ ♣ ? Y/N          Y
HANDS ON SCREEN?  Y/N
BOARD-MACHINE Y/N                      Y
STOP-CARD  Y/N
CALIBRATION  Y/N                       Y
INFO (DO & DON'TS)  Y/N
```

I/O port should be on "G" (A-F are for other models).

National code? gives you the option to print the deals in French (ARDVX instead of AKQJT).

Depending on if the printer can manage suitsymbols, you should answer the next question with Y or N (what you answer here has no effect on the duplication, only the printing).

If you answer N to the question HANDS ON SCREEN?, the hands will not be visible when you duplicate. Note that only hands that have been presented on the screen can be printed. (Before printing the hand-records, you must "duplicate" 0 copies of each board with the hands visible on the screen.)

As you have the model where the cards are put automaticly into the boards you should answer the question BOARD-MACHINE with a Y.

We recommend that you start with putting a stop-card (= any Joker) between the decks. When you have got some experience, you can answer this question with N(o) and do without stop-cards.

Next question (CALIBRATION?) you must answer with a Y. If the machine is cold, give it a minute to warm up before feeding a deck with the ♣J as the bottom card into the machine.

If you lose this manual, you can use INFO as a mini-manual.

The menu

THE AUTO CYCLE
The normal duplicating procedure is to choose the *Auto Cycle*. We will now describe how the Auto Cycle is run.

First you have to give your tournament a name, for example two initials and the date when the hands are to be played, eg CH121296. If you write a name which is already used, you will get the message: NUMBER OF HANDS REGISTERED UNDER THIS NAME:.... Regardless of if you select Random or Program hands the deals will then be taken from the library. If you like to be sure you will not re-duplicate old hands, check that it says GENERATE A NEW SET OF DEALS? on the screen.

When you have told the computer which board number you like to start with, and how many copies of each deal you need, you can start duplimating.

Put at least two decks (preferably three) in the magazine. If you answered the question stop-card? (in *Installation*) with a yes, do not forget to put a stop card (=any black joker) on top of each deck. Then push the pedal (or Enter) and the first hand is dealt.

If you for some reason need to stop the duplication, just push the pedal. When you want to continue, push the pedal once more.

```
  IMPORTANT NOTE 2
```
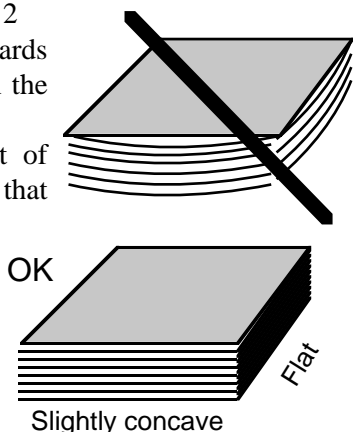Never put convex cards (seen from the faces) in the DM.

You will avoid a lot of problems if you check that the cards are slightly concave before feeding them into the DM.

New cards you have to bend "the right" way before putting them in the DM.

OK

Slightly concave

Flat

```
         IMPORTANT NOTES 3-4
```
3. Never deal the last deck in the magazine since this may spoil the cards. We recommend you to have three decks in the magazine when you start duplimating.

4. Do not put cards in the magazine when the machine is running since this may disturb the duplicating.

If everything goes well you will have a correct duplicate (OK in the upper right corner of the screen). If not, you will have an *Error Message*, see page 3.

If the duplication went well, but you mess up the cards afterwards, just can ask for another duplicate of the same deal. Use the minus button to reduce the computer's counting of the duplicates made, which is shown in the upper right corner of the screen.)

If you for some reason like to increase the number of duplicates shown on the screen, you may use the plus button.

Intermissions

If you do not like to make all duplicates at the same time, you should take *Exit* before closing down the system. (If you are in the duplicating program when you switch off the power, the hands might not be properly stored in the library.)

When you like to continue, you choose *Auto Cycle*, write the tournament's name, indicate the board-number you like to start with, and you are back in business again. If you have forgotten what you called your tournament, you will find the name in the *Library*.

LIBRARY

In the library everything you duplicate is stored automaticly. If you want to duplicate hands stored in the library you may select the tournament's name with the cursor before leaving the library. The name of the selected tournament will then appear automaticly when you enter the *Auto Cycle*.

When the library is full, you may throw some old tournaments away with the "F2" button. Or you may transfer them to a diskette. In the latter case please note that every tournament's last name ("extension") is .DUP If you take *Exit* and type: (after the :\<) "DIR *.DUP" and hit Enter, you will have a complete list of all the .DUP files.

It is also possible to enter deals from an external source via the library.

RANDOM HANDS

This command may be used if you want to generate hands for special purposes. You may for instance select only balanced hands by rejecting (with "F2") all unbalanced hands. This may also be done using the *Create* fascility, see below. Still another possibility is to type the hands using the *Program Hands* ("F4") command.

To initiate dealing of the hands you may either use the "F5" button, or you can revert to the *Auto Cycle* when you have composed all the hands you like to have duplicated.

PROGRAM HANDS

If you like to type hands (eg from a book or magazine) you may use this command. Note that the possibilities to change the cards once they have been typed are limited. If you for instance realize there is something wrong with the North hand when you are typing East's hand, you have to start from the beginning again (type "X" and hit Enter). And if you realize there is something wrong when you have a complete hand on the screen you have to use the delete function ("F2") and retype the hand.

If you like to type all hands before duplicating them you should use the NEXT command (F4), otherwise push the "F5" button to initiate the duplication.

If you have composed a set of hands, printed them, and then realize there is something wrong with hand No. 5, you have to enter the *Auto Cycle*. Select START WITH BOARD NUMBER and type: 5N (N for new). After pushing Enter, you can re-type hand number 5.

CREATE

With the sub-routine *Create,* you may select randomly dealt hands with desired criteria.

PRINT HANDS

With this command you may initiate printing of any tournament that is stored in the library.

FUNC TEST

You do not have to bother about the function test until you have problems, see *Problem-shooting* on page 3.

EXIT
Select this command when you want to run another program on the computer. You may revert to the duplicating program by typing: "DUP" (=the name of the duplicating program).

Error-messages

If you after finished duplication get an error message there is something wrong with the duplicate. In the upper right corner of the screen there is a ✓ sign indicating that the duplicate was not counted.

Wrong number of cards
If the deck is short, it says in the lower right corner of the screen which card is missing.

If you get the message "12-14" one card, or several, have taken the wrong route in the machine. Just feed the cards back to the machine and hope for better luck next time. (If you get the same error when you re-cycle the deck, there is most probably something wrong with the cards, see important note 2.)

Damaged code (N)
If you during duplication get the error message "Damaged code (N)" it indicates that the last card dealt to North was misread. We recommend that you do not try to correct the hand manually. Either you can take Enter and let the duplication continue. Or you can use the Esc button to discontinue the duplication.

If the same card is misread again and again, the bar-code is damaged. Replace the card (or turn it the other way around) and try again.

Card already dealt?
Either you have mixed up the decks or there is some problem with the reading of the bar-code. Either you finish the duplication or you discontinue it, cf. *Damaged code* above.

If you frequently get this kind of error messages, see *Avoiding problems* and *Problem shooting* below.

Avoiding problems

When we designed the DM, we had to make some assumptions. For example that the cards are slightly bent by the players, that the cards run through the machine at a certain speed, etc.

There are tolerances, of course, but to ensure a high output you should try to keep conditions as constant as possible. In particular we like to stress the CLEANING and OILING of the equipment.

1. Oil the shaft for the shuttle pushing the cards into the machine with a heavy car engine oil (preferably SAE 30-50) daily.

2. Blow the reader free from dust every now and then. Sometimes it can also be necessary to remove dirt from the lense. Clean first with ISOPROPANOL, then blow dry with compressed air.

3. We have already mentioned that the cards you feed into the DM must not be bent the wrong way (see *Important Note 2)*. Drastic changes in temperature and humidity should be avoided as it might cause the cards to behave badly.

Problem-shooting

Most problems are solved by cleaning. With a couple of simple tests you can test your cleaning:

i. The reader.
1. Go to *Func Test* and select R (for reader). Initially it shall say BLACK (=no card) on the screen. When you insert a card (manually) over the reader the text on the screen should change to WHITE. If the face is constantly black or constantly white, there is probably dust or dirt covering the lense. If, after cleaning (see *Avoiding Problems,* §2), you still have the same problem, please fax us for further instructions.

ii. **The transmission.**
Insert a card manually (via the magazine) into the running machine. The machine should pull the card out of your hand. If the machine pulls poorly, take the cover off, clean the belts and belt-feeders carefully with thinner and try again.

If you still have problems, the belts on the inside of the machine most probably have slackened, in which case you have to replace them.

FUNC TEST
Normally you run the function test to verify that there is nothing wrong with the equipment. The negative inference you get from such a test is that you should clean and/or oil the equipment.

Your choice, listed in the lower left corner of the screen, is: C/E/W/S/R/F/P.
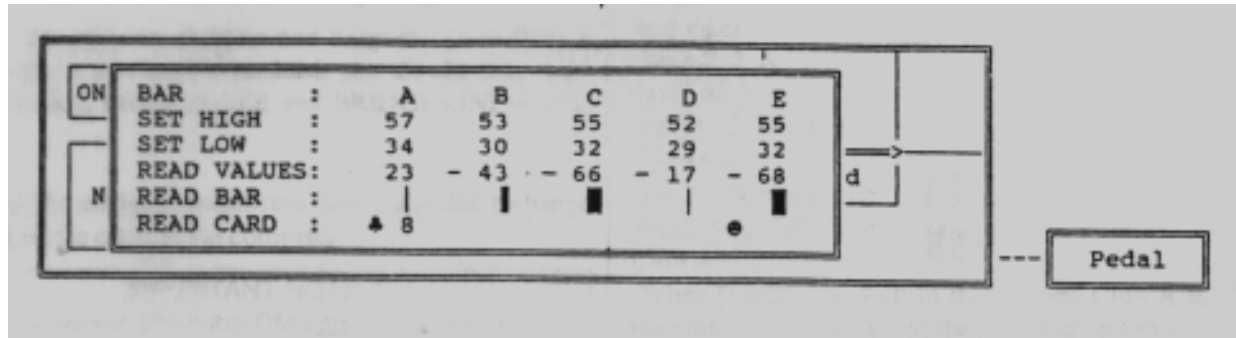
"C" checks the counting of the output. Feed at least 6 cards manually into the Duplimate (when it is on).

"E" should lift East's gate, "W" should lift West's gate and "S" South's.

"R". With the magazine filled with cards and the machine running, take Enter. On the screen you should get a box looking like this :

On the line READ CARD it says ♣ 8. If the inserted card was a club 8 it was read correctly.

If, however, the card was not read properly, you need to know a little more about the process to be able to pinpoint the problem.

Each bar-code has 5 "bars"; 3 black bars and 2 white bars situated in between the black bars. The bars are called A, B, C, D and E. Each bar can either be bold, medium, or thin (2,4, 1,6 or 0,8 mms wide). On the club 8 the A-bar is thin, the B-bar is medium, the C-bar bold, the D-bar thin and the E-bar bold.

On the line SET LO is shown the upper limit for a thin bar in each position.

On the line SET HI is shown the lower limit for a bold bar in each position. That is, if a READ VALUE is higher than SET HI the bar will be considered bold. In the example this is the case for the A and C bars.

Everything in between the SET HI and SET LO values is considered medium.

Now, if you get impossible high, or low, values there is something wrong with the reading. If there is a particular card which is misread, replace that card. If the machine misreads different cards it might be dust or dirt on the optical eye, or the transmission is fading, cf. *Problem-shooting*.

"F". Feeds one card into the machine.
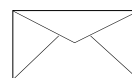
"P" tests the pedal.

Many error-messages

If you frequently get error-messages (frequently = more than 5% of the duplicates) you should try to find out the reason why you get all these error-messages.

If you get a slowly increasing number of error-messages, your first step should be to clean according to *Avoiding Problems*. If this does not help, type "S" (and Enter) every time you get an error message. Compare the values you get on the screen with the bar-code on the card. If the READ VALUES are constantly too low compared with the SET HI and SET LO you should suspect that you have to do a calibration.

If you all of a sudden get a lot of error-messages DAMAGED CODE? (N) there has probably come some dust or dirt on the optical reader. Blow first with compressed air. If this does not help, it might be necessary to clean the lense (gently!) with Isopropanol.
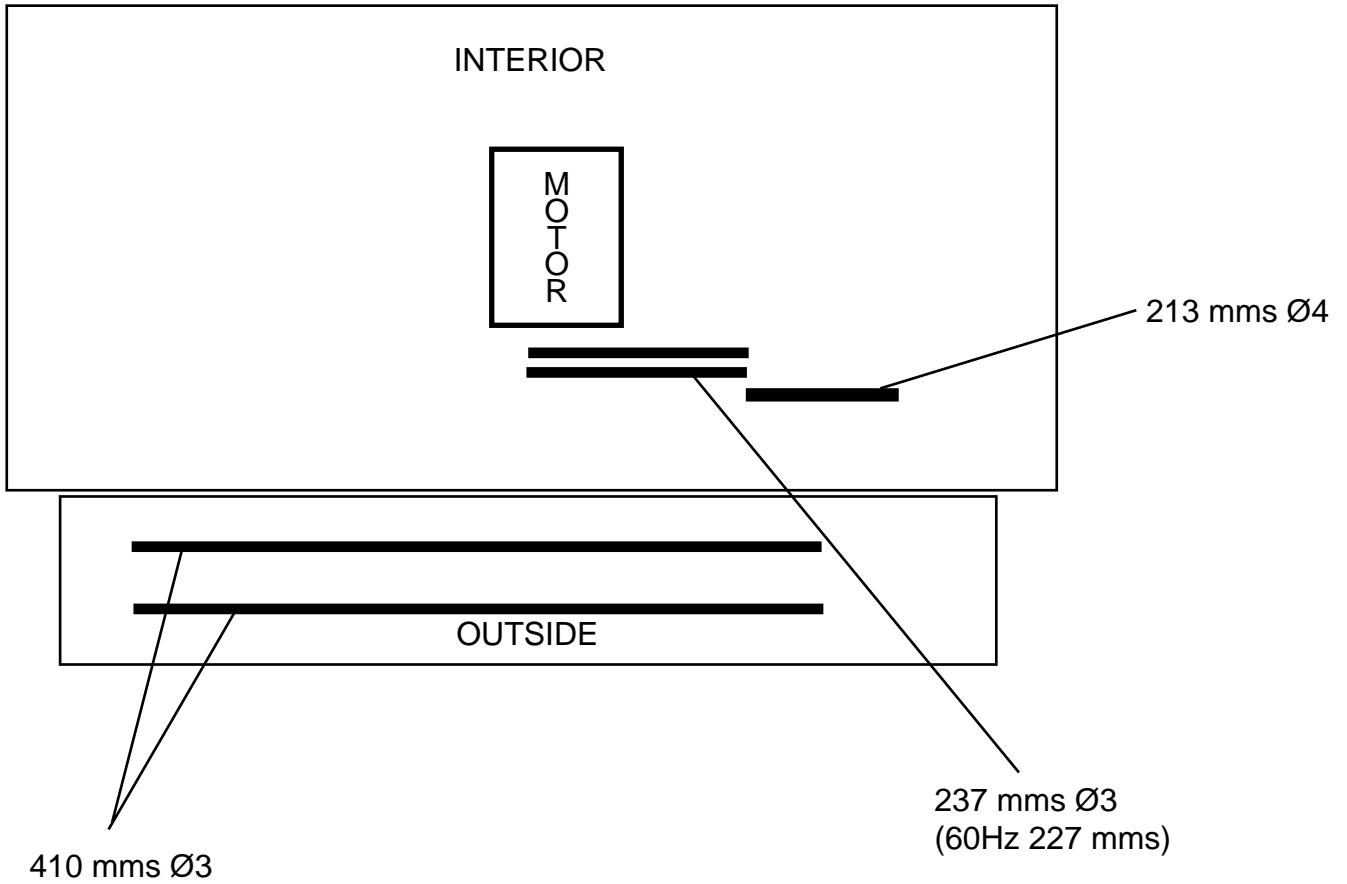
Belt-arrangement model 96B

INTERIOR

MOTOR

213 mms Ø4

OUTSIDE

237 mms Ø3
(60Hz 227 mms)

410 mms Ø3

N.B. The measures are showing the length you shall cut the belt in (the belt will be approx 2 mms shorter when you weld the ends together).

Extras

CONVERT is a stand alone tool for:
i. Converting old Duplimate files to the latest format or vice versa.
ii. Converting a Duplimate file to a text-file, which can be processed by other programs (DOS, Windows, Mac or whatever).

CREATE is a sub-routine for selecting random dealt hands with certain criteria. The hands are stored in the Duplimate library from where you can pick them as usual.

PAIRS is a separate software for registration of contestants, movements (guide-cards), printing of score-sheets with player numbers, scoring etc.

READ is a function where hand-dealt hands can be read by the Duplimate. The hands are stored in the library.

SCORING, see PAIRS.

TOPS means that you get the hands on a diskette and commentated scores on paper.