

SUMMER GOLD

10th FRAME

Loading Instructions CBM64/128 Cassette

Press **SHIFT** and **RUN/STOP** keys together, then press **PLAY** on the cassette recorder. Game will then load and when the 'Select League' or 'Open Bowling' screen appears, the tape has finished loading. (Plug joystick into port #2).

NOTE: You must leave the **PLAY**, **FAST FORWARD** or **REWIND** button down while playing. (The **FAST FORWARD** key is recommended). You may remove the cassette if you wish, but this must be done while in the 'Select League' or 'Open Bowling' screen. At any other point one of the above buttons must be down or the game will not operate.

Spectrum 48/128K Cassette

Type **LOAD** and press **ENTER**. Press **PLAY** on your cassette recorder.

Amstrad CPC Cassette

Press **CTRL** and small **ENTER** and press any key. Press **PLAY** on your cassette recorder.

Keyboard Controls (Spectrum and Amstrad)

Q = Up; A = Down; O = Left; P = Right.
CAPS = Fire (Spectrum); SHIFT or CTRL = Fire (Amstrad)

Adjust your Sound (CBM only)

10th FRAME™ is designed to provide the highest quality sound possible on the C64/128 sound chip. However, some machines have variations in the sound filter hardware which may cause your sound to be either muffled or scratchy. If the sound on your computer is unsatisfactory, you may modify the filter settings for optimum clarity. While in the 'Select' screen, press the + key to make the sound brighter, press the - key to make the sound softer. The maximum adjustment is approximately 64 increments in each direction. The sound you hear is the sound of the ball hitting the pins.

Setting Up for Game Play

10th FRAME™ can accommodate up to eight players in league or open bowling. When the 'SELECT LEAGUE OR OPEN BOWLING' prompt appears, press **L** for league play or **O** for open bowling. If league play is chosen, you will have to supply the following information:

1. Team Names.
 2. Number of players on each team (up to 4).
 3. Player names and ability levels.
 4. Number of games to play (up to 3)
- If open bowling is chosen, you will be asked to supply the following information:
1. Number of players (up to 8).
 2. Player names and ability levels.
 3. Number of games to play (up to 5).

Entering Player Names and Ability Levels

Type in the name of a player (up to 9 characters) and press **RETURN** (Spectrum/ENTER). Now select the ability level for the first player. Each player can compete under conditions that match his or her level of ability and experience. Press **R** for Kids, **A** for Amateur or **P** for Professional. Below is a description of each level.

Ability	Description
Kids	This level has been designed so that younger children (4-8) can play the game. When a ball is thrown on this level, the amount of speed is automatically set and the ball will go straight where the shot is aimed with no hook. Kids level should not be considered the beginning level as most of the elements of skill have been eliminated.
Amateur	This can be considered the 'beginning level'. Throws are affected by your selected speed setting and the amount of 'hook' you put on the ball.
Professional	Advanced Level - On this level your accuracy using the speed/hook indicator is critical. Any error made will greatly increase the chances of making a poor throw. This is the level you should work toward for true tournament play.

Playing the Game

Aiming Your Throw

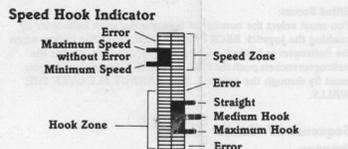
Before the ball is thrown, both the bowler and his 'mark' must be positioned. Pushing **FORWARD** on the joystick will activate the 'mark'. While the 'mark' is active it may be positioned by moving the joystick **LEFT** or **RIGHT**. To position the bowler, pull **BACK** on the joystick to de-activate the 'mark'. Now moving left or right will move the bowler.

Throwing the Ball

Once the bowler has been positioned and the direction set, there are only three more things to do before the ball is on its way: start the approach, set the speed and throw the ball straight or with a hook. The control is accomplished during the approach of the ball and requires timing and concentration. The sequence can be viewed by watching the Speed/Hook Indicator.

STEP 1 Start the approach by pressing the joystick button. To help your timing, three short bars will appear on the indicator as the bowler starts his delivery. After three bars, the indicator will move quickly toward the speed zone (see below). To set the speed, release the button when the indicator reaches the desired level within the zone.

STEP 2 The speed zone is noted on the left side of the Speed/Hook Indicator. Releasing the button at the bottom will give you minimum speed. If you release the button in the red area, a direction error will occur. The indicator moves quickly so maximum concentration is needed to hit the desired level of speed. When the button is released, the setting you have chosen will be locked on the indicator.



STEP 3 Set the Hook by pressing the button when the indicator is within the hook zone. Pressing the button near the top of the hook zone will cause the ball to be thrown straight. The amount of hook increases as the indicator moves downward. Pressing the button at the bottom of the hook zone will produce a curving shot with maximum hook. As in the speed zone, stopping the indicator in the red area will produce a direction error.

The overall sequence is **PUSH THE BUTTON TO START - RELEASE THE BUTTON TO SET THE SPEED - PUSH THE BUTTON AGAIN TO SET THE AMOUNT OF HOOK.**

NOTE: Your speed setting affects the amount the ball will curve as it travels down the alley. When you throw with less speed, it maximizes the hook's effect. The greater the speed, the less the ball will hook.

Scoreboard

When each player bowls, a line score will appear on the top portion of the screen. The line score will show the last five frames of a bowler's score. An overall scoreboard will appear after bowlers have completed a frame (2 or more players). When the scoreboard is displayed, press the joystick button to continue play.

Bowling Setup

Bowling pins are set up in a form of triangle. Each pin has its own number. Spares and splits are named by the number of pins left standing after a ball has been rolled. 10th FRAME™ bowlers can throw two kinds of balls - a straight ball or a hook. No matter what kind is used, a bowler should aim for the pocket between the one and three pins.



Bowling for Spares

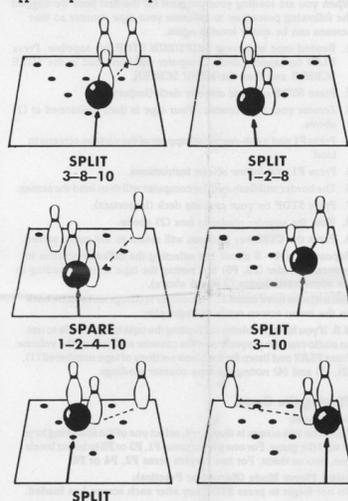
A successful bowler must be able to make spares, which means to knock down with his second ball all the pins left standing after his first ball in a frame. An arrangement of pins with more than one pin space between is called a split. A bowler usually rolls from the left side of the lane if the remaining pins are on the right side of the lane. If the pins stand on the left side of the lane, he generally delivers the ball from the right side.



Scoring

While scoring in 10th FRAME™ is automatic, the fundamentals of scoring need to be understood in order to fully enjoy the game. A bowling game consists of 10 frames. Each bowler rolls the ball twice in each frame, unless a strike is scored. A STRIKE counts 10 pins, plus the total number of pins the bowler knocks down with the next two balls that are thrown. On a strike, the scorer marks an X in the small square in the corner of the larger square on the score sheet. (Shown as # on the scoreboard). A SPARE counts 10 pins, plus the number of pins the bowler knocks down with the first ball thrown in the next frame. The scorer marks the diagonal line / through the small square for a spare. (Shown as 0 on the scoreboard). When a bowler fails to make a strike or spare, only the pins knocked down count, and no scoring is carried over to the next frame. A bowler must roll 12 consecutive strikes to score 300, a perfect game. This includes one strike for each of 10 frames, plus one strike for each of the two extra, or bonus, chances that a bowler receives for scoring a strike in the 10th frame.

Typical Spares and Splits



Additional Features

ABORT FEATURE - You can return to the 'Select' screen from almost any point in the game by pressing / (Commodore), CAPS/SHIFT and BREAK (Spectrum), ESC (Amstrad). This will cancel the game in progress.

REPLAY FEATURE - If you wish to start over at the First Frame without changing names, etc. press **F** from the 'Select' screen. **AUTOMATIC DEMO** - If left unattended for one minute, the computer will start the demo. You may start it manually by pressing **D** from the 'Select' screen.

SCORE PRINTOUT (Commodore only) - At the end of a game, a hard copy printout is available. When 'Print Score Sheet' appears, type **Y** for Yes and **N** for No.

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IMPOSSIBLE MISSION

Mission Briefing

To: Special Agent 4125

1. **Subject:** Mission of vital importance to national and global security. Operations to begin immediately. Utmost urgency.
2. **Situation:** During the past three days, key military computer installations of every major world power have reported security failures. In each case, someone gained access to a primary missile attack computer.

Only one person is capable of computer tampering on this scale:

Professor Elvin Atom Bender (hereafter referred to as 'Elvin')

We believe that Elvin is working to break the computers' launch codes. When he succeeds, he plans to trigger a missile attack that will destroy the world.

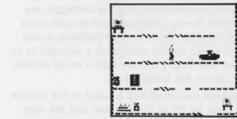
3. **Mission:** You must penetrate Elvin's underground stronghold and stop him. To succeed you will have to evade the scientist's robot guards, break his security code and find his control centre. Your predecessors, Agents 4116 and 4124 (may they rest in peace), were able to send back some information about Elvin's installation. It is detailed below.

Your only weapons will be your keen analytical mind and your MIA9366B pocket computer. Good luck. The world is depending on you.

Intelligence Report

Elvin's Stronghold
Using a fortune he amassed by raiding the computer systems of various financial institutions, Elvin constructed a vast, underground stronghold packed with computer equipment. There, in seclusion, Elvin spent four years working to breach the security of military computer installations around the world. As you know, he has succeeded.

Our computers estimate that he will break the launch codes and trigger the missile attack in exactly six hours. This is the amount of time you will have to complete your mission.

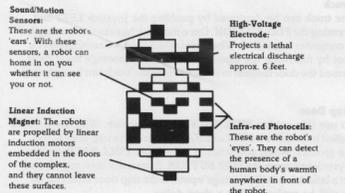


Elvin's stronghold has 32 rooms. Some of them are used as living quarters and others are computer rooms. But there comes the strange part our intelligence indicates that each room has a series of floors, or catwalks, which are connected by lifts. The last agent who tried to crack Elvin's stronghold gave the following report: *(excerpt) 'I have just entered what appears to be a living room... (static)... peculiar. All of the furniture seems to be on catwalks high above the floor... not sure how to get up there... (static)... I can see a fireplace and a sofa directly over my head... how can anyone live here like this? Hold it... (static)... I think a robot may have seen me... aaargh!!!' (transmission terminated).*

Clearly, Elvin has constructed the rooms of his stronghold in such a way that only he can negotiate them easily. The floors and catwalks often end quite abruptly, dropping off into space. And, of course, they are guarded by Elvin's nasty, human-seeking robots. Devilishly clever, that Elvin.

Elvin's Robots

HEIGHT: 1.57 metres. **WEIGHT:** 67 kilos.
ARMOUR TYPE: ablative (AC-4)
VCC: 5 megavolts
WEAPONRY: high-voltage ionic plasma generator.
ENERGY RESERVES: 3.14 megajoules (estimated).
MAXIMUM ANGULAR VELOCITY: 1.2 megaradians/fortnight
LONGITUDINAL VELOCITY: ALPHA CLASS: 2.5 x 10⁻⁶ c GAMMA CLASS: 5.9 x 10⁻⁶ c BETA CLASS: 1.2 x 10⁻⁶ c OMEGA CLASS: 0c
PHOTOVOLTAIC THRESHOLD: 0.12 lumens
ENTROPIC CONVERSION RATE: 2.71828 eng/sec
THERMIONIC COEFFICIENT: 6.07 therms/hour



Elvin's Security System
Our intelligence indicates that Elvin uses three types of codes (or passwords) in his security system. One code deactivates the robots, another operates the lifts and the third code (a password) unlocks the control room.

Now comes the REALLY strange part.

We believe that Elvin hides his passwords in his furniture.

Elvin, who is extremely absent-minded, frequently forgets the passwords for his security controls. His solution is to scatter them haphazardly around the house. You can find one of his passwords in the sofa. Or the stereo. Or the candy machine. But you must find them. Without the passwords, you will almost certainly end up like Agent 4124 (but we don't want to think about that, do we?)

Once you find the codes, using them should be relatively easy (for the most part). You should be able to log onto a security terminal as you enter each room and deactivate the robots or reset the lifts (if necessary) from there. This should present no problems. However, the control room password is another matter. Realising the importance of this particular code, Elvin has broken it into dozens of pieces, scattering them throughout the complex. You will have to find and retrieve all of the pieces and match them up like a puzzle to form the password.

With the completed password, you can gain access to the control room where Elvin is preparing to launch the missiles. You have to stop him. Or the world is going to be terminally late for dinner tonight.

Objective

To succeed at IMPOSSIBLE MISSION you must penetrate the rooms and tunnels of Elvin's underground stronghold, avoid his robot defenders and put together his secret password. Then you can enter Elvin's control room and put a stop to his plans.

Your score points by finding puzzle pieces and putting them together, and by reaching Elvin's control room before time runs out. As your skill at the game increases, you can achieve higher scores by completing the password and reaching the control room with more time left on the clock. But each time you play, the rooms and robots will be rearranged, and the puzzles will be different.

Starting Play

CBM 64/128

After the game is loaded, Elvin will welcome you to his underground chamber: (in his nastiest, most fiendish voice). He does this as a favour, to allow you to adjust your volume. This is the last kindness Elvin will show you.

Spectrum 48/128K - Amstrad CPC

After the game is loaded, a score board is displayed. This screen also allows keyboard/joystick selection. You begin play with your agent in an elevator. The display at the bottom of the screen is your pocket computer.

Loading Instructions

CBM64/128 Cassette
Press **SHIFT** and **RUN/STOP** keys together. Press **PLAY** on the cassette recorder. The game loads in 5 sections and will start automatically after the last section has loaded.

Spectrum 48/128K

The program supports KEMPSTON and INTERFACE 2 joystick interfaces. Please ensure joystick is connected otherwise use keyboard controls shown below.

Type **LOAD**™ and press **ENTER**. Press **PLAY** on the recorder.

Keyboard Controls:
F - Up L - Down CAPS SHIFT - Left Z - Right B to SPACE - Fire

Amstrad CPC

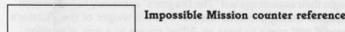
Reset your Amstrad by pressing the **CNTL/SHIFT/ESC** keys simultaneously. Press **CNTL/SMALL ENTER** keys simultaneously. Type **TAPE** and press **RETURN**.

NB press **SHIFT/@** for:

CP664 - Press **CNTL/SMALL ENTER** keys simultaneously.
CP6128 - Press **CNTL/ENTER** keys simultaneously.

The game will load automatically after pressing any key.

Impossible Mission is located as the second game on Tape 1 Side 1. It is recommended that you zero the tape counter so as when the first game has completely loaded, take a note for future reference.



Controls

- IN THE ELEVATOR: Push the joystick **FORWARD** or **BACK** to go up or down. Push the joystick **LEFT** or **RIGHT** to move in either direction along the corridor. Running off the edge of the screen takes you into a room.
- IN THE ROOMS: Push the joystick **LEFT** or **RIGHT** to move in either direction. If you press the **FIRE BUTTON**, your agent will perform a mid-air forward flip that you won't believe (this is especially useful for somersaulting over pesky robots).
- ON LIFTING PLATFORMS: If you're standing on a striped lifting platform in one of the rooms, you can push the joystick **FORWARD** or **BACK** to go up or down.

Game Play

As you explore Elvin's stronghold, your pocket computer (at the bottom of the elevator screen) will display a map of the rooms and tunnels you have entered. In every room you should conduct a search.

Searching for Codes

Search every object or piece of furniture in the rooms for codes and password puzzle pieces (if you can avoid the robots). You can do this by standing directly in front of an object (sofa, desk, fireplace or whatever) and pushing the joystick forward.

The word 'Searching' will appear in a box on the screen. You will also see a horizontal bar indicating the length of time it will take to search the object.

You must continue holding the joystick forward until the bar disappears. If your search is interrupted for any reason, you can go back to the object and resume searching where you left off. But if you leave the room or commence searching another object you'll have to start the search from the beginning.

When you have finished searching the object, one of four things will appear in the box:

- The words 'Nothing here'.
- A picture of a sleeping robot. This represents a SNOOZE password which allows you to temporarily deactivate the robots in a room.
- A picture of a striped lifting platform with an arrow above it. This represents a LIFT INIT password which allows you to reset all of the lifting platforms in a room to their original positions.
- A puzzle piece. This is part of the password which allows entry to the control room. It will be entered into the memory of your pocket computer automatically.

Using the Security Terminals

You can use the SNOOZES and LIFT INITs at any security terminal. These terminals are usually located near the entrance to each room. They look like television sets with darkened screens facing toward you.

To use a security terminal, move directly in front of it and push the joystick **FORWARD**. The screen of the security terminal will enlarge to fill your display. You can select one of three functions with the joystick (press the **FIRE BUTTON** when the arrow points to the function you want):

- **RESET LIFTING PLATFORMS:** To use this option, you must have a LIFT INIT password in your possession. (Your pocket computer displays the number of LIFT INITs you have.)
- **TEMPORARILY DISABLE ROBOTS:** To use this option, you must have a SNOOZE password in your possession. (Your pocket computer displays the number of SNOOZES you have.)
- **LOG OFF.**

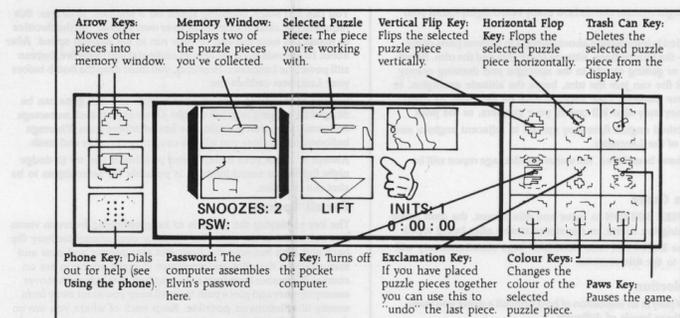
Code Rooms

Elvin's stronghold contains two code rooms where you can earn additional passwords. Walk up to the console and push the joystick forward as if you were searching it. A sequence of squares will flash on the wall, each with a musical note, and a white glove will appear. Use the glove to touch each square in sequence so that the notes are sorted in ascending order (from low to high).

If you produce the proper sequence of notes the checkerboard will flash and you'll get a SNOOZE or a LIFT INIT password. You can do this as many times as you like, but the sequence gets longer each time. You can quit at any time by touching the purple bar.

Pocket Computer

Your pocket computer is an amazing device. It allows you to play with the puzzle pieces right on the screen, twisting them around to figure out how they go together.



To activate your pocket computer, you must be **standing** in one of the elevator corridors. Press the **FIRE BUTTON** to turn on the pocket computer. **Note:** You can't use the pocket computer in any of the rooms. Pressing the **FIRE BUTTON** in a room will cause you to do a somersault.

When the computer is activated, the map of Elvin's stronghold will vanish and a glove will appear. Use the glove to put the puzzle pieces together, forming the password that will let you enter Elvin's control room.

Using the Glove

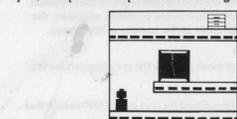
- TO MOVE THE GLOVE. Move the joystick in the desired direction.
- TO ACTIVATE A FUNCTION KEY. 'Point' to it with the glove and press the joystick button.
- TO PICK UP A PUZZLE PIECE in the memory window, 'point' to it with the glove and press the joystick button. Then you can move it by moving the joystick.
- TO DROP A PUZZLE PIECE: Press the joystick button.
- TO MAKE A COPY of the selected puzzle piece, 'point' to it with the glove and press the joystick button.
- TO PUT BACK A COPY of the selected piece, 'point' to the desired window and press the joystick button.
- TO SELECT A PUZZLE PIECE that isn't selected, 'point' to it with the glove and press the joystick button.
- TO FIND OUT IF TWO PIECES MATCH, 'point' to the desired window and press the joystick button.

Solving the Puzzles

- Some pieces are upside down or backwards (or both) when you find them, so if a piece doesn't seem to match anything, try flipping it with the function keys.
- Pieces must be the SAME colour, or they won't match. If two pieces with different colours look like they should match, then use the colour keys to change them.
- A completed puzzle looks like a computer punch card: a solid rectangle with several little holes in it.
- A completed puzzle may be upside down or backwards when you finish putting it together (you may have to flip it around before it is recognised as a solution).
- There are FOUR pieces in each completed puzzle, and NINE puzzles in the game. Each time you complete a puzzle, one letter of Elvin's password will appear at the bottom of the pocket computer screen.
- When you have all nine of the letters in the password, you can open the door to Elvin's control centre and save the world.

Control Room

The door to Elvin's control room is one of the green rooms. When you have completed the password, position your agent directly in front of the door and push the joystick **FORWARD**. The door will open, and you'll finally have the last laugh.



Using the Phone

When you touch the phone key on your pocket computer, it dials up the Agency's main computer (to get some help with the puzzles). But there is a charge for using it. Each use of the phone costs two minutes on the game clock.

The Agency's computer will give you three choices. Select the one you want with the glove, then press the **FIRE BUTTON**. CORRECT ORIENTATIONS OF LEFTMOST PIECES. The computer will flip the two puzzle pieces in the memory window to orient them correctly (right side up and forwards, instead of upside down and backwards). A red mark will appear to the left of each piece that has been flipped.

HAVE WE ENOUGH PIECES TO SOLVE THE UPPER LEFT PUZZLE? The computer will look at the upper puzzle piece in the memory window and tell you whether you've found all three of the pieces that go with it to make a puzzle.

Continuing Play CBM64/128 Only

You can start a new game at any time by pressing the **RESTORE** key. The rooms and robots will be rearranged, and the computer will generate a new set of puzzles.

Scoring

The game clock (on the pocket computer display) starts at 12:00. The game ends when the clock reaches 6:00. Each time you fall off the bottom of the screen or get zapped by a robot, you are penalised ten minutes. Each time you use the phone, you are penalised two minutes. When the game ends, you are awarded points as follows:

- 1 point for each second remaining on the clock.
- 100 points for each puzzle piece found.
- 100 points for each SNOOZE or LIFT INIT found.
- 500 points for each puzzle solved (400 points Amstrad)
- 1,000 points for completing the mission. CBM64/128 Spectrum 48/128K only.

Hints

Here are some playing hints from the authors of IMPOSSIBLE MISSION:
• Some rooms are harder than others. If a room seems too hard (presumably because you don't have any passwords to reset the lifts and turn off the robots), come back to it after you've acquired some passwords.

REMOVE - You can remove a worn item with this command.

QUIT - This command will ask you if you want to play again and also ask if you want to **RESTORE** a saved game.

SAVE GAME - This allows you to save a current game position. The saved game position may be reloaded by using the quit command, then answering YES, to 'Do you want to restore a saved mission?'

WAIT - There are times in the game when being able to wait has distinct advantages. This command will let the game move on one move - longer waits can be entered by WAIT 5; WAIT 10; WAIT 20. These commands can be useful when you have missed the pneuma-tube or helmet curtains.

ADVANCE CT & RETARD CT - See hints on play.

Travelling and Exploration

We have already seen examples like GO NORTH AND THEN WEST but to save on the old fangled abbreviations can also be used for directions.

N, S, E, NW, etc. also U for up and D for down.

Hints on Play

The Caydia has a pre-programmed flight plan (examine screen for further data) which is controlled by CAYDIA TIME or CT for short. So, not only are you fighting to accomplish a dire mission but you have the CT factor to consider as well, the Caydia could take off without you!

You will find that you have the means to monitor CT but you also have two special COMMANDS that could be invaluable as the game progresses: **ADVANCE CT & RETARD CT**

The ship's clock can, at certain times be adjusted to speed up or slow down the CAYDIA'S countdown sequence. Advance CT will move time on. Retard CT will move the clock back.

WARNING: Retard CT can only be used once during your mission to delay the ship's take-off to the next planet! This is due to the Zorton crisis configuration or put another way, we don't want to make things too easy, now do we?

Ensure that both personal status levels are replenished before leaving the ship, carrying a spare HCAP is recommended. The ARCADIANs have banned humans from carrying weapons, therefore unless you plan on using a weapon keep it out of sight of the Officials.

Remember to TALK to people (even some Arcadians might listen to you) at times this can give you valuable clues. Brains can sometimes be more effective than brown and let's face it, SAROS reckon you are their number 1 agent, so take it away MAESTRO!

CBM 64/128 Cassette

Press **SHIFT** and **RUN/STOP**

THE DAM BUSTERS

Game Description

Options

The options that may be selected are—Practice Dam Run—starting near the dam, with no enemy action.

Flight Lieutenant—starts from the English Channel.

Squadron Leader—takes off from Scampton Airfield.

The "Squadron Leader" option requires more skill in game play.

Rolls (Screen Descriptions, Joystick, Fire Buttons)

All flight crew positions (points of view) are controlled by the player. The positions and their associated numbers are—

- 1—Pilot
- 2—Front Gunner
- 3—Tail Gunner
- 4—Bomb Aimer
- 5—Navigator
- 6—First Engineer screen
- 7—Second Engineer screen (in Squadron Leader option)
- 8—Status and damage report

To select a position, press the appropriate number on the keyboard.

When a specific position is in trouble or needs attention, the corresponding number will flash at the bottom of the screen.

Pilot

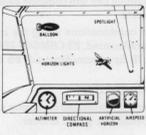
The pilot screen is used to control the direction of the aircraft: left, right, up, down. The joystick control behaves like a real Lancaster. When you pull back the aircraft goes up, push forward the aircraft goes down, left = left, right = right.

The pilot's screen contains a view of the horizon lights, enemy barrage balloons, searchlights and ME110 night fighters. (This view also appears in the Front and Tail Gunners' screens). It also includes several instruments (see Fig. 1).

The left side of the pilot's screen contains the altimeter that measures how far the aircraft is off the ground. The altimeter shows two indicators. The smaller indicator measures 100-foot increments while the larger measures 5-foot increments (Fig. 2). When 'Intercom' blinks 1 (pilot's position) you are too low. Fly over 100 feet.

The second instrument from the left is the Directional Compass for the aircraft. This tells the pilot what direction the aircraft is heading relative to magnetic North. The small red marker that moves on the top of the compass is the direction that the navigator has selected the aircraft to fly (see NAVIGATOR).

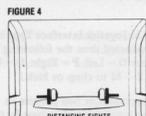
The next instrument is the Artificial Horizon Indicator (second right) which shows which direction the aircraft is turning. (This instrument is useful at night when the real horizon is not visible). The far right instrument is the Airspeed Indicator (Fig. 3). The dials are shown in the figures below.



Front Gunner

The Front Gunner controls the twin 303 calibre F.N.5 machine guns by guiding the cross hairs with the joystick, and pressing the FIRE BUTTON. The guns fire 20 rounds per second. Every fourth round fired from the guns is a tracer bullet which 'glows' as it travels away from the aircraft, so that the direction and target of fire can be determined.

If the bomb rotation switch in the Bomb Aimer screen has been turned on and the bomb has reached the specified 500 rpm, the gun cross hairs will be replaced by the bomb distancing sights (see Fig. 5). The sights are used to determine the distance from aircraft



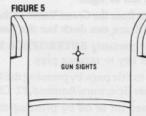
to dam. To release the bomb, the front gunner should press the FIRE BUTTON when the distancing sights are aligned with the dam towers. Align the sights with the dam by moving the joystick LEFT or RIGHT (see Fig. 5).

Tail Gunner

The Tail Gunner controls four F.N.20 303 calibre machine guns, two mounted on either side of the turret. The guns are controlled in the same way as those of the Front Gunner (see Fig. 5.)

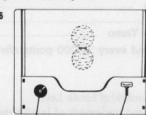
Bomb Aimer

In the Lancaster, the Bomb Aimer is also the Front Gunner. The Bomb Aimer need be accessed only on the dam approach. The instruments at the bottom of the screen are the Bomb Rotation switch (left) and the Aircraft Altitude Spotlight switch (right) (see Fig. 6). To select a switch, move the joystick LEFT or RIGHT.



Under the selected control, a black control dot will appear. Press the FIRE BUTTON on the joystick to grab control of the switch. With the fire button pressed, move the joystick UP to turn the switch on or DOWN to turn it off. Releasing the fire button releases the control of the switch.

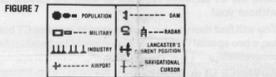
When the spotlight switch is on and the altitude is less than 100 feet (at higher altitudes the spotlights cannot be seen), use the joystick to adjust the altitude, just like the pilot's joystick control (FORWARD is less altitude, BACK is more altitude). Avoid turning on the spotlights over enemy territory because the Lancaster will become an easy target for enemy flak.



Just before the dam approach, turn on the Bomb Rotation switch. When the bomb has reached maximum rotation, the Front Gunner will no longer control the front gun, but will be looking at the distancing sights in preparation for the bomb release. Turning off the bomb rotation frees the Front Gunner to man the two 303's.

Navigator

The Navigator has the most important job of the whole mission, the responsibility of plotting the course through enemy territory to the dams. The Navigator's screen shows a map on which there are two movable objects (see Fig. 12). One shows the current aircraft position. The other shows the navigational cursor that is used to set the compass heading. The joystick controls where the navigational cursor goes on the current map. There are six maps comprising most of Northern Europe, each selected by moving the cursor toward a map edge. As the map boundary is reached, the next map, if there is one, will be displayed. Press the FIRE BUTTON to switch between the map showing your current location and the map showing your destination. As you move the cursor around the screen, the heading of the compass at the top of the screen will change. This new heading will be reflected in the pilot's screen and indicated by the red directional marker on the top of the pilot's compass. Thus if the cursor is directly above the position of the aircraft, the navigator's compass heading will read N (north). The pilot then should bank (turn) until the aircraft direction compass is aligned to the red marker which will also be N (north).



The maps of Europe contain different coloured symbols representing the location and types of landmarks (see Fig. 7). The symbols are classified as follows:

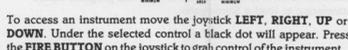
- Green circles—military installations
- Red aircraft—military airport
- Violet diamonds—population centres
- Blue smoke stacks—industrial complexes

The size of the symbol is an indication of the concentration and magnitude of the installation. The novice should look over these maps carefully before choosing a course to fly.

Engineer

The engineer controls one or two screens, depending on whether Flight Lieutenant option (Squadron Leader option) or Squadron Leader option (two screens) has been chosen. The first screen (Fig. 8) is associated with the control of the engines. It is the same for both options. The second screen (for Squadron Leader option only) is associated with take off and controlling trim on the bomber.

The first screen contains four throttles (bottom left), four booster controls (bottom right), and four engine fire extinguishers (top right). The booster gauges are the upper four dials. The lower four dials are the rpm gauges for the throttles. A fire in an engine is indicated by a blinking rpm gauge for that engine.



To access an instrument move the joystick LEFT, RIGHT, UP or DOWN. Under the selected control a black dot will appear. Press the FIRE BUTTON on the joystick to grab control of the instrument. With the fire button pressed, move the joystick UP or DOWN depending on what you want to do. Releasing the fire button releases the control of the instrument. The four throttles may be controlled simultaneously, as may the four boosters. To do this select the position between the second, the third throttles or boosters and press the FIRE BUTTON as before.

The upper right section of the screen controls the fire extinguisher for each engine. Each fire extinguisher may be used only once, so be careful using them. Press the FIRE BUTTON and move the joystick DOWN to extinguish an engine fire. This action permanently disables the engine.

The throttles control the rpm on a specific engine much like an accelerator pedal on a car. The boosters control the pitch of the propeller blades in relation to the airstream near the propeller. Thus a larger pitch takes a larger bit of air. Setting a booster is similar to selecting a gear in a transmission. Thus the speed of the aircraft can be set by any combination of booster/throttle settings. The fastest airspeed is achieved by a combination of boost (high gear) and maximum throttle (pedal to the floor).

Damaged engines can be a result of 'revving' the engines too high and using the throttle without adjusting the appropriate booster (putting it in gear). Too much boost with low throttle setting will result in inefficient engines and low power, reducing the airspeed. If the boosters are set higher than the throttles, too much force is required from the engines and the rpm's will drop. Conversely, if the boosters are set lower, the engine are free to rotate and will spin out of control. They will eventually over-rev and burn out. An engine is over-revving if the rpm needle is in the red zone of the dial. It will flash. Reduce the throttles immediately. If the throttles will not reduce, it is too late—the engine was caught fire. Use the fire extinguisher. Thus individual gauge should be watched when increasing/decreasing the booster and throttle (see Fig. 9 and Fig. 10).

The Second Engineer's screen (see Fig. 11), which is only displayed for the Squadron Leader option, show the flap control with indicator (bottom centre), landing gear (bottom right), and rudder trim (bottom left). These instruments are controlled in a similar manner to the First Engineer's screen. The flap switch will turn on/off the flaps. The flaps are retractable extensions of the wing of the Lancaster, thus when the flaps are down, the wing area is larger and as a result the lift of the wing is increased.



The landing gear control activates the hydraulic motor control that lifts the gear.

The rudder trim adjusts the direction of the aircraft to the left or right. Moving the stick UP introduces a small positive yaw in the aircraft, guiding it slightly to the right. Moving the stick DOWN introduces a negative yaw that turns the aircraft to the left.

Status and Damage

This screen provides you with status information on how many flak hits, ME110 night fighters, searchlights, and barrage balloons you have been attacked by and how many you have destroyed.

The searchlight counter counts how many searchlights found your Lancaster.

Also provided is information about damage to various parts of the Lancaster—the four engines, altitude spotlights and the trim. Being hit by flak or getting caught in the spotlight and drawing enemy anti-aircraft fire can jam the trim, break the altitude spotlights, or cause engine damage. Your engines may be damaged by night fighters. They may also kill one of your gunners, or the pilot. Unextinguished engine fires may spread to adjacent engines and to the rest of the Lancaster.

When you have been killed, the status and damage report will be displayed.

Playing a Game

Press the FIRE BUTTON to leave any title screen, the dam scene after dropping the bomb, or the status screen after being killed. Pressing the RUN/STOP and RESTORE keys simultaneously will return you to the title screens.

Level Selection

The level of play is an indication of how difficult a game you want. There are three levels of difficulty.

- 1—Practice Dam Approach
- 2—Flight Lieutenant
- 3—Squadron Leader

To choose a level, press the number on the keyboard associated with the selected option.

Practice Dam Approach Option

This option allows you to try the dam approach without worrying about ME110's, flak searchlights, or barrage balloons.

Flight Lieutenant Option

The Flight Lieutenant Option is to choose to start over the English Channel.

Squadron Leader Option

In order to take off, set the flaps down, and give the engines full throttles and about half boost. Select the pilot screen and wait for the airspeed to build up.

You will be able to pull up the nose of the Lancaster once the take-off speed is reached. (Airspeed indicator will point straight up). Retract the landing gear and the flaps to increase airspeed. It is important that the throttles and boosters are lowered as soon as possible after take-off so as not to over-rev the engines. Pull back slowly on the joystick to start increasing altitude, and you're off.

For Flight Lieutenant and Squadron Leader Options

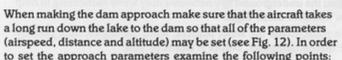
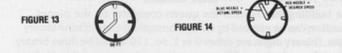
When flying over enemy territory at night there are a number of considerations—

- If you fly at an altitude over 1,000 feet you will give the night fighter radar something to lock onto. If you fly under 100 feet you risk hitting an object on the ground. The pilot's number will start to flash in the status screen if you start to fly too low.
- Searchlights may be knocked out by firing at the base of the light on the ground.
- ME110 attacks may be avoided by either trying to shoot it down or by performing a 'corkscrew' in an attempt to out-maneuvre the fighter.

Dam Approach

Three parameters must be set exactly during the approach for the bomb to skip properly over the water (see Fig. 12).

- Speed—must be 232 mph
- Altitude—must be exactly 60 feet
- Distance—must be exactly 800 yards from the dam (indicated by distancing sights)



When making the dam approach make sure that the aircraft takes a long run down the lake to the dam so that all of the parameters (air speed, distance and altitude) may be set (see Fig. 12). In order to set the approach parameters examine the following points:

- SPEED—Set the speed by adjusting the throttles. When the blue airspeed indicator hides the red needle, then your airspeed is correct. The red needle only appears when the bomb rotation switch is ON (see Fig. 14).
- ALTITUDE—Make sure you are over the lake before reducing your altitude under 100 feet. Bring the aircraft down and fly level. Select the bomb aimer screen. Turn on the bomb rotation and the aircraft altitude spotlights. Adjust the aircraft's altitude so the spotlights converge and are just touching. The aircraft is now at exactly 60 feet (see Figs. 6 and 13).
- DISTANCE—When you are heading directly at the dam going down the lake, the dam should appear on the horizon. Use the pilot screen to gently adjust the direction of the aircraft so the dam is near the centre of the screen. Then using the Front Gunner distancing sights (see Fig. 4), wait for the exact moment that the dam towers align with the distancing sights. When they align, push the bomb release (the FIRE BUTTON).

It is useful to keep checking the parameters (altitude, speed, distance) after they are set because of drift and error in the setting.

Results of Bomb Release

If the bomb is not released under the proper conditions, one of two things can happen.

Coming in too fast, too low, or releasing the bomb too late will cause the bomb to hit the crest of the dam and skip into the valley beyond the dam.

Coming in too slow, too high, or releasing the bomb too soon will result in the bomb dropping short of the dam causing a harmless explosion in the water in front of the dam.

If the release of the bomb is within the acceptable limits described by Barnes Wallis, the bomb will skip across the water above the torpedo nets, hit the crest of the dam and sink to the prescribed depth of 300 feet, igniting the hydrostatic pistols which will detonate the bomb, destroying the dam (see Fig. 15).



You can still reach bombing speed on 3 engines. However, this requires care, since they must be over-revved. Set the throttles to maximum near the end of your run to get enough speed. After about 10 seconds the over-revved engine(s) will catch fire, but can still power the Lancaster. However, you must drop the bomb before your Lancaster catches fire.

Ground installations such as searchlights and flak guns can be dodged by banking hard left or right. Other objects such as barrage balloons can be shot out using the front machine guns. If barrage balloons get too close you will get caught by the cable and crash. Always re-check your heading and position if you try to dodge night fighters or searchlights. It is possible for searchlights to be shot out of action.

For All Options

The key to playing the game is to keep switching between views that are useful at the time. For example over enemy territory flip back and forth between the front and rear gunner and now and then examine the pilot and navigator to make sure you are on course. Remember to examine the map before things get hot over enemy territory and plot a path that will keep you as far away from enemy installations as possible. Keep track of where you are on the map at all times.

Always keep checking the Front and Tail Gunner screens for fighters as sometimes there is little warning of their attack. Always answer a flak gunner.

There are two ways of trying to deal with night fighters. Firing at them and dodging them. Using the machine guns, fire a spray of bullets moving left and right as soon as you see a night fighter. Keep firing until it explodes, then stop and look for more. You can dodge night fighters by using a 'corkscrew' manoeuvre. The 'corkscrew' is a standard Lancaster manoeuvre that traces a horizontal corkscrew through the air. It is performed by diving left, pulling up, climbing, then diving from the right to the left. However, if you don't kill the night fighter, he will attack you again, until he runs out of fuel and leaves. If you miss too many, your gunners will be killed.

In order to fly straight after extinguishing a fire, decrease a throttle on the opposite side of the Lancaster (i.e. turn off engine 1, reduce throttles on 3 and/or 4), or adjust the trim (Squadron Leader Option only). Setting the trim to the highest position will compensate for losing both engines 1 and 2.

Notes for Use with Spectrum 48/128K

There are some changes to the instructions for the Spectrum version and additional enhancements to increase your enjoyment of this superb simulation. Please read these notes carefully.

Loading

Attach a suitable cassette player type LOAD™ and press ENTER. Press PLAY on the cassette and the program will load and run automatically.

OPTIONS: Options are available to change the skill level, the readout mode and the starting mode of the game.

The skill level can be altered by pressing L. Three skill levels are available: Easy, Fair and Hard. These alter the skill level by adjusting the amount of enemy activity.

The readout mode can be altered by pressing R. The readout from instruments can be digital or analogue depending on the preference of the player.

Three starting modes are available: a Practice mode, an In-Flight mode and a Take-Off mode.

Roles:

All flight crew (points of view) are controlled by the player. The positions and their associated keys are:

- Q—Pilot
- W—Front
- E—Tail Gunner
- R—Bomb Aimer
- Y—First Engineer Screen
- U—Second Engineer Screen
- I—Status, Damage Report and Score

To select a position, press the appropriate letter on the keyboard. When a specific position is in trouble or needs attention, the corresponding letter will flash at the bottom of the screen.

Fire Extinguishers

Press FIRE BUTTON and move joystick UP to extinguish the fire.

Digital Display:

When using digital display a figure for revs over 9,600 means that the engine is over-revving.

Pause:

To halt action press H.

Abort:

Pressing CAPS SHIFT and SPACE during the game will return you to the menu.

Level Selection:

Three starting modes are available from the menu.

Practice Mode:

This allows you to practice the dam approach with little enemy activity.

In-Flight Mode:

This places you over the English Channel and so eliminates the need for take-off.

Take-Off Mode:

This option places you on the runway at Scampton Airfield.

Dam Approach:

Speed: Set the speed by adjusting the throttles. When the airspeed indicator needle is at approximately 2 o'clock the airspeed is at 232 mph.

Altitude:

Make sure you are over the lake before reducing your altitude under 100 feet. Bring the aircraft down and fly level. Select the bomb aimer screen. Turn on the bomb rotation and the aircraft altitude spotlights. Adjust the aircraft's altitude so that the spotlights converge and remain so (NOT a figure of eight as shown in diagram). The aircraft is now at exactly 60 feet (see Figs. 6 and 13).

Spectrum 48/128K Final Briefing

Vital Information for Your Operation

Addition scoring facilities are as follows: Spotlights—200; Barrage Balloons—300; Enemy Planes—500.

On Dam approach the bonuses are as follows:

- For dropping the bomb at the correct height—2,000
- For dropping the bomb at the correct distance—4,000
- For dropping the bomb at the correct speed—4,000

CBM 64/128 Cassette

To load the cassette version, turn off all hardware and remove any cartridges from the computer. Insert the re-wound cassette into the player. Hold the SHIFT key down then press the RUN/STOP key then release both keys and press PLAY on the cassette unit.

When the computer finds the game press the COMMODORE key.

Amstrad CPC Cassette

Loading

Press CTRL and small ENTER key.

Selection Levels indicated on screen are:

- 1—Practice Dam Approach
- 2—English Channel
- 3—Scampton Field

Keys: Cursor keys can be used as joystick in addition—

- H—Pause; ENTER—Release Pause; ESC—Abort Game
- At take-off (Scampton Field option) airspeed indicator will be at 10 o'clock.

Designed by Sydney Development Corporation.

BEACH-HEAD II

The Dictator Strikes Back!

July, 1947

BEACH-HEAD II is a true "Head-to-Head", two player multisequence game that allows you to play against another person or the computer. You can choose to play either of the following characters:

Player 1: The Allied Commander (J.P. Stryker)

PROFILE: Youngest man ever to reach rank of Chief Commander. Fought courageously during World War II and was awarded the Medal of Honour for heroism. Quickly rose through the ranks during the war and gained respect and admiration from his colleagues for his integrity and leadership abilities.

Player 2: The Dictator (known as "The Dragon")

PROFILE: Evil, bloodthirsty, power crazed maniac. Fought savagely against the allies during World War I in the Pacific, disappeared and formed his own renegade army during the war. "The Dragon" demands (and gets) blind obedience from his followers who worship him as a demigod. He is a brilliant military tactician who has been trapped and outnumbered in battle many times, but has managed to turn the tables on his opponents through cunning and ruthlessness. His current objective is to obliterate the forces that gave his army a stinging defeat and destroyed his fortress.

Sequence I "Attack" Overview:

Allied forces have moved inland by helicopter and are ready to begin their assault against "The Dragon's" sanctuary to rescue men captured during previous battles. The full weight of the Dictator's arsenal will come to bear on Allied troops in a war of attrition.

Allied Controls in Sequence I

The Allies control the helicopter in the background as the scene starts. The controls of the helicopter are as follows:

PUSHING THE JOYSTICK LEFT OR RIGHT will move the helicopter left or right.

PUSHING THE JOYSTICK FORWARD will increase the height of the helicopter.

PUSHING THE JOYSTICK BACK will decrease the height of the helicopter.

PUSHING THE FIRE BUTTON will release the paratroopers to begin their assault.

If the helicopter is too low the parachutes will not have enough time to open, so killing the paratroopers.

After the paratroopers have landed they will advance to that first wall.

The helicopter cannot move towards you and cannot be hit by the machine gun, but the airborne paratroopers can be hit.

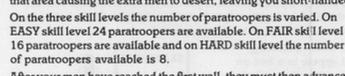
Make sure when dropping paratroopers that you distribute them as evenly as possible (a maximum of six behind each section of the first wall). Placing more than six behind any wall will overcrowd that area causing the extra men to desert, leaving you short-handed.

On the three skill levels the number of paratroopers is varied. On EASY skill level 24 paratroopers are available. On FAIR skill level 16 paratroopers are available and on HARD skill level the number of paratroopers available is 8.

After your men have reached the first wall, they must then advance to the second wall. The control sequence is as follows:

- a) Press the FIRE BUTTON to stage your men.
- b) Move the joystick LEFT or RIGHT to advance them to the second wall.

The white indicator light determines which wall they will be taken from (Refer to Figure 1).



Indicator lights determine where men come from (green button when light is on). 1st Wall. Indicator light (select wall by pressing button). Grenade Window.

Trap Door. To use this soldier PULL BACK on the joystick. With the joystick pulled back move LEFT or RIGHT to move the trap door along the ground. When you wish to set a mine PULL BACK on the joystick and press the FIRE BUTTON. A mine will then appear and set a land mine in the hostage's path. If the trap door soldier is hit he will be replaced after a short delay.

Note:

The best strategy for the Dictator is to keep as many items on the screen as possible. This keeps the Allied gannet occupied. For example, once a tank or truck has been destroyed you should immediately deploy another. Co-ordinate your use of the trap door soldier and the soldier on the wall. The key to success is keeping the machine gun moving around and busy.

Sequence III "Escape"

Overview:

The rescue helicopter now must get the hostages off the island by running "The Dragon's" gauntlet. In addition to an automated defence system, "The Dragon" controls the tanks on screen. There are four helicopters. Each is capable of taking all or some of the prisoners out. The Dictator, however, determines which level of difficulty each helicopter will face. There are four directions in which the helicopter can travel (North, South, East and West). Each of the courses are different, some being more difficult than others.

Each course can only be flown once. For example, if you try to take out all the hostages on the first run and the Dictator selects a difficult course the chances of making it are slim. However, if you do escape you will be awarded a number of bonus points.

Dictator

The Dictator controls the course of the individual escape run and the tanks located throughout the enemy terrain. The player must be ready to move his tank into position as soon as it becomes visible on the screen. The tank must be lined up directly in front of the helicopter to destroy it. When you are properly lined up push the FIRE BUTTON to fire a shell at the helicopter. Tanks are located throughout the escape run.

Note:

It is the Dictator's advantage to prevent his opponent from seeing the course selection.

Dictator Control in Sequence I

The Dictator controls the direction of the fire (left, right, up and down). To fire the gun push the FIRE BUTTON on the joystick. When the bullets are fired you will see the tracer effect of each shot leaving the barrel. There is no limit to your supply of ammunition. Firing your machine gun slows the rate of movement of the gun. Because of this, it is better to stop firing when you need to quickly move the machine gun to another target.

Your score