

Addendum

Two features have been added to *688 Attack Sub* to make it compatible with a wider variety of equipment. One feature addresses a specific problem that occurred with certain VGA boards; the other feature is designed to help make *688 Attack Sub* compatible with a wider variety of modems. If you don't encounter problems with your VGA board or your modem, you don't need to worry about the following features.

Screen Blacking Out With Some VGA Boards

The game is designed to shake the screen when your submarine takes damage. In VGA, the screen also turns dark red for a moment to simulate the emergency lighting aboard your submarine. Some VGA boards don't handle the color change properly — the screen turns black (or some other dark color) but doesn't return to its normal palette after the torpedo blast. If this problem occurs with your VGA board, quit the game and reboot. Press **Ctrl-D** while the game is running so the color palette doesn't change to dark red when your submarine takes damage. (The "shake" effect, however, will still occur.)

You must press **Ctrl-D** everytime you start *688* to disable the color change. If you want to avoid having to do this everytime you play the game (and get the full effect of a torpedo blast on your submarine), contact the manufacturer of your VGA board and find out if a BIOS chip upgrade exists for your card. Several companies offer these to make their cards more compatible with the VGA standard.

Modem Command File For Modems That Aren't Hayes® -Compatible

If you aren't playing *688 Attack Sub* over a modem or you haven't encountered problems while using your modem, ignore the following instructions. If you encounter problems while using your modem, first consult the modem section in the *688 User Manual* (pp. 30-33). If the trouble-shooting hints in the *User Manual* don't help, read on.

You might encounter one or more of the following problems while playing over a modem:

- a) **Your modem won't dial out.** You don't hear any tones, clicks, or pulses through the modem's speaker as the modem dials your opponent's number.
- b) **Your modem dials but won't connect with your opponent's modem.** You consistently receive a 'Failure to Communicate' message.
- c) **Your modem dials and connects with your opponent's modem only for a short time.** You consistently receive a 'Failure to Communicate' message shortly after connecting with your opponent's modem.

Before you do anything else, turn your modem off and back on again. If your modem was in use before you started playing 688, it may be improperly configured for the game — turning it off resets the modem to its default configuration. Run through the normal procedures for playing by modem as outlined in your manual.

If turning your modem off and on doesn't fix the problem, you may be able to get your modems to connect by editing the initialization file. The initialization file (MODEM.688) is a short text file sent to your modem before dialing or answering. It's a series of commands that configure your modem so it can communicate with your opponent's modem. The default initialization file we provide is for Hayes-compatible modems with their dip switches set to the factory defaults. If you view it using a word processor or the TYPE command, MODEM.688 looks like this:

```
ATV1E0X3
!
```

Each command in the file instructs the modem to do something:

- AT A command prefix that gets the attention of the modem.
- V1 Tells the modem to use words for its messages, not numbers. 688 recognizes the words the modem sends to it.
- E0 Tells the modem not to echo commands sent to it. This can confuse some modems.
- X3 Tells the modem which set of modem messages to use. X3 sets the modem so it recognizes a busy tone, dials without listening for a dial tone, etc.
- ! Marks the end of the initialization commands. This command must be on a separate line (i.e., follow a return).

The whole initialization file cannot be longer than 33 characters (bytes) long. If the file is longer or contains some error (for instance, if ! doesn't appear to mark the end of the file), 688 uses the default string above. There are two approaches you can use to get your modems to connect: manual dialing and automated dialing.

Editing MODEM.688 for manual dialing

With this method, *you* call your opponent (instead of having the computer dial) and tell your modems when you want them to start a game.

1. Call your opponent and decide who will *originate* and who will *answer*.
2. Rename MODEM.688 (i.e., MODEM.BAK). This way you keep a copy of the original.

3. Create a new file named MODEM.688.
4. Enter the following commands in the MODEM.688 file using any word processing program or the COPY CON command from DOS. (If you use a word processing program, be sure to save this as an ASCII file.) The new commands for the originator and the answerer are different:

Originator: ATD
 |

Answerer: ATA
 |

5. Once you've edited MODEM.688, boot 688 as you normally would. Go to the Configuration Panel.
6. If you're the originator, leave the numbers blank under SET TELEPHONE NUMBER and select ORIGINATE. If you're the answerer, select MANUAL ANSWER. Time it so that both of you select these options at the same time. When the modems connect and the computers are communicating, hang up your phone.

Editing MODEM.688 for automated dialing

If you want 688 to dial your phone calls for you, try editing the original MODEM.688 file in one of the following ways:

- Reset your modem to the factory settings. Delete the commands in MODEM.688 and type in the following:

ATZ
|

- Check your modem manual for equivalents to the V, E, and X commands listed above. These commands may not be supported by your modem.
- Try using X1 or X2 instead of X3. Some modems claim to support X3 but really only work with X1.
- Add other commands to the file. T or P can set your modem for tone or pulse dialing, respectively. For example, the extra T in this command instructs your modem to tone dial:

ATTV1EØX3
|

- Some modems only accept one command at a time (as opposed to several in one line). For example, MODEM.688 could be changed to look like this:

```
ATV1
ATE0
ATX3
;
```

Additional Notes to the User Manual

Command Line Parameters — Normally you start the game by typing 688, pressing Enter, and specifying the monitor and sound adapter at the appropriate prompts. You can bypass the monitor and sound adapter prompts by typing:

688 [*graphics adapter number*][*sound adapter number*]

For example, if your computer has EGA and an internal speaker, you'd type 688 10.

Turning Off All Sound Effects — To turn off all sound effects, press Ctrl-Q. Repeat to turn all sound effects back on.

Top-Down Map — You *can* keep the periscope up and switch to the Top-Down map. Leave the periscope up and select T from the map display controls. This is extremely helpful in scenarios with a lot of surface ships, and absolutely necessary in Hit and Run (see p.27).

The diamonds that appear on the Top-Down Map are the projected positions of your submarine and the currently selected target. A light diamond shows you what your location will be *if* you maintain your present speed and course. A dark marker pinpoints the projected position of the currently selected target. (In EGA, VGA, MCGA, and Tandy, the light marker is yellow and the dark marker is red.) Note that the diamonds appear only when Plot Projection is activated. See p.43 for more on Plot Projection.

Performance Issues — The speed of your machine determines the number of torpedoes you can have in the water. Unfortunately, slower-running machines may be limited to only two torpedoes.

Thermal Layers and the HUD — The longest line on the HUD's vertical gauge represents a thermal layer. There are multiple thermal layers in the water at all times, but the one indicated on the HUD is only the one most recently crossed. For a full discussion of thermal layers, see *The Ocean Environment*, pg. 54-56.