There is another way to save an ATARI character to the alternate set. First, place the cursor on the ATARI character and press T (stands for transfer). The character will be saved directly to the alternate set. If it was the fourth ATARI character, it will also be the fourth character in the alternate set. The T command is particularly useful if you want to transfer several ATARI characters. For example, suppose you want to put the numbers 0 to 9 into your alternate set. Place the cursor on the ATARI zero and press T ten times. Each time you press T, a character will be transferred and the cursor will move to the next ATARI character.

Depending on the mode, the alternate characters can take on different colors or be inverted (the 'on' points will be shown off and the 'off' points will be on). To see the available colors or the inverted mode, press C. Pressing C again will either return the alternate set from the inverted mode, or change it to another color. Pressing C four times will cycle the alternate set through all possible colors.

In text modes 1 and 2 there are 64 possible characters. Text modes 0, 12, and 13 have 128 characters. The storage space for the last 32 of these 128 characters, however, conflicts with the space used for missiles. So if you use the last 32 characters, you cannot use the four missiles.

When you finish designing the alternate set, press D (stands for done), and you will return to the screen display you are designing. Later, if you want to modify the alternate set, type A and all the characters you designed will be there. Make your changes and type D again.

Special information for modes 12 and 13

Modes 12 and 13 are somewhat different from modes 0, 1, and 2. As you know, mode 0 characters are eight points wide. Mode 12 and 13 characters are only four points wide; but because each point is twice as wide as in mode 0, the characters are the same width. Moreover, mode 12 characters are the same height as mode 0, while mode 13 characters are twice as high.

For mode 1 and 2 characters, all the 'on' points have the same color and the 'off' points another color; thus for a given character on the screen, only two colors are possible. In modes 12 and 13, however, a character can be composed of one to four colors. This is because each point is made up of two positions in the 8x8 grid. The color of a point is determined by what is in both positions. If both are off, the color is specified by color register 4. If the first is off and the second on, the color is specified by color register 0. If the first is on and the second off, the color is specified by color register 1. If both positions are on, the color is specified by color register 2.

Consider the following row of a character in mode 12 or 13. X stands for 'on' and O for 'off': XOXXOOOX. The first point has 'on-off' and has the color of color register 1. The second point has 'on-on' and the color of color register 2. The third point has 'off-off' and the color of color register 4. The fourth point has 'off-on' and the color of color register 0.

Special note: You have one more option in working with modes 12 and 13. If you add 128 to the number in the COLOR command, you will get the same character, but any point with 'on-on' will use color register 3 instead of register 2.