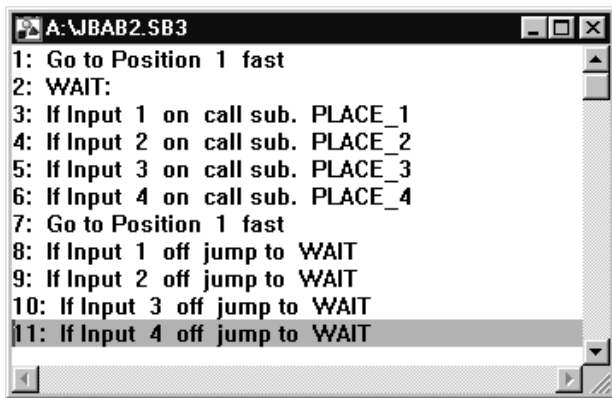


## STEP 3

### Do this *continued*



```
A:\JBAB2.SB3
1: Go to Position 1 fast
2: WAIT:
3: If Input 1 on call sub. PLACE_1
4: If Input 2 on call sub. PLACE_2
5: If Input 3 on call sub. PLACE_3
6: If Input 4 on call sub. PLACE_4
7: Go to Position 1 fast
8: If Input 1 off jump to WAIT
9: If Input 2 off jump to WAIT
10: If Input 3 off jump to WAIT
11: If Input 4 off jump to WAIT
```

Figure 10-3

List window (Figure 4-4), and type “1” in the Go To Position window (Figure 4-5). We do this so the robot will return to the home position (Position 1) while waiting for another block to be placed in the parts feeder. The first 11 lines of your program should look like **Figure 10-3**.

Enter “1” in the Input Number field, type “WAIT” in the Jump to Label field, and click OK. This command tells the robot that if Input 1 is off, to jump up to the WAIT label (which, because it’s near the top of the program) continues to create a loop.

Do the same things for Inputs 2, 3, and 4, being sure the Off radio button is clicked.

Finally, click Line 7, double-click the GP GoToPosition# Speed command from the Command

The program is done! Save it!

Now it’s time to make sure it runs as expected. Go on to the next step.

## STEP 4

### Do this

Now that the program is written, teach the 11 positions needed to complete the task. Refer back to page 57 if necessary.

When all 11 positions have been taught, save the program and go on to Step 5.

## STEP 5

### Do this

Because of the complexity of this program, you should run it line-by-line for two reasons:

1. to help troubleshoot any problematic code
2. to fully understand how subroutines work

One thing you should notice is that when the program returns from a subroutine, it goes back to the place where that subroutine was called (the next line of code in the program). For example, when subroutine “PLACE\_1” is called, it goes through subroutine “PLACE\_1.” When it gets to the return from subroutine line, the program jumps to Line 4, the next line in the main program.

Place the four blocks, in order (1 being first), in the parts feeder.

Be sure the first line of code is highlighted, and click the Run Single Line icon (Figure 4-9).