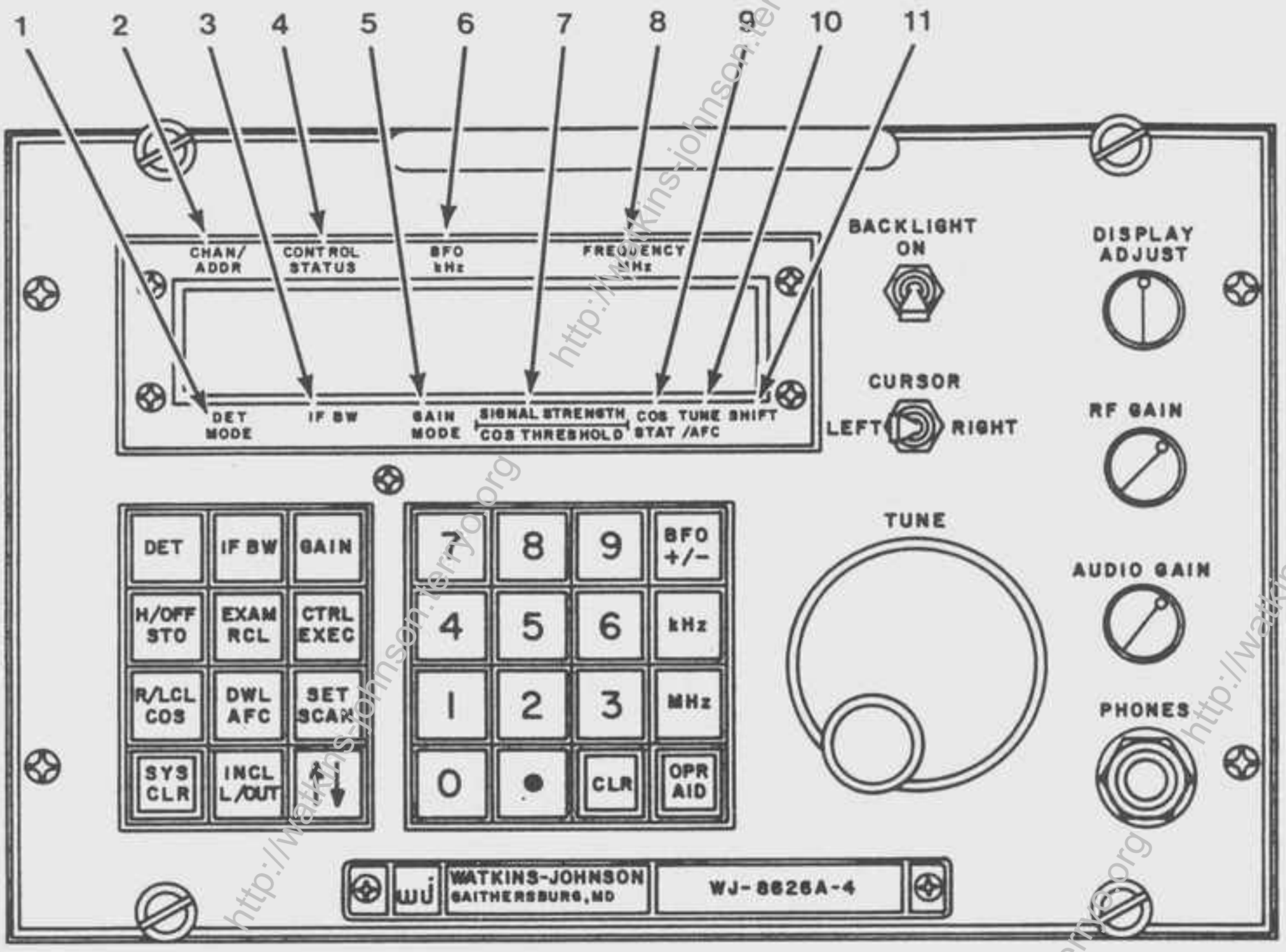

1. DET MODE (Detection Mode)
2. CHAN/ADDR (Channel/Address)
3. IF BW (IF Bandwidth)
4. CONTROL STATUS
5. GAIN MODE
6. BFO Offset
7. SIGNAL STRENGTH/COS THRESHOLD
8. FREQUENCY (MHz), Receiver Tuned Frequency)
9. COS STAT (COS Status)
10. TUNE/AFC (AFC Tuning Indicator)
11. SHIFT (upper/lower case functions)

Figure 2-4. LCD Parameter Display Locations

2.4.2.3 Front Panel Display

Refer to **Figure 2-4** to locate the display areas described in the following paragraphs.

2.4.2.3.1 **DET MODE Display**

This area displays the selected detection mode for the receiver.

2.4.2.3.2 **CHAN/ADDR Display**

This area displays the channel number of the memory channel being accessed by the receiver.

2.4.2.3.3 **IF BW Display**

This area displays the selected IF bandwidth for the receiver.

2.4.2.3.4 **CONTROL STATUS Display**

This area displays which one of the control modes the front panel is currently executing.

2.4.2.3.5 **GAIN MODE Display**

This area displays the gain mode the receiver is currently operating under. The three gain modes are: FST, SLO, and MAN.

2.4.2.3.6 **BFO (kHz) Display**

If the receiver is in CW mode, this area displays the BFO offset frequency in kHz currently selected.

2.4.2.3.7 **SIGNAL STRENGTH/COS THRESHOLD Display**

This is a dual purpose display area. It gives a graphic comparison of relative signal strength vs. COS (carrier operated squelch) threshold. The upper bar shows signal strength. The length of the bar increases from left to right as signal strength increases. The lower bar shows COS threshold. The length of the bar corresponds to the magnitude of COS threshold entered. A COS of 0 is shown as no bar length (bar completely collapsed at the left). A COS of 63 is shown by maximum bar length. The COS threshold is exceeded when the signal strength bar exceeds the length of the COS bar.

The numeric value of the COS threshold will appear in place of the bars when the COS key is pressed with no previous data entry.

2.4.2.3.8 FREQUENCY (MHz) Display

If no numeric data is entered, this area shows the tuned frequency of the receiver in MHz. When numeric keys are pressed, the frequency information is erased and the data is entered calculator style in the frequency area. Data entry is identified by the flashing arrow symbol in the upper right corner of the display.

2.4.2.3.9 COS STAT Display

This area displays a star (*) when the received signal strength exceeds the COS (carrier operated squelch) threshold.

2.4.2.3.10 TUNE/AFC Display

This area serves as a visual tuning indicator for the receiver. When the receiver is exactly tuned on a signal, the tuning indicator is displayed as a vertical bar. Mistuning of the receiver is displayed as a right or left deflection of the tuning indicator. On receivers equipped with AFC, this indicator is replaced by the letter "A" when AFC is selected. The correct tuning is then handled by the digital AFC circuitry.

2.4.2.3.11 SHIFT Display

This area displays an upward pointing arrow when upper case key functions with white lettering have been selected, and displays a downward pointing arrow when lower case key functions with black lettering have been selected. Single-color labels positioned in the center of the 'key' buttons are active in either upper or lower case.

2.4.3 LOCAL OPERATING PROCEDURES

The following paragraphs are a detailed description of the techniques required to correctly operate the receiver. The local operating procedures are provided in four separate units: Initializing, Local Mode, Memory Functions and Scanning. The operator should first become familiar with the functions of the controls and indicators **(paragraph 2.4.2)** before proceeding.

The mode currently in use by the receiver is indicated in the CONTROL STATUS area of the display **(paragraph 2.4.5)**. The CONTROL STATUS indications are briefly explained as follows:

a. EXEC

The EXEC (EXECute) mode directly controls the status of the receiver section of the WJ-8626A-4. All keys are enabled. Any activated key which alters receiver parameters causes this information to be immediately transferred to the receiver.

b. RCLm

The RCLm (Recall memory) mode displays the contents of the selected memory channel 1 to 99 without causing a change to the receiver section. Any change made to a parameter during RCLm mode changes only the LCD, and is not immediately restored in memory. The display status changes to MODm (MODified memory), prompting the operator to use the STO key (**paragraph 2.4.2.2.15**) if the changes are desired.

c. SCANNING

The SCAN key is used to activate the SCAN MODE. In this mode, SCANNING is displayed in the control status area and the selected channels are successively executed by the receiver and tested for a signal presence above the selected COS threshold. When a signal is found above threshold, the complete status of that channel is displayed and the dwell time begins.

d. RMT

In the RMT (Remote) mode, all receiver operations are under the control of an external device. All front panel keys (except R/LCL) are locked out. Pressing the R/LCL switch changes the Control Status to EXEC.

2.4.3.1 Initializing the Receiver

Whenever power is applied to the WJ-8626A-4, an initialization sequence is performed. Depending upon the hardware and software options installed, and the associated WJ-9040 System components connected to the WJ-8626A-4, some initialization steps may or may not be executed. In all cases, the following tests and commands are performed.

1. The I/O interface is initialized and enabled for communication with an external controller.

2. The main 4 kilobytes of RAM used by the microprocessor are write/read tested. Any error found is displayed.

3. All IF Bandwidth modules are identified for display and SSB offset purposes. The presence of certain receiver options is also checked.

4. The previous tuning status (frequency, detection mode, etc., retained in battery-backed memory) is sent to the receiver.

5. The previous front panel CONTROL STATUS, also retained by the battery, is enabled. The receiver's operating mode is now either RMT or EXEC, and the initialization is finished.