



FIRE® Feed Intake Recording Equipment

Antenna Tuning Procedure

Antenna Tuning

Please read this procedure with user manual.

Under some circumstances (such as antenna replacement), the antenna will require tuning to optimize the ID capabilities. To tune the antenna, proceed to the 'AA' (antenna adjust) menu in the 'HF' menu. When the button is pressed long at 'AA', the antenna adjust procedure is initiated.

Optimizing the antenna tuning is accomplished one of two ways -- watching the display or the appropriate antenna LED.

2.7.6.1 Display

The display will initially show a numeric value indicating a relative antenna signal. Turn the capacitor either clockwise or counter-clockwise until the value on the display reaches a maximum. When the maximum value is achieved, the antenna will be tuned and the button may now be pressed long to enter. Exit the menu to normal operation by pressing and holding the button (exit press). Refer to figure 4.

2.7.6.2 Antenna LED Operation

An alternative to the display is to watch the LED for the appropriate antenna (RF1 for FIRE). Turn the capacitor (C – Figure 56) one direction or the other. If the LED is on, continue turning in the same direction. When the LED goes off, reverse the direction of the capacitor. The LED should now turn back on indicating the correct direction. Continue reversing the capacitor turning direction until the optimum tuning is achieved. Press the button long to enter. Exit the antenna adjust menu to normal operation by pressing and holding the button (exit press).

2.7.6.3 Acceptable Reading Range

The FIRE Feeder should have a minimum antenna reading range of 20 -24 cm (8 - 10") -- approximately halfway across the trough. If the range is less than the minimum, try optimizing the antenna tuning. If unable to achieve greater range, check antenna connections or replace the antenna and/or the electronics hardware.

2.7 Output Configuration

Proper operation of the station requires the electronics hardware to know what is connected - mainly in the case of the dispenser. To set the board for the dispenser, proceed to the 'oc' menu option and press the button long. The board will now test each output and operate the device connected. The display will show the output number (1 in the case of the dispenser) followed initially by a dash (-), then the type of device connected (n - normally connected motor, i - inverse connected motor, or r - relay connection). The FIRE Feeder should return a 1i for the dispenser. When complete, the station will return to normal operation.

Following the output configuration, the motor brake jumper needs to be set for the brake on port 1. This allows the board to stop the dispenser immediately after turning it off. If the brake is set to off, no damage will be done, but the motor will continue to spin for a short time before stopping.

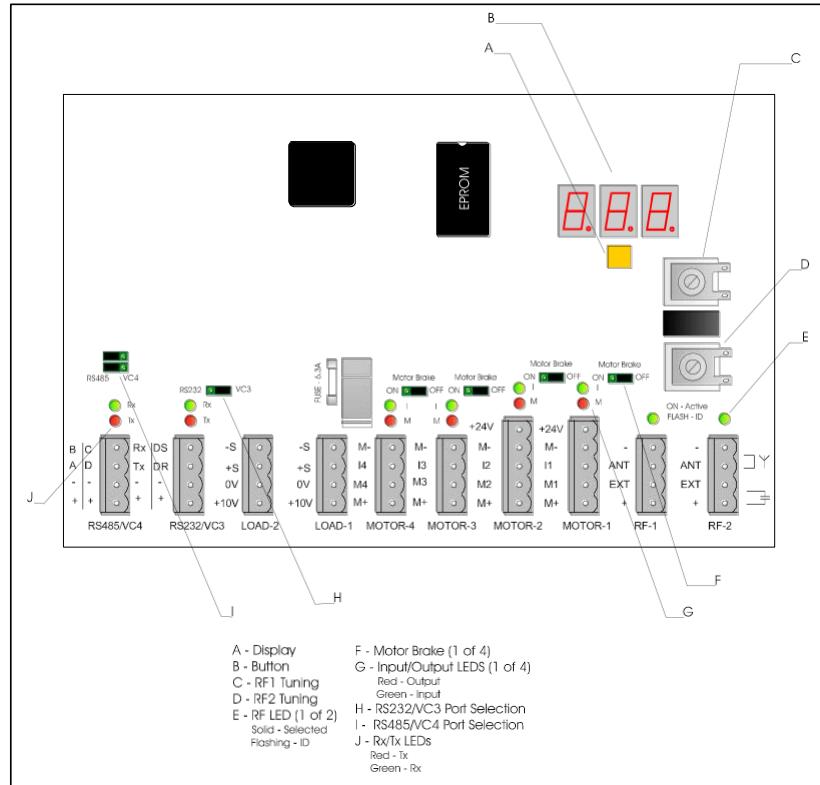


Figure 1. FIRE Feeder IFC components