

Description of operation: CB550, CB511

The microprocessor controlled callbox is a self contained, low transmit power unit with integral lifetime battery (estimated lifetime is 7-10 years under normal use). It is installed in a nonconductive plastic enclosure with customer specific graphic overlays.

When a SET button is pressed, the μ P (which is in “sleep” mode with the oscillator stopped) starts up, reads the button press, then transmits the approximate 20 bit word, repeated 20 times (about 2.5 seconds of transmit time). One led will blink for the duration of the transmission. The μ P then resumes the “sleep” mode. The word coding consists of 8 “address” bit as a system address, 8 “ID” bits as a point or channel ID, and 4 “Status” bits to indicate low battery, etc (presently not all bits are used).

If multiple set buttons are pressed the unit will transmit a separate set message for each button.

Programming is done via the front panel buttons as described in the installation instructions.

Modes may be changed during the programming process.

The charge pump is turned on before a transmission to keep the output of the transmitter more nearly constant over the lifetime of the battery. The charge pump supplies a constant output voltage over a wide range of input voltages.

The units operate at a nominal frequency of 303.825 MHz using an RFM TX5003 hybrid transmitter module, and a permanently attached wire antenna.