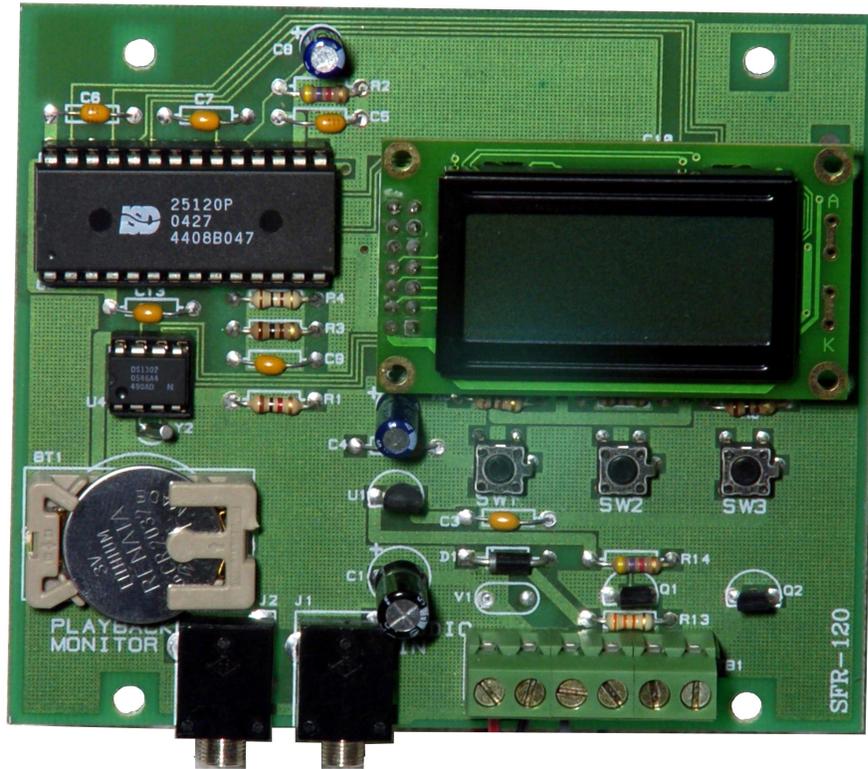


FLEXCODER

Diagnostic Tool for Stealth-Flex Fence Protection System



The Flexcoder is a diagnostic tool for use with the analyzer (AN-100) of the Stealth-Flex fence protection system. It records signals coming from the Stealth-Flex cable before, during and after an alarm. Listening to and analyzing these signals helps identify the source of the alarm.

Specifications

Power Requirements: 12V DC linear supply. Stealth Laboratories recommend using the same supply to power the StealthFlex and the Flexcoder. **If a separate supply is used, both boards MUST share a ground connection.**

Current Draw: 7.5mA standby; 25 - 30mA during record / playback.

Record Time: 2 Minutes max (120 Seconds).

Minimum Record Time (MRT): 60 Seconds (default). Programmable from 1 - 120 Seconds (see section 1.5).

Maximum Events: 15

Data Retention: Recordings and date / time stamps saved to non-volatile memory (EEPROM). Real-time clock data backed by CR2032 3V battery.

1. Hookup

+12V: connect to a 12V DC linear supply.

GND: connect to "-" or "NEG" terminal of the DC supply. Note: The Flexcoder and StealthFlex panel must share a ground connection if they are not powered by the same power supply.

REC: The REC line must be connected to the PRE ALARM output of the StealthFlex panel. This is an active-

low input, meaning the StealthFlex PRE ALARM will pull it low to activate recording.

AUDIO IN J1 (3.5mm stereo jack): Connect the supplied shielded audio cable to this jack. Connect the other end of the cable to audio jack J1 on the StealthFlex panel.

PLAYBACK MONITOR J2 (3.5mm stereo jack): Connect to powered computer speakers or headphones to listen to recorded events. Note: This is not a "live" monitor - only recorded audio may be monitored via J2.

EVT (Event): This terminal is an open-collector output that is capable of triggering a pager dialer, buzzer or LED indicator to alert the user that one or more events have been recorded. This output is cleared by accessing the event menu (section 1.4). It can handle no more than 100mA of DC current (do not connect to an AC load). Maximum DC voltage to be switched should not exceed 24V DC. Note: Open-collector outputs are "active low," meaning they do not supply voltage, but rather act as a switch to ground. To connect a 12V DC buzzer to this terminal, the buzzer's "+" lead should be connected to +12V. The buzzer's "-" lead should be connected to the Flexcorder's EVT terminal.

2 Power-Up

When the Flexcorder is powered up, the LCD will display "FLEXCORDR REV x.xx" for one second. After one second, one of four messages will be displayed.

Date / Time: When the Flexcorder is idle with no recorded events, it will display the date on line one of the LCD, e.g. "MM/DD/YY". Line 2 will display the time in 24-hour format, e.g., "08:05:16". The seconds should update every second, just like a standard clock. See section 1.3 for instructions on setting the clock / calendar.

Captured Events: If the Flexcorder has any recorded events in memory, the LCD will display, "xx EVNTS" on line one, where "xx" = 01 - 15 (the number of recorded events). Line two will display, "MENU ". See section 1.4 for instructions on viewing / playing stored events.

Recording in Progress: If the REC input is active, line one of the LCD will display, "RECORDING" and line two will display, "EVNT: xx", where "xx" = 01 - 15 (the number of the event being recorded).

Out of Memory: If the memory chip has recorded 120 seconds of audio, or if the number of events has exceeded the maximum of 15, line one of the LCD will display, "MEM FULL" and line two will display, "MENU ". See section 1.4 for instructions on viewing / playing stored events.

1.3 Setting the Clock / Calendar

Setting the Date: To modify the date, press SW2 for three seconds. Release the switch when the LCD is cleared. A cursor will be flashing on the month digit. Press SW1 to decrease the month or SW3 to increase the month. When the correct month is displayed, press SW2. The cursor will now be flashing on the date digit. As before, use SW1 and / or SW3 to modify the date (day of the month) digits. When the correct date is displayed, press SW2 to select the year digits. Press SW1 and / or SW3 to modify the year digits. When the correct year is displayed, press SW2 to proceed to the time setting function. Note: The Flexcorder automatically adjusts for leap years.

Setting the Time: After setting the date, a cursor will be flashing on the hour digit. Press SW1 / SW3 to decrease / increase the hour digits. Remember, the Flexcorder uses 24-hour time (1:00 PM = 13:00:00; Midnight = 00:00:00). When the correct hour is displayed, press SW2. The cursor will now be flashing on the minutes digit. Use SW1 / SW3 to decrease / increase the minutes digits. Hint: set the minutes 1 minute ahead of current time to properly synchronize the seconds at 00 (next step). When the minutes digits are correct (set to current minutes + 1), press SW2. The LCD will now display "HH:MM:00" on line one and " OK " on line two. When the current time reaches the time displayed on the LCD, press SW2 to program the new time and date. The LCD should now display the correct time and date. Note: The Flexcorder does *not* compensate for Daylight Savings Time.

1.4 Viewing Stored Events

Viewing Events: To view information about stored event(s), press SW2. The LCD will display "EVENT xx" on line one. Line two will display, "? OK =>". To view the date and time the current event was recorded, press and hold SW1. To view other events, press SW3 (display will not change if only one event has been recorded). To listen to / save / delete the current event, press SW2. Accessing this menu will automatically restore the EVT open-collector output.

Playing Events: After pressing SW2 in the preceding step, the LCD will display, "EVENT xx" on line one and "x PLAY =>" on line two. Press SW2 to play the event that is listed on line one of the LCD. The LCD will then display, "PLAYING:" on line one and "EVENT xx" on line two. The recorded event can be monitored through audio jack, J2 PLAYBACK MONITOR using a pair of headphones or amplified computer speakers. When playback is done, the LCD will return to the previous screen. At this point, the recording may be played back again by pressing SW2 once more, or another event may be selected by pressing SW3.

Saving Events: Once playback is done, all recorded events may be saved or deleted by pressing SW1. The LCD will display, "SW1 = SAVE" on line one and "SW2 = ERAS" on line two. Pressing SW1 will leave all events intact in memory and return to the "Viewing Events" menu. Subsequent events will be recorded after the existing events until the memory is full or the maximum number of events (15) is reached. Keep in mind that the Minimum Record Time (MRT) is set to 60 seconds by default, which means the Flexcorder is only capable of storing two events, for a total time of 120 seconds. If more events are required, the MRT may be changed (see **1.5 Minimum Record Time**).

Erasing Events: To delete the recorded events and free up all 120 seconds of recording memory, press SW2. All events will be cleared and the LCD will return to the date / time display, awaiting new events.

1.5 Minimum Record Time

The Minimum Record Time (MRT) is the amount of time the Flexcorder will attempt to continue recording *once the REC input has restored to normal*. The factory default MRT is set to 60 seconds. To modify the MRT, press and hold SW1 for three seconds. Release SW1 when the LCD screen is cleared. The LCD will then display, "MRT: xxx" on line one and "<= OK =>" on line two, where "xxx" = the last stored MRT value (in seconds). Press and hold SW1 to decrease the MRT value; press and hold SW3 to increase the MRT value. When the desired value is reached, press SW2 to return to the date / time display. Note: the MRT screen may only be modified when there are no stored events in memory, e.g., when the date and time are being displayed on the LCD.