



Finding Drywood Termites in a Tongue & Groove Apartment Porch

AEC President John Rodgers demonstrates the sensitivity of the AED-2000L instrument and SP-1L probe for detecting a drywood termite infestation in an apartment complex in Northern California. Termite droppings had been located beneath this area on a tongue and groove ceiling in a covered porch area. Probing with SP-1L with a rubber-tipped probe, John was quickly able to locate the boards and locations where termite feeding was occurring. Shown in the photo at right is the instrument and probe being used with one of its configurations—a 1/16" diameter drill bit is screwed into one of the boards, and a magnetic adaptor couples it to the SP-1L probe. This gives better sensitivity than outside contact, and can also be used to penetrate wooden beams through drywall with negligible cosmetic disturbance.



There are two signal output modes from the AED-2000L. The audio output provides clear distinction of termite feeding from other ambient noises. The thresholded signal processing gives a readout of the number of signals (hit rate) and the amount of energy release (count rate) per second. It is typical of termite activity to detect from 10's to 100's of signals per second. As the termite colony feeds, individual bites and tearing are heard as pops and crackles in the audio output. Click on the icon below to hear what this infestation sounded like through the headphones. The AED-2000L can also store its processed signal information to internal memory for later upload to a Windows-based PC. Shown below is a graph of the activity rate detected over a 23-second interval. Hit rates of 15-40 per second are apparent. This ability to simultaneously distinguish through audio and record to file are unique capabilities of the AED-2000L instrument.



Click on icon at left to hear sounds.

Graph of activity rate vs time in seconds for the application described above. Data was stored to AED-2000L internal memory and later uploaded to a PC for analysis.

