

## How can I safely measure floating signals with different voltage reference potentials?

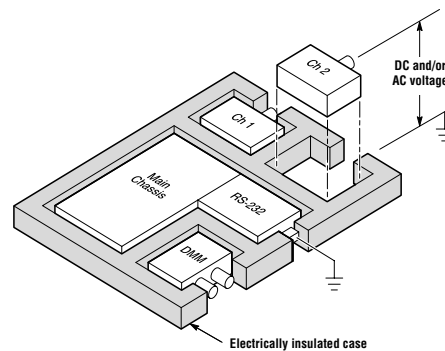
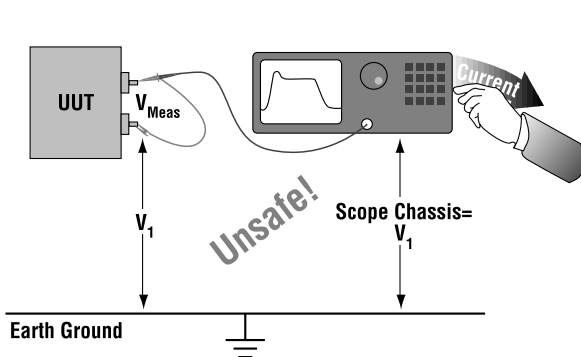
Sometimes it's necessary to measure signals in circuits that don't have a normal ground reference. Or you may have a system with two different reference potentials. Using a conventional line-connected scope would create a dangerous short-circuit. You need a solution with fully isolated channels that don't need to be referenced to ground or to each other.

### The problem: Need to measure a system with differing reference points

- Line-connected scopes have a fixed ground connection that must not be connected to ungrounded circuits
- Some systems have differing reference points for low-voltage and high-voltage circuits

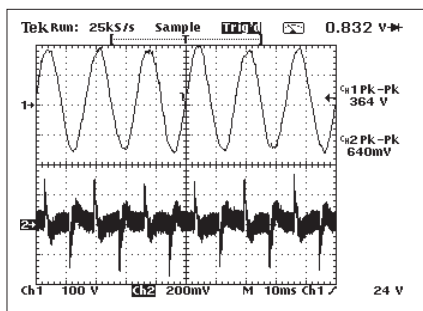
### The solution: Use the battery-operated TekScope's IsolatedChannel® architecture

- Features three fully isolated channels (including a DMM channel) for measurements
- No fixed connection to earth ground
- May be connected to any combination of grounded, multiple-grounded, or floating signals simultaneously – up to 600 V RMS between channels or ground



## Troubleshooting Tip

### Criteria for using isolated channels to acquire floating measurements



To safely acquire floating measurements with TekScope, use the P5102 high voltage probe (10X attenuation)

Note: Do not attempt to measure voltages exceeding 600 V RMS