Battery unit (Batt1A)
+
4 AA cells
Holte Electronics AS
−

CableAnimator (Anim1A)
Cable → Animator
Holte Electronics AS

CableAnimator
Signal injector (Sender)

Primary field

CableAnimator

Surface

Cable

Induced current

Sekundary field from cable
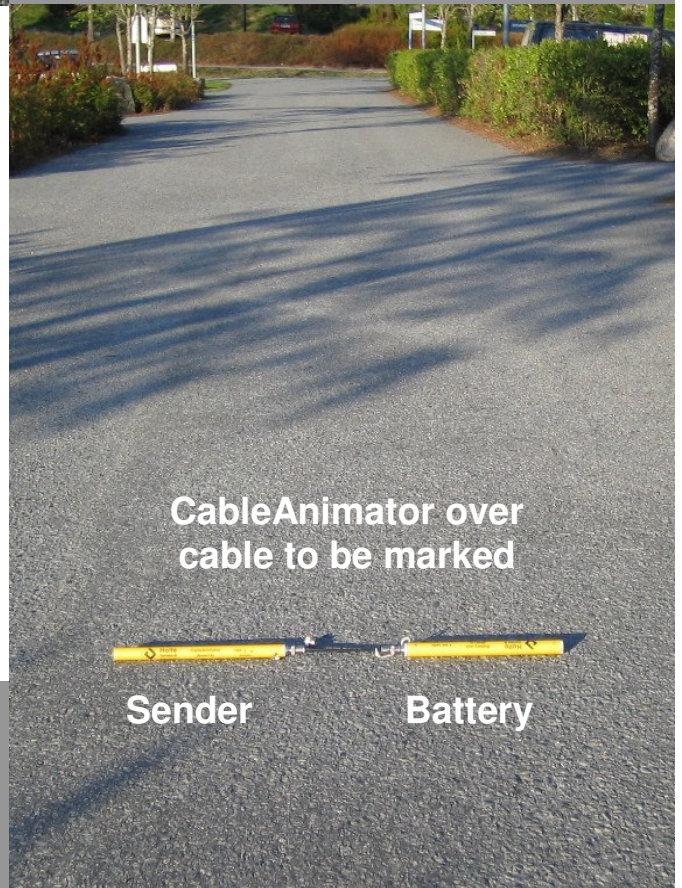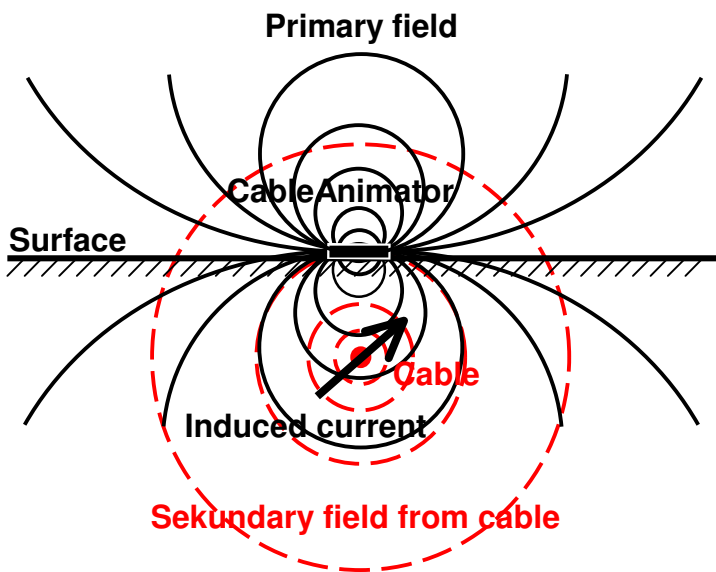
CableAnimator Principle
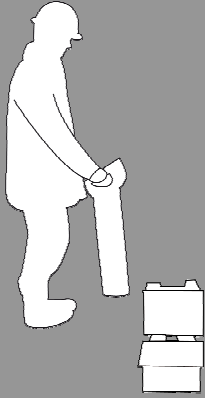
CableAnimator over cable to be marked

Sender   **Battery**

When do you need a sender?

A sender, also called signal injector, is useful when the signal from the cable you want to locate is too weak or drowning in noise from other sources, or you need to distinguish a special cable from other cables.

Signal injection methodes

There are different ways to inject a signal in a cable. You may connect the sender directly (galvanic) between the cable and real earth or some extended metallic object that can act as artificial earth. You may use an induction clamp, or you may place the sender on the ground over or beneath the cable to be animated.

The two former methods are the most efficient. Which one is best depends on the local conditions *(galvanic at open ends, induction clamp at grounded ends or far enough from the nearest open end).*

Excavator operators have, in most cases, no access to cable junction boxes and must settle for the third, less efficient, but non the less useful method of placing the sender on the ground across the cable. Holte Electronics has taken the consequences of this, and offers a simple pulsating transmitter in the shape of a little rod to be placed near the cable.

The transmitting rod CableAnimator

contains a ferrite rod antenna *(ferrite is a material that concentrates the magnetic field and allows the construction of small, but still efficient long wave antennas)* and an oscillator that produces a distinct, easy to recognize "bip, bip, bip, ... -signal with approximately 10 pulses per second. The signal has a range of typically 200-300m at a cable depth of 60-70cm, – much more if the rod can be placed in direct contact with the cable.

*CableAnimator as antenna booster

Without the battery connected CableAnimator may also be used as an antenna booster that increases the sensitivity of the original CableBuster by approx 10dB by attaching it in front of the small box.
(Does not apply for CB DiffAnt!)

How to use CableAnimator?

Place the rod with the battery connected across the cable that you want to inject a signal in, preferably at a place where it is separated from other cables, sufficiently far from the nearest open end and not too deep.

The magnetic high frequency field from the sender induces a small signal current in the cable, which in turn produces a secondary magnetic field that can be traced over a long distance.
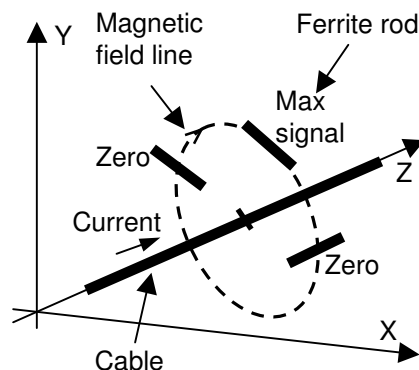
The direct range in open air (without a cable) is only 30-40m.

Traditional cable locator with sender

CableAnimator sender and battery unit

CableAnimator as additional antenna (not for CB DiffAnt)

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Technical data:
Frequency: 133kHz +/- 2kHz
Weight and measures:
Sender: 28cm x 18mm⌀
Battery tube: 26cm x 20mm⌀
Weight: <400g
Battery: 6V, 4AA-Cells
Battery and function indicator:
Blinking red LED at the end of the transmitter rod

The figure shows the connection between the signal strength and the antenna position.

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