

How to Know if You Need the NCB Pro

Do you experience a sudden sense of fatigue when entering a certain room, when you turn a specific light on, or when you sit in a certain chair?

Are you having trouble sleeping even after turning off all the power around your bedroom?

These are common symptoms associated with an exposure to a magnetic field.

A unique property of magnetic fields is that they will project right through walls and various metals and cannot be effectively shielded. Magnetic fields also carry other high frequency voltage spikes called “dirty electricity” and can be delivered deep into our tissues and organs.

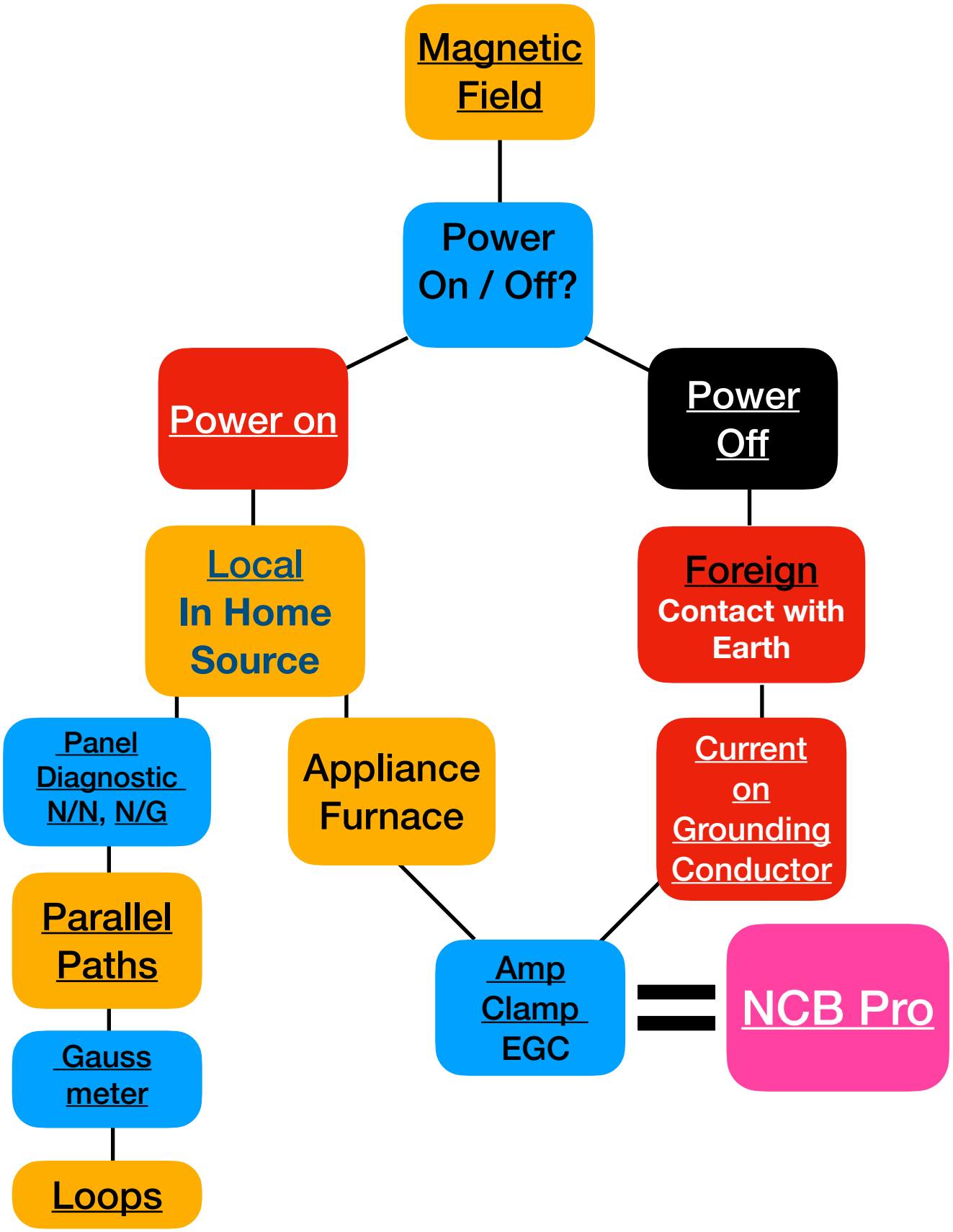
The best way to remove magnetic fields is either to turn the power off, fix the wiring problem or cancel them, by running the same field back against it. I created the NCB Pro for when those options aren't possible.

The house wiring should be established to cancel magnetic fields from wiring, but mistakes are made. And there are other foreign current sources and problems that create uncanceled magnetic fields.

If you have a gauss meter, you can quickly see if there is a magnetic field. There will always be a fairly constant magnetic field from the outside buried or overhead power lines. You don't have any control over those (most of the time). What we are looking for here is control.

Can you control it? Does the magnetic field change when you flip a light switch, turn on/off the breaker? These are important indications that can lead to the solution. Here is one way to trace down the source of your magnetic field.

If there is current on a grounding conductor with all the power off, you need the NCB Pro. You will also need to identify sources with the power on, some of which can be resolved with the NCB Pro.



Magnetic Fields

All current flowing creates a magnetic field. Home wiring systems are intentionally designed to cancel these magnetic fields or it violates the NEC. The hot and neutral need to be run together in the same cable or raceway the entire length of the circuit. The neutral (grounded conductor) or return path is not allowed to be connected to any grounding conductor or other circuit neutral except at one place, the main disconnect.

Power On

Typical conditions that have uncanceled magnetic fields from the current-carrying conductors, the phase conductor/ungrounded conductor (“hot” or the black wire) and the return/grounded conductor (neutral or the white wire), are commonly found at:

- switched outlets (turns lamp on with a wall switch when you enter a room),
- loops inside of a circuit,
- parallel return current paths using two different circuits.

These can be unusually large magnetic fields across a large distance (all the way across the loop or the circuit).

Appliances can also leak or put current onto grounding conductors under normal operations, like from Variable Speed Drives and grounded transformers in furnaces.

Power Off

Normally non-current carrying conductors: the equipment grounding conductor, water and gas pipes, or any other conductive surface, that have current on them, also violate the NEC.

These paths do not have a way to cancel their fields so the magnetic field extends some distance but not as far as the parallel path magnetic field configuration.

Local

This means the magnetic field can be shut off with a breaker in your electrical panel.

Foreign

This means the source is from outside the home and won't go away if you turn off the breakers. Phone bonds, cable internet bonds, water pipes, well pumps, sump pumps, secondary building grounds, appliances on concrete slabs or attached to metal frames of buildings, anything that has a path or makes contact to earth are all possibilities.

Parallel Paths

Magnetic fields are cancelled by running the same amount of current in opposite directions. For instance, the hot brings 5 amps to the appliance and the return wire (neutral) returns exactly 5 amps back. Those two conductors are tightly configured side-by-side the entire length of the run. If the neutral return path is split, the power of the magnetic field is reduced and there won't be enough current to cancel the 5 amps on the hot. Also a new path will have uncanceled current running on it and that creates a different magnetic field. See: Parallel Path Magnetic Fields¹

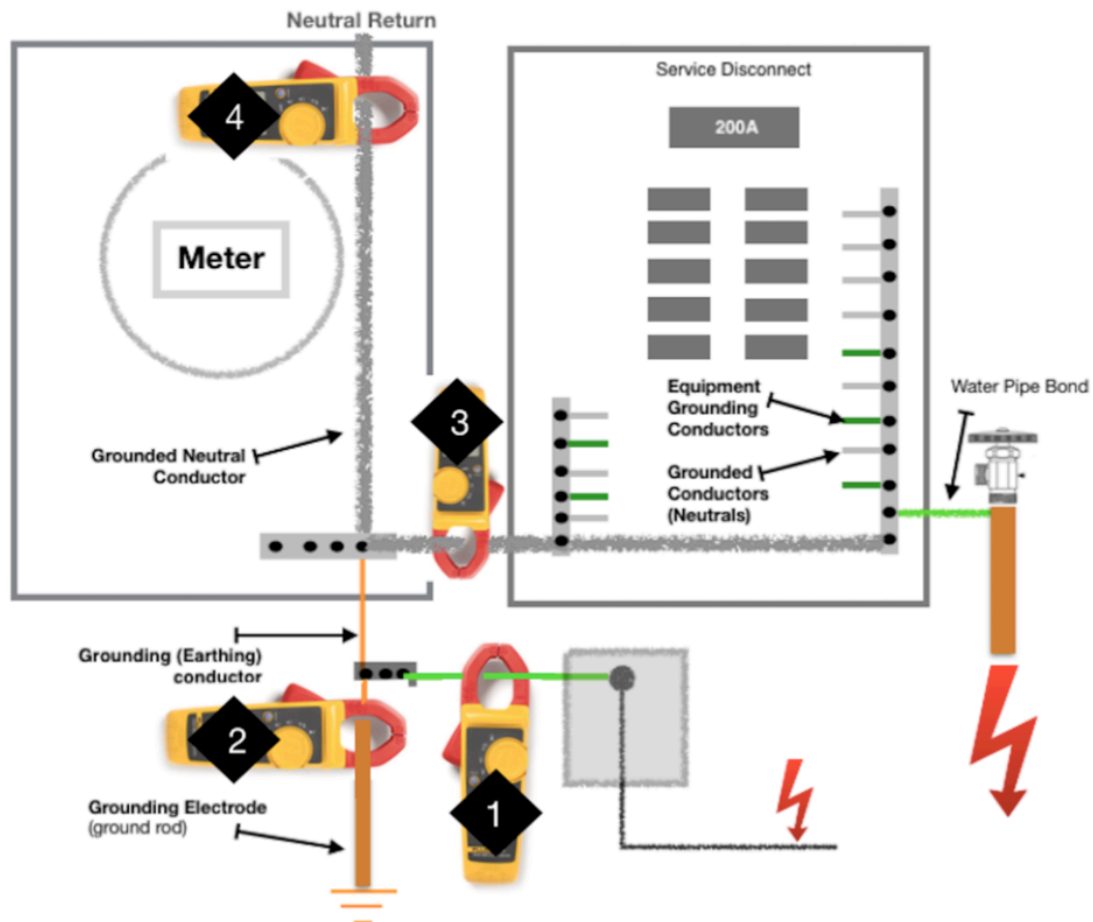
Panel Diagnostic:

Diamond 3 in the picture below shows where the amp clamp needs to read 0.000A with the power off. For the step by step "how-to," see [EMF Tracing 102](https://homeemftracing.com/shop/ols/products/home-emf-tracing-102).²

N/N: Neutral-to-Neutral connections violate the NEC.

N/G: Neutral-to-Ground connections violate the NEC.

Contact Current: Magnetic fields created from current swimming around your grounding conductors reflect that you'll have contact current problems on surfaces and associated with anything "grounded."



¹ <https://homeemftracing.com/shop/ols/products/parallel-path-magnetic-fields>

² <https://homeemftracing.com/shop/ols/products/home-emf-tracing-102>

Loops

These won't turn up in a panel diagnostic. You have to walk through the home with the power on, and turn on lights and things plugged into outlets to find them. Find the high magnetic fields, anything changing above 0.5 mG is a possibility. For instance, one line feeds to a light switch in a master suite, but then two lines will make a loop, a circle around the room so current will have two ways back to that first light switch.

There is only one neutral return path back to the panel but inside that one room, the neutral will take two pathways back to the home-run line in that first light switch plate.

Switched outlets (the top of an outlet that turns on with a light switch at the door) is used for lamps. They may be wired to create a magnetic field so make sure you check the lamps.

Gauss Meter

NFA 1000³ (5% off: RES-5)

Top of the line! Shows magnetic fields in 3D and much, much more!
Bedmaps are vitally important for the professional to check the fields before and after installation of the NCB Pro.



Amp Clamp

Low Current Clamp Meter⁴
(5% off: RES-5)

This is relatively inexpensive too for a great and very accurate amp clamp that reads down into the uA range! Extremely handy and trust-worthy.



Current on Grounding Conductor

By clamping over the bare equipment grounding conductor, pipe, or any grounding conductor with an amp clamp, you can read how much current is flowing. Current on grounding conductors is a code violation and extremely unhealthy!

Use one that can measure at least as low as 1 mA. This is the ultimate factor if you need an NCB Pro. Can you remove that current, or not? Is there an improper wiring configuration, appliance malfunction or foreign current source? That current needs to be stopped.



³ <https://safelivingtechnologies.com/NFA1000/>

⁴ <https://safelivingtechnologies.com/products/ac-current-clamp-small.html>

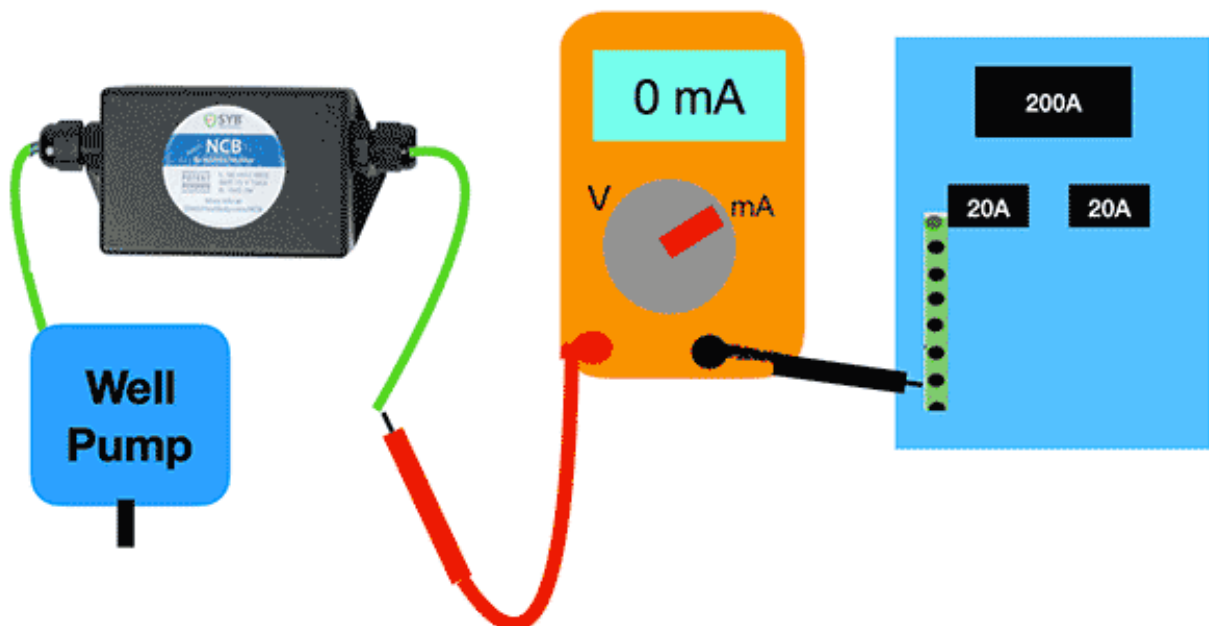
NCB Pro

<https://www.shieldyourbody.com/product/ncb-pro/>

Webinar: [Introducing the NCB Pro⁵](#)



[How to Verify the Performance of the NCB Pro⁶](#)



⁵ https://www.shieldyourbody.com/introducing-the-ncb-pro/?billing_country=US

⁶ https://www.shieldyourbody.com/verify-ncb-pro/?billing_country=US

In conclusion, there is usually a fix for magnetic fields if you can control them by turning the power off. If the current won't go away even with the power off, you may need the NCB Pro.

The furnace with a transformer is one of the few "power on" appliance problems that puts current onto the grounding system. Fix everything you can with an electrician that violate the NEC that make a N/N and a N/G connection.

All other current flowing around the grounding system needs to be stopped by whatever means possible or your health will be paying the price. All that current adds to the background magnetic field levels and contributes to the very damaging contact/touch current exposures.

Hope this helps you get started. This is not a "how to" manual. If you believe you need an NCB Pro, buy one and set up a consult with me or a "qualified" consultant from the SYB website to help your electrician.

This work usually digs up some big underlying problems (which is important to fix for your health) so don't hesitate to call. I am available to help you and your electrician through this in a phone or zoom consult.⁷

Thank you!

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⁷ <https://homeemftracing.com/shop/ols/products/phone-or-email-consult>

Required Tools

It is required to have one of these tools for each category, ie., for a magnetic field you will need the UHS2 or best the NFA 1000. The cheapest allowed is the ME3830B, but you have to have one of these, not cheap "EMF" meters that give false readings.

Magnetic field presence for NCB Pro, options:

- **NFA 1000**
 - **UHS2 3-Axis AC Gaussmeter** (Great magnetic field only)
 - **Gigahertz Solutions - ME3830B** (16-100kHz) \$249.35 (Good E and M fields)
 - **Gigahertz Solutions ME3851A** (Great E and M fields)
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Electric Field presence for NCB, options:

- **NFA 1000**
 - **Gigahertz Solutions - ME3830B** (16-100kHz) \$249.35 (Good E and M fields)
 - **Gigahertz Solutions ME3851A** (Great E and M fields)
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Continuity Tester for Panel Diagnostics, options:

- Fluke 287 True RMS Multimeter
 - [Extech CT20 Continuity Tester Pro](#)
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Measure Current on Wire for NCB Pro Panel Diagnostics:

- **SLT Low Current Clamp Meter**
 - Fluke 287 True RMS Multimeter
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Measure Current on Wire for Grounding Mat or Sheet with NCB:

- Fluke 287 True RMS Multimeter (connected in series) for NCB