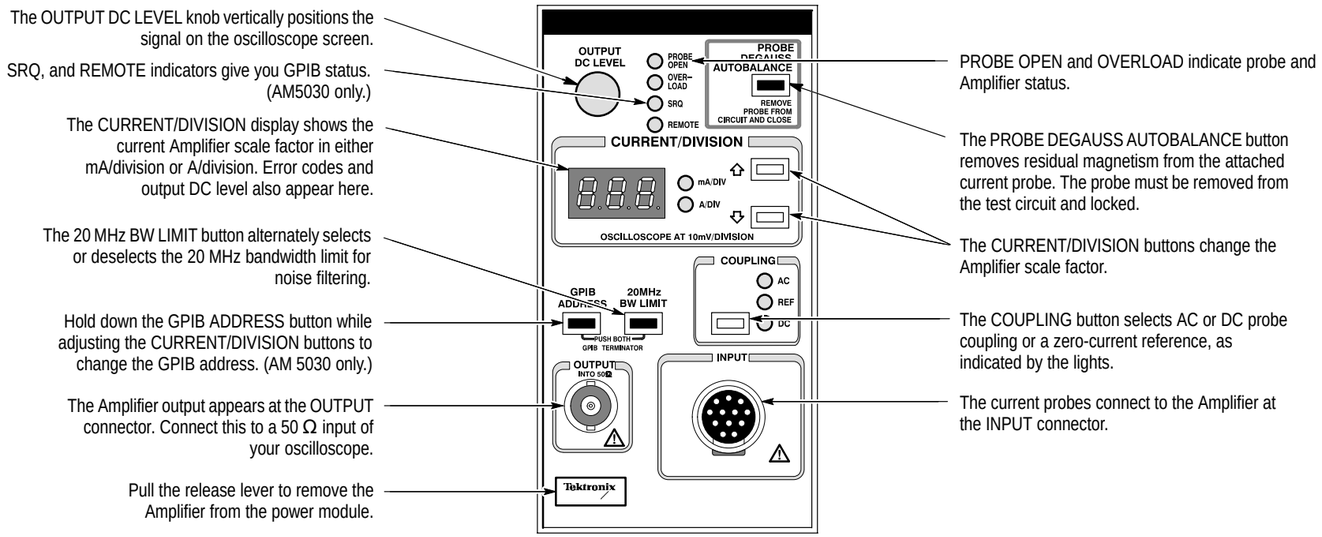

First Time Operating Procedure

1. Turn off the power module that powers the Amplifier.
2. Connect a current probe to the Amplifier input connector.
3. Turn on the power module.
4. On an oscilloscope, set the coupling to 50 Ω DC, the vertical sensitivity to 10 mV/division, and turn off any bandwidth filters.
5. On the oscilloscope, adjust the ground reference so that the trace appears at the center height of the screen.
6. Use a 50 Ω coaxial cable to connect the Amplifier OUTPUT to the 50 Ω oscilloscope input. If the oscilloscope has only 1 MΩ impedance inputs, install a 50 Ω termination between the oscilloscope and the coaxial cable to the Amplifier.
7. Unclamp the current probe from around any conductor and lock the probe closed.
8. Press the COUPLING button until the REF light comes on. (This step is not necessary for subsequent degauss operations.)
9. Press the PROBE DEGAUSS AUTOBALANCE button. Wait until the Amplifier is finished clicking.
10. Press the COUPLING button until either the AC or DC light (your choice) comes on.
11. Clamp the current probe around a current carrying conductor. Observe the waveform on the oscilloscope screen, and adjust it using the Amplifier controls: the OUTPUT DC LEVEL knob and the CURRENT/DIVISION ⇧ and ⇩ buttons.

Operating Guidelines

To prevent equipment damage and increase measurement reliability, observe these guidelines:

- Never insert the Amplifier into, or remove it from, a power module unless the power module is turned off.
- Never connect a current probe to, or remove it from, the Amplifier while the power module is on, or while the current probe is clamped around a current-carrying conductor.
- Always observe the frequency derating curve, and never exceed the upper frequency indicated. Failure to do so may overheat the core of the current probe and damage it.
- Always remove power from a bare conductor before clamping a current probe around it.
- Use an oscilloscope input channel having an input impedance of 50 Ω. If the oscilloscope has only 1 MΩ impedance inputs, install a 50 Ω termination between the oscilloscope and the coaxial cable to the Amplifier. Do not install the termination at the Amplifier end of the cable.
- Always set the oscilloscope vertical sensitivity at 10 mV/division, and the coupling to DC.
- Always move the oscilloscope waveform using the Amplifier OUTPUT LEVEL knob. Do not use the oscilloscope vertical position controls.
- Degauss the current probe frequently. Always remove the current probe from around any conductors while degaussing.

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Programming Commands (AM5030 only)

ALLEve?
Returns pending event codes.

AMPS <number>
AMPS?
Sets or queries AM5030 resolution (amperes per division).

BWLIMit ON
BWLIMit OFF
BWLIMit?
Sets or queries the status of 20 MHz bandwidth limit switch.

COUpling AC
COUpling DC
COUpling REF
COUpling?
Sets or queries the status of input coupling.

DCLEVel <number>
DCLEVel?
Sets or queries the DC offset level.

DEGAuss
DEGAuss 0
DEGAuss 1
DEGAuss 2
Performs probe degauss/autobalance. No argument or 0 is full degauss/autobalance, 1 forces gain calibration even if temperature has not changed, 2 performs gain calibration without balancing the Hall device.

ERRor?
Returns the most recent error or event code. Functions identically to EVent?

EVent?
Returns the most recent error or event code. Functions identically to ERRor?

EXit
Causes the AM5030 to exit test modes or recover from error conditions.

FPLock ON
FPLock OFF
FPLock?
Enables or disables the front panel controls.

HELp?
Returns the list of AM5030 commands.

ID?
Returns the identification string.

INIT
Initializes the AM5030.

OVerload?
Returns the status of the overload indicator: ON or OFF.

PATH ON
PATH OFF
PATH?
Controls inclusion of command names in query return strings.

PROBEOPen?
Returns the status of the probe open indicator: ON or OFF.

PROBETRim <number>
PROBETRim?
Sets or queries trim adjustment gain factor.

PROBETYpe?
Returns the type of the connected current probe or NOPROBE.

RQS ON
RQS OFF
RQS?
Enables or disables system requests (SRQs).

SERIAL?
Returns AM5030 serial number.

SET?
Returns command string to return AM5030 to its present state.

TEST
Perform self-test operation and return result.

UNIts?
Returns the units of output: A (amperes) normally or V (volts) in special circumstances.