

D179 Performance Checker



Working with the calibration committee of the Association of Neurophysiological Scientists (ANS, formerly the Electrophysiological Technologists Association), the model **1179 EEG, EMG & EP System Performance Checker** was designed.

The new **1179A (D179)** varies from the original 1179 in so much as it ..

- a) has better accuracy;
- b) uses a rotary control to select Normal mode, Zero or CMR;
- c) can be used single handed;
- d) uses less leads.

ANS have developed a set of guidelines to allow Neurophysiology Departments to check that all the EEG, EMG and EP systems they have continue to comply with agreed Standards.

These modern machines use high precision converters to transform the incoming signals into the digital domain. Subsequent adjustments of gain and bandwidth, the insertion of notch filters and the choice of referential and other montages is carried out by software. Parameter selection and record presentation options are presented to the user through the now familiar 'Windows' style screen format, and a patient's records are stored on digital media rather than paper.

Although most manufacturers include a self test/calibration routine within the system, this is of necessity not independently subject to verification or audit, since it is internal to the machine.

In fairness to the manufacturers, it should be said that, were an external calibration checker to be made available by one of them, it would be unlikely to be sanctioned for use on any other's system without invoking product liability issues. As a consequence a large department might be faced with having to buy more than one checking system.

The **1179A Performance Checker** is designed to be used in conjunction with a suitable signal source. The recommended signal source for those departments wishing to check EEG's only is the TG315 Function Generator. This is available from the manufacturers Thurlby-Thandar, from distributors or from Digitimer.

For those departments needing to check Evoked Potential and EMG/Nerve Conduction systems as well as EEG, a signal source with a trigger input is needed. The recommended one in this case is the Thurlby-Thandar TG1010A which is a digital function generator. When the TG1010A is ordered with a D179, an additional BNC-BNC lead (D179-Leads-BNC) should also be ordered.

The **1179A Performance Checker** accepts the output from either of the above sources, attenuates it by 100,000:1 (100dB) and presents it simultaneously to 32 outputs via standard 1.5mm touch-proof sockets on the top of the box. There is in addition a GROUND/COMMON socket and two REFERENCE/NEUTRAL sockets.

Whilst it is possible for departments to buy the signal source from either the manufacturer or a distributor, it may be more convenient to purchase the Thurlby-Thandar Function Generators direct from Digitimer, supplied with a calibration certificate for the same price.

The **1179A Performance Checker** is supplied with 32 Red, 2 Black and 1 Green lead plus 1 BNC lead.

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