

# Analagraph®

Spinal Analysis Graph Recorder



Model: CHR1

Operational Manual

Compatible with ETS-7 & ETS-8

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## **Analagraph® - Model # : CHR1**

### **Principle Of Operation**

The Analagraph is a high quality digital, graphing recorder. This device picks up the signal generated by the Nervo-Scope and displays a detailed graph of the output.

### **Use of Device**

1. - The examination stool, bench, table or other area which the patient contacts should be insulated from concrete floors, through the use of a rubber mat, plastic or rubber glides or coasters. This is not necessary on wooden floors.
2. - The Analagraph® uses a 3 prong grounded plug, as noted. Whenever a proper 3 element receptacle is available, the Analagraph® is automatically grounded and a special intermediate grounding plug is

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of the Analagraph® to advance the paper and verify that the paper is installed properly. This button is a momentary type switch.

If the paper does not advance properly open the paper carriage and pull the paper leader, be sure it is straight and moves freely, if it does, close the carriage and try advancing the paper again.

## IMPORTANT

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Fill out the guarantee card and mail it immediately to register your instrument so that you will be assured of guarantee privileges and services that are made available from time to time.

ALWAYS MAKE SURE WHEN PLUGS ARE PULLED OUT OF THEIR SOCKETS, THAT THE PLUG ITSELF IS HELD, NOT THE WIRE. PULLING ON THE WIRE WILL CAUSE EVENTUAL BREAKAGE.

EDL reserves the right to make changes or advancements on any and all products without any obligation to convert or change products previously sold. Applies to all products regardless of age or date of purchase.

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not required and conditions 3 and 4 are not relevant.

3. - Where a 3-wire grounded receptacle is not available, the intermediate grounding plug should be used and the ground wire should always be connected to a definite ground. Where the wall socket receptacle box and plate are grounded, the wall plate may be used as the ground by lifting a corner of the plate and clipping the ground wire to it. Where the wall socket plate is not grounded, connect the ground wire to a grounded radiator, waterpipe or any definite ground. NOTE: Connect the ground wire before plugging the Analagraph® into the wall socket.

4. - Where the ground has a painted surface, scrape a small area through to the bare metal before connecting the ground wire.

5. - On the back panel, you must set the voltage to the correct voltage for your Country before plugging in the Analagraph, this is extremely important—*failure to do so can result in damage to the instrument and possible injury or death.*

## Function Set-Up Procedure

1. - Plug appropriate end of the line cord into the socket on the back panel of the Analagraph® and check the voltage selector. It must be set to the voltage that you are using in your wall socket. The Analagraph® is designed to accept 120Vac 60Hz and 220/240 50/60Hz. Turn the Analagraph® on by putting the ON/OFF switch (rear panel) in the ON position. The Run/Stop light should be red and the graph should not be running. On the rare occasion that the Analagraph® starts with this light being green and the graph is not running, press the graph ON/OFF button (front panel) and the light will change to red. This synchronizes and resets the electronics.

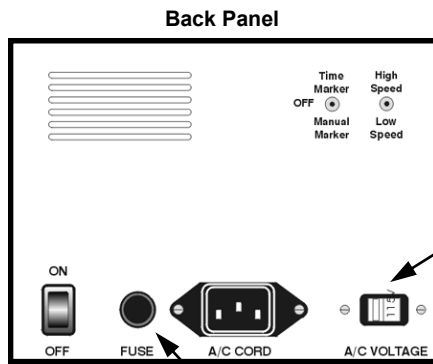
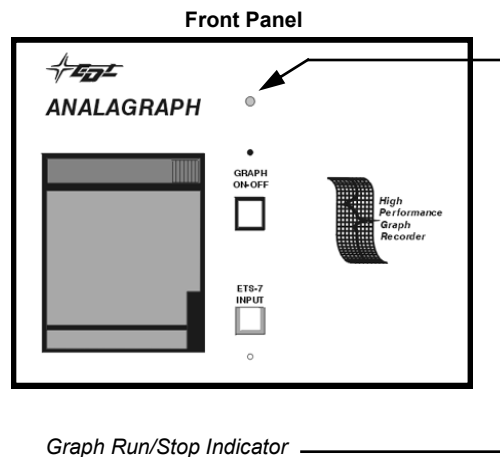
2. - Insert the telephone type coil cord into the input socket and into the corresponding socket on the ETS-7 or ETS-8.

3. - Set the Graph Speed switch on the rear panel to Low or High. Low speed is approximately 6" per minute of graph length, High speed is approximately 9" per minute of graph length. In most cases, this switch is normally set to Low speed. A speed change can only be done while the recorder is idling (not graphing, the Run/Stop light is Red). Put the switch in the desired position and when you start the graph it will start at the selected speed. You can not change the speed while the recorder is graphing.

4. - Select the desired mode of graph marking. This switch is located on the back panel and has three positions. The top position is for time based marking and automatically places a mark on the graph every 6 seconds (three boxes). The center position is Off (no marking). The bottom position is for manual marking. This allows you to use smaller graphs by pre-marking the areas of interest with the ETS-7 or ETS-8 and then graphing these specific areas using the marker to indicate the exact spot of interest.

5.- Select the sensitivity required by adjusting the three position sensitivity switch on the ETS-7 or the two position sensitivity switch on the ETS-8. There is NO sensitivity adjustment on the Analagraph®.

This ends the function set-up procedure



Check and set to 115 or 240 before use.

**Fuse Replacement:** Use only a 3AG 1A 250 Volt slow-blow glass body fuse. If fuse problem persists, contact EDL for technical assistance.

be on hand to avoid being without paper.

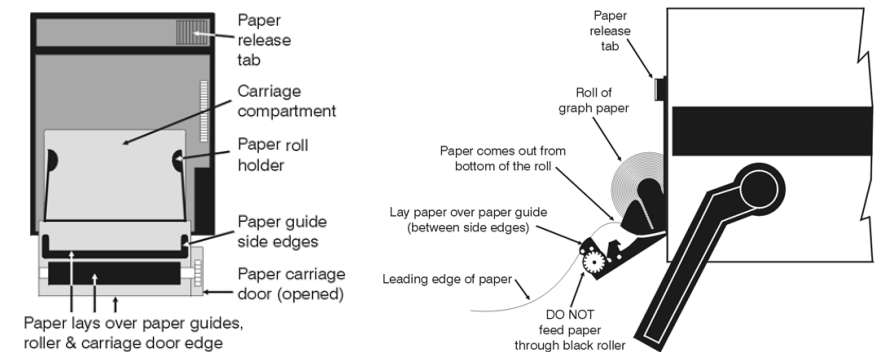
The graph paper is made from a high grade unmarked paper. As the paper passes through the recorder the graph is thermally printed along with the trace. This is the same process used in most High accuracy printing systems. There is NO ODOR and NO CLOGGING or BUILD UP in the print head. This paper is identical to papers used in EKG machines.

The cost of paper for a full spine graph is only pennies. In order to amortize the cost of the Analagraph® and to defray the cost of the graph paper, some chiropractors prefer to charge a small fee for the graphs while others prefer to include the cost of the graphs directly into their fee. Much depends upon the number of graphs required in the series of treatments and the nature of the case. Many chiropractors do not charge the patient for graphs, inasmuch as they have found the graphs to be so highly beneficial in obtaining results, that the Analagraph® increases their income as a practice builder.

## Replacement Of Paper

To remove the empty paper core, press the paper release button: the paper carriage will pop out. Pull the carriage down and the empty paper core will be seen. Simply remove the core by pulling it up and out from between the paper holders. Do not use excessive force to separate the holders during removal or installation of the graph paper. Insert the new roll and leave a 3" to 6" length pulled from the roll to extend when you prepare to close the carriage. Be sure the paper roll is free to rotate in the carriage and located properly between the paper holders before closing the carriage.

After the paper is installed, press the graph ON/OFF button on the face



## Care Of The ETS-7 and ETS-8

The ETS-7 or ETS-8 is designed to maintain its zero setting. Turn on the ETS-7 or ETS-8 to check the electronic zero. The pointer should remain on the "0" mark. If the pointer indicates a drift off the "0" mark on the dial face this may be the result of one of the detectors having become warmed by radiant heat from sunlight, a nearby lamp, a radiator, your own body, etc. If this is the reason, simply move the instrument to a place where it cannot be affected by heat radiation or drafts. In the rare event that the electrical zero still remains off the "0" mark, please contact our technical service department.

## Cleaning

In order to comply with the current OSHA, FDA 510 (K), and EPA regulations, these instruments must be cleaned between patients. The Sporidicin® brand disinfectants have been chosen due to the range of products offered and ratings they have achieved. Pump one or two sprays on the brush applicator and brush the detector tip 3 to 5 times, repeat for the other detector. Let the detector tips dry for 3 to 5 minutes. To clean the instrument housing, use a Sporidicin® disinfectant towelette or pump two sprays on a paper towel and wipe the housing. Do not apply directly on the instrument. Liquid may seep into the instrument and adversely affect the circuitry.

**Note: Other disinfectants on the market do not have the ratings of Sporidicin® and the use of these other disinfectants, especially ones that contain quats or idophors, will damage your instrument and void your warranty.**



## Graph Paper

Each roll of graph paper contains 150 feet of useable paper. The number of Graphs obtainable depend upon the Graph Paper speed selected.

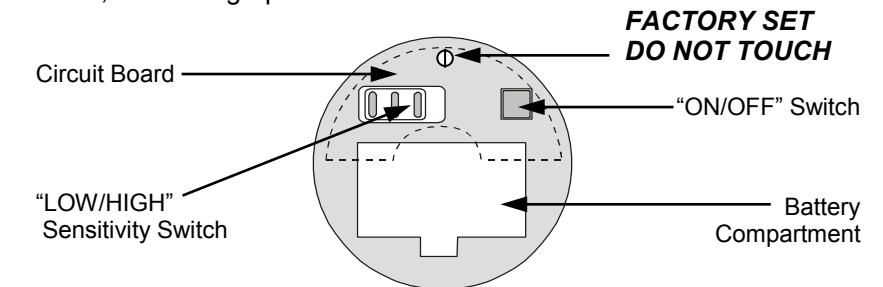
For convenience, EDL will ship graph paper roll immediately on receipt of an order. However, it is recommended that a sufficient supply of rolls

## Graph Marker

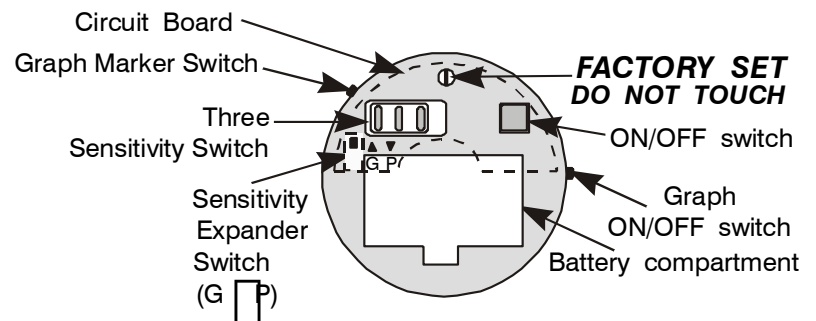
The two switches on the ETS-7 or ETS-8 are used to start the graph (recorder) and to engage the manual graph marker. The switch for the Manual Graph marker is typically activated by the index finger, and the graph (ON/OFF) switch is typically activated by the thumb. This switch is push ON (audible beep and green light) and the next push turns the graph OFF (audible beep and red light).

The purpose of the Manual Graph marker is to place a line across the graph paper to indicate where a point of interest is observed. Thus, when laying out the graph for analysis, you can easily correlate the marker points with the location on the spine.

Another method of using the Manual Graph marker is to pre-mark the spine using the ETS-7 or ETS-8. As you see a point of interest, mark it with a surgical marker. Continue with this technique until you have fully covered the spine. Now, plug the ETS-7 or ETS-8 into the Analagraph® and graph the areas where these points are located. This results in shorter, localized graphs.



ETS-8



ETS-7

## Operation

### Manual Marker:

Once the Analograph® is ON: set the sensitivity, paper speed and marker switch to the desired positions. You are now ready to begin the glide. Place the detectors on the patient and depress the thumb switch (ETS-7 or ETS-8). The Analograph® will make an audible beep, the RUN/STOP light will turn green and a heavy line is printed to indicate the start of the graph. While you are making the glide, you will observe the Meter (EST-7 or ETS-8). When you wish to make a mark on the graph, tap the Manual Marker button with your index finger and you will hear an audible beep to let you know the mark has occurred. When you finish the glide, Press the thumb switch (ETS-7 or ETS-8) again, to turn OFF the graph.

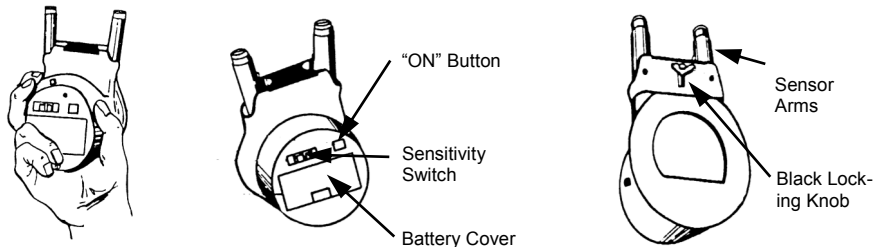
### Time Marker:

Follow the same procedure as above except the marker is fully automatic and occurs every three boxes on the graph (6 seconds). In this mode the Manual Graph Marker button has no effect.

## General Technique

The instrument is relatively simple to-use. The detectors are moved along the portions of the spine being analyzed. However, the actual manner of contacting the spine, plus the motion, have a definite significance in making an accurate analysis.

The movement of the instrument over any portion of the spine is referred to as a "GLIDE". The motion is actually a gliding motion because the instrument is moved at a steady rate.



## Adjusting Detector Widths

1. Open the detector locking mechanism by turning wing nut counter-clockwise.
2. Detectors will then spread apart.
3. To set detectors at desired width, press BOTH detectors toward each other to the width needed.
4. Then, merely lock in place by tightening wing nut clockwise.

**NOTE:** NEVER force or move one detector toward the other, or apart. Always move BOTH Detectors at the same time.

## Operating Sequence

Plug one end of the coil cord into the Analograph® and the other end into the ETS-7 or ETS-8. The plugs are similar to telephone connectors and once they are pushed into place they lock in. Squeeze the release tab to remove them.

Your Analograph® is now ready for use

