

On/Off and amplitude control knobs
Used to switch each channel ON/OFF and to adjust the pulse strength.

Indicator lamps
The yellow Indicator glows when the unit is switched on. The green channel indicators glow or flash depending on the mode selected.

Removing the control cover.

Hold the unit in both hands with the controls facing you. Place both thumbs on the centre of the lid - press downwards and away from you. The lid will open to the first stop exposing the controls.

Press and push again to slide the cover over the stop to expose the battery.

Before fitting a new battery, make sure that the unit is switched OFF.

Insert a new battery making sure that the (+) stud lines up with the smaller recess in the compartment. If the larger (-) stud does not sit correctly in its recess, lightly squeeze the battery terminal to make it fit.

To replace cover, slide the lid back to the first stop and push it firmly to move it over the stop.

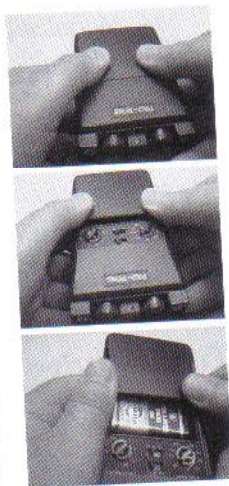


Fig 3

OPERATING PROCEDURE

1. Remove the cover and insert a 9V battery.
CAUTION - Amplitude Controls must be set to OFF before removing or fitting the battery.
 2. Set the Timer Selector Switch to 'C'.
Mode Selector Switch to 'N'.
Frequency Control to 100Hz.
Pulse Width Control to 200 μ Secs.
 3. Replace the battery compartment cover
 4. Insert lead wire pins into the electrodes so that no bare metal is exposed
 5. Place electrodes on clean, unbroken skin as instructed by your clinician. (See also page 10)
 6. Plug the electrode lead wire jack plugs into the Stimulator output socket(s).
- CAUTION** - do not attempt to fit the leadwire jack plug into any other electrical socket.
7. Switch ON and slowly increase the amplitude until a gentle tingling sensation is felt between each pair of electrodes. Periodically adjust the amplitude during treatment to maintain this sensation.
 8. Set the Timer Switch to 30 or 60 minutes if timed treatment is required.
 9. At the end of treatment, switch OFF both channels before removing the electrodes. **Remember to switch the timer back to 'C'.**

SYSTEMATIC TREATMENT

Place 1 pair of electrodes at *either side of the painful area* or use 2 pairs to surround the pain area. Keeping the electrodes in the same position, apply each of the following methods for 1 hour. Follow each application with a 1 hour rest period to gauge the previous results before starting the next application.

1. Apply CONTINUOUS mode (set the pulse width to $180\mu\text{Sec}$). Adjust the frequency to a level which you find pleasant and then adjust the intensity to maintain a strong 'tingle' sensation between the electrodes. Apply 1 hour - rest one hour.
2. Switch to BURST mode (set the pulse width to $200\mu\text{Sec}$). Adjust the intensity to produce a definite but comfortable 'twitch' in the muscles close to the electrodes. Apply 1 hour - rest one hour.
3. Switch to MODULATION mode (set the pulse width to $250\mu\text{Sec}$). Adjust the frequency to a level which you find pleasant and then adjust the intensity to maintain a strong but comfortable massage effect in the muscles under and around the electrodes. Apply 1 hour - rest one hour.

Continue to use the mode which produced the best results. Use it for at least 1 hour whenever your pain returns. *TENS - The Users' Guide to Pain Relief* will help you to understand exactly what you are doing and will systematically take you through all the different electrode positions and options appropriate to your specific problem.

PROBLEMS & FAULTS IN USE

Whenever a fault is suspected

Check that the battery is fitted properly.
Clean the battery contacts with a dry cloth.
Replace (or recharge) the battery.

Weak or erratic pulse

Clean the gel using a damp sponge. Replace damaged or worn out electrodes and lead wires.

No pulse at all

Check that the battery is making contact and is inserted the correct way round.
Replace the electrodes and/or the leadwires.
If there is still no pulse contact your supplier.

Irritation under electrodes

Replace soiled, worn out or damaged electrodes. Apply a little water to the gel surface and skin before application to ensure good contact.

Skin Problems

If any soreness or rash occurs under the electrodes, reposition them for a few days until the skin has recovered.

Use a good quality Aloe-vera and Vitamin E cream over the affected area.

When you are ready to re-start treatment, use brand NEW electrodes and soften the gel with de-ionised water to reduce the possibility of further irritation. (Also see the note on page 5)

MAINTENANCE

The stimulator

Clean the outside of the case with surgical spirit. Do not use detergents or plastic solvents and do not allow any liquid to get inside the stimulator case and do not tamper with the inside of the unit as this will invalidate the warranty.

Leadwires

Clean with surgical spirit. Check for damage and replace with new lead wires as necessary.

Electrodes

Effective pain relief can be marred by poorly cared for electrodes.

Keep the gel surface clean using a damp sponge. DO NOT remove electrodes by pulling on the pigtail wires.

Follow the care instructions provided in the stimulator kit or supplied in each new pack.

Batteries

PRO-TENS is a high output unit and battery life will vary with the type used and intensity required for treatment. Rechargeable batteries are recommended for economy - ask your supplier for details.

Remove the battery if you are not going to be using PRO-TENS for any length of time.

Refer to the battery manufacturers instructions for safe disposal of batteries.

NEVER throw batteries on the fire.

PRO-TENS Technical Specification



Manufactured and tested for compliance to MDD 93/42 EEC and to the following standards:

Safety - EN60601-1:1990 incl.A2:1996
EMC - EN60601-1-2:1993

Parameters established using 1Kohm test load.

Accuracy to BS5724 part1:1979 - $\pm 30\%$

<i>Pulse Amplitude</i>	60mA max.
<i>Pulse Frequency</i>	2Hz-150Hz adjustable
<i>Pulse Width</i>	50 μ S-250 μ S adjustable
<i>Burst Mode</i>	2 bursts per Sec.(2Hz) 9 pulses per Burst 100Hz pulse stream Pulse width adjustable
<i>Modulation Mode</i>	5 secs cycle repeated 3 secs on - 2 secs off Pulse Width & Frequency remain adjustable.
<i>Timer</i>	30 mins. \pm 10 mins. 60 mins. \pm 20 mins. or constant treatment time
<i>Battery Type:</i>	Alkaline PP3 MN1604
<i>Battery Life (Alkaline)</i>	20 hrs average usage
<i>Weight inc. battery</i>	130 Grams
<i>Dimensions</i>	24 x 64 x 93mm
<i>Storage Temp.</i>	-0°C-+50°C(32°F - 122°F)
<i>Operating Temp.</i>	-0°C-+50°C(32°F - 122°F)