

# Transderm® Digital

mattioli engineering

**Transderm® Digital** is the new Non Invasive, Stand alone powered drug-delivery system carrying Dermoelectroporation® Technology to deliver Ionic drug solution into the body for medical purposes. As result of more than five years researches, Mattioli Dermoelectroporation®, technology is consolidated to be an incredible procedure that allows the transdermal delivery of whatever substance operators want, which are otherwise not absorbed into the skin because of the typology and dimension of their own molecules. Dermoelectroporation® infact, increases the skin's permeability just using some skin's water based channels **opened by a particular controlled current delivered to the patient and allowing the substances to absobed till hypodermis and muscle membranes.**

The system has been FDA approved for the *"local administration of ionic drug solutions into the body for medical purposes and can be used as an alternative to injections"*.

## TRANSDERM® DIGITAL IS MADE OF THE FOLLOWING DEVICES:

- Transderm® Digital with two applicators
- Transderm® needle Free Syringe

Macromolecules (such as Hyaluronic Acid) previously not transdermally deliverable by traditional Iontophoresis are now successfully deliverable due to the new Dermoelectroporation® Technology.

## TRANSDERM® DIGITAL FEATURES:

- Homogeneous drug delivered on the selected area
- Real time control on the amount of drug to delivered
- Real time patient's skin impedance measurement for successful drug delivery
- Drug administration in a timely manner to avoid waste of product with 100% protection against external agents
- No Electrolysis effect – No drug PH modification
- No need of Pre-charged compounds / Carrying Gels / specific products or particular preparations

**Transderm® Digital** ensures speed of action, easier regulation of either current delivery and vibration and

monitors skin impedance on real time to give users the final results they expect. The new revolutionary handpiece allows users to see and manage at best the delivery with no waste of product and getting optimal results.

Operators will enjoy the accuracy provided by the **Transderm® Digital** Handpiece for any skin condition and for any length of treatment.

Patients will enjoy treatments with **Transderm® Digital** due to the very high comfortable sessions. Vibration feature makes electrical pulses delivery perception to decrease significantly and the handpice won't allow undesired spilling of product.

New Patient's Personalized Delivery mode  
Easy to use and non invasive.

Transderm Fda cleared as alternative to injections.

New internationally patented proprietary Dermoelectroporation® technology.

Current delivery perception protected.

Real time control on homogeneous drug delivery.

Real time transdermal delivery monitoring.

Control on either amount of drug to be delivered and time of treatment.

No need of pre-charged compounds or carrying gels

No need of specific products or pre-charged preparations

No need of additional terminals (return electrode).

Reproducibility of treatment.

## Some international user's applications

- Skin Rejuvenation treatments
- Hyperhidrosys
- Cellulite treatments
- Wrinkles treatments
- Fat Deposits treatments
- Pre laser treatments
- Pre and post plastic surgery sessions
- Skin Whitening treatments
- Steroids applications
- Aesthetic applications
- Replacing injections for Mesotherapy applications and many others

## Some international user's deliverable drugs

- Type A Botulinum Toxine
- Phosphatidylcoline
- Hyaluronic Acid
- Aminophylline
- Grow Factors
- Amino Acids
- L-Carnitine
- Lidocaine
- Heparine
- Collagen
- Vitamins
- Steroids
- Elastine
- and many others

DATA SHEET





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a new science  
in skin care®

## TECHNICAL SPECIFICATIONS

### TRANSDERM® DIGITAL

**POWER SUPPLY:** 9 V DC, 1A max, external

**AVERAGE PULSE CURRENT:**

+/-1 mA, 2 mA, 3 mA, 4 mA, 5 mA, user selectable, 20%

**LOAD IMPEDANCE:** 0 -15 KOhm

**PULSE FREQUENCY:** 2200 Hz

**BURST TIME:** 10 msec.

**BURST FREQUENCY:** 50 Hz.

**CLASS (ACCORDING TO EN60601-1):** Class I type BF

### ULTRAPEEL® II MICRODERMABRADER

**SUPPLY VOLTAGE:** 240VC single phase

**FREQUENCY:** 50 Hz

**POWER ABSORPTION:** 440VA

**FUSES:** 2 x 2 AT at 220V, 50Hz

**CLASS (ACCORDING TO EN60601-1):**

Class 1 type B

**EXTN CONNECTOR:** 9Vdc 1A max

**COMPRESSION:** 2,5 bar max, adjustable

**SUCTION POWER:** from 0.2 to 0.7 bar  
(below 10000 mt altitude)

**ABRADING MEDIA:**

High purity medical grade corundum powder

### PHYSICAL

**DIMENSION:** 32x35x55 cm

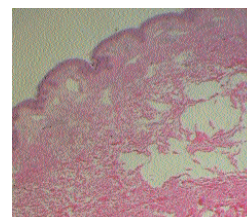
**WEIGHT:** 20 kg



Before



After



1.700.000 dalton  
Hyaluronic acid delivery  
through the dermis  
to hypodermis using  
Transderm® Ionto System  
(B&A and biopsy  
courtesy of Dr. Jaggy Rao,  
MD, Univ. of Edmonton,  
Alberta, Canada)

## Dermelectroporation®

**Dermelectroporation®** is a new named and patented proprietary technology of Mattioli Engineering Labs of Florence, Italy. As result of more than five years researches, Mattioli **Dermelectroporation®**, technology is consolidated to be an incredible procedure that allows the transdermal delivery of whatever substance operators want, which are otherwise not absorbed into the skin because of the typology and dimension of their own molecules. **Dermelectroporation®** infact, increases the skin's permeability just using some skin's water based channels **opened by a particular controlled current delivered to the patient and allowing the substances to absobed till hypodermis and muscle membranes.** **Dermelectroporation®** allows ionic dug solutions to penetrate down till Hypodermis and it is faster than traditional Ionthophoresis.

With **Dermelectroporation®** micro and macro-molecules (greater than 800 Kdalton in size, such as Hyaluronic, Vitamins, Amino acids, Heparin, Antinflammatories etc) are safely delivered into the body without either modification of the ionic drug solutions pH and Electrolysis effect of the ionic solution itself. This was not possible with traditional Ionthophoresis systems before.

[www.mattioliengineering.com](http://www.mattioliengineering.com)