



RPW Shockwave Therapy



## Chattanooga & DJO

Chattanooga is a brand of DJO Global Inc. DJO Global provides solutions for musculoskeletal health, vascular health and pain management. Our products help prevent injuries or rehabilitate after surgery, injury or from degenerative disease, enabling patients to regain or maintain their natural motion. Visit [www.DJOglobal.eu](http://www.DJOglobal.eu)

Our Intelect® line of products contributes to better treatment outcomes in hospitals, clinics and home settings worldwide. We lead the physiotherapy industry by example, through continuous innovation, providing real-world solutions for clinicians and their patients.

## Radial Pressure Waves

Therapeutic shockwaves were introduced as a medical treatment for eliminating kidney stones without causing skin injury, over 20 years ago. Some of the side effects discovered while using this treatment, were the bone healing and accelerated tissue healing results on the areas submitted to shockwave treatment. Today the use of radial shockwaves or Radial Pressures Waves (RPW) has been successfully extended to other therapeutic and wellness applications such as:

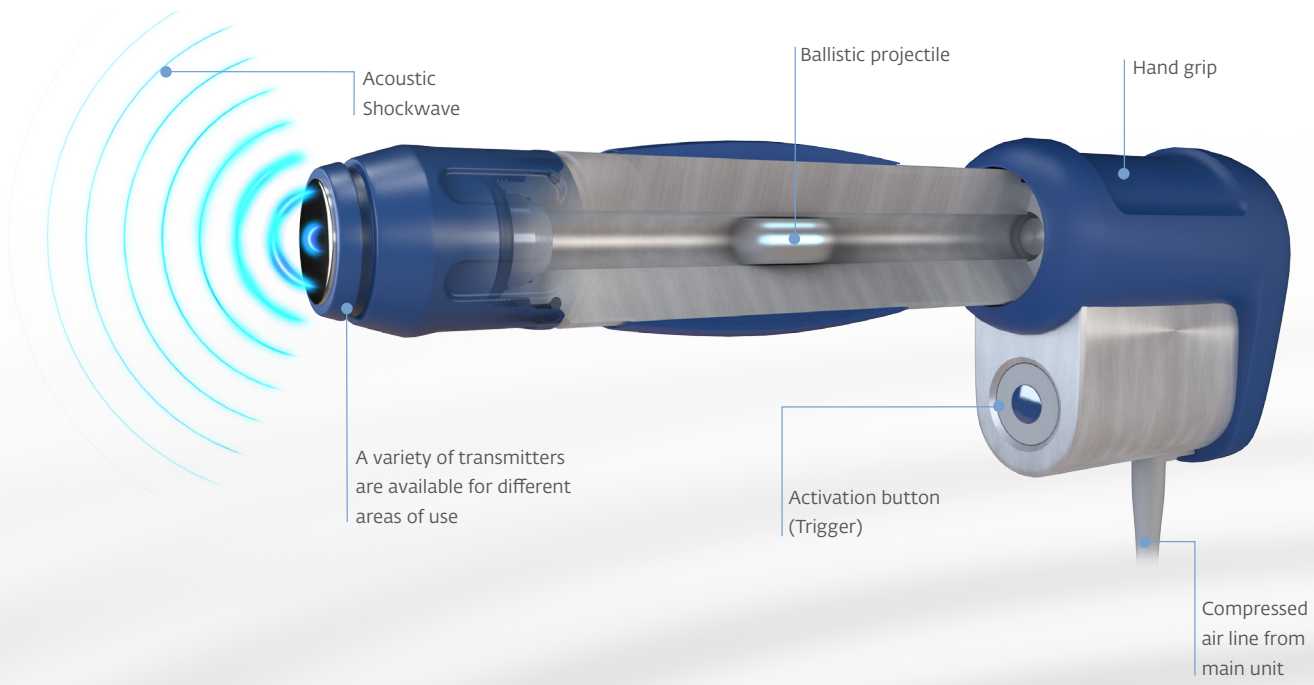
- Shoulder calcifications
- Insertional tendonitis
- Myofascial trigger points
- Muscle and connective tissue activation

Radial Pressure Waves is an excellent non invasive treatment method with very few negative side effects, for indications that are normally very difficult to treat. For these indications we now know that RPW is a treatment method that reduces pain as well as improves function and quality of life.

**Chattanooga RPW Technology**

Chattanooga Intellect RPW and Mobile RPW are compressed air-ballistic shockwave generators. The shockwaves for both devices are generated with a precision ballistic mechanism in the handpiece which accelerates a projectile by compressed air. The motion and weight of the projectile produce kinetic energy which translates along with the transmitter into sound energy in the form of an acoustic wave. The acoustic wave is transmitted into the tissue via a coupling gel and collectively this is known as "Radial Pressure Wave Therapy". The propagating acoustic waves functionally stimulate increased blood flow and metabolic activity within the cell.

**D-ACTOR® Applicator**



### Physical effects of Radial Pressure Waves

Radial pressure waves offer a non invasive treatment solution for long term insertion and soft tissue pathologies. Local treatment of the affected area will enhance and reset the healing pattern. Today there are several working hypotheses for the physical effects of radial pressure waves:

- Shockwaves create increased cell membrane permeability metabolically which allows old, damaged and weakened cells to be removed and replaced with healthy viable cells.
- And neurologically, Shockwaves produce a counter irritation at the dorsal root ganglion actually modulating the amount of nociceptive activity and decreasing the pain signal and actually closing the theoretical pain gate.
- Vascular changes such as increased blood circulate in tissues which increases the oxygen content and significantly reduce the concentration of carbon dioxide in the tissue which may stimulate the healing process.
- Based on the hypothesis towards associative pain memory (Wess), afferent pain signals are transmitted through the central nervous system by multiple synaptic junctions which eventually cause efferent fibers to control muscle tone. The reflex mechanism works just like a regulatory circuit.



**Radial Pressure Wave therapy is indicated for:**

- Myofacial Trigger Points
- Activation of muscle and connective tissue
- Disorder of tendon insertions

# Intellect® RPW



DJO is proud to introduce their current Shockwave offerings. Decades of experience in rehabilitation device manufacturing has resulted in radial pressure units that are revolutionary in design, style and application. DJO Shockwave devices come with an abundance of features not found on other radial pressure wave units in the market. Despite the list of impressive features, the user interface is remarkably intuitive and simple to use. DJO has developed a radial pressure wave unit with proven cutting-edge technology which establishes our RPW units as the new global standard in radial Shockwave therapy.

## Features

- Full color LCD touch-screen interface
- State-of-the-art navigation features enable you to access the desired functions at the touch of a finger
- Treatment setup via Quick-link Indications, Clinical Protocols™ or manual adjustment
- 200 user-defined protocol storage slots
- Over 80 clinical protocols on board
- Clinical Resources include:
  - Full color graphics library of anatomical images and pathologies
  - Hand piece placement images
  - Radial pressure wave rationale
  - Radial pressure wave contraindications
- 2 channels allow connection of 2 hand pieces
- Unique optimal energy level adjustment feature that allows gradual ramping of the intensity during treatment
- Convenient storage platform allows secure and easy access of hand pieces, transmitters and gel
- 360° swivel rotation of interface
- Large storage drawer for storage of clinical supplies
- Multilingual software
- Patient documentation of treatment sessions, pre and post treatment patient pain scales, pain mapping and pain types all captured on Patient Data Cards
- 3 year warranty

Transmitter storage box



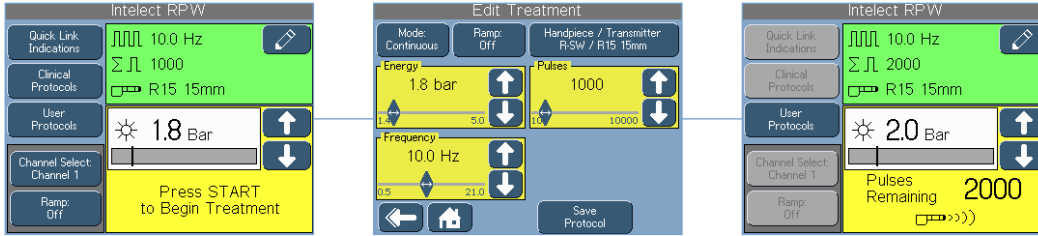
**Intellect®**  
RPW

360° Swivel rotation of interface



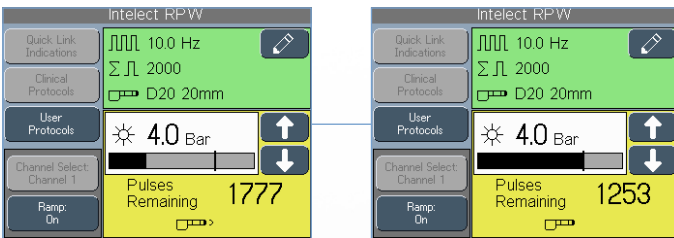
### Easy-to-use Interface

Intellect® RPW incorporates touch screen technology to ensure a high degree of simplicity. The easy-to-use menu-driven user interface guarantees reliable selection of all necessary parameters for treatment set-up as well as during patient treatment. All essential parameters always remain under control.



### Unique optimal energy level adjustment

An automatic ramp-up feature, that allows a gradual increase of the intensity, at the start of the treatment, to provide an automatic and smooth intensity increase in tune with your patient. The patient's pain threshold can be recorded and treatment can be managed at the optimal painless energy level.







### Clinical Protocols

Clinical Protocols: Select Treatment Area

Select Indication: Shoulder

- Musc.treat-Calc tend shoulder
- Calc tendonitis shoulder I
- Calc tendonitis shoulder II
- Musc.treat-Shoulder pain
- Shoulder pain I
- Shoulder pain II
- Musc.treat-Frozen Shoulder
- Frozen Shoulder I
- Frozen Shoulder II
- Massage, Vibration treatm.
- Bursitis-Muscular Treatment
- Trigger point therapy

Shoulder Calc tendonitis shoulder I

Recommendations:

- ✳️ 1.4 bar
- 📊 20.0 Hz
- Σ 2000
- 🔊 Deep Impact 15min

### Quick Link Indications

Quick Link Indications

General Muscular Treatment	Achilodynia	Shoulder Pain
Trigger Point Therapy	Medial Epicondylitis	Jumpers / Runners Knee
Plantar Fasciitis	Lateral Epicondylitis	Low Back Pain
		Thoracic Pain

### User Protocols

Retrieve Protocol

- ✳️ 34 bar
- 📊 115 Hz
- Σ 1210
- 🔊 Off
- 🔊 D35 35mm

AMANDA  
GEORGE  
MICHAEL

Delete

### Clinical Resources Libraries:

- Anatomical/Pathological Library
- Hand Piece Placement Library
- Radial Pressure Wave Rationale
- Radial Pressure Wave Contraindications
- Patient Pain Profile Information

Shoulder Rotator Cuff Tear

Handpiece Placement: Lower Leg/Ankle

Touch picture to select

Shockwave Rationale

**RADIAL PRESSURE WAVE THERAPY**

**INDICATIONS:**  
Therapeutic shock waves were introduced into medicine as a treatment for eliminating kidney stones 20 years ago. Successful as well effect was the effect on bone healing. Bone density increased, as well as accelerated tissue healing on the area.

**There are basically two different methods:**  
External Shockwaves  
Electromagnetically generated, high energy, deep penetration, and precisely focused in small spots.  
Radial shockwaves  
Radial shockwaves are often referred as radial pressure.

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Contraindications

**CONTRAINDICATIONS FOR CHRYSTANKUS GROUP INTELLECT**

Before a treatment with Radial Pressure Wave a correct measurement and diagnosis should be performed. Please also consult with the clinic development and medical publications on Radial Pressure Wave therapy for details on contraindications and side effects not listed at the time of manufacturing.

**CONTRAINDICATIONS:**  
- Pregnancy; Do not use Radial Pressure Wave treatment on the body part during pregnancy.  
- Neurologic or other cognitive disorder.  
- Anticoagulant pharmaceuticals, especially Heparin.

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Pain Information for Patient Card

Pain Before Treatment

Pain After Treatment

Plan Type None Selected

Plan Type None Selected

Treatment Area: Shoulder

See to Patient Card

# Intellect<sup>®</sup>

RPW

## ORDERING INFORMATION:

2082 Intellect<sup>®</sup> RPW unit - 100 V

2073 Intellect<sup>®</sup> RPW unit - 120 V

2074 Intellect<sup>®</sup> RPW unit - 230 V

## Standard Accessories:

28700 - Standard accessory kit that includes the following:

- 28699 D-ACTOR<sup>®</sup> Hand piece applicator
- 28736 Projectile (x3)
- 17638 R15 15 mm ESWT transmitter
- 28724 D20-S D-ACTOR<sup>®</sup> 20 mm transmitter
- 28737 Sealing set
- 28738 Guide tube (x2)
- 28739 Cleaning brush

4248 - Conductor™ transmission gel 250 ml (8.5 oz) bottle (x1)

27465 - Patient data card (x1)

28668 - User manual on CD

## Optional Accessories:

28725 - D35 D-ACTOR<sup>®</sup> 35 mm transmitter

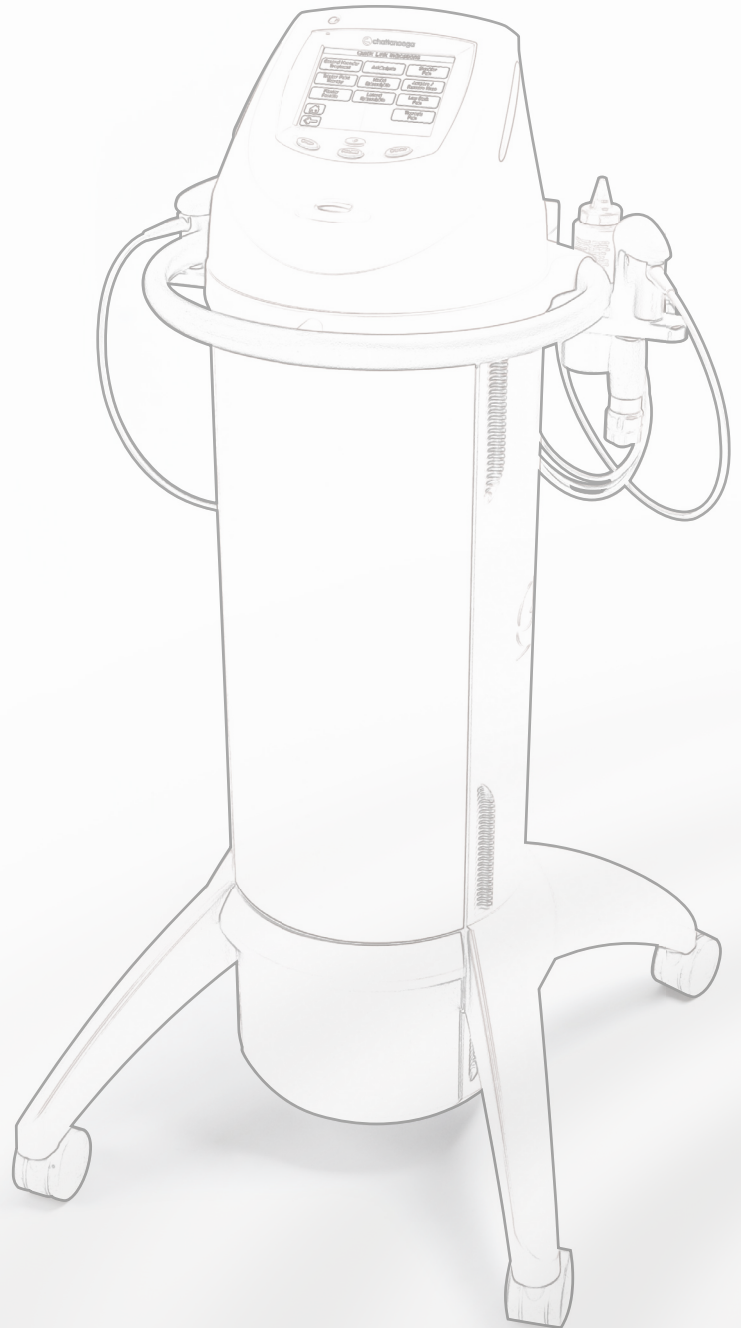
28726 - F15 Focus-Lens 15 mm transmitter

28728 - DI15 Deep Impact<sup>®</sup> 15 mm transmitter

28729 - C15 CERAmA-x<sup>®</sup> ESWT 15 mm transmitter

28730 - V-ACTOR<sup>®</sup> hand piece applicator kit that includes the following:

- 28740 - V25 V-ACTOR<sup>®</sup> 25 mm vibration transmitter
- 28741 - V40 V-ACTOR<sup>®</sup> 40 mm vibration transmitter



**TECHNICAL SPECIFICATIONS:**

Mains Power:	100 V ~, 50/60 Hz (Model 2082) 120 V ~, 60 Hz (Model 2073) 230 V ~, 50 Hz (Model 2074)
Power Consumption:	840 VA (Model 2082) 780 VA (Model 2073) 610 VA (Model 2074)
Compressed Air Output:	1.4 - 5 bar
Power Increment Settings :	0.2 bar
Power Indication:	Maximum and average power
Pulse Amplitude:	Approx. 2 mm at 3 bar, idling (without coupling)
Pulse Width:	Approx. 6 - 12 ms
Pulse Frequency:	0.5 - 21 Hz
Pressure Vessel Volume:	0.3 L
Mode:	Single or continuous
Fuses:	Two 6.3 A time lag 5 x 20 mm (not user serviceable)
Electrical Class:	CLASS I
Electrical Type:	TYPE B
Regulatory Risk Class:	Ila according to MDD 93/42/EEC

**Dimensions**

Width:	42 cm (16.5")
Depth:	41 cm (16.14")
Height:	114.3 cm (45")
Standard Weight (with 1 handset):	32.66 kg (72 lbs)

## MOBILE RPW



When the need for a powerful yet portable Radial Pressure Wave device is called upon in the clinic or the athletic sports field, the Chattanooga Mobile RPW is the ideal choice. Its lightweight and compact design, together with its quiet, built-in compressor makes it perfect for portable use.

User friendliness is at the heart of the Mobile RPW's design. The simple, ergonomically laid out controls enable all of the key parameters to be easily changed, while an illuminated LED display clearly indicates pressure, frequency and number of pulses. Initiation of the pulses is via a trigger mechanism on the hand piece.

Mobile RPW



Hand piece docking port



Ultrasound gel holder





When the need for a powerful yet portable Radial Pressure Wave device is called upon in the clinic or on the athletic sports field, the Chattanooga Mobile RPW is the ideal choice.

**ORDERING INFORMATION:**

2805 Mobile RPW unit

**Standard Accessories:**

28699 - D-ACTOR® Hand piece applicator

17638 - R15 15mm ESWT transmitter

28724 - D20-S D-ACTOR® 20mm transmitter

28701 - Accessory kit that includes the following:

- 28737 Sealing set
- 28738 Guide tube (x2)
- 28736 Projectile (x2)

13-5182 - Conductor™ transmission gel 250 ml (8.5 oz) bottle

0938 - Clinical Guide

13-5184 - Paper User Manual

13-5183 - CD User Manual

**Optional Accessories:**

28745 - Carrying Bag

28725 - D35 D-ACTOR® 35 mm transmitter

28726 - F15 Focus-Lens 15 mm transmitter

28728 - DI15 Deep Impact® 15 mm transmitter

28729 - C15 CERAmA-x® ESWT 15 mm transmitter

28730 - V-ACTOR® Hand Piece


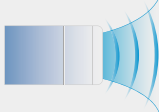

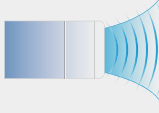

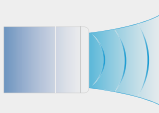

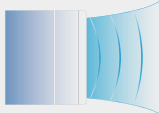

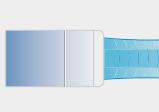

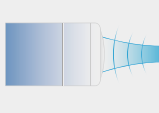


**TECHNICAL SPECIFICATIONS:**

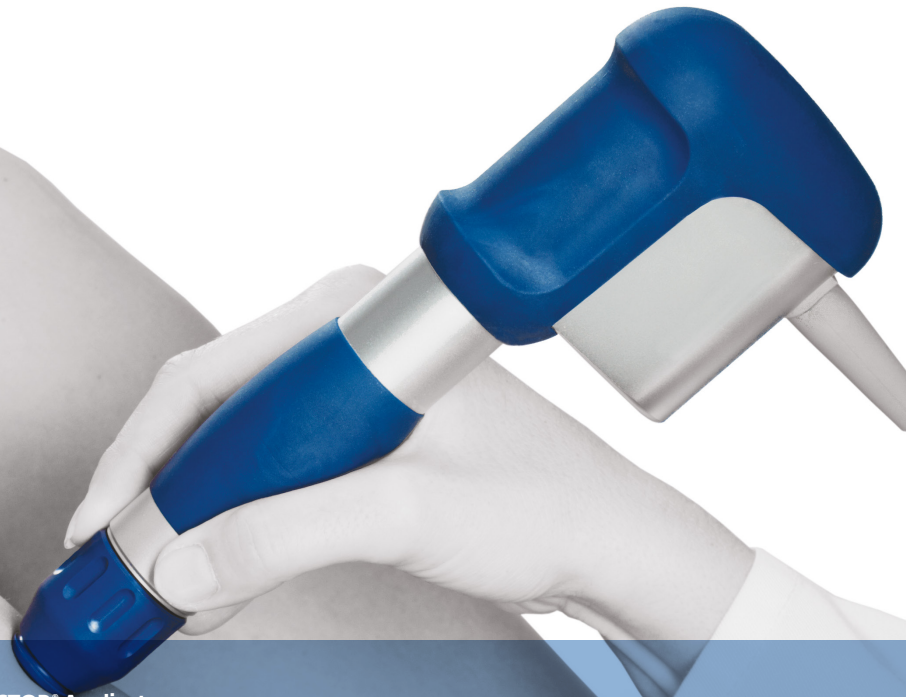
Dimensions (W x H x D):	49 x 29 x 40 cm
Weight:	Approx. 9 kg
Mains input voltage:	100 - 240 VAC
Mains frequency:	50/60 Hz
Power consumption:	Max. 150 VA
Classification to MDD:	Class IIa device
Trigger button:	Located on handpiece
Display:	LED displays with selector buttons
USB Connectivity:	Yes
Pressure:	1-4 Bars of pressure, infinitely variable with precise adjustments of 0.1 increments.
Shock:	Single and Continuous shocks Frequency D-actor: 1 - 15 Hz Frequency V-actor: 1 - 21 Hz

**D-ACTOR® Applicator**

The **D-ACTOR®** applicator can be used with a variety of transmitters for the generation of shockwaves. Each transmitter has its own characteristic effect and area of use. The majority of transmitters generate shockwave, whereas the D20 and D35 transmitters generate both shockwaves and vibrations.

Transmitter	Data	Indications	Energy Flux Density / Penetration depth
	C15, 15 mm, CERAmA-x® ESWT Transmitter Elastic pressure waves	Gel free, elastic pressure wave therapy for all tendinopathies	 0.45 mJ/mm <sup>2</sup> 0 - 40 mm
	R15, 15 mm, EWST Transmitter Radial spreading	Radial pressure wave therapy, all tendinopathies	 0.38 mJ/mm <sup>2</sup> 0 - 40 mm
	D20-S, 20 mm, D-ACTOR® Transmitter Radial pressure waves and vibration pulses	Myofascial trigger therapy, muscle and connective tissue, dissolution of fibrosis, treatment of deep-seated muscles	 0.48 mJ/mm <sup>2</sup> 0 - 50 mm
	D35, 35 mm, D-ACTOR® Transmitter Radial pressure waves and vibration pulses	Myofascial trigger therapy, muscle and connective tissue back muscles, skin elasticity, trigger-diagnosis, dissolution of fibrosis, treatment of deep-seated muscles	 0.46 mJ/mm <sup>2</sup> 0 - 50 mm
	DI15, 15 mm, Deep Impact® Transmitter Energy focused beam	Deep-seated diseases, trigger, chronic conditions, high energy requirements	 0.63 mJ/mm <sup>2</sup> 0 - 60 mm
	F15, 15 mm, Focus-Lens Transmitter Energy focused area	Close to surface pain areas, facial muscles, neck, head, individual triggers	 0.16 mJ/mm <sup>2</sup> 0 - 20 mm

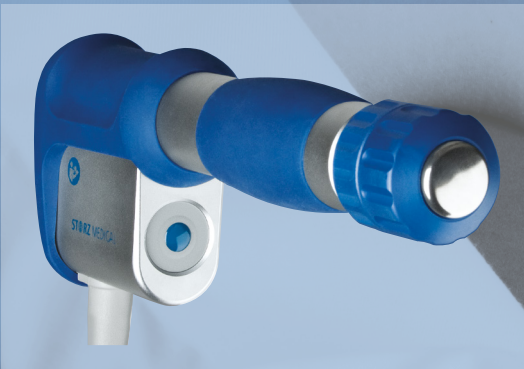




### **D-ACTOR® Applicator**

#### **Applications:**

- Localizing and Deactivating Trigger Points: Triggers are localized at the low energy level (approximately 2 bar) by passing the transmitter over the muscle region being treated (increased sensitivity to pain) and then deactivated using a higher energy level (approximately 3 bar)
- Increasing Circulation: Promotes blood flow through the tissue and boosting metabolism.
- Pulse Vibration Massage: Soothing relief from muscle strain and stress.
- Plantar Fasciitis, Heel Pain, or Heel Spur: Plantar Fasciitis is an inflammatory condition of the foot caused by excessive wear to the plantar fascia that supports the arch.
- Tendinosis Calcarea / Supraspinatus-Tendon: Shoulder calcifications and chronic shoulder pain.
- Radial and Ulnar Humeral Epicondylitis: Tennis elbow, inflammation of tendon attachments on cubital or radial part of elbow joint (humeral)
- Achillodynia: Pain due to inflammation of Achilles tendon or the bursa associated with it.
- Retropatellar Pain Syndrome: Pain in the front of and around the kneecap
- Tibial Edge Syndrome: Pain located along or just behind the medial edge of the tibia
- Proximal Iliotibial Band Friction Syndrome / Trochanteric Insertion Tendontitis: Pain or aching on the outer side of the knee or hip.



**Intelect**  
*RPW*

**V-ACTOR® Applicator**

The V-ACTOR® applicator is an ideal complement to Radial Pressure Wave therapy.

**Available for both Intelect RPW and Mobile RPW devices**



**Applications:**

- Increasing Circulation: Promotes blood flow through the tissue and boosting metabolism.
- Pulse Vibration Massage: Soothing relief from muscle strain and stress.



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