DJO

NEVER STOP GETTING BETTER

REVOLUTION WIRELESS PROGRAMS AND PROTOCOL PARAMETERS

Using electrotherapy to facilitate movement, strengthen muscle, and improve balance and coordination.

- Wireless allows for the utilization of electrotherapy during functional activity without the restriction of lead wires
- Utilizes VMS and VMSFR
- Up to 4 channels that can run concurrently
- Electrodes have a unique snap
- Modules snap onto the electrodes
- Modules allow for adjustment of lead wire length
- Wraps are utilized to hold the modules in place during activity

Pain:

Acute Pain (Gate control)
Chronic Pain (Opiate Release)
Trigger Point

Edema:
Muscle Pump Continuous
Muscle Pump Cycled

Relax Muscle Spasm/ROM:
Decrease Muscle Tone
Increase ROM

Muscle Strengthening:
Atrophy
Slow Twitch
Fast Twitch

Muscle Re-Education:
VMSFR Static 4 Channel
VMSFR Static 2 Channel
VMSFR Dynamic 4 Channel
VMSFR Dynamic 2 Channel

Pain Management

- Acute Pain
  Single Ch; PD=200µs; CC; Freq=100 pps; Continuous; 30 mins
- Chronic Pain
  Single Ch; PD=300µs; CC; Freq=6 pps; Continuous; 30 mins
- Trigger Point
  Single Ch; PD=400µs; CC; Freq=6 pps; Continuous; 4 mins

DJO, LLC
1430 Decision Street
Vista, CA 92081-8533

760.727.1280
800.321.9549 toll free
www.djortho.com

NEVER STOP GETTING BETTER

Decrease Edema

- Muscle Pump Cycle
  Single Ch; PD=200µs; CC; Freq=35 pps; Cycle time 5/5; additional Ramp up/down=2 sec; 20 mins
- Muscle Pump Continuous
  Single Ch; PD=200µs; CC; Freq=5 pps; Cycle time=Continuous; 20 mins

Relax Muscle Spasm/ROM

- Decrease Muscle Tone
  Single Ch; PD=300µs; CC; Cycle Time=5:5; Freq=100 pps; additional Ramp up/down=2 sec; 30 mins
- Increase ROM
  Single Ch; PD=200µs; CC; Cycle Time=4:12; Freq=35 pps; additional Ramp up/down=2 sec; 20 mins

Muscle Strengthening

- Muscle Atrophy
  Single Ch; PD=300µs; CC; Cycle Time=10:50; Freq=50 pps; additional Ramp up/down=2 sec; 20 mins
- Slow Twitch function
  Single Ch; PD=300µs; CC; Cycle Time=4:12; Freq=35 pps; additional Ramp up/down=2 sec; 20 mins
- Fast Twitch function
  Single Ch; PD=200µs; CC; Cycle Time=5:5; Freq=50 pps; additional Ramp up/down=2 sec; 20 mins

Muscle Re-Education

- VMS-FR Static 2 CH.
  Ch 1+2; PD=300µs; CC; Burst Duration=4500 msec; On/Off time=1:3; Freq=35 pps; 30 mins
- VMS-FR Static 4 CH.
  Ch 1+2; PD=300µs; CC; Burst Duration=4500 msec; On/Off time=1:3; Freq=35 pps; 30 mins
- VMS-FR Dynamic 2 CH.
  Ch 1+2; PD=200µs; CC; Burst Duration=2000 msec; On/Off time=1:5; Freq=80 pps; 20 mins
- VMS-FR Dynamic 4 CH.
  Ch 1+2; PD=200µs; CC; Burst Duration=2000 msec; On/Off time=1:5; Freq=80 pps; 20 mins

DJO, LLC
1430 Decision Street
Vista, CA 92081-8533

760.727.1280
800.321.9549 toll free
www.djortho.com

DECREASE PAIN

IFC Gate 40

Beat Freq. 80-150 bps
Scan 40%
Carrier Freq. 4000
CV

IFC Gate 100 (ACP IFC Sensory)

Beat Freq. 80-150 bps
Scan 100%
Carrier Freq. 4000
CV

IFC Opiate 40

Beat Freq. 1-10 bps
Scan 40%
Carrier Freq. 2500
CV

IFC Opiate 100 (ACP IFC Motor)

Beat Freq. 1-10 bps
Scan 100%
Carrier Freq. 2500
CV

IFC Nerve Block 100 (ACP IFC Nerve Block)

Sweep OFF
Beat Freq. 100 bps
Scan 100%
Carrier Freq. 5000 Genisys 10,000 NEO
CV

IFC Sensory/Motor (ACP Sensory/Motor) Use Sequencing Program

Sensory

Sweep OFF
Beat Freq. 100 bps
Scan 100%
Carrier Freq. 4,000
CV
Treatment Time 15:00

Motor

Sweep OFF
Beat Freq. 2 bps

Vector Scan 100%
Carrier Freq. 5,000 Hz
CV
Treatment Time 15:00

IFC Motor/Sensory (ACP Motor Sensory) Use Sequencing Program
Motor
Sweep OFF
Beat Freq. 15 bps
Vector Scan 100%
Carrier Frequency 5,000 Hz
CV
Treatment Time 8:00
Motor
Sweep OFF
Beat Freq. 2 bps
Vector Scan:Off
Carrier Freq. 5,000 Hz
CV
Treatment Time 7:00
Sensory
Sweep OFF
Beat Freq. 100 bps
Vector Scan 100
Carrier Freq. 4,000 Hz
CV
Treatment Time 15:00

Premod Gate
Freq. 80-150 bps
Carrier Freq. 4,000 Hz (NEO only)
Cycle Time Continuous
CV

Premod Opiate
Freq. 1-10 bps
Carrier Freq. 2500 Hz (NEO only)
Cycle Time Continuous
CV

MUSCLE FUNCTION/CONTROL

VMS-FR Tonic (Weakness, Flaccidity, Abnormal Tone) (ACP PENS)
Phase Duration 200 µsec (increase for flaccid muscle and larger muscle)
Freq. 50 pps
Burst Duration 2000 µsec (Set to equal the duration of the functional activity)

On/Off Ratio 1:3
CC
Set Channels Simultaneously

VMS-FR Phasic (Weakness, Dynamic Instability, Poor Power) (ACP PENS)
Phase Duration 200 µsec (increase for flaccid muscle and larger muscle)
Freq. 80 pps
Burst Duration 2000 µsec (Set to equal the duration of the functional activity)
On/Off Ratio 1:5
CC
Set Channels Simultaneously

MUSCLE STRENGTHENING

VMS-Power Single
Channel M ode Single
Phase Duration 200 µsec (increase for flaccid muscle and larger muscle)
Cycle Time 10/50 (cycle time will change determined by patient abilities)
CC
Freq. 50 pps
Anti-Fatigue Off
Ramp 2 sec.

VMS-Power Reciprocal
Channel Mode Reciprocal
Phase Duration 200 µsec (increase for flaccid muscle and larger muscle)
Cycle Time 10/50 (cycle time will change determined by patient abilities)
CC
Freq. 50 pps
Anti-Fatigue Off
Ramp 2 sec.
Set Channels Independently

VMS-Power Co-Contract
Channel Mode Co-Contract
Phase Duration 200 µsec (increase for flaccid muscle and larger muscle)
Cycle Time 10/50 (cycle time will change determined by patient abilities)
CC
Freq. 50 pps
Anti-Fatigue Off
Ramp 2 sec.
Set Channels Independently

VMS-Endurance Single

Channel M ode Single
Phase Duration 200 µsec (increase for flaccid muscle and larger muscle)
Cycle Time 10/50 (cycle time will change determined by patient abilities)
CC
Freq. 35 pps
Anti-Fatigue Off
Ramp 2 sec.

VMS-Endurance Reciprocal

Channel Mode Reciprocal
Phase Duration 200 µsec (increase for flaccid muscle and larger muscle)
Cycle Time 10/50 (cycle time will change determined by patient abilities)
CC
Freq. 35 pps
Anti-Fatigue Off
Ramp 2 sec.
Set Channels Independently

VMS-Endurance Co-Contract

Channel Mode Co-Contract
Phase Duration 200 µsec (Increase this as the size of the muscle increases)
Cycle Time 10/50 (increase for flaccid muscle and larger muscle)
CC
Freq. 35 pps
Anti-Fatigue Off
Ramp 2 sec.
Set Channels Independently

Anti-Fatigue Option

Anti-Fatigue ON (frequency modulation starting with a higher frequency which is then reduced over time to prevent fatigue of the muscle fiber and allow for longer treatment times to build endurance)

VMS Burst -Power Single (Better than ACP MFAC)

Channel Mode Single
Phase Duration 200 µsec (increase for flaccid muscle and larger muscle)
Cycle Time 10/50 (cycle time will change determined by patient abilities)
CC
Freq. 50 pps
Anti-Fatigue Off

Ramp 2 sec.

VMS Burst -Power Reciprocal

Channel Mode Reciprocal
Phase Duration 200 µsec (increase for flaccid muscle and larger muscle)
Cycle Time 10/50 (cycle time will change determined by patient abilities)
CC
Freq. 50 pps
Anti-Fatigue Off
Ramp 2 sec.
Set Channels Independently

VMS Burst -Power Co-Contract

Channel Mode Co-Contract
Phase Duration 200 µsec (increase for flaccid muscle and larger muscle)
Cycle Time 10/50 (cycle time will change determined by patient abilities)
CC
Freq. 50 pps
Anti-Fatigue Off
Ramp 2 sec.
Set Channels Independently

VMS Burst -Endurance Single (Better than ACP MFAC)

Channel M ode Single
Phase Duration 200 µsec (Increase this as the size of the muscle increases)
Cycle Time 10/50 (increase for flaccid muscle and larger muscle)
CC
Freq. 35 pps
Anti-Fatigue Off
Ramp 2 sec.

VMS Burst -Endurance Reciprocal

Channel Mode Reciprocal
Phase Duration 200 µsec (Increase this as the size of the muscle increases)
Cycle Time 10/50 (increase for flaccid muscle and larger muscle)
CC
Freq. 35 pps
Anti-Fatigue Off
Ramp 2 sec.
Set Channels Independently

VMS Burst-Endurance Co-Contract

Channel Mode Co-Contract
Phase Duration 200 µsec (increase for flaccid muscle and larger muscle)
Cycle Time 10/50 (cycle time will change determined by patient abilities)
CC
Freq. 35 pps
Anti-Fatigue Off
Ramp 2 sec.
Set Channels Independently

Anti-Fatigue Option

Anti-Fatigue ON (frequency modulation starting with a higher frequency which is then reduced over time to prevent fatigue of the muscle fiber and allow for longer treatment times to build endurance)

Russian-Power Single (ACP MFAC)

Channel Mode Single
Duty Cycle 50% (may be reduced to make Russian slightly more comfortable, however it will reduce total power)
CC
Anti-Fatigue OFF
Cycle Time 4/12 (cycle time will change determined by patient abilities)
Burst Freq. 50 bps
Ramp Time .5 sec

Russian-Power Reciprocal

Channel Mode Reciprocal
Duty Cycle 50% (may be reduced to make Russian slightly more comfortable, however it will reduce total power)
CC
Anti-Fatigue OFF
Cycle Time 4/12 (cycle time will change determined by patient abilities)
Burst Freq. 50 bps
Ramp Time .5 sec
Set Channel Amplitude Independently

Russian-Power Co-Contract

Channel Mode Single
Duty Cycle 50% (may be reduced to make Russian slightly more comfortable, however it will reduce total power)
CC
Anti-Fatigue OFF
Cycle Time 4/12 (cycle time will change determined by patient abilities)

Burst Freq. 50 bps
Ramp Time .5 sec
Set Channel Amplitude Independently

Russian- Endurance Single
Channel Mode Reciprocal
Duty Cycle 50% (may be reduced to make Russian slightly more comfortable, however it will reduce total power)
CC
Anti-Fatigue OFF
Cycle Time12/50 (cycle time will change determined by patient abilities)
Burst Freq. 35 bps
Ramp Time 2 sec

Russian-Endurance Reciprocal
Channel Mode Reciprocal
Duty Cycle 50% (may be reduced to make Russian slightly more comfortable, however it will reduce total power)
CC
Anti-Fatigue OFF
Cycle Time 4/12 (cycle time will change determined by patient abilities)
Burst Freq. 35 bps
Ramp Time 2 sec
Set Channel Amplitude Independently

Russian-Endurance Co-Contract
Channel Mode Reciprocal
Duty Cycle 50% (may be reduced to make Russian slightly more comfortable, however it will reduce total power)
CC
Anti-Fatigue OFF
Cycle Time 4/12 (cycle time will change determined by patient abilities)
Burst Freq. 35 bps
Ramp Time 2 sec
Set Channel Amplitude Independently

Anti-Fatigue Option

Anti-Fatigue ON (frequency modulation starting with a higher frequency which is then reduced over time to prevent fatigue of the muscle fiber and allow for longer treatment times to build endurance)

EDEMA CONTROL

VMS Edema Muscle Pump Cycled
- Channel M ode Single
- Phase Duration 200 µsec
- Cycle Time 10/10
- CC
- Freq. 35 pps
- Anti-Fatigue Off
- Ramp 2 sec.

VMS Edema Muscle Pump Continuous
- Channel M ode Co-Contract (set channels independently)
- Phase Duration 200 µsec
- Cycle Time Continuous
- CC
- Freq. 5 pps
- Anti-Fatigue Off
- Ramp 2 sec.

High Volt Edema (ACP Edema)
- Polarity Negative
- Sweep Continuous
- Ramp 2 sec.
- Freq. 100 pps
- Cycle Time Continuous

HIGH VOLT

High Volt Spasm
- Polarity Negative
- Sweep Continuous
- Ramp 2 sec.
- Freq. 100 pps
- Cycle Time Continuous

High Volt Increase Circulation (ACP Increase Circulation)
- Polarity Negative
- Sweep Continuous
- Ramp 2 sec.
- Freq. 100 pps
- Cycle Time Continuous