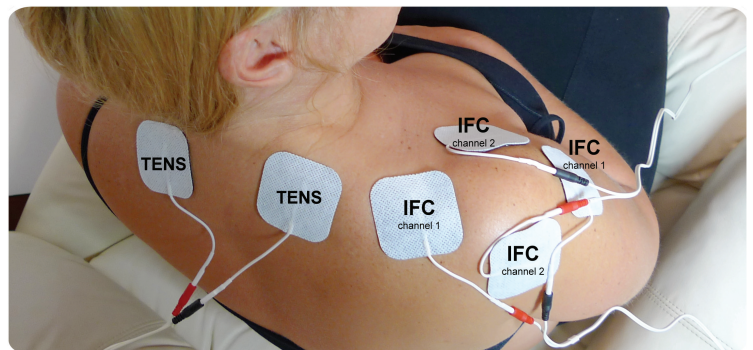


# NeuroTrac™ IFC Rehab

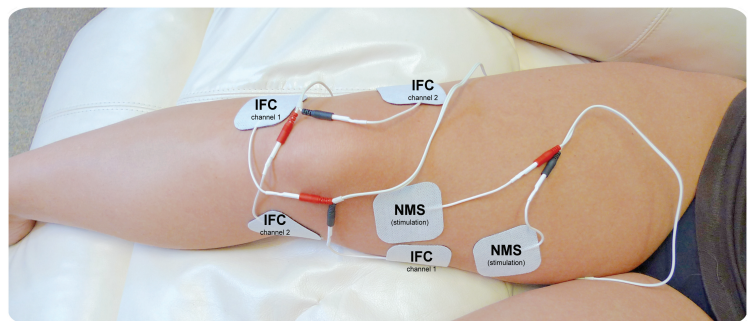
## All in One: IFC, TENS, NMS

### *A major advance in treatment of Joint Pain*

The NeuroTrac™ IFC Rehab facilitates pain alleviation and recovery by combining conventional High and Low frequency TENS and NMS with powerful IFC (Interferential Current).



SHOULDER PAIN - you can use 2 types of pain relief at the same time: Interferential IFC provides a healing current deep into the joint which also produces local pain relief. At the same time, use the classical TENS placed on the Dermatome which corresponds to the shoulder pain.



KNEE PAIN - Patellofemoral pain syndrome and Patella (knee cap) misplacement. IFC provides a deep healing and pain relief current into the joint, while at the same time using stimulation you can treat the cause of the pain by working out the vastus lateralis obliquus (VLO) which balances the knee cap position.

# NeuroTrac™ IFC Rehab - Programmes at glance

## IFC side

	Prog No.	MODE	Interferential Frequency	Dwell , modulation or W/R time	Prog.
IFC predefined	P01	ABT	1 / 10Hz	2 sec.	1min -12h
	P02	ABT	1Hz / 30Hz	9 sec.	
	P03	ABT	5Hz / 15Hz	6 sec.	
	P04	SWP	1Hz~30Hz / 30Hz~1Hz	6 sec.	
	P05	SWP	80Hz~100Hz / 100Hz~80Hz	12 sec.	
	P06	ABT	1Hz / 10Hz	6 sec.	
		SWP	1Hz~30Hz / 30Hz~1Hz	6 sec.	
	P07	ABT	1Hz / 12Hz	4 sec.	
		SWP	5Hz~20Hz / 20Hz~5Hz	4 sec.	
	P08	WORK/REST	10	6 / 3 sec.	
	P09	WORK/REST	50Hz	3 / 6 sec.	
P10	WORK/REST	50Hz	3 / 3 sec.		
	CON	80 Hz	-		
P11	CON	80 Hz	-		
	WORK/REST	50 Hz	3 / 3 sec.		
IFC Custom	PC1	CON	1 -150 Hz	-	
	PC2	WORK/REST	1 - 150 Hz	WORK 1 - 99 sec. REST 1 - 99 sec.	

## TENS / NMS side

### Modalities:

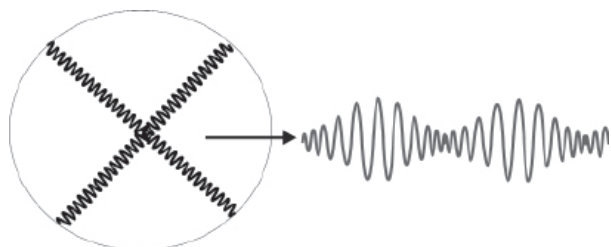
**TENS Continuous (CON)** - constant Frequency and Pulse width current. Good for Pain Gate Mechanism.

**TENS Modulated (MOD)** - the cycles of concurrent width frequency and pulse width modulation. Good for long-term pain relief treatment.

**TENS Burst Modulated (BST)** - A burst of high frequency impulses, repeated twice every second. Good for local pain relief.

**Work/Rest stimulation (NMS)** - Neuromuscular Electrical Stimulation is the elicitation of muscle contraction using electrical impulses. It is commonly used as a therapeutic intervention for muscle strengthening. It can be used to augment the strength of either injured or healthy muscle. Generally it is used on the superficial muscles of the arms and shoulders, the legs, and low back.

### A conceptual drawing of Interferential current:



Interferential stimulation differs from conventional NMS and TENS. Interferential stimulation depends upon the interaction or interference of two medium-frequency electrical outputs that differ slightly in frequency. Such resultant current (called *interference current*, 1-150Hz) has a frequency that is equal to the difference in frequency of on the two channels. Since the frequencies of interferential stimulation (4000 Hz and over) are much higher than those used in TENS and NMS, tissue resistance is reduced and the currents are induced at deeper tissue level.

### Modalities:

**Abrupt (ABT)** - Output with low frequency for a set time and then abrupt change to high frequency for the same time. Cycle is repeated over programme duration.

**Ramp or Sweep (SWP)** - Stimulation frequency ramps smoothly from low frequency to high frequency for a defined modulation time, then back. Cycle is repeated over programme duration.

**Intermittent stimulation (WORK/REST)** - Output amplitude ramps up in 0.5 sec. to adjusted level and stimulates for a defined **WORK** time, then it ramps down in 0.5 sec. to 0 mA, and stays with no stimulation for a defined **REST** time. Cycle is repeated over programme duration.

**Continuous (CON)** - constant value pulses.

**Dual Treatment ( ABT / SWP, WORK/REST / CON)** - a combination of the above modalities in one programme.

	Prog No.	Mode	Frequency (Hz)	Pulse Width (µS)	Prog. Time
TENS predefined	P01	CON	80 Hz	200 µS	1min -12h
	P02	CON	80 Hz	175 µS	
	P03	BST	150 Hz	200 µS	
	P04	MOD	100/65 Hz	200/100 µS	
	P05	CON	10 Hz	175 µS	
	P06	CON	100 Hz	175 µS	
	P07	CON	50 Hz	100 µS	
	P08	CON	60 Hz	75 µS	
	P09	CON	2 Hz	175 µS	
	P10	CON	80 Hz	175 µS	
	P11	MOD	65/100 Hz	200/100 µS	
	P12	BST	Hi Frequency Bursts		
NMS predefined	P13	NMS	5 Hz	300 µS	1min-1.5h
	P14	NMS	10 Hz	250 µS	
	P15	NMS	20/3 Hz	300 µS	
	P16	NMS			50min
	P17	NMS			40min
	P18	NMS			37min
	P19	NMS			35min
	P20	NMS			35min
	P21	NMS			25min
	P22	NMS			50min
	P23	NMS			30min
	P24	NMS			35min
	P25	NMS			50min
	P26	NMS			15min
	P27	NMS			55min
CUSTOM	PC1 Custom	CON	2 - 200	50-300	1min -12h
	PC2 Custom	NMS	2 - 100	50 - 450	1min-1.5h
	PC3 Custom	NMS			