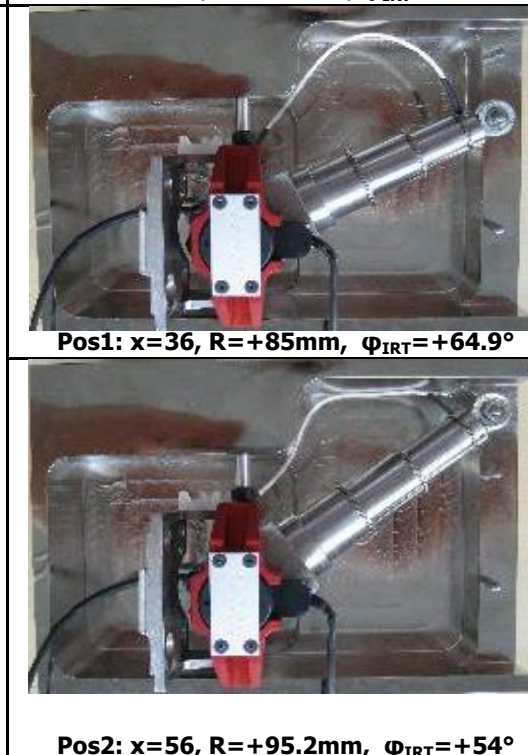
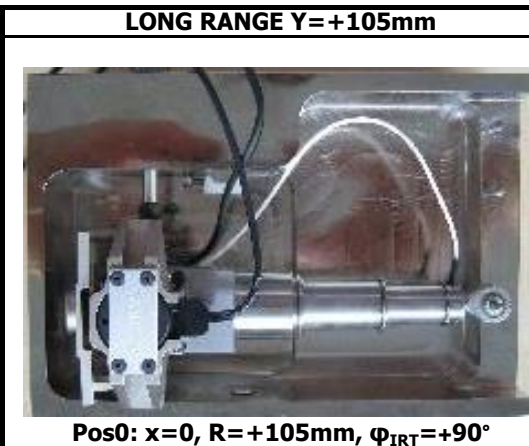


2D IR-TRACC ASSEMBLY- ABSOLUTE LENGTH VERIFICATION SHEET							Calculate IRTACC Radius using formula: $R = (V_{\text{sensor}} \wedge -0.4626) * 31.91 + 13.5$		
Applies for Right Hand Side IR-TRACC Orientation									
IR-TRACC		Angle Sensor			Date	16-Apr-15	Original Calibr Intercept [mm]		101.94
Test No.	PCAL000361	Test Nr.	8028		TEST No.	8032	Linearization exponent		-0.4626
Model No.	IF-367-R2S	Model / SN	3670-11s	0	Technician	Bernard Been	Calibration Factor [mm/V]		31.91
Serial No.		Ang cal/polarity	0.003201	$V_{\text{sen}}/V_{\text{exc}}/\text{deg}$	Temp / Hum	23.2 / 45	Absolute Intercept [mm]		13.50
Calibration Range [mm]	72	Excitation [V]	5.0000	90	REF Length [mm]	105	115.44	InvCF [V/mm] 0.03133	Abs.Interc[V] 0.423
V_{REF} Length [V]	0.1026	V_{REF} Angle [V]	-0.0002	$\phi_{\text{Offset}}^{\text{Sensor}}$ [deg]	-0.01	ϕ_{IRT} [deg]	R [mm]	x [mm]	y [mm]
		V_{REF} far [V]	-0.0077	ϕ_{REF} RIGHT	-90.01	89.5	105.0	0.9	105.0
V_{REF} Tubes Out [V]	0.1026	V_{REF} near [V]	0.0073	Ang cal/polarity	0.003201	90.5	105.0	-0.9	105.0
IR-TRACC pos1 [V]	0.0887	Ang pos1 [V]	-0.3069	ϕ_{REF} LEFT	89.99	70.8	111.4	36.6	105.2
IR-TRACC pos2 [V]	0.0747	Ang pos2 [V]	-0.4491	ϕ_{REF} FRONT	-0.01	62.0	119.5	56.2	105.4

Verification Equipment Used

Instrument	Manufacturer	Report No.	Cal Date	Cal Due	Model No.	Serial No.
2D-IR-Tracc Fixture	Humanetics	11221-2	July 16, 2014	July 16, 2016	11221	2
DMM	Keithley	11651-D-K-15180	15.01.2015	15.01.2017	2000	613658

 Verification by: _____
 signature



Parameters WorldSID50 thorax /abdomen & Q10 lower lateral (Angle sensor sits on top of IR-TRACC)			
	Left	Frontal	Right
Φ_{REF} [deg]	89.99	-0.012	-90.01
Φ_{REF} [Rad]	1.571	-0.00022	-1.571
Angle Cal/Polarity			
[Vsen/Vexc/deg]	0.003201		
[Vsen/Vexc/Rad]	0.1834		
Parameters for upside-down mounted 2D IR-TRACC (Angle sensor sits below IR-TRACC)			
WorldSID5F & WorldSID50 shoulder & Q10 (except lower lateral)			
	Left		Right
Φ_{REF} [deg]	-90.01		89.99
Φ_{REF} [Rad]	-1.571		1.571
Angle Cal/Polarity			
[Vsen/Vexc/deg]	0.003201		-0.003201
[Vsen/Vexc/Rad]	0.1834		-0.1834

Summary of calibration parameters			SI UNITS	
Linearization exponent [-]	-0.4626			
Calibration Factor	[mm/V]	31.913	0.031913	[m/V]
Absolute Intercept	[mm]	13.50	0.01350	[m]
Inverse Calibration Factor	[V/mm]	0.03133	31.33	[V/m]
Absolute Intercept [V _{linear}]	0.4230			