

# Datasheet

## PRIMUS *Pro*



<b>Standards</b>	Audiometry	Tone: IEC 60645-1:2012, 60645-4:1994 / ANSI S3.6:2010 Type 1 Speech: IEC 60645-2:1997 / ANSI S3.6:2010 Type A or A-E
	REM	IEC 61669:2001, ANSI S3.46:1997, ISO 12124:2001
	Safety	IEC 60601-1/A1:2013, Class 2, Type B
	EMC	IEC 60601-1-2
	Calibration	ISO 389-7:2005
<b>Tone Testing</b>	Tests	HTL, MCL, UCL, BCL, FF, FF-A, Weber test, SISI Test, Hughson-Westlake method, TEN Test (CD required)
	Output	AC, BC, and Free Field
	Transducers	Insert Earphone, TDH-39, DD45, DD65, HDA-200, HDA-280, HDA-300, B-71, EAR-3A, and Free Field Speakers
	Frequency Range	125 Hz to 16 kHz
	Hearing Levels	-10 dB HL up to 120 dB HL (max. output is limited by transducer capability)
	Stimuli Distortion	Less than 1%
	Stimuli	Pure tone, pulsed pure tone, warble, pulsed warble, narrowband noise, and pulsed narrowband noise
	Masking Noise	Narrowband noise, white noise, and speech noise
	Extended Range	+20 dB
	Tone Switch	Manual or 0.1 - 5 sec. tone duration
	Client Response System	Hand held push button
	Monitoring	Operator Monitor for talk-back and stimuli monitoring
	Talk Over / Talk Back	Full bi-directional client communication with two-channel operator microphones
	Client Safety	Max. level limiter (max 100 dB w/o extended range, UCL limiter)
<b>Speech Testing</b>	Tests	SRT, MCL, UCL, SD, SD-A, SDN, SDN-A, and QuicksIN (CD required)
	Output	AC, BC, and Free Field
	Transducers	Insert Earphone, TDH-39, DD45, DD65, HDA-200, HDA-280, HDA-300, EAR-3A, B-71, and Free Field Loudspeakers
	Stimuli	CD, Sound Library or Live voice using operator microphone
	Masking Noise	White noise and speech noise
	Monitoring	Operator Monitor for talk-back and stimuli monitoring
	Talk Over / Talk Back	Full bi-directional client communication with two-channel operator microphones
	Tests	REM - REUR/REUG, REOR/REOG, REAR/REAG, REIG, RECD FF, and RECD Insert SM - Speech Mapping, Noise Reduction, Speech in noise, Comfort Optimizer, REUR/REUG, REAR/REAG, REIG
<b>REM/SM Testing</b>	Output	Free Field, AC
	Transducers	Real Ear Probe, REM Probe Flex, Insert Earphone/EAR-3A for RECD
	Stimuli	ICRA noises, ISTS, ISTS-MPO, white noise, pink noise, speech noise, speech noise – ILTASS, Live speech, Pre-recorded sound files, DSL ‘s’ and ‘sh’ sounds
	Frequency Range	125 Hz to 16 kHz
	Frequency Resolution	1/3 <sup>rd</sup> , 1/24 <sup>th</sup> octave based on 2048 pt. FFT
	Signal Levels	50 - 90 dB SPL
	Stimuli Distortion	Less than 1%
	Monitoring	Operator Monitor for talk-back and stimuli monitoring
	Client Safety	UCL limiter
	<b>Instrument</b>	Power Supply
Dimensions		345 x 112 x 35 mm (360 x 120 x 96 mm with cover)
Weight		900 g (500 g without cover)
Connections		USB, DC power, and S/PDIF; Free Field Speakers (Left, Middle and Right), Free Field Line Out (1-3), Demo Headset, Option, Operator Microphone (Left and Right), Talk Back Microphone, Monitor Headset; AC1, AC2, AC3 (HF), BC, Client Response Button, and Real Ear Probe.

<b>PC Minimum Requirements</b>	CPU	Minimum 2 GHz processor (recommended 2 GHz or higher multi core) with 2 GB system RAM (4 GB or more recommended)
	Hard Disk Space	2 GB free hard disk space for Primus
	Operating System	Windows XP Professional SP2 (32 & 64-bit), Windows 7 (32 & 64-bit), including Home Premium, Professional and Ultimate, Windows 8 and 8.1 (32 & 64-bit), Windows 10
	Screen Resolution	1024 x 768 (1280 x 1024 recommended)
	Graphics Card	XVGA (dual monitor output recommended)
	Connections	CD drive required for speech test CD's. USB 2.0 connection required.
	Noah Compatibility	Noah 3.7 and Noah 4

## STANDARD & OPTIONAL PARTS

	Part Number	Part Name
<b>Standard Accessories</b>	90.3029	PFU Pro
	90.3009	Client Response
	91.0102	DC Adaptor
	91.0103	USB cord
	PN00074	Top Cover
	1010.406	Loudspeaker cable with black plug
	91.0601	USB stick with software
	PN00122	Quick Installation Guide
<b>Software Modules</b>	40.0005	Audiometry – SW module
	40.0006	Real Ear Measurement – SW module
	40.0009	Speech Mapping – SW module
	40.0013	Comfort Optimizer – SW module
<b>Optional Parts</b>	90.3003	Insert Earphone
	90.3004	Real Ear Probe
	90.3031	REM Probe Flex
	90.3017	TDH 39
	90.3024	HDA 300
	90.3008	Bone Conductor – B-71
	90.3012	DD45
	90.3036	DD65
	90.3014	EAR-3A
	91.0718	Headset with mic. -S (Talk over)
	91.0106	Microphone (Talk back)
	91.0108	Free Field Speaker
	91.0110	USB Isolation Cord
	91.0709	Sound chamber cable set w. ID chip
<b>Consumables</b>	90.4015	Ear Hanger (4 Pieces)
	91.0202	E-A-RLINK 3B (Small, 50 pcs)
	91.0203	E-A-RLINK 3A (Medium, 50 pcs)
	91.0204	E-A-RLINK 3C (Large, 24 pcs)
	91.0205	Insert Tube with Nipples
	91.0302	Probe tube guide (8 pcs)
	91.0303	Probe tubes (36 pcs)
	91.0108	Free Field Speaker
	91.0110	USB Isolation Cord