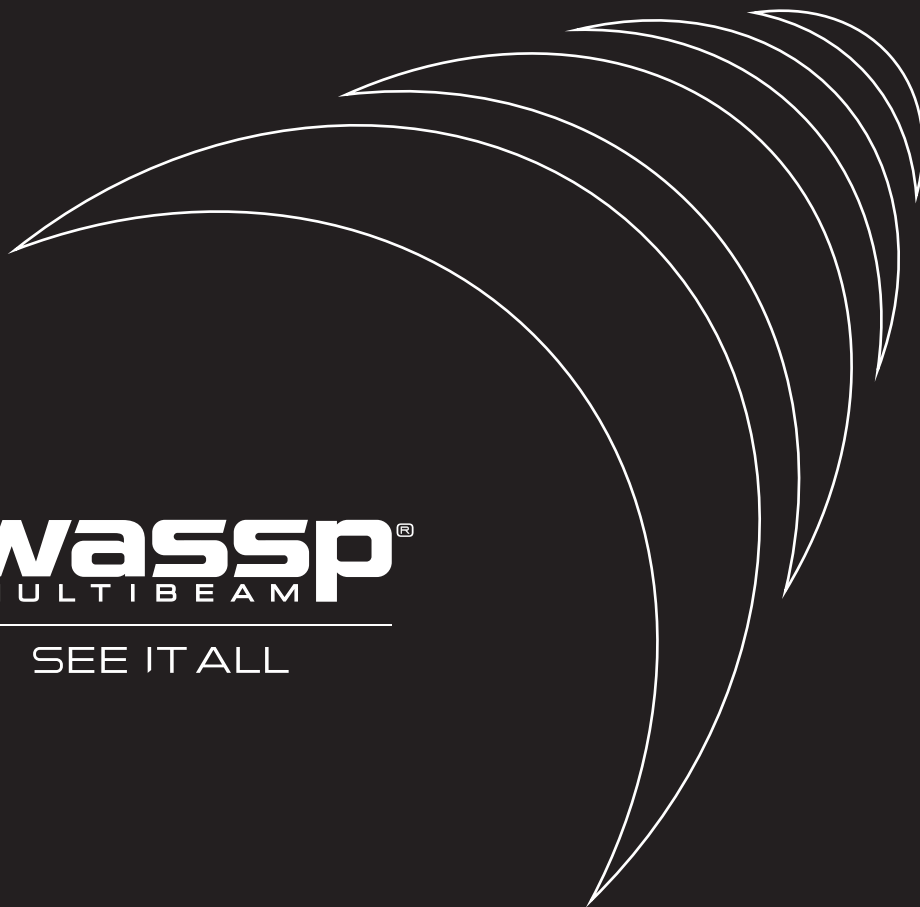
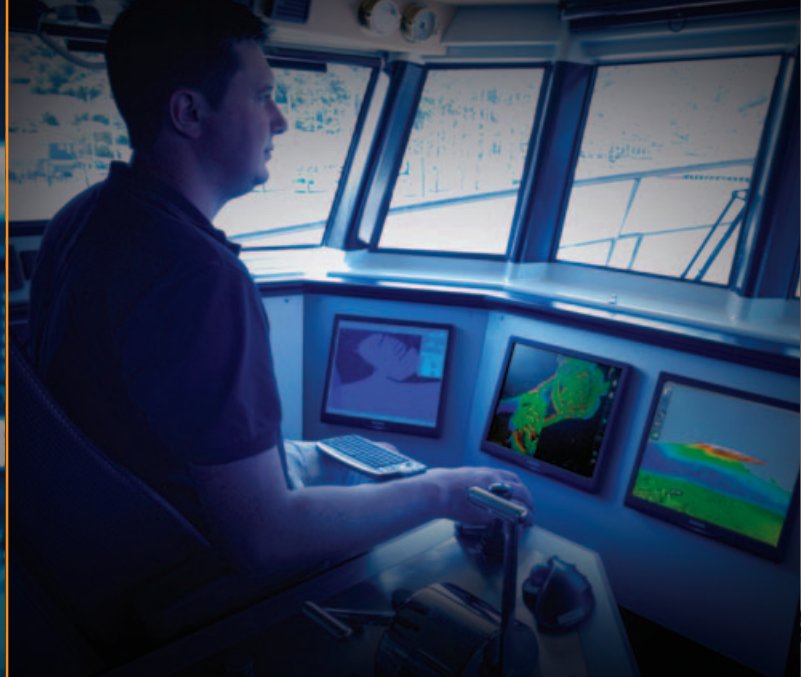


wassp[®]
MULTIBEAM

SEE IT ALL






TAKING THE
WORLD BY STORM.

wassp[®]
MULTIBEAM

SEE IT ALL

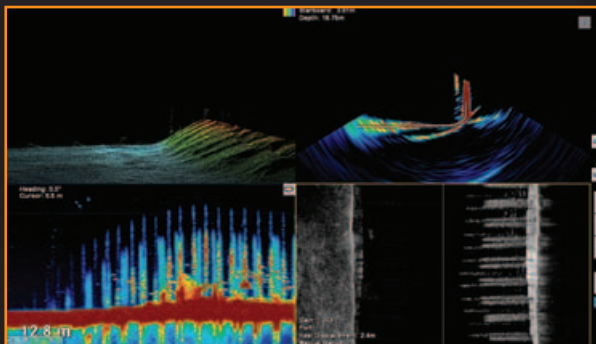
A man wearing a dark cap and a dark t-shirt is seated at the helm of a boat. He is looking out the large front window at a body of water with trees in the background. His hands are on the steering wheel. The dashboard is equipped with several electronic displays. On the left, a large monitor shows a 3D bathymetric map of the seabed with a small boat icon. In the center, there is a smaller screen and a control panel with various buttons and a joystick. To the right, another monitor displays a map or data. A keyboard is visible on the left side of the dashboard. The overall scene is brightly lit by natural light from the windows.

// EVERY NOW AND THEN,
GROUND BREAKING ADVANCES
IN TECHNOLOGY EMERGE AND
LEAVE A LASTING IMPRESSION. //

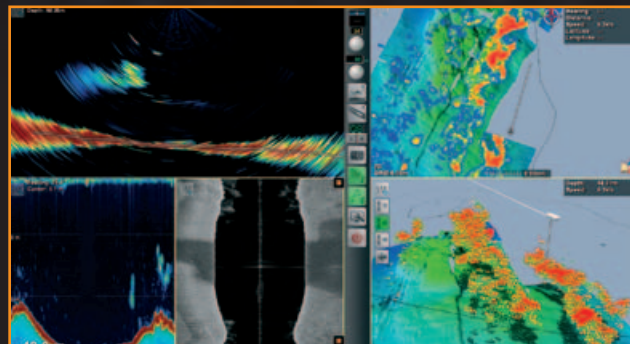
WELCOME TO THE NEW WORLD OF WASSP.

see it all at www.WASSP.com

EFFORTLESS ONE TOUCH OPERATION



WMB3250 Operating GUI



WMB3230/5230 Operating GUI

NEW MODELS TRANSFORM THE MULTIBEAM MARKET.

There is nothing on the market like WASSP multibeam sonar. Only WASSP gives users the competitive edge of multibeam technology – at a single beam price.

WASSP offers its users unprecedented high resolution detail of the seafloor in an array of different options and displays. Real-time two- and three-dimensional views of the water column and seafloor are shown in brilliant colour, managed easily by simple and familiar PC mouse control. 120-degree port-starboard scan yields 3:1 water depth mapping capability, enabling the user to cover more ground, more quickly than ever before.

WASSP multibeam sonar has vastly superior accuracy, wide 120° port-starboard scanning area and high-resolution real-time 3D mapping of the water column and seafloor.

WASSP has the technology and set of equipment to fit your application, whether you're a commercial fisherman, survey expert, harbour & safety patrol, or just out for the weekend trying to land the Big One!

The WASSP multibeam sonar is uncomplicated and self-contained, comprised of just three modules: The compact transducer (incorporating transmit and receive arrays), a transceiver called a BTxR, and a dedicated WASSP processor.

WASSP OFFERS

- Can be IHO Order 1a compliant*
- Integrates with QINSy® and HYPACK® (WMB-3250 model only)
- Compact transducer is ideal for pole mounting or flush mounting in hull
- High density 224 beam (WMB-3250 model only)
- Cost effective 112 beam @ 160kHz (WMB-3230) or 80kHz (WMB-5230)
- 120-degree coverage port to starboard
- Coverage to depth ratio of 3:1.
At 100m coverage is 340m wide
- Continuous real-time 2D and 3D mapping
- Record and replay survey or fishing runs for analysis later
- Stabilized for pitch, heave, and roll
- Multiple, selectable display modes
- Software updates as new features and functions are added

*Requires installation of appropriate sensors & software.



“ WASSP LETS ME GO WHERE I WOULD NEVER HAVE FISHED BEFORE , GIVING ME HIGHER VALUE CATCH, WITH REDUCED FUEL CONSUMPTION. ”

DOMINIQUE FAOU, OWNER/SKIPPER



“ ONE OF THE BIGGEST BENEFITS OF WASSP HAS BEEN THE HUGE SAVINGS IN FUEL. INDIVIDUAL PINNACLES MAKE UP THE MAJORITY OF OUR GROUND AND YOU CAN WASTE A LOT OF TIME SEARCHING FOR THEM. ”

DAN MCRAE, CRAY FISHERMAN



“ I CAN'T OVER EMPHASIZE THE WOW FACTOR OF WASSP. AS THE SAYING GOES, 'BEFORE I WAS BLIND, BUT NOW I CAN SEE' - IT'S SIMPLE AS THAT. ”

TREVOR BURKART,
LOBSTER FISHERMAN

TAKING THE
WORLD BY STORM.

wassp[®]
MULTIBEAM

SEE IT ALL

FISHING

WASSP is the first product to bring the benefits of multibeam technology to commercial fishing.

Providing unparalleled views of the water column and the seafloor, WASSP lets users accurately locate fish schools, profile the seafloor and map bottom hardness - all in 3D, all in real time.

For Fishing applications WASSP offers the following depth capabilities:

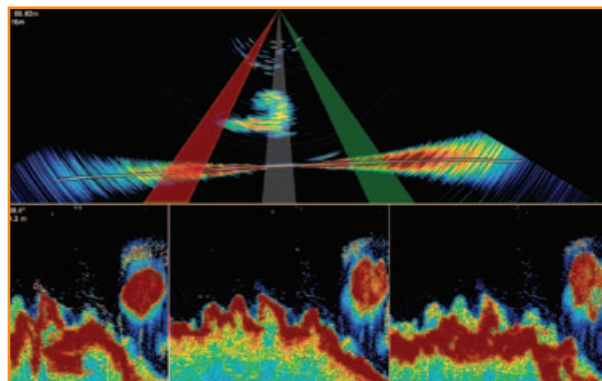
- 160kHz | 200m depth capability
- 80kHz | 500m depth capability

WASSP offers Commercial Fishing

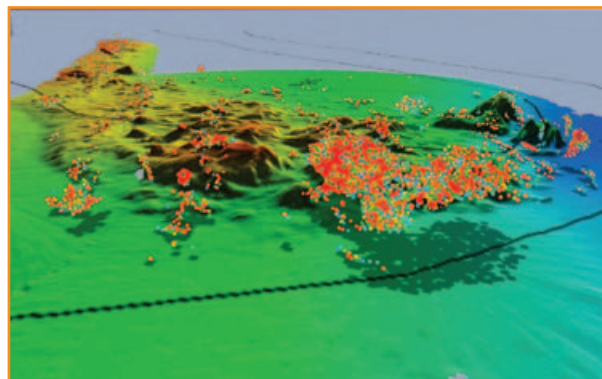
- Less time steaming in search of fish gives great fuel savings
- Explore new fishing grounds faster and more accurately than ever before
- Higher catch rates mean less wear and tear on gear and crew – get home faster and make more money, more profit
- Precise seafloor information allows the skipper to target grounds thought to be un-fishable and identify new opportunities
- Identify fish school distribution and height to steer a trawl precisely on target
- Increased catch-rate can mean faster turnaround-time and less time at sea
- Bottom hardness indication allows you to get to the where the fish are, regardless of your preferred bottom type

“WHEN TOWING ON A DENSE SHOAL WE CAN CUT A SLICE THROUGH, SO WE CAN MANAGE OUR CATCH SIZE”

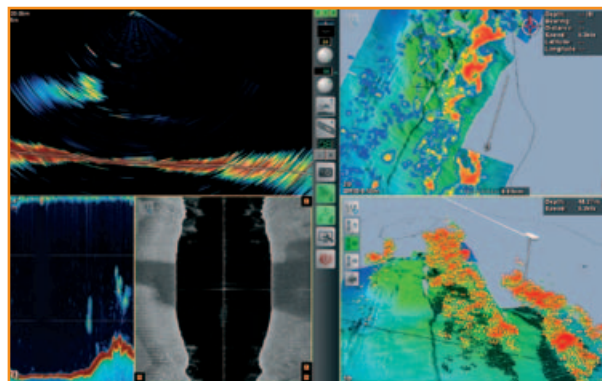
George William Anderson
Owner Skipper, FV Adenia. Scotland



WMB-3230 Real-time acoustic polar and triple beam view



WMB-3230 3D free-rotate with fish overlay in real-time



WMB-3230 Multi-Functional Display

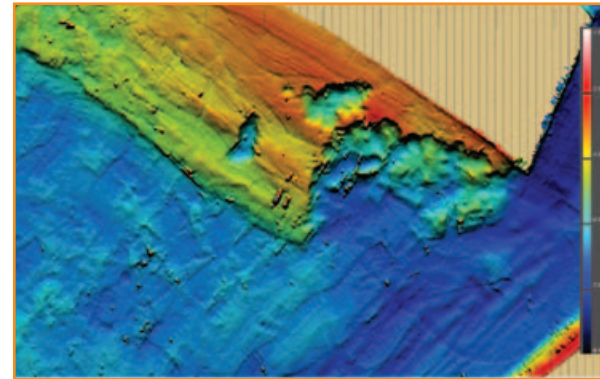
SURVEY

All WASSP models can be used for marine survey applications, with the new WMB-3250 specifically designed for shallow-water surveying starting from IHO Standard 1a. As a standalone system WASSP offers the complete solution in real-time enabling the operator to make decisions at sea not having to rely on post processing results.

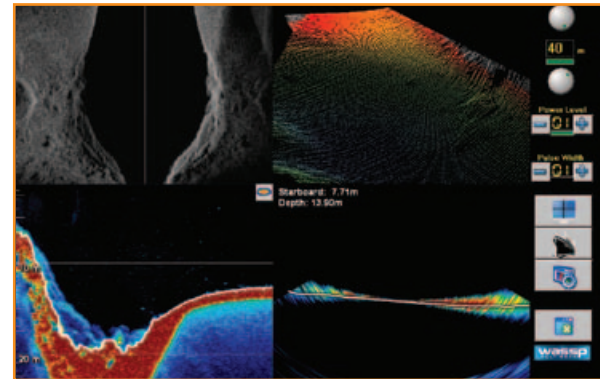
Recognising many surveyors are familiar with advanced hydrographic software applications, WASSP integrates seamlessly with both the QINSy® and the HYPACK® hydrographic software packages.

WASSP can also be configured with our own WASSP-NAVIGATOR 3D visualisation software. WASSP-NAVIGATOR displays and records real time 3D views of the bottom with basic measurement tools currently used by port authorities with our legacy products world-wide.

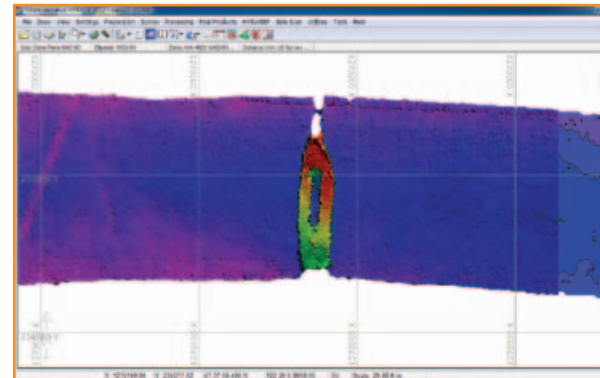
- Starting from IHO Order 1a Compliant
- External sensors to match the accuracy requirements
- Integrates with QINSy® and HYPACK®
- Compact transducer is ideal for pole mounting or flush mounting in hull
- High density 224 beam 160kHz transducer for work in 2m to 200m depth
- 120° coverage port to starboard
- Coverage to depth ratio of 3:1. At 100m coverage is 340m wide
- Continuous real-time 2D and 3D mapping
- Record and replay survey runs for analysis later
- Easy to operate and quick to install
- Stabilised for pitch, heave and roll. Compatible with GPS sensors
- Multiple, selectable display modes
- Software updates as new features and functions are added



WMB-3250 interface with QINSy®



WMB-3250 Multi-functional display



WMB-3250 interface with HYPACK®

WORKBOAT

Defence, Police, Coast Guard, Renewable Energies,
Waterway Environmental Study

Since the introduction of WASSP into the commercial market we have seen the adoption of WASSP in a number of areas outside of fishing.

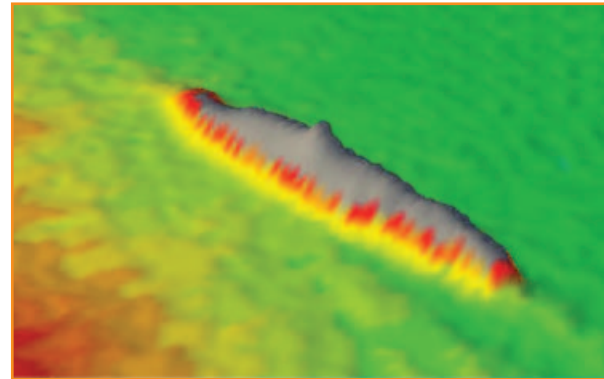
The market has told us the requirements for seafloor profiling and our team at WASSP have been able to deliver the right model for the right multibeam application at an exceptionally affordable cost.

WASSP offers

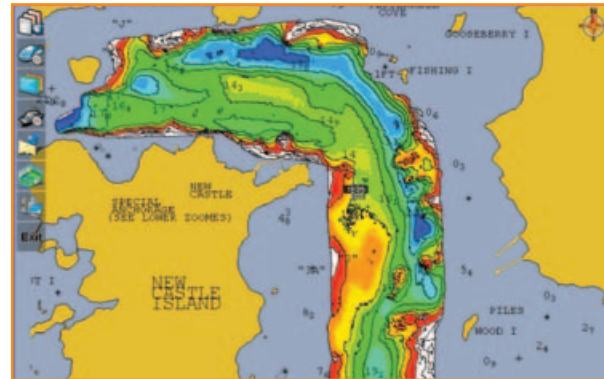
- Seafloor mapping of wharves, harbours, waterways, structural foundations and shipping channels
- Rapid seabed imaging to detect obstructions, sub-sea equipment and other hazards
- Water column analysis (fisheries and hydrologic / vent survey)
- Defence, Police and Coast Guard applications
 - SAR asset recovery, harbour security
- Hydrographic survey
- Marine research
- Dredging

'THE WASSP MULTIBEAM SYSTEM HAS GIVEN US ACCESS TO A FIRST CLASS SHALLOW WATER SURVEY TOOL, THAT WAS ONCE COST PROHIBITIVE.'

Zane Thackeray, Hydrographic Surveyor,
Durban, South Africa.



U-Boat Image, English Channel



Navigator with Navionics & 2D Bathymetry



Navigator with Navionics & Bottom Hardness Backscatter Information

WMB-3230 / WMB-5230 / WMB-3250 Specifications			
	WMB-3230	WMB-5230	WMB-3250
General			
Frequency	160 kHz	80 kHz	160 kHz
Specified Depth Capability	2m - 200m +	10m - 500m +	2m - 200m +
Maximum Range Scale	400m	800m	300m
Output Power	40 W to 1 kW	150 W to 1.2 kW	40 W to 1 kW
Effective Beam Width (arthwartships x fore-aft)	120° x 4°		
Beam Spacing	Equi-Angular 120° @ 1.07° beams		Equi-Angular / Equi-Distant
Electronic Beam Width	112 beams x 1.07° over 120°		224 beams x 0.54° over 120°
Max Ping Rate (Pings Per Second)	16 (@ 10m range)	16 (@ 10m range)	48 (@ 10m range)
Maximum Resolution (height of smallest target detectable at nadir)	7.5cm	15cm	7.5cm
CW Pulse Duration (ms)	0.1, 0.2, 0.5, 1.0, 2.0	0.2, 0.5, 1.0, 2.0, 3.0, 4.0, 6.0,8.0, 10.0	0.1, 0.2, 0.5, 1.0, 2.0
Advance speed	Slow – fast (5 speeds).		
Beamforming	Digital		
Roll Correction (Accuracy based on sensor used)	Yes		Yes
Pitch Correction	Partial - depth correction only		Yes
Heave Correction	Partial - depth correction only		Yes
Ships Reference Corrections	Partial - depth correction only Positional Corrections based on ships referenced to account for GPS, transducer location		Yes
Sound Speed Correction	Surface only		
Bottom Detections	Amplitude & Phase		
GPS Interface	NMEA0183		
Tide Correction	Prediction based on tide stations		
Display Modes			
Acoustic	Sonar view		
Acoustic	Single / Triple beam view		
Acoustic	Sidescan view		
Mapping	2D and 3D mapping (Colour/mono)		
Advanced Mapping	Fish, Chart, Backscatter & Contour Overlay options		Watercolumn, Chart,& Contour Overlay options
Display Windows	2 Display windows (Acoustic & Charting), with User-configured 1/2/3-way split-panels per window (maximum of 6 panels)		Acoustic Display (1): 1/2/3/4-way split-panels; Navigator Display (2): 1/2 way split-panels (User-configured)
Tools			
General	Zoom, Pan, Vertical Scale, Goto, Add Measure, Profile Window		
Marks	At Vessel/Cursor/Ship. Colour, Type, Name Options		
Ship	Centre on ship, North Up, Head Up, Show/Hide Track		
Database Management	Record, Edit & Export capability		

WMB-3230 / WMB-5230 / WMB-3250 Specifications			
	WMB-3230	WMB-5230	WMB-3250
Hardware			
Transducer	Suits In-hull tank mount / Pole Mounting, with 5/10/20m cable* (* gland optional; excludes pole assembly or tank assembly)		
Transceiver (BTxR)	Black box transceiver with ethernet output (suits bulkhead/floor mounting)		
Processor	High Performance Marine Processor with keyboard and trackball	High Performance Advanced Ruggedized Fanless Marine Processor with keyboard and trackball	
Display Monitors			
Display Monitors	Single Display installation: FHD (1920x1080 recommended); or Dual displays installation (Dual monitor installation is recommended): XGA (1024x768) up to full FHD*		Dual Monitor configuration recommended. Minimum resolution: 1024x768
*Not included (local supply)			
Power Supply			
Transceiver	24 VDC, 70 W	24 VDC, 150 W	24 VDC, 70 W
Processor	9-30 VDC, ~ 1.5 Amp @ 24 VDC		9-32 VDC (Optional external AC-DC adaptor available)
Dimensions & Weight			
Transducer Dimensions (LxWxH, mm)	330 x 168 x 98	533 x 340 x 133	330 x 168 x 98
Transducer Weight	15 kg with standard 10m cable	39 kg with standard 20m cable	15 kg with standard 10m cable
Transceiver (BTxR) Dimensions (LxWxH, mm)	535 x 221.5 x 180		
Transceiver (BTxR) Weight	5kg		
Processor Dimensions (WxDxH, mm)	279 x 337 x 102		230 x 205 x 75
Processor Weight	5.7kg		3.8kg
Environmental			
Temperature	0 to 40° C.		
Relative Humidity	5 to 95% non condensing.		
Data Interface			
Input*	NMEA0183 & RS232 PFEC ATT, GGA, GGL,HDT, HDG, PFEC, HVE, VTG, ZDA, TSS/TS1, SHR		
*WASSP requires (3rd party) position, heading, roll, pitch and heave data for electronic beam compensation/stabilization (not included - local supply). See your local WASSP expert for more information/clarification.			
3rd Party Software Compatibility			
Software Interfaces*	Olex Sodena		HYPACK/HYSWEEP® QINSy® GSF logging
*Requires WASSP Interface Module & Excludes 3rd Party Software (contact your local supplier for software component pricing)			
Specifications subject to possible change without notice.			

FOR DETAILED INFORMATION • USER VIDEOS • TECHNICAL SPECIFICATIONS SEE IT ALL AT wassp.com



SEE IT ALL AT
WASSP.COM

FOR DETAILED INFORMATION
USER VIDEOS • TECHNICAL
SPECIFICATIONS

wassp[®]
MULTIBEAM

SEE IT ALL

WASSP IS SUPPORTED IN THE FIELD
BY OUR INTERNATIONAL NETWORK
OF DEALER TECHNICIANS

To find a WASSP dealer near
you visit www.WASSP.com

WASSP LTD
Postal address:
PO Box 5849 Auckland
New Zealand

PHYSICAL ADDRESS:
65 Gaunt St, Westhaven,
Auckland, 1010 New Zealand

Phone: (+64) 9 373 5595
Fax: (+64) 9 379 5655
Email: sales@wassp.com