



[www.fusionsport.com](http://www.fusionsport.com)

## QUICK START GUIDE



**SmartSpeed**

# REGISTER ONLINE NOW!!



A comprehensive range of drill ideas and examples are available through the FUSION SPORT website. Please go to [www.fusionsport.com](http://www.fusionsport.com) and register for CLIENT LEVEL membership access to the members' area.

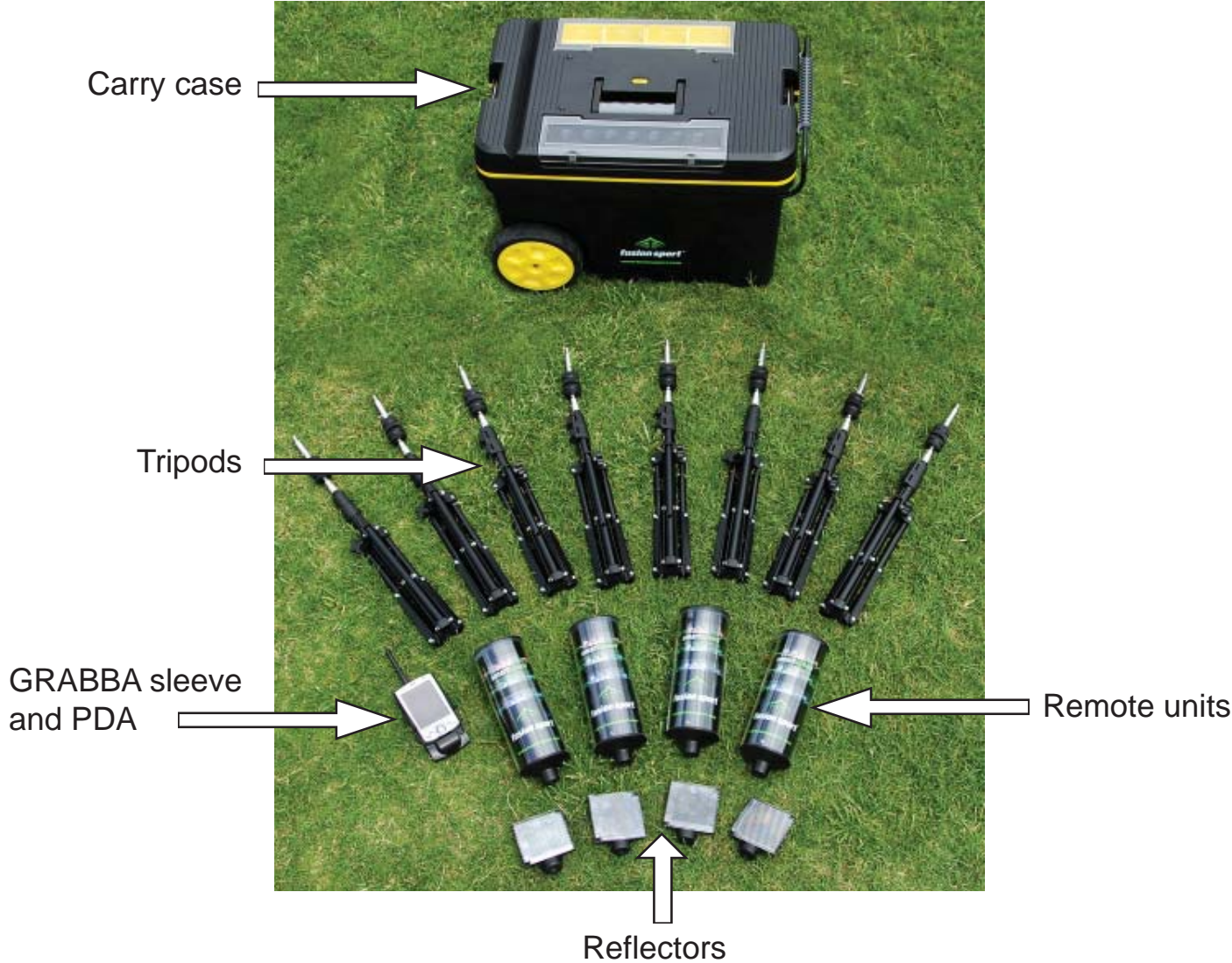
The Members area contains -

- Sample drills
- PDF tutorials, how-to guides and drill ideas
- Full user manuals
- Trouble-shooting guides
- Knowledge base/FAQs
- Software and other downloads

For further support please contact your distributor or email [support@fusionsport.com](mailto:support@fusionsport.com)

**REGISTRATION IS FREE - DO IT NOW!!**

# SYSTEM COMPONENTS



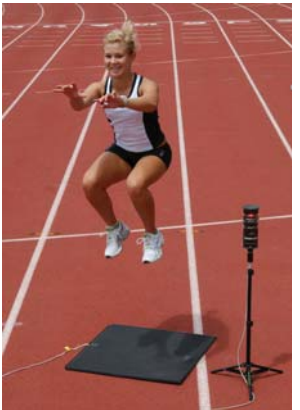
## Optional Hardware



Hand start pad



SMARTSCAN RFID

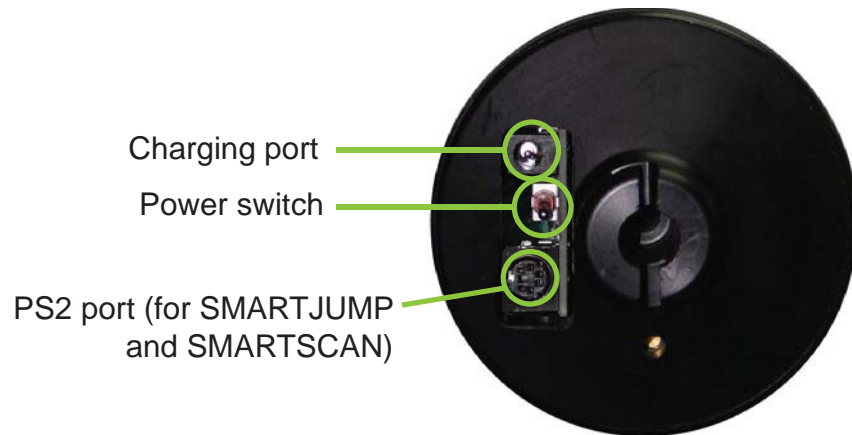


SMARTJUMP contact mat

# CHARGING YOUR SYSTEM

## REMOTE UNITS

Connect units in series using daisy chain connector.  
NOTE: a maximum of 4 units is possible for each 12V charger



Check that each unit is charging by inspecting the charging indicator light on the back of the unit. If the unit is charging, the red light will flash. When fully charged, this light will turn solid.

## GRABBA SLEEVE AND PDA

The optimal method for charging is to charge the units together, using only the **5V charger provided**, connected to the LEFT side of the GRABBA sleeve.

During charging both GRABBA sleeve and PDA will display orange lights. When fully charged, both will display green lights.

The unit may also be charged via the mini USB port on the right side of the GRABBA sleeve via MAINS POWER ONLY.

Charge indicator lights

NOTE: Please ensure the SMARTSPEED software is CLOSED prior to charging or storage. For storage, also disconnect the PDA and Grabba sleeve USB connection

5V charger input

Mini USB serial connection



# SYSTEM ASSEMBLY



Loosen tripod knob and pull legs away from stem



Push down on knob assembly until supports are horizontal



Connect reflectors and remote data units, and ensure tripod neck is firmly tightened



Insert PDA into sleeve and push down gently to complete USB connection

Mini USB serial connection



If using SMARTSCAN RFID, connect SMARTSCAN unit via PS2 cable to start gate in each track (lane).

# SETTING UP GATES



Alignment light

Power light

Stand behind unit. Hold unit by top with one hand, and by the tripod neck with the other hand.

Adjust the light until the red alignment light is on (see image left) and the unit stops beeping.

In windy environments, ensure unit is optimally aligned by moving unit side to side slightly and ensure unit remains aligned.

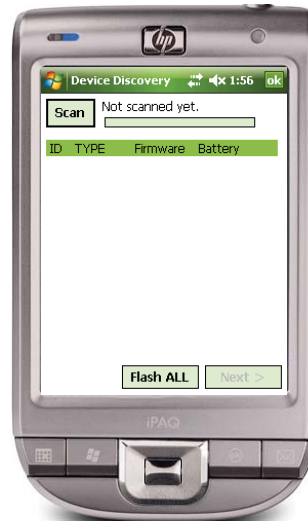
# SOFTWARE SETUP



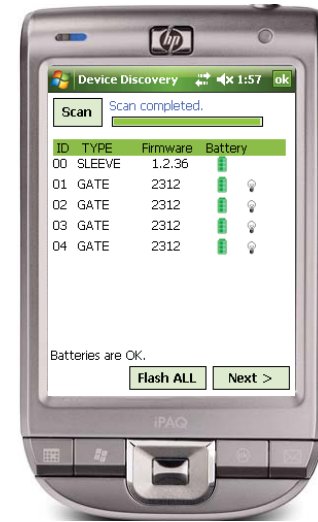
Select SMARTSPEED from the start menu



Ensure message "Grabba sleeve connected" is displayed. Press "Start new session"



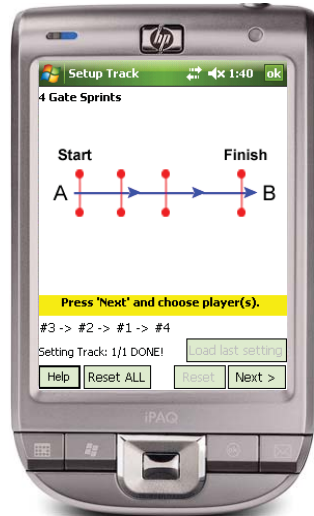
Press SCAN to recognise units.



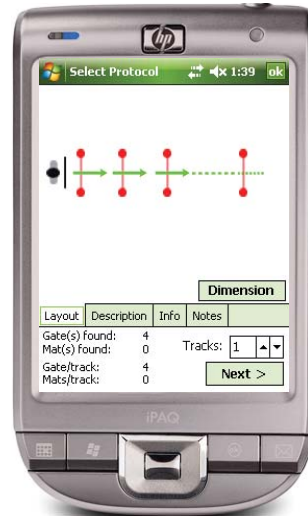
Ensure correct number of units scanned or repeat



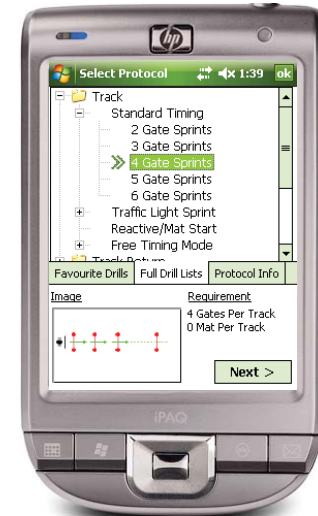
Select team to be used, and players to be included in the session.



Walk through gates as per map. Lights will flash green when completed. Repeat for each lane.

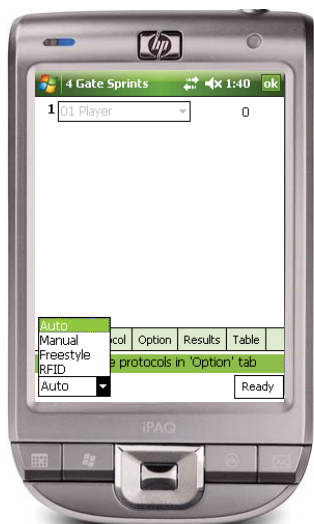


Confirm that you have selected the correct drill by pressing NEXT, or press OK to change.



Select drill from favourites or full drill list and press NEXT

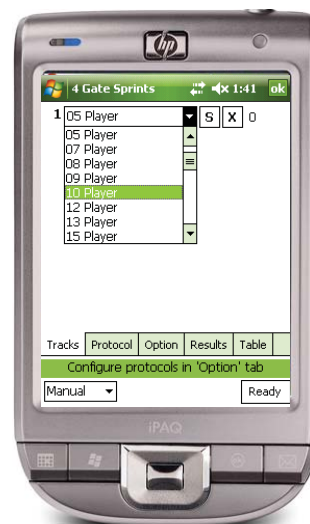
# RUNNING A SESSION



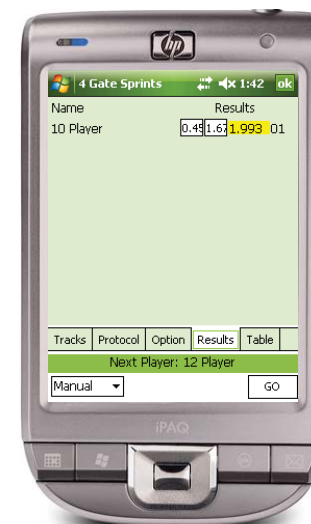
Choose running mode - auto, manual, freestyle or RFID (see note next page)



Configure options for the session



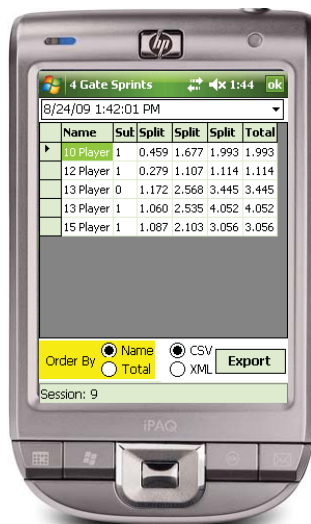
Choose player (manual mode) or identify player (RFID, auto)



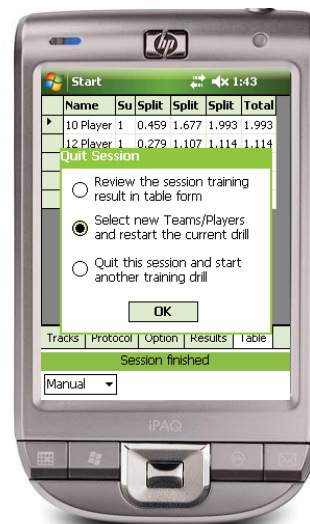
Press READY and GO to start testing. Repeat for each athlete.



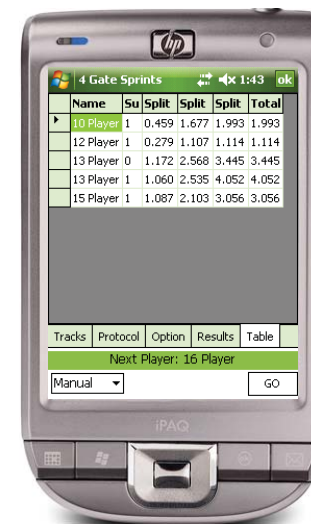
Name output file and SAVE. (NOTE - all results are saved automatically and can be viewed later).



Choose export file format



When finished, press OK in top right corner, and choose option. To export results, chose "Review..."



View results at any time on the TABLE tab

# FREQUENTLY ASKED QUESTIONS

**Question: What is the difference between Auto, Manual, Freestyle and RFID modes?**

**Answer:** Select the running mode according to how you would like to run the session -

- Auto - the PDA software will automatically call up the next player in alphanumeric order
- Manual - the operator must choose who is next using the "TRACKS" tab, and then press GO for each athlete
- Freestyle - results are displayed on the "RESULTS" tab, but not saved (used for training only when results do not need to be saved)
- RFID - athlete selection is based on identification via the SMARTSCAN RFID wrist band system

**Question: Do I need to save my data at the end of each session?**

**Answer:** No. The data is automatically saved to the database as it is recorded. The operator can choose to export the results at the end of the session, by choosing the "Review the session training result in table form" button, or the data can be retrieved and exported later using the "View - Results" menu on the main SMARTSPEED start screen.

**Question: What is the battery life of the system, and how long does it take to recharge?**

**Answer:** Generally the life of the PDA is approximately 4.5 hours, and the remote units 5-6 hours depending on the drills being used. The system can be fully recharged in approximately 3 hours. Fusion Sport recommends that the system is always charged for 3 hours or overnight prior to each session. The units do not need to be fully depleted prior to charging and will not develop "memories" from frequent charging.

**Question: What do I do if I have problems with the system?**

**Answer:** Firstly, consult the TROUBLESHOOTING GUIDE in this manual, or visit the Fusion Sport website for further tutorials, knowledge base, and support assistance. If you are unable to solve the problem, contact your local distributor or email [support@fusionsport.com](mailto:support@fusionsport.com)

## IMPORTANT

**PLEASE REGISTER IMMEDIATELY FOR CLIENT ACCESS ON THE FUSION SPORT WEBSITE TO RECIEVE FREE ACCESS TO DETAILED MANUALS, TUTORIALS, DRILL IDEAS, PRODUCT SUPPORT AND MORE!**

# TROUBLESHOOTING GUIDE - PDA/SLEEVE PROBLEMS

Symptom	Possible Explanation	Possible solutions
Software message – “grabba sleeve disconnected” when SMARTSPEED software started	Incomplete serial connection between PDA and Grabba sleeve	1) Slide PDA up in sleeve and push back down to reconnect. A blue light should flash on the right side of the sleeve 2) Sleeve requires reset (very rare) – insert PDA stylus into small hole on back of sleeve
	Grabba sleeve not charged	Charge sleeve for a minimum of 30 minutes. Note – SMARTSPEED will not work while sleeve is connected to USB – use 5V charger only
	SMARTLOADER software still running	Exit SMARTSPEED and check to see if SMARTLOADER is still running. Close SMARTLOADER and try again
PDA asks for password when turned on	Microsoft/HP bug which is yet to be fixed	Perform a soft reset by inserting the stylus into the small hole on the left side of the PDA (note –must disconnect Grabba sleeve to see hole)
Software returns error “license not found” or “invalid license” or “invalid smart device”	Software license file has not been copied into program directory	Check email from Fusion Sport accompanying software update, and copy the license.lic file into the program files/Smartspeed folder on the PDA. If you do not have a license file, or the problem persists, contact Fusion head office.
PDA loses power quickly	PDA not fully charged	Check charging instructions and recharge
	WiFi or Bluetooth left on	Ensure Wifi and Bluetooth are turned off when not in use
PDA charges slowly	PDA being charged via USB from PC	Connect USB cable to wall charger plug, or use 5V charger provided with system
	WiFi left on during charging	Ensure Wifi and Bluetooth are turned off when not in use
	SMARTSPEED software still running	Ensure SMARTSPEED software is closed after use.
Software returns an “unexpected error”	Software has crashed (extremely rare)	Wait for software to exit and reset, or perform a soft reset by inserting the stylus into the small hole on the left side of the PDA (note –must disconnect Grabba sleeve to see hole)

# TROUBLESHOOTING GUIDE - REMOTE UNIT PROBLEMS

Symptom	Possible Explanation	Possible solutions
Unit does not turn on (no green indicator light on back)	Incorrect charging or unit left on during charging	Charge units as per instructions. Ensure charge light on unit is flashing. If light goes solid immediately, slow charge for 20 minutes, then unplug and re-plug charger.
	Battery has failed (very rare)	Contact our support network for replacement
Unit turns on but is unresponsive (no buzzer or alignment possible, may have visible blue LEDs on permanently)	Unit has flat battery (green power light will be very dim)	Charge unit as per instructions. If you <u>know</u> unit is charged, proceed to next option.
	Unit has incurred firmware failure (very rare)	Turn off all units except non-responsive one. Exit SMARTSPEED software and run the SMARTLOADER application from the start menu. Follow the prompts to attempt reprogramming of firmware.
	Unit has incurred physical damage	Contact support network if above SMARTLOADER process fails after two attempts.
Unit turns on and aligns with reflector, but does not respond to scan	Unit has locked up in firmware	Turn unit off and on, and try to scan again
	Unit has incurred physical damage	Contact support network
	User has changed radio channel of unit	Ask users if anyone has used the SMARTSETUP area under the options menu. Call for phone support

# TROUBLESHOOTING GUIDE - SOFTWARE PROBLEMS

Symptom	Possible Explanation	Possible solutions
Software message "Grabba sleeve disconnected" on front screen	Refer to PDA/Sleeve table on previous page	
Scan fails to find any units	Grabba sleeve disconnected or flat – there will be no battery level reported for sleeve	Refer to PDA/sleeve troubleshooting
	Units are on a different channel to the Grabba sleeve (user has changed them or mixed up two different systems)	Contact Fusion support to be talked through reassigning the channels
Error "There are not enough devices detected on the field"	Incorrect value for "tracks" entered (e.g. 4 tracks chosen when only one has been set up	Change tracks value to correct number (e.g. 1 for single lane)
	Insufficient gates switched on and scanned.	Return to scan screen by pressing OK, and perform another scan. Ensure enough devices are found for the chosen protocol, or chose another protocol with less gates
Error "Incorrect player/track ratio"	When using multiple lanes, the number of athletes chosen must be divisible by the number of tracks selected	Add or subtract athletes from the list to result in an appropriate number
Error "synchronization failed" when starting or during drill	One or more units were not detected in the synchronization stage	Click "RETRY" to attempt synchronization again
		Exit to Scan page and perform scan. Check battery levels and appropriate number of units are scanned
Software reports a possible Database corruption	Database may have been corrupted	Follow prompts to create a new database. Contact Fusion Sport for assistance with retrieving data and repairing backed up database.

# HEALTH AND SAFETY

## Precautions When Using Batteries

- Never use any charger or battery that is damaged in any way
- Use the battery only for its intended purpose
- If left unused, a fully charged battery will discharge itself over time
- Always charge in or as close to room temperature (20 degrees Celsius) as extreme temperatures will affect the charging capacity of the batteries
- If Batteries will not recharge (batteries provided have a recharge life of 800 times), DO NOT ATTEMPT to change the batteries yourself. Instead contact your local service provider.

## Electronic Devices

Most modern electronic equipment is shielded from radio frequency (RF) signals. However, certain electronic equipment may not be shielded against the RF signals from the units.

**Pacemakers:** Pacemaker manufacturers recommend that a minimum of 15cm should be maintained between the units and a pacemaker.

**Hearing Aids:** Some wireless technology can interfere with some hearing aids. In the event of such interference, you may wish to consult your hearing aid manufacturer to discuss alternatives.

## Other Medical Devices

If you use other personal medical devices, consult the manufacturer of your device to determine if it is adequately shielded from external RF energy. Your Physician may be able to assist you in obtaining this information.

## Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

## Potentially Explosive Atmospheres

Switch off all units in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

Users are advised to switch off all units while at a refueling point (service station). Users are reminded of the need to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants or where blasting operations are in progress.

Areas with a potentially explosive atmosphere are often but not always clearly marked. They include below deck on boats, chemical transfer or storage facilities, vehicles using liquefied petroleum gas (such as propane or butane), areas where the air contains chemicals or particles, such as grain, dust or metal powders, and any other area where you would normally be advised to turn off your vehicle engine.

# TERMS AND CONDITIONS OF SALE

1. All goods and services ("Products") supplied by Fusion Sport Pty Ltd (Fusion) to Customers are supplied under these terms and conditions
2. No purchase order shall be binding on Fusion until accepted by Fusion sales order administration. An individual contract for the supply of Products, on these terms and conditions, is formed upon acceptance by Fusion of an order from the Customer. Fusion reserves the right to accept any order in whole or in part. Where Fusion makes a part delivery of any order, such delivery shall constitute a separate contract. No order may be cancelled or varied after acceptance by Fusion unless alternate arrangements are agreed in writing by Fusion.
3. Unless otherwise agreed in writing, all orders are accepted by Fusion subject to full payment prior to despatch of the Products from Fusion.
4. Ownership in the Products does not pass to the Customer until the Customer has discharged to Fusion all outstanding indebtedness, whether in respect of the Products or otherwise.
5. Fusion reserves the right to recover from the Customer all goods and services (Value Added) tax ("GST or VAT) payable in respect of the supply of Products to the Customer.
6. The failure by Fusion to exercise, or any delay in exercising, any right, power or privilege available to it under these terms and conditions will not operate as a waiver thereof or preclude any other or further exercise thereof or the exercise of any other right or power.
7. Unless specified otherwise, the Fusion warrants to the Purchaser that Fusion branded products, (excluding third parties products and software) will be free from defects in materials and workmanship affecting normal use for a period of one year from date of the Invoice evidencing supply to Customer.
8. Warranty does not cover damage, fault, failure or malfunction due to external causes, including accident, abuse, misuse, problems with electric power, servicing not authorised by Fusion, usage and or storage and or installation not in accordance with Product instructions, failure to perform required preventative maintenance, normal wear and tear, act of God, fire, flood, war, act of violence or any similar occurrence; any attempt by person other than Fusion personnel or any person authorised by the Fusion to adjust, repair or support the Products and problems caused by the use of parts and components not supplied the Fusion. The Standard Warranty does not cover any items that are in one or more of the following categories; software; external devices; accessories or parts added the product after the product is shipped from the Seller; accessories or parts that are not installed in the Seller's factory.
9. This warranty is specifically limited to the replacement or repair of any such warrantable defects, without charge, when the complete Product is returned to Fusion or to an Authorized Distributor or to an Authorized Service Centre, as directed at the time the return has been authorized by issue from Fusion of a Return to Manufacturer Authority (RMA). You may Contact Fusion by email at [support@fusionsport.com](mailto:support@fusionsport.com) for a repair authorization. When it is deemed appropriate to provide replacement of defective components pursuant to this warranty the replacement parts shall be warranted for the remainder of the warranty period applicable to the original component.

# TERMS AND CONDITIONS OF SALE

10. Fusion shall be the sole judge as to whether Warranty is applicable for any particular alleged product defect/s. Products that are returned for warranty examination and that are found to be not eligible for warranty repair may be repaired at a charge but in all such instances, the party returning the item under an RMA will be first notified and will be given the opportunity to approve any charges. In cases where no chargeable work has been authorized the item/s will be returned to the party sending the goods in under an RMA freight collect. Where a charge is authorized, a copy of a purchase order with the amount of the charge must be received by Fusion either by mail or by FAX and payment must be made in full before any equipment is returned. Repairs carried out under genuine warranty conditions will be returned to the sender freight prepaid.

11. THIS EXPRESS WARRANTY EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE. FUSION SPORT PTY LTD SHALL NOT BE LIABLE FOR WARRANTY IN ANY AMOUNT EXCEEDING THE PURCHASE PRICE OF THE GOODS. FUSION SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER IN CONTRACT, TORT, OR OTHERWISE.

12. Buyer acknowledges that it is not relying on the seller's skill or judgment to select or furnish goods suitable for any particular purpose and that there are no warranties that extend beyond the description on the face hereof.

13. This warranty extends only to the original purchaser, and shall not apply to any products or parts that have been subject to misuse, neglect, accident, or abnormal conditions or operation.

14. Except as expressly provided above, Fusion shall not be under any liability to the Customer in respect of any loss or damage (including consequential or indirect loss or damage or loss of profits) however caused, which may be suffered or incurred or which may arise directly or indirectly in respect of the Products, any services supplied by Fusion or the failure of Fusion to comply with these terms and conditions.

15. These terms and conditions are governed by and will be construed in accordance with the laws of Queensland and the parties agree to submit to the jurisdiction of the courts of that state.

**These terms and conditions will apply to the exclusion of all other terms and conditions contained in the Customer's order.**

# FCC STATEMENTS

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Re-orient or relocate the receiving antenna, Increase the separation between the equipment and receiver, Connect equipment and receiver to outlets on different circuits, or Consult the dealer or an experienced radio/TV technician for help.

US FCC Labeling Requirements (FCC Part 15.19)

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

US FCC Modification warning (FCC Part 15.21)

Warning: Any changes or modifications not expressly approved by Fusion Sport could void the user's authority to operate this equipment.

FCC ID: UQM-SMARTSPEED

## CONTACT DETAILS: FUSION SPORT

Address:  
2 Henley Street  
PO Box 56  
Coopers Plains  
QLD, 4108 Australia

Phone: (+61 7) 3344 6599

Fax: (+61 7) 3344 5076

Website: [www.fusionsport.com](http://www.fusionsport.com)  
Email: [support@fusionsport.com](mailto:support@fusionsport.com)