



World Para Snowboard

Equipment Rulebook 2018/2019

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World Para Snowboard Equipment Rulebook

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World Para Snowboard reserves the right to further interpret and/or supplement these Rules in order to help ensure that their spirit and purposes are respected.

Competition equipment

The term “competition equipment” implies all items of equipment used by athletes/guides in competitive skiing/snowboarding, including clothing and implements that serve a technical function.

The entire competition equipment forms a functional unit.

In this connection the following points must be observed:

- the principle of safety
- the principle of fairness

Competition implements

Competition implements refers to the equipment which fulfils essential functions during the competition but which can be separated from the actual competition.

Examples: skis, bindings, boots, poles, clothing, helmets, ski goggles, back protectors etc.

Additional equipment (accessories)

Additional competition equipment (accessories) are those components or implements which exert an influence on the technical function of the competition equipment and which are attached directly to the equipment by means of recognised fastenings. Such accessories do not perform essential functions during the competition.

Example: para-blocks, plastic tip covers, additional weights, back protectors.

Snowboards

Only Snowboards can be used in competitions. Snowboard tail must have no sharp edges. The board's minimal width is restricted as follows:

Gliding surface length:	Minimal width:
up to 135 cm	14 cm
more than 135 cm	16 cm

Bindings

The bindings must be fixed diagonally on the long axis of the board. The boots cannot overlap each other.

Plate Systems that connect both bindings are not allowed in SBX (individual plate systems are allowed on each binding)

Retention devices, leashes

Safety leashes are optional unless required by the organiser or the ski area.

Balance and speed control

The competitors are not allowed to wear anything on the hands besides gloves or to use any kind of devices to additionally support their balance, reduce or accelerate their speed, like poles or sticks etc.

Competition clothing

SBX competition suits must be two pieces – pants and separate top. Forms fitting speed or downhill suites are not permitted. No straps, fastening devices or other methods can be used to tighten the suit material closer to the body.

Helmets

The use of crash helmets is compulsory for all snowboard events. Helmets used in IPC Snowboard events shall be specifically designed and manufactured for the respective discipline and shall bear a CE mark and conform to recognized and appropriate standards such as CEE 1077 or US 2040, ASTM 2040. The use of full-face helmet is prohibited.

Ski goggles

Ski goggles are devices protecting the eyes against weather and rays with optically correct lenses. Their aim is to guarantee good, contrast-free visibility in all weather conditions. The use of ski goggles is recommended. It is prohibited to reshape the ski goggles in order to obtain aerodynamic advantages. Goggles straps must be worn outside the helmet

Ski gloves

Gloves offer protective covering against weather and external forces. The wearing of gloves is urgently recommended. Reshaping the glove, the application of a plastic coating on the outer surface, or the use of skai (imitation leather) with the aim of attaining more aerodynamic features, are not allowed. The glove must not reach beyond the elbow. Protective padding along the entire length of the glove is permitted. The use of protective guards in the form of shields, which are pulled over the glove, is permitted.

Protectors

Protectors are an additional item of equipment, which protects the athlete's back against weather and external forces.

Back protectors must adapt to the anatomical bend of the athlete's spine and lie flat against the body. Designs with the view to improve aerodynamic properties are forbidden. The back protector must be worn underneath the competition suit.

Any additional protectors such as chest and shoulder protectors must be designed for snow ski racing and worn under the racing suit.

Adaptive Equipment

The term “Adaptive Equipment” refers to all the implements and apparatus adapted to the special needs of Paralympic athletes and used by athletes during competition on the field of play (e.g. protections, prostheses and orthoses) that is specified in the WPSB Equipment Rule Book.

General rules for (adaptive) equipment:

- a. Safety (should not harm the athlete, spectators or environment)
- b. Fairness (regulated in our rules)
- c. Universality (the principal components must be commercially available and affordable)
- d. Physical prowess (no motor, computer, robotically components)

(For exact text, see [IPC Handbook, section 2, chapter 3.10](#))

Orthosis; orthotic device

Externally applied device used to modify the structural and functional characteristics of the neuro-muscular and skeletal systems (For stabilizing, support, compensation, protection, prevention).

Prosthesis; prosthetic device

Externally applied device used to replace wholly, or in part, an absent or deficient limb segment.

Athletes with an upper limb impairment/amputation

1. Unilateral
The overall length of the limb, including the prosthesis, cannot exceed the length of the unaffected limb with the hand open
2. Bilateral
The overall arm measurement from the tip of the acromion to the distal end of the prosthetic should be no longer than $0.399 \times \text{height (centimetres)}$, with the arm in the anatomical position.

In the event that the arm cannot rest in the anatomical position, then limb segments should be taken.

The Upper Arm measurement:

Tip of acromion to lateral epicondyle = $0.191 \times \text{height (cm)}$

The Forearm measurement:

Lateral epicondyle to radial styloid = $0.1485 \times \text{height (cm)}$

The Hand measurement:

Radial styloid to distal end of second metacarpal = $0.119/2 \times \text{height (cm)}$

The double below elbow amputee that will be wearing prosthesis, calculation can be simplified to:

Lateral epicondyle to the end of the prosthetic should be no longer than $0.208 \times \text{height (cm)}$

Athletes with a lower limb impairment /amputation

1. Lower limb prostheses must be used with snowboard boots
2. Unilateral
The overall length of the lower limb, including the prosthesis cannot exceed the overall length of the unaffected limb.
3. Bilateral

Athletes with bilateral below knee amputations

Will be limited by the following formula as to the overall length of their lower extremities, including prostheses and snowboard boots for IPC competition purposes:

Overall leg length (in cm)* = or < $(\text{thigh length} - 13) / 0.4 \times 1.05$

**including prosthesis*

The overall length of the leg including the prosthesis equals or is less than the length of the thigh minus 13, divided by 0.4, with an additional 5% to the final length allowing for natural variation.

The thigh length is measured from the anterior superior iliac spine to the inferior pole of the kneecap or to the lower point of the medial femoral condyle if there is no patella. This measurement is carried out with the athlete supine.

The overall length of the leg will be measured from the anterior superior iliac spine to the heel of the prosthesis with the athlete standing.

The Maximal Allowed Standing Height (including the prosthesis) will be measured in the standing position by using a vertical line from the top of the skull to a line connecting the base of the heels of prosthesis. If there is any doubt the measurement can be taken with the athlete standing on 2 sets of scales (equal weight) with the height being the vertical distance between the top of the skull and a line joining the base of both heels. Where possible a metal tape measure should be used for measuring. When the competition prosthesis have a fixed flexion in ankle or knee, the measure should be taken along the leg axis.

Athletes with bilateral above knee amputation

The length of prostheses used by athletes with bilateral lower limb amputations will be determined using the 3-Step process described below.

Step 1: Estimate maximum standing height from Ulna length

Measure the distance between point of the elbow (olecranon process) and the ulna styloid.

Measure between the point of the elbow and the midpoint of the prominent bone of the wrist. The height in metres is determined from the below table based on the ulna length as measured in centimetres.

Table: Ulna length and maximum standing height		
Ulna Length (centimetres)	Male Height (metres)	Female Height (metres)
21		1.54
21.5		1.55
22		1.56
22.5		1.58
23		1.59
23.5		1.61
24	1.64	1.62
24.5	1.66	1.63
25	1.67	1.65
25.5	1.69	1.66
26	1.71	1.68
26.5	1.73	1.69
27	1.75	1.70
27.5	1.76	1.72
28	1.80	1.73
28.5	1.82	1.75
29	1.84	1.76
29.5	1.85	1.77
30	1.87	1.79
30.5	1.89	
31	1.91	
31.5	1.93	
32	1.94	

Step 2: Estimate maximum standing height based on measurement of Demi-span.

Demi-span is measured as the distance from the middle of the sternal notch to the tip of the middle finger in the coronal plane.

The measure is best obtained with the athlete standing with their back against a stable wall, right shoulder abducted to 90° with the palm of the hand facing forward. The measure is taken in centimetres.

The maximum standing height is then calculated from the following formula:

- Females: Height in cm = (1.35 x demi-span (cm)) +60.1
- Males: Height in cm = (1.40 x demi-span (cm)) +57.8

Step 3: Final estimate of maximum standing height:

Take the mean of the two estimates, maximum standing height estimated from the ulna length and maximum standing height estimated from demi-span.

The overall standing height of the Athlete with their competitive prostheses must be less than or equal to the mean estimated height, plus an additional 2.5% to the final figure allowing for natural variation. This is demonstrated in the below formula:

Overall standing height (cm) = or < (result method 1 + result method 2)/ 2 x 1.025

*including prosthesis

The Maximal Allowed Standing Height (including the prosthesis) will be measured in the standing position by using a vertical line from the top of the skull to a line connecting the base of the heels of prosthesis. If there is any doubt the measurement can be taken with the athlete standing on 2 sets of scales (equal weight) with the height being the vertical distance between the top of the skull and a line joining the base of both ski boot heels. Where possible a metal tape measure should be used for measuring. When the completion prosthesis has a fixed flexion in ankle or knee, the measure should be taken along the leg axis



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