IBTA

International
Blind Tennis Association

# TECHNICAL MANUAL

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APPENDIX 1 – UMPIRING GUIDELINES

## INTRODUCTION

- Blind Tennis is the name given to the game of tennis played by blind and visually impaired people. The International Blind Tennis Association (IBTA) is the governing body for blind tennis at the international level and was founded in 2014.

- The first World Championships were held in Spain in 2017 and have continued every year with the overall objective to join the International Tennis Federation (ITF) and the Paralympic movement. The 2020, 2021, 2022 Championships were canceled due to COVID-19 pandemic.

- The inventor of Blind Tennis, Miyoshi Takei, had a dream to play tennis in three dimensions with a ball that bounced, which was different to all other visually impaired sports at the time. Since its inception in Japan in 1984, this is exactly why blind tennis has been one of the fastest growing, challenging and exciting sports available to people with sight loss. It has provided opportunities for many blind and visually impaired people to enjoy recreational and competitive tennis, as well as a huge social aspect with meeting other players and travelling to training and tournaments. Playing Blind Tennis in a three dimensional mode (bouncing rather than Rolling balls) is very possible. All it needs is resolve and patience from both the student and the coach.

- The modifications from sighted tennis are the ball, smaller court area, a lower net, shorter rackets and the number of bounces allowed. Also the players have to say ‘Ready?”, “Yes” and “Play” before each point starts.



Miyoshi Takei

## THE BALL



Picture of the larger audible balls in black and yellow. Both colours are same size.

- Colour is chosen to best suit contrast of the court and background. In the picture above, best contrast would most likely be black ball as there is a green court but this may change depending on colour of the background and also on the sight condition of the individual.

- In competitions, with independence of the official colour of the ball, if both players agree, they can change the colour of the ball for that particular match.

- The ball is larger than those used in sighted tennis but also a lot softer. It is made of foam with a smaller plastic ball inserted inside filled with ball bearings that make the ball audible when it lands and when it is hit.



- To order balls, please visit http://www.internationalblindtennis.org/equipment/
- The IBTA Technical team is regularly looking into research and development of new balls to suit the ongoing needs of sound, durability, bounce and speed.

## SIGHT CLASSIFICATIONS

Classification is found in all sports practiced by people with various impairments, be it visual, physical or intellectual impairment. Classification is very important to ensure that firstly the player qualifies to be taking part in blind tennis and secondly to ensure that competition is fair by grouping players in classes according to their degree of impairment.

- In Blind Tennis, we use four sports classes i.e. B1, B2, B3 and B4. Classification should be carried out by an ophthalmologist or optometrist, not an optician. If the ophthalmologist or optometrist doing the classification for your players needs any help, please contact our Head of Medical Research and Development. After the classification, if the results and supporting documents are sent to your national classifier they can verify what class the player is. If you have no national classifier, please send on to Head of Medical Research and Development.

- Currently, a sports class is allocated on visual acuity and/or visual field, in the better eye and with best optical correction. Even if the player does not wear his/her correction to play, the classification procedure needs to be done with the best optical correction being worn.

- Those are the criteria that your ophthalmologist or optometrist should be using to classify your players.

- B1 Visual acuity poorer than LogMAR 2.60

- B2 Visual acuity ranging from LogMAR 1.50 to 2.60 (inclusive)

- B3 Visual acuity ranging from LogMAR 1.0 to 1.40 (inclusive) **OR** visual fields less than 10 degrees diameter, visual acuity better than 0.5 (B4)

- B4 Visual acuity ranging from LogMAR 0.5 to 0.9 (inclusive) **OR** visual fields less than 40 degrees diameter, visual acuity better than 0.5 (B4)

Bear in mind that it is the visual acuity in the better eye which is taken to allocate the sports class. A person may be completely blind in one eye or even have a prosthetic eye, but if the other eye has better LogMAR visual acuity than 0.5 and better visual fields than 40 degrees, the person is not eligible for a sports class.

**Simultaneous acuity and field loss**

Visual field loss present with acuity loss will also be compensated as follows:

– Visual field constricted to a diameter of less than 40 degrees moves the player one class above. E.g.: B4 to B3 or B3 to B2, except B2 which will NOT move into B1

As an example, if a player has 1.4 LogMAR and 35 degree diameter visual fields, he/she is classified as a B3 through visual acuity and his/her visual field loss will move him/her one class up i.e. to B2.

– Visual field constricted to a diameter of less than 10 degrees moves the player to two classes above. E.g.: B4 to B2, except for B2 and B3 which will NOT move into B1.

As an example, if a player has 0.9 LogMAR and 8 degree diameter visual fields, he/she is classified as a B4 through visual acuity and his/her visual field loss will move him/her two classes up i.e. to B2.

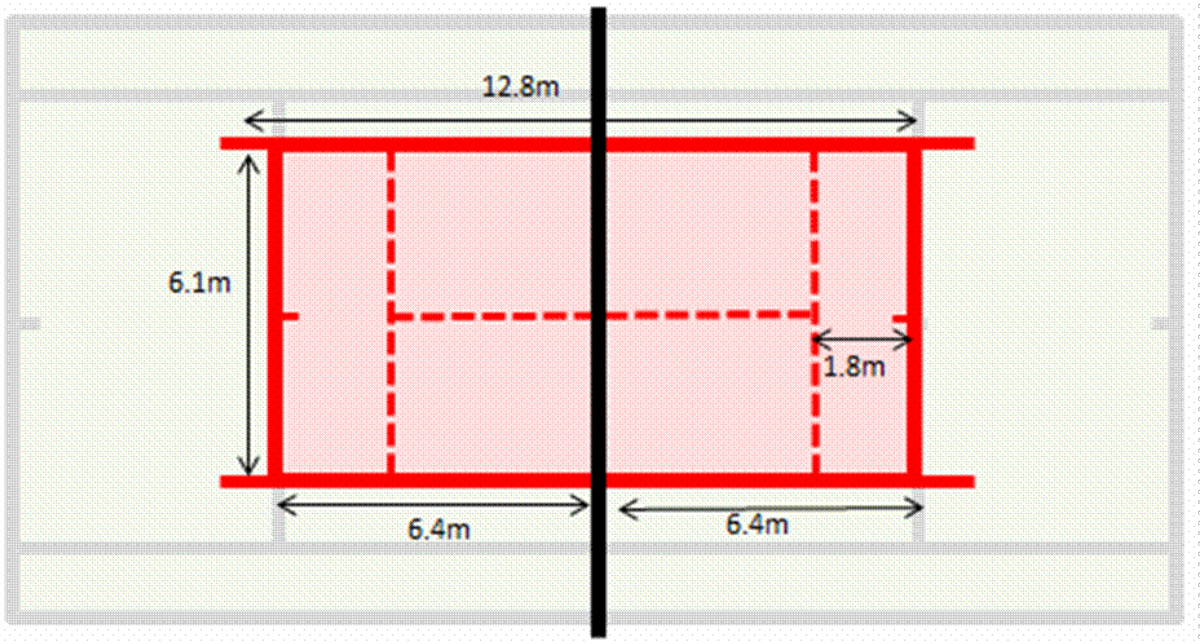
Considerations:

It is very easy for a coach to judge too early what a player's classification is and get it wrong. You might have a very good player who you think sees the ball early so you immediately think he or she is B4 whereas it could be that they have adapted and worked out how to get the best out of their remaining sight over the years and is

actually a B2. On the other hand you could have someone who has very recently lost their sight and hasn't adapted to it yet and you judge they are a B2 when they could be a B3 or B4. Players will not be offended if you simply ask them "How do you see the world" to understand what sight they have or if they know their visual acuity already. A lot of players will know their Snellen or Logmar and then it is important for the coach to go to the classification chart and hazard an estimate of their class. Don't leave it too long before sending them for official classification though as its hard to get used to a different number of bounces when you have training a long time.

## Court Sizes

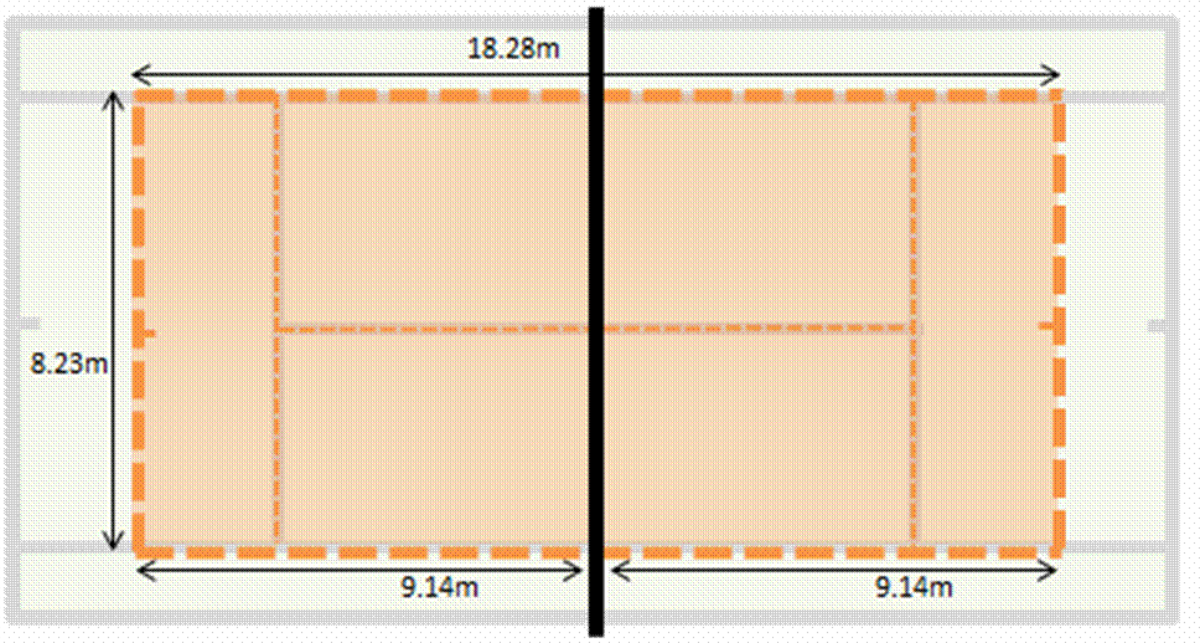
B1 Court for Singles




The diagram above is a picture of the dimensions of a B1 singles court.

- Dimensions are 12.8m x 6.1m
- Service line is 1.8m from the baseline and 4.6m from the net
- Net height is 83cm
- Tactile lines on all lines except service boxes which should be tape unless court lines are visible.

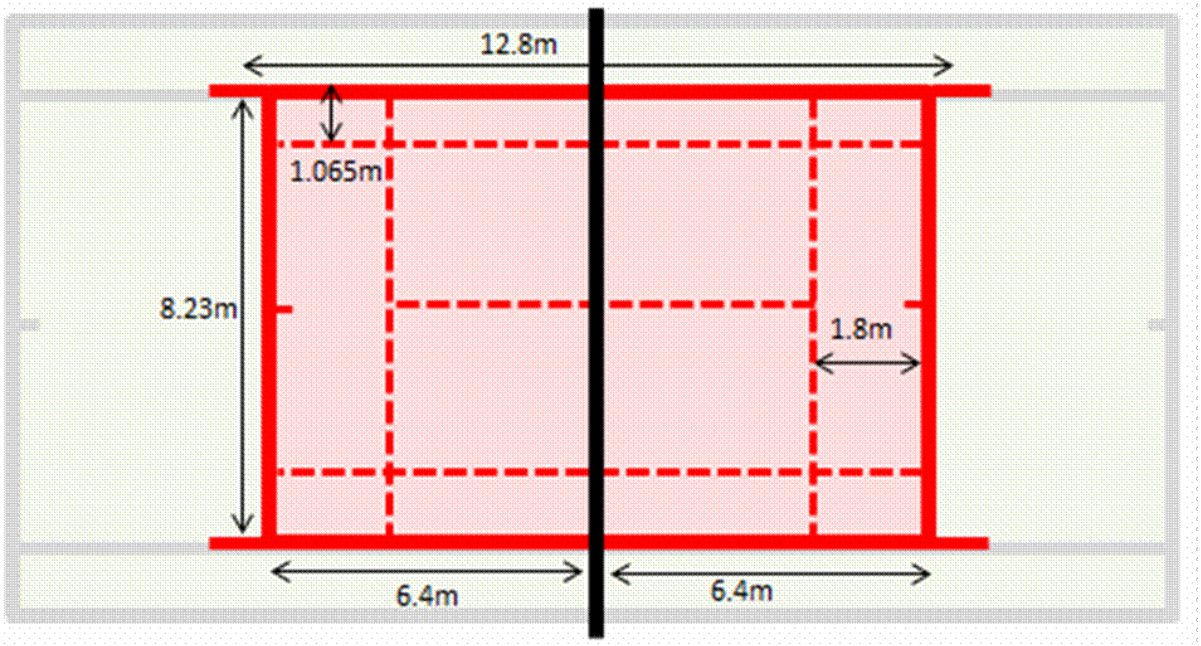
B2-B4 Singles Court




The diagram above is a picture of the dimensions of a B2 to B4 singles court

- Dimensions are 18.28m x 8.23m
- Service line is same as full court
- Net height is 90cm
- No tactile lines but recommended to use high visible tape with good contrast to court colour unless court lines are visible.

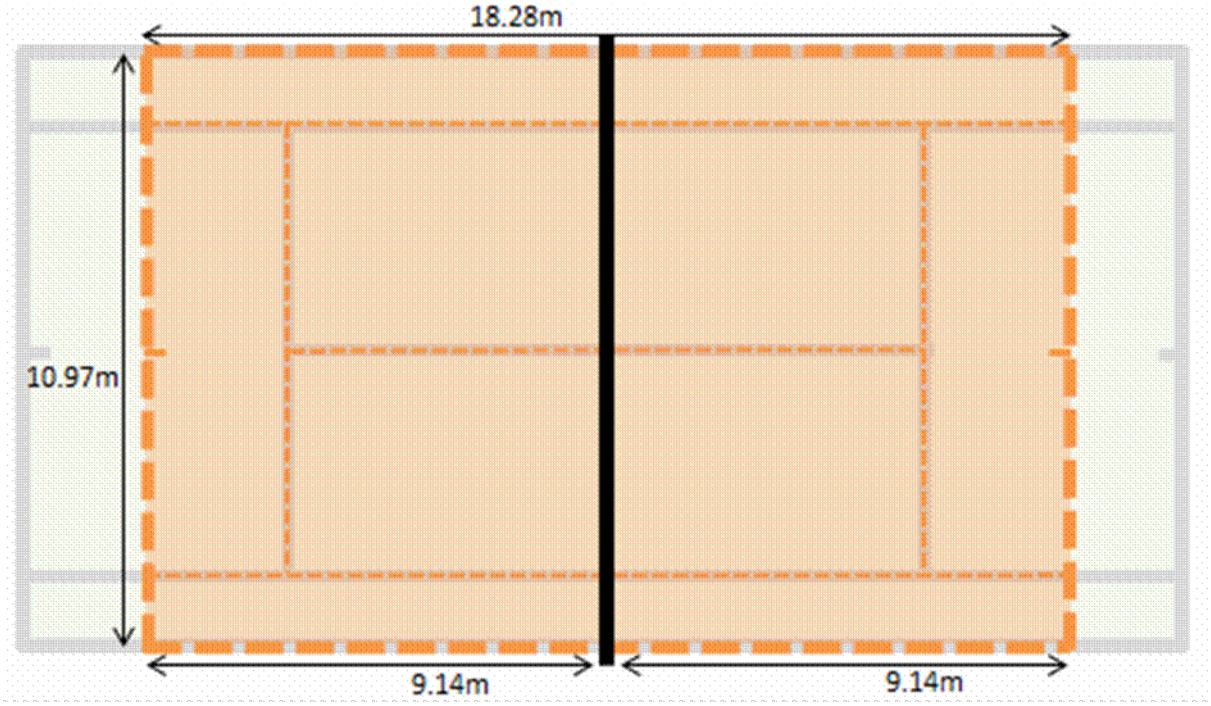
## B1 Doubles Court




The diagram above is a picture of the dimensions of a B1 doubles court

- Dimensions are 12.8m x 8.23m
- Service line is 1.8m from the baseline and 4.6m from the net
- Net height is 83cm
- Tactile lines on all lines except service boxes which should be tape unless court lines are visible.

## B2-B4 Doubles Court




The diagram above is a picture of the dimensions of a B2 to B4 doubles court

- Dimensions are 18.28 x 10.97m
- Service line is same as full court
- Net height is 90cm
- No tactile lines but recommended to use high visible tape with good contrast to court colour unless court lines are visible.

Court sizes are also always under review and research studies and experiments are taken to try out different court sizes with the current ball. With the development of the ball, court sizes may become even more aligned with the sighted version of tennis.

## Racket Sizes

- In B1 competitions, any racket size up to 23-inch length is recommended. Most players play with 21-inch or 23-inch rackets.

- In B2 to B3 competitions, any racket size up to 25-inch length is recommended. Most players play with 23-inch or 25-inch rackets.

- In B4 competition, any racket size up to 27inch (full size) length can be used. Most B4 players play with a 27-inch rackets.

Racket sizes are constantly reviewed and it is important that we hear players and coaches views on all areas to aid development.

- All players in the B1, B2, B3 and B4 categories are allowed to play with the racket size of their choice (up to the standard size) in sanctioned IBTA tournaments. IBTA will continue to align with the ITF standards and take into account the rackets and strings product conformity (https://www.itftennis.com/media/2177/rackets-and-strings-product-conformity.pdf)."
- Should the racket sizes be in relation to court size or in relation to the individual and their height. We are playing on children sized courts but we are adults of all sizes and individuality
- Research shows that a smaller racket stays closer to the body, gives more precise control on the ball and better hand ear coordination but could you also have more control with a heavier racket? A smaller racket also has smaller grip which means some players can't get two hands on it
- a bigger racket gives you more reach and coverage which helps people with mobility issues but does it also cause more damage to the balls.
- Is the Development of the ball directly related to the court size, sizes of racket and number of bounces allowed? A better ball for B1's might allow them to play on same size court as B2-B4? Could the B2-B4's use a full size tennis court with a better ball? Is the aim of our sport to align it as close to sighted tennis or to keep it unique?

These are all questions we are researching every day as a Technical team and with players, coaches and officials views we will do what is best for the development of the individual and the sport.

## Rules of Play

Blind tennis adopts the ITF rules for standard tennis with the following exceptions :

Rule 1 : The court

- B1 court : A standard court of 12.80m x 6.10m (for doubles 12.80m x 8.23m) with tactile lines on all lines except service boxes. The net height will be 0.83m
- B2,B3 and B4 court : A standard court of 17.98m x 8.23m (for doubles 17.98m x 10.97m). The net height will be 0.90m

Rule 2 : The Ball

- A standard blind tennis ball should be used
- For international tournaments, the current Japanese ball must be used. The host country organisers will decide the colour of the ball depending on the colours of the venue. It is intended that there should be the greatest possible contrast between the ball and the colour of the court
- We recommend that you inform players of the colour of the ball in the tournament entry form as well as the colour of the court and backgrounds
- With independence of the official colour of the tournament ball, if both players agree, they can decide to change the colour of the ball for that particular match they are playing

Rule 3 : The Racket

Any racket accepted by the ITF in accordance with classification :

- For B1 game, a maximum of 23 inches
- For B2 and B3 game, a maximum of 25 inches
- For B4 game, a maximum of 27 inches

Rule 4 : Bounces

- B1 and B2 = up to 3 bounces
- B3 = up to 2 bounces
- B4 = up to 1 bounce
- Volley is allowed in all categories

Rule 5 : Categories

- B1 men and women
- B2 men and women
- B3 men and women

- B4 men and women

Rule 6 : Server and Receiver

- Both the server and the receiver may ask an umpire or ball person their own position on court in order to locate on the court

Rule 7 : When to Serve and Receive

- Before starting the service motion the server must call “Ready?” and wait for the receiver to reply “Yes”. If a “Yes” has not been heard, it is recommended the server asks again the “Ready” question. The receiver has the right to say “No” and then inform the server when they are ready.
- The server then has 5 seconds to serve the ball during which time she/he may not alter their position on the court.
- The server must shout play before hitting the ball, not at the same time as hitting the ball.

Rule 8 : Player loses point

- A B1 or B2 player loses the point if they do not return the ball before the fourth bounce (up to 3 bounces permitted)
- A B3 player loses the point if they do not return the ball before the third bounce (up to 2 bounces permitted)
- A B4 player loses the point if they do not return the ball before the second bounce (up to 1 bounce permitted)

Note : At all times the first bounce may be within the court, or, in the case of a serve, within the appropriate service court. Any additional bounces may be inside the or outside the court

- If the player who receives the ball is struck by the ball while standing outside the boundary of the court before the first bounce, it is a point for the player
- If the player is struck by the ball during whilst standing inside the boundary of the court before the first bounce, it is a point for the opponent

Note : On receiving the serve, the boundary is the appropriate service box

Rule 9 : Sight Classification Information

- IBTA will provide sight classifications with international classifiers supervision
- B1 : Only B1 players can play in the B1 category. B1 players can also play in the B2,B3, or B4 categories, but they must follow the rules for that particular category
- B2 : B2 player can play in B3 or B4 category but must observe the rules for that particular category

- B3 : B3 player can play in B4 category but must follow the rules for that particular category
- B4 : B4 players can only play in the B4 category

Rule 10 : Blindfold

- B1 players must wear a standard Paralympic approved blindfold
- The blindfold may be removed only one per game and during pauses in between games
- Players should signal to the umpire if they need to remove the blindfold in any way

Rule 11 : Requirements to play in International Tournaments

- Players must be affiliated to the association of the country they belong to
- Players will not be accepted into an international tournament without a sight classification provided by IBTA
- After the national association of each country has selected their players, the national representative from each country will put forward the players who will attend international tournaments

## How to join IBTA

The steps to become an IBTA member country and affiliate are as follows:

1- Initiate the formal request to join IBTA by filling out the online membership form https://www.internationalblindtennis.org/membership/ with the following information:

- Name and Surname of the country representative applicant
- Email, mobile number and the headquarters address
- Type of organisation such as:
  National Tennis Federation
  National Paralympic Committee
  National or Regional Blind Sporting Association
  National Organisation for Blind and Vision Impaired People
  Local or Regional Tennis Association Affiliated to a National Federation

2- Fill out the IBTA membership form sent to the application and attach any relevant documentation about the organisation such as nonprofit status, etc. to membership@internationalblindtennis.org. This form will be distributed to the IBTA Executive Committee for review.

3- The country will become an official IBTA member association when the IBTA Executive Committee has accepted the admission request and has verified that the affiliation criteria have been met.

4- The IBTA Secretary will get back to new country representative applicant about the status of their application within 30 days.

Special Notes :

- If the applicant country needs any assistance with any of these steps, please contact a member of the IBTA at info@internationalblindtennis.org.
- If the applicant country needs an recognized blind tennis coach to help with the setting up of blind tennis training to coaches and volunteers in your country, we can recommend a coach to visit and deliver a Blind Tennis Training course. The course would be free but expenses would have to be covered by the country unless special funding or sponsors could be secured.

## COACHING CONSIDERATIONS

Experienced tennis coaches know how to teach forehand, backhand and serves, etc. and to develop someone's playing ability, but they may not know how to teach these same skills to someone who doesn't see. Realising verbal communication is the key to success (the need to describe instructions and/or feedback in detail) and being creative in new ways of teaching these same skills should mean that a good coach will see the players ability to train and develop their game over and above their visual impairment.

There is tremendous satisfaction in helping people who are blind or visually impaired to be physically active and enjoy the sport that you also love. It is a valuable and rewarding learning experience that further develops the teaching skills of the coach. It is an opportunity to give something back to the game you love and to interact socially with the players and other volunteers. Most importantly, lead by example and enjoy your coaching, the players are there for a number of reasons and its up to you to meet these whether it is to :

- Have fun
- Learn new skills and improve their game
- Socially interact with other players, volunteers and coaches
- Be physically active and improve their fitness levels
- Build on an interest in tennis and sport
- Gain confidence in their abilities and self esteem
- Establish and foster a valuable support network

Some players will want to play socially and improve and others will want to play competitively and challenge themselves at national and international level or just go to these events for the same above reasons. Unlike sighted tennis, a player should not solely be judged on their playing ability to enter a 'tournament'. Tournaments are social, fun and great to meet new players. As long as a player is mentally ready to enter a 'tournament', we should be encouraging them to do so.

## Safety

- It is important to create an environment in which blind and visually impaired players can run freely without worry of falling or bumping into someone or something (bags, benches,etc). Keep movable items out of the way at the side or back of the court. Providing an appropriate area for guide dogs is essential.

- Oversee the transportation arrangements for players to and from your session. For a players very first session, ask the player if they would like you to meet them at the local bus stop and walk the route with them to gain confidence.

- Identify a safe place (bench, for example) at the back of the court where players know to leave their belongings and bags each time they visit. Try not to change this, players will learn where it is, changing the location may cause confusion or loss of independence.

- In case of an accident or emergency, the person in charge of the training should be familiar with the nearest fire exits, emergency procedures and where the first aid kit is kept. It is a good idea to physically show players where the exits are and what to expect (steps etc) at regular intervals so everyone is prepared.

- The person organizing or coaching the players should check players wear suitable kit (shoes and sportswear).

- Coaches and/or volunteers need to look out for players' safety at all times, on and off the court. Give advance warning if someone is close to, or about to bump into, fixed objects such as net posts, walls, benches, doors etc.

- When players are training on court, coaches and/or volunteers should make sure other players are at a safe distance to avoid collision / injury.

- Remember to collect tennis balls from the area of play in-between points, especially when working with B1 players.

- Be prepared for players to arrive with a guide dog, have somewhere organized where the dog can be safe while its owner is on court, and ensure that a water bowl is close by. Perhaps staff at the venue will look after it, or maybe a volunteer can be on dog walking duty if the session is long.

## Getting started

- The first time a blind or visually impaired person comes to the tennis venue offer a detailed description / walk around the venue to locate the facilities they want and need (locker room, entrance to the court, benches etc). The description should also include what's in the corridors, location of any steps or trip hazards to prevent unnecessary injuries. Taking the time to describe the environment will:

- increase confidence and independence for players getting around the venue
- Increase confidence and independence on court
- increase confidence in the coaches and volunteers

This description is essential for B1's and can be useful for B2-B4's. Remember to offer B1's an arm to hold as you guide and describe.

- B1 orientation on court: Ask if they have been on a tennis court before. Some people may have played tennis before losing their sight (possibly to a good standard) and may have a good memory of the court layout, For others it may be the first time on a tennis court and they may not know what it looks like, in this case a detailed description and a walk around will be needed.

- For B1's its helpful to start the orientation at the net and use this as a reference point. From the net walk to the service line, then to the base line, then across the court stopping at the centre line and the tramlines. Explain that there is a mirror image on the other side of the net. It can be helpful to measure in steps from one line to another.

- For B2-B4's it may be helpful to walk the court to get a feel of the actual size and distances, especially if they have very little vision or perception of depth is difficult.

- Introduce the racket, tell players the correct terminology for different parts of a racket (as you would for juniors), allow time if players need to feel the different parts as you describe them.

## SKILLS THE COACHES NEED TO HAVE

- Instructors need to learn the psychological aspects of being blind and visually impaired

- As visually impaired cannot reach their hands out to objects or follow the path of a moving object, they are entirely dependent on external help

- To play effectively, they will need to hit the ball very close to their bodies. It is therefore important for them to keep the ball close, by teaching them to run towards and backwards with the ball

- Blind people are often completely dependent on others to guide them and describe what is in front of them. They therefore have got used to moving slowly and cautiously. Tennis reverses this process some players may need time and help to adapt to this new freedom

- The players will learn by listening and feeling. Give them accurate feedback and let them feel a motion by guiding their hands and feet

- It may be more difficult for a blind person to change their body movement and technique after learning one thing so you have to be careful and teach good form from the start

- Movement is the most challenging part for the players because some players joints may be less flexible and tennis requires smooth transitions. Working on flexibility and coordination is necessary by the coach

- The players will not gain anything from terms such as “just missed” or “a little bit”. Give them specific and detailed information such as “Ball halfway up in net” “Out left by 50cm” etc

- A good warm up and cool down is very important to prevent injuries, improve coordination, balance, loosen joints and as aerobic exercise

- Teach the players sportsmanship, good manners and fair play, not just technique

- The sound of the ball is important for the players, teach and encourage volunteers and spectators to keep voices and noise to a minimum

## SKILLS THE PLAYERS WILL DEVELOP

- There are **three important elements** essential to hitting a ball. They are spatial awareness (awareness of where the player is in relation to the court, ball and net) (the position of the ball in three dimensions, right or left, forward or backward, high or low), Technique (appropriate form and coordination to effectively hit forehands and backhands) and Timing (the ability to time when to start the swing according to how close the ball is to the hitting zone)

- Spatial Awareness – The ability of the student to move towards or away from the sound of an oncoming ball and returning to a strong recovery position is fundamental

- Tactile skills – These are very important. The B1 players will need to touch or feel the lines to check their position around the court. These skills develop the players orientation and mobility which are also essential for everyday life. Learning these skills through tennis accelerates the process and makes it enjoyable

- Physical coordination skills – These have to be developed as the player will be called upon to move their whole body in order to play tennis

- Independence – Unlike team sports, a tennis player needs to be able to make decisions for themselves in the heat of a match. It will develop a players self confidence and independence

- Social Skills – Players will meet a lot of people and improve their communication skills

- Understanding – The players will be able to play and compete against sighted players. This allows both groups to mix, socialise and exchange the joys and challenges of their sport and lives. Furthermore, the players could share the sport with their children, parents, brothers and grand children

- Rehabilitation – Some visually impaired people have other impairments. Tennis is a good sport for rehabilitation and recreation

## General Fitness

Like anyone new to tennis, some players may arrive with poor fitness levels and others will already be very fit due to being active in other sports. Be aware of individuals' fitness levels just as you would with any other group of players.

- Warm up and cool down
- Balance
- Flexibility
- Strength
- Mobility
- Endurance

Before competitive matches and training, the warm up and cool down are most important. A warm up prepares the body physically and mentally for the task ahead. Our tennis players will likely benefit from a light sport specific warm up prior to practice or participation. This could involve light jogging using various footwork patterns such as straight ahead, shuffling, crossover steps and back pedaling for the lower body. For the upper body, the player can perform shadow strokes of forehands, backhands and serves to warm up the muscles used in each stroke. Make your warm up specific to the group you are teaching. B1 tennis and B2/4 tennis require very different physical movements and intensities and this needs to be tailored to in your warm up.

Cooling down after severe exercise is a safety concern. Heart rate, body temperature and respiratory rates are elevated. The concern with returning to a resting state too rapidly is that it may allow blood to pool in the extremities which is dangerous. It is important to have an active cool down to gradually bring all these back to a balanced state. Light jogging and dynamic stretches are sufficient and will reduce muscle soreness.

## GUIDING A BLIND OR PARTIALLY SIGHTED PLAYER

There are some videos and documents on guiding at the following websites that are very beneficial to see in action.

https://www.traveleyes-international.com/guiding-a-blind-person/

https://www.rnib.org.uk/information-everyday-living-family-friends-and-carers/guiding-blind-or-partially-sighted-person

All the key information is gathered below:

- A sighted guide provides the player with a visual impairment a comfortable way to travel safely in any environment
- To offer your services as a sighted guide, approach the person who is blind or visually impaired, introduce yourself and ask if they would like your help
- Do not grab, push or pull a person with vision loss, regardless of their age
- If they indicate they would like your assistance, verbally offer your arm and brush it against their hand or arm
- When an individual acts as a human guide, they should walk a half step ahead of the person they are guiding
- When approaching a narrow area or doorway, the sighted guide will move their forearm and hand to rest against the lower portion of their back, palm facing outward
- The guide should approach curbs, stairs and doorways squarely, never at an angle
- At doorways, the guide should tell the person being guided which way the door opens so they can hold the door as both pass through

- When approaching a seat, the guide should tell the person being guided that they are in front of or beside the seat. The guide will place their guide arm hand on the chair back or arm and allow the guided person to follow the guides arm down to the seat. The guide does not need to help the person they are guiding sit down, unless the person is frail or unsteady

TIPS TO REMEMBER

- When meeting someone for the first time who is severely sight impaired, it is best to introduce yourself by name each time until they recognise your voice.

- Always ask the player if they need guiding and how they prefer to be guided

- To promote independence for a visually impaired person within your sessions, always lay out equipment in the same place every time at the start of the session. The individual will know where to find it and it will give them autonomy.

- Always remember to introduce yourself by name,and find out how much an individual can see. Don't be afraid to ask. Small changes to your positioning may help them to see a demonstration more clearly

- Ask an individual if they want to be guided and what their preferred technique is. Don't assume everyone with a visual impairment wants to be guided. Would they prefer to take your elbow or your shoulder.

- Describe any changes in surfaces, obstacles, loud noises and environments, to help build a more complete picture of their surroundings.

- Description is key. Remember to describe the space, who is around, what obstacles and equipment they need to be aware of.

- Consider creating a buddy system to help support you (the coach) and the participant.

## BASIC PLAYING TECHNIQUES

### THE READY POSITION

Everyones ready position will be slightly different depending on height, length of legs and mobility but it is an essential starting point to be ready for any shot that comes your way in tennis. It is essential to explain to the players the importance of this position so that they can be ready to hit the ball with both forehand and backhand. The key concepts are :

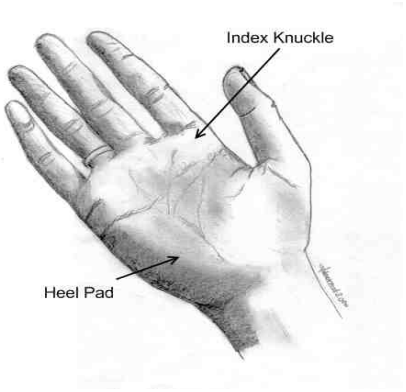
- Your feet need to be at least shoulder width apart with your head forwards into the court, and toes pointed to the net
- Bend your knees slightly, this lowers your centre of gravity and stores energy in your muscles.
- Your racket should be straight out in front of you, both hands on the racket and using the continental grip. Some players prefer to be ready with their racket back so they are more prepared given the short reaction times in our sport. Be sure to let the player try these different options so they can find a suitable technique for their own style
- As your opponent shouts “play”, try to bounce onto your toes for extra spring in your legs. The timing of this is crucial. It's difficult to master but if you get it right it will allow you to accelerate in any direction at maximum speed the moment you see or hear the ball.
- Some players prefer a side-on ready position with their toes pointed to the side of the court, the trick is to let them try all possible options and see what suits them best

### GRIPS

The tennis grips you use have a big influence on your style of play. This is because the tennis grip is one of the factors that determines how much of spin you put and how much of pace you generate. One grip is not better than another. You should select a grip that helps your style of play. If you are an aggressive player, choose a grip that allows you to hit through the ball and put more pace. If you are more of a consistent player, choose a grip that allows you to put more spin.

The tennis racket grip is divided into 8 bevels as shown in the diagram.




The type of grip depends on which bevel the Index Knuckle and Heel Pad rest.

All of the tennis grip diagrams below assume that you are right handed. If you are left handed just reverse the instructions.

As mentioned in the ready position, the most important starting grip is the continental grip.



The diagram above is an explanation of the continental grip showing Index knuckle on bevel 2 and heel pad on bevel 2

For all categories, the continental grip is a great neutral grip to start off for the player for the return of serve and whilst getting ready to receive a shot during a rally.

**The Serve and Serving Grips**

A number of B1 players use the western forehand grip, sometimes referred to as the frying pan grip for the overarm service action if they suit it better than the continental grip, it is very controlled in getting the ball to go straight and slow, and has a high margin of error, which suits the B1 serve especially for beginners. It is not recommended for any other shot in B1 tennis. It is not recommended for servers in the B2-B4 categories to use this grip as it does not allow for pronation and can cause injury when used with more power

**Western Forehand Grip**




The diagram above is an explanation of the western forehand grip, showing index knuckle on bevel 5 and heel pad on bevel 5.

## The Serve

### Serving Techniques

In the early stages of developing a good serve, the important elements are:
- Simple action
- Continuous action
- Good balance and ball placement
- Reasonably correct grip, starting with a Eastern Forehand Grip and gradually progressing to a continental grip.

Rhythm on the serve is an important criterion to ensure a fluid service action. In the early stages of serve development, the correct grip and stance should be taught, together with a rhythmical swing pattern usually associated with the instruction, “both down together, both up together”

Such an instruction means that both arms, the racket and ball arm, move in synchrony. The other important idea being conveyed to the learner is to control the ball placement and to transfer weight efficiently towards where you are hitting.

As the player develops further, other elements are usually introduced to the serve:
- A change of grip towards the Continental Grip
- The use of the wrist to control placement
- Spins are added including slice
- A harder ‘flat’ serve is encouraged

It is important to understand the biomechanics of the serve so that advanced service techniques can be added to make the serve a powerful weapon.

### Adaptability for Blind Tennis Serves

- The ability to serve is one of the most difficult movements to learn in sighted tennis and it is no easier for the blind and visually impaired.
- Like sighted tennis, underarm serve is allowed and is a good option for sidespin serves in B1 and for players who struggle physically with overarm serves in the B2-4 categories.
- Serving is a similar motion to the throwing action and a good exercise for beginners is for the player to stand near the net and throw the ball without his

racket over the net into the service box. It is important to use the whole body to encourage the player to make the weight transfer from back to front. After throwing, remind the player to stay upright rather than crouch over.

- Use the right form from the start highlighting the preparation, contact and follow through of the shot and reminding them always to stay loose
- For beginning players and for nearly all B1's, they should take the ball with their non-dominant hand, raising the arm as high as possible, placing the hand in front of the head. With their dominant hand, they should place the racket head as close to the ball as possible. At the time of hitting, the player shall release the ball and immediately swing forward through the ball looking for the speed and height to pass the net and keep it within the service box on the diagonal opposite.
- The more accomplished the player becomes, they should try starting the non-dominant hand with ball from the shoulder or hip height, releasing the ball upward, extending the arm without bending the wrist. With the dominant hand, they should load the racket from behind the head imitating the sighted serve as much as possible to create more power and spin and impacting the ball at the highest possible and in front of the head.
- The feet position should be no different than the sighted serve although a number of B1's find it much easier to control the serve when the feet are facing where they want the ball to go.
- Progression of the serve should start with throwing action gradually getting further away from net to the baseline, then the same with racket hitting ball. To practice rhythm, you could also first use the dominant hand to hit the ball like a racket

## The Forehand

The forehand shot is one of the most important shots in tennis. In today's modern game, during the baseline rallies, the forehand is the shot that is usually performed the most by advanced players. All types of players can develop a good forehand shot into a big weapon. This shot is often used to put the opponent under pressure and to dominate the point.

The forehand shot is an essential and fundamental move and probably the shot you will attempt to hit most. For most players, it is their main weapon and it is important to

make your forehand the best it can be, whether you are looking for consistency or power.

Try out all the grips to see what style suits you best. Western and Semi Western Grips will naturally give you more spin, whereas Continental/Eastern Forehands will let you drive the ball flat and hard or for B1's, flat and precise. For B1's, the preferred forehand grip is continental or eastern forehand whereas for B2/4 players as well as the continental grip which lets them hit flatter, they also explore the possibility of a semi western or western forehand to create extreme spin.

Whatever grip is used for the forehand by the player, it is becoming more and more important that the player has the ability to run around their backhand and to hit attacking forehands which either create openings or win the point directly. As the player improves, they will determine an attacking area for themselves where they feel comfortable in running round their backhand to hit the attacking forehand. Players will also need to develop specific footwork to enable them to perform this variation. Coaches should begin working with the player on this variation early on in their development.

Below are descriptions of those two grips we haven't explored already.

<u>Semi Western Forehand Grip</u>



The diagram above is an explanation of the semi western forehand grip, showing index knuckle on bevel 4 and heel pad on bevel 4

Eastern Forehand Grip




The diagram above is an explanation of the eastern forehand grip, showing index knuckle on bevel 3 and heel pad on bevel 3

Forehand Technique

- The player must turn the shoulders and the hip
- Short swing back mostly used for B1 players, bigger backswing used for B2-4 used to create power because of larger court size
- Every player uses different stances depending on their conditions so its important to let them know the closed and open and semi open stances
- Ball should be hit slightly in front of the player
- Follow through again is mostly shorter at B1 than B2/4 because of the court size
- Once the stroke is completed, its important to recover well to a good position on the court in relation to your tactical choices and adopt the split step and ready position again
- Players can use a wall to improve the control

Good progressions on forehand for new beginner players to track the ball

- Player passes ball from hand to hand
- Coach throws ball straight up in the air, player uses as many bounces as they need to find the ball. Make sure coach introduces and uses everytime the "Ready? Yes, Play"
- Player throws up ball for themselves and uses as many bounces as they need to find the ball
- Coach throws the ball from short distance to the player making sure the first bounce is around halfway between them and player attempts to find the ball with their hands. Increase distance and speed/height of throw. Could also start limiting the number of bounces allowed
- Introduce racket and do same but trap the ball with the racket like a sandwich (ball is sandwiched between racket and ground) when the coach throws the ball to them. Increase distance and speed/height of throw. Could also start limiting the number of bounces allowed
- Progress on to the coach throwing the ball and the player using the racket to make contact with the ball with preparation, backswing, contact and follow through
- Give constant descriptive feedback on where the ball is going after contact and make sure both the player and the coach is using the "Ready? Yes, Play" from first progression

## THE BACKHAND

The backhand, so often the strength of modern players, has evolved significantly over the decades from the one handed stroke that dominated the game to the modern two handed backhand that now significantly dominates the game today. The development of the backhand stroke specific to the individual is a real challenge for the contemporary coach, choosing between one and two hands, topspin or slice strokes ensures that the tactical role of the backhand must be explored as part of stroke development

In the blind tennis game, the majority of players have been using one handed backhands. There are a number of reasons for this.

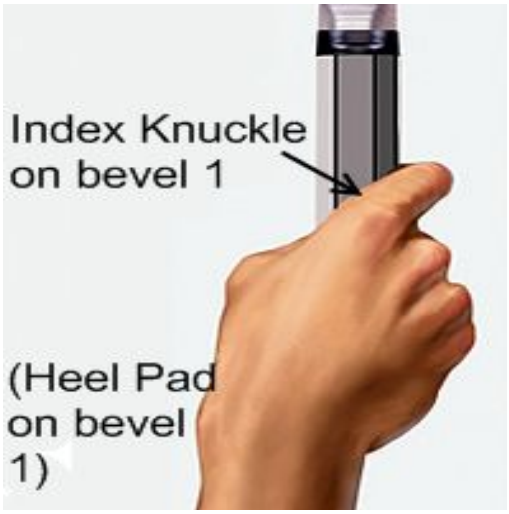
- Racket size and therefore grip size doesn't allow a lot of players to even fit two hands comfortably on the racket, especially B1's
- The current ball doesn't suit the advantages of two handed backhands. You can arguably generate more power on the foam ball with a loose flat one handed backhand than two.
- Important to have good reach and a sliced backhand is a prominent tactic in B2-B4 tennis, as well as the ability to create excessive sidespin
- Remember that one technique and grip will not suit everyone and you have to be adaptable to the needs of the player

Two handed backhand grip




The diagram above is an explanation of the two handed backhand grip. Right hand at the bottom of the grip. Left hand higher on the grip. The Index Knuckle of the right hand is on bevel 2. The Heel Pad of the right hand is on bevel 1. Index Knuckle and Heel Pad of left hand on bevel 7.

Eastern Backhand Grip




The diagram above is an explanation of the eastern backhand grip. Index knuckle on bevel 1, heel pad on bevel 1. This grip gives you more power but less top spin than an Extreme or Semi-Western Backhand Grip.

Extreme or Semi-Western Backhand Grip




The diagram above is an explanation of the extreme/semi-western backhand grip, index knuckle on bevel 8, heel pad on bevel 8. This grip is difficult to master than the

Eastern Backhand Grip. This enables you to put less power but more topspin than the Eastern Backhand Grip.

## The Volley

The volley is allowed in all categories but if it used, its mostly at the higher end of the sight categories as you need to react and see the ball quite early to successfully hit this shot. I have seen many volleys and lots of successful volleys in our sport so don't eliminate it from your shot selections without actively having attempted it a good number of times. It has a great advantage of returning the ball very quickly to your opponent after their shot has been hit, thus reducing their reaction time for the next shot. As the ball improves over time, I can imagine this shot will be used more and more.

A split step is important for all shots but is extremely important for volleys to react well to the incoming ball. To do a split step:

- The player jumps into a position where the feet are shoulder width apart
- The feet are usually aligned with the net
- Player forms a base from which quick movement can be initiated

It has a number of advantages:

- Balances the player
- Allows possible movement in all directions
- Pre stretch of leg muscles stores elastic energy to allow explosive movement on landing
- Enhances the potential for quick movement towards the ball
- Angles the trunk forward

A continental grip and a reduced backswing for the volley when compared to groundstrokes is recommended as emphasis is based on accuracy and control with volleys.

In the forehand volley the racket should move down and forward through contact. During this movement, the front foot steps out towards the oncoming ball creating a semi open stance. The shoulders also rotate forward, the elbow extends and the racket face is slightly open imparting backspin to the ball

On the backhand volley there are similar characteristics, but there is very little trunk rotation. The contact point on both volleys should be out in front and same grip for both volleys. Co-ordination of all the body segments is needed for both volleys and all joints should be relatively stable at impact

On the follow through, the path of the racket moves forward and downward and the body segments gradually reduce speed. The follow through is very short but it is important for the players to push through the ball keeping the racket in an almost parallel position to the net in the early follow through.

## Appendix 1 - Umpiring Guidelines

### Chair Umpire Procedures:

### Before going to court

- Ensure you know the name of the competition, match format and the correct names of the players. This information should be on the scorecard.
- Don't forget to bring a scorecard, scorepad, stopwatch, tape-measure, coin, pencils and an eraser.

### Arriving on court

When you go to the court

- check the height of the net. 0.83m in B1 tennis.
- ensure singles sticks are in place on either side of the net, or removed for doubles
- check that sufficient number of the correct balls are available.

Either the umpire or a dedicated volunteer should guide B1 players to the court (if needed).

### After players arrive...

- Hold the pre-match meeting and explain the format and playing conditions
- Bring the players together at the net near the centre strap.
- Toss a coin with the winner choosing which end to start, whether to serve or receive, or to pass the choice to their opponent.

- Before a B1 match starts umpires must do a full eye shade check for both players. This involves checking they are not damaged and looking into them towards the light to ensure you cannot see anything. When asking them to put their shades on make sure the player is looking away from the court and ensure they are on their face straight and naturally. Then ask the player to look up and check they cannot see a gap that the player could potentially look through. The eye shades should fully cover the player's eyes and leave no pockets of light around the nose area.
- Start the warm-up, which should last no more than five minutes. Alert the players to the remaining warm-up time with announcements of "Three minutes," "Two minutes," and "One minute."
- The pre-match introduction, which is made after the one minute announcement, should be brief: *"Ladies and gentlemen, this B1 round-robin match in the 2019 World Championships will be the best of two short sets with a match tie break to be played if the scores are one set all. To the left of the chair, from Australia, Alex Adams. To the right of the chair, from England, Chris Clark. Adams won the toss and chose to receive."*
- Where there is a match with No-Ad scoring and a 10-Point Match Tiebreak in place of the third set, the introduction should be: *"Ladies and gentlemen, this first round match will consist of two tiebreak sets. No-Ad scoring will be used. A 10-Point Match Tiebreak will be used at one set all."*
- *"Time."* (Glance to see that the players and officials are ready.) "*Alex Adams to serve"* Server will then continue by saying "Are you ready?, Receiver responds with "Yes", then Server calls "Play".
- Announce each player when they serve for the first time.
- For male players use only the players' surnames on scoring eg "Advantage Adams.". For female players use Mrs or Miss before their surnames eg "Advantage Miss Jones".
- In doubles, use the server's name when the server's team has the advantage and use the name of the player receiving when the receiver's team has the advantage.

**When match starts…**

**Calling the Score**

- Call games as follows:
  "Game, Smith; first game."

  "Game, Smith; three games all, first set."

  "Game, Jones; first game, second set."

  "Game, Jones; Jones leads 3 games to 2, second set and by 1 set to love."

  "Game, Jones; Jones leads 3 games to 2, second set; first set, Smith."

  "Game, Smith; first game, final set."

- Call sets as follows:
  "Game and second set, Smith, 7 games to 5. One set all."
- When announcing a tiebreak, use the following: "Game, Smith. 6-all, first set. Tiebreak."
- In calling the score in a tiebreak, give the leader's score, then the score of the opponent, for example "4-zero, Scott", or "3-2, Jones-Smith".
- In tiebreaks, use "zero" instead of "love."
- When the score reaches "Deuce" in No-Ad scoring in events other than mixed doubles, announce "Deuce, Deciding Point, Receivers' Choice."
- At changeovers call "Time" at 60 seconds.
- On set breaks, call "Time" at 90 seconds.

**Point is lost when…**

- A player commits a deliberate act of hindrance like calling out to distract an opponent or intentionally removing their eyeshades.
- During a rally a ball hits an opponent who is standing outside the confines of the court. Here the player hitting the ball would lose the point.
- A ball hits an opponent who is standing within the confines of the court. Here the player who is hit by the ball loses the point – except during a serve when they are standing outside the service box.

**Point is replayed when…**

- Play is interrupted due to something outside a player's control

- This could be a ball rolling on from another court or the tactile lines starting to come up. Or something a player is carrying (like a ball falling out of the pocket) or their cap falls off. The first time this happens a “Let” should be called for accidental hindrance and the player warned that if it happens again then it will be treated as deliberate hindrance and the point will be lost.
- The ball is found to be broken
- A B1 player in doubles gets too close to their partner and the umpire deems it unsafe to continue
- The above is different to a ‘let in service’ when the ball touches the net and lands in the correct part of the court. In such cases although a “let” is called it is followed by first or second service.

### Code Violations

- Always know what you are going to say before announcing a violation. Eg “*Code violation, delay of game, point penalty, Mr. Adams”. “Code violation, ball abuse, game penalty, Mr. Adams”. “Code violation, racket abuse, default, Mr. Adams”*

### Time Violations

- Time violations should be announced in accordance with the following example: *“Time violation, warning, Mr. Baker*.” Each subsequent delay: “*Time violation, point penalty, Mr. Baker.”* Where possible an official should speak to the player at a changeover before issuing a formal warning.

### Techniques

- When marking the scorecard remember you should also keep an eye on what is happening between points.
- Always look at the player who has lost the point or serve and also check the receiver as the server is preparing to serve
- Make the calls for any uncovered lines in a clear voice so both players can hear you. .

### Announcements

- *"Fault in net"* – when a serve lands in the net and does not pass over it
- *"Out net"* – when a shot during a rally lands in the net
- *"Out"* – when a ball lands outside the confines of the court. You should add whether long or wide, right or left and approximately by how many cm.
- *"Net first serve"* – when a serve touches the net before passing over it and landing in the correct court.

## Cases and Decisions

- If a B2 player chooses to play against a B3 player how many bounces is each allowed?
  *Answer: If the player chooses to play up a category (ie from B2 to B3) then they must then abide by the rules for B3 which only allow for up to 2 bounces.*

- Due to insufficient entries the B2 players are combined with B3 players. How many bounces are the B2 and B3 players each allowed?
  *Answer: As the B2 players have been forced to play with the B3s, rather than through choice, they would have up to 3 bounces while the B3 players would retain their standard 2 bounces.*

- If a serve directly hits the receiver who is standing inside the service box who wins the point?
  *Answer: Server wins the point. The Umpire should announce "Fault, Body contact receiver inside service box"*

- If a serve directly hits the receiver who is standing outside the service box but within the confines of the court who wins the point?
  *Answer: Fault. The Umpire should announce "Fault, Body contact receiver outside service box"*

- In a B1 singles match during a rally the ball directly hits the receiver who is standing within the doubles tramlines. Who wins the point?

*Answer: The receiver wins the point as this is treated as outside the confines of the singles' court. The Umpire should announce "Point receiver. Body contact outside court"*

- In a B1 singles match Player A makes a winning shot against Player B but before it bounces 4 times Player A touches the net post. Who wins the point?
  *Answer: Player A wins the point as the net post is treated as a permanent fixture (similar to the umpire's chair). If they had touched the net as opposed to the net post then Player A would have lost the point as the ball was still in play.*

- In a B1 singles match Player B hits a shot for a winner but before the ball bounces three times they put their hand on the net between the singles stick and net post. What is the correct decisión?
  *Answer: Play continues as this part of the net is treated as a permanent fixture.*

- Ball is going well out on the base line and a B3 player catches it before it bounces claiming the point? Are they correct?
  *Answer: No the player catching the ball would lose the point as the ball is in play until it bounces.*

- What happens in a B1 match if the mask slips during play?
  *Answer: This would be treated as an accidental hindrance (similar to a ball dropping from a pocket or a hat falling off. The point would be replayed and the player warned that if it happened again then it would become a deliberate hindrance and the point would be lost. The Umpire would need to ensure that the mask was re-positioned correctly (see page 32). Players also need to signal to the Umpire if they need to alter their mask in any way. Deliberately removing a mask will result in an immediate loss of point and the player may also receive a code violation for unsportsmanlike conduct.*

- Are masks required for all blind and visually impaired players?
  *Answer : No, just for the B1 category*

- After a first service fault, a ball rolls on from an adjacent court after the server has said "Are you ready" but before the receiver has had a chance to say "yes". They then stop so what is the correct decision?

*Answer: In this situation the server would restart the serve protocol again – "Are you ready?", "Yes", "Play". This would be a SECOND serve as the service motion had not started. If the server had started the service motion (ie began lifting the racquet) then it would be a FIRST serve.*

- After the server in a B1 match has said "Are you ready?" and the receiver says "yes" how long does the server have to hit the ball?
  *Answer: 5 seconds. If the server takes more than this then they need to restart the whole serve protocol again – "Are you ready?", "Yes", "Play"*

- What happens if a player throws the ball up and catches it?
  *Answer: The server is permitted to catch the ball or let it bounce without being penalised. In such cases the serve protocol would then be repeated.*

- On a second serve, the server takes a swing at the ball but misses? What is the decision?
  *Answer: This is treated as a fault so in this case the point would go to the opponent.*

- In B1 doubles when a serve hits the server's partner is it a fault?
  *Answer: Yes. The umpire should announce "Fault. Body conduct server's partner"*

- Is the receiver allowed to stand outside the lines of the court?
  *Answer: Yes the receiver may take any position inside or outside the lines on their side of the net.*

- What is the decision if the server fails to say "play" and just hits the ball?
  *Answer: In the first instance this would be treated as accidental hindrance and the serve would be replayed. The server would also be advised that should this happen again then it could be deemed a deliberate hindrance which would result in a fault being called.*

- Is the volunteer helper in a B1 match permitted to give any indication as to where a ball has landed or to guide them to a specific position for the start of the serve?

*Answer: No only the Umpire can make a decisión on whether a ball is in or out and they can also be asked to give an indication as to how far wide or long a ball has landed. The role of the court helper is to guide the player to the tactile baseline when asked and to also collect and feed the balls. There should be no communication throughout the process.*

We are always looking to add more scenarios to this document so if you have any umpiring scenarios or situations you would like to see included then please email: technical@internationalblindtennis.org

**Notes on Contributors**

**Simon McFarland**

This manual was designed for one sole reason, a place to quickly access information on our beloved sport of blind and visually impaired tennis. When Simon McFarland was first approached by an organization in Ireland to start Blind Tennis, he accepted with open arms the challenge but he could not find any literature easily accessible online. He had no idea of the ball needed, the court sizes, etc. Many people told him that only the coaches need to know all this information, but he felt that it was important for all the coaches, players, volunteers and even family members to have access to this starting information, and for players who might not have a history in tennis to get to know the basic techniques.

Hopefully, this manual will be a starting point for many new players, coaches and volunteers in their journey into the sport. Teaching tennis to blind and partially sighted players has substantially changed Simon's life and his players' lives. We hope you find this introductory manual helpful. The IBTA Executive Committee members are always free to answer any questions you might have. Do not hesitate to ask! We, as coaches and players, all need to work together to achieve our goals for the sport and for the individuals involved. Coaches, we ask you to open your minds, come up with new adaptive techniques and tactics and share your best practice with us all.

**Martin Etheridge**

Martin has been an active sports' official for over 40 years including football, badminton and tennis. After gaining his International Tennis Federation certification as a White Badge Chair Umpire, Chief and Referee in 1997, Martin went on to officiate at 28 Wimbledon tournaments and 43 Davis and Fed Cup events around the world.

Martin is passionate about the power of sport to make a difference and in particular sport for athletes with a disability. He has been involved in Wheelchair tennis since 2007 and his career highlights include umpiring the Wheelchair finals at Wimbledon in 2010 and 2016.

Martin first got involved in blind tennis in 2013 and was immediately hooked. After taking on responsibility as an IBTA advisor for the development of rules he then put this into practice when he managed the officials at the World Blind Tennis Championships in Ireland and Spain. His involvement has continued to grow from there. In 2021, he published the first ever book on blind tennis (Ikimasu Hai) written in English in the world.

Martin is no stranger to National Governing Body sports committees, carrying out various roles for more than 15 years including a spell as Chairman of the Association of British Tennis Officials.

The IBTA would like to thank all the previous contributions from international coaches and committees including Ayako Matsui who was one of IBTA's special advisers and Amanda Green, former IBTA Executive Committee member.