

GNSS DEVICES IN MTBO - LEGAL AND ILLEGAL DEVICES

1. The following IOF rule dictates what GNSS devices are LEGAL and which are ILLEGAL for use during MTBO events:

COMPETITION RULES FOR INTERNATIONAL ORIENTEERING FEDERATION (IOF) MOUNTAIN BIKE ORIENTEERING (MTBO) EVENTS

21.11 Competitors shall not use or carry telecommunication equipment between entering the pre-start area and reaching the finish in a race, unless the equipment is approved by the organiser. GPS data loggers, cycle computers and watches (with or without GPS) can be used provided that they have no map or breadcrumb display. However, the organiser has the right to specifically forbid the use of such equipment. The organiser may require competitors to carry a tracking device and/or a GPS data logger.

2. In rule 21.11 the term GPS could be seen as misleading as this only refers to the system operated by the USA; the Global Positioning System. Other systems are in operation, or are in development for future operation. Currently all mainstream devices use GPS, but the intention is to prohibit the use of all GNSS devices with map or breadcrumb display. Therefore, the lists contained within this document identify those devices that make use of any Global Navigation Satellite Systems (GNSS). This can be loosely defined as a device that is capable of using satellite based system information to determine position, velocity and time (PVT). Satellite based systems include those that are operational (GPS, GLONASS) and those who will become operational (Galileo, Beidou).
3. The pictures contained in the tables are to help event organisers identify LEGAL or ILLEGAL GNSS devices, though it must be clearly understood that manufacturers do offer different colours for each model.
4. Version 5 of the document includes for the first time 'Smart' devices. This is a very hard area to define, so the view taken is that all smart phones/watches are all ILLEGAL due to many navigational apps and widgets. An example would be either an iPhone or Garmin watches with widgets, etc.
5. This list is not a complete or definitive list. Devices may change any time. This list merely intends to provide guidance for organisers and athletes. If you see any mistake, please contact Peter Simmonds (peter_simmonds@me.com) or post up comments on the MTBO group page on Facebook.

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LEGAL GNSS DEVICES

8. Those GNSS Devices Deemed LEGAL for MTBO Events in that they meet rule 21.11 and have no map or breadcrumb display:

| Brand | Model | Picture | |
|--------|------------|--|---|
| Garmin | Edge 20/25 |  |  |
| Garmin | Edge 200 |  |  |
| Garmin | Edge 500 |  |  |

| Brand | Model | Picture | |
|--------|----------------|--|---|
| Garmin | Forerunner 10 |  |  |
| Garmin | Forerunner 15 |  |  |
| Garmin | Forerunner 110 |  |  |
| Garmin | Forerunner 210 |  |  |

| Brand | Model | Picture | |
|--------|------------------|--|---|
| Garmin | Forerunner 220 |  |  |
| Garmin | Forerunner 405 |  |  |
| Garmin | Forerunner 405CX |  |  |
| Garmin | Forerunner 610 |  |  |

| Brand | Model | Picture | |
|--------|----------------|--|---|
| Garmin | Forerunner 620 |  |  |
| Garmin | FR70 |  |  |
| Garmin | VIRB Elite |  |  |
| Garmin | VIRB X |  |  |

| Brand | Model | Picture | |
|--------|------------------------------|--|---|
| Garmin | VIRB XE |  |  |
| Garmin | Vivoactive |  |  |
| Suunto | Quest + Suunto GPS track pod |  |  |
| Suunto | M5 + Suunto GPS pod |  |  |

| Brand | Model | Picture | |
|--------|------------------------|--|---|
| Tomtom | Runner |  |  |
| Tomtom | Nike + Sport Watch GPS |  |  |
| Tomtom | Multi-Sport Cardio |  |  |
| Polar | FT 60 |  |  |

| Brand | Model | Picture | |
|-------|------------|--|---|
| Polar | FT 80 |  |  |
| Polar | RCX3 + GPS |  |  |
| Polar | RCX5 + GPS |  |  |
| Polar | RC3 GPS |  |  |

| Brand | Model | Picture | |
|-------|---------|--|---|
| Polar | RS800CX |  |  |
| Polar | V800 |  |  |
| Polar | CS600X |  |  |
| Polar | M400 |  |  |

| Brand | Model | Picture | |
|--------|-----------|--|---|
| Polar | M450 |  <p>The image shows a Polar M450 cycling computer. The screen displays a heart rate of 152, a speed of 35.1 km/h, a distance of 54.89 km, and a cadence of 93. The Polar logo is at the top, and 'M450' is at the bottom of the device.</p> |  |
| Lezyne | Mini GPS |  <p>The image shows a Lezyne Mini GPS cycling computer. The screen displays 00 mph, a time of 3:21 am, and the instruction 'Press ▶ To Start'. The Lezyne logo is at the top, and 'MINI GPS' is at the bottom. The device has 'ENTER' and 'LAP' buttons on the sides.</p> |  |
| Lezyne | Power GPS |  <p>The image shows a Lezyne Power GPS cycling computer. The screen displays 00 km/h, 100% battery, and the instruction 'Press ▶ To Start'. The Lezyne logo is at the top, and 'POWER GPS' is at the bottom. The device has 'ENTER' and 'LAP' buttons on the sides.</p> |  |
| Lezyne | Super GPS |  <p>The image shows a Lezyne Super GPS cycling computer. The screen displays 00 km/h, 100% battery, and the instruction 'Press ▶ To Start'. The Lezyne logo is at the top, and 'SUPER GPS' is at the bottom. The device has 'ENTER' and 'LAP' buttons on the sides.</p> |  |

| Brand | Model | Picture | |
|----------------|----------------------------|---|---|
| Contour | +2 Roam |  |  |
| Cateye | INOUE GPS Camera |  |  |
| Bryton | Rider 200E and 200T |  |  |
| Bryton | Rider 210E and 210T |  |  |

| Brand | Model | Picture | |
|--------|---------------------|---|---|
| Bryton | Rider 40E and 40T |  <p>A black Bryton Rider 40 cycling computer. The screen displays 'Time 12:34' and 'Distance 31.2 km'. Below the screen is a small elevation profile graph and several status icons. The device has a blue button at the bottom.</p> |  |
| Bryton | Rider 21E and 21T |  <p>A black Bryton Rider 21 cycling computer. The screen displays 'Speed 28.5 km/h', 'Alt. Gain 928 m', and 'Ride Time 00:36:28'. It features a blue button at the bottom.</p> |  |
| Bryton | Rider 20+E and 20+T |  <p>A black Bryton Rider 20 cycling computer. The screen displays '60', '22.5 km/h', and '180'. It has a blue button at the bottom.</p> |  |
| Sony | SmartWatch 3 SWR50 |  <p>A bright yellow Sony SmartWatch 3 SWR50. The screen displays '10' and '35'. It has a silver metal clasp.</p> |  |




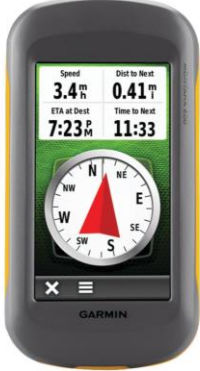
ILLEGAL GNSS Devices







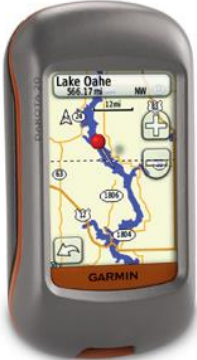

9. Those GNSS Devices Deemed ILLEGAL for MTBO Events as they have a map or breadcrumb display:

| Brand | Model | Picture | |
|--------|------------------|--|---|
| Garmin | Forerunner 305 |  |  |
| Garmin | Forerunner 310XT |  |  |
| Garmin | Forerunner 910XT |  |  |









| Brand | Model | Picture | |
|--------|------------------|--|---|
| Garmin | Forerunner 920XT |  |  |
| Garmin | Fenix 2/2 SE |  |  |
| Garmin | Fenix 3 |  |  |
| Garmin | Epix |  |  |

| Brand | Model | Picture | |
|--------|----------------------------|--|---|
| Garmin | Edge 1000/Explore 1000 |  |  |
| Garmin | Edge 810 |  |  |
| Garmin | Edge 800 |  |  |
| Garmin | Edge Touring/Touring Plus/ |  |  |





| Brand | Model | Picture | |
|--------|-------------|--|---|
| Garmin | Edge 520 |  |  |
| Garmin | Edge 510 |  |  |
| Garmin | All Oregon |  |  |
| Garmin | All Montana |  |  |

| Brand | Model | Picture | |
|---------------|----------------------|--|---|
| Garmin | All eTrex |  |  |
| Garmin | All GPSMAP 64 |  |  |
| Garmin | All GPSMAP 62 |  |  |
| Garmin | All Dakota |  |  |

| Brand | Model | Picture | |
|------------|---------------------|--|---|
| Garmin | Epix GPS |  |  |
| Memory Map | Adventurer 3500 GPS |  |  |
| Memory Map | Adventurer 3000 GPS |  |  |
| Memory Map | Adventurer 2800 GPS |  |  |

| Brand | Model | Picture | |
|------------|------------|--|---|
| Memory Map | Bike 250 |  |  |
| Memory Map | Bike 270 |  |  |
| O_Synce | Navi2coach |  |  |
| O_Synce | Navi2move |  |  |

| Brand | Model | Picture | |
|-----------------|----------------------|--|---|
| Bryton | Rider 60 |  |  |
| Bryton | Rider 50 |  |  |
| Cycleops | Joule 2.0 GPS |  |  |
| Cycleops | Joule GPS+ |  |  |

| Brand | Model | Picture | |
|----------------|---------------------------------------|--|---|
| Apple | iWatch |  |  |
| Samsung | Gear S2/Gear S2 Classic/Gear S |  |  |

Suunto:

All ILLEGAL, except those listed above in LEGAL section. There are too many devices to list and provide a picture for.

Polar:

All ILLEGAL, except those listed above in LEGAL section. There are too many devices to list and provide a picture for.

Smart Phones/Watches:

All ILLEGAL. There are too many devices to list and provide a picture for.