Garmin Montana 700, 700i, 750i

Update: 30. October 2020 by [Joachim Bardua](#)
[Garmin Montana 700, Rugged GPS Handheld, Routable Mapping for Roads and Trails, ... *](#)
$599.99
(As of: 2020/10/29 11:22 am - [Details](#))
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Garmin Montana 700, Garmin Montana 700i, Garmin Montana 750i – The Next Generation!

Garmin announced a new Montana series! The three outdoor navigation devices share (almost) only the name with the "oldies" of the previous series – which are on the market since 2015! Garmin has extensively reworked technology and functions in the new edition – especially the increase in the display size from 4 to 5 inches associates the slogan:

DO WHAT YOU LOVE. BIGGER.

Garmin Montana 7×0 series – these are robust outdoor GPS handheld devices for a wide range of applications. For which activities? I will dive into this in more detail in the review section.

Garmin Montana 700i – up in the mountains – the 5" *display is incredible!*

Major Improvements – Montana 700, 700i, 750i

- **GPS / Iridium antenna**: Quad-Helix, external antenna possible** *(patch type, ext. antenna)*
- **GNSS**: GPS / GLONASS* / GALILEO *(GPS / GLONASS)*
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- **Display size**: 5″, 6,4 x 10,8 cm *(4″, 5,0 x 8,9 cm)*
- **Display type**: WVGA, transflective
- **Display resolution**: 480 x 800 pixels *(272 x 480 pixels)*
- **Dimensions**: 8,7 x 18,3 x 3,2 cm (700), 9,1 x 18,3 x 3,2 cm (700i, 750i) *(7,4 x 14,4 x 3,6 cm)*
- **Weight**: 397 g (700), 410 g (700i, 750i) *(289 g)*
- **Memory**: 16 GB + microSD (32 GB) *(3 GB + microSD)*
- **Connectivity:** ANT+, Bluetooth, High-speed USB, Wi-Fi *(ANT+, USB)*
- **Standards**: IPX7, MIL-STD-810G (thermal, shock, water, vibe) *(IPX7)*
- **Battery**: Lithium-ion (interchangeable), AA batteries***** *(Lithium-ion, AA batteries)*
- **Battery life**: Up to 18 hours., up to 2 weeks in expedition mode *(up to 16 hours)*

In addition:

- **Montana 700, Montana 700i, Montana 750i**: Barometric altimeter, 3-axis compass, preinstalled maps (Garmin TopoActive, depending on your country), smartphone connectivity, compatible with Garmin Connect & Garmin Explore App … and all features of the Garmin GPSMAP 66 series with some Montana specific functions.
- **Montana 700i, Montana 750i**: inReach technology (Iridium satellite network, 2-way-messaging, exchange text messages, SOS alerts, location sharing, active weather), preinstalled CityNavigator maps.
- **Montana 750i**: 8 MP camera

Note: The Montana 700 has no connection for an external antenna and no CityNavigator maps, but it can be operated with AA batteries and is slightly smaller and lighter.

What do you pay for the new Montana devices?

- **Montana 700**: $599,99
- **Montana 700i**: $699,99
- **Montana 750i**: $799,99

Garmin Montana 700i – First Impressions Review

The Montana 700i weighs 410 g and with dimensions of 9.1 x 18.3 x 3.2 cm it is anything but handy – I can still hold it well with a "normal-sized" hand, but I prefer to operate the touch screen with the second hand.

Weight and size reflect the **possible types of activities**. Garmin probably designed the Montana 7×0 series primarily for **activities** such as 4×4 (off-road vehicles, off-road motor homes, …), quading, motorcycling and marine among others.

And non-motorized outdoor activities? Examples are geocachers, touring cyclists and hikers who value a really large display and accept weight and size. After all, there is a robust mount for cyclists. Hikers can get a larger bag to attach the Montana 700 to the backpack shoulder strap – and as my tours with the Montana 700i show: The weight is then no longer so noticeable!

Garmin Montana 700i – rear side (top left: MCX connector; bottom left: micro USB port)

Garmin Montana 700i Review – Housing

How is the Garmin Montana 700i constructed?

First of all: There is only one button, on the left side of the screen. It is used – analogous to the GPSMAP 66s/st – to switch on/off or to call up a status page (controlling the display backlight, access to Bluetooth, WLAN, flashlight, widgets, etc.).

Further elements are:

- Micro USB port
- Various holders for the car / marine / cycle / motorcycle brackets incl. contacts for electrical connections
- inReach SOS button
- Lens for the flashlight
- MCX antenna connector
- Eyelet for threading a stable safety cord

The battery compartment is opened with a twist lock via a glove friendly wing. The slot for the microSD card is located under the battery, which is firmly connected to the lid. Important: The 3,100 mAh battery can only be replaced with AA batteries in the Montana 700.

All in all, the IPX7 waterproof and MIL-STD-810G tested Garmin Montana 700i leaves a really stable, robust and reliable impression.

Garmin Montana 700, 700i, 750i Review – Technology

inReach – For safety on tour

Like the Montana 750i, the Montana 700i comes with inReach technology for a worldwide 2-way communication independent of the cellular network. You can send and receive text messages, trigger interactive SOS messages, transmit live tracking positions and read weather reports.

Trying it out was not possible during the Montana 700i review, but I have already written enough articles about inReach for that. Furthermore, **inReach devices have proven themselves on numerous outdoor tours** for many years! And as users have told me: When a helicopter of the Slysavarnafélagið Landsbjörg or Alaska National Guard lands after triggering an inReach SOS, it is a tremendous & calming feeling … !

However, the question must be asked whether two devices – a handheld device in combination with an inReach Mini – are not more sensible. If one device fails, at least the other will still work.

Memory – All you need

Garmin specifies 16 GB as storage capacity, under Windows 14.3 GB is displayed, available are 2.42 GB. The pre-installed cards take up the largest part. The Montana 700 comes without the CityNavigator maps, the free memory should be accordingly larger. Since all three models can be equipped with a microSD card, there is no lack of memory capacity.

The Montana devices can save:

- **Waypoints**: 10.000
- **Geocaches**: no limit
- **GPX tracks**: 250
- **Track log**: 20.000 points, 250 saved GPX tracks, 300 saved FIT activities
- **Routes**: 250 (250 points per route, 50 points when auto routing)
- **Map segments**: 15.000

Display – The super large 5″ display is the Montana 7×0 highlight!

The new Montana devices with their 5″ displays not only have a **unique selling point among outdoor handhelds**, the size also competes with many smartphones. The Montana display has one advantage over smartphones: The readability is – as far as it can be judged so far – excellent in all light conditions and at least on Oregon 700 or GPSMAP 66s level!

The capacitive and sensitive display allows two-finger **multi-touch operation** of the map, e.g. rotating, zooming in and out. There is a separate entry for touchscreen sensitivity in the settings, where the "Glove" option can be selected; the following information is displayed: "*For use with non e-tip gloves. Use flat part of finger for best results*".

With long mountain bike gloves it works fine – but honestly, for biking I'd like a user key à la Oregon 700 that allows quick page changes.

Speed – Fast thanks to an improved processor

Speed, another important issue. In this respect, the Montana 700i can be compared with the smartphone world. The pre-installed TopoActive map can be moved and zoomed practically instantaneously in the settings "*Map Speed: Fast*" and "*Detail: Normal*", POI lists are quickly available and the route calculation is fast.
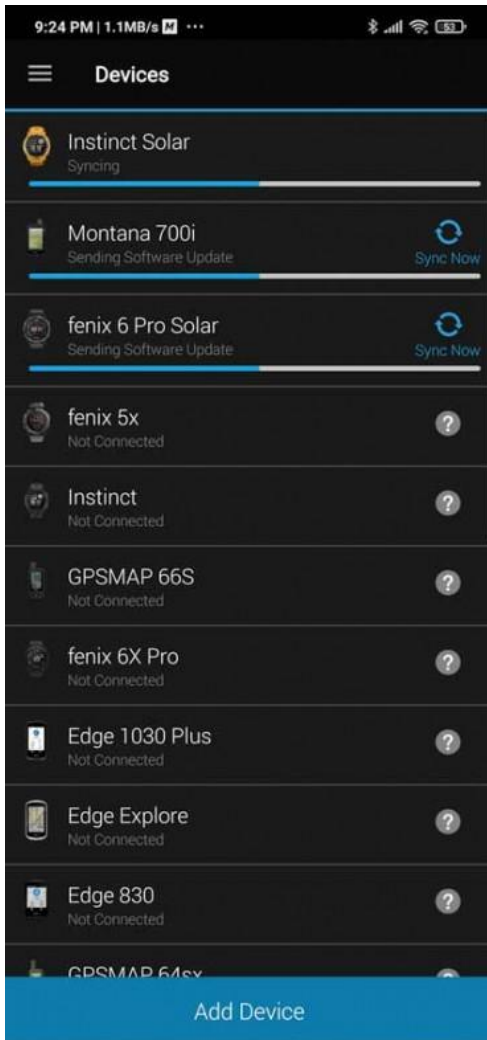
Interfaces – Communication talent

You get ANT+, Bluetooth LE, USB and Wi-Fi.

At the time of testing, I haven't been able to play through all the possibilities, but I can see a range of functions similar to the GPSMAP 66 series – plus Montana specialties such as connecting audio devices. Special marine functions are left out of the review because I am not familiar with them.

ANT+ connects sensors and devices (see below) and allows you to exchange data with a compatible Garmin GPS devices. Waypoints, routes, tracks and geocaches can be shared, and via Bluetooth additional photos and user-defined maps ("Custom Maps").

Bluetooth is used for

- Connecting to sensors (e.g. a heart rate chest strap),
- Pairing with a smartphone and thus exchanging data with the Garmin Connect App and the Garmin Explore App; the 700i was not compatible to the Garmin Connect IQ App, but I suspect this will be the case soon. The apps offer extensive functions like live track, data upload to Connect & Explore, live geocaching, weather, phone notifications, import of tracks, routes & waypoints and other functions.
  - Connection of audio devices.

Montana 700 review – Software update via Garmin Connect App

High-speed **USB** for charging and data exchange with PC & Mac and other devices (incl. NMEA data).

Wi-Fi for downloading BirdsEye satellite images, retrieving weather data, uploading activities to Garmin Connect, performing software updates, importing EPO data and retrieving live geocaching data.

Possible sensors and external devices (sensors menu):

- tempe temperature
- XERO
- DogTrack
- inReach remote control
- Heart rate monitor
- Speed sensor
- Cadence sensor
- Speed/cadence sensor combined
- VIRB remote control

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Garmin Montana 700i review – satellite page, GPS + GALILEO birds

GPS – Fast & precise

GPS or GPS + GALILEO settings are available. For Montana 700, GLONASS is also available. GLONASS is probably missing on the 700i and 750i due to interference with the Iridium signal. Another option is WAAS/EGNOS.

As expected: The position is available almost immediately after switching on and starting up, tracks are super accurate.

The **map** shows the tracks of two hiking trips in partly challenging GPS terrain; every reader can form his own opinion (Montana 700i and GPSMAP 66s in GPS + GALILEO mode).

Recording: handhelds > auto / more often; wearables > 1s **Colors**: To display the color coding, move the mouse pointer to "Tracks"; individual tracks can also be hidden there.
File: garmin-headquarter.gpx:

+−

50 m
Leaflet | Kartendaten: © OpenStreetMap-Mitwirkende, SRTM | Kartendarstellung: © OpenTopoMap (CC-BY-SA)

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Altitude

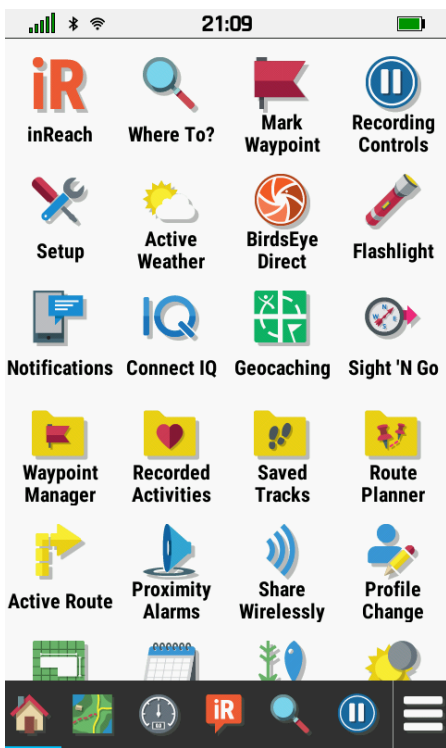# Garmin Montana 700, 700i, 750i – Menu & Setup

The user interface offers:

- A **status page** with access to backlight control / Wi-Fi / Bluetooth / flashlight, mark waypoint, lock the display, activity control, Connect IQ widgets. Access is via the on/off button or by wiping the display from top to bottom.
- The **main menu** with access to all applications including setup.
- An individually configurable **favorites bar** at the bottom of the screen, which can hold up to six elements (five are changeable) and can be used to switch from the map to the main menu to the travel computer, for example.

As usual with Garmin, the menu is **extensively customizable**. For example, you can display only the applications you really need for a particular activity (hike, mountain bike, hunt, geocache, driving, …) or add multiple pages to your trip computer.

NEW – Software update 3.10 gives you the possibility to configure the power key; "single tap" and "double tap" can be customized with different functions.

The first two pictures show all available applications in the main menu, the next two screenshots show the settings menu.

Garmin Montana 700i Review – Setup Menu (2)

The image gallery shows all the main pages of the settings menu – Garmin users can see it immediately: There are many similarities with the GPSMAP 66 series, supplemented by specific Montana functions like:

- Connect an audio device via Bluetooth (e.g wireless headsets)
- Map drawing speed
- LiveTrack & inReach configuration

Garmin Montana 700i – First impressions

As an outdoor enthusiast close to the Alps I immediately inserted the microSD card with the Garmin maps of the Austrian and German alpine club: WOW!

The map can be zoomed and shifted with only slight delays, the raster map appears **pin sharp**, moreover the giant display allows a **good overview** – so the paper maps can stay at home.
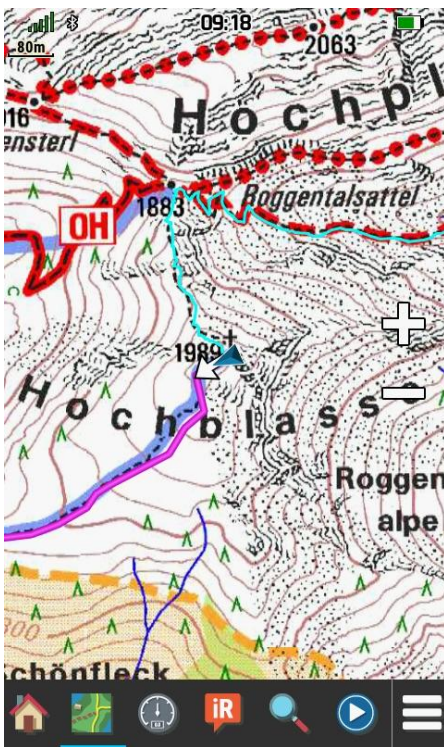
The pre-installed **CityNavigator** map is the ideal partner for street navigation, the pre-installed **TopoActive** map is a good companion on outdoor tours, especially when navigating with tracks, but also for routing.

The Montana 700, Montana 700i and Montana 750i are therefore not only navigation and safety devices, but also mobile map screens!

You get a new function in the map settings, namely an automatic map recognition ("*Automatic Maps*"). Depending on the activity selected, the system activates the appropriate map – e.g. in the "*Drive*" activity the CityNavigator road map.

The four screenshots show different maps (same position & same scale), left to right:

- Garmin Alpine raster map
- Garmin TopoActive map
- Garmin TopoActive map with shaded relief
-

  - Garmin BirdsEye satellite imagery
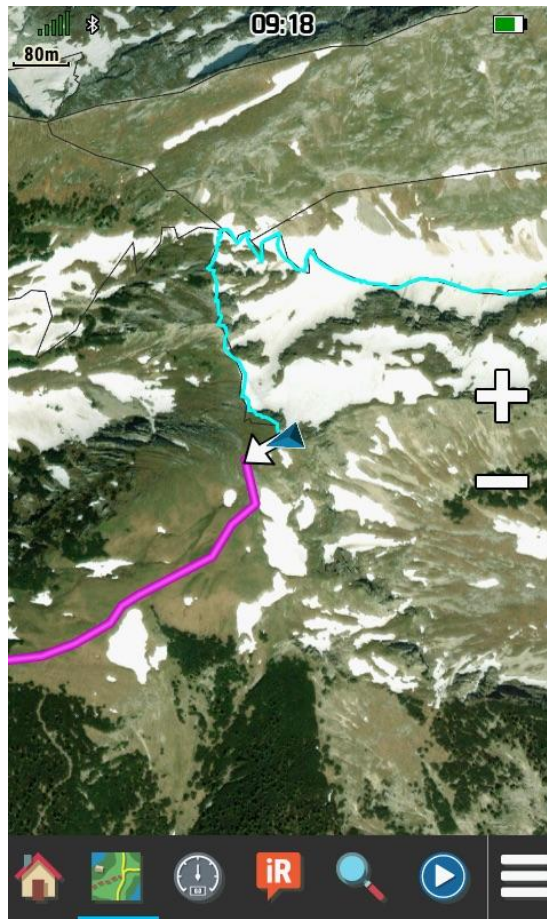
  Garmin Alpine map
  Garmin TopoActive map

  Garmin
  shaded relief

  TopoActive map with

Garmin BirdsEye Satellitenbilder

Garmin Montana 700i Review – First verdict

The readers have certainly already noticed: The Garmin Montana 700i wowed me!

This is mainly **due to the 5" display**, as (raster) maps not only appear pin sharp, can be zoomed and moved quickly and easily, but also offer a great overview of the wider surroundings – paper maps can now stay at home for some shorter tours!

But there's more: super-accurate track recordings, extensive connectivity, all Garmin outdoor functions, downloading tracks from your smartphone … only weight and size might be a problem – especially for all outdoor enthusiasts on foot!
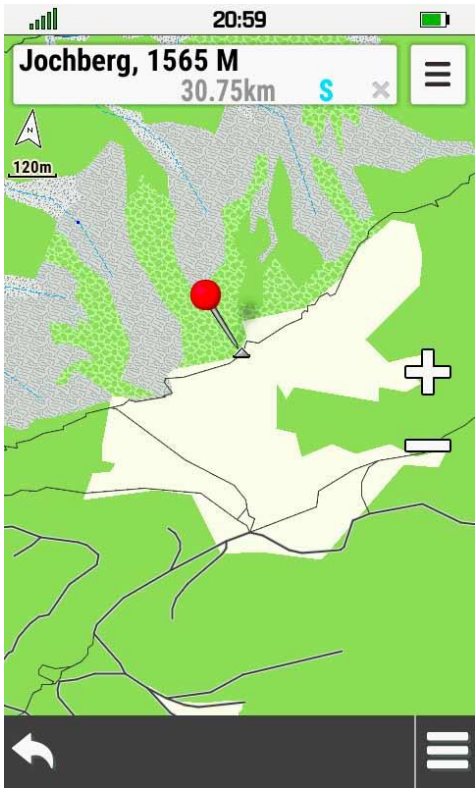
And outdoor enthusiasts with motor vehicles? The Montana 700, 700i and 750i could be more successful than its predecessors and, thanks to their unique features, will be seen in many 4×4 cockpits or attached to motorcycle handlebars!

- Rugged construction is rated to MIL-STD 810 for thermal, shock, water and vibration
- 5" glove-friendly touchscreen display (50% larger than the previous model) offers easy viewability; available with versatile mounting options

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Montana 700 – pin on the map

With the GPSMap 66 series Garmin started mixing fitness and outdoor functions. I am not a big fan of being forced to start an "activity" in order to get my safety devices to work – but neither the altimeter nor the tracking function work until you do that. Basically the altimeter doesn't auto-calibrate itself, all elevations continue to be reported using the pressure when you last finished an activity. The current manual correctly documents this – the first two versions claimed that the 66 – like previous GPSMap receivers – auto-calibrated on STARTUP. I note that the Montana 7xx manual correctly indicates that starting an activity is needed to get the altimeter to calibrate itself.

On the GPSMap 66 series tracking simply doesn't start at all until you commence an activity – but I note that the "inReach" portion of the Montana manual describes "auto-tracking" which may or may not refer equally to the internal track log and the transmission of inReach data. It would be interesting to know more about this.

With the 66 series we lost the "track manager" from the menu (we had lost the ability to log to SD cards with the 62 series), everything is now a "route". Somewhat ominously the manual states that routes can only have 250 points – the 500 point maximum of previous GPS receivers was bad enough. More information on this would be appreciated.

Finally, both the manuals for the 66 series and the new Montana manual claim that there is a "continuous" altimeter auto-calibration mode. I have even found a description of how this is supposed to work on Garmin's site. What I have NOT found is any indication (when using my 66s) that this has actually been implemented – it is as if they feel documenting the imaginary function is sufficient. Could you please test this? The easiest way is to set one of two receivers to "calibrate once" and the other to "calibrate continuously" and watch their altimeter readouts diverge over time (good) – or not (bad).

It seems a bit sad that of the various Garmin receivers I have owned (multiple eTrexes, GPSMap 60CSx, 62st, 64st and 66s, Montana 650st, lots of Nüvis, vivoActive 3) the best in terms of software was the 60CSx. It allowed track logs to be saved directly to SD card and seemed to have a much better logic to figure out distance remaining to destination when you hadn't "cut" the track you were following for a while. Subsequent receivers seem to simply assume you are going to turn back to the last point they saw you pass ….. until you cut the track the distance remaining increases!

You could argue that they are suffering from the same disease as Intel – lack of competition. If that is the case then you reviewers are our only hope – you need to be critical in your approach to their gadgets, take nothing at face value. It was only after I told them that they fixed the 66s manual's description of auto-calibration which had obviously been copied from the 64 manual without any thought.