

MOD



What's in the box



MOD is shipped with the following:

- Micro-optic display and battery pack. This snaps into your goggles.
- AC Adapters. Two types of adapters (North American and European) are available for charging the battery on the micro-optic display.
- Micro USB cable. This lets you connect MOD to an AC adapter or to your computer for charging.
- Bluetooth remote control. Use this to control displays.
- Goggle strap. This attaches the remote control to your goggle.
- Wrist strap. This attaches the remote control to your wrist, jacket, backpack, or belt.

Safety Information

Follow these safety guidelines:



ROAD SAFETY COMES FIRST. To avoid distraction, turn off MOD before you drive. Never use the remote controller while driving: keep your hands free.



SWITCH OFF IN HOSPITALS AND AROUND MEDICAL DEVICES. Wireless devices can cause interference with medical equipment. Keep MOD turned off around medical equipment. Follow any restrictions posted in hospitals and health centers. If you wear a pacemaker, check with the manufacturer on



SWITCH OFF IN AIRCRAFT. Keep MOD turned off around helicopters or aircraft. Follow any restrictions posted in helipads and airports.



SWITCH OFF NEAR BLASTING. Keep MOD turned off in areas where blasting is in progress.



SWITCH BEFORE REFUELLING. Keep MOD turned off at gas stations, refuelling areas or in areas where fuel and volatile chemicals such as propane are stored.

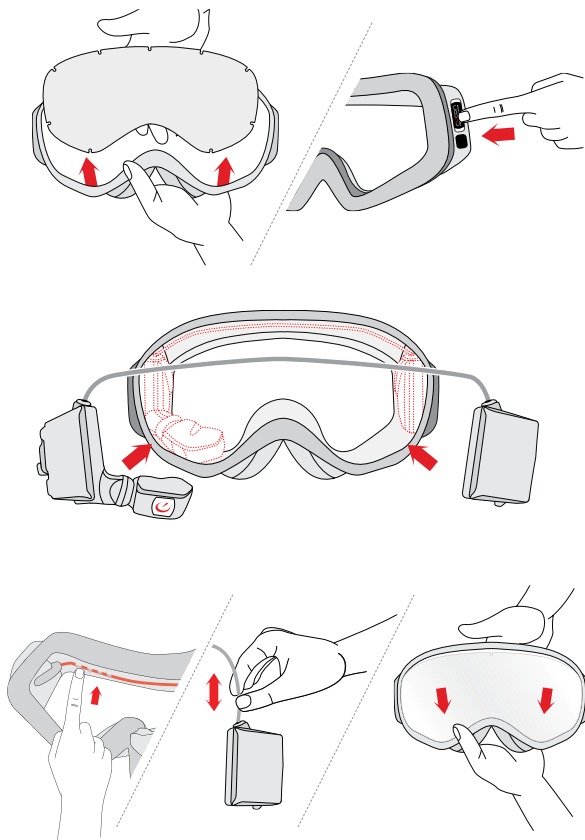
Vision Tips



- If you experience nausea or eye strain when using MOD, take a break for several minutes.
- Avoid wearing eyeglasses under your goggles.

Snap MOD into goggles

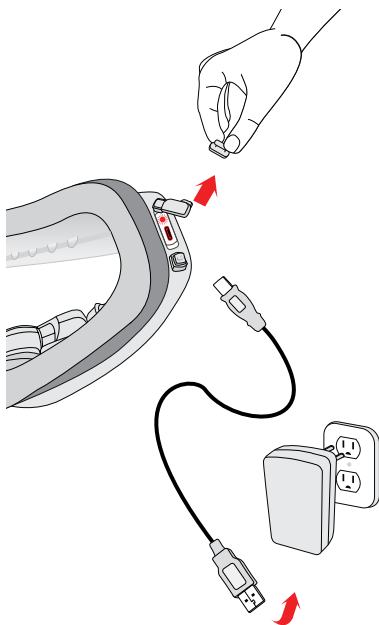
Follow these steps to snap MOD into your goggles. Note: only use goggles that are Recon-Ready®. Our 2011 Recon Ready™ partners include Uvex®, Briko®, Zeal®, and Alpina®. To learn more about Recon-Ready goggles, go to: www.ReconReady.com



1. Remove the lens from the goggle frame. See instructions provided by the goggle manufacturer.
2. On the frame of your goggles, remove the protective badge from the left side of the frame. This will reveal slots for MOD to be inserted.
3. Next, insert MOD into the goggle frame as follows: with the goggles facing you, snap the MOD micro optics display unit into the left inner corner of the frame. Next, insert the battery pack into the right corner.
4. Push the MOD cable into the groove so that it fits tightly.
5. If the cable is too short, tug it gently so the white stripes appear. If the cable is too long, push it back in.
6. Insert the lens back into the goggles. Take care not to touch or smudge the lens.

Charge up MOD

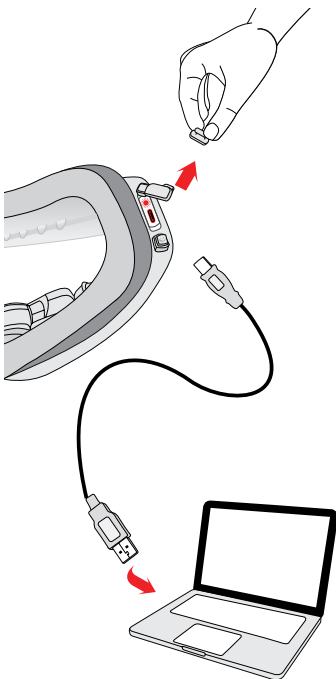
To ensure that MOD is fully charged, follow these steps using the MOD AC adapter and micro USB cable. The MOD power button (beside the USB port) must be turned off while recharging.



To charge MOD using an AC adapter:

1. Assemble the AC adapter by inserting the North American or European plug. Insert the large plug of the USB cable into the adapter port.
2. Remove the clear plastic cap that covers the MOD USB port.
3. Insert the smaller plug into MOD's USB port. Tip: the port cover shows a tiny image of a USB cable. Check that the plug's 7L lettering appears on the outside of the goggle.
4. Plug the adapter into a power outlet. As soon as MOD begins charging, a red light appears directly above the USB port.
5. After the red light disappears, disconnect the adapter. Remove the USB cable from MOD.
6. Seal the USB port with the plastic cap, then tightly push down on the USB cover to ensure no rain, snow or ice affects the port.

Charge up MOD

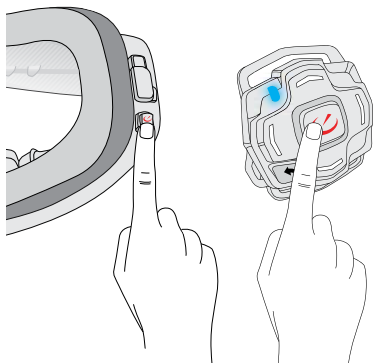


To charge MOD using your PC or Mac computer:

1. Turn on your PC or Mac. Make sure the computer is NOT in standby mode.
2. Plug the micro USB cable's smaller end into MOD's micro USB port.
3. Plug the USB cable's larger end into the USB port in your PC or Mac. As soon as MOD begins charging, a red light appears directly above the USB port.
4. After the red light disappears, navigate to "safely remove or eject the hardware" using your PC or Mac before you disconnect the USB cable from MOD. Then disconnect the adapter.
5. Seal the USB port with the plastic cap, then tightly push down on the USB cover to ensure no rain, snow or ice affects the port.

If the battery was drained after the unit left the factory, it can take up to 3 hours for the battery to become fully charged although you can achieve an 80% charge within an hour in optimal conditions.

Check the remote controller



MOD is factory-paired (synchronized) with the remote controller shipped in the box.

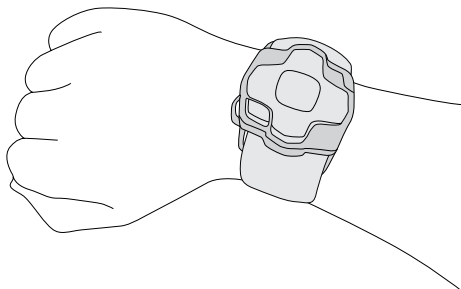
To perform a “pair” check, follow these steps:

1. On MOD, press down the power button for 3 seconds.
2. On the remote controller, press any button and wait for a blue light to flash. This confirms the remote is connected to MOD.

You can also check for connectivity by holding the goggles to your eyes and checking the status bar that appears on the dashboard. The remote status indicator icon on the left-hand side should be blue.



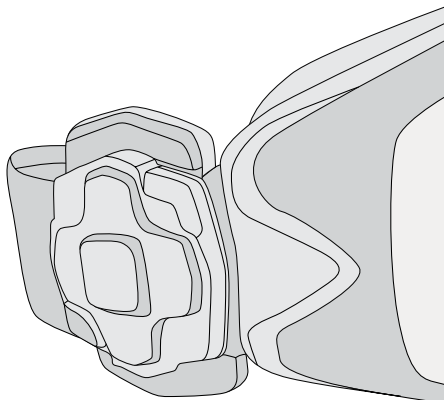
Attach a strap



To attach the wrist strap:

1. Slip either end of the Velcro strap (rough side facing out) into the remote's handle. Tip: insert the strap at a diagonal, and either pull or push it through the handle.
2. Align the "V" of the Velcro strap with the edge of the controller. Push down until you hear a click.
3. Stretch the strap and insert the other end of the Velcro strap repeating steps 1 and 2.
4. Attach Velcro around the cuff of your glove or jacket and pull it for a snug fit. Or, use the strap on a jacket belt or backpack.

Attach a strap



To attach the goggle strap:

1. Slip either end of the Velcro strap (rough side facing out) into the remote's handle. Tip: insert the strap at a diagonal, and either pull or push it through the handle.
2. Align the strap with the edge of the controller. Push down until you hear a click.
3. Stretch the strap and insert the other end of the Velcro strap repeating steps 1 and 2.

To remove either strap from the remote handles:

Open the plastic ends of the Velcro strap using a fingernail or slim object such as a nail file.

WARNING: Avoid applying pressure to the handles of the remote controller. Velcro straps should never be attached to heavy objects such as backpacks or snowboard carrier bags.

Create an HQ account

Follow these steps to create a free account on HQ Online. HQ Online is Recon Instruments' online community where you can upload your stats, runs and highlights as well as compete for prizes.



1. Go to the HQ Online website at <http://hqonline.reconinstruments.com>
2. Click on the sign-up hyperlink. In the SIGN UP FORM, enter the following and click **SUBMIT**.
 - **Your name.** Enter your first name, an alias or a nickname.
 - **Your email address.** Enter a valid, unique email address. All account settings are linked to your email. (If you decide to create a second account, for example, for a family member, you cannot reuse the same email address.)
 - **A password.** Enter a minimum of six characters.
3. Check your email for a message from noreply@hqonline.reconinstruments.com.
4. Activate your account by clicking the link for account activation (on the last line of the message).
5. When the HQ Online home page appears, login using the email address and password in step 2. A Login Successful confirmation message appears.



Download Recon HQ

Recon HQ is a free application for your PC or Mac that allows you to download statistics and information collected on MOD directly to your computer. This application needs to be installed on your computer to allow you to download data from MOD.

What You Need

- An Internet connection
- A PC or Mac

PC Requirements

- Intel Pentium 4 or higher processor
- 1GB of RAM
- Screen resolution of 1024x768 or greater
- USB 2.0 port for connection with Recon goggles
- Windows XP Service Pack 2 or later, Windows Vista, or Windows 7

Mac Requirements

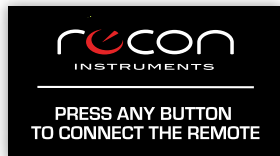
- Intel Core Duo or higher processor
- USB 2.0 port for connection with Recon goggles
- Internet connection for connection with Google Maps
- Mac OS X v10.6 or later

To download and install Recon HQ to your computer:

1. Click this link:
www.reconinstruments.com/support/downloads
2. Click on INSTALL NOW.
3. Follow the download instructions.

For instructions on how to download MOD data to your computer, see the section DOWNLOADING MOD DATA TO YOUR COMPUTER.

MOD Quick reference



When this screen appears, press any button on the remote to launch MOD.

Remote controller buttons



- Press to select an app, see a menu, or choose an option



- Press to exit a screen or menu
Press repeatedly to exit an app



- Press to navigate vertical menus, zoom or pan in maps



- Press to navigate vertical menus, zoom or pan in maps



- Press to navigate horizontal menus, zoom or pan in maps



- Press to navigate horizontal menus, zoom or pan in maps



MOD Quick reference

MOD Icons

Use icons to access functions. To navigate, press  or 
To choose a function, press . To exit, press 



STATS HISTORY. Access accumulated statistics.

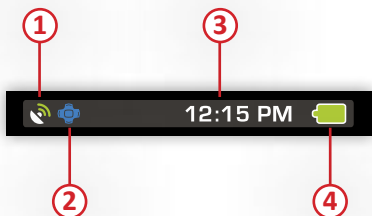
JUMPS. View airtime, distance, height and drop.

CHRONO HISTORY. View stopwatch-timed activity records.

PREFERENCES. Change brightness level, time, language, and units of measure. Clear data from the display.

Status bar

1. GPS Indicator
2. Time
3. Remote connection indicator
4. Battery charge indicator



MOD Quick reference

Status Indicators



(RED BLINKING) Searching signal



(GREEN BLINKING) Partial coverage



(GREEN SOLID) Full GPS signal



(RED SOLID) No remote found



(RED BLINKING) Searching for remote



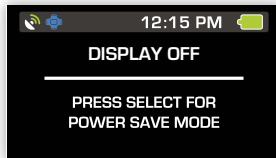
(SOLID BLUE) Connected remote



More options hidden



Currently selected feature



Display off mode

Display off mode saves the battery when the display is not needed. MOD will continue to record your data and statistics while in display off mode. Simply press any button to re-activate the display and continue where you left off.

Turn display off:

- Press  on the remote controller.
- When the DISPLAY OFF screen appears, press .

Turn display back on:

- Press any button on the remote controller.

MOD Quick reference

Performance notifications

These popups are automatically displayed for a few seconds:

MAX: Appears each time you top your maximum speed for the day.

ALT: Appears whenever your maximum altitude increases by 500 m or 1500 ft.

VRT: Appears whenever you reach a vertical drop of 500 m or 1500 ft.

AIR: Appears each time you jump for more than .6 seconds.



System notifications

These popups are automatically displayed for a few seconds:

Battery Critical/Graceful Shutdown: The battery has almost zero charge. Recharge MOD as soon as possible. MOD shuts down to ensure your data is saved.

Memory Full: As soon as possible, perform a download and then select DELETE AFTER DOWNLOAD. Refer to the section, Downloading MOD Data to your Computer.

Auto shutdown

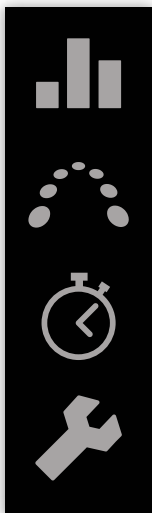
MOD automatically shuts down after a half-hour of no movement.

Turn MOD back on:

- Press and hold down the MOD power button.

MOD Features and functions

RECO MOD® offers comprehensive performance-monitoring and condition-monitoring that incorporates GPS technology and sensor integration to provide a powerful workout and training tool for alpine activities.



Overview

STATS HISTORY. View four dashboards showing metrics including your speed, distance.

JUMPS. View airtime, distance, height and drop.

CHRONO HISTORY. View stopwatch-timed activity records to track your progress in training and timed events.

PREFERENCES. Change brightness level, time, language, and units of measure. Clear data from the display.

MOD Features and functions

Dashboard

Keep track of the most important metrics including your speed and distance as well as geo conditions important to backcountry activities. Choose from four dashboard styles:



SPEED. MOD displays your speed as a dial and as digits. The dial turns red at high speeds to warn you to slow down.



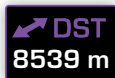
ALT. MOD displays the distance above sea-level calculated automatically using GPS data. NOTE: This value requires a strong GPS signal.



VRT. MOD displays the total vertical distance (descent) recorded since the start of the day. MOD records your ascent whether you travelled by gondola, chairlift, or on snowboard.



TMP. MOD displays the current temperature.

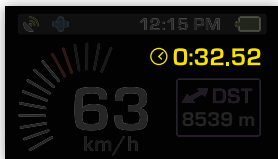


DST. MOD displays the total distance travelled across land (up, down and sideways) during the current session.

IMPORTANT NOTE: The first time you use MOD, values in the dashboard will be at zero except for temperature and altitude (elevation above sea level). While MOD acquires GPS data, dashes can appear. Head to an open area and wait five minutes.

To navigate. Press  to navigate to the dashboard you want.

MOD Features and functions



Stopwatch

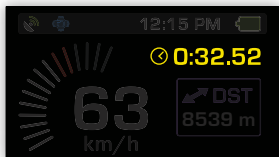
Use the stopwatch for clocking any timed activity.

- To start the timer. Press  in any dashboard. Digits change colour from grey to yellow.
- To stop the timer. Press . This time is saved in a record in CHRONO HISTORY.
- To clear timed data and reset the counter to zero. Press . This resets the displayed counter to zero.

MOD Features and functions

Test the dashboard

Follow these steps to get familiar navigating and using the remote controller.



Clock a timed activity (jog, cycle, ski or board)

1. Start moving in an open area unobstructed by trees, poles or cliffs.
2. Watch dial bars light up and change colour as you increase speed.

Clock a timed activity (jog, cycle, ski or board)

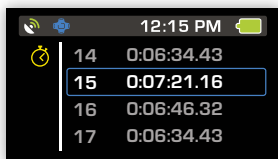
1. Press  to start the stopwatch.
2. Press  to stop. Check chrono data in yellow.

Track airtime. Toss your goggles.

1. Press  until you see LAST JUMP.
2. Review your jump stats.
3. Press  to exit CHRONO HISTORY

Chrono

Use this function to review stopwatch data. All stopwatch records are saved here. Access CHRONO HISTORY from the icon menu to view and manage timed activity data. This view shows no data. Until you start using the stopwatch, no history will appear here. Records appear in chrono order. Each record shows a unique number for easy reference.



To find and select CHRONO HISTORY:

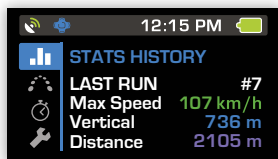
- Press  until the stopwatch icon is highlighted.
Press  to select CHRONO HISTORY.
- Press  to see lists of saved records

To select, flag or delete records:

- Press  to select a record for flagging or deletion. Flagging a record will highlight it in Recon HQ software after you download data. Deleting a run will delete it from MOD memory and from CHRONO HISTORY.
- Press  and  to navigate between Delete and Flag. Press  when Delete or Flag is highlighted.

Stats history

Choose **STATS HISTORY** to see four pages of statistics including performance stats (maximums, minimums, averages, and totals), distances, elevations, and mountain conditions.



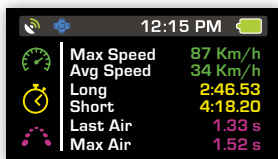
To find and select **STATS HISTORY**:

Press  until **STATS HISTORY** is displayed. Press  to select it. Press  and  to navigate between these four displays.

STATS HISTORY show these highlights:

- **LAST RUN:** MOD identifies your current (latest) run.
- **Max Speed:** MOD displays the top speed you've achieved during the last run.
- **Vertical:** MOD displays the total accumulated distance travelled vertically downwards during the last run.
- **Distance:** Total Distance Travelled across land (Up, down, and sideways) during the last run.

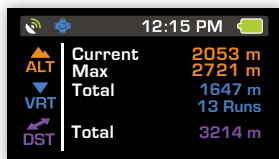
Stats history



PERFORMANCE STATS show milestones for speeds, activity length, and airtime:

- **Max Speed:** MOD displays the top speed for the day or since you last reset your stats.
- **Avg Speed:** MOD displays the average speed recorded for the day or since you last reset your stats.
- **Long:** MOD displays the longest timed activity recorded in Chrono/Stopwatch during the day or since you last reset your stats.
- **Short:** MOD displays the shortest timed activity recorded in Chrono/Stopwatch during the day or since you last reset your stats.
- **Last Air:** MOD displays your latest jump's airtime.
- **Max Air:** MOD displays the highest airtime recorded the day or since you last reset your stats.

Stats history

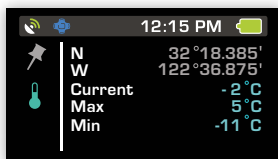


ALT	Current	2053 m
	Max	2721 m
	Total	1647 m
VRT		13 Runs
DST	Total	3214 m

ELEVATION STATS show your altitude, downward distances and total distances.

- Current Altitude: MOD displays the current altitude. This is updated every 30 seconds.
- Maximum Altitude: MOD displays the highest altitude for the day or since you last reset your stats.
- Total Vertical Distance Travelled: MOD displays the total vertical distance accumulated during the day or since you last reset your stats.
- Total Vertical Runs: MOD displays the total vertical runs accumulated before travelling upwards (on a lift) during the day or since you last reset your stats.
- Total Distance Travelled: MOD displays the total accumulated distance travelled (including ramps, paths, magic carpets, parking lots) during the day or since you last reset your stats.

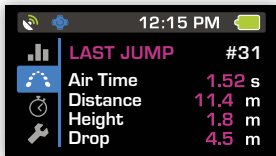
Stats history



MOUNTAIN STATS show GPS coordinates and temperature stats.

- Current Latitude/Longitude: MOD displays your current coordinates (latitudinal and longitudinal) using GPS data.
- Current Temperature: MOD displays an updated temperature every 30 seconds.
- Maximum Temperature: MOD displays the highest temperature for the day or since you last reset your stats.
- Minimum Temperature: MOD displays the lowest temperature for the day or since you last reset your stats.

Jump stats



JUMP STATS tracks your air time, vertical and horizontal distances and drops using inertial sensors (GPS, Altimeter, and Accelerometer). MOD automatically keeps track of jumps, slides, drops or moves where you are in the air for at least 0.6 seconds whether you are on skis, on a board, kite, blades, or on a bike.

- Press  to navigate to JUMP STATS. Press  to select it.
- Press  to switch between LAST JUMP and BEST JUMP stats.

JUMP STATS

Air Time: MOD measures (in seconds) the moment you are no longer touching the ground until impact.

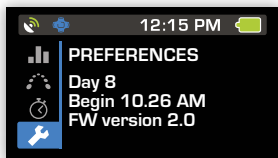
Distance: MOD displays your horizontal distance travelled while you are airborne.

Height: MOD displays your vertical distance between takeoff and the highest point of the jump.

Drop: MOD displays your vertical distance between the highest point of the jump and the landing.

BEST JUMP: This is your best jump of the day (based on maximum airtime).

Preferences

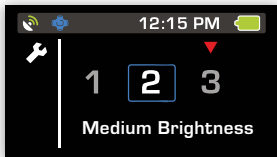
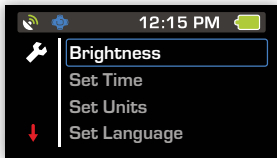


MOD displays four preferences menu options to choose from: Brightness, Set Time, Reset Stats, and Set Units. Press  to navigate between them.

How to access PREFERENCES:

- Press  to access the icon bar. Press  repeatedly until PREFERENCES is displayed.
- Press  to select PREFERENCES. Press  to navigate between Brightness, Set Time, Reset Stats, and Set Units.

Preferences



Set Brightness

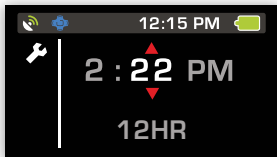
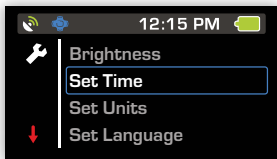
MOD has three brightness settings: 3 for direct sunlight, 2 for overcast conditions, and 1 for dark areas or night skiing. By default, MOD is set to maximum brightness (3).

The red triangle shows the current setting.

How to set brightness:

1. Press  to select Brightness.
2. Press  to navigate to the setting you want.
3. Press  to confirm your selection. Press  to exit.

Preferences



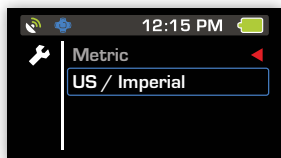
Set time

- Use this function to set the clock for the time zone you are in. Although MOD sets the clock to Greenwich Mean Time (GMT) as soon as it locks on a signal; the clock is NOT adjusted for time zones.
- You can also switch between 12-hour or 24-hour time modes.

To set time:

1. Press  to navigate to Set Time. Press  to select it.
2. Press  to navigate to the hour or to the minutes.
3. Press  and  to adjust the hour or minutes. Press  to save.
4. To change time mode, press  to reach 24HR. Press  and  to switch between 12HR and 24HR time modes.
5. Press  to save. Press  to exit.

Preferences

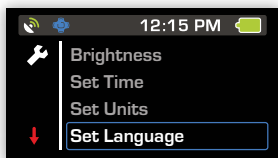


Set units

To switch from metric to Imperial units (or vice versa):

1. Press  to navigate to Set Units.
2. Press  to select Set Units.
3. Press  and  to toggle between US/Imperial and Metric.
4. Press  to select. Press  to exit.

Preferences

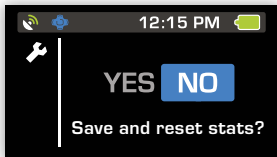
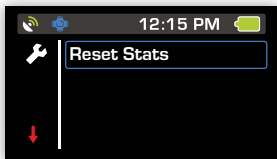


Set Language

To switch from English to French:

1. Press  to navigate to Set Language. Press  to select it.
2. Press  and  to toggle between French and English.
3. Press  to select. Press  to exit.

Preferences



Reset Stats

Resetting clears displayed stats including Last Run, Performance, Elevation, Mountain stats and Jumps and Chrono records. Note that a reset does not wipe the data stored in MOD.

NOTE: Whenever MOD is turned off for six or more hours, it performs an automatic reset.

To reset your stats:

1. Press  to navigate to Reset Stats. Press  to select it.
2. Press  and  to select YES.
Press  to select NO. Press  to exit.

Downloading MOD data to your computer

Perform a download to Recon HQ software to share MOD stats and highlights on HQ Online. To clear space on MOD, download data after every five days of use. TIP: If your battery has been draining quickly, perform a download to ensure no data is lost.

To download data from MOD:

1. Turn MOD off by holding down the power button for 2 seconds.
2. Attach the USB cable shipped with MOD Live to your computer and to MOD. Plug the micro USB cable's smaller end into the micro USB port located under the protective cover on the right side of the goggles. Plug the USB cable's larger end into the USB port in your PC or Mac.

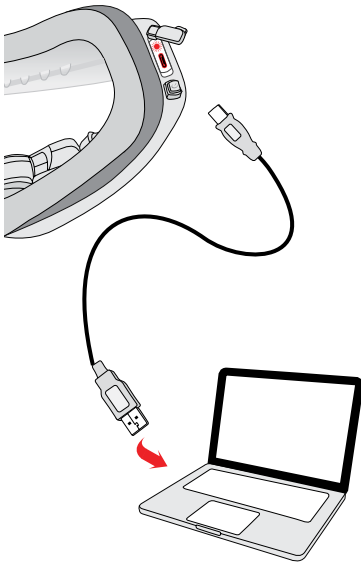
Tip: If your computer does not recognize MOD try reinserting the USB cable.

NOTE: Recon HQ must be installed on your Mac or PC.

3. Click DOWNLOAD when the prompt DOWNLOAD TRIPS FROM GOGGLE appears.

IMPORTANT NOTE: Never disconnect while data is being transferred from MOD to your PC or Mac.

4. After you download, be sure to replace the plastic cap on MOD's USB port cover to ensure no water, snow or ice damages the port.





Viewing MOD Data

Recon HQ overlays run data collected from MOD onto Google map images so you can play back, store, and re-live your MOD activity. Use Recon HQ to log all activity throughout the course of the season so you can identify performance highlights, remember your favourite tracks, trails and runs.

Sharing MOD Data

After you download your MOD data, you can upload the best moments to HQ Online as well as Facebook and Twitter.

MOD Troubleshooting FAQ

MOD DISPLAY

You can quickly find solutions by following steps and advice in this section.

Why is my display blank?

This happens when you leave your goggles stored in a very cold location (outdoors overnight, in the trunk of a vehicle).

Steps to take:

1. Warm up MOD (with the power turned off) for at least ten minutes. Move indoors.
2. If the display doesn't appear when you turn the power on, charge up the MOD battery for an hour using the Recon AC adapter.
3. If the problem persists, contact Recon Support at support@reconinstruments.com
 - Follow us on Twitter: [twitter.com/@Reconinstrument](https://twitter.com/Reconinstrument)
 - Follow us on Facebook at facebook.com/reconinstruments.
 - Search for Support FAQs at <http://support.reconinstruments.com>

Why does the display look washed out?

This problem is temporary, and it happens after you leave the goggles are out in the sun. Direct sunlight reacts with the liquid crystal display.

Steps to take:

1. Move your goggles into the shade, or cover them until the brightness and colours return to normal.
2. If the problem persists, contact Recon Support at support@reconinstruments.com

MOD Troubleshooting FAQ

MOD DISPLAY

Why is the display hard to read?

MOD's default brightness setting isn't for indoor use, night skiing or dark environments. Use the Preferences menu to change the brightness setting. MOD will continue recording even when the display is turned off.

Why can't I see the edge of the display?

You need to adjust the head of the micro-optic display in the lower right-hand corner of the goggle frame. Tilt or rotate it. Or tighten the strap of your goggle.

Why is my display solid red or green?

MOD has a loose or broken connection. It can happen after a bad crash that damages MOD components.

Steps to take:

1. Hold down the Power button, wait a few minutes, and then press this button again.
2. Try recharging MOD.
3. If this does not work, contact Recon Support.



MOD Troubleshooting FAQ

MOD DISPLAY

Why does my display show a red icon?

A red icon means there is no connection between MOD and the remote controller. Whenever the remote controller is more than ten feet away from MOD, the connection is lost. If you are using MOD with a different remote controller, a red icon means that MOD isn't paired with the remote.

Steps to take:

1. Bring MOD into close proximity to the remote controller. Press any button on the remote controller and wait for the icon to turn blue.
2. Try to re-pair the remote controller. See the instructions in Pairing a Remote Controller later in this guide.

Why does my display show the RECON logo instead of the dashboard?

This happens when you turn MOD back on after it is powered off. Wait a few seconds for the dashboard to appear, or restart MOD.

MOD Troubleshooting FAQ

MOD DATA

IMPORTANT NOTE: MOD can lose data or lose its connection to the remote controller due to electromagnetic interference. Sources of interference include transmission towers, two-way radios, wireless devices, industrial devices operating on RF frequency as well as motion sensors, remote controls, and microwave ovens. steps and advice in this section.

MOD uses GPS technology to determine speed. When you turn on MOD, you need to wait ten minutes for it to acquire satellite data.

GPS technology works best in open spaces with a 360 degree view of the sky which gives access to at least three satellites. Being in a valley, beside a tree, building or rock face can block MOD from getting GPS coverage. **Avoid using MOD inside buildings and gondolas or near solid obstructions such as trees and rock faces can interrupt GPS coverage and cause incorrect data to appear.**

Why is the speed value wrong?

Steps to take:

1. Change location. Move to an open location with a clear view of the sky. If you are in a valley or gully, move to higher ground.
2. Wait for the GPS indicator icon to show two or three green signals.
3. If changing location does not help, restart MOD by turning the power off and on again.
4. If you can't get a GPS signal, contact Recon Support.

MOD Troubleshooting FAQ

MOD DATA

Why does the speedometer show "--" instead of numbers?

While MOD is waiting for a GPS signal, the dashboard speedometer displays "--" until it can calculate a valid speed from GPS data.

Steps to take:

1. Change location. Move to an open location with a clear view of the sky. If you are in a valley or gulley, move to higher ground.
2. Wait a few minutes for the GPS indicator icon to show two or three green signals.
3. Restart MOD by turning the power off and on again.
4. If the problem continues, contact www.reconinstruments.com/support for support

Why is the altitude wrong?

MOD calculates altitude using a combination of air pressure and GPS data.

When MOD is not moving, data from the air pressure sensor is changed to match the GPS reading. Storms affect air pressure, causing the altitude to decrease. In clear weather, altitude data will increase.

Steps to take:

1. If you have been sitting or standing in an open area for more than a half hour, turn MOD off and on.
2. Wait ten minutes, and turn MOD back on.

MOD Troubleshooting FAQ

MOD DATA

Why are my statistics wrong?

MOD uses GPS technology to determine statistics. Your location affects the GPS coverage, for example, being in a valley, beside a tree, building or rock face.

Steps to take:

1. Change location. Move to an open location with a clear view of the sky. If you are in a valley or gulley, move to higher ground.
2. Wait for the GPS indicator icon to show two or three green signals.
3. If changing location does not help, restart MOD by turning the power off and on again.
4. If your statistics are still incorrect, reset them using the Preferences menu.

Why does the clock show the wrong time?

If this is the first time you are using MOD, the clock will show Greenwich Time. You need to set the clock for your own time zone.

MOD shuts off the clock when the battery level is almost drained.

To reset the time, see Preferences section earlier in this guide.

MOD Troubleshooting FAQ

MOD DATA

Why is the temperature wrong?

MOD's temperature sensor takes some time to adjust to the ambient air temperature. The thermometer is located inside the wireless remote. If you are wearing MOD inside a pocket or jacket, the temperature will be higher than your surroundings.

Steps to take:

1. Wear the remote on your wrist, goggle outside your jacket instead of keeping in an inside pocket.
2. Wait a few minutes for MOD's temperature sensor to adjust.

Why can't I get the stopwatch to start?

Try to reset the stopwatch.

Steps to take:

1. Press  once. The timer is set to 0:00:00 and the numbers turn grey.
2. To start the counter, press  again. The timer starts counting and the numbers turn yellow.

MOD Troubleshooting FAQ

MOD BATTERY

Why can't I get a full charge?

Steps to take:

- Check that you are using the Recon AC adapter and USB cable included in the MOD box. Check that the AC cable says Recon Instruments.
- Turn MOD off before you recharge.
- Turn on your PC or Mac; make sure it is not in standby mode. Check that the port on your PC or Mac is a USB 2.0 port (not a keyboard port).
- During recharging, check that the red light above the USB port appears. This shows that MOD is still charging.

Why does my battery drain so quickly?

Extremely low temperatures can account for a quick drain.

At -10°C (14°F), a fully charged battery lasts between 6 to 8 hours.

If the temperature dips below -20°C (-4°F), the charge won't last as long.

Tips to prolong battery life:

- Avoid using MOD at temperatures below -20°C (-4°F).
- Turn off the power when you are not using MOD.
- Use the DISPLAY OFF feature when you are not using MOD.
- Turn the brightness down to 1 or 2.

MOD Troubleshooting FAQ

MOD BATTERY

Why won't my PC or Mac recognize MOD when I try to charge it or transfer data?

Steps to take:

1. Check the port you are using on your PC or Mac. **You must use the USB 2.0 port (not a keyboard port).**
2. Check that the USB cable connection is tight. Unplug it and then plug it back in.
3. Unplug MOD from your PC or Mac, turn the power off, wait a few seconds, and then turn the power on. Then try plugging the USB cable in again.

SUPPORT

How to contact Recon for assistance?

- Email Recon Instruments **support@reconinstruments.com**
- Search for Support FAQs at **<http://support.reconinstruments.com>**

When you contact Recon for assistance, you need to provide the following information:

- **MOD firmware version number.** Go to Preferences and select Settings.
- **MOD serial number.** See the white sticker on the back of the MOD battery pack.
- **Operating system**
- **HQ software version**



STORAGE AND TRAVELLING TIPS

Handle MOD with the same care as a smartphone, iPod, or MP3 player.

- Make sure that MOD is powered off.
- Pack MOD in a separate compartment away from sharp or hard objects. Do not place items directly on top of MOD.
- Avoid leaving MOD in direct sunlight.
- Avoid leaving MOD in subzero temperatures.
- Keep MOD out of water.
- Store MOD and its accessories away from the reach of small children.

CLEANING TIPS

- Use a delicate tool to clear away ice and debris from the remote controller buttons.
- Avoid touching the optic lens.
- Always use a soft cleaning cloth or lens cloth.

Battery

Battery care

Your battery is designed to last up to three years. Follow these tips on battery care:

- Never recharge the battery in temperatures below 0°C or above 40° C.
- Allow enough time for MOD to warm up and reach ambient room temperature before you recharge.
- Never use a different AC adapter and USB cable than what was shipped with MOD.
- Use DISPLAY OFF mode when you aren't checking looking at the dashboard or stats.

Recharging the battery

NOTE: Whenever the battery warning popup appears, your unit will be automatically shut down unless you recharge it immediately.

Recharge the battery immediately to avoid losing data. The battery must be recharged within ten days.

Before You Start

- Use the Recon AC adapter and USB cable included in the MOD box. Check that the AC cable says Recon Instruments.
- Check that the port on your PC or Mac is a USB 2.0 port (not a keyboard port).

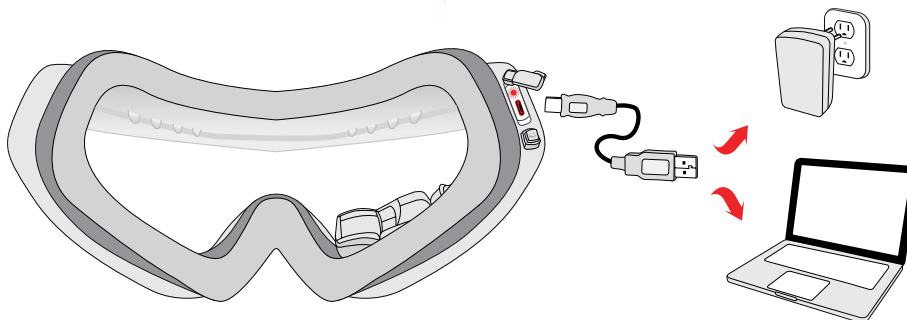
Battery

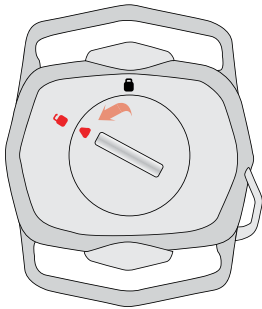
To charge using a PC or Mac:

1. Make sure your computer is turned on, and not in stand-by mode.
2. Make sure MOD is turned off. If MOD is on, hold down the MOD power button for 2 seconds. Connect the USB cable shipped with MOD. Plug the micro USB cable's smaller end into the micro USB port located under the protective cover on the right side of the goggles. Plug the USB cable's larger end into the USB port in your PC or Mac. Tip: If your computer does not recognize MOD, try reinserting the USB cable.
3. Check that a red light above the USB port appears. This shows that MOD is charging. The red USB port light turns off when MOD is charged.

To charge using a power outlet:

1. Connect the USB cable shipped with MOD. Plug the micro USB cable's smaller end into the micro USB port located under the protective cover on the right side of the goggles.
2. Plug the USB cable's larger end into either the North American or European AC adapter shipped with your unit.
3. Plug the AC adapter into a wall outlet.
4. Check that a red light above the USB port appears. This shows that MOD is charging. Keep charging until the red USB port light turns off (which indicates MOD is fully charged).





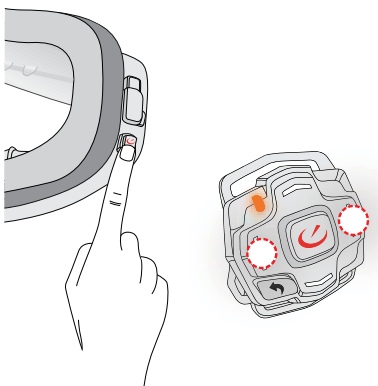
Replacing the remote battery

The remote controller uses a single 3-volt CR2032 battery. Replace it every 3 years.

To replace the battery:

1. Using a coin or flathead screwdriver, turn counter clockwise until you reach the unlock symbol.
2. Remove the back cover.
3. Insert a replacement battery.
4. Replace the back cover.
5. Using a coin or flathead screwdriver, turn the cover clockwise until the arrow aligns with the closed lock symbol.

Remote



Checking which remote is paired

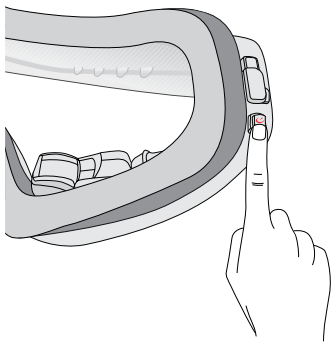
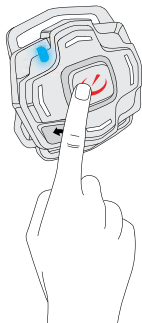
Press the left or right button on the remote. Check MOD's display to see if it responds. Note that the remote controller status indicator should be blue.

Unpairing a remote controller

Follow these steps when you intend to use your remote controller with a different RECON product or you are returning the MOD unit or the remote.

To unpair the remote:

1. Hold down the MOD power button for 3 seconds.
2. Press the right and left arrow buttons on the remote simultaneously until the remote's orange light flashes.



Pairing a remote controller

Follow these steps when you unpaired a remote controller by mistake, performed a factory reset, bought or borrowed a replacement MOD or MOD Live unit.

To pair the remote controller with MOD:

1. Look on the back of the remote controller for the serial number printed on a white label. Note the ID number.
2. If MOD is turned on, turn off the power button, wait for a few seconds, and then turn the power button back on. Wait for the prompt to press the MOD power button. This prompt may show one or more remote ID numbers.
3. Press the MOD power button to navigate to the remote ID that corresponds to your remote controller. Each press of the power button will take you down to the next ID on the list.
4. Wait for the counter to reach 0, and then press any button on the remote.
5. Wait for a blue light to flash on the remote.
6. Check that the remote is paired by looking at the status bar. The remote connection indicator icon should turn blue.

It can take 10 seconds for the remote indicator to turn blue.

Regulatory Compliance



FCC Compliance Class B Digital Device

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Declaration of Conformity

MOD (FCC ID: ZW5006) and Recon-Ready Remote (ZW5001) comply with FCC standard CRF 47 Part 15 subpart B and subpart C – section 15.249. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Industry Canada Compliance

MOD and Recon-Ready Remote were certified with IC numbers 9717A-006 and 9717A-001, respectively.

These devices comply with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme avec les normes de l'Industrie Canada-sans les standards RSS (s). L'utilisation est soumise aux deux conditions suivantes: (1) cet appareil ne peut pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.



Technical Specifications

Processing

- ARM® 9 core 96MHz

Sensing

- Global Positioning System (GPS) Receiver
- Single-axis Gyroscope
- Tri-axial Accelerometer
- Temperature sensor
- Barometric pressure sensor

Capacity

- Memory: 3.5 MB
- 4 days of recording

GPS Receiver

- 65-Channel Ultra Low Power GPS IC
- Cold start of 2-3 minutes in typical outdoor environment
- Multipath detection and suppression

Ports and Connectivity

- Micro-USB 2.0 (5-pin) port for data transfer and charging
- Bluetooth® Low Energy (BTLE) wireless user interface remote control

System Requirements

- Windows PC: Intel Pentium 4 or higher, Windows XP, Vista, 7 or higher
- Mac: Intel Core Duo or higher, Mac OS X v10.6 or later

Languages

- English
- French

Environmental Considerations

- RoHS compliant
- Brominated flame-retardant-free
- Mercury-free

Technical Specifications

Environment / Mechanical

- Weight of the unit ~65 Grams (~2.3oz)
- Storage Temperature range -20°C to 60°C (-4°F to 140°F)
- Operating Temperature range -20°C to 30°C (-4°F to 86°F)
- Vibration resistance 4.4 g rms 5 Hz to 2000 Hz
- Shock / drop resistance 40 g, 15-23 ms, ½ sine (1 m vertical drop)
- Enclosure Water Resistant enclosure, IP65

Power requirements

- Primary supply voltage 3.7 Lithium Polymer Rechargeable
- Charge Time 1 hour fast charge to 80% capacity, 3 hours to full
- Battery size and life 1200 mAHr / 6 Hours

Display and Virtual Image

- Display resolution WQVGA- 428X240
- Display Type LCD Microdisplay
- Virtual image size 11 " Diagonal from 5 feet away
- Diagonal FOV 10°
- Color Depth 16 Bit
- Brightness & Contrast control 4 mode brightness, with video chain sleep mode
- Max Horizontal field of view 8° Vertical FOV: 6° Horizontal FOV

Warranty information

LIMITED WARRANTY FOR RECON PRODUCTS

These terms and conditions apply to Your purchase of the GPS-enabled module (the “**Product**”) marketed by Recon Instruments Inc. (“**Recon**”). Any reference below to the term “**You**” refers to the original buyer of any Product.

1. Statutory Warranties. This Limited Warranty sets out Recon’s responsibilities as to the Product. Nothing in this Limited Warranty affects any rights You may have as a consumer under applicable laws that cannot be disclaimed or waived, and does not disclaim any statutory or implied rights that Recon cannot disclaim. The laws of certain jurisdictions or states may state that the manufacturer may not exclude or limit aspects of its liability to the consumer, and, in such circumstances, the exclusions and limitations of liability in this Limited Warranty will only apply to you to the extent permitted under applicable laws.

2. Warranty Terms.

- a. Recon warrants to You that the Product will be free from defects in materials and workmanship under normal use for two (2) year from the original date of purchase by You (the “**Warranty Period**”). The Limited Warranty is not transferable by You. All subsequent purchasers acquire the Product “as is” without benefit of this Limited Warranty. Where You purchased the Product from Recon’s website or other online vendors the date of purchase is the date of the purchase invoice issued to You by Recon or such online vendors by email. Where you purchased the Product from an authorized reseller at a physical location, the date of purchase is the date of the invoice issued to you at the physical location.
- b. In the event Recon determines that the Product is defective, Recon may in its absolute and sole discretion:
 - i. repair the defective part of the Product free of charge with new or refurbished parts;
 - ii. replace the defective Product with a comparable new or refurbished product; or
 - iii. in the event that Recon is unable to repair or replace the Product as provided under (i) or (ii), pay a proportionate refund of the purchase price You paid for the Product.
- c. Where the Product is repaired or replaced during the Warranty Period, except as otherwise prohibited by applicable laws, the warranty for the repaired or replaced Product, as applicable, will expire upon the expiration of the original Warranty Period. Any warranty service or support under this Limited Warranty is conditioned upon Your return of the Product to Recon or its authorized service provider. Where there has been a replacement of the Product, the Product or its parts, as provided pursuant to the Limited Warranty, becomes Your property and the Product being replaced becomes Recon’s property. Where there is a refund, You will return the Product to Recon and such Product becomes Recon’s property.

3. Exclusions. The Limited Warranty does not apply:

- a. to normal wear and tear;
- b. if the Product or any its parts is opened, disassembled, or repaired by someone not authorized by Recon;
- c. if the Product was not purchased from Recon or its authorized retailers as listed on Recon’s website, as such list may be amended from time to time by Recon;



Warranty information

- d. to damages caused by misuse, moisture or liquids, proximity or exposure to heat, accident, abuse, neglect, misapplication, Your failure to abide by the use, safety, and maintenance instructions contained in the packaging of the Product, including, without limitation, a failure to follow such instructions regarding use of the Product with any other equipment, peripherals, or accessories (e.g. goggles) authorized by Recon to be used with the Product, or repairs or modifications made by anyone other than Recon or its authorized service providers;
- e. to physical damage to the surface of the Product;
- f. to any Product where the serial number has been removed or that has been damaged or rendered defective as a result of misuse, abuse, contamination, improper or inadequate maintenance or calibration, or other external causes;
- g. to any equipment other than the Product;
- h. to malfunction or defects resulting from the use of the Product in conjunction with accessories, products, services or ancillary or peripheral equipment not expressly approved or provided by Recon, and where it is determined by Recon that such malfunction or defect is not the fault of the Product itself; and
- i. to any software, whether or not supplied by Recon.

Please review the Product use, maintenance, and safety instructions contained in the packaging, as well as the user manual online at www.reconinstruments.com. Returns, repairs, or replacements of parts and/or Products may be subject to shipping, handling, replacement and/or restocking fees. Recon does not warrant that the operation of the Product will be uninterrupted or error-free.

- 4. Returning the Product.** Recon is the provider of this Limited Warranty. Recon's warranty contact information can be found at www.reconinstruments.com. You may need to provide a proof of purchase of the Product, in the form of the purchase invoice sent to You by Recon or an invoice from an authorized reseller of the Product, to evidence that You are the original purchaser of the Product. In the event You return the Product to Recon outside of the Warranty Period, Recon's standard repair terms and charges may apply. Recon may limit the Limited Warranty to the country where Recon or its reseller sold the Product to You. You may be responsible for shipping, handling, or other costs if You request warranty services not in the country of original purchase.
- 5. Data Recovery.** You acknowledge and agree that Recon will not be responsible for any data, software, application, or information that may be damaged, lost, or destroyed during the course of evaluating, repairing, or replacing the Product. This Limited Warranty also does not cover backup, recovery, and reinstallation of Your data on the Product.
- 6. Exclusive Remedies.** Repair or replacement of the Product as provided for in this Limited Warranty is the exclusive remedy provided to You under this Limited Warranty. To the extent permitted by applicable laws, this Limited Warranty is in lieu of all other warranties or conditions, express or implied. EXCEPT AS SET OUT IN THIS LIMITED WARRANTY AND AS PERMITTED BY APPLICABLE LAWS, RECON SPECIFICALLY DISCLAIMS ALL REPRESENTATIONS, WARRANTIES, ENDORSEMENTS, AND CONDITIONS OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF TITLE OR NON-INFRINGEMENT AND ANY IMPLIED REPRESENTATIONS, WARRANTIES AND CONDITIONS OF FITNESS FOR A PURPOSE, MERCHANTABILITY, MERCHANTABLE QUALITY, SATISFACTORY QUALITY,

Warranty information

DURABILITY, OR ARISING FROM A COURSE OF DEALING OR USAGE OF TRADE. SOME JURISDICTIONS OR STATES DO NOT ALLOW EXCLUSIONS OF IMPLIED WARRANTIES, AND SO THE LIMITATION IN THIS SECTION 6 MAY NOT APPLY TO YOU. YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE OR JURISDICTION TO JURISDICTION.

7. Limitation of Liability.

- a. RECON, ITS OFFICERS, DIRECTORS, AGENTS, EMPLOYEES, LICENSORS, SUPPLIERS, SERVICE PROVIDERS, RESELLERS, AND DISTRIBUTORS (COLLECTIVELY, “**RECON**” IN THIS SECTION 7) WILL IN NO WAY BE LIABLE TO YOU FOR ANY INDIRECT, ECONOMIC, SPECIAL, COMMERCIAL, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOST PROFITS, LOSS OF BUSINESS REVENUE OR EARNINGS, LOST DATA, LOSS OF OPPORTUNITY, AND DAMAGES CAUSED BY DELAYS OR A FAILURE TO REALIZE EXPECTED SAVINGS) ARISING FROM OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE PRODUCT, EVEN IF SUCH PERSON/ENTITIES IS/ARE AWARE OF THE POSSIBILITY OF SUCH DAMAGES.
- b. IN NO EVENT SHALL RECON’S LIABILITY UNDER THIS LIMITED WARRANTY TO YOU OR TO ANY THIRD PARTY CLAIMING THROUGH YOU OR ON YOUR BEHALF EXCEED THE PURCHASE PRICE OF THE PRODUCT THAT YOU PURCHASED OR THE COST OF REPAIRING OR REPLACING THE PRODUCT, WHICHEVER IS GREATER.
- c. THE LIMITATIONS OF LIABILITY SET OUT IN SECTIONS 7(A) AND 7(B) ABOVE IS INTENDED TO APPLY AND DOES APPLY TO ANY DAMAGES, LOSSES, OR LIABILITY HOWEVER CAUSED, REGARDLESS OF THE THEORY OF LIABILITY (CONTRACT, TORT, NEGLIGENCE, OR OTHERWISE) AND EVEN IF RECON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, EXCEPT WITH RESPECT TO LIABILITY FOR DEATH, BODILY INJURY, OR LIABILITY FOR INTENTIONAL OR GROSS NEGLIGENT ACT OR OMISSIONS, FOR WHICH NO LIMIT APPLIES. SOME JURISDICTIONS OR STATE DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE LIMITATIONS OR EXCLUSIONS ABOVE MAY NOT APPLY TO YOU.
- d. THE LIMITATIONS AND EXCLUSIONS IN THIS SECTION 7 APPLY TO THE FULL EXTENT THEY ARE NOT PROHIBITED BY APPLICABLE LAW WITHOUT THE POSSIBILITY OF CONTRACTUAL WAIVER.

- 8. Privacy.** Information about You that Recon receives or collects (including, without limitation, Your personal contact information and financial information such as credit card information) will be used, processed, transferred, stored, and disclosed in accordance with Recon’s privacy policy (available at <http://www.reconinstruments.com/corporate/legal/privacy-statement>) for the purpose of resolving problems with the Product and to provide and perform the services relating to the warranty described in this Limited Warranty.

9. Dispute Resolution.

- a. **Arbitration.** Any and all disputes, controversy or claims arising out of or in connection with or in relation to this Limited Warranty or the breach thereof, including any question regarding its existence, validity, performance or termination and any tort or other common law or statutory claim arising out of or relating to its negotiation, execution or performance (collectively, the “**Dispute**”), will be referred to and finally resolved by binding arbitration, with the losing party paying all costs of arbitration (including reasonable legal fees and expenses) to be conducted by a single arbitrator in Vancouver, British Columbia, pursuant to the provisions of the Commercial Arbitration Act



Warranty information

(British Columbia) and any amendments thereto, and the determination of such arbitrator will be final and binding upon You and Recon. The arbitration will be conducted in the English language. A judgment on the award of the arbitrator may be entered into any court having jurisdiction over the party or parties against whom an award may be issued and each of You and Recon agrees to and hereby waives any defences against the enforceability and execution of any such judgment awarded by the arbitrator as contemplated in this Limited Warranty. Judgment on the award of an arbitrator may be entered by any court having jurisdiction over the person or property of the person against whom enforcement of the judgment is sought. Where arbitration is prohibited by applicable laws, you and Recon hereby agree to the exclusive jurisdiction of the courts of the province of British Columbia, Canada with respect to any Disputes relating to this Limited Warranty.

- b. Any arbitrator will be appointed, pursuant to Subsection 9(a) above, by agreement between You and Recon or, in default of agreement, such arbitrator will be appointed by a Judge of the Supreme Court of British Columbia sitting in the Courts of Vancouver, upon the application of either such party.
- c. In any arbitration proceeding between You and Recon, it is agreed that the parties will be entitled to discovery to the same extent permitted by the Supreme Court of British Columbia as if the matter were being adjudicated in such Court.
- d. You hereby waive all rights to a trial by jury with respect to any claims and issues relating to or arising out of this Limited Warranty.

10. Attornment. You waive (a) any right to object to venue or jurisdiction based on inconvenient forum or for any other reason; and (b) any statutory or other right pursuant to the laws of the jurisdiction in which the You are resident to have a court case or arbitral hearing relating to this Limited Warranty adjudicated or resolved in that jurisdiction. Any rule of interpretation, law or regulation that provides that the language of a contract will be interpreted against the drafter will not apply to this Limited Warranty.

11. Governing Law. This Limited Warranty will be governed by and interpreted in accordance with the laws of the Province of British Columbia and the federal laws of Canada as if made and performed by and between parties situate in such province and without regard to the conflict of law rules that would apply a different body of law.

12. Severability. Each provision of this Limited Warranty is declared to be a separate and distinct promise and to be separable from all other such separate and distinct promises. If any promise, provision or part thereof is determined by a court of competent jurisdiction or other constituted legal authority to be void, unenforceable or unreasonable in whole or in part, it will not be deemed to affect or impair the enforceability or validity of any other promise or provision in this Limited Warranty or any part thereof and the said court or other constituted legal authority will have the authority to limit such promise or provision as it deems proper.

13. Waiver. The failure by Recon to insist on strict compliance with any provision of these terms and conditions will not be deemed to be a waiver of such provision, and a waiver of any provision of these terms and conditions at any one time or times will not be deemed to be a waiver for any other time. The failure of Recon to assert its rights in a timely fashion for any of its rights or remedies under these terms and conditions will not be interpreted as a

Warranty information

novation or a waiver of any subsequent or continuing breach and will not serve to modify, alter or restrict the right of Recon to assert any rights at any time thereafter

- 14. English Language.** Except to the extent prohibited by applicable law, You acknowledge and agree that that this Limited Warranty and any and all related documents be drawn up in English.
- 15. Updates and Supplementary Terms.** This Limited Warranty may be updated or supplemented by Recon from time to time. For Products purchased in specific countries, unique terms may replace or modify this Limited Warranty if so posted on Recon's website. All terms that are not changed by these unique country terms (if any) remain unchanged and in effect. Please visit Recon's website to obtain the latest version of, or supplements or any country-unique terms to, this Limited Warranty.