

Heliocom settings

Time/date, latitude and longitude are set automatically by GPS

Temperature alarm setting. Only used with thermal installations

Tracker rotates this many degrees each step

Tracker pauses this many minutes if it is unable to rotate. Each successive pause is multiplied (up to 6 times, reset each day)

Tracker pauses after trying to move unsuccessfully clockwise this many times. Reset every morning or after 5 successful moves.

Heliocom USB v0.98

Tracker settings

Solar Time:	00:01:45	Set	Position Noon:	512	Edit
Date:	01.01.00		Position Morning:	195	Edit
Latitude:	60.00°	Edit	Position Evening:	870	Edit
Longitude:	20.00°	Edit	Motor Power:	110	Edit
Temp Alarm:	300°C	Edit	Motor Speed:	3	Edit
Moving Interval:	1,8°	Edit	Gear Ratio:	279	Edit
Service Timeout:	60	Edit	Sensor Margin:	4°	Edit
Service Count:	10	Edit	Sensor Gap:	0°	Edit

Mode: Stopped (Day) | GPS: Idle | Temp: N/A | v4650-58

Control commands

Resume Restart Sync Boot Test < > Goto

Motor: Idle | Position: 0,0° | Sensor: 0,0° (510) | Azimuth: -179,3°

Events

Heliocom is used to diagnose, configure and update Heliomotion solar trackers. To establish a connection attach a USB cable (Type-A Male to Type-A Male) between your laptop and the USB terminal located inside the connection box of your Heliomotion tracker.

[09:33] Connected to Heliomotion
[09:33] Device has stopped

USB attached | Local time: 10:04:41 | Solar time: 08:36:47 | Azi: -52,54

Specifies expected sensor value when reaching noon, morning (-90°) and evening (+90°) position when moving clockwise

Motor torque setting. Higher=stronger (non-linear)

Rotational speed. Higher=faster (linear)

Gear ratio. Number of motor turns to rotate tracker a single turn

If calculated position deviates more than this number of degrees from measured sensor position the calculated position is adjusted (and service counter increased by 1).

Number of degrees subtracted from measured sensor value when moving counterclockwise (due to sensor lag)

To edit a parameter:

- 1) Click the Edit button to make the field changable. "Edit" button label then changes to "Set".
- 2) Type the desired value in the corresponding field.
- 3) Click the Set button to submit the change.

Heliocom status fields

Manually updates date/
time to local solar time

Shows if day or night.
Tracker stays in noon
position during night

Operation mode can be
Tracking (automatic
control) or Stopped
(manual control)

Shows if motor is running
or idle

The tracker's current
calculated position in
degrees. If sensor reading
deviates more than Sensor
Margin then Position is
corrected to Sensor value
(and service counter
increased by 1).

The screenshot shows the Heliocom USB v0.98 application window. It features a 'Tracker settings' section with fields for Solar Time, Date, Latitude, Longitude, Temp Alarm, Moving Interval, Service Timeout, Service Count, Position Noon, Position Morning, Position Evening, Motor Power, Motor Speed, Gear Ratio, Sensor Margin, and Sensor Gap. Below this is a 'Control commands' section with buttons for Resume, Restart, Sync, Boot, Test, and navigation arrows. The status bar at the bottom displays 'USB attached', 'Local time', 'Solar time', and 'Azi'. An 'Events' log is also visible.

Annotations with arrows point to the following fields:

- Solar Time:** 00:01:45 (Set button)
- Date:** 01.01.00
- Latitude:** 40.00° (Edit button)
- Longitude:** 20.00° (Edit button)
- Temp Alarm:** 300°C (Edit button)
- Moving Interval:** 1.8° (Edit button)
- Service Timeout:** 60 (Edit button)
- Service Count:** 10 (Edit button)
- Position Noon:** 512 (Edit button)
- Position Morning:** 195 (Edit button)
- Position Evening:** 870 (Edit button)
- Motor Power:** 110 (Edit button)
- Motor Speed:** 3 (Edit button)
- Gear Ratio:** 279 (Edit button)
- Sensor Margin:** 4° (Edit button)
- Sensor Gap:** 0° (Edit button)
- Mode:** Stopped (Day)
- GPS:** Idle
- Temp:** N/A
- Version:** v4650-58
- Motor:** Idle
- Position:** 0,0°
- Sensor:** 0,0° (510)
- Azimuth:** -179,3°
- USB attached** (checkbox)
- Local time:** 10:04:41
- Solar time:** 08:36:47
- Azi:** -52,54

Shows if GPS is idle or
synching

Temperature sensor
reading (N/A=not used)

Software version number

Position sensor reading in
degrees. The value in
parentheses is the raw
sensor value between 0-
1024 which is translated to
degrees based on the
Position Noon/Morning/
Evening parameters.

Shows if USB cable is
attached or detached

Local time according to
computer

Local solar time
calculated from
computer time and
longitude parameter

Calculated solar
azimuth angle based
on local solar time and
latitude parameter

Heliocom control commands

The screenshot shows the Heliocom USB v0.98 application window. It is divided into several sections: Tracker settings, Control commands, Events, and a status bar. The Tracker settings section contains two columns of fields with 'Set' or 'Edit' buttons. The Control commands section has buttons for Resume, Restart, Sync, Boot, Test, and a numeric keypad with '<', '>', and 'Goto' buttons. The Events section is a text area showing logs. The status bar at the bottom displays 'USB attached', 'Local time', 'Solar time', and 'Azi'.

Tracker settings	
Solar Time:	00:01:45 [Set]
Date:	01.01.00
Latitude:	60.00° [Edit]
Longitude:	20.00° [Edit]
Temp Alarm:	300°C [Edit]
Moving Interval:	1.8° [Edit]
Service Timeout:	60 [Edit]
Service Count:	10 [Edit]
Position Noon:	512 [Edit]
Position Morning:	195 [Edit]
Position Evening:	870 [Edit]
Motor Power:	110 [Edit]
Motor Speed:	3 [Edit]
Gear Ratio:	279 [Edit]
Sensor Margin:	4° [Edit]
Sensor Gap:	0° [Edit]

Mode: Stopped (Day) | GPS: Idle | Temp: N/A | v4650-58

Control commands: [Resume] [Restart] [Sync] [Boot] [Test] [<] [] [>] [Goto]

Motor: Idle | Position: 00° | Sensor: 0,0° (510) | Azimuth: -179,3°

Events:

Heliocom is used to diagnose, configure and update Heliomotion solar trackers. To establish a connection attach a USB cable (Type-A Male to Type-A Male) between your laptop and the USB terminal located inside the connection box of your Heliomotion tracker.

[09:33] Connected to Heliomotion
[09:33] Device has stopped

USB attached | Local time: 10:04:41 | Solar time: 08:36:47 | Azi: -52,54

Used to toggle between automatic tracking (Resume) and manual control (Stop). Note that sending a movement command automatically switches to manual control. Sending a stop command can also abort a GPS synchronization (after ~5 seconds).

Rotate counter-clockwise

Number of degrees to rotate (0.2° – 90°)

Rotate clockwise

Move to position specified in field (-90° – 90°)

Restarts tracker. Same as toggling power supply

Performs a manual GPS synchronization

Disconnects from Heliocom and connects to bootload app. Used for software updates

Automatic factory test to get tracker specific values for position sensor parameters.