

Release the hounds and know what

they're up to with Astro™,

## Tall grass. Short dog. Game on.

the GPS-enabled dog tracking

system for hunters. Ready to go

right out of the box, the Astro system

will have you hunting in no time.

This unique system pinpoints your

dog's position every 5 seconds.

You will know if your dog is  
pointing, sitting, moving or treeing.

Where it's at. Where it's been.

How fast it's moving and  
how far it's gone.



**Navigation features**

Waypoints/icons:	1000 with name and graphic symbol, 10 nearest (automatic), 10 proximity
Routes:	50 reversible routes with up to 250 points each, plus MOB and TracBack® modes
Tracks:	10K automatic track log; 20 saved tracks 500 points each let you retrace your path in both directions
Trip computer:	Current speed, average speed, resetable max speed, trip timer and trip distance
Alarms:	Anchor drag, approach and arrival, off-course, proximity waypoint, shallow water and deep water
Tables:	Built-in celestial tables for best times to fish and hunt, sun and moon rise/set based on location
Map datums:	More than 100 plus user datum
Position format:	Lat/Lon, UTM/UPS, Maidenhead, MGRS, Loran TDs and other grids, including user UTM grid only

**GPS performance**

Receiver:	12 channel SiRFstar III™ high-sensitivity GPS receiver (WAAS-enabled) continuously tracks and uses up to 12 satellites to compute and update your position
Acquisition times:	
Warm:	< 1 sec
Cold:	< 38 sec
AutoLocate™:	< 45 sec
Update rate:	1/second, continuous
GPS accuracy:	
Position:	< 10 meters, typical*
Velocity:	.05 meter/sec steady state
DGPS (WAAS) accuracy:	
Position:	< 5 meters, typical
Velocity:	.05 meter/sec steady state
Protocol messages:	NMEA 0183 output protocol
Antenna:	Built-in quad helix receiving antenna

**Moving map features**

Basemap:	Detailed routable basemap with cities, highways, interstates, exit info, rivers, lakes; preloaded with worldwide cities
Uploadable maps:	Accepts downloaded or plug-in microSD map detail from a variety of optional MapSource media
Electronic compass feature:	

Accuracy: ±2 degrees with proper calibration (typical); ±5 degrees extreme northern and southern latitudes

Resolution: 1 degree

**altimeter feature**

Resolution:	1 foot
Range:	-2,000 to 30,000 feet
Elevation computer:	Current elevation, resetable minimum and maximum elevation, ascent/descent rate, total ascent/descent, average and maximum ascent/descent rate
Pressure:	Local pressure (mbar/inches HG)
Power	
Source:	2 "AA" batteries (not included)
Battery life:	24 hours
Physical	
Size:	2.25"W x 6.25"H x 1.25"D (without UHF antenna) 9.25"H with UHF antenna
Weight:	6.5 ounces (185 g) w/o batteries.
Display:	1.5 x 2.2 inches (38.1mm x 56mm) 256-color transflective TFT (160 x 240 pixels)
Case:	Waterproof to IPX7 standards
Temperature range:	-4°F to 158°F (-20°C to 70°C)

**MURS performance**

Frequencies:	151.82 MHZ 151.88 MHZ 151.94 MHZ 154.57 MHZ 154.60 MHZ
Range:	(5 miles line of site)
Trackable units:	Able to track up to ten DC 20 units simultaneously
Accessories	
Standard:	Belt clip USB PC interface cable MapSource® Trip & Waypoint Manager CD User's manual Quick reference guide Wrist strap

**Optional:**

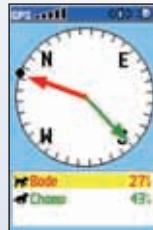
Automotive Navigation Kit (includes City Navigator™)
Automotive mount
Marine mount
Suction cup mount
Carrying case
12-volt adapter cable
Power/data cable
Magnetic mount antenna
Bike mount
Retractable tether



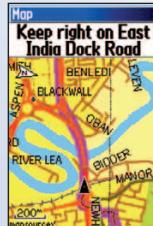
The Astro 220 series accepts downloaded map detail, including TOPO maps with elevation information.



The barometric altimeter feature on the Astro 220 provides elevation profiles for climbers and hikers.



The dog tracker page lets you see your dog's distance, bearing and status.



With enhanced street map detail from optional MapSource software, you can look up destinations and view automatic point-to-point routes.

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**GARMIN**™

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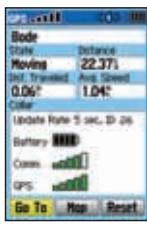
Specifications are preliminary and subject to change without notice.

\* Subject to accuracy degradation to 1000m 2DRMS under the U.S. Department of Defense Selective Availability Program.

\*\* These units are also able to transfer waypoints, routes and tracks between the PC and GPS using MapSource.™



Covey Counter™



dog information page



hunting specific waypoints