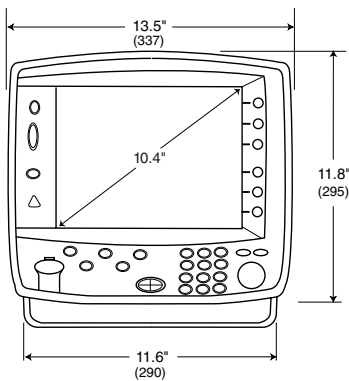
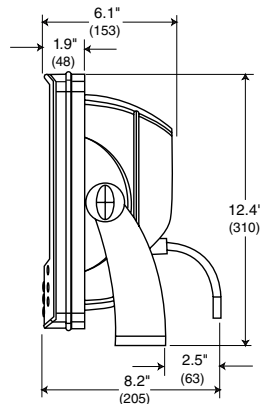


Northstar 958

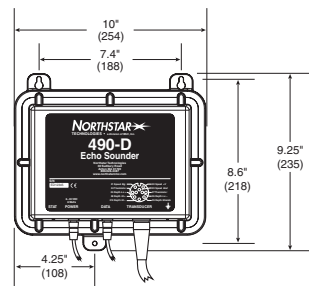
Color Integrated System



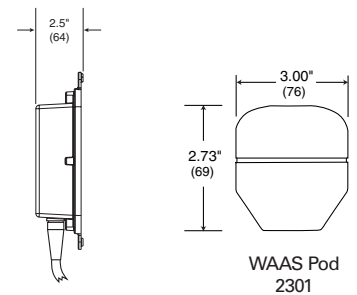
Control Head with Bracket
Front



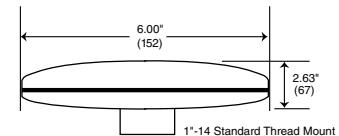
Control Head with Bracket
Side



Fish Finder, Top & Side



WAAS Pod
2301



Combination Antenna
AN-205P

SYSTEM FEATURES

GENERAL:

- Course up/north up/leg up
- NTSC Video in/VGA out
- Fully functional remote control (optional)
- Split screen fishfinder/chart/radar

CHARTING:

- Nav-Chart cartridges by Navionics™
- Scales from 4096nm to 1/8nm
- Displays chart data, vessel, waypoints, routes, tracks
- Built-in world-wide map to 64nm
- Instantaneous panning and zooming
- Fast cursor pointer

POSITION DATA:

- Lat/long (158 datums) or Loran TDs
- Phantom or Real Loran-CTDs
- GPS status screens

STEERING SCREENS:

- Large, graphical presentation
- Cross-track error traditional and 3-D
- Waypoint name, position
- Bearing and distance to waypoint
- Speed/Course-Over-Ground (SOG/COG)
- Estimated Time of Arrival (ETA)
- Estimated Time Enroute (ETE)
- Automatic magnetic variation

WAYPOINT & ROUTE MANAGEMENT:

- Enter waypoints graphically or numerically
- User-entered Avoidance Waypoints
- Stores up to 1,000 waypoints, 500 routes
- Stores 35 waypoints per route
- Edit/erase waypoints or routes graphically
- Plot any route with automatic chart scale selection

WAYPOINT NAVIGATION:

- "Point and Shoot" Navigation
- Navigate to coordinates, waypoints and along routes
- Save current position
- Follow stored routes forward or backwards

OTHER FUNCTIONS:

- Waypoint sharing between 958/957/952/951/941
- Color palettes: Normal, Hi Brite, Night
- Anchor watch
- Avoidance Area Alarm
- GPS clock
- Tidetrack™

INTERFACING

- Two bi-directional NMEA I/O ports, 1 aux port
- One bi-directional RS-232 port
- Waypoint upload/download capability from a PC
- Waypoint sharing between other Northstar systems
- NMEA output sentences: APB, BOD, BWC, GGA, GLC, GLL, GSA, GSV, LCD, HSC, MSS, RNN, RMC, RMA, RMB, VTG, WCV, XTE, ZDA, ZTG (Conforms to NMEA v 2.0 and later. Supports 1.5 GLL and BWC.)
- NTSC Video in/VGA out
- NMEA input sentences: WPL and others
- 200 PPNM speed output or ext. alarm output
- Honk output
- Accepts most external Loran receivers
- DGPS optional

958 PHYSICAL FEATURES/ENVIRONMENTAL

- Waterproof control head
- 10.4" diagonal color TFT LCD
- Unsurpassed direct sunlight viewability
- 640 x 480 pixel, backlit, high contrast, anti-reflective screen, color LCD
- Flush and yoke-mount standard
- Waterproof chart door
- Large, easy-to-use backlit controls
- Easy interfacing I/O plugs
- 10-36 volts DC power
- 0°C -55°C max 95% relative humidity, noncondensing

WAAS SPECIFICATIONS

- Self-contained 12-channel L1 GPS/WAAS Pod Antenna-Receiver
- 2-channel WAAS reception
- WAAS accuracy <2 meters 2dRMS
- 50' antenna cable standard
- 1" x 14" standard thread mast mounting
- Accepts SC104 data from beacon receiver

FISHFINDER SPECIFICATIONS (OPTIONAL)

GENERAL:

- Display Modes - Full-Screen/Split-Screen, Single/Dual Frequency, Bottom Lock, Bottom Zoom, Marker Zoom, A-Scope
- "SoundTrac" mark past echo as a waypoint
- Go directly to past echo
- A-Scope analyzes present or past echoes
- Auto Modes: Fishing or Cruising
- Navigation data shown at bottom of screen
- Frequencies: 50 and 200KHz
- Alarms: Fish, Seabed, Temperature
- Output Power: 1000W (600W optional)
- Pulse Lengths: 0.100 to 1 msec
- PRR: 30 to 600 pulses/min
- Update Rate: 10Hz max (depends on water depth)

SCREEN NOTATIONS:

- Seabed depth (various size digits)
- Speed, water temperature (if connected)
- Advance scale, depth marker
- Lat/Lon, TDs of position marker
- Alarm status, Auto/manual status
- Lat/Lon of vessel, distance/bearing and name of waypoint, steering indicator

MANUAL CONTROLS:

- Gain (0 - 75dB), Clutter (0 - 9), Signal Level (0 - 5)
- Noise Limiter (On/Off)
- White Level (background color)
- Screen color palette
- Range 2400 feet, 800 meters
- Shift, alarm parameters, depth & position markers
- Advance speed (1/8 to 2/1)
- Depth units (Feet, Meters, Fathoms)
- Installation calibrations: speed, temp, gain

TRANSDUCERS: (not supplied)

- Interfaces to Airmar B250, B44V, B744V and other manufacturers' equivalents. Check with Northstar for specific models

INTERFACING:

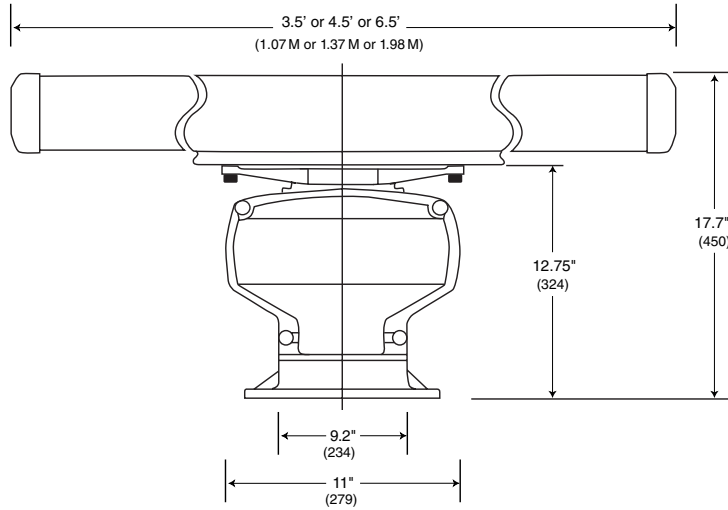
- Connects to Northstar 961/962/957
- Transducer outputs open/short circuit protected
- LED monitors input power and system status

PHYSICAL FEATURES/ENVIRONMENTAL:

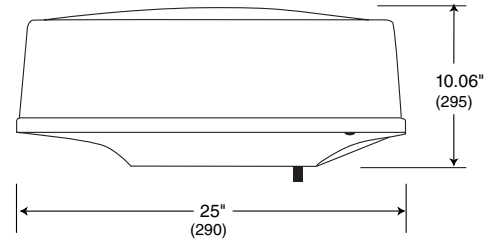
- Waterproof, sealed design
- 10-30 VDC, 8 watts. reverse polarity and overvoltage protected
- -25°C to +60°C operating temperature
- -55°C to +90°C storage

Northstar 958

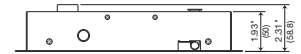
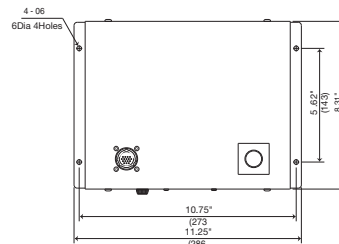
Radar Specifications



RAD4K 3.5-A RAD6K 4.5-A RAD12K 6.5-A
Open array antenna base size is the same.
Antenna arm varies in length by model.



RAD4KD-A Dome



Radar Controller Box

	RAD4KD-A	RAD4K 3.5-A	RAD6K 4.5-A	RAD12K-6.5-A
Scanner	25" Radome	3.5' Open Array	4.5' Open Array	6.5' Open Array
Peak Power Output	4kW	4kW	6kW	12kW
Frequency	9410 + 30 MHz	9410 + 30 MHz	9410 + 30 MHz	9410 + 30 MHz
Beam Widths				
Horizontal:	3.9°	2.5° / 1.8°	1.8° / 1.2°	1.8° / 1.2°
Vertical:	25°	22° / 22°	22° / 22°	22° / 22°
Rotation	24 RPM	24 RPM	24 RPM	24 RPM
Pulse Length (μ sec) / PRF (Hz)	S: 0.8/2000 M: 0.25/1500 L: 0.8/600	S: 0.8/2000 M: 0.25/1500 L: 0.8/600	S: 0.8/2000 M1: 0.3/1500 M2: 0.6/1000 L: 1.0/500	S: 0.8/2000 M1: 0.3/1500 M2: 0.6/1000
Temperature	-13° to 131° F (-25° to +55° C)	-13° to 131° F (-25° to +55° C)	-13° to 131° F (-25° to +55° C)	-13° to 131° F (-25° to +55° C)
Wind Velocity (relative)	100 knots	100 knots	100 knots	100 knots
Water Resistance	IPX5 (IEC529)	IPX5 (IEC529)	IPX5 (IEC529)	IPX5 (IEC529)
Presentation Mode	North/Leg-up, Course-up Overlay	North/Leg-up, Course-up Overlay	North/Leg-up, Course-up Overlay	North/Leg-up, Course-up Overlay
Range NM	36	48	64	72
Range Accuracy	Better than 8m or 0.9% of max. range of scale in use	Better than 8m or 0.9% of max. range of scale in use	Better than 8m or 0.9% of max. range of scale in use	Better than 8m or 0.9% of max. range of scale in use
Bearing Accuracy	Better than + 1°	Better than + 1°	Better than + 1°	Better than + 1°
Power				
Control Circuit	Control Box (MDS-21)	Control Box (MDS-22)	Control Box (MDS-31)	Control Box (MDS-32)
Power Requirements	10.1 ~ 40.1V DC/55W	10.1 ~ 40.1V DC/100W	10.1 ~ 40.1V DC/100W	10.1 ~ 40.1V DC/110W
Interface				
Communication Mode	RS—422 bi-directional		Transmission Speed	Up to 460kbs
Output	Radar image video by proprietary protocol input		Output	Radar control by proprietary protocol
Cable Length	33' (standard), longer cables available		Chart Formats	Passport, NDI, all major formats and aerial charts

Prices and specifications subject to change without notice.
Dimensions in inches (mm). Drawings not to scale.