

KVH®

TracVision® M-series

Enjoy satellite TV...wherever you go!



Product Guide

With the KVH TracVision M-series, enjoy satellite TV wherever you go!

There's only one way to enjoy home theatre-quality television wherever you cruise – satellite TV; and for the boat owner who insists on quality and reliability, there's only one way to get it – TracVision from KVH, the world's leading mobile satellite TV antenna systems. TracVision offers the best coverage and reception available today, along with a front row seat to hundreds of channels of crystal-clear, digital-quality TV entertainment, HDTV programming, commercial-free music, and more!

300+ channels

No matter where you travel, stay up to date on all of the latest news, weather, sports, and entertainment! With TracVision, you never have to miss out on your favorite programs, regardless of whether your vessel is at anchor or pounding through waves as you head for your next destination. That's because when you bring a TracVision on your boat, you are getting the world's most popular marine satellite TV system.

Boaters know that TracVision is the satellite TV system to trust when you want to enjoy the entertainment you love when relaxing on your boat. We've earned that trust through our innovative technology, easy operation, proven reliability, and worldwide sales and support. It's no wonder that U.S. Coast Guard crews rely on TracVision to stay in touch and entertained!

But don't just take our word for it. You'll hear the same thing from the more than 150,000 customers worldwide who have chosen KVH's mobile satellite antennas over the years! Just look around. In any harbor, anywhere around the world, you'll see the distinctive TracVision antennas with the gray baseplates installed on more boats than any other brand of satellite TV antenna.

Consumers, boat-builders, and marine electronics experts have made it clear – KVH is the undisputed leader in the marine satellite television market. We became the leader by putting our customers first and making their satisfaction our highest priority. But the real proof is in the products themselves. When you choose KVH, you choose the best.

"After 32 years in this business, I was firstly amazed at the performance, and secondly, it is probably the first time, ever, that a piece of equipment has actually performed BETTER than the manufacturer claimed!"

– Malcolm Threadgould
Eurotek Marine



Image courtesy of Fairline Boats plc

Award-winning products from KVH – the leader in mobile satellite TV antenna systems

KVH TracVision antennas aren't just good, they're the best marine satellite TV systems in the world according to the National Marine Electronics Association (NMEA), which has given TracVision the "Industry Award for Marine Entertainment" for the past 13 years in a row, and the international panel of judges who awarded TracVision the European Design Award METS (DAME) Prize in the marine electronics category.



Offering better coverage and superior reception

When it's time to relax or less-than-perfect weather sends you below deck, make sure you have the satellite TV system that delivers the channels you want, not the message, "SEARCHING FOR SATELLITE"! Every TracVision M-series system includes our exclusive RingFire™ technology, a breakthrough in ultra-high efficiency antenna design that provides outstanding reception and signal strengths comparable to competing, larger antennas. This means that you get the channels you want, whether you're heading farther offshore or stuck in extreme weather.

Along with RingFire, TracVision M-series antennas also provide:

- Unsurpassed High-Performance (HP™) tracking and superior offshore performance in even the most demanding conditions
- HDTV-ready systems for the best that TV has to offer*
- Positive satellite identification using integrated Digital Video Broadcast (DVB®) technology
- Reception of all leading satellite TV services around the globe for unmatched choices in entertainment
- Support for multiple TVs and receivers, so everyone onboard can enjoy the TV programs they want
- Completely automatic satellite switching with your remote – even with multi-satellite HDTV services like DISH Network's TurboHD**
- Proven, rugged and reliable designs for trouble-free operation in the demanding marine environment

* Ku-band services only. For Ka-band HD services, visit www.kvh.com/HD7

** Subscribers to DISH Network TurboHD programming may require KVH's Master Receiver Selector. Ask your dealer for details.

"Despite hard-over donuts at 22 knots – even accidentally getting sideways in a big wake that snap-rolled [the boat] so badly I almost fell down – the TracVision M3 stayed locked on to DIRECTV's main satellite no matter what, with video images that remained smooth running and crystal clear."

– excerpt from "TV on a 25-Footer?"

by Ben Ellison, Technical Editor, Power & Motoryacht



Image courtesy of Oyster Marine

A satellite TV solution for every type and size of boat

When choosing the right TracVision antenna for your boat, consider both your boat size as well as your cruising area. Satellite signal strength varies, so as you travel farther offshore or into remote areas, you may need a larger antenna to ensure consistent reception wherever you cruise. KVH's powerful TracVision antennas, powered by our exclusive RingFire technology, offer a wide range of coverage options and rock-solid performance wherever you cruise.



"I get a better picture with the TracVision M1 than my land-mounted DIRECTV. And the reception is almost as good as high-def on the flat screen TV. There are 80 boats at my marina and they are all jealous of my M1."

– Bob Ragolia, 28' O'Day, Barnegat Bay, NJ

TracVision M9 – *The ultimate in satellite TV reception; our most powerful antenna – for 80+ ft. vessels*



The powerful 32" TracVision M9 offers boats 80 ft. and longer a sleek look that matches today's streamlined vessel designs. With a built-in library of 70+ satellites, it will keep you entertained when cruising worldwide! Its innovative technical features include: integrated GPS, automatic, stabilized skew adjustment, a gyro-stabilized digital compass, and powerful RingFire technology. These innovations enable an antenna size that is 35% smaller than competing systems.

TracVision M7 – *The right solution when you want to head offshore – for 50+ ft. boats*



When you're out where the big boys play, the high-performance 24" TracVision M7 offers commercial-grade performance, rock-steady satellite TV reception, and an extended coverage area perfect for boats 50-80 ft. Make sure you're watching the big game when the other boats are left with the message "SEARCHING FOR SATELLITE" on their TV screen! Add KVH's exclusive **Tuna Tower Upgrade** for outstanding performance in even the most extreme conditions or choose the **new automatic skew option** (TracVision M7_{sk}) for the ultimate convenience when cruising around the globe.

TracVision M5 – *The best combination of small size and big performance – for 40+ ft. boats*



The TracVision M5 offers 30% greater reception and range than other 18" systems so you can enjoy satellite TV where no 18" marine satellite TV antenna system has ever worked before! The TracVision M5 offers outstanding, high-performance tracking and reception, ideal for 40-60 ft. boats. Add KVH's exclusive **Tuna Tower Upgrade** for outstanding performance in even the most extreme conditions.

TracVision M3 – *Small, Simple, Powerful . . . simplicity and elegance in motion – for 30+ ft. boats*










The award-winning 14.5" TracVision M3 is offered in two versions: the simple, yet powerful TracVision M3_{st} with its integrated 12V DIRECTV Mobile Receiver with RF remote, or the deluxe TracVision M3_{dx} with a Multi-service Interface Box/Controller for use with HDTV programming from DISH Network and Bell TV plus support for other satellite service providers. Small, attractive and ultra-quiet, both systems bring big boat performance to small boats!

TracVision M1 – *Big fun in a small package – for boats as small as 20 ft.*



At just 7.5 lbs, the award-winning 12.5" TracVision M1 is the world's lightest satellite TV system for boats. Select the original TracVision M1 with KVH's integrated 12V DIRECTV Mobile Receiver with RF remote, or the TracVision M1_{dx} with KVH's Multi-service Interface Box/Controller for reception of DISH Network service including TurboHD. Whichever version you choose, the TracVision M1 connects you to the programming you enjoy while offering a compact design, easy installation, rock-solid tracking, and in-motion performance while boating in the continental U.S. and its coastal waters.

Choose the TracVision satellite TV system that meets your needs:

	TracVision M9	TracVision M7	TracVision M5	TracVision M3 _{DX}	TracVision M3 _{ST}	TracVision M1	TracVision HD7
							
Antenna Dish Diameter	32" (82 cm)	24" (60 cm)	18" (45 cm)	14.5" (37 cm)	14.5" (37 cm)	12.5" (32 cm)	24" (60 cm)
Radome Diameter	35" (89 cm)	26" (66 cm)	19" (49 cm)	15.5" (39 cm)	15.5" (39 cm)	13.5" (34 cm)	26" (66 cm)
Radome Height	39" (99 cm)	27" (69 cm)	21" (53 cm)	17.5" (44 cm)	17.5" (44 cm)	13" (33 cm)	27" (69 cm)
Antenna Weight	85 lbs (38.5 kg)	55 lbs (25 kg)	30 lbs (13.6 kg)	19 lbs (8.6 kg)	19 lbs (8.6 kg)	7.5 lbs (3.4 kg)	61 lbs (27.6 kg)
Minimum EIRP*	43 dBW	46 dBW	48 dBW	50 dBW	50 dBW	51 dBW	46 dBW (Ku-band)
User Interface	Master Control Unit (MCU)	Master Control Panel (MCP)	Master Control Panel (MCP)	Multi-service Interface Box/ Controller	RF Remote Control & Integrated 12V DIRECTV Mobile Receiver	RF Remote Control & Integrated 12V DIRECTV Mobile Receiver**	IP-enabled Antenna Control Unit
Tracking Technology	High-Performance (HP™) tracking	High-Performance (HP™) tracking	High-Performance (HP™) tracking	Open water tracking	Open water tracking	Open water tracking	High-Performance (HP™) tracking
Tuna Tower Upgrade Available	Included	Yes	Yes	No	No	No	No
Tri-Americas LNB Compatible†	Yes	Yes	Yes	No	No	No	Yes (Ka-/Ku-band)
North American LNB KVH Part Number	Circular Dual 01-0282-01	Circular Dual 01-0287-21	Circular Dual 01-0286-21	Circular Dual 01-0279-04	Circular Dual (DIRECTV only) 01-0279-01	Circular Dual 01-0314-01	Ka-/Ku-band Circular Dual 01-0323-01
European LNB KVH Part Number†	Linear Universal Quad 01-0282-04	Linear Universal Quad†† 01-0287-24	Linear Dual/Linear Universal Quad 01-0286-22/01-0286-24	Linear Single 01-0279-02	N/A	N/A	N/A
Latin American LNB KVH Part Number†	Galaxy Circular Dual 01-0282-03	Galaxy Circular Dual 01-0287-23	Galaxy Circular Dual 01-0286-23	N/A	N/A	N/A	Ka-/Ku-band Tri-Americas 01-0323-03
Sky Mexico LNB KVH Part Number†	Sky Linear Dual 01-0282-05	Sky Linear Dual 01-0287-25	Sky Linear Dual 01-0286-25	Sky Linear Single 01-0279-05	N/A	N/A	N/A
MSRP (North American Model)	\$14,995	\$7,995	\$4,995	\$3,995	\$3,995	\$2,995	\$12,995

†Optional system configuration – contact KVH for details and pricing. ††Ask your dealer about the new TracVision M7_{SK} with linear LNB and automatic skew.

**TracVision M1_{DX} (DISH Network/DISH TurboHD version) with the Multi-service Interface Box/Controller available; see your dealer for details.

Prices and specifications subject to change without notice

Coverage Maps

- 43 dBW EIRP Antenna
TracVision M9
- 46 dBW EIRP Antenna
TracVision M7, HD7***
- 48 dBW EIRP Antenna
TracVision M5
- 50 dBW EIRP Antenna
TracVision M3_{DX}, M3_{ST}
- 51 dBW EIRP Antenna
TracVision M1, M1_{DX}

***Ku-band coverage only. For Ka-band, visit: www.kvh.com/HD7coverage

These maps are representative. For detailed information about the programming available from different service providers, visit: www.kvh.com/footprints



*KVH Industries does not have control over the programming or operation of the satellites or services that are covered in this document. The coverage maps for these satellites are provided as reference only and may change in the future or could be impacted by weather conditions. KVH provides no guarantees of satellite coverage, satellite availability, programming available on any specific satellite service, or compatibility of the TracVision system with new satellites that may be launched in the future. Please note that all Minimum EIRP values are average approximate figures that may vary according to actual transponder frequency and location.

Powerful options and accessories to accompany your TracVision M-series antenna system –

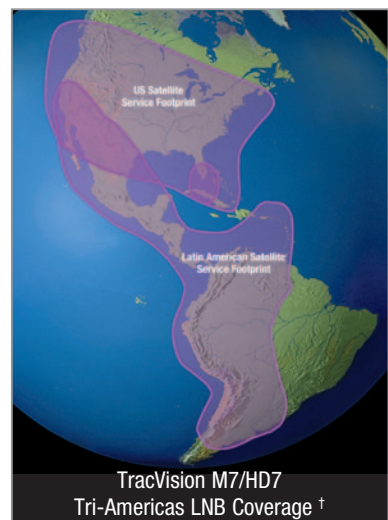
KVH's Tri-Americas® LNB – the ultimate coverage and convenience throughout the Americas

Imagine summering along the North American coast, enjoying your favorite programs from DIRECTV, DISH Network, or Bell TV, and then making your way south for the winter through Central and South America, while seamlessly switching to DIRECTV Latin America programming – all without ever having to change any antenna hardware. This convenience is now a reality with KVH's dual-band Tri-Americas LNB, which makes switching between North and South American TV services as easy as flipping a switch.

The exclusive Tri-Americas LNB is available as an option for all new KVH TracVision M5, M7, and M9 satellite TV systems.* Furthermore, the new TracVision HD7 is also available with an exclusive Ka-/Ku-band Tri-Americas LNB option. These systems allow boaters who routinely travel among the Americas to switch between DIRECTV, DISH Network, and Bell TV service when they are in North America and DIRECTV Latin America service when they travel to Central and South America just by using a different receiver! You rely on your boat to take you to exciting ports of call all through the Americas. Now rely on your TracVision to bring your favorite satellite TV entertainment along with the utmost convenience!

* Also available as a retrofit for any TracVision M5, M7 or M9 system. Visit www.kvh.com or see your local KVH dealer for details.

† Visit www.kvh.com/footprint for TracVision M5, M7, HD7, and M9 Tri-Americas LNB coverage maps.



KVH's new Master Receiver Selector – unmatched control for multi-receiver installations and DISH HD



KVH's Master Receiver Selector is our exclusive, enhanced multiswitch, for use with DIRECTV, DISH Network, and Bell TV. Enjoy support for multiple receivers and TVs along with the convenience of choosing which receiver will be the "master" capable of switching satellites. Plus, it is a "must-have" accessory if you plan to enjoy DISH Network's TurboHD programming in the western United States and the waters offshore via the EchoStar 129° W satellite.

KVH's Tuna Tower Upgrade – taking high performance to new heights!

All TracVision M-series antennas offer outstanding tracking and uninterrupted satellite TV in virtually any sea condition. But what about for the boaters who need a bit more; the ones who take their boat to the edge in search of the big one; the boaters with the high-performance sportfisher and a tuna tower?

Before you head after that marlin and push the throttle into the red, make sure to add the extra power offered by KVH's **Tuna Tower Upgrade** to your TracVision M5 or M7. This rugged gyro-stabilized digital compass not only allows your TracVision to find the satellite faster at startup, but also keeps the antenna locked onto the satellite as the boat slams through rough seas at 40 knots, sending 12G shocks through the tuna tower and your TracVision. It also offers precision heading data to your other onboard systems for added accuracy and reliability. No matter how fast you go, your TracVision will always bring your favorite entertainment along for the ride.

"We had the TracVision on a 65-footer and I swear the thing was bulletproof! We've been out in 10- to 12-foot waves and are still able to watch television!"

*Captain S. Pearson
Florida Sportfish Captain*



Introducing TracVision HD7 – a new definition in satellite TV at sea for DIRECTV customers

KVH TracVision M-series satellite TV systems are the most reliable and versatile satellite TV systems available, supporting DIRECTV as well as HDTV broadcasts from DISH Network and Bell TV in North America and service providers around the globe. But what if you want to enjoy DIRECTV's HDTV programming, now broadcast from its new Ka-band satellites? It's easy! Just turn to the newest member of the TracVision family, the revolutionary TracVision HD7.

Equipped with KVH's TriAD™ antenna technology (patents pending), the 24" TracVision HD7 offers an HDTV experience exactly like you enjoy at home as it receives signals from satellites in three orbital locations simultaneously and offers complete compatibility with home DVRs. Using the TracVision HD7 is also a snap thanks to KVH's exclusive IP-enabled antenna control unit and its Ethernet and WiFi capabilities. With it, you have complete control via any web-enabled device such as your laptop, iPhone® or iPod® touch (courtesy of KVH's free TracVision iPhone app).

For complete details about the TracVision HD7 and its support for DIRECTV's HDTV programming as well as adding the optional KVH Tri-Americas LNB, visit www.kvh.com/HD7 or contact your authorized KVH dealer.




KVH TracVision and TracPhone® – Keeping Track of Your World!


KVH offers a complete line of Inmarsat communications systems – as well as the groundbreaking TracPhone V7, powered by KVH's exclusive mini-VSAT Broadband™ service. Whether you need a super-reliable phone that you can count on to work in almost any sea condition, anywhere in the world, or the best mobile broadband connections available, KVH has the TracPhone system and airtime packages for you! For complete information on KVH's TracPhone systems - nine-time NMEA award winners, visit www.tracphone.com or ask your dealer for a TracPhone brochure.




System Diagrams/Technical Specifications




M9 User Interface




Master Control Unit (MCU)
User-friendly system set-up, monitoring, and diagnostics.




M7 & M5 User Interface




Master Control Panel (MCP)
User-friendly system set-up, monitoring, and diagnostics.




M3DX & M1DX User Interface




Multi-service Interface Box/Controller
User-friendly system set-up, monitoring, and diagnostics.




M3ST & M1 User Interface



Integrated Mobile Receiver
12V DIRECTV® receiver with RF remote control and system status LEDs – exclusive onscreen system set-up, monitoring & diagnostics.



HD7 User Interface



IP-enabled Antenna Control Unit
Easy system setup and control via web browser or iPhone app.

Tuna Tower Upgrade - for M5 and M7



GyroTrac™

Options purchased separately

Master Receiver Selector



Antenna System	TracVision M9	TracVision M7	TracVision M5	TracVision M3dx/M3st	TracVision M1/M1dx	TracVision HD7
Power:	24-30 VDC 2.5 amps (continuous)	12-16 VDC 3 amps nominal 4 amps peak	12-16 VDC 3 amps nominal 3.5 amps peak	10-16 VDC 2.5 amps nominal 4 amps peak	10-16 VDC 2.5 amps nominal 4 amps peak	100-240 VAC 60 watts nominal 70 watts peak
Minimum EIRP:	43 dBW	46 dBW	48 dBW	50 dBW	51 dBW	46 dBW (Ku-band)
Elevation Range:	-15° to +80°	+10° to +80°	+15° to +80°	+10° to +80°	+20° to +70°	+15° to +75°
Azimuth Range:	720°	720°	720°	Continuous	Continuous	720°
Skew Control:	Automatic	Manual or Automatic	Manual	Manual	N/A	Stabilized (tilt)
Antenna Dimensions:	35" dia x 39" h (89 cm x 99 cm)	26.2" dia x 27.4" h (66.5 cm x 69.6 cm)	19.2" dia x 21" h (49 cm x 53.3 cm)	15.5" dia x 17.5" h (39 cm x 44 cm)	13.5" dia x 13" h (34.3 cm x 33 cm)	26.2" dia x 27.4" h (66.5 cm x 69.6 cm)
Antenna Weight:	85 lbs (38.5 kg)	55 lbs (25 kg)	30 lbs (13.6 kg)	19 lbs (8.62 kg)	7.5 lbs (3.4 kg)	61 lbs (27.6 kg)
Antenna Dish Diameter:	32" (81.3 cm)	24" (61 cm)	18" (45.7 cm)	14.5" (37 cm)	12.5" (32 cm)	24" (61 cm)
LNB Options (polarization/output):	Circular Dual Linear Dual Linear Universal Quad	Circular Dual Linear Dual Linear Universal Quad*	Circular Dual Linear Dual Linear Universal Quad	Circular Dual Linear Single	Circular Dual	Ka-/Ku-band Circular Dual Tri-Americas
Power/Data Cables:	100' (30 m) – Single Cable	100' (30 m) – 2 Cables	50' (15 m) – 2 Cables	50' (15 m) – Single Cable RG6 Coaxial Power/RF Cable	50' (15 m) – Single Cable RG6 Coaxial Power/RF Cable	100' (30 m) – 2 Cables
RF Cable:	Customer-supplied	100' (30 m) – RG11 Coaxial	50' (15 m) – RG6 Coaxial			100' (30 m) – RG6 Coaxial
Operating Temperature:	-13°F to +130°F (-25°C to +55°C)	-13°F to +130°F (-25°C to +55°C)	-13°F to +130°F (-25°C to +55°C)	-13°F to +130°F (-25°C to +55°C)	-4°F to +130°F (-20°C to +55°C)	-13°F to +140°F (-25°C to +65°C)
Storage Temperature:	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-31°F to +158°F (-35°C to +70°C)	-31°F to +158°F (-35°C to +70°C)
Warranty:	2 Years Parts, 1 Year Labor	2 Years Parts, 1 Year Labor	2 Years Parts, 1 Year Labor	2 Years Parts, 1 Year Labor	2 Years Parts, 1 Year Labor	2 Years Parts, 1 Year Labor
Satellite Coverage Regions: for details, visit: www.kvhi.com/footprint	Worldwide	Worldwide	Worldwide	Worldwide / United States (M3dx) (M3st)	Continental U.S.	The Americas

* TracVision M7sk available with linear LNB & automatic skew; see your dealer for details.

User Interfaces			
Master Control Unit for TracVision M9		Multi-service Interface Box/Controller for TracVision M3dx & M1dx	
Dimensions	7.3"(d) x 8.2"(w) x 2.6"(h) (18.5 x 20.8 x 6.6 cm)	Dimensions	9"(d) x 11"(w) x 2.6"(h) (22.9 x 28 x 6.6 cm)
System Weight	4.9 lbs (2.2 kg)	System Weight	4 lbs (1.8 kg)
Master Control Panel for TracVision M7 and M5		Integrated 12V DIRECTV Mobile Receiver with RF Remote Control for TracVision M3st & M1	
Dimensions	3"(d) x 8.2"(w) x 2.6"(h) (7.6 x 20.8 x 6.6 cm)	Dimensions	9"(d) x 11"(w) x 2.6"(h) (22.9 x 28 x 6.6 cm)
System Weight	1.5 lb (0.7 kg)	System Weight	3.6 lbs (1.6 kg)
IP ACU for TracVision HD7			
Dimensions	11.3"(d) x 16.7"(w) x 2.6"(h) (28.7 x 42.4 x 6.6 cm)		
System Weight	5 lbs (2.3 kg)		

Meets FCC and CE requirements.
Meets Inmarsat operational, survival, and shock specifications.



KVH – the Leader in Mobile Satellite Television



KVH Industries is the world's leading provider of mobile satellite communications and television antenna systems. Serving the marine industry since 1982, and with more than 150,000 mobile satellite antennas sold, KVH supplies more in-motion satellite TV and communications systems for mobile applications than any other manufacturer in the world. Tens of thousands of boat, RV, motorcoach, and automobile owners enjoy digital-quality television programming thanks to KVH's diverse family of award-winning TracVision antennas.



In the marine market, KVH's TracVision family offers powerful, rugged designs ideal for the demanding maritime environment. With systems ideal for virtually any vessel size, KVH's TracVision satellite TV antennas offer unmatched performance whether you are anchored for the evening or cruising through rough seas.

In the recreational vehicle market, our TracVision antennas offer outstanding reception and an aerodynamic design that sheds moisture, ensuring optimal signal strength and reception. That is why KVH TracVision systems are the preferred antenna of virtually all of the top RV manufacturers in North America.

And in the automotive market, KVH's award-winning, ultra-low-profile TracVision A7 has set a new standard for in-car entertainment by connecting KVH customers throughout the continental United States to more than 185 channels of DIRECTV service, including local network programming and local channels.



Unsurpassed Warranty and Technical Support

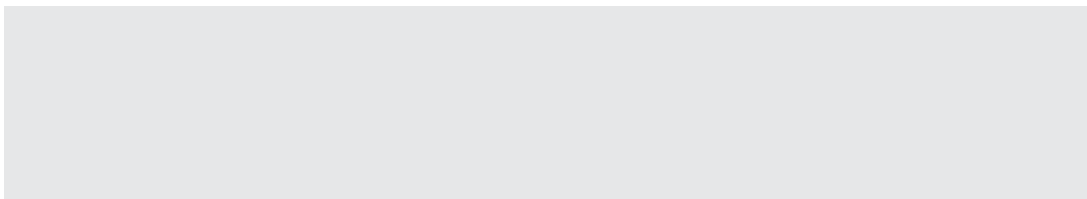


KVH's commitment to quality is seen in the company's award-winning products as well as an array of options that provide global product support to every customer. Wherever you travel, whatever KVH product you own, you can be certain to receive outstanding support and service through KVH's product and customer support programs. An ISO 9001:2008-certified organization, KVH meets the highest international standards for quality.

KVH customers enjoy a 24/7 online support and troubleshooting system; a responsive, international KVH support team; a broad-based network of authorized dealers; and the KVH Certified Support Network (CSN).

KVH's CSN offers all KVH TracVision and TracPhone customers outstanding technical support. With a network of highly skilled and trained dealers and support centers worldwide, the CSN ensures the quick and efficient world-class service customers have come to expect from KVH Industries.

Visit www.tracvision.com



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