

Catalog • November 1994





High Performance Heritage

Since 1965, the Larsen name has meant performance in professional antennas. It also stands for "Golden Rule" service: treat the customer how *you* would like to be treated. Today, Larsen Electronics produces more than 1,000 antenna models from 27 MHz to 2+ GHz for the most demanding international, commercial and amateur applications.

Why Buy A Larsen Kulduckie?

A Larsen KD is the finest value in a portable antenna. Not only does it have outstanding transmit range and durable construction at an excellent price, it's backed with Larsen's 3-Year, No-Nonsense Warranty (see information below). Here are just a few great reasons to purchase a KD antenna:

Greater Transmit Range:

- Copper/brass radiators
- Scope tuned to exact frequency
- 1.5:1 or less VSWR

Precision Production:

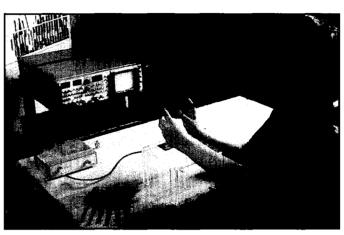
- Fully soldered construction
- Automated plastisol dip process
- Injection molded housings
- Consistent cosmetics
- Silver-plated contact pins
- Double spring BNCs

Complete Manufacturing:

- LMR, SMR and Amateur applications
- Multiple connector types

Golden Rule Service:

- On-line technical support
- Fast production and delivery
- 3-Year, No-Nonsense Warranty



Precision production and tuning ensures maximum transmit range.



Automated plastisol dip process provides exceptional consistency in the final product.

Kulduckie Specifications

Larsen portable antennas meet the following unless stated otherwise.

- Impedance 50 ohms
- Gain Unity

- Power 25 watts
- VSWR- 1.5:1 or less

No-Nonsense Warranty[™]

Larsen will repair or replace, without charge, any Larsen antenna which fails within three years of the purchase date. Larsen will not be responsible for any incidental or consequential damages due to the failure of the antenna under this warranty or any implied warranty. This exclusion may not apply in all areas of the USA or Canada.

In the application of its "No-Nonsense Warranty" it is the intent of Larsen to always use the yardstick of the Golden Rule. Contact the factory for customer service under warranty.

Radio Antenna Reference Chart (SEE MODELS ON PAGES 6-7)

Radio Mount Brand	Larsen Model Number	RADIO MOUNT Brand	Larsen Model Number	
■ Motorola HT, 200 & 220, MT MH, MX600 ■ Uniden	KD1, KD11	■BNC MALE for all equipment requiring BNC	BNCQ, KD4 and KD14	
■ Motorola MX, HT10, HT50, HT600, MT1000, P10, P50, P100, ■ EXPO ■ Wilson MH200 ■ Radius	KD2, KD12	■ Repco RPX, ■ Johnson 615-618 & 516-518 ■ Aerotron ■ Federal ■ RCA	KD10, KD20	
■ Saber		Motorola MX360, STX, MTX800	KD25	
■ TNC MALE for all equipment requiring TNC, SPEAKER, MIC.	TNCQ, KD3 and KD13	HT1000, MT2000, MTX8000, MTX9000 • Visar		
■ RCA TAC-TEC ■ Standard Electra/Bearcat ■ King	KD7	■ EF Johnson 8790 ■ Kenwood TK430 ■ King ■ Uniden	KD26	
■ Pace/Pathcom, most Portamobiles, and other equipment requiring PL 259	PQ, KD9 and KD19	GE Marc V STS Technophone	KD28	

Frequency/Color Cap

Match the antenna frequency by the color circle applied to the antenna cap.

VHF				UHF	_
Blue	136-161	Orange	220	Orange	406-420
Green	142-149	White	150/450	Yellow	450-469
Yellow	150-161	Black	2/70	Green	470-512
Red	162-174			White	150/450

Mag Mount Adapter

Larsen offers a magnetic mount for BNC portable antennas. This allows the antenna to be mounted outside the vehicle for improved performance. Connect the Kūlduckie Antenna to the mag mount, place on the roof of the vehicle and connect the coax (with BNC) to the radio. Premium strength mag mount measures 3.5" x 1" and weighs 14 ounces. Comes with 12' RG-58 A/U coax.

How To Order

- **1.** Simply request the antenna type to match the radio brand.
- 2. Tunable antennas come with cutting chart.
- **3.** Those models with "FREQ" in the title are to be factory tuned. Give your desired frequency center point and Larsen will scope tune to your exact frequency.

Full Line Information

For information on the full range of Larsen Antenna products (mobile, base, on-glass), contact your distributor, local Larsen sales representative or the factory office.

Kulduckie Portable Antenna Styles

HELICAL (VHF. UHF. 800)

A double layer of special low dielectric loss, heat-shrinkable tubing protects radiating element from outer PVC coating to minimize dielectric losses.

Highly efficient copper-plated radiating element uses power to communicate, unlike nonplated elements that have high resistivity to RF energy and cause dielectric losses

Soldered electrical connection is covered with a copper jacket and then flooded with solder to give double protection at the point of maximum

A silver-plated pin or durable plated brass connection provides long life.

Approximate length: 8" for VHF, 3" for UHF

HO (VHF)

Brass wound flexible shaft core provides flexibility and strength.

Attractive PVC finish. PVC provides the shiny, even coating that is so desirable on portable antennas.

Low dielectric loss polyolefin. Low loss material protects the helix from higher loss PVC material.

Copper-plated highstrength steel provides a high conductivity surface for minimum RF loss

Soldered electrical connection is covered with a copper jacket and then flooded with solder, providing double protection at point of maximum mechanical stress

A silver-plated pin or durable plated brass connection provides long life.

Approximate length: 9-1/2"

HW (VHF)

Collapsible chrome radiating element, internally shorted collapsing joints provide good performance and an attractive finish

Sturdy polycarbonate transformer housing. Coil cannot flex and change frequency.

Air wound impedance transformer provides higher Q and deeper resonance.

Approximate length: 11" collapsed, 44-1/2" fully extended.



Brass wound flexible shaft core provides flexibility and strength

Fully soldered for long life. Some manufacturers just crimp the element.

Sturdy polycarbonate transformer housing. Coil cannot flex and change frequency.

Air wound impedence transformer provides higher Q and deeper resonance

Silver-plated steel contact-steel for strength, silver for high conductivityprovides less loss and greater wear.

Approximate length: 16-1/2"



STOUT (VHF, 800)

Attractive PVC finish. PVC provides the shiny, even coating that is so desirable on portable antennas.



1/4 WAVE **(UHF, 800)**

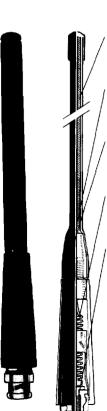
Attractive PVC finish. PVC provides the shiny, even coating that is so desirable on portable antennas.

Brass wound for flexibility and strength.

Fully soldered for long life. Some manufacturers just crimp the element.

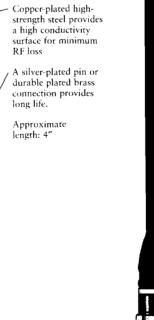
A silver-plated pin or durable plated brass connection provides long life.

Approximate length: 6"



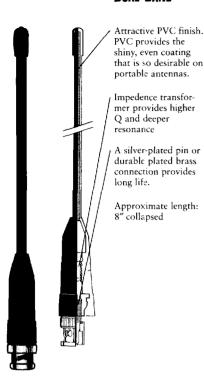






Külduckie Portable Antenna Styles

DUAL BAND



Q-1/4 WAVE

Flexible 17-7 ph stainless steel rod provides extra durability.

Helical (VHF, UHF)

The most commonly used style is available in the widest range of frequencies, 136-512 MHz. Helical antennas are wound with .050" steel wire and jacketed with copper plating. Coverings include polyolefin for low dielectric loss and an outer wrap of PVC for rugged wear.

HQ-Helical 1/4 Wave (VHF)

For VHF applications requiring peak performance in the 136-222 MHz range while tolerating a length slightly longer than helical types. It has a lower helical section with the upper element made from brass wound cable with a flexible shaft core to prevent breakage. Operates as a loaded 1/4 wave.

HW 1/2 Wave (VHF, UHF, 800)

For maximum performance, the HW series is unmatched. It employs a resonant 1/2 wave design that allows it to operate independently of ground plane, and generates performance equal to a full 1/4 wave on a perfect ground plane. The rigid impedance transformer at the base contributes to optimum performance and adds extra strength. The HW-VHF model features a telescoping whip. The HW-UHF model features a 1/2 wave whip with construction similar to the 1/4 wave model.

Stout Helical (VHF, 800)

The slightly wider diameter and closer pitch of this helical type produces a short antenna. This style comes in VHF frequencies of 136-174 MHz and SMR frequencies of 806-866. It is made with the same high quality materials as the standard helical.

1/4 Wave (UHF, 800)

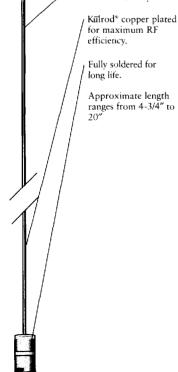
The full 1/4 wave style is a high performance antenna for UHF ranges of 406-512 MHz. It's constructed with a flexible steel core and electrically efficient brass wound cable. This special, flexible cable design assures excellence and durability under the most demanding conditions.

Dual Band (VHF, UHF)

Dual band Kūlduckie Portable Antennas offer superb performance for dual band handheld radios. The antennas operate as a full 1/4 wave at UHF and a loaded 1/4 wave at VHF. Construction elements include a brass wound steel flexible core radiating element. The loading coils are housed in sturdy polycarbonate plastic for long life.

Q-1/4 Wave (Low, VHF, UHF)

A simple and efficient design, these antennas are usually applied to portable or special purpose transceivers. Models cover from 52 to 512 MHz with cutting chart and Allen wrench supplied. Straight rod 17-7 stainless steel with Kulrod plating. Rods can mount at 90° angle on connector. Handles 200 watts.



Portable Models

Model Number	Frequency Range (MHz)	ELECTRICAL Type	Mount Description	
KD1 FREQ KD1 FREQ HQ KD1 FREQ ST	136-222, 406-512 136-222 136-174	Helical HQ helical 1/4 wave Stout helical	5/16"-32 thds x 1/2" Motorola HT, 200 & 220, MT, MH, MT500, MX600, Uniden. Insulated base.	(1)1)1)1)
KD2 FREQ KD2 FREQ HQ KD2 FREQ ST	136-222, 406-512 136-222 136-174	Helical HQ helical 1/4 wave Stout helical	1/4"-32 thds x 3/16" Motorola MX, HT10, HT50, HT600, MT1000, P10, P50, P100, Expo, Wilson MH200, Radius, Saber.	m)
TNCQ KD3 FREQ KD3 FREQ HQ KD3 FREQ ST KD3 2/70 KD3 150/450	136-512 136-222, 406-512 136-222 136-174 144-148, 440-450 150-159, 450-460	1/4 wave Helical HQ helical 1/4 wave Stout helical Loaded 1/4 wave at VHF & 1/4 wave at UHF	TNC male. Equipment requiring TNC.	
BNCQ KD4 FREQ KD4 FREQ HQ KD4 FREQ ST KD4 M FREQ KD4 150T KD4 450T KD4 2/70 KD4 150/450	136-512 136-222, 406-512 136-222 136-174 136-174 130-180 395-512 144-148, 440-450 150-159, 450-460	1/4 WAVE Helical HQ helical 1/4 wave Stout helical Helical molded Helical Helical Loaded 1/4 wave at VHF & 1/4 wave at UHF	BNC male. Equipment requiring BNC. (Larsen BNC connector has exclusive double spring to reduce wear in female contact.)	
KD7 FREQ KD7 FREQ HQ KD7 FREQ ST	136-222, 406-512 136-222 136-174	Helical HQ helical 1/4 wave Stout helical	5/16"-32 thds x 3/8" RCA TAC-TEC, Standard Electra/Bearcat, King.	
PQ KD9 FREQ KD9 FREQ HQ KD9 FREQ ST	144-512 136-222, 406-512 136-222 136-174	1/4 wave Helical HQ helical 1/4 wave Stout helical	PL 259 male Pace/Pathcom, most Portamobiles and other equipment requiring PL 259.	
KD10 FREQ KD10 FREQ HQ KD10 FREQ ST	136-222, 406-512 136-222 136-174	Helical HQ helical 1/4 wave Stout helical	1/4"-28 thds x 1" Repco RPX, Johnson 615-618 & 516- 518, Aerotron, Federal, RCA low band.	
KD11 FREQ	406-512	1/4 wave	5/16"-32 thds x 1/2" Motorola HT, 200 & 220, MT, MH, MT500, MX600, Uniden. Insulated base.	

Portable Models

Model Number	Frequency Range (MHz)	ELECTRICAL Type	Mount Description	
KD12 M FREQ KD12 FREQ	406-512 406-512	1/4 wave molded 1/4 wave	1/4"-32 thds x 3/16" Motorola MX, HT10, HT50, HT600, MT1000, P10, P50, P100, EXPO, Wilson MH200, Radius, Saber.	D
KD13 2M HW KD13 406 HW KD13 450 HW KD13 M 806 KD13 FREQ KD13 FREQ HW	144-155 390-415 448-467 806-866 406-512 406-512	HW 1/2 wave (collapsible) HW 1/2 wave HW 1/2 wave Helical molded 1/4 wave HW 1/2 wave	TNC male. Equipment requiring TNC.	
KD14 2M HW KD14 406 HW KD14 450 HW KD14 M 806 KD14 FREQ KD14 FREQ HW	144-155 390-415 448-467 806-866 406-512 406-512	HW 1/2 wave (collapsible) HW 1/2 wave HW 1/2 wave Helical molded 1/4 wave HW 1/2 wave	BNC male. Equipment requiring BNC. (Larsen BNC connector has exclusive double spring to reduce wear in female contact.)	
KD19 FREQ	406-512	1/4 wave	PL 259 male Pace/Pathcom, most Portamobiles and other equipment requiring PL 259.	
KD20 FREQ	406-512	1/4 wave	1/4"-28 thds x 1" Repco RPX, Johnson 615-618 & 516- 518, Aerotron, Federal, RCA low band.	
KD25 M 806 KD25 M 806 ST KD25 M 806 HW	806-866 806-866 806-866	Helical molded Stout helical, molded HW 1/2 wave, molded	SMA Female Motorola MX360, STX, MTX800, HT1000, MT2000, MTX8000, MTX9000, Visar	Н
KD26 M 806 KD26 M 806 ST KD26 M 806 HW	806-866 806-866 806-866	Helical molded Stout helical, molded HW 1/2 wave, molded	SMA Female EF Johnson 8790, Kenwood TK430, King, Uniden	
KD27 M 806 ST KD27 M 806 HW	806-866 806-866	Stout helical, molded 1/2 wave, molded	SMA Male GE Marc V, STS, Technophone	

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Available From:

