



OTTO
COMMUNICATIONS[®]

A World of Sound Ideas

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Publication 2001-02

racing communication system



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3



complete racing system

car harness & ptt/
helmet harness & earphone



5

7




radios

remote antennas / ClearTrak headsets



9

racing commun



OTTO worked closely with the Bettenhausen Cart Team, ProOne Motorsports Academy/ ProOne Formula Mazda Race Team, Fiore Motosports (IHRA Pro-Comp) and Trackside Communications (GT1/GT2 & Karting) during the development of this product line. Our communications system has race proven performance in open wheel, sedan, drag racing and karting applications. Drivers, crew and spotters benefit from immediate communication of changing track conditions, competitive position and mechanical problems. Accident avoidance is one of the primary benefits. The ability of a spotter to direct a driver to a clear line can improve safety and provide a competitive advantage. Convenient pre- and post race communications with family members, sponsors and friends is a side benefit. We have developed systems specifically suited for multi-car teams and racing schools which allow in pre-programmed systems tailored for the race school instruction environment. OTTO's headset and earphone options allow everyone from instructors, corner workers, Emergency Medical Technicians and security personnel to communicate safely and effectively. We have had success in everything from F1 to Karting. We are currently developing a system specifically for NASCAR.

OTTO is one of the largest manufacturers of two radio accessories in the world with a 200,000 square foot facility, comprehensive design, testing and fabrication capabilities. We are vertically integrated and produce our own cable assemblies, injection molded, CNC machined and die stamped components. All of our products are tested on state of the art Audio Precision test equipment. We also have extensive environmental testing capabilities including thermal cycling, thermal shock, humidity, driven rain, mechanical shock, vibration, cable pull and cable flex.

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3



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racing communication system

OTTO Communications provides a complete system to allow a driver, crew and spotters to communicate with each other. Our racing experience is validated by the fact that every winning F1 car this year carried OTTO products across the finish line. Our systems include car harnesses to connect the radio, steering wheel PTT and helmet harness. Our PTT switches (produced by OTTO Controls) are military grade, fully sealed and provide excellent tactile response. We offer pre-drilled PTT mounting brackets compatible with any 2" bolt pattern quick release hub as well as generic blank brackets. Our helmet harness provides a quick disconnect to the car harness and includes a state of the art noise canceling boom mic developed by OTTO Communications. OTTO's unique earphone kit provides clear communications to both ears as well as up to 25db of ambient noise reduction. To ensure coverage at difficult tracks we also offer car mounted antenna kits including ground plane, mounting hardware and cable with radio connector as well as base station antennas. OTTO's ClearTrak crew headsets also include our industry leading noise-canceling microphone. We provide a variety of earphone kits and lightweight headset options for fuelers, spotters and track officials. OTTO offers several tiers of radios including fully programmable radios and radio systems developed specifically for racing schools and multi-car teams.

- A. Kenwood Radios
- B. Car Harness
- C. Helmet Harness with Boom Mic
- D. Earphone Kit
- E. PTT Mounting Bracket
- F. Coil Cord PTT

complete racing system

"When Pro-One needed a system that would cater to the needs of our Racing School, we turned to OTTO Communications. OTTO didn't just give us an "off the shelf" racing system, but worked with us and ultimately developed a system that allows instructors in a pace car or on pit lane to talk to the students collectively or individually. The choice rests with the instructor and the students don't have to worry about switching channels, but just listening. The equipment is some of the most sophisticated in the world, and the transmission/reception quality is unparalleled, no matter which track you are at."

Fabio Castellani, Chief Instructor, Pro-One Motorsports Academy

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5



& ptt / helmet harness & earphone car harness & ptt / helmet harness & earphone car harness & ptt / helmet harness & earphone

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Car Harness & PTT Assembly

The Car Harness Kit is a three cable assembly consisting of a radio side connector, PTT cable with a quick disconnect and a helmet harness with a standard Nexus connector. The harness is made with Kevlar cable for added durability. The Car Harness can easily be routed through any Formula or Sedan style cars. The small junction box can be mounted to any flat clean service with a velcro patch.

The PTT switch harness and mounting bracket are designed to be used with most quick release hubs. The bracket is pre drilled for a 2" bolt circle. If you require a different mounting pattern, undrilled brackets are available from OTTO. The bracket is designed to mount between the steering wheel and the hub. The mounting pattern will allow the switches to be mounted above or below the steering wheel center. The PTT switch assembly may be mounted to either hole. Additional switches are available from OTTO to control other functions such as data acquisition or speed limiter. The coiled cord can easily be routed around the steering column and the connector mated to the PTT car harness connector.

Helmet Harness & Earphone Kits

The OTTO helmet harness is designed for installation into full-faced helmets. OTTO has designed a unique earphone system which uses a high output transducer (250 Ohm) to deliver audio to both ears through dual acoustic tubes with noise attenuating foam plugs. The foam plugs reduce the amount of noise by as much as 25db and pipe the radio signal directly into the ear. This allows the radio to operate at lower volume levels with less distortion and more hearing protection for the driver. Installation only requires a single drilled hole. The flexible acoustic tube and foam plugs go inside the helmet while the transducer is clipped to the driving suit and the coil cord plugs into a jack on the outside of the helmet. This is a modular system and each component is replaceable!!

OTTO also uses an electret noise-canceling microphone. We have tailored this microphone specifically for racing communications and conducted extensive comparison testing in open wheel formula cars to verify its performance.

Part Nos. Description

VR30001 Car Harness Kenwood TK250/TK350 Series

VR30002 Car Harness Motorola GP300 Series

VR30003 Car Harness Motorola SP10/SP21 Series

C201434 PTT Mounting Bracket with holes

C201441 PTT Mounting Bracket undrilled

U2-331 PTT Coil Cord Switch

VR40001 Helmet Harness

VR10001 Earphone Kit with Acoustic Tubes & Noise Attenuating Plugs

VR20001 High Performance Boom Mic

Contact OTTO Communications for other radio configurations.

car harness & ptt / helmet harness & earphone

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Kenwood ProTalk, TK370 & FreeTalk (shown left to right)

7



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Kenwood ProTalk Business class radio

A professional grade 2-watt, 2-channel radio pre-programmed for operation on any two of the 8 FCC dot/star itinerant business frequencies. These are the most common operating frequencies for racing communications. The ProTalk radio has a die-cast aluminum chassis, meets MIL-STD-810- Class C, D, & E environmental specifications for vibration, shock, humidity, dust and light rain. It provides 38 "Quiet Talk" privacy codes. This easy to operate radio will meet the basic communications needs of most racers.

Kenwood TK370 Programmable

This 4-watt, 128-channel top of the line radio with alphanumeric LCD display can be programmed to operate on any FRS, dot/star itinerant or GMRS frequencies. Die-cast aluminum chassis, meets MIL-STD-810, Class C, D, & E environmental specifications for vibration, shock, humidity, dust and light rain. OTTO Communications offers this radio pre-programmed to operate on a variety of frequencies including dot/star, itinerant and GMRS channels. Race control frequencies for most major tracks and sanctioning organizations are also listen-only programmed for your convenience. Optional programming cable and software allow the user to select and program their own frequencies, call groups, scanning features, display options and many other features from any computer. This radio is ideal for multi-car teams, schools or racers desiring the maximum flexibility and performance.

Kenwood FreeTalk XL

A professional grade 2-watt, 15 channel radio intended for users desiring compatibility with Family Radio Service (FRS) frequencies. Pre-programmed, channels 1-7 operate on FRS frequencies, channels 8,9, & 11-15 operate on FCC GMRS frequencies. Channel 10 is the FCC Emergency channel. 38 programmable Quiet Talk privacy codes are provided.

Die-cast aluminum chassis, meets MIL-STD-810, Class C, D, & E environmental specifications for vibration, shock, humidity, dust and light rain. This radio will not operate on the FCC dot/star itinerant frequencies and is primarily intended for FRS and GMRS compatibility.

Part Nos.	Description
VRTK3101K	Kenwood FreeTalk Radio
VRTK3100K2	Kenwood ProTalk Radio
VRTK370GK	Kenwood TK370 Radio

Contact OTTO Communications for other radio configurations.

radios

"In drag racing, last minute changes to account for varying weather and track conditions are critical for any team's success. Coupled with a very short window of opportunity, communication in the drag racing environment can be extremely difficult. OTTO Communications has worked closely with our team to produce a product that provides crystal-clear communication between the entire crew and the driver, at normal conversational tones. Crew members are now able to privately communicate over the roar of the engines and track announcers before each pass. We have found the products provided by OTTO Communications to be a combination of high-end electronics parts that have been assembled and tested to meet drag racing's exacting standards. In drag racing, there is no room for second place."

John Fiore, Team Owner and Driver, Fiore Motorsports

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Note: All radios are supplied with interchangeable accessories including a battery, battery charger and leather case. Radio upgrades DO NOT require changing out of the helmet harness or remote antennas. These radios are compatible with other radio manufactures units operating on the same frequency and squelch codes.



9



remote antennas / cleartrak headsets remote antennas / cleartrak headsets remote antennas / cleartrak headsets remote antennas

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Remote Antennas

To ensure extended radio coverage, OTTO offers car mounted and base station antenna kits. Whether you are racing a Formula or Sedan style car, OTTO has an antenna kit to satisfy your needs. The car mounted antenna kits include the antenna, cabling and all required mounting hardware. Installation is made simple and requires drilling a single hole. The antenna for Formula cars has been designed for use on a Fiberglass (non-metallic) surface which is a thick mount antenna, while the antenna for the Sedan Style cars is a thin mount antenna. OTTO also offers a base station antenna with 35' cable which can easily be mounted on top of a trailer, telescoping pole etc. to provide you with extended range at those tracks with difficult to reach areas.

Part Nos.	Description
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VRA0001	Formula style mount antenna with 3' cable & ground plane
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VRA0002	Sedan mount antenna with 6' cable
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VRA0003	UHF "J" pole base station antenna with 35' cable and clamp
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C801080	SMA to BNC Adapter
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ClearTrak Headsets

The ClearTrak Behind the Head style headset offers high-clarity sound from the first systems check to those last minute strategies during the final lap. The additional hearing protection (24db NRR) provides consistent, clear two-way radio communications in a noisy environment like racing. This headset is ideal for pit crews, spotters and track officials. The headset includes a PTT switch on the earcup, flexible, heavy-duty coil cord, cloth covered ear seals and a high performance noise canceling boom microphone. Also available is an optional antenna with clamp. The antenna easily attaches to the side band of the headset and improves radio reception when used in conjunction with a base station antenna.

Part Nos.	Description
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V4-10025	Behind the Head Kenwood TK250 Series
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V4-10047	Behind the Head Motorola GP300 Series
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V4-10024	Behind the Head Motorola HT1000 Series
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C101060	Antenna with Clamp (Optional)
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remote antennas / cleartrak headsets

"As a racing team owner and driver, I depend heavily on our communication system between myself and my pitcrew. Racing at speeds over 100 mph is not the time to have a communication breakdown. This past year, the staff at OTTO Communications has worked closely with myself in not only developing a racing communication system that will hold up to the conditions that we put them through during a race, but also a system that has crystal clear audio. Thanks to the staff at OTTO Communications, I feel the great success we have had this past season is because of their contribution to our racing team. I now believe we have finally found a racing communication system we can depend on when we need it"

Larry Andel, Owner/Driver, LRA Racing Team

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racing communications system ordering & pricing guide

	DESCRIPTION	LIST	ORDER #
	CAR HARNESS & PTT ASSEMBLY		
	Car Harness (Kenwood TK250/350 Series)	\$166.50	VR30001
	Car Harness (Motorola GP300)	166.50	VR30002
	Car Harness (Motorola SP10/SP21)	166.50	VR30003
	PTT Mounting Bracket	34.00	C201434
	PTT Coil Cord Switch	80.00	U2-331
	HELMET HARNESS & EARPHONE KIT		
	Earphone Kit w/Acoustic Tubes	\$110.00	VR10001
	Helmet Harness	75.00	VR40001
	High Performance Boom Mic	95.00	VR20001
	RADIOS		
	FREETALK XL <i>(Includes: Std battery, std charger, antenna & leather case)</i>	\$310.00	VRTK3101K
	PROTALK <i>(Includes: Std battery, std charger, antenna & leather case)</i>	310.00	VRTK3100K2
	TK370 PROGRAMMABLE <i>(Includes: Extended Battery, Rapid charger, antenna & leather case)</i>	635.00	VRTK370GK
	REMOTE ANTENNAS		
	Antenna Kit Thick Mount w/Ground Plane 3' Cable	\$ 69.00	VRA0001
	Antenna Kit Thin Mount w/ 6' Cable	60.00	VRA0002
	Antenna Kit for Base Station	235.00	VRA0003
	Remote Antenna Adapter	15.00	C801080
	CLEARTRAK HEADSETS		
	Behind the Head Headset for Crew TK250/350	\$385.73	V4-10025
	Behind the Head Headset for Crew GP300/SP50	385.73	V4-10047
	Behind the Head Headset for Crew HT1000 Series	385.73	V4-10024
	Antenna with Clamp for Extended Range	74.25	C101060
	SPARE PARTS & ACCESSORIES		
	Noise Attenuating Plugs w/Tubes (Pack Of 10)	\$ 10.00	C101044
	Acoustic Tube Assembly	15.00	C101045
	250 Ohm Transducer Black	14.33	C801762
	Coil Cord Only w/3.5MM Straight Plug	21.20	V3-10097
	White Adapter w/Clothing Clip	11.18	C100930
	Carrying Case for Complete Race System	60.00	VRCC001
	PTT Mounting Bracket Undrilled	34.00	C201441
	Instruction Manual	No Charge	C804111

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