

Owner's Manual, ComSystem

K1200 LT



BMW of North America, LLC

Woodcliff Lake, New Jersey 07677-7731

Welcome to BMW

The BMW ComSystem has been developed to provide riders of BMW K 1200 LT models the most advanced sound and communications management system. The ComSystem acts as the foundation, allowing owners to utilize privately purchased portable modular electronic devices suited for the local market such as cell phones, two-way radios and portable music storage devices.

The ComSystem allows the rider to manage all audio sources as well as communicate with the passenger and other individuals, whether on motorcycles, other vehicles, or at home / office. There are many choices available to riders, so it is important to fully understand how to manage these choices to bring the highest level of enjoyment to you and your passenger.

Please read the enclosed manual completely. The manual provides an overview of the audio & communications system, a detailed explanation how each interface operates, and provides an understanding of options / accessories available to maximize your enjoyment of the system.

If you have any questions, please direct them to your BMW retailer, who is always available to assist you with advice and support for all of your motorcycle needs. We wish you pleasant reading of this operation manual and many enjoyable journeys on your BMW!



Safety Notes

The following symbols are used in this operating manual for safety notes:



Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury



Warning indicates a potentially hazardous situation which, if not avoided, could result in death or injury.



Caution indicates a potentially hazardous situation or unsafe practice that may cause property damage or may invalidate your vehicle warranty.

Note:



Tips for facilitation of operation, control and adjustment, as well as maintenance work.



In the interest of your personal safety, please read this operating manual and particularly the safety notes carefully and in full.

 **WARNING**

Check the volume control position of your ComSystem prior to use. If in doubt about the correct setting, turn the volume control counter-clockwise to a minimal level prior to turning on ignition to avoid excessively loud volume when the motorcycle ignition is turned on.

 **WARNING**

Set your ComSystem to a volume level which allows you at all times to hear traffic noises and the signals of other road-users (especially police and emergency services). Volume settings which prevent this are dangerous to you and those around you. Moreover, the influence of high noise levels can damage your hearing.

 **WARNING**

Only use the communications features of the ComSystem when the traffic situation allows without danger. Observe all local regulations with respect to helmet installed audio systems.

 **WARNING**

While driving, do not conduct any conversations by radio or telephone which will distract you from events on the road. In these cases, you should stop the motorcycle and only drive on after the conversation is concluded.

WARNING

Never dial the telephone while riding, unless you have a voice-controlled dialing phone service and the driving situation permits.

Note:



Only press the transmit button when you really want to transmit via two-way radio. All conversations and telephone calls that are conducted with the transmit button pressed can be received and overheard by third parties when the two-way radio is switched on.

CAUTION

We strongly recommend that the ComSystem be installed by an authorized BMW retailer.

Overview

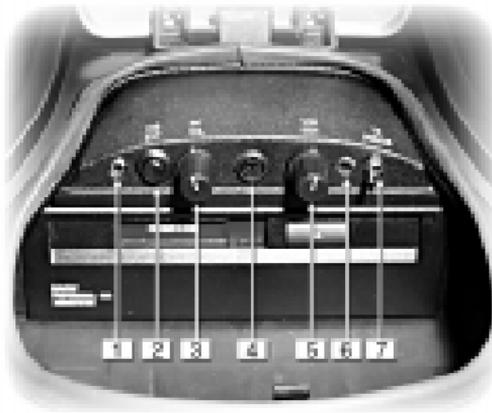
The audio management of the K 1200 LT consists of inputs and outputs from numerous standard and optional devices. To gain the most benefit from the system, it is necessary to understand what functions are available. As with all audio systems, these devices operate on different levels, which determine what priority each level has over the other. These levels go from lowest priority (level 1) to highest priority (level 4).

- Level 1** - Music can be received into the helmet headsets using one of the sources listed below:
- BMW AM/FM/weatherband radio with cassette and optional 6-disc CD
 - or
 - Auxiliary Audio Input (MP3 players or other recorded music devices)
- Level 2** - ComSystem driver / passenger intercom, which mutes level 1 audio when engaged. The ComSystem intercom is also engaged when a signal is received from:
- CB radio (27 MHz two-way radio) and / or
 - Family Channel radio (462 MHz two-way radios from Kenwood, Motorola, etc.)
- Level 3** - Cell Phone, which mutes all level 2 and lower functions (except intercom), connecting rider and passenger helmet headsets to cell phone.
- Level 4** - Warning device will interrupt all lower levels (for RH helmet speaker only), to signal:
- Accessory Audio Warning Device (equipped with audio output jack)
 - or
 - Global Positioning System (GPS) device (equipped with audio output jack)

The BMW ComSystem also provides the basic linkage to the rider / passenger headsets for all of the functions noted above. The BMW ComSystem has been optimized to provide excellent music fidelity for your listening enjoyment, gaining full benefit from the BMW 120W sound system that is standard on the K 1200 LT. The BMW ComSystem will function with any BMW helmet headset sold to-date with 6-pin DIN plug connections.

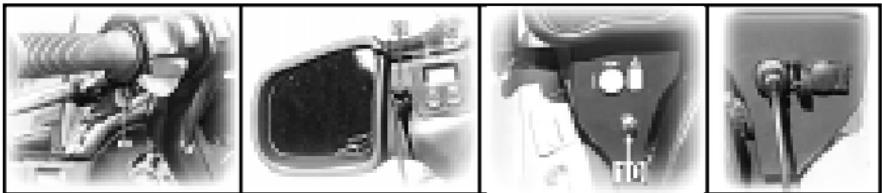
Controls

BMW ComSystem Control Surface:



1. Auxiliary Audio Input
2. Fairing Speaker / Headset Switch
3. Intercom Volume
4. FRS Radio Input
5. Intercom VOX Sensitivity
6. Cell Phone Input
7. FRS or CB Transmit Select Switch

Motorcycle Connections / Controls

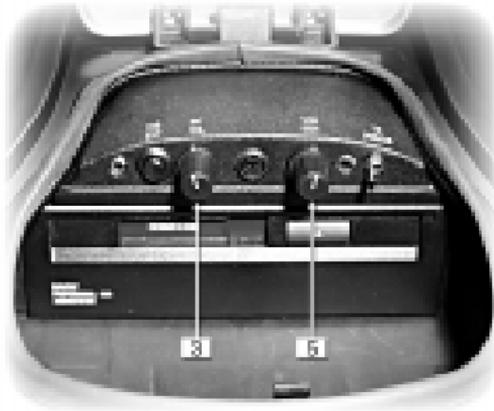


8. Rider Transmit (PTT) Push-To-Talk Button for FRS or CB radio
9. Connection for Rider Headset Cord
10. Passenger Transmit (PTT) Push-To-Talk Button for FRS or CB radio
11. Connection for Passenger Headset Cord

Rider / Passenger Intercom

Operation

The ComSystem intercom is a voice activated system that allows seamless communication between rider and passenger. The ComSystem is operational when the motorcycle ignition switch is turned "on". The system will not function (nor can you hear music through the helmet headsets) with the ignition "off" (though the radio may still work through the fairing speakers).



Requirement

- The ComSystem will function properly only if the rider and passenger are wearing helmets fitted with BMW headsets or headsets compatible with the BMW system.

Operation

- Set the intercom volume control **3** to 50% of range to ensure that audio is not excessively loud when system is turned-on. You may later adjust the volume to the desired level, turning clockwise to increase volume. (There is no automatic intercom volume increase function as with the BMW radio, as the perceived intercom volume does not change much with speed changes due to wearing a helmet)
- Turn "on" the ignition switch, which activates the ComSystem power.
- Adjust the VOX sensitivity knob **5** to the desired level that will allow the intercom to activate upon speaking, but not falsely activate from outside ambient / wind noise. Turn clockwise for greater sensitivity, counterclockwise for less sensitivity.

- The intercom will mute the music from all audio sources when VOX is engaged, and return the music 3.5 seconds after the last VOX input is received. The 3.5 second delay spans the natural gaps that occur from voice inflections and minor turns of the head (away from microphone) that occur while riding.
- The optional rider / passenger PTT switch will also activate intercom, thus allowing both the rider and passenger the enjoyment of the two-way communication when using two-way radios.
- When riding in such extreme noise conditions that make VOX activation of the intercom impractical, just turn the VOX sensitivity knob counterclockwise fully and use the PTT switches with two-way radios turned "off" to communicate on the intercom system.
- The music heard through the ComSystem is imported from radio amplifier output to the front fairing speakers, which means that if the radio fader is set to fade out the front fairing speakers, the ComSystem will not receive audio input from the radio. The radio fader control has no affect on the audio front-to-rear balance heard in the headsets through the ComSystem. The audio level balance of the ComSystem has no front-to-rear or left-to-right balance. However, the left-to-right balance of the radio amplifier will impact the audio signal going to the ComSystem, since the source (front fairing speaker leads) would be affected by that adjustment.
- We recommend setting the audio music automatic speed adjustment to 4. Most riders will find this the most comfortable setting for volume-to-speed increase.

Note:



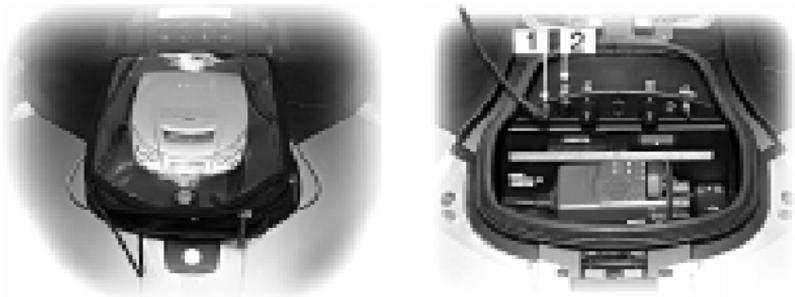
For maximum enjoyment of the system, it is imperative that the helmet headset microphone placement be correct, as advised in the headset installation instructions. Too much gap between the mouth and microphone will result in excessive noise entering the system and imperfect intercom operation / VOX switching.



Risk of injury! Do not make adjustments to ComSystem controls while driving. You may be distracted, lose control of the motorcycle and be seriously injured.

Auxiliary Audio Input

The ComSystem provides a port to connect auxiliary audio players (such as MP3 devices) to the audio channel (Level 1).



Requirements

- Connect the accessory audio device using a connection cable BMW PN 99 99 0 000 204 (short) or 99 99 0 000 205 (long), which has a 3.5 mm stereo plug at both ends.

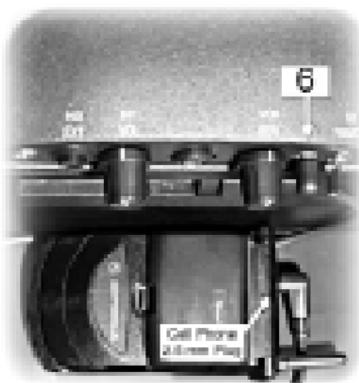
Function

- The auxiliary audio input jack ❶ becomes live when fairing speaker / headset switch ❷ is set to fairing speakers. EXT = button out / HS = button in.
- Note that a “pop” sound may be heard when the HS/EXT switch is pressed. The sound is produced by the engagement of a set of relays, which is a normal sound.
- Adjust the audio volume of the accessory audio device to a comfortable level. As the audio is feeding directly into the ComSystem, the audio will not be adjusted automatically with motorcycle speed as with the BMW K 1200 LT radio system.
- When the motorcycle ignition is turned “off”, the K1200LT radio system audio (if turned on) will play through the fairing speakers regardless of the position of the HS/EXT switch (defaults back to EXT). The accessory audio device cannot play through the fairing speakers at any time – only through the ComSystem / headsets.



Do not make adjustments to Accessory Audio Device controls while driving.

Cellular Telephone



The ComSystem provides an input for cellular phone communication. Given the increased emphasis / local legislation requiring the use of cellular phone headsets while driving a car, as well as the proliferation of phone models and calling plans available, BMW is providing a simple connection to the ComSystem via the cellular phone headset 2.5 mm jack found on most phones. If your phone does not have a headset jack, consult your phone supplier for an accessory headset adapter.

Function

- Using the cellular phone cable 99 99 0 000 202 (standard length) or 99 99 0 000 203 (long), plug the 2.5 mm plug into 6 on the ComSystem control surface and the 2.5 mm plug into your cellular phone headset jack.
- Consult your cellular phone owners manual to set your telephone to auto-answer. This will allow you to receive calls while riding, without the need to touch / manipulate the phone to receive a call.
- With intercom volume set at your normal level, adjust the volume of the phone to be received at a comfortable level. To do this, use the cellular phone volume control (you need to receive a real call to do this) before the ride begins.
- Some phones may require the use of an auxiliary antenna to function properly, particularly those in the higher digital bands. Please consult your local cellular phone provider and your BMW retailer for antenna connections to your particular make and model of phone.
- Most phones will operate with greater range if located outside the

oddmnts compartment. A longer cable is available PN 99 99 0 000 203 to allow placement of the phone in the optional tank utility pouch 71 60 2 342 670.

- Turn the phone “on”, place the phone in the tray and close the lid.
- For cellular phones equipped with voice-command dialing, your helmet headset microphone is continually connected to the cellular phone. This will enable rider or passenger to activate the voice-command dialing feature. However, note that your phone will “hear” everything said through your microphone, so it is possible to inadvertently place a call if what you say matches your voice command **keyword** and if your phone does not require pressing a specific key to activate voice command dialing.
- Once a call is received, the rider and passenger headsets will connect to the phone via a distinct VOX activated intercom channel, muting out all lower level communications (music, CB and FRS radio). Phone conversations are then shared by rider and passenger. Any audio generated from the phone or voice input will keep the intercom latched, with a 3.5 second intercom delay from the last VOX input. If a pause in conversation exceeds 3.5 seconds, lower level audio will return until new VOX input is received.
- You may need to fine-tune the cell phone volume until you have established a comfortable volume level while riding. Manipulation of phone controls while riding is not recommended.



Risk of injury! Do not make adjustments to ComSystem controls while driving. You may be distracted, lose control of the motorcycle and be seriously injured.



Do not dial a cellular phone while driving! Utilize only voice command dialing options to place a call while riding the motorcycle, and only when a call can be placed without diverting your attention from the road.

Operation of (FRS) Family Channel Radio



Requirement

- A FRS radio such as the Kenwood FreeTalk™ (BMW PN 99 99 0 000 041) and corresponding adapter cable (BMW PN 99 99 0 000 199) are required. Several different adapter cables have been developed for the most popular FRS radios (see page 23). Please consult your BMW retailer for options prior to purchasing your FRS radio.
- A push-to-talk button is required. A driver and passenger PTT button kit is available to allow either person to initiate communications on the FRS radio under BMW PN 99 99 0 000 193.

Function

- We recommend reading the owners manual provided with your FRS radio to take full advantage of the features and benefits of the radio.
- Connect the FRS radio cable to the radio and the control surface jack ④. Turn the FRS radio "on".
- The best reception will be received if the FRS radio is placed outside the oddments compartment. We recommend placing the radio on your belt / riding suit waistband or in the optional tank utility pouch 71 60 2 342 670.
- With helmet cables connected and ignition turned on, (the ComSystem is active), the FRS radio is ready to be used. The FRS operates on the same level as the normal intercom and CB radio (Level 2). This allows both rider and passenger to monitor either CB, FRS or both simultaneously.
- With intercom volume set at your normal level, adjust the volume of the FRS radio to be received at a comfortable level. Use the FRS radio volume control to do this (you need to receive a real transmission to do this) before the ride begins.

- Incoming FRS radio transmissions will activate the intercom system, mute the music (Level 1), and will be heard by rider and passenger. Rider and passenger can discuss what is being heard from the FRS or CB radio without that conversation be transmitted. If CB is also being monitored, incoming transmissions will mix with the FRS radio broadcasts, muting the music as well.
- To transmit, rider or passenger must press the PTT button with (TX) toggle switch set to "FRS".
- You can only transmit on either CB or FRS, not both at the same time. Therefore, you must select which radio device you wish to transmit on. Selector switch ⑦ should be set to transmit on the device you have chosen.
- The 3.5 second delay of the intercom system aids two-way radio conversations, since most users don't say "over" when their statements are finished. The 3.5 second delay provides time to bridge the natural pause that occurs while listeners determine the incoming speech has ended, before they respond.



Do not make adjustments to CB / FRS radio controls while driving.

Note:



If you receive a cell phone call while riding with the FRS or CB radio in use, the cell phone will mute all Level 1 & 2 communications. However, if (out of habit) you press the PTT button while talking on the phone (something you should not do), that portion of your phone conversation could be transmitted over the FRS or CB radio.

Note:



The range afforded with CB or FRS radio will vary depending upon terrain, weather conditions, outside sources of interference, etc. This is

particularly true of CB, which is AM band (FRS is FM). Therefore, expect less range in mountain areas, greater range in plains areas.

Note:



For maximum enjoyment of the system, it is imperative that the helmet headset microphone placement be correct, as advised in the headset installation instructions. Too much gap between the mouth and microphone will result in excessive noise entering the system and imperfect intercom operation / VOX switching.

Operation of (CB) Citizen Band Radio



Requirement

- A CB radio such as the Midland™ 75-830 CB radio kit (BMW PN 99 99 0 000 196) available from your BMW retailer.
- We recommend that the CB radio kit be installed by your BMW retailer.
- The BMW CB antenna kit BMW PN 99 00 0 001 050 / 051 mast and base is required.
- A push-to-talk button is required. A driver and passenger PTT button kit is available to allow either person to initiate communications on the CB radio under BMW PN 99 99 0 000 193.
- The CB radio is connected to the ComSystem under the bodywork of the radio area, so alternative mounting locations will be possible.
- Ensure that the CB radio antenna is balanced to the CB, with as low a "SWR" measurement as possible. The above mentioned antenna kit will produce excellent SWR readings near 1.1 when adjusted correctly.

Function

- With helmet cables connected and ignition turned on, (the ComSystem is active), the CB radio is ready to be used. The CB operates on the same level as the normal intercom and FRS radio (Level 2). This allows both rider and passenger to monitor either CB, FRS or both simultaneously.
- With ignition turned "on", turn the CB radio "on" and adjust to the

desired channel. You can select memory functions to remember specific channels.

- With intercom volume set at your normal level, adjust the volume of the CB radio to be received at a comfortable level. Use the CB radio volume control to do this (you need to receive a real transmission to do this) before the ride begins. Also adjust the CB squelch control to a comfortable level.
- We recommend reading the owners manual provided with your CB radio to take full advantage of the features and benefits of the radio, including dual channel scanning.
- Incoming CB radio transmissions will activate the intercom system, mute the music (Level 1), and will be heard by rider and passenger. Rider and passenger can discuss what is being heard from the FRS or CB radio without that conversation transmitted. If FRS is also being monitored, incoming transmissions will mix with the CB radio broadcasts, muting the music as well.
- You can only transmit on either CB or FRS, not both at the same time. Therefore, you must select which radio device you wish to transmit on. Selector switch  should be set to transmit on the device you have chosen.
- To transmit, rider or passenger must press the PTT button with (TX) toggle switch set to "CB".
- The 3.5 second delay of the intercom system aids two-way radio conversations, since most users don't say "over" when their statements are finished. The 3.5 second delay provides time to bridge the natural pause that occurs while listeners determine the incoming speech has ended, before they respond.
- Note: When riding with other motorcycles in a close group, you may wish to utilize the low power output selection switch on the CB radio, which will reduce the output wattage, thereby reducing the distortion that can occur when transmitting in very close proximity to other motorcycles using CB.



Do not make adjustments to CB / FRS radio controls while driving.

Note:

If you receive a cell phone call while riding with the FRS or CB radio in use, the cell phone will mute all Level 1 & 2 communications. However, if (out of habit) you press the PTT button while talking on the phone (something you should not do), that portion of your phone conversation could be transmitted over the FRS or CB radio.

Note:

The range afforded with CB or FRS radio will vary depending upon terrain, weather conditions, outside sources of interference, etc. This is particularly true of CB, which is AM band (FRS is FM). Therefore, expect less range in mountain areas, greater range in plains areas.

Note:

For maximum enjoyment of the system, it is imperative that the helmet headset microphone placement be correct, as advised in the headset installation instructions. Too much gap between the mouth and microphone will result in excessive noise entering the system and imperfect intercom operation / VOX switching.

Accessory Audio Warning Device or GPS

BMW has provided a special connection plug in the wiring harness of the ComSystem for connection of an Accessory Audio Warning Device (AAWD) and GPS.



Requirements

- A GPS system with audio output signal and / or AAWD with audio output signal.
- See your BMW retailer for details on the BMW Ridefinder GPS system or AAWD options.

Function

- Mount your AAWD to the motorcycle.
- The BMW Ridefinder GPS is provided with a special mounting bracket and wiring harness.
- BMW has developed special connection points, providing switched power, ground and audio signal input for these devices. The switched power lead becomes active when the ignition system is turned "on" and inactive when the ignition is switched "off". This reduces the likelihood of devices draining the battery when the motorcycle is not in use.
- Warning devices are Level 4 audio, muting all other forms of communication only in the RH speaker of the helmet headset. Therefore, the LH speaker will still play whatever audio is being used, but the RH speaker will play the warning tone or GPS spoken directions.
- With intercom volume set at your normal level, adjust the volume of the AAWD to be received at a comfortable level. Use the AAWD

volume control to do this (you need to receive a real transmission to do this) before the ride begins.

- AAWD or GPS volume level must be set high enough to trigger the audio circuit. Very low volume levels may produce a “choppy” audio response.
- A special plug kit with universal pigtail is available from your BMW retailer under BMW PN 99 99 0 000 194, to provide a quick connection to your AAWD. A three-conductor plug is mounted in the LH handlebar molded housing, allowing quick disconnection of your AAWD. If AAWD does not have an audio output signal connection, you can contact J & M Corporation at 520-624-7000 for information on the cost to modify your device to obtain the necessary connections.

Using GPS and AAWD at the Same Time

- Knowing that some users will want to have both devices active at the same time, separate connection points were developed in the wiring harness. These points will pipe both signals into the same channel inside the ComSystem, but will keep them from back-feeding into each-other. The plug connection for the GPS is near the CB radio plug connection. The connection point for the AAWD is inside the LH handlebar cover.
- It is recommended that the volume level of the AAWD be adjusted lower than the volume of the GPS. This way, the lower volume tone will be easily recognized, while the louder voice direction of the GPS will be distinguished from the lower AAWD tone.



Do not make adjustments to Accessory Audio Warning Device or GPS controls while driving.



Use of Accessory Audio Warning Devices may not be approved in all States. Please consult and observe all local regulations.

Communication Options

BMW has developed a wide range of communications options to assist riders with their communications needs. Please review the following items to learn more about BMW communications.

BMW Helmet Headsets

BMW helmet headsets are fitted with high-performance helmet speakers with independent floating ground connections, providing outstanding fidelity / sound reproduction. Our headsets offer patented DualMode™ AeroMike® microphones that deliver exceptional voice reproduction with minimal outside noise transmission.

BMW helmet headsets are available in three configurations: Full coverage, open face and shorty (½) helmet styles.

Full Coverage: BMW PN 99 99 0 000 033

Open Face: BMW PN 99 99 0 000 034

Shorty Helmet: BMW PN 99 99 0 000 035 (requires a properly equipped shorty helmet "skirt")

BMW helmet headsets are delivered with upper-section cords only, which possess a universal plug connection enabling connection to BMW as well as other brands of motorcycle audio systems. A lower section cord must be purchased to complete the connection to the motorcycle.

BMW Helmet Headset Cords

BMW has specifically designed the helmet headset cord for rider and passenger location with optimized lengths. The rider cord contains no coils in the handlebar area, reducing the likelihood of catching the cord on the levers / switches. The passenger cord is shorter in length to eliminate any droopy cords while in use.

Rider Cord: BMW PN 99 99 0 000 027

Passenger Cord: BMW PN 99 99 0 000 028

Cords are also available for connection to other brands of motorcycle audio system as noted below:

1980 - 2001 Honda and J & M Audio BMW PN 99 99 0 000 029

1989 - 1997 Harley-Davidson audio BMW PN 99 99 0 000 030

1998 - 2001 Harley-Davidson audio BMW PN 99 99 0 000 031

1983 - 2001 Yamaha audio BMW PN 99 99 0 000 030

1983 - 2001 Kawasaki audio	BMW PN 99 99 0 000 030
1986 - 1989 Suzuki audio	BMW PN 99 99 0 000 030
1988 - 2000 Honda GL1500 w/J & M passenger control panel	BMW PN 99 99 0 000 030

BMW FreeTalk™ Headset Harness

BMW has produced a special harness that connects the BMW helmet headset directly to the Kenwood FreeTalk™ FRS radio. This enables LT riders or riders of other models to communicate when they are not riding a motorcycle equipped with a ComSystem. If both rider and passenger have a FreeTalk™ harness and FreeTalk™ FRS radio, they can intercom with each other, as well as with others riding with them. This is a handy way to talk with other riders in a group, while utilizing the same BMW helmet headset and Kenwood FreeTalk™ FRS radio you use on your K 1200 LT. The special harness also contains a universal PTT switch which can be attached with Velcro. Passengers usually attach the PTT switch to a jacket belt loop or nearby handhold. The BMW FreeTalk™ Headset Harness is available under BMW PN 99 99 0 000 026.

BMW FreeTalk™ Headset Harness PTT Switch

BMW has also produced a fixed-mount PTT switch which fits all recent BMW models, including those with hydraulic clutch and manual choke. The PTT switch kit provides a special, laser-cut and formed, black zinc plated bracket to mount the BMW PTT switch, waterproof boot, cable with plug for the BMW FreeTalk™ Headset Harness cable, cable tie, two different mounting bolts and mounting instructions. The BMW FreeTalk™ Headset Harness PTT Switch is available under BMW PN 99 99 0 000 042.

BMW ComSystem Parts Listing

Main Kits

- 99 99 0 000 186 ComSystem - Kit Complete (includes main control unit and complete wiring harness)
- 99 99 0 000 187 ComSystem - Kit Complete for Retrofit of BC1 & BC2
- 99 00 0 001 788 Power Accessory Relay Harness (needed for either kit above)

Replacement Parts

- 99 99 0 000 188 ComSystem - Main Control Unit
- 99 99 0 000 189 ComSystem - Wiring Harness - Complete (contains harnesses 1 - 3)
- 99 99 0 000 190 ComSystem - Replacement Wiring Harness 1 - Main (stingray)
- 99 99 0 000 191 ComSystem - Replacement Wiring Harness 2 - Rear (headset & PTT)
- 99 99 0 000 192 ComSystem - Replacement Wiring Harness 3 - Front (radar & PTT)
- 65 41 7 651 507 ComSystem - Front Headset Plug (350 mm)
- 65 41 2 337 322 ComSystem - Rear Headset Plug (530 mm)
- 61 13 1 378 132 Black BMW Connector 4-pole Pin Housing
- 61 13 1 378 134 Black BMW Connector 4-pole Socket Housing
- 61 13 1 376 191 BMW 2.5 mm pin contacts
- 61 13 1 376 202 BMW 2.5 mm socket contacts
- 88 88 6 611 132 BMW 2.5 mm pin and socket extraction tool
- 99 99 0 000 048 Replacement PTT button covers
- 12 52 1 732 634 Replacement PTT driver cable boot

Accessories

- 99 99 0 000 193 ComSystem - PTT Front & Rear
- 99 99 0 000 194 ComSystem - A.A.W.D. Plug Kit
- 99 99 0 000 195 ComSystem - Revised CB Radio Base (adapt older BMW CB radios to new system)
- 99 99 0 000 196 ComSystem - CB Radio Kit Complete (without antenna)
- 99 99 0 000 197
- 99 99 0 000 050 CB Radio Antenna Mast - Adjustable
- 99 99 0 000 051 CB Radio Antenna Base
- 99 99 0 000 198

99 99 0 000 199	ComSystem - Kenwood FreeTalk™ FRS Adapter Harness
99 99 0 000 200	ComSystem - Motorola Talk-About™ FRS Adapter Harness
99 99 0 000 201	ComSystem - Motorola Talk-About™ (T-Series) FRS Adapter Harness
99 99 0 000 202	ComSystem - Cell Phone Adapter Harness - standard length 7"
99 99 0 000 203	ComSystem - Cell Phone Adapter Harness - long 17"
99 99 0 000 204	ComSystem - Aux. Audio Cable - standard length
99 99 0 000 205	ComSystem - Aux. Audio Cable - long 18"
99 99 0 000 206	ComSystem - GPS Plug Socket w/terminals
99 99 0 000 207	ComSystem - GPS Connection Cable - main cable
99 99 0 000 208	ComSystem - GPS Connection Cable - radio connection plug
99 99 0 000 209	
99 99 0 000 210	ComSystem Owner's Manual

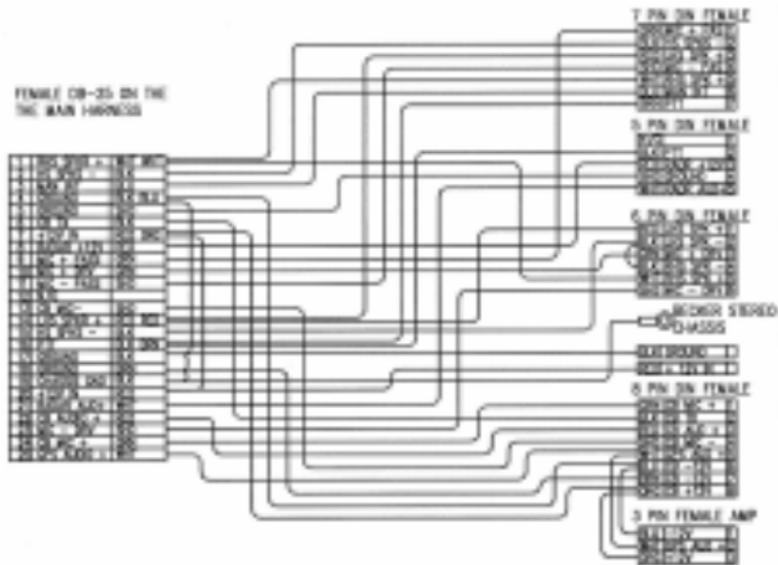
Headsets and Cords

99 99 0 000 026	FreeTalk™ Headset Harness
99 99 0 000 041	Kenwood FreeTalk™ FRS Radio
99 99 0 000 042	FreeTalk™ PTT Switch
99 99 0 000 027	Rider Helmet Headset Cord
99 99 0 000 028	Passenger Helmet Headset Cord
99 99 0 000 029	1980 - 2001 Honda and J & M Audio
99 99 0 000 030	1989 - 1997 Harley-Davidson audio
99 99 0 000 031	1998 - 2001 Harley-Davidson audio
99 99 0 000 030	1983 - 2001 Yamaha audio
99 99 0 000 030	1983 - 2001 Kawasaki audio
99 99 0 000 030	1986 - 1989 Suzuki audio
99 99 0 000 030	1988 - 2000 Honda GL1500 w/J & M passenger control panel
99 99 0 000 033	BMW Helmet Headset – Full Coverage
99 99 0 000 034	BMW Helmet Headset – Open Face
99 99 0 000 035	BMW Helmet Headset – Shorty

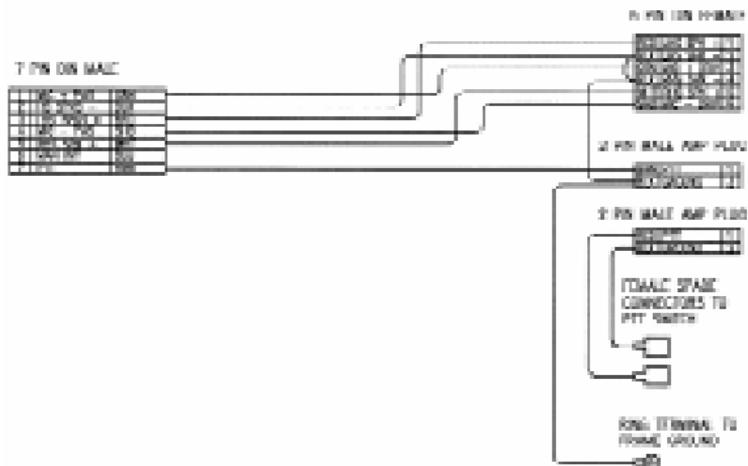
Technical Data

Current Draw	System / ignition off	Zero
	System on / standby (no audio, no transmission, external music switch off)	100 mA
	Maximum (with CB transmission)	1.5 A
Operating Voltage	Vehicle power (negative ground, with reverse battery protection)	10.5 V too 16 V
Audio Input	Stereo (Compatible with bridge circuits)	
Maximum level in	+10 dbm	
Frequency Response	40 Hz to 3 kHz +- 3 dbm, 16 KHz – 10 dbm (normalized)	
Aux. Audio Input	Stereo (Walkman / MP3 compatible)	
Maximum level in	-20 dbm	
Frequency Response	40 Hz to 3 kHz +- 3 dbm, 16 kHz – 10 dbm (normalized)	
Intercom Input	Mono "Dual Mode – AeroMike" (J&M Corporation Trademarks)	
Maximum level in	-50 dbm (using "Dual Mode – AeroMike" (J&M Corporation Trademarks)	
Frequency Response	400 Hz – 10 dbm, 1 kHz to 4 kHz +- 3 dbm, 10 KHz – 10 dbm (normalized)	

	Frequency	Impedence	Sensitivity	Maximum
Input from FRS Radio	1 kHz	100 Ω	-35 dbm	+10 dbm
Input from CB Radio	1 kHz	100 Ω	-25 dbm	+10 dbm
Input from Cell Telephone	1 kHz	1 k Ω	-40 dbm	-10 dbm
Input from GPS / Audio Warning Device	1 kHz	2 k Ω	-15 dbm	+0 dbm
Output Audio	1 kHz	32 Ω	N/A	500 ww
Output to FRS Radio	1 kHz	<30 k Ω	-55 dbm	-30 dbm
Output to CB Radio	1 kHz	<30 k Ω	-55 dbm	-30 dbm
Output to Cell Telephone	1 kHz	<6 k Ω	-55 dbm	-40 dbm
GPS B+ Power Supply	500 mA (peak) maximum			



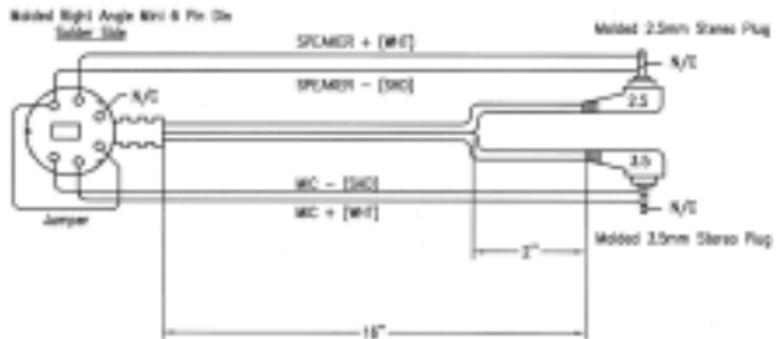
Part # 99 99 0 000 190
Replacement Wiring Harness 1 - Main



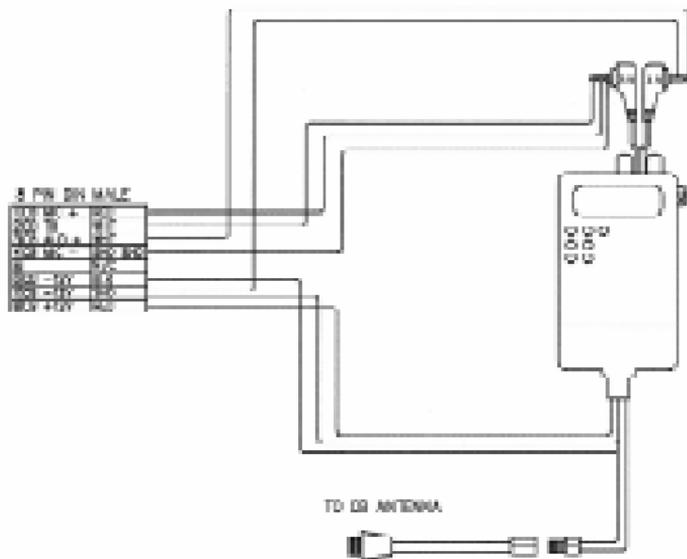
Part # 99 99 0 000 191
Replacement Wiring Harness 2 - Rear



Part # 99 99 0 000 192
Replacement Wiring Harness 3 - Front



Part # 99 99 0 000 199
Kenwood FreeTalk Adapter Harness



Part # 99 99 0 000 196
ComSystem CB Wire Diagram

