

intervox

CARVOX - IE Series

GYM 12CN / 12CN Lux (100Watt)

INTERNAL-EXTERNAL INTERCOM FOR
ARMORED VEHICLES OR LUXURY CARS

INSTALLATION MANUAL



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INSTRUCTIONS FOR OPENING THE BOX

WARNING

This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer. The entire manual should be carefully read.

Please check that you have all the system components as detailed in the kit content.

WARNINGS

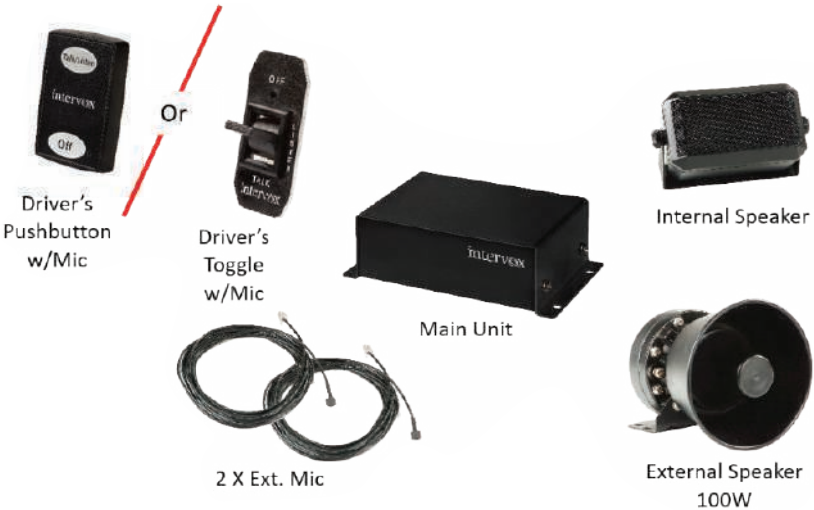
Make sure to read that whole Installation Instructions before starting installations.

Use only Speakers that match the output power of the Main Unit, as indicated below.



Kit content

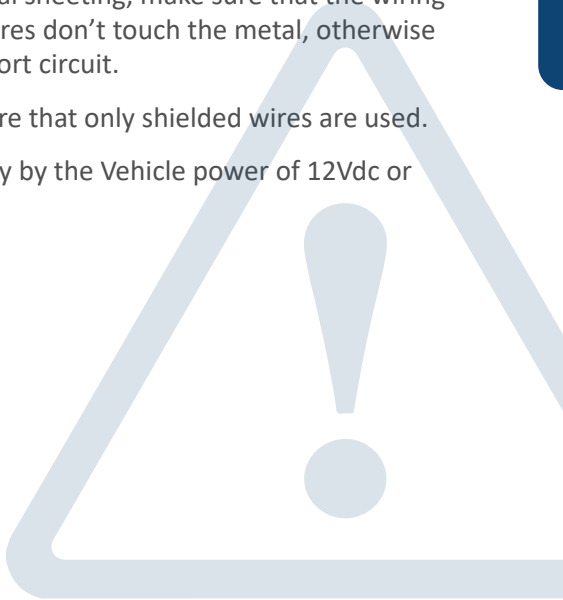
- 1 X Main Unit 100W
- 1 X External Speaker 100W
- 1 X Internal Speaker
- 2 X External Microphones w/Cable
- 1 X Driver's Single Toggles Switch w/Mic Or 1 X Driver's Pushbutton (2) w/Mic
- 1 X Plug-n-Play Cable Harness



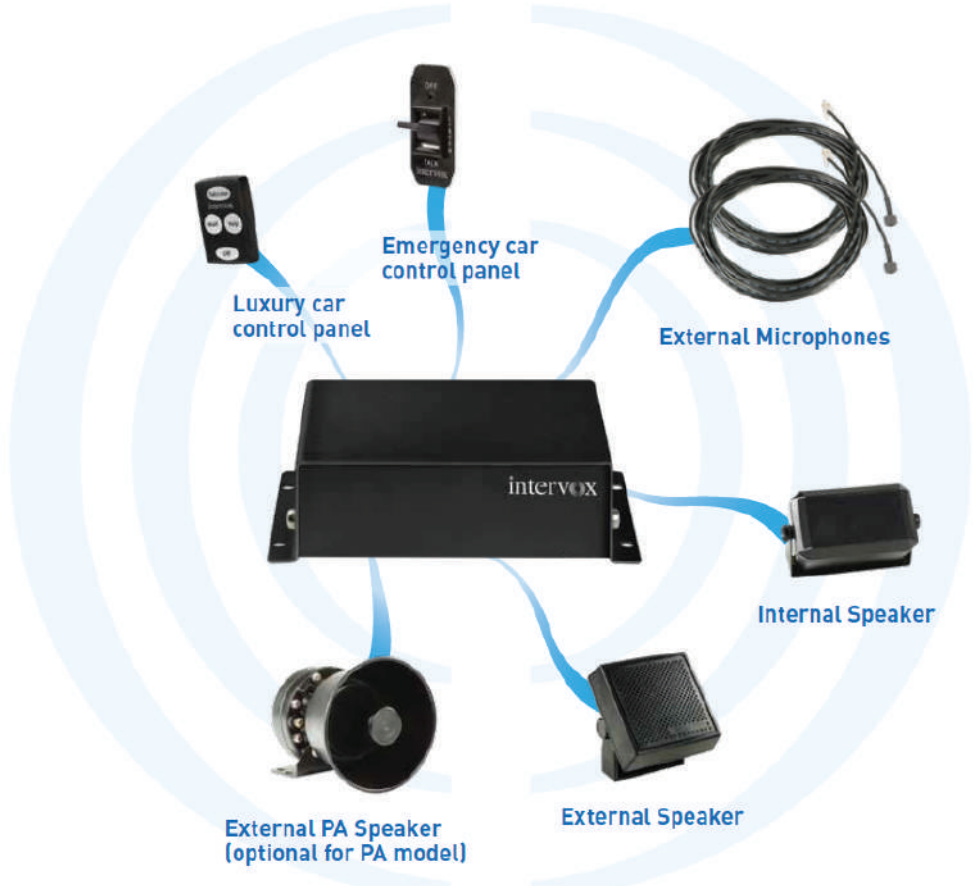


Warnings

- + Upon installation, only Car's Power supply (12/24Vdc) should be connected to the CARVOX Main Unit; any other wiring should be avoided.
- + Make sure that the INTERVOX units and the fitted wires are not obstructing vehicle equipment or vehicle operations.
- + If the wires have to be fed through the metal bulkhead of the vehicle chassis and/or through any other metal sheeting, make sure that the wiring is properly protected and that bare wires don't touch the metal, otherwise this may cause malfunctioning or a short circuit.
- + If wires have to be extended, make sure that only shielded wires are used.
- + The Main Unit should be powered only by the Vehicle power of 12Vdc or 24Vdc.

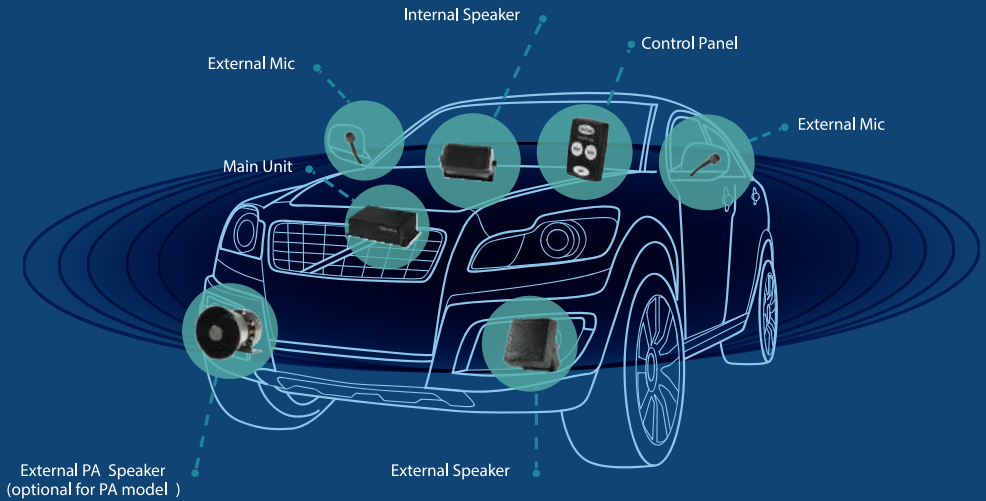


SYSTEM OVERVIEW



COMPONENTS AND RECOMMENDED LOCATIONS IN THE VEHICLE

Clean & Covert Installation



Mounting Instructions:

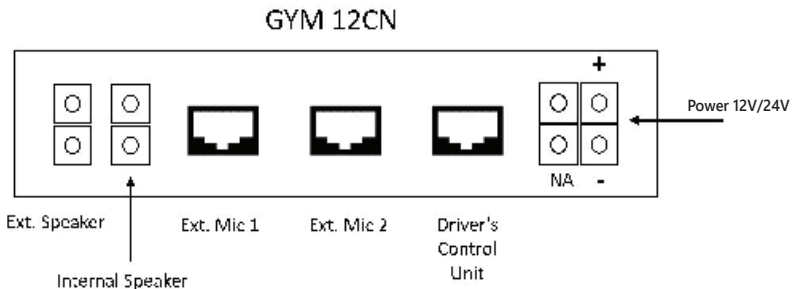
Avoid leaving visible cables in the cabin to maintain the vehicle's aesthetics unaffected.

If there are any cables left disconnected, insulate them with tape; disconnected cables making an undesired contact can cause a malfunction.

Installation of Main Unit

NOTE: DO NOT FIX PERMANENTLY AND/OR CUT THE WIRES TO THE CORRECT LENGTH UNTIL ALL CONNECTIONS HAVE BEEN TESTED AND THE UNIT HAS BEEN TESTED AND ADJUSTED.

- + Place the Unit in a covert, yet accessible location. Make sure that the location allows ventilation to avoid overheating.
- + Connect Vehicle's Power supply to the Main Unit's Power Input.
- + Connect the Cable Harness to the appropriate sockets as per the diagram below. Please Note the marked labels on each cable to verify connection to the correct socket input.

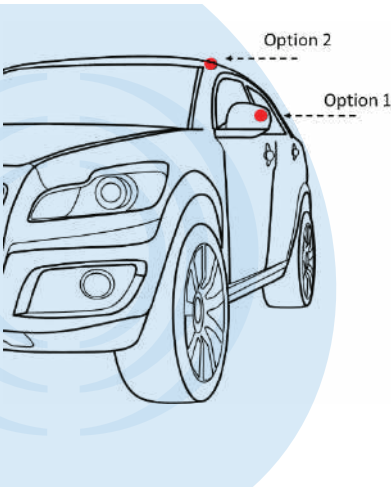


External Microphones

For optimal audio quality, the 2 external microphones should be mounted in one of the following covert locations, one on each side of the vehicle.

Option 1: Mounting in the right & left external mirror wings

Option 2: Mounting in the right & left upper part of the Door frame bars (see drawing below).



Driver's Control Unit

GYM-12CN Models can use either Toggle or Pushbutton control units. Both types include integrated Microphone.

1. Select a location within the easy reach of the driver.
2. Make sure that it does not damage the dashboard appearance nor obstruct any other vehicle equipment and operations.
3. Plug in the Cable Connector (from the Main Unit)
4. Pushbutton Unit – is usually placed with adhesive pad or similar
5. Installation of Toggle switch Unit requires an opening in the dashboard. Make an opening of 17 X 37 mm and then mounting the unit with adhesive.

External Speaker

1. **Location** - The external loudspeakers should be installed in front of the vehicle's engine or in the wheel arch.
2. **Mounting** - Face the opening of the loudspeaker downwards, so that water can run out freely.
3. The loudspeaker should be installed in such a manner that the maximum sound is audible, and the sound is not obstructed.

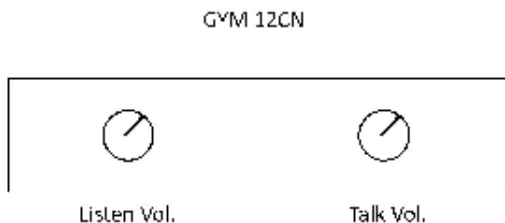
Note: The External Speaker is suitable for outdoor use but is not immersion-proof.

Internal Speaker

1. The internal loudspeaker should be installed where the sound is clearly audible to the driver.
2. Optimal location - next to or underneath the driver's seat or at the side of the co-driver's seat.
3. Make sure that the loudspeaker is not interfering with any vehicle operations, and that the loudspeaker cannot be damaged by the occupants.

Note: In order to avoid feedback, a distance of approx. 1 meter should be kept between the loudspeaker and the internal microphones (that are integrated inside the Driver's control unit).

Audio Tuning



Please note: The systems are pre tuned in our factory.

Tuning Steps

1. Verify that all components are placed, and connectors are connected properly from all end-units to the Main Unit.
2. Verify that Vehicle is switched on (system is powered by the vehicle power supply).
3. Activate the power switch on the dashboard Driver's Control Unit.
4. The Main unit has 'Listen volume' and 'Talk volume' for optimal audio tuning.
5. Turn both volume screws to the 'minimum' position (anti-clockwise)
6. Whilst someone outside the vehicle will produce audible sounds (count 1,2,3...) Adjust the 'Listen volume' slowly until reaching the desired listening audio level.
7. Adjusting the 'Talk Volume' – this time the person inside the vehicle should make audible sounds, whilst the 'Talk Volume' is adjusted to the desired audio level heard by the person outside the vehicle (as per preferred distance from the vehicle).
8. Make sure that the system must not make whistle sounds nor audio feedback.
9. In case there is a whistle sound, the volume has to be adjusted slightly back.

Testing the System

Toggle:

- + For 'Listen' mode: Press downwards once (and leave).
- + For 'Talk' mode: Press downwards and Hold.
- + To 'Turn-Off': Press upwards once.

Pushbutton (2):

- + For 'Listen' mode: Press the 'Talk/Listen' button once.
- + For 'Talk' mode: Press the 'Talk/Listen' button and Hold.
- + To 'Turn-Off': Press 'off'.



Technical specifications

Main Unit

Operating Supply Voltage:	12-24VDC
Output Power:	100W
Power consumption:	Max- 4A/ 8A, Standby mode < 23mA
Output Impedance:	Between 2–8 Ohms (Normally 4 Ohms)
Harmonic distortion:	< 1%
Dimensions Electronic Unit (100W):	36x75x110 mm Net Weight: 0.2 kg

Accessories

Internal and External Microphone

Sensitivity:	-70±2 dB 0 dB 1V/micro bar. 1 kHz
Frequency range:	30–16000 Hz
Operation voltage:	6.3 V

Control Panels

Dimensions Luxury car control Panel: 8x35x55 mm

Dimensions Emergency car control Panel: 15x22x45 mm

Internal and External Speakers

External Speaker Power: 100W

Dimensions External Speaker: 185x120x160mm | Net Weight: 1.5kg

Dimensions Internal Speaker: 30x70x74 mm | Net Weight: 0.3kg



Warranty

INTERVOX (Security Systems 2005) Ltd. LIMITED WARRANTY

INTERVOX (Security Systems 2005) Ltd. ("the Manufacturer") warrants its products hereinafter referred to as "the Product" or "Products" to be in conformance with its own plans and specifications and to be free of defects in materials and workmanships under normal use and service for a period of twelve (12) months from the date of shipment by the Manufacturer. The Manufacturer's obligations shall be limited within the warranty period and its option, to repair or replace the product or any part thereof. The Manufacturer shall not be responsible for dismantling and/or reinstallation charges. To exercise the warranty, the product must be returned to the Manufacturer freight prepared and insured.

The warranty does not apply in the following cases: improper installation, misuse, failure to follow installation and operating instructions, alteration, abuse, accident or tampering, and repair by anyone other than the Manufacturer.

The warranty is exclusive and expressly in lieu of all other warranties, obligations or liabilities, whether written, oral, express or implied, including any warranty of merchantability or fitness for a particular purpose, or otherwise. In no case shall the Manufacturer be liable to anyone for any consequential or incidental damages for breach of this warranty or any other warranties whatsoever, as aforesaid.

This warranty shall not be modified, varied or extended, and the Manufacturer does not authorize any person to act on its behalf in the modification, variation or extension of this warranty. This warranty shall apply to the Product only. All products, accessories or attachments of others used in conjunction with the Product, shall be covered solely by their own warranty, if any.

The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, caused by the malfunction of the Product due to products, accessories, or attachments of others, used in conjunction with the Products. The Manufacturer does not represent that its Product may not be compromised and/or circumvented, or that the Product will in all cases provide adequate warning or protection. User understands that a properly installed and maintained system is within its responsibility, and that the Manufacturer is not responsible for the application selected, use of the product by the end-customer and any other implication whether direct or indirect.

The Manufacturer shall have no liability for any death, personal and/or bodily injury and/or damage to property or other loss whether direct, indirect, incidental, consequential or otherwise, based on a claim that the Product failed to function. However, if the Manufacturer is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause of origin, the Manufacturer's maximum liability shall not in any case exceed the purchase price of the Product, which shall be fixed as liquidated damages and not as penalty, and shall be the complete and exclusive remedy against the Manufacturer.

Warning: The user should follow the installation and operation instructions and among other things test the product and the whole system at least once a month. For various reasons, including, but not limited to, changes in environmental conditions, electric or electronic disruptions and tampering, the Product may not perform as expected. The user is advised to take all necessary precautions for their safety and their protection.



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