

ICC460 In-Car-Communication unit

Manual and Pin Assignment

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Manual

A. Installation in the Car

1. Mount loudspeaker in the rear and standard passive microphone near drivers head. Mount push-button for rear passenger operation. Connect system to 12 V board net.
2. Press hidden „init” button and leave car. After three seconds initialization begins.
Warning: Very loud noise will be output by the loudspeaker for half a minute.
3. After initialization is over, disconnect power, wait three seconds and re-connect power

B. Usage

1. Use push-button for switching system on and off. LED in the button shows system status.
2. Decrease volume: Keep button pressed until LED starts flashing.
While button is pressed, volume decreases. Flashing rate of LED shows volume (high flashing rate: high volume; low rate: low volume).
3. Increase volume: Release button and press it again as long as LED is still flashing. Volume increases up to maximum, as indicated by LED flashing rate.



C. Pin Assignment

Pin:	Function:	Function in Programming mode:	Remarks:
1	Ground	Ground	Permanent battery minus; Clamp 31
2	No connection	Programming pin	Only for programming connected to ground
3	Speaker pin 2	No connection	Min. 4 Ohm
4	Control ground	Signal ground	
5	Radio mute	Serial out	Open Collector max. 20 mA
6	Microphone ground	No connection	
7	Supply 12 V	Supply 12 V	Permanent battery plus; Clamp 30
8	Ignition	Supply 12 V	Ignition; Clamp 15
9	Speaker pin 1	No connection	Min. 4 Ohm
10	Pushbutton	Serial in	
11	LED output	No connection	
12	Microphone input	No connection	Passive electret condenser microphone

Description of pins:

- 1 Ground: Minus of supply voltage
- 2 No Connection: Programming Pin. For entering programming mode, connect this pin to Ground before switching on supply voltage
- 3 Speaker pin 2: Loudspeaker output, max. 10 W_{RMS} . Symmetric output, DO NOT CONNECT WITH 12V or GROUND.
- 4 Control ground: Common Ground of Pushbutton and LED.
- 5 Radio mute: Pull-down output for radio-mute. Open Collector with current limiter 20 mA.
- 6 Microphone GND: Ground of microphone (shield of microphone cable).
- 7 Supply 12 V: Plus of supply voltage 12 V DC.
- 8 Ignition: Switch-on signal. If this pin is pulled to 12V (e.g. if ignition key of car is turned), system is switched on.
- 9 Speaker pin 1: Loudspeaker output, max. 10 W_{RMS} . Symmetric output, DO NOT CONNECT WITH 12V or GROUND.
- 10 Pushbutton: Pushbutton that switches communication on and off. Keep button pressed for volume change.
- 11 LED output: LED Output of 12 V, max 20mA current limitation, for on/off signalling of communication. If Pushbutton (10) is kept pressed, LED starts flashing, whereas flashing frequency indicates volume.
- 12 Microphone input: Microphone input for passive Condenser Microphone with bias voltage 6 V_{DC} over 680 Ohm.

