clarion®

Owner's manual

DGL 373

BLUETOOTH ® **AUDIO TRANSMITTER**

CE ✦ **R&TTE** (E13) 10R-02YYYY
ID: B012665

CONTENTS

1. WHAT IS INCLUDED IN THIS PACKAGE?

A complete DGL373 package consists of the following items:
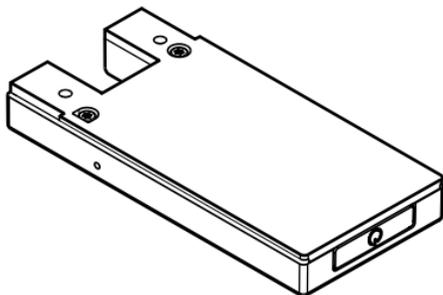
Bluetooth® Audio Transmitter
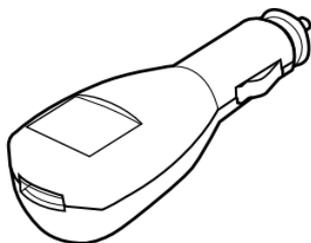
Cigarette charger
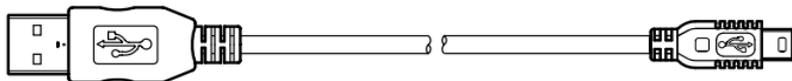
Transmitter and charger connecting cable (500mm)

Clarion *Bluetooth*® Audio Transmitter (DGL373) with iPod® Cradle Support

English

The DGL373 is a Audio Transmitter featuring *Bluetooth*® wireless technology that support *iPod Cradle¹* to allow you to stream your favourite music from your iPod or alternative music source to your car's audio system. It can also be used for streaming audio to your wireless headset with *Bluetooth*® technology when you are out of your car for a full wireless music experience.

- **Auto features:**
  - Auto-power off after 3 minutes of no activity state.
 - iPod will auto-power off when *Bluetooth*® Audio Transmitter (used with iPod Cradle) is powered off.
  - Auto-connect with last paired device.

- **Music streaming features:**
  - Music streaming from any music source (e.g. MP3 player, laptop) using audio stereo cable.
  - Music streaming and remote control with iPod when used with iPod Cradle.

- **Charging features:**
  - Dual charging (Transmitter and iPod) when used with iPod Cradle.
  - Uninterrupt streaming when charging.

The DGL373 can be used as:

- **iPod transmitter with *Bluetooth*® wireless technology**
  You can dock your iPod onto the Transmitter unit (used with iPod Cradle) and stream music directly from your iPod to your car stereo with ***Clarion Bluetooth*® *Audio/Mobile-phone Transceiver for AUX Input (BLT373)²*** or compatible ***wireless headset³***.

English

• **General purpose transmitter with *Bluetooth*® wireless technology**

You can connect any external audio player to the Transmitter unit via an audio stereo cable. Music can be streamed through the car stereo with Clarion *Bluetooth*® Audio/Mobile-phone Transceiver for AUX Input or compatible wireless headset.

Notes:

¹ ***iPod Cradle*** is an iPod docking base, which is one of the Clarion products (sold separately) that works best with DGL373 to provide wireless audio streaming capability for iPod. Cradle will be vary depends on iPod model. Please make sure you get the correct Cradle for your iPod.

² ***Clarion Bluetooth® Audio/Mobile-phone Transceiver for AUX Input (BLT373)*** is one of the Clarion products (sold separately) that allows music streaming via *Bluetooth*® wireless technology in the car stereo. Please consult your local authorized Clarion dealer for more information about the product.

³ Please consult your local authorized Clarion dealer for more information about compatible wireless headset.

Setting Up DGL373

Bluetooth® **Audio Transmitter**

The DGL373 is designed to work with iPod Cradle for ultimate wireless iPod playback support. Appropriate Cradle must be selected to hold different model of iPod. Please consult your local authorized Clarion dealer for the Cradle provided.

The Transmitter unit can be latched with the iPod Cradle to form an iPod *Bluetooth*® Audio Transmitter unit.

1. Slide in the Transmitter unit to the Cradle unit. Make sure the 14-pin outlet socket is connected properly.

2. Optional step for iPod Video model: Slide in the gap filler for using 30GB iPod Video with Cradle (shown in Fig. 1). 60/80GB iPod Video is used without the adaptor gap filler.

3. Dock the iPod to the Cradle.

Gap filler (For 30GB iPod Video only)

Cradle (For 30GB, 60GB and 80GB iPod Video)
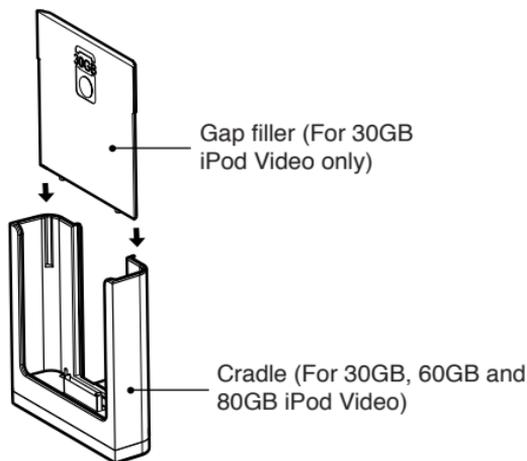
Figure 1: Use the iPod Cradle (BC003V) with Cradle gap filler
(For 30GB iPod Video only)

DGL373   **7**

Transmitter

iPod* (not included)

Cradle (sold separately)
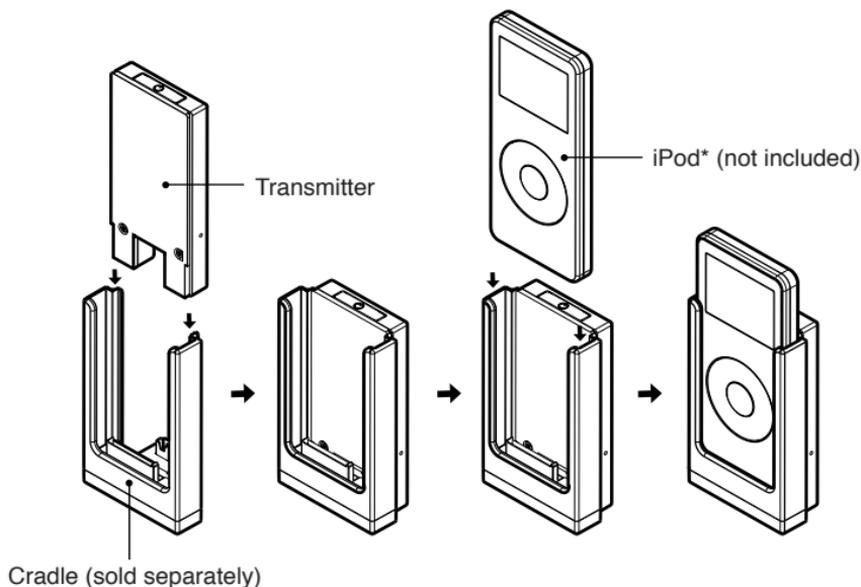
Figure 2: Use the DGL373 with iPod and iPod Cradle (BC001N)

* Illustration shown above is using the 1st generation of iPod nano, BC001N is not compatible with 2nd generation of iPod nano. Different iPod model will require a different Cradle.

General purpose *Bluetooth*® wireless transmitter

1. Select an external audio source (e.g. line-out of a laptop, PC or any MP3 player). The audio jack output for external source may vary depends on the device.

2. Use an audio stereo cable to connect the output of external audio source to the input (2.5mm stereo jack) of the Transmitter.

Transmitter

External audio source (not included)

2.5mm stereo jack

Audio stereo cable (not included)

Figure 3: Use the DGL373 with alternative audio source

English

What is *Bluetooth*® wireless technology?

Bluetooth® wireless technology is a radio technology that connects devices, such as mobile phones and headsets, without wires or cords over a short distance of approximately 10 meters (approx. 33 feet). Get more information at www.bluetooth.com.

What is *Bluetooth*® wireless profiles?

Bluetooth® wireless profiles are the different ways that *Bluetooth*® devices communicate with other devices. The Transmitter supports A2DP and AVRCP in order to allow music streaming and playback control. Please refer chapter "**Music Streaming and Playback Control**" on page 17 for more description on these profiles.
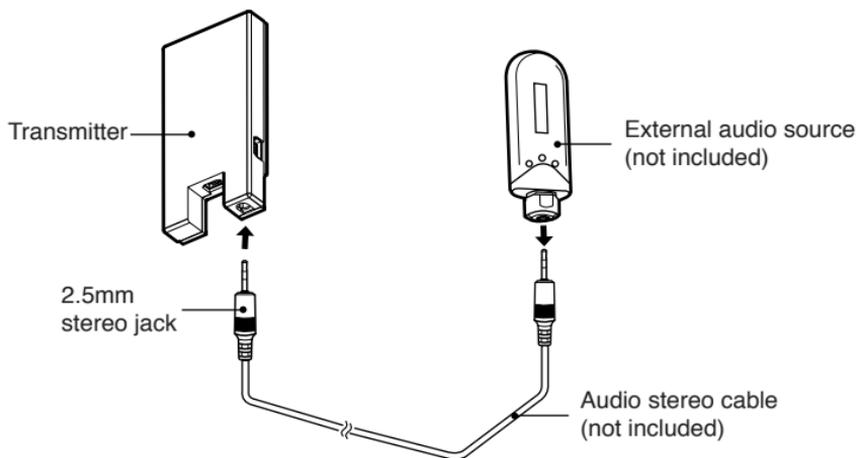
What is pairing?

Pairing creates a unique and encrypted link between two *Bluetooth*® devices and lets them communicate with each other. *Bluetooth*® devices will not work if the devices have not been paired.

Pairing Sequence

Note: Please refer to Clarion *Bluetooth*® Audio/Mobile-phone Transceiver for AUX Input owner's manual for the relevant operation below.

Between *Bluetooth*® Audio/Mobile-phone Transceiver and *Bluetooth*® Audio Transmitter

1. Make sure the Transmitter is connected to an audio source. Please refer "**Setting Up DGL373**" on page 7.
2. Make sure the car stereo source mode is switched to "**AUX**" mode.
3. Set the Transceiver unit in pairing mode.
4. Set the Transmitter unit in pairing mode. Please refer "**Activating *Bluetooth*® Audio Transmitter pairing mode**" on page 14.
5. Music starts automatically upon successful pairing.

English

Notes:

- You cannot pair the Transmitter with your mobile phone.
- You do not have to enter a dedicated pin code for pairing these two devices, as you do with a mobile phone.
- During pairing mode, the Transmitter unit should show a quick alternate red/blue LED. Make sure that the Transmitter and Transceiver are not paired to any other Transceiver or Transmitter respectively.
- Please refer "**Understanding The Transmitter Unit Indicators**" on page 13 for further details.

Automatic Connection

When the Transmitter is switched on, it will automatically try to re-connect with the last paired device (Transceiver unit). It may take up to several seconds for the re-connection. If there is no connection detected after 3 minutes, Transmitter will be automatically powered off.

If the device (Transceiver unit) already has connection with another device using the same *Bluetooth*® profile (A2DP), automatic connection will be failed.

Notes:

- If the Transceiver is switched off and on, it may require 20-30 seconds for the Transmitter to detect disconnection before re-connection.
- Music streaming may be discontinued if the Transmitter and Transceiver are moved out of range of each other.

English

Buttons Terminology

The Transmitter unit with Power/pairing button (with LEDs) and a reset switch.

[⏻]

[RESET]

14-pin outlet socket

USB mini-B port

2.5mm audio jack input
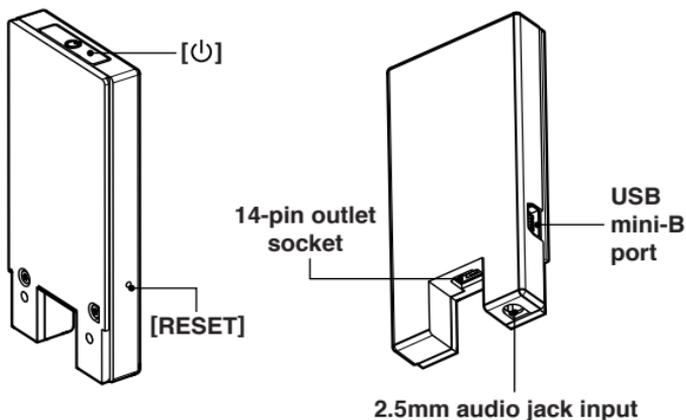
[⏻] button
· Use the button to power on/off.
· During power on, use the button to perform *Bluetooth*® pairing.

[RESET] switch
· Use the switch to reset the unit.

USB mini-B port
· Use USB mini-B cable through this port to charge the Transmitter.

2.5mm audio jack input
· Connect to external audio player.

14-pin outlet socket
· Connect to iPod Cradle.

Understanding The Transmitter Unit Indicators

English

Event	LEDs	
	Red	**Blue**
During power on	Blink 3 times	Lights up for 1-2 seconds
During power off	Blink 3 times, Blink 1 more time after iPod is off	Blink dimly until iPod is switched off (~ 2 sec)
Powered (No activity)	Blink once every 5 sec	Blink dimly quickly
Bluetooth® pairing mode	Blink alternately	
Receiver connected, Music streaming	-	Blink once every 5 sec Blink dimly quickly
Battery Low	Blink twice every 4 sec	-
Charging	On	-
Charging completed	-	On

Notes:

• "**Blink**" refers to the LED is blinking brightly.

• "**Blink dimly**" refers to the LED is blinking not brightly.

English

Basic Operations

Please make sure you have read through chapter "**Setting Up DGL373**" on page 7 before proceed to the following operations. For iPod/external audio player operations, please refer to your corresponding product owner's manual.

Turning on/off the Transmitter power

1. Press the **[⏻]** button once to power on.
2. Press and hold the **[⏻]** button for 3 seconds or longer to power off.

Note:

· When the Transmitter is powered off, iPod will be turned off as well when used with iPod Cradle.

Automatic power off

Transmitter will be automatically powered off in the following situations:

1. Three minutes of inactivity or without any connected device to conserve energy. iPod will be turned off as well if it is connected to the Cradle.
2. Battery is very low or exhausted.

Note:

· If the Transmitter is automatically shut down due to battery exhaustion, all pairing information will be erased. Thus, it is recommended to recharge the Transmitter when battery is low.

Activating *Bluetooth*® Audio Transmitter pairing mode

1. Press the **[⏻]** button once to power on.
2. Press the **[⏻]** button to activate *Bluetooth*® pairing mode.

Notes:

· If no device is paired after 3 minutes, pairing mode will be cancelled and Transmitter unit will shut down.
· For more information on *Bluetooth*® pairing, please see chapter "**Pairing Sequence**" on page 10.

Resetting the Transmitter unit

This function is used to restore to factory default setting and clear all pairing information.

1. Press the **[RESET]** switch once to perform reset function. Device will be automatically powered off.

Notes:

· iPod will not be turned off in this case and iPod will not be reset.

· User needs to press the **[⏻]** button again to restart the device.

Charging the Transmitter

The Transmitter can be charged through several ways. The charging time may require up to 2 hours for 8 hours of continuous music playing.

● **Via USB mini-B cable (Included)**

1. Connect the USB mini-B plug to the Transmitter (through USB mini-B port).
2. Connect the normal USB plug (Series A) to the computer USB port.
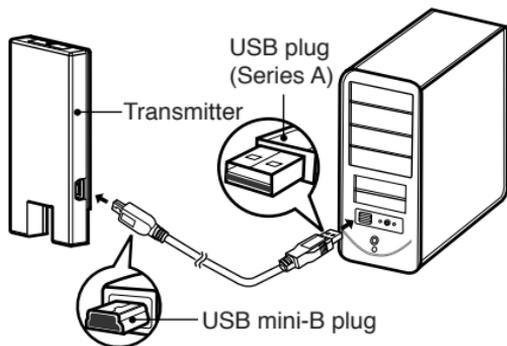
● **Via USB car cigarette charger adaptor (Included)**

1. Remove the car cigarette lighter head from the socket.
2. Connect the USB car cigarette charger adaptor to the socket.

English

3. Connect the normal USB plug to the charger adaptor.
4. Connect the USB mini-B plug to the Transmitter.

Transmitter

To the socket

USB car cigarette
changer adaptor
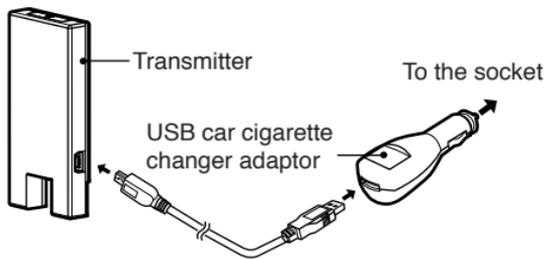
Notes:
- While charging, the following activities will be observed.
  - i) Both Transmitter (when attached with iPod Cradle) and iPod are charged at the same time.
  - ii) Music streaming is not affected.
  - iii) Red LED remains ON.
- After charging is completed, blue LED remains ON.
- USB mini-B port is used for charging only, it cannot be used to transfer files to the iPod when used with iPod Cradle.

English

Music Streaming and Playback Control

Music streaming is a technique for transferring audio data such that it can be processed as a steady and continuous stream.

Users can stream music from their iPod or other external audio player to their car stereo and listen to the tracks through the car's speakers.

WHAT IS A2DP?

A2DP (Advanced Audio Distribution Profile) is a *Bluetooth*® profile that allows you to send CD quality stereo music from one device to another without wires. A2DP is able to provide crystal clear music without the hassle of plugging cables. *Bluetooth*® wireless technology with A2DP makes this Transmitter unit capable of streaming music.

WHAT IS AVRCP?

AVRCP (Audio Video Remote Control Profile) is another *Bluetooth*® profile that enables music from external audio player to be controlled remotely. AVRCP allows some basic playback control functions such as play/pause, volume up/down and next/previous track to an external audio player.

⚠ CAUTION

- The Transceiver works as one way communication to the Transmitter. Thus, please avoid controlling the iPod (when Transmitter is used with iPod Cradle) and Transceiver at the same time as this might cause some incorrespondence operations between the both devices.

Notes:
- Please refer the Transceiver unit owner's manual for more information on AVRCP control operations. This Transmitter only supports play/pause and next/previous track for iPod.
- There is no volume control support from the analog output of 30-pin iPod connector interface. Changing the volume on the iPod through the "**wheel**" control will have no effect on the music streaming.
- There is no remote control to external audio player that connected to Transmitter through 2.5mm audio jack input.

6. COMPATIBLE MODELS

Supported iPod Cradle models
This Transmitter unit is specially designed to work with Clarion iPod Cradle. Different iPod models will require different type of iPod Cradle. Please consult your nearest Clarion dealer for more details.

Supported other external audio player
The audio player must be able to output audio to the 2.5mm audio jack input of this Transmitter unit.

Supported device with *Bluetooth*® wireless technology
DGL373 is specially designed and work best with Clarion *Bluetooth*® Audio/ Mobile-phone Transceiver for AUX Input (BLT373).

Make sure your headset supports the following *Bluetooth*® profiles:
- A2DP (stereo music streaming)
- AVRCP (remote control function)

Please take note that wireless headset from other brands may not be fully compatible with this Transmitter unit.

Please consult your nearest Clarion dealer for the Transceiver unit and headset offer.

English

Problem	Cause	Description
During power off, the LED blinks whenever the on/off button is pressed.	Power on illusion	It can be powered up after the button is pressed once. However, this sequence may fail sometimes. If it happens, release the button and retry again.
The device does not start up properly upon power up.	Power on failure	User may execute following steps to recover the situation. a) Press the **[RESET]** switch if the red LED is on. b) Try to switch on the Transmitter again.
iPod control (AVRCP) does not work, but music is streaming. (used with iPod Cradle).	This could be due to a loose connection between Transmitter, Cradle and iPod.	Make sure the Transmitter and the iPod are securely connected to the Cradle.
	The AVRCP profile might not be connected.	Power off and power on the Transmitter to auto re-establish connection.

8. SPECIFICATION

Compliance	*Bluetooth*® 1.2
Profiles	A2DP (stereo music streaming) AVRCP (remote control function, e.g. play/pause, next/previous track)
Wireless range	Class 2: Up to 10m (line of sight)
Tx/Rx radio sensitivity	-80dBm
Data rate	Forward: 723kbps Reverse: 57kbps
Antenna	2.45 GHz chip type
Compression	SBC (sub-band coding)
Compression ratio	4:1-6:1 typical
Bit rate	Programmable (<350kbps typical)
Stereo audio	16kHz-48kHz, 16bit (for music)
iPod support	MMI support for iPod e.g. play/pause, next/ previous track etc
Operating temperature	-20°C~60°C
Storage temperature	-40°C~85°C
Dimensions	Approx. 35mm (Width) x 74mm (Height) x 10mm (Depth)
Weight	Approx. 26g
Audio bandwidth	30Hz-20kHz
Signal-to-Noise Ratio	~84dB
Analog in	Line level (1 Vrms)
Voltage	3.7V
Max current	60mA
Battery life (full running)	~8hr on 3.7v 500mAh polymer lithium ion battery
Charging time	~2hr on 3.7v 500mAh polymer lithium ion battery
Power source	4.5-6.5V DC

Safe and efficient use
Note:
Read this information before using this product.

Changes or modifications to this product not expressly approved by **Clarion** may void the user's authority to operate the equipment.

Please check for any exceptions, due to national requirements or limitations, in usage of equipment with *Bluetooth*® wireless technology before using this product.

Product care
·   Do not expose your product to liquid or moisture or to humidity.

·   Do not expose your product to extreme high or low temperatures.

·   Do not expose your product to lit candles, cigarettes, or cigars, or to open flames etc.

·   Do not drop, throw or try to bend the product as rough treatment could damage it.

·   Do not use any other accessories than **Clarion** originals intended for use with this product. Use of non-original accessories may result in loss of performance, damage to the product, fire, electric shock or injury. The warranty does not cover product failures which have been caused by use of non-original accessories.

·   Do not attempt to disassemble your product. The product does not contain consumer serviceable or replaceable components. Only **Clarion** service partners should perform service.

·   Do not keep the product in an area prone to dust and dirt. Only use a soft damp cloth to clean your product.

·   If you will not be using the product for a while, store it in a place that is dry, free from damp, dust and extreme temperatures.

·   To reduce risk of electric shock, unplug the unit from any power source before attempting to clean it.

9. ADDITIONAL INFORMATION

This Product uses the lithium polymer ion battery

⚠ CAUTION

- Do not use or store the battery near sources of heat such as a fire or heater.
- Do not use or store the battery where is exposed to extremely hot, such as under window of a car in direct sunlight in a hot day. Otherwise, the battery may be overheated. This can also reduce battery performance and/or shorten service life.
- Do not use any chargers other than those recommended by Clarion.
- Do not attempt to disassemble or modify the battery in any way.
- Do not recharge the battery near a fire or in extremely hot conditions.

⚠ CAUTION

If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private households in the 25 member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one). For countries not mentioned above, please contact your local authorities for the correct method of disposal.By doing so you will ensure that your disposed product under goes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health.

EC DECLARATION OF CONFORMITY

We : **Clarion Europa GmbH**

  Hessenring 19-21, 64546 Mörfelden-Walldorf, Germany.

Declare under our sole responsibility that the following Product(s)

Model : Bluetooth® Audio Transmitter
Part No(s) : DGL 373

is (are) conformity with the following relevant harmonized standards:

EN 300 328 V1.6.1 : 2004 - Electromagnetic compatibility and radio spectrum matters(ERM); Wideband Transmission systems operation in the 2.4GHz ISM band. Part 2 Essential requirements under Article 3.2 of the RTTE directive.

EN 301 489-1 V1.6.1 : 2005 – EMC standard for radio equipment and services. Part 1: Common technical requirements.

EN 301 489-17 V1.2.1 : 2002 – EMC standard for radio equipment and services. Part 17 : Specific conditions for Wideband and HIPERLAN equipment.

Following the provisions of Council Directive 89/336/EEC relating to electromagnetic compatibility on a voluntary basis.

S. Yamakawa:President

Mörfelden-Walldorf, Germany.
Date : 06 April 2007

On behalf of Clarion Europa GmbH

Clarion Co., Ltd.