

# Hands Free DSP PDA Carkit

CHFS-34 HTC Tornado Noble / Qtek 8310 / i-Mate Sp5



## Introduction

This installation manual has been prepared to provide the basic information needed to install the Hands Free Carkit. This manual is not intended to be definitive, because there are different models and types of vehicles which will require different installation work. The information given is for general guidance only.

The terms of warranty demand that this Hands Free Carkit set is installed by an experienced installer. An end-user should never attempt to install this Hands Free Carkit without professional assistance as the installation requires special tools and knowledge.

Note: Thoroughly read the manual before beginning the installation procedure.

## WARNINGS

1. Ensure that the vehicle's battery is disconnected before you start the installation procedure and that it remains disconnected during the procedure.
2. Do not smoke or use open flames when working near the vehicle's fuel system.
3. Ensure that the vehicle's electrical cables, hydraulic lines, fuel lines and safety equipment are not damaged during the installation.
4. Ensure that normal control and operation of the vehicle is not impaired by the installation, particularly the brakes and steering. Ensure that airbag operation is not obstructed.
5. Electronic and other sophisticated systems (for example speed control, ABS anti-lock brake, fuel injection-, navigation- and airbag systems) are relatively immune to malfunction caused by nearby radio transmissions. Should you experience false operation of these systems or are in any doubt whatsoever as to their functionality, please consult the vehicle's dealer.
6. The Hands Free Carkit set is suitable for use only in vehicles with a 12V negative grounding. Use on other supply voltages or alternative polarity will damage the equipment.
7. The PDA should not be left switched on for extended periods without running the vehicle's engine. Failure to comply could drain the vehicle's battery.

## Contents of the Hands Free PDA Carkit set:

Handsfree DSP Unit  
PDA Cradle  
Rotating Swivel  
Microphone CHCM-14  
Powercable CIPC-14  
Screw Sets

## Optional:

Carcomm ENAV GPS Receiver  
Speaker CHCS-05  
Gooseneck Microphone CHFM-14  
ISO Power Cable CIPC-26  
External Antenna Adaptor CPAA-03

## Installation

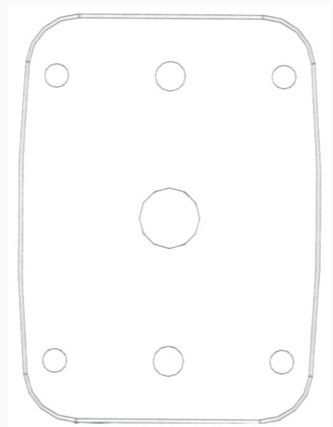
There are some important aspects that require special attention in positioning the carkit's accessories. The location of the PDA Cradle should be positioned so that the visibility of the PDA's display is good and the driver is not distracted. The location of the PDA Cradle should allow the driver to easily reach the touchscreen. Under no circumstances should the PDA Cradle prevent the driver from controlling or operating the vehicle in any way. For easy installation there is a Carcomm car specific Safety-Mount® available separately. This allows you to mount the cradle onto your dashboard without damaging it. Some drilling can be necessary to mount the cradle onto the Safety-Mount®. You can use the pattern to the right to see hole positions.

The microphone should be installed as close to the driver's mouth as possible and attached to a surface that is mechanically quiet. The microphone should be mounted at least 1 meter from the speaker to avoid acoustic feedback.



## Compatible devices

HTC Tornado Noble  
Qtek 8310  
i-mate Sp5



Safety-Mount® pattern

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To position the microphone in an optimal position please check Figure 1.

The carkit's main unit which contains the Digital Signal Processor should be mounted in a dry place away from the car's heating system. Make sure that the cables are routed as far away as possible from the vehicle's electronic systems. This is to prevent interference. Also ensure that the cables are not subjected to undue mechanical stress for example under seats or against sharp edges.

This carkit includes a Power Cable. The ignition sense feature prevents your Hands Free Carkit Set from draining the vehicle's battery by executing an auto power off after the ignition key has been turned off. The blue wire of the power cable is used for the ignition sense feature. The blue wire is connected via a 2A fuse to a 12 volt supply that is controlled by the ignition key. Do not connect it directly to the high voltage sections of the ignition circuit. When the PDA is taken from the cradle, the carkit will go in standby mode after a few minutes.

## Radio Muting

The Hands Free PDA Carkit offers a feature which can mute the car radio automatically during a phone call, when playing audio or when a voice command is given by for example navigation software which is installed on your PDA. To avoid interference, the yellow wire is switched to the GND (max 50mA), which mutes the radio. When installed with the power cable it is possible to take over the front left or front right speaker. The yellow wire in the power cable needs to be plugged in the correct position of the vehicle's radio ISO connector which is installed in the vehicle. Please check your vehicle's radio manual for the correct position. To play the audio over the right/left front car speaker, please check table 1 how to connect the wiring. The carkit is not suitable to use to play music on, the frequency range is optimized for voice frequencies and the signal is coming from the carkit is a mono signal.



Figure 1.



CIPC-14 HF Carkit Power Cable		
Wiring colors	Vehicle's connections	Molex pin
Red Wire	The positive voltage on the vehicle's power supply, fused 2A ( +30 )	6
Black Wire	The negative GND connection to the chassis of the car ( +31 )	5
Blue Wire	The +12V Voltage controlled by the vehicle's ignition key, fused 2A ( +15 )	13
Yellow Wire	Used for car radio muting. Switched to GND during a phone call or when the PDA produces a sound.	14
Purple	Radio Front Right -	16
Purple / Black	Radio Front Right +	7
Grey	Speaker Front Right -	8
Grey / Black	Speaker Front Right +	15

Table 1.

## Connecting a Carcomm Euro-Navigator GPS Receiver. (optional)

The phones supported by this cradle only support Bluetooth GPS Receivers. When installing a Bluetooth GPS Receiver please follow the instructions supplied with the product, phone and software to set it up.

## Connecting the Carcomm CIGM-918 Quad-Band Inside-Glass Antenna. (Optional)

Connect the FME Female plug from the CIGM-918 to the FME Female connector of the Smartphone cradle. The Antenna should be mounted onto the vehicle's windscreen with the VHB tape inside the vehicle.

## Remarks

In vehicle's with UV / heat protected windows the GPS reception can be influenced and decreased. Communication settings of the PDA should be set to Serial on COM1.