



HARMAN SMART/AUTO: CONNECTED HEADUNIT EXPERIENCE

A New HARMAN Aftermarket Head Unit for all vehicles

In order to enjoy the connected car benefits and access the latest cool features in a car, a consumer does not need to wait until it's time to acquire a new vehicle. The Harman Smart/Auto: Connected Headunit eXperience Unit enables automotive OEMs to quickly offer the latest technology in Infotainment to the owners of their vehicles. Based on an Android platform and equipped with Android Auto and Apple CarPlay, Harman Smart/Auto: Connected Headunit eXperience can support multiple display sizes starting from 7-inches to 10-inches. It supports On-Board Navigation, Voice Assistance as well as Google's Waze navigation application. It also supports Rear Seat Entertainment and CAN controller to access various vehicle functionalities.

Safe, Smart and Connected Driving - enabled!

Harman Smart/Auto: Connected Headunit eXperience is based on Qualcomm Android platform that enables newer features to be added at a lower cost. The platform provides flexibility to customize the faceplate as well as the harness adapter to integrate seamlessly with the Instrument Panel for multiple OEMs. Moreover, the platform HMI and CAN stack can be customized per the OEM's needs.

The platform supports multiple USB ports capable of 2.1A charging and can provide Android Auto and Apple CarPlay on each of the ports. Additionally, it supports accessories such as multiple camera inputs like Rear Camera or 360-degree camera, steering wheel control, external AMP, multiple external Audio-Video inputs like DTV, Rear Seat Entertainment and more.

The Harman Smart/Auto: Connected Headunit eXperience platform supports built-in connectivity in addition to Wi-Fi and Bluetooth. The platform also protects the vehicle and its' passengers against cyber-attacks. It enables over-the-air (OTA) update of the in-vehicle software. Additionally, the platform will support Virtual Private Assistant as well as a suite of cloud-enabled apps supporting multiple use cases such as Music Streaming, Online Navigation and Telematics.

Top-line Benefits

- Safe to use the smartphone while driving – Projection mode technology from both Apple and Google is supported
- Reach your destination fast using connected (on-board and online) navigation
- Bluetooth hands-free phone calls and one-touch voice command support via smartphone
- Stream your favorite music with one click of a button
- Use connected services easily with the help of third party applications
- Great value offered at a very attractive price

Product specifications

- 2-DIN Head Unit (2 GB RAM/16 GB FLASH)
- QC Processor 8917 (with modem, with MCU)
- Android Auto
- Apple CarPlay
- 7", 9" and 10" Capacitive Touch Screen (with IPS)
- AM/FM Tuner with RDS
- USB2.0 (2.1A Charging)
- Rear Camera Input
- Bluetooth 4.0 (HFP, AVRCP, A2DP, SPP, SSP)
- External AMP support
- "Push to Talk" Button
- USB Audio/Video
- Multi AV Inputs (e.g. DTV, AUX)
- SWC support
- Wi-Fi and LTE backhaul
- Illumination, parking and reverse signals
- RSE Support via HDMI
- Offline Navigation
- Third party native Apps
- Waze navigation application

Available in 2 models:

1. CHX 500 (Basic Connected Head Unit with USB, Wi-Fi/BT, Android Auto and Apple Carplay)
2. CHX 1000 (Premium Connected Head Unit with IGNITE 3.0 cloud services, Waze, Voice Assistant)

www.harman.com

©2019 HARMAN INTERNATIONAL INDUSTRIES, INCORPORATED

This document is for informational purposes only. All rights reserved.

Features and Benefits

Android Auto and Apple CarPlay	Featuring latest mirroring standards such as Apple CarPlay and Android Auto to safely access iPhone/Android phone features from the Infotainment Unit
Multiple USB ports	Supports multiple smartphones and USB devices in the car
Fast Phone Charging	Support 2.1A charging on all the ports
In-vehicle LTE connectivity	Built in modem enables LTE connectivity in the vehicle
On-Board and Online Navigation	<ul style="list-style-type: none">• Supports integrated on-board navigation with Turn-by-turn navigation support by NNG• Supports Waze
Multiple AV and Camera Inputs	<ul style="list-style-type: none">• Supports rear view and 360-degree camera• Supports multiple AV inputs including DTV, AUX, etc.
Secure and safe	<ul style="list-style-type: none">• Supports Intrusion Detection algorithms and protects the vehicle• Supports OEM key-signing and whitelisting
Convenient software updates	Users need not visit an authorized dealer whenever there is a software update. Firmware updates, software updates, and data collection is done Over-The-Air (OTA).
Connectivity and in-vehicle entertainment	Supports the following: <ul style="list-style-type: none">- Vehicle CAN functionality- Rear Seat Entertainment via HDMI- External AMP
Immersive sound	Supports 4x 45W speakers in addition to the sub-woofer
Streaming music	Supports native music apps
Driver Behavior Analytics	Monitors driver behavior for incidents such as harsh braking, sharp turns etc. and provides analytics to help make contextual recommendations encouraging safe and smart driving.
Roadside Assistance	Allows partnerships with Roadside Assistance Service providers to provide a wide range of services (flat tire, bad battery, etc.)
Vehicle Telematics	Information such as vehicle location, speed, fuel and mileage, engine parameters, malfunction indicators, DTC codes, trip reports etc. are available to the user
Virtual Personal Assistant	Supports the deployment of a Virtual Personal Assistant (VPA) designed for Auto. It enhances the in-vehicle experience with full conversations to support complex requests

Partner with an industry expert

HARMAN International is a wholly-owned subsidiary of Samsung Electronics Co., Ltd. focused on connected technologies for automotive, consumer and enterprise markets.

HARMAN (harman.com) designs and engineers connected products and solutions for automakers, consumers, and enterprises worldwide, including connected car systems, audio and visual products, enterprise automation solutions; and services supporting the Internet of Things. With leading brands including AKG®, Harman Kardon®, Infinity®, JBL®, Lexicon®, Mark Levinson® and Revel®, HARMAN is admired by audiophiles, musicians and the entertainment venues where they perform around the world. More than 50 million automobiles on the road today are equipped with HARMAN audio and connected car systems. Our software services power billions of mobile devices and systems that are connected, integrated and secure across all platforms, from work and home to car and mobile. HARMAN has a workforce of approximately 30,000 people across the Americas, Europe, and Asia. In 2017, HARMAN became a wholly-owned subsidiary of Samsung Electronics Co., Ltd.



Visit our website [harmanconnected.services/get-connected](https://www.harmanconnected.services/get-connected)