

# Intravee II Supported Devices

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This document outlines the devices that may be used in conjunction with the Intravee using the firmware release that matches the document revision number. Additional devices or features may be supported by later firmware releases.

For each device there is a picture of the device, which is approximately to scale to give an idea of the size of the unit, a list of the supported features, display characteristics and any significant special characteristics that the user or installer should take note of. As far as possible all features of all devices are available for all the different head unit combinations that can be used by the Intravee.

## 1. CD Changers

### 1.1. CHA-S604



#### Description

6 Disc CD Audio Changer

#### Supported Features

- Play
- Pause
- Next/Prev Track
- Fast Forwards
- Rewind
- Select Disc 1-6
- Random Mode
- Repeat Track or Disc
- Intro Scan

#### Supported Media

- Audio CD

#### Display Capability

- Track Number
- Track Time
- Disc Number

#### Special Considerations

- Mode Selector switch must be set to the AI position.

## 1.2. CHA-S605



### Description

6 Disc CD Audio Changer with optical digital audio output

### Supported Features

- Play
- Pause
- Next/Prev Track
- Fast Forwards
- Rewind
- Select Disc 1-6
- Random Mode
- Repeat Track or Disc
- Intro Scan

### Supported Media

- Audio CD

### Display Capability

- Track Number
- Track Time
- Disc Number
- Disc Time

### Special Considerations

- Mode Selector switch must be set to position 1, AI-Net.

## 1.3. CHA-S607



### Description

6 Disc CD Audio Changer with optical digital audio output

### Supported Features

- Play
- Pause
- Next/Prev Track
- Fast Forwards
- Rewind
- Select Disc 1-6
- Random Mode
- Repeat Track or Disc
- Intro Scan

### Supported Media

- Audio CD

### Display Capability

- Track Number
- Track Time
- Disc Number
- Disc Time

## 1.4. CHA-S614



### Description

6 Disc CD Audio Changer

### Supported Features

- Play
- Pause
- Next/Prev Track
- Fast Forwards
- Rewind
- Select Disc 1-6
- Random Mode
- Repeat Track or Disc
- Intro Scan

### Supported Media

- Audio CD

### Display Capability

- Track Number
- Track Time
- Disc Number

## 1.5. CHA-S624



### Description

6 Disc CD Audio Changer with CD Text support and optical digital audio output.

### Supported Features

- Play
- Pause
- Next/Prev Track
- Fast Forwards
- Rewind
- Select Disc 1-6
- Random Mode
- Repeat Track or Disc
- Intro Scan

### Supported Media

- Audio CD

### Display Capability

- Track Number
- Track Time
- Disc Number
- CD Text Track Name
- CD Text Disc Name split into Album and Artist



## 1.6. CHA-S634



### Description

6 Disc MP3 CD Changer with CD Text support

### Supported Features

- Play
- Pause
- Next/Prev Track
- Next/Prev Folder
- Fast Forwards
- Rewind
- Select Disc 1-6
- Random Track from Folder or Disc
- Repeat Track, Folder or Disc
- Intro Scan
- Folder Search
- File Search

### Supported Media

- Audio CD
- MP3 CD

### Display Capability

- Track Number
- Folder Number
- Track Time
- Disc Number
- CD Text Track Name
- CD Text Disc Name split into Artist and Album
- File Name
- Folder Name
- ID3 Track
- ID3 Artist
- ID3 Album

### Special Considerations

- Mode Selector switch must be set to position 1, AI-Net.
- Only ID3 V1 tags are read from MP3 CD's
- Presence of ID3 V2 tags can significantly slow down operation or even prevent playback.
- Joliet file names are ignored, for long file names ISO 9660 must be used

### 1.6.1. Mode selector Switch



Mode selector switch

The small mode selector switch on the inside of the changer magazine door must be set to the Ai-Net position (position 1) and not the M-Bus position (position 2).

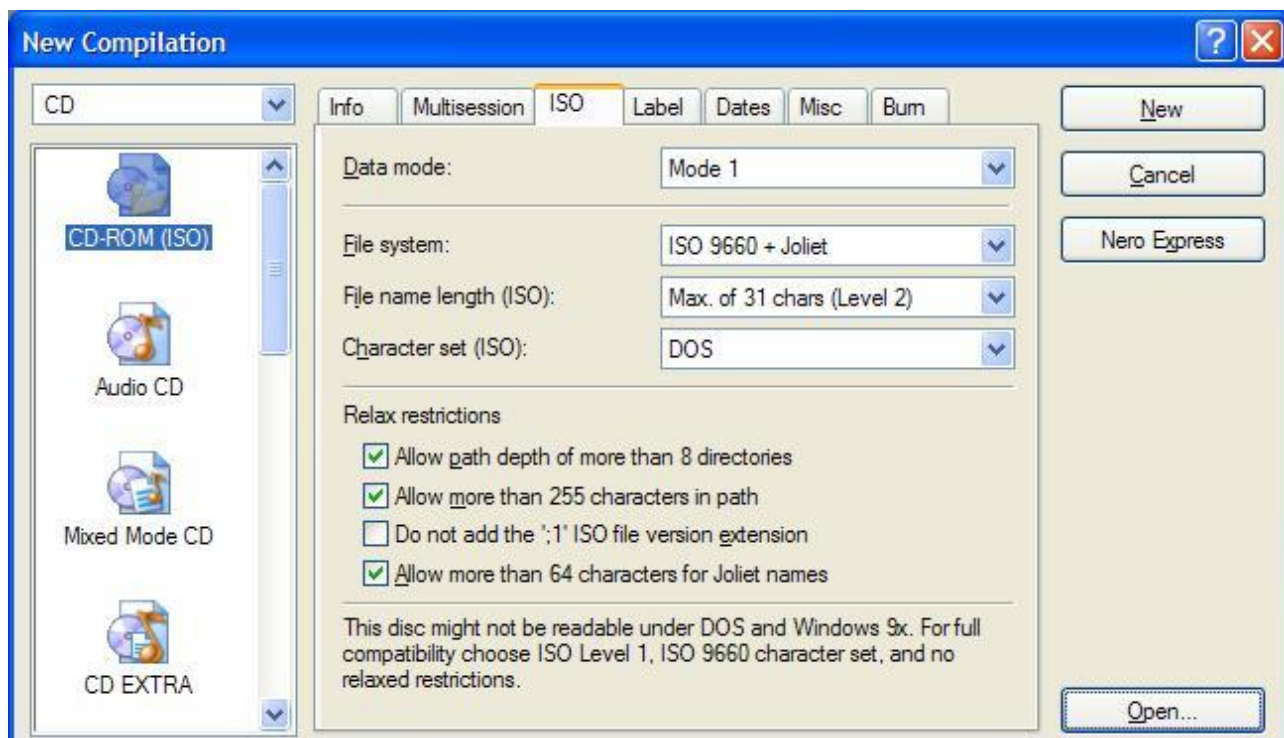
If you have previously had the CHA-S634 connected to your BMW via another interface then the switch is very likely to be in position 2, all common BMW/Alpine interfaces work in M-Bus mode.

### 1.6.2. Creating CD's for the CHA-S634

The CHA-S634 will only recognise long file names on CDs that have been created in a very specific way. Programs that have been found to work are Nero V6.6. and UltraISO.

#### Nero 6.6

On the ISO tab of Nero use the following settings :



Nero Express does not allow you to change these settings. Also, high bit characters, for example those with accents, will not display correctly with Nero.

## UltraISO

Using UltraISO use the following settings in the File Properties dialog:



Using UltraISO with the above settings will allow long file names and high bit characters.

## Other Methods of Creating CD's

Roxio Easy CD Creator and Windows XP cannot create compatible disks; file names will be read by the CHA-S634 with only 8 characters and the .MP3 extension.

## ID3 Tags

The CHA-S634 will only read ID3 V1 tags, not ID3 V2 tags. You can have both types of tags on the same file, however it is strongly advised that you do not use V2 tags that have a lot of information, for example Album Art or lyrics, as this can slow down track browsing or, in some cases, prevent the CHA-S634 from reading the disk at all.

## 1.7. CHA-1204



### Description

12 Disc CD Audio Changer

### Supported Features

- Play
- Pause
- Next/Prev Track
- Fast Forwards
- Rewind
- Select Disc 1-12
- Random Mode
- Repeat Track or Disc
- Intro Scan

### Supported Media

- Audio CD

### Display

- Track Number
- Track Time
- Disc Number

## 1.8. CHA-1214



### Description

12 Disc CD Audio Changer

### Supported Features

- Play
- Pause
- Next/Prev Track
- Fast Forwards
- Rewind
- Select Disc 1-12
- Random Mode
- Repeat Track or Disc
- Intro Scan

### Supported Media

- Audio CD

### Display

- Track Number
- Track Time
- Disc Number

## 2. Video CD Changers

### 2.1. VPA-S001



#### Description

6 Disc Video CD Changer with composite out

#### Supported Features

- Play
- Pause
- Next/Prev Track
- Fast Forwards
- Rewind
- Select Disc 1-6
- Random Mode
- Repeat Track or Disc
- Intro Scan

#### Supported Media

- Audio CD
- Video CD

#### Display Capability

- Track Number
- Track Time
- Disc Number
- Disc Time

#### Special Considerations

- Mode Selector switch must be set to position 1, AI-Net.



## 3. DVD Changers

### 3.1. DHA-S680P



#### Description

6 Disc CD DVD Changer with CD Text support

#### Supported Features

- Play
- Pause
- Next/Prev Track
- Fast Forwards
- Rewind
- Select Disc 1-6
- Random Mode
- Repeat Track or Disc
- Intro Scan

#### Supported Media

- Audio CD
- Video CD
- DVD Video

#### Display Capability

- Track Number
- Disc Number
- CD Text Disc Name split into Artist and Album
- Track Time
- CD Text Track Name

#### Special Considerations

- Additional un-switched power and ground must be supplied. Ignition line must NOT be connected. Power MUST be connected before connection to the Intravee as otherwise surges may blow the Intravee internal fuse.
- Must be configured for AI-Net head unit connection.
- Must be configured for CD Changer and not DVD Changer.
- If used with the KCA-400c switch the use of the 'Port Override' is recommended; without this setting enabled, sometimes the port must be selected twice as power up is too slow for it to be recognised the first time, sometimes the changer may not be selectable.
- DVD menu navigation cannot be performed without the infra-red remote control.
- Connection to the pass through port is not supported.

## 3.2. DHA-S690



### Description

6 Disc DVD Changer with CD Text, MP3, WMA, DVD and DivX support

### Supported Features

- Play
- Pause
- Next/Prev Track
- Next/Prev Folder
- Fast Forwards
- Rewind
- Select Disc 1-6
- Random Track from Folder or Disc
- Repeat Track, Folder or Disc
- Intro Scan
- Folder Search
- File Search

### Supported Media

- Audio CD
- MP3, WMA, AAC and WAV Audio from CD or DVD
- Video CD
- DivX and ASF Video
- DVD Video
- DVD-V

### Display Capability

- Track Number
- Folder Number
- Track Time
- Disc Number
- CD Text Track Name
- CD Text Disc Name split into Artist and Album
- File Name
- Folder Name
- ID3 Track
- ID3 Artist
- ID3 Album

### Special Considerations

- Additional un-switched power and ground must be supplied. Ignition line must NOT be connected. Power MUST be connected before connection to the Intravee as otherwise surges may blow the Intravee internal fuse.
- Must be configured for AI-Net head unit connection.
- If used with a KCA-400c or KCA-410c switch with the 'Port Override' option must be set, otherwise power up is too slow for the device to be recognised by the switch.
- DVD menu navigation cannot be performed without the infra-red remote control.
- CD Changer AI-Net mode recommended for maximum feature support.



## 4. MD Changers

### 4.1. MHA-S670



#### Description

- 6 Disc MD Audio Changer with MD Text support

#### Supported Features

- Play
- Pause
- Next/Prev Track
- Fast Forwards
- Rewind
- Select Disc 1-6
- Random Mode
- Repeat Track or Disc
- Intro Scan

#### Supported Media

- MD

#### Display Capability

- Track Number
- Track Time
- Disc Number
- MD Text Track Name
- MD Text Disc Name split into Artist and Album

#### Special Considerations

- Only standard MD using ATRAC are supported, MD-LP using ATRAC3 and Hi-MD using ATRAC3 plus are not supported.

## 5. iPod Interface

### 5.1. KCA-420i



#### Description

iPod interface

#### Supported Features

- Play
- Pause
- Next/Prev Track
- Fast Forwards
- Rewind
- Random Track
- Repeat Track
- Playlist Search
- Artist Search
- Album Search
- Sub-Album Search, Albums by selected Artist
- Track Search

#### Display Capability

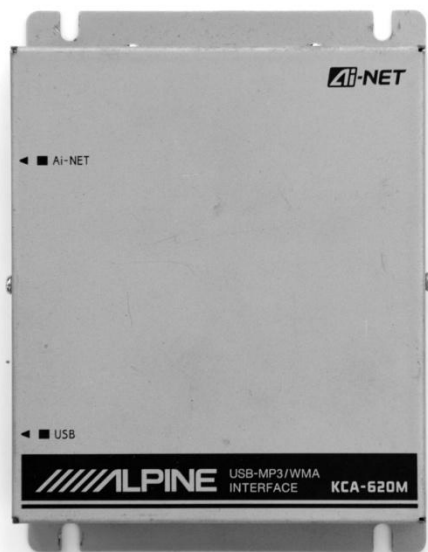
- Track Number
- Track Time
- ID3 Track
- ID3 Artist
- ID3 Album

#### Special Considerations

- Playlist, Artist, Album and Sub-Album search limited to 511 items.
- Song search limited to 255 songs.
- Cannot wake iPod from Deep Sleep or Hibernation without modification.
- Cannot charge the latest generation of iPods (Gen 4, 5 and 6 Nano, Gen 2, 3 and 4 Touch, iPhone 3G, 3Gs and 4) without a charge converter.

## 6. USB Interface

### 6.1. KCA-620M



#### Description

USB Interface for MP3 and WMA playback.

#### Supported Features

- Play
- Pause
- Next/Prev Track
- Next/Prev Folder
- Fast Forwards
- Rewind
- Folder Search
- File Search

#### Supported Media

- Mass Storage Class USB devices with less than 500mA power requirement.

#### Display Capability

- Track Number
- Folder Number
- Track Time
- ID3 Track
- ID3 Artist
- ID3 Album

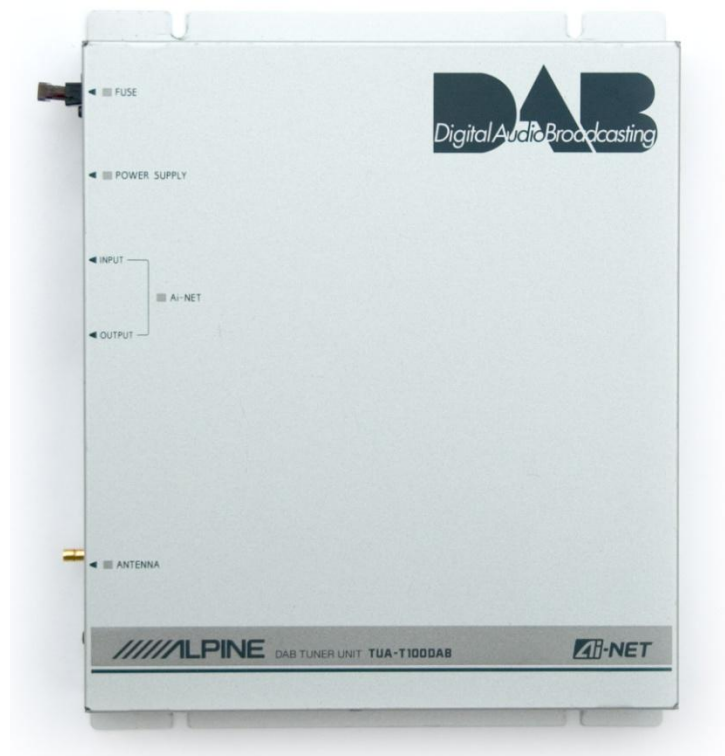
#### Special Considerations

- Should be installed with V12 firmware, the release V10 firmware has many limitations.
- Requires both ID3 V1 and ID3 V2 tags. Without both, not all text fields will be populated correctly.
- The file limit per USB device appears to be 1024 files total, but may also be ID3 tag data or file/folder name length dependent. With more files on the device random files can be selected instead of the desired file and random resets occur.
- A device with 1024 files can take up to 30 seconds to start playing from source selection.
- Folder and File search limited to 255 items.

- Sometimes reports 255 folders on the USB device, even when far fewer actually exist.
- Current play position lost on power down, selection reverts to 'All' and the first created on the device starts to play.
- Usually insufficient power for USB hard drives.
- The last few seconds of a track are frequently truncated; this is probably due to a miscalculation in file size caused by ID3 data. It is recommended that all tags are converted to ID3 V1, all ID3 V2 tags removed and then copied back from the ID3 V1 tags.
- Power up can be unreliable; usually cycling through different sources using the 'MODE' key will sometimes fix the problem. Cycling Intravee sources will usually fix the problem.
- Occasionally after a restart there is no audio, cycling sources usually fixes the problem.
- File numbers up to 1024 can be displayed, but track numbers with a multiple of 256 display as track 1. For example, 256, 512 etc.

## 7. Tuners

### 7.1. TUA-T100DAB



#### Description

DAB Digital radio tuner.

#### Supported Features

- Next/Prev Station
- Next/Prev Multiplex
- Primary/Secondary Service selection
- Save/Restore from 3 banks of 6 presets
- Autostore for selected preset bank
- Dynamic Range Control

#### Display Capability

- Station Name
- Multiplex Name
- Multiplex Number
- Genre
- DAB Text
- Component Name

#### Special Considerations

- Additional un-switched power and ground must be supplied, presets and the current station will be lost if power is removed. Power MUST be connected before connection to the Intravee as otherwise surges may blow the Intravee internal fuse.
- Connect the Intravee to the 'Output' port and other devices to the 'Input' port.

## 7.2. SIRALP-1



### Description

Sirius Satellite radio tuner.

### Supported Features

- Next/Prev Station
- Next/Prev Category
- Save/Restore from 3 banks of 6 presets

### Display Capability

- Station Name
- Station Number
- Genre
- Track Name
- Artist Name

### Special Considerations

- Additional un-switched power and ground must be supplied, presets and the current station will be lost if power is removed. Power MUST be connected before connection to the Intravee as otherwise surges may blow the Intravee internal fuse..
- Connect the Intravee to the 'Output' port and other devices to the 'Input' port.

## 7.3. SIRALP-10T



### Description

Sirius Satellite radio tuner.

### Supported Features

- Next/Prev Station
- Next/Prev Category
- Save/Restore from 3 banks of 6 presets

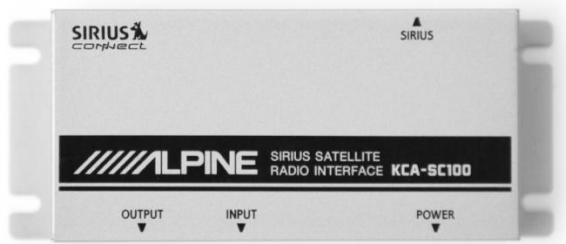
### Display Capability

- Station Name
- Station Number
- Genre
- Track Name
- Artist Name

### Special Considerations

- Additional un-switched power and ground must be supplied, presets and the current station will be lost if power is removed. Power MUST be connected before connection to the Intravee as otherwise surges may blow the Intravee internal fuse.
- Connect the Intravee to the 'Output' port and other devices to the 'Input' port.
- The Traffic information capability of the SIR-ALP10T is not broadcast over the AI-Net and is not supported.

## 7.4. KCA-SC100



# CONFIRMATION PENDING

### Description

Sirius Connect Satellite radio tuner interface.

### Supported Features

- Next/Prev Station
- Next/Prev Category
- Save/Restore from 3 banks of 6 presets

### Display Capability

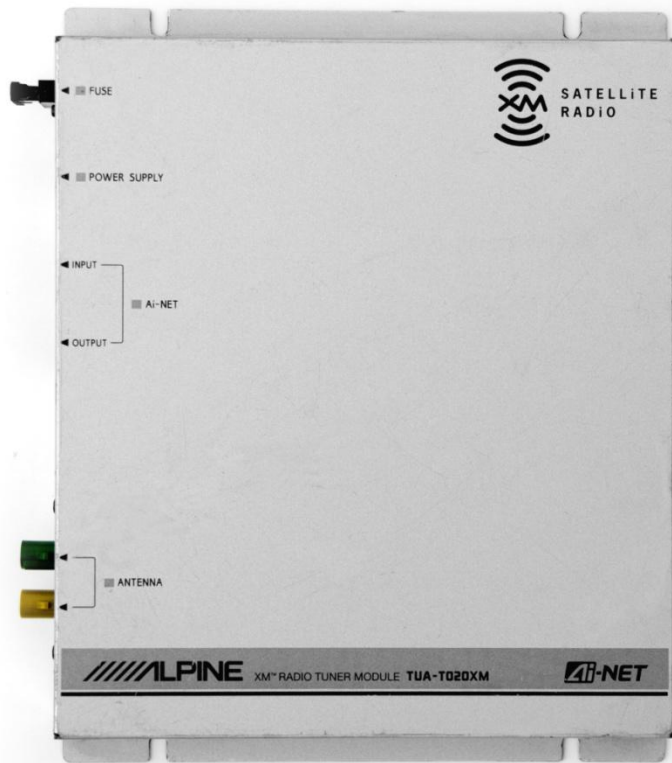
- Station Name
- Station Number
- Genre
- Track Name
- Artist Name

### Special Considerations

- Additional un-switched power and ground must be supplied, presets and the current station will be lost if power is removed. Power MUST be connected before connection to the Intravee as otherwise surges may blow the Intravee internal fuse..
- Connect the Intravee to the 'Output' port and other devices to the 'Input' port.



## 7.5. TUA-T020XM



### Description

XM Satellite radio tuner.

### Supported Features

- Next/Prev Station
- Save/Restore from 3 banks of 6 presets

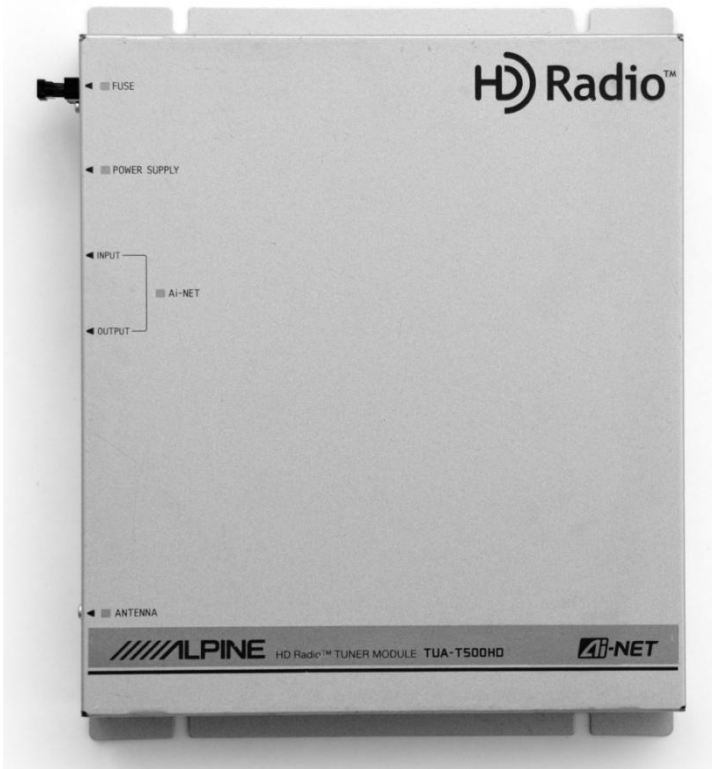
### Display Capability

- Station Name
- Genre
- Artist Name
- Station Number
- Track Name

### Special Considerations

- Additional un-switched power and ground must be supplied, presets and the current station will be lost if power is removed. Power MUST be connected before connection to the Intravee as otherwise surges may blow the Intravee internal fuse.
- Connect the Intravee to the 'Output' port and other devices to the 'Input' port.

## 7.6. TUA-T500HD



### Description

HD Digital radio tuner.

### Supported Features

- Next/Prev Station (Digital Only)
- Scan to Next/Prev Local Station
- Scan to Next/Prev Distance Station
- Manual Up/Down Tune
- Next/Prev Multiplex
- Next Band
- Save/Restore from 3 banks, 2 FM, 1 AM, of 6 presets
- Autostore for selected preset bank

### Display Capability

- Station Name
- Station Frequency
- Multiplex Number
- Genre
- Track Name
- Artist Name
- Album Name

### Special Considerations

- Additional un-switched power and ground must be supplied, presets and the current station will be lost if power is removed. Power MUST be connected before connection to the Intravee as otherwise surges may blow the Intravee internal fuse.
- Connect the Intravee to the 'Output' port and other devices to the 'Input' port.

## 7.7. TUA-T550HD



### Description

HD Digital radio tuner.

### Supported Features

- Next/Prev Station (Digital Only)
- Scan to Next/Prev Local Station
- Scan to Next/Prev Distance Station
- Manual Up/Down Tune
- Next/Prev Multiplex
- Next Band
- Save/Restore from 3 banks, 2 FM, 1 AM, of 6 presets
- Autostore for selected preset bank

### Display Capability

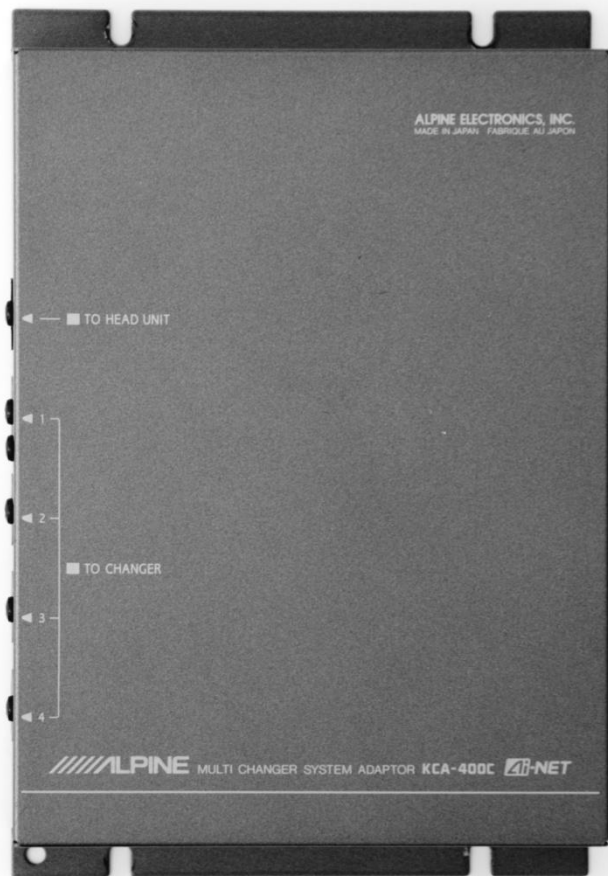
- Station Name
- Station Frequency
- Multiplex Number
- Genre
- Track Name
- Artist Name
- Album Name

### Special Considerations

- Additional un-switched power and ground must be supplied, presets and the current station will be lost if power is removed. Power MUST be connected before connection to the Intravee as otherwise surges may blow the Intravee internal fuse.
- Connect the Intravee to the 'Output' port and other devices to the 'Input' port.

## 8. Switches

### 8.1. KCA-400C



#### Description

4 port AI-Net switch.

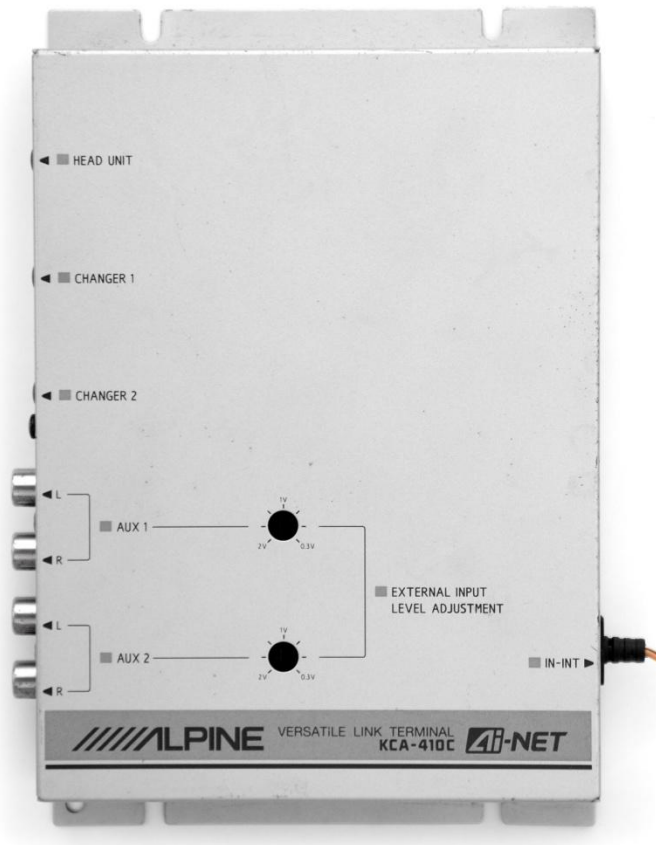
#### Supported Features

- Select ports 1 – 4
- Chain 2 x KCA-400C for 6 AI-Net ports
- Port Naming
- Port Override for use with DHA-S680P, DHA-S690, KCA-121B and KCA-235B.

#### Display Capability

- Switch Type
- Port Name

## 8.2. KCA-410C



### Description

2 port AI-Net and 2 Aux switch.

### Supported Features

- Select AI-Net ports 1 –2
- Select Aux ports 1-2
- Port Naming
- Port Override for use with DHA-S690, KCA-121B and KCA-235B.

### Display Capability

- Switch Type
- Port Name

## 8.3. Intravee Switch



### Description

3 port configurable switch.

### Supported Features

- Select AI-Net ports 1 –3
- Select Aux ports 1-3
- Configure port type
- Port Naming

### Display Capability

- Switch Type
- Port Name
- Switch Configuration
- Switch Serial Number
- Switch Firmware version

## 9. Sound Processors

### 9.1. PXA-H700/PXA-H701



#### Description

Sound Processor.

#### Supported Features

- Control of Volume, Balance, Fader and Sub-woofer level.
- Select Presets 1-6 and Defeat.

#### Display Capability

- Simple BMW 'DSP' Amplifier emulation.

#### Special Considerations

- Using an AI-Net device connected to the 'Changer In' port will prevent Nav prompts and phone audio from working in a standard BMW system unless a modified AI-Net cable is used.

## 9.2. PXA-H800



### Description

Sound Processor.

### Supported Features

- Control of Volume, Balance, Fader and Sub-woofer level.
- Select Presets 1-6 and Defeat.

### Display Capability

- Simple BMW 'DSP' Amplifier emulation.

### Special Considerations

- Using an AI-Net device connected to the 'Changer In' port will prevent Nav prompts and phone audio from working in a standard BMW system unless a modified AI-Net cable is used.



## 9.3. PXA-H100



### Description

Imprint Sound Processor.

### Supported Features

- Control of Volume, Balance and Fader.
- Imprint Off, Curve 1 and Curve 2 selection.
- Control of Bass and Treble when using Imprint Curves.
- Sub-Woofer configuration including Phase, Stereo/Mono, System and Level.
- Crossover configuration of Sub, Front and Rear Bands for Level Frequency and Slope.
- Select of all F-EQ presets.
- Time Correction parameters for all 6 Channels.
- Selection of Media Expender setting Off and 1-3.
- Configuration of 7 band Graphical Equaliser for user presets 4-6.
- Graphical and Parametric Equaliser.
- Front/Rear/Sub-Woofer or 3-Way crossover mode.
- Defeat Mode.

### Display Capability

- BMW 'DSP' Amplifier emulation, full Graphical Equaliser display and control.

### Special Considerations

- Using an AI-Net device connected to the 'Changer In' port will prevent Nav prompts and phone audio from working in a standard BMW system unless a modified AI-Net cable is used.