

# PACCAR Display

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## INTRODUCTION

This manual describes the vehicle's interactive system located on your dashboard.

## SAFETY

### In this operator manual

A number of alerting messages are in this manual. Please read and follow them. They are there for your protection and information. These messages can help you avoid injury to yourself and others, as well as prevent costly damages to the vehicle.

Key symbols and "signal words" are used to indicate what kind of message is going to follow. Pay special attention to instructions prefaced by symbols and the signal words "WARNING", "CAUTION", and "NOTE". Please do not ignore any of these alerts.

### WARNING

DRAFT 10/7/2010 12:03 PM

When you see this word, the message that follows is especially vital. It signals a potentially hazardous situation which, if not avoided, could result in an injury or death. This message will tell you what the hazard is, what can happen if you don't heed the warning, and how to avoid it.

Example:

Never carry additional fuel containers in the vehicle. Such containers, full or empty, may leak, explode or cause a fire in the event of a collision.

### CAUTION

Signals a potentially hazardous situation which, if not avoided, could result in property or vehicle damage.

Example:

Continuing to operate your vehicle with insufficient oil pressure will cause serious engine damage.

### NOTE

Provides general information: for example, the note may suggest how to operate the vehicle more efficiently.

Example:

Pumping the accelerator will not assist in starting the engine.

Please take the time to read these messages when you see them, and remember:

**WARNING** Something that could seriously injure or kill you or others.

**CAUTION** Something that could cause property or vehicle damage.

**NOTE** Useful information.

### General safety reminders

Certain functions are restricted to operate only when the vehicle is

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stationary for your safety and the safety of those not in the vehicle.

Safe driving is only possible with the proper concentration on the driving task. Keep distraction to a minimum to improve your concentration. Examples of distractions may include radio controls, GPS navigation controls, cellular telephone calls, cellular text messages, reading or reaching for something on the floor. Minimizing your distractions will improve safe driving and will help avoid an accident involving death or personal injury.

**WARNING: Only glance at the display monitor while driving. Prolonged periods of viewing while driving could result in an accident and death or possible personal injury.**

**WARNING: Do not program the System while driving. Always stop your vehicle when programming or**

**changing the settings on the System. Programming the system while driving can cause you to take your eyes off the road, which could result in an accident. Failure to do so could lead to death, serious injury or equipment damage.**

**CAUTION: Do not rely on the Navigation System to route you to the closest emergency services. Not all emergency services are in the database.**

*NOTE: Regardless of how and where the navigation system directs you, it is your responsibility to operate the vehicle in a safe and legal manner.*

*NOTE: Ensure the volume level of all audio devices is set to a level that still allows you to hear outside traffic and emergency vehicles.*

## FCC Statement

This device complies with Part 15 of the FCC rules subject to the following two conditions:

This device may not cause harmful interference.

This device must accept all interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

Dear customer, to ensure a healthy RF exposure please keep a distance of at least 20 cm from the device. For any other request regarding RF exposure compliance in Canada, please refer to our local representative:

Renaissance Consulting  
11 Parsons Ridge Road,  
Kanata, Ottawa  
Ontario, Canada, K2L 2M1

# PACCAR Display

## Description

The system is comprised of a remote head unit and a display screen. The remote head unit will be located in the instrument panel and disassociated from the display.



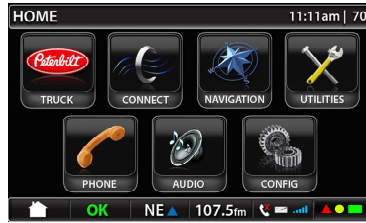
**Image 1 – Remote Head Unit**

The following buttons, knobs and connectors are on the face of the head unit

- Power Button
- Volume Knob
- Eject Button
- Voice Button
- Home Button
- Truck Button
- Connect Button

- Nav Button
- Tools Button
- Cancel Button
- Audio Button
- RWD Button
- FWD Button
- Phone Button
- Setup Button
- USB jack
- 3.5 AUX jack

The buttons will be referred to as hard keys or hard buttons in the rest of this specification. The keys on the touch screen will be referred to as soft keys or soft buttons.



**Image 10 - PB Main Menu**



**Image 11 – KW Main Menu**

The display has three general areas for information and interaction.

### Center

The center of the display will have the available functions and information for the operator.

### Title bar

The 'Title Bar' is placed at the very top of the display. Not every screen will have the title bar visible due to graphics requirements of some third

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party applications. This will be noted in the appropriate sections of the document.



**Image 6 – Title Bar Examples**

## Quick Jump Bar

The 'Quick Jump Bar' is placed at the very bottom of the display.



**Image 8 – Screen Bottom Example**

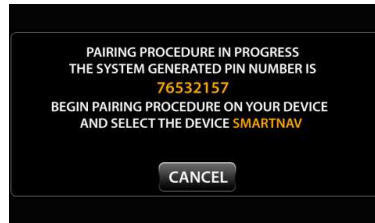
## How to care for your screen

### 1. QUICK SETUP

Before using the system for the first time, you may need to program the system for the home location, setup any pairing devices or decide what virtual gauges you want to display.

## Set up home location

### Pair a Bluetooth device



**Image 81 – Adding Device Screen**

The notation for SmartNav will be replaced with NavPlus for Kenworth devices.



### Image 82 – Pairing Successful Notification

Once the target device is paired, it will take the user back to the Bluetooth main screen (ref. image 80).



### Image 83 – Pairing Unsuccessful Notification

If the target device fails to pair, it will take the user back to the Bluetooth main screen (ref. image 80).

## Program address book

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## Virtual gauges

## OPERATING THE SYSTEM

The PACCAR Display shall operate in two distinct modes for the purposes of mitigating driver distraction. All screens and features are functional when the vehicle is stationary. While moving, only certain screens will be functional. The restricted functions are visible as grey icons to let the operator know that they are not functioning while the vehicle is in motion. For example, the system will allow a destination location to be programmed while the vehicle is in motion but will not allow the home location to be programmed while the vehicle is in motion.

NOTE: Camera – If the user setting for camera is set to automatic, then the cameras can automatically function as defined. If the user setting is set to manual, the user would

have to go the Camera sub-menu to view camera and select from multiple installed cameras.

Hands-Free Calling – The system shall show the screens per the ASR tree (section 9) but there shall be no touch interaction with the screens – buttons greyed out. When the call ends the device will remain in the phone home screen per the ASR tree. Upon the first time the PACCAR Display is powered on in a vehicle it will default to the 'Home Menu' screen. After all subsequent power on events, the PACCAR Display will automatically launch into the screen/mode that was last active during the previous power down event.

The PACCAR Home Menu screen consists of the following:  
<TRUCK> - Vehicle monitoring functions (shows a Peterbilt or Kenworth logo)

<CONNECT> – Model based functions  
<NAVIGATION>  
<TOOLS> - Tools for the user  
<PHONE>  
<AUDIO>  
<SETUP> - Setup of the system



Image 10 - PB Main Menu



## Image 11 – KW Main Menu

### Title Bar

The 'Title Bar' is placed at the very top of the display. Not every screen will have the title bar visible due to graphics requirements of some third party applications. This will be noted in the appropriate sections of the document.

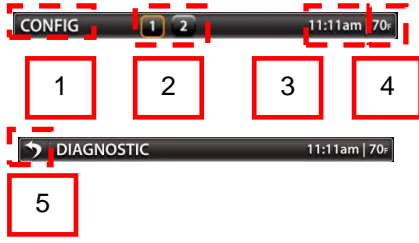


Image 6 – Title Bar Examples

The following items will be shown on the 'Title Bar'

- 1 – Identification of Screen/Function

The screen/function identification is simply the screen the user is currently in and is shown in subsequent sections by image examples.

- 2 – Available Screen Pages

The screen pages serve the purpose of notifying the user if multiple pages are available in each menu and also function as soft keys to select different menu pages. This feature is only available on menus where more than one page is available.

- 3 – Time

The time display simply displays the current system time. Settings are defined in section 7.11.4.

- 4 – Temperature

The temperature display displays the outside temperature as received from

the vehicle CAN. Settings are defined in section 7.11.5.

- 5 – Back Button

The back button is a tool to allow the user to go back up one level in the menu structure. The back button is only visible when the device is in a lower sub menu. It will not be available on the home screen or next level menus where simply pressing the home button will take the user back to the previous screen.

### Quick Jump Bar

The 'Quick Jump Bar' is placed at the very bottom of the display. The font on the 'Quick Jump Bar' is called out further below.

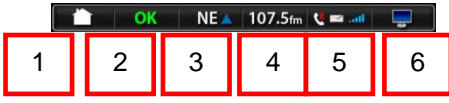


Image 8 – Screen Bottom Example

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The following items will be shown on the 'Quick Jump Status Bar'

- <HOME MENU> soft button
- <VEHICLE STATUS MONITOR> soft button
- <AUDIO MONITOR> soft button
- <PHONE INDICATOR> and soft button
- <DISPLAY SETTINGS> soft button



**Image 9 – Screen Bottom Detail**

1 - The Home Menu soft button is active on all screens except for the Home Menu screen. This graphic will be set to 70% transparency and be rendered inactive on the Home Menu screen. For all other screen, the Home Menu icon will

be 100% opaque. Pressing the Home Menu button returns the user to the Home Menu.

2 - The 'Vehicle Status Monitor' will display an overall status message for the vehicle systems the PACCAR Display is monitoring.



A vibrantly colored green 'OK' icon is displayed when all PACCAR Display monitored vehicle systems are running within specification. The Vehicle Status Monitor button is rendered inactive as no PACCAR Display monitored vehicle systems require monitoring by the operator.

Should a PACCAR Display monitored vehicle system go out of specification, the 'OK' graphic will change to a vibrantly colored '!' warning icon.

The Vehicle Status Monitor soft button will become active upon an PACCAR

Display detection of an out of specification vehicle condition and is kept active for as long as the out of specification condition exists.

If only one 'out of specification' vehicle condition exists, the PACCAR Display will take the user directly to the specific screen which will display the out of specification information upon selection of the Vehicle Status Monitor soft key.

Should more than one out of specification condition exist when the user selects the Vehicle Status Monitor soft button, the PACCAR Display will go to the 'Faults Screen' where all PACCAR Display monitored out of specification conditions will be listed. The user will then select which fault he or she wants to monitor further.

The Vehicle Status Monitor will be detailed further in the 'Fault Monitoring' section of this document.

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3 - Navigation Monitor and Soft Button (see section 7.7)

The navigation button allows the user to go easily to the navigation environment. The button shows the compass heading the vehicle is traveling: N, S, E, W, NE, NW, SE, SW.

4 - Audio Monitor and Soft Button (see section 7.10)

The audio mode and audio identification will be shown in this section of the Quick Jump Status Bar. Selecting the Audio Monitor soft button will take the user directly to the display screen of the currently active audio source. The band will be listed as 24 point.

The audio modes that will be shown are (depending on which mode was last selected)

- Station frequency
- CD/USB/BT Track #
- Satellite station number

- Aux input

5 – Phone Button (see section 7.9)

If no phone is connected, phone is greyed out. The red X shows up only if a call is missed on Bluetooth connected phone.

The envelope is greyed out if no text message is received on Bluetooth connected phone.

Cellular strength is only for optional external modem, not Bluetooth connected phone. This will be grayed out if there is no modem or modem has no signal strength.

6 – Display Settings

Soft Button (see section 7.11)



The Display Settings soft button is active on all screens. Selection of this soft button will open up the 'Display Settings' pop up window overlay on any active screen. The programming should support the future addition of a Qualcomm green/yellow/red indicator to take the place of the display button if the vehicle is equipped with Qualcomm

MCP200 (Qualcomm functionality will not be supported at product launch).

## Truck Menu

The truck menu will host the vehicle monitoring functions of the PACCAR Display. Five vehicle monitoring features are required at product launch

- Gauges
- Hybrid Mode (if equipped)
- Warnings
- Diagnostic Messages
- Camera



Image 12 – PB Truck Menu





Image 13 – PB Hybrid Vehicle Menu



Image 14 – KW Truck Menu



Image 15 – KW Hybrid Truck

## Gauges

Selecting the <GAUGES> soft button, the screen will change to the virtual gauge view. Please refer to the vehicle's operator manual for a complete description of each gauge.



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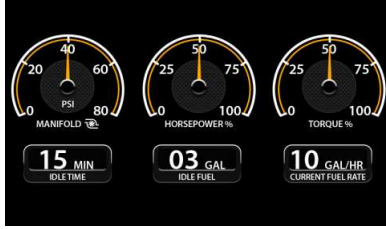


Image 19 – PB Virtual Gauges (Standard)

## PB % Horsepower Gauge

This is engine flywheel horsepower, calculated from torque and RPM information from the engine computer.



## PB % Torque Gauge

This is engine flywheel torque, calculated from torque and RPM information from the engine computer.



## PB Idle Time Gauge

Show accumulated idle time elapsed as reported by vehicle in Minutes



## PB Idle Fuel Gauge

Show accumulated idle fuel burned as reported by vehicle as whole digits with no decimal places



## PB Fuel Rate Gauge

Show current fuel flow rate reported by vehicle as whole digits with no decimal places



## Hybrid Display

Pressing the Hybrid soft button will launch the Hybrid monitoring environment.

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When in the Hybrid monitoring environment, the screens shown below would consume the main screen area in addition to the top bar area. The bottom bar menu shall be maintained. The screens have no touch screen functionality or interaction. Only the bottom bar will maintain the touch control.

Please refer to Operator's Manual Supplement Y53-6031 for more details about the hybrid display.

## Diagnostic Messages



### Image 36 – Diagnostic Message Home Screen

The truck diagnostic screen will be populated with active messages from the following systems:

- Engine
- Engine Aftertreatment System
- Transmission
- Instrumentation System
- Anti-Lock Braking System (ABS)
- PACCAR Display Internal Diagnostics

The messages will populate as long as the fault remains published from the system source. Once the fault is no longer published, the message will be removed from the screen. The possible faults are listed in Appendix I.

The Diagnostic Message Home Screen (Image 36) will show a maximum of 5 messages per screen and can be paged up or down using the soft key

arrows on the right hand side of the screen. Once a message is selected, the system will go to the Diagnostic Detail Screen (Image 37).

The <PAGE UP> and <PAGE DOWN> soft button arrows on the right hand side of the screen will be grayed out unless the number of messages require their use to page up or down the list.

This feature is merely to show the user the published diagnostic messages on the vehicle and cannot be used as a method to clear them. Clearing messages will still have to be accomplished via each publishing systems diagnostic clearing processes.

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**Image 37 – Truck Diagnostic Detail Screen**

The Diagnostic Detail Screen will give more information on a selected diagnostic message. The items displayed include:

- Source Address
- Source of Diagnostic Code
- SPN
- FMI
- Text Description of Code

The user can page to a previous message (if applicable) or next message (if applicable) by selecting the

soft buttons at the bottom of the screen.

The user can press the <CLOSE> soft button at the bottom of the screen to return to the Truck Diagnostic Home Screen.

## Cameras (Optional)

Cameras (when connected to video input 1-4 in the head unit) can be viewed in the display in two modes: Automatic and Manual.

In the automatic mode, the cameras are identified by the arrow keys. The arrow keys indicate what direction the operator wants to see.



**Image 38 – Automatic Camera Mode (Image Example Only)**

In the manual mode, the cameras are identified by numbers. The number icons 1-4 at the top of the screen correspond with the camera that are installed to video inputs 1-4 in the head unit and are also soft buttons to select different camera inputs. These numbers may or may not correspond to any direction that the camera is installed in.

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**Image 39 – Manual Camera Mode  
(Image Example Only)**

The screen will be blank with the number icons 1-4 at the top of the screen for any cameras that are not installed.

## **Connect**

Connectivity and telematics functionality will be found under the Connect menu. Services and Internet function keys will be present at launch. These functions require a modem and active subscription with a wireless carrier (Sprint-US at launch).



**Image 45 - Internet Default  
Website Screen**

Services and Internet features are dependent on an external modem connected to the PACCAR Display and wireless communication service being active.

## **Connection Manager**

HMI for the Connection Manager shall be similar to the FWS's HMI with the look and feel of the PACCAR Display. Supplier and Sprint (US CDMA Carrier) and Bell Canada (Canada CDMA Carrier) will jointly develop the HMI.

Final design must be reviewed and approved by PACCAR.

Sprint's PACCAR Dedicated Phone #: 877-301-9874

Sprint's PACCAR Dedicated URL: **TBD.**

Bell Canada's PACCAR Dedicated Phone #: **TBD**

Bell Canada's PACCAR Dedicated URL: **TBD.**

## **Internet**

Internet browsing is accomplished via the Opera browser. Selecting the Opera button on the Connect Menu Screen (Image 40) will launch the browser.

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Image 48 – Opera Browser Screen

The browser can occupy the main area of the screen and the top bar area but the bottom bar shall be maintained.

## Tools

The Tools menu houses productivity tools for the vehicle operator.

The following tools will be made available

- Calculator
- Alarm Clock
- Video Player
- Calendar

## Calculator

The Calculator function is a tool to perform quick computations.

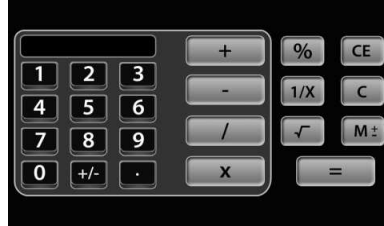


Image 51 – Calculator Screen

## Alarm

Selecting the Alarm soft button opens up the alarm clock function. The operator can set the alarm and pick an audio source/noise to play at the designated time. The Alarm will only provide for one alarm setting.



Image 52 – Alarm Screen

The alarm shall activate the PACCAR Display if it is in sleep mode when it is time for the alarm to sound.

The <↑> and <↓> soft keys on the left hand side of the screen are used to set the hour as the hour advances past 12, the AM to PM transition will happen the same hold true if the hours are decreasing and go from 1 to 12 in the downward direction. The <↑> and <↓> soft keys on the right hand side of the screen are used to set the minutes advancing the minutes over 59 or

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decreasing below 1 do not affect the hour setting.

Selecting the <SET> soft key sets the alarm and the bell icon goes from 50% intensity to full intensity. Selecting the <SET> soft key again turns the alarm off and the bell icon reduces back to 50% intensity.

Selecting the <SNOOZE> soft key will gain the user X more minutes before the next alarm.

### Video

The video screen allows the user to bring in video using the aux-in or usb inputs on the front of the head unit. When the video soft key is selected, the screen will bring in video to the main area of the screen. The top and bottom bars will be maintained.

If no video signal is present from the aux-in or usb inputs, the main area of the screen will remain blacked out.

### Calendar



Image 53 - Calendar

### Phone

The Phone function provides the ability for the user to place and receive calls via a Bluetooth connected phone.

- Phone key pad
- Contacts
- Connect phone
- Call/Answer

- Hang up/Ignore



Image 54 – Phone Screen

The <PACCAR> soft key shall dial the Peterbilt or Kenworth call center depending on whether the device is a Peterbilt or Kenworth. The call center phone numbers are:

- Peterbilt Call Center: 1-800-473-8372 (1-800-4-Peterbilt)
- Kenworth Call Center: 1-800-592-7747 (1-800-KWASSIST)

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The emergency button (<RED CROSS> in lower right half of screen) shall be used to dial 911

## Make Call



Image 55 – Make Call Screen

Phone number or contact shows up in phone number field

User presses <GREEN PHONE> soft key to make call

Phone turns red once dialing begins

PHONE title changes to PHONE – IN CALL once dialing begins

Dialed call Contact/Number populates CALLS → DIALED menu in PHONE screen

## In Call



Image 56 – In Call Screen

In CALL appears next to PHONE on top bar.

Phone number or contact ID shows up on the phone number field

Hang up icon is red

Press <HANG UP> soft key to end call or <CANCEL> button on faceplate to end call

Remaining phone buttons should be rendered inactive while IN CALL

Any call received while IN CALL will simply show missed call icon ('X') on the bottom bar

## Incoming Call



Image 57 – Incoming Call Popup

Incoming call popup with <ACCEPT/IGNORE> option buttons



## Voice Recognition

### Audio

The Audio screen gives the user access to the entertainment audio sources.

The audio sources are:

- AM/FM/WB
- CD
- Sirius Satellite Radio
- USB (including iPod)
- AUX
- Bluetooth audio streaming device

If an audio source is not available, the source soft button for that device will be grayed out and rendered non-functional. The soft button will activate once the source becomes active.

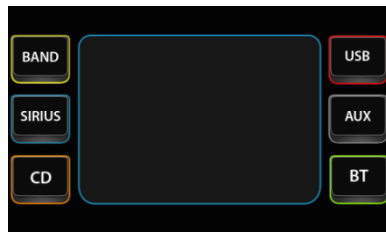


Image 60 – Main Audio Screen

The audio main screen has selections for:

- Band – FM/AM/WB
- Sirius – Satellite Radio
- CD
- USB – Memory Stick Input
- Aux – MP3 device input or iPod® input
- BT - Bluetooth® Paired Device Input

## Radio Band Select



Image 61 – Band Select

The band select screen allows the user to select different control features of the FM/AM/WB radio.

The first press of the <BAND> soft button in the top left hand corner of the audio main screen takes the user to the band select screen. The screen will be for the band last selected and the default will be FM. By pressing the <BAND> soft button again the user can change audio bands in the

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following order: FM → AM → WB and then starts over at FM.

The <SEEK↓> soft key allows the user to select the next available station down the band and the Seek↑ key allows the user to advance to the next available station up the band.

The <SCAN> soft key allows the user to set the radio to automatically scan all available stations by advancing up the band until it reaches the end of the band and then will start again at the bottom of the band advancing upward. The user can select a station by pressing the <SCAN> soft key again.

The <TUNE↓> soft key allows the user to manually tune down the dial while the <TUNE↑> soft key allows the user to manually tune up the dial. There is no fast advancement by holding down on either key.

The <PRESET> soft keys number 1-6 allow the user to store and access up to 24 presets. The presets are divided into four groups of 6 preset labeled 0-4. Pressing on a <PRESET> soft key takes the user to the assigned station.

The <PRESET SELECT> soft key allows the user to select between groups of presets and displays the group currently available by the preset keys. Example: PRESET 0 is the first group of presets 1-6, PRESET 1 is the next group of presets labeled 1-6 and so on.

The information area shows what preset the user is on, the station, the band, and any station info that is broadcast.

## CD



Image 62 – CD

The CD screen is accessed by pressing the <CD> soft key in the audio main screen. The CD keys at the top and bottom of the screen and information on the CD inserted in the middle of the screen.

When a CD is loaded the screen will display the Artist Name, Album Title, Song Title, Track Number out of Tracks available (x/xx), and Time Elapsed.

The <RPT> soft key allows the user to repeat the track.

The <SHUF> soft key allows the user to select shuffle play mode which simulates a random play order of the available tracks on the CD.

The <GENRE> soft key allows the user to page forward to the next genre of music (if supported on the CD information).

The <ARTIST> soft key allows the user to page forward to the next artist (if supported on the CD information).  
Note: This feature is for CD's that have files loaded from numerous other sources where the track maintains the original artist information.

The <ALBUM> soft key allows the user to page forward to the next album (if supported on the CD information).  
Note: This feature is for CD's that have files loaded from numerous other albums where the track maintains the original album information.

## IPOD® Controls



Image 63 – IPOD Controls Screen



Image 64 – IPOD Playlist Control

The Ipod® controls screen allows the user to access and play Ipod® information when an Ipod® is connected to the USB port.

The screen is intended to allow the user to have similar controls available to them on their Ipod®.

The <MENU> soft key allows the user to access the menu in the same manner as pressing the Menu portion of their Ipod® control wheel.

The <UP> and <DOWN> arrows on the right hand side of the screen allow the user to move up and down the menu list.

Selecting the menu line item on the screen is the same as pressing the select button in the center of the Ipod® control wheel.

The <←> soft key allows the user to page backward in the playlist. The <→> allows the user to page forward in the playlist.

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The <PAUSE/PLAY> soft key allows the user to alternate between playing and pausing the selected track.

The information screen displays the Artist Name, Track Title, Album Title, Track Number out of Tracks available (x/xx), and Time Elapsed.

## Aux Input



**Image 65 – Aux In**

By the user selecting the <AUX> soft key from the audio main screen, the system allows the operator to play sound through their auxiliary system. There is no control from the display for this input device.

## USB Input



**Image 66 – USB In**

In USB in mode the device will simply play audio files in the MP3 format and functions in the same manner as the CD controls.

## Bluetooth® Device Input

Selecting the <BT> soft key on the audio main menu takes the user to the Bluetooth® audio input screen. The screen functions similarly to the CD screen in section. The screen only displays information when a Bluetooth® capable audio device has

been paired to the PACCAR Display. (refer to QUICK SETUP) in this manual.

## Sirius

Selecting the <SIRIUS> soft key takes the user to the Sirius Main Screen.



**Image 67 – Sirius Main Screen**

<CAT ↑> takes the user to the next available category and <CAT ↓> on top bar takes the user to the previously available category.

<TUNE ↑> up takes the user to the next available station and <TUNE ↓>

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on top bar takes the user to the previously available station.

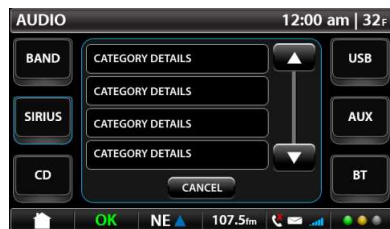
<INFO> goes to the system information screen below

Category text line added to audio display text field – note “Rock” above “Rock 22”

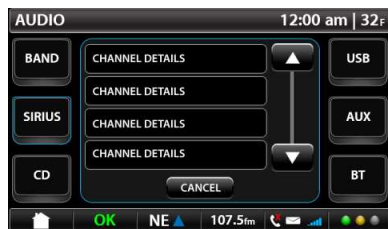
<CAT Select> takes user to Category screen below (Image 68)

<CH Select> take user to Channel Select screen below (Image 69)

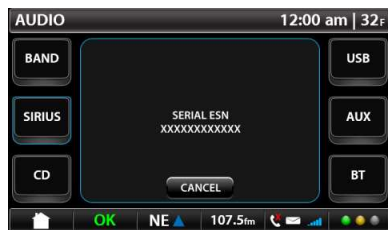
Screen has 6 presets.



**Image 68 – Sirius Category Select**



**Image 69 – Sirius Channel Select**



**Image 70 - Sirius Info**

ESN screen is activated when the user presses the information softkey on the Sirius Main Screen.



**Image 71 – Sirius Special Message**

Special messages screen comes up when the Sirius Mode needs to inform user of status. The messages available are:

- Acquiring Signal
- Antenna Error
- Channels Updating
- Firmware

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## Setup

The Setup screen allows the user to modify the product settings of the PACCAR Display



Image 72 – First Setup Screen



Image 73 – Second Setup Screen

## Display Setup



Image 74 – Display Setup

Within the display settings the screen can be turned off, can be set to adjust for daytime or nighttime display mode and can be adjusted for brightness. Turning the screen off will not turn off the unit functionality. The screen will light up to alert the operator of any warning messages or incoming phone calls.

## Sound

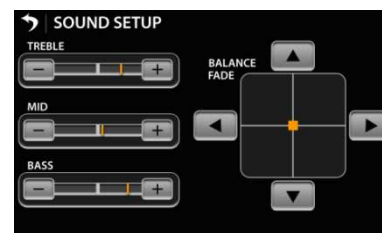


Image 75 – Audio Setup

The sound setup screen allows the user to adjust the audio settings of the head unit. The settings are:

Treble – default is the median value and allows to user to adjust to increase using the <+> soft key and decrease using the <-> soft key. The keys allow for 10 incremental adjustments from minimum to maximum.

Mid – default is the median value and allows to user to adjust to increase using the <+> key and decrease using

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the <-> soft key. The keys allow for 10 incremental adjustments from minimum to maximum.

Bass – default is the median value and allows to user to adjust to increase using the <+> soft key and decrease using the <-> soft key. The keys allow for 10 incremental adjustments from minimum to maximum.

The balance fade keys allow the user to adjust the balance and fade of the system while also receiving a visual feedback on the “center” of the audio image. Pushing the <↓> arrow biases the system towards the rear of the vehicle while pressing the <↑> arrow biases the system towards the front of the vehicle. The buttons allow for 20 incremental adjustments from front to rear.

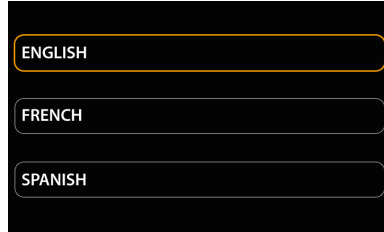
Pressing the <←> arrow biases the system towards the left hand side of the vehicle (North American driver’s side) while pressing the <→> arrow biases the system towards the right hand side of the vehicle (North

American passenger’s side). The buttons allow for 20 incremental adjustments from left to right.

All of the halos and buttons remain default grey. The buttons will have an amber halo while being selected but will return to a default grey halo when not selected.

The buttons in this menu only react when they are touched. There is no hold-down capability.

## Language



**Image 76 – Language Setup Screen**

The language setup screen allows the user to change the system language. The language translation is defined in

Appendix 10.4 Language Translations (except for the Garmin Navigation environment).

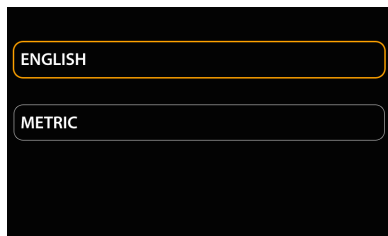
The language setting that is currently active will have the halo illuminated in amber. The non-active settings will have a default grey halo.

## Clock



**Image 77 – Clock Setup Screen**

## Unit of Measure



**Image 78 – Unit of Measure Setup Screen**

The units of measure can be changed by the user such that any visible or reported units of measure are affected. Unit calculation and source information from the vehicle cannot be changed in this mode.

## Camera



**Image 79 – Camera Setup Screen**

The Camera setup screen allows the user to select between two modes:

Automatic Mode when selected allows the user to have their cameras pre-configured per Section 7.5.5:

Automatic mode also allows the user to turn <ON> or <OFF> the auto reverse camera.

Manual Mode allows the driver to toggle between cameras by soft-key press on the top of the screen as a

means to select the camera they want to view (for functionality see section 7.5.5).

The user shall only be able to select either Automatic or Manual. The selected mode shall have the halo highlighted noted as “– ON”. The unit not selected shall be noted as “– OFF”.

The setting that is currently active will have the halo illuminated in amber. The non-active setting will have a default grey halo. The button that is currently selected shall have an amber appearance to it while the non-selected button shall have the default grey.



# PACCAR Display

## Bluetooth® Devices



**Image 80 – Bluetooth® Main Screen**

Favorite device indicated with star

Connected device indicated with green check

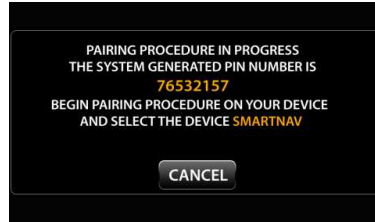
Saved device 'Phone 1' box highlights upon selection and device options window opens

Selecting <BACK> arrow returns user to SETTINGS screen

The boxes that have phones paired to them will have an amber halo. All

empty boxes shall have the default grey halo.

## Adding Device



**Image 81 – Adding Device Screen**

The notation for SmartNav will be replaced with NavPlus for Kenworth devices.



**Image 82 – Pairing Successful Notification**

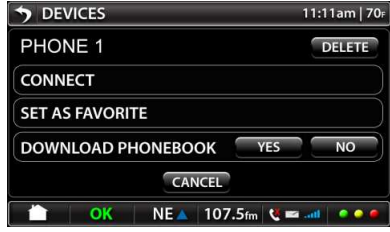
Once the target device is paired, it will take the user back to the Bluetooth main screen.



**Image 83 – Pairing Unsuccessful Notification**

If the target device fails to pair, it will take the user back to the Bluetooth main screen (ref. image 80).

## Options



**Image 84 – Bluetooth® Options Screen**

Device name on top row with Delete option

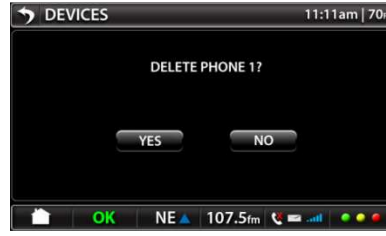
Connect, Set As Favorite, and Download Phonebook need the halo to be illuminated in amber or grayed out as applicable.

In the Download Phonebook selection, either the yes or no key needs to be highlighted in amber depending on which mode is selected. The non selected button will remain default grey.

Cancel button returns user to main device screen

Selecting <BACK> arrow returns user to CONFIG screen

## Delete



**Image 85 – Bluetooth® Delete Screen**

Selecting <YES> deletes device and returns user to main BT devices screen

Selecting <NO> returns user to BT devices options screen

Selecting <BACK>' arrow returns user to CONFIG screen

## Modem



**Image 86 – Modem Settings**

SIGNAL STRENGTH: Field will be blank if there is not signal.

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ROAMING STATUS: ROAM, HOME or NO SERVICE (instead of "Error")

PHONE NUMBER: Phone number appears when device is activated. Field will be blank if device is not activated.

NOTE: It is a federal requirement to display the phone number. Sprint needs the Phone number and ESN # when troubleshooting. To avoid confusion for the user, Sprint will include in the FAQ that this phone number does not carry voice nor text messaging functionality. This should also be included in the PACCAR Display Users Manual. Phone Number = MDN (Mobile Device Number) = MEID

ESN: ESN # from attached modem. Field will be blank if modem is not present.

CONNECTION: This feature may be used to manually CONNECT/DISCONNECT service (assume service is activated). If connected, the <CONNECT> soft button will be grayed out. If disconnected, <DISCONNECT> soft button will be grayed out. User may manually DISCONNECT to avoid roaming to prevent unwanted roaming charges.

Press <CONNECT> soft button  
The system will connect to the wireless network.

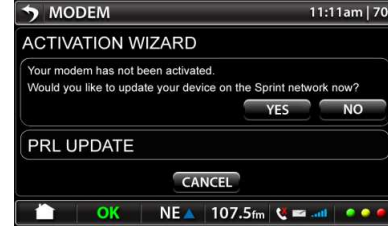
Press <DISCONNECT> soft button  
The system will disconnect from the wireless network.

NOTE: Sprint will include explanation of this functionality in the FAQ. This should also be included in the PACCAR Display Users Manual.

SETUP:

Press <ACTIVATION WIZARD> soft button  
ACTIVATION WIZARD screen appears

Press <ADVANCED SETTINGS> soft button  
ADVANCED SETTINGS screen appears



**Image 87 – Modem Activation**

Scenario 1: For Activated Modems  
If the modem is already activated, the <YES> and <NO> soft buttons will be grayed out.

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Message says:

"Your modem has been activated."

## Scenario 2: For Not Activated Modems

Message says:

"Your device is not activated. Would you like to activate it?"

Press <YES> soft button.

The system runs an OMADM process.

If successful, message says:

"Activation completed successfully."

If failed, message for Sprint modem says:

For Kenworth device:  
"Service update failed. Would you like to try again?  
If this problem persists, please contact Sprint at 1-877-301-9874 or visit [www.Sprint.com/NavPlus](http://www.Sprint.com/NavPlus) for information about this service"

For Peterbilt device:

"Service update failed. Would you like to try again?  
If this problem persists, please contact Sprint at 1-877-301-9874 or visit [www.Sprint.com/SmartNav](http://www.Sprint.com/SmartNav) for information about this service"

Press <NO> soft button

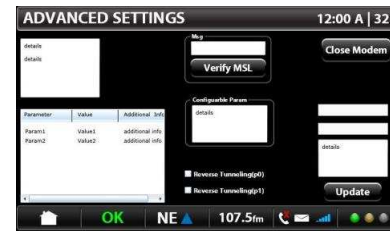
The screen returns to MODEM screen

Press <CANCEL> soft button

The screen returns to MODEM screen

PRL UPDATE: PRL = Preferred Roaming List (Verizon, T-Mobile, etc.)  
Press <YES> soft button  
System checks for updated PRL and new network will be pushed to the modem by Sprint.

NOTE: An explanation needs to be in the PACCAR Display Users Manual and the FAQ on what this is and why it would be selected.



**Image 88 – Advanced Settings Screen**

This is a Diagnostic screen for Sprint.  
NOTE: Font size for the selectable fields must be large enough for user to select easily.

Upper Left Box:

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The selectable options are:

*Modem Info*  
*System Preferences*  
*Connection & RF*  
*Data Settings*  
*Advanced*  
*Factory Defaults*

The values for the selected option will appear in the Bottom Left Box.

The modem firmware version will be display when Modem Info is selected.

In Configurable Parameters the selectable options are based on valid MSL:

*MDN*  
*MSID*  
*Home – SID & NID*

When user selects one of the Configurable Parameters options, two text boxes and list box in the right side will populate the respective data.

Press <UPDATE> button.

This will update any of those fields above and is purely a diagnostician step. The customer should never have a need to go here without instruction from a Sprint Tier 2 support person. The <UPDATE> button will only be active for certain configurable parameters.

MSL Box:

MSL = Master Subsidiary Lock (Unlock code; unique to ESN)

To perform manual activation:

1. Press the box above <VERIFY MSL> soft button.
2. A keyboard will pop up.
3. Enter the MSL number and press <VERIFY MSL> soft button.
4. The system will reach out to the network and try to activate on the network.

If MSL verification failed, a message would appear. "Failed"

If the "Verify MSL" is successful, the configurable fields will be filled in.

If failed, a message would appear. "Failed"

If <VERIFY MSL> button is not pressed, user will not be able to do anything on this screen.

Reverse Tunneling: These check boxes should not be used by customers unless directed.

MEID and MSID will be populated in the filed boxes directly right to the field where they will show up in the dialogue boxes below MSL field once the MSL is correctly entered. This is a Tier 2 support activity.

Press <CANCEL> soft button.  
The screen returns to MODEM screen

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## Keyboard

The display has a keyboard available in the following screens:

- Phone Text Message
- Navigation
- Internet Browser

There are two keyboards available: Alpha and Symbol Characters pressing in an area that needs text entered. The user can toggle between the two keyboards by selecting the keyboard selector toggle key.



**Image 91 – Alpha Characters**



**Image 92 – Symbol Characters**

The user enters the keyboard mode by selecting a button on the screen that says keyboard or when selecting an area that needs text entry.

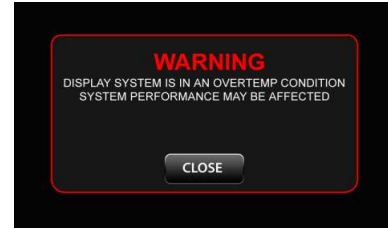
The keyboard overlays the bottom portion of the screen such that the user can see what they are typing in the top half.

Pressing the red <X> on the keyboard allows the user to exit the keyboard and it will disappear from view.

The user must not be allowed to use the keyboard when the vehicle is in motion.

## Troubleshooting

### Overtemp Warning



**Image 93 – Overtemp Warning Screen**

The PACCAR display will notify the when the unit becomes too hot. The unit will shut off and will turn back on when the temperature returns to an acceptable level.