PDi
Communication Systems, Inc

POWER

STB LINK

TV LINK

PD295-001

Satellite TV
Interface Module

Table of Contents

CAUTIONS AND WARNINGS

⚡	This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.
❗	This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

⚡	**CAUTION** RISK OF ELECTRIC SHOCK, DO NOT OPEN!	❗
	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL	

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

WARNING: To prevent injury, this apparatus must be securely attached to the equipment rack in accordance with the installation instructions.

WARNING: Do not install this equipment in a confined space such as a bookcase or similar unit.

Modifications
Any changes or modifications made to this device that are not expressly approved by PDi may void the user's authority to operate the equipment.

Cables
Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

Safety Instructions
To avoid any malfunctions of the unit and associated components and unwanted electric shock or fire accidents, please observe the following:
- Review the manual for your STB unit for safety instructions
- Review the manual for your PDI TV for safety instructions
- Review the manual for the rack unit.

Placement
Avoid placing the unit in surroundings with:
- High temperature (over 40 C) or high humidity (over 90%).
- Direct sunlight or heat sources, like radiators or ovens.
- Excessive dust.
- Electrostatic effect.
- Vibration, impact, or tilted surface.

Wet Areas
- Avoid rain and moisture.
- DO NOT set containers with liquid, such as vases, on top of the unit.
- Avoid placing the unit in areas where there is dripping and/or splashing.
- Avoid placing unit near standing water.

Oxygen Environment
- DO NOT use in an oxygen tent or an oxygen chamber. Such use may cause a fire hazard.

SERVICING
User Servicing

If your product is not operating correctly or exhibits a marked change in performance and you are unable to restore normal operation by following the detailed procedure in its operating instructions, do not attempt to service it yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
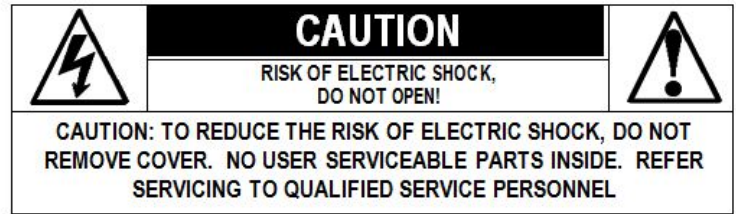
Damage Requiring Service
Unplug this product and refer servicing to qualified service personnel under the following conditions:
- If liquid has been spilled, or objects have fallen into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the product has been dropped or damaged in any way.
- When the product exhibits a distinct change in performance which indicates a need for service.

Replacement Parts
When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

Safety Check
Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in safe operating conditions.
Cleaning & Disinfecting
- Unplug before cleaning.
- Use a soft cloth to clean.
- Do not use harsh chemicals such as solvents.

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IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. This appliance should be mounted in an equipment rack as recommended by the manufacturer.
16. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
17. If an outside antenna or cable system is connected to the video product, be sure the antenna or cable system is grounding so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.

FIG. A
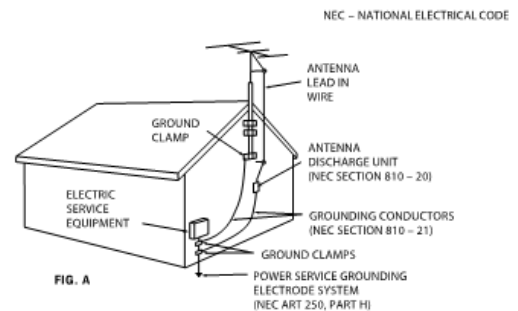
NOTE: This reminder is provided to call the CATV system installer's attention to article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.
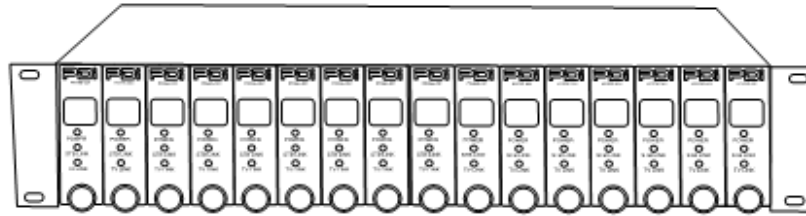
Introduction

Traditionally a facility pays for dozens or hundreds of satellite channels but only has a small number of set top boxes, each locked on a single channel, and combined onto the cable plant. When a patient wants to view a channel that isn't on the cable plant, the nurse has to go to the head end and change one of the receivers or tell the patient the channel is not available. In an effort to provide the full channel package to each patient, the set top box may be placed next to each TV in the patient area. Unfortunately, when the IR remote is used by one patient to change his channel, any TV nearby will also change.

The PDi Satellite Interface module is designed to improve the patient experience interacting with a TV at a facility in which the channels come from a satellite set top box. It allows direct access to all set top box functions via PDi TV keypad, IR remote, pillow speaker and PDI-Qube™ table radio. It gives patients access to every channel the facility is paying for, and allows patients to easily switch between satellite, in-house DVD and rooftop antenna channels. The interface module can pay for itself by eliminating modulators, splitters and combiners in most environments. It removes the need to modulate signals for distribution (by using one coax or HDMI cable from each set top box to an associated TV). It offers customizable key mapping and works in retro-fit installations (in which each set top box is already modulated to different channels and combined onto the cable plant). Best of all, it's made in America!

Compatibility

The PDi Satellite Interface forms a communication bridge between a PDi TV and a satellite set top box. Therefore, it has been designed to be compatible with as many models of TV's and set top boxes as possible. All PDi TV's larger than 10" built since 2008 are compatible. For earlier model PDi TV's look for a CCI port on the unit or contact PDi to verify.

All DirecTV® set top boxes with a USB port should be compatible. The following Direct TV models have been tested to work properly:
- D12
- H21
- HR24
- H25

Contact PDi for questions about other models.

Mounting the Satellite Interface

The PDi Satellite Interface is designed to slide into an industry standard mini-mod chassis. Because the module is powered by the satellite set top box, it does not require a mini-mod power supply. This reduces cost of the rack and allows for 3 or 4 additional modules to be placed in each chassis, for a total of 15 or 16. Standard mini-mod rack mount chassis are suitable for the Satellite Interface. The chassis power supply is not needed. Compatible chassis include, but are not limited to:

> Blonder Tongue MIRC-12V
> Drake® RMM-12
> Pico Macom® MPC-12C
> Holland HMR

When it is more desirable to have the set top box and interface module located near the TV, the module may be used in a stand-alone configuration without the need for a mini-mod chassis. Since the Interface uses very little energy, it has no special ventilation requirements.

Connections

The PD295-001 Satellite Interface must be connected to the corresponding TV via standard CAT5 cable. The CAT5 data cable should not exceed 300 feet in length. A standard USB cable must also be connected to the module and the corresponding set top box. CAT5 and USB cables are not provided with the Satellite Interface.

⚠️   PD295-001 is for use with CCI Port only, Not MTI port

Wall Mounted Televisions

Wall Mounted TV - Data Cable Installation

1. Connect one end of the CAT5 cable to the TV's CCI port. The CCI port is located on the back of the TV with the other connectors. Be careful not to connect to the MTI port which is usually next to the CCI port.
2. Connect the other end of the CAT5 cable to the RJ45 port on the PD295-001 Satellite Interface.
3. Connect the Type-A end (Flat Connector) of the USB cable to the port marked "USB" on the Satellite Set Top Box.
4. Connect the Type-B end (Square Connector) of the USB cable to the USB port on the PD295-001 Satellite Interface.
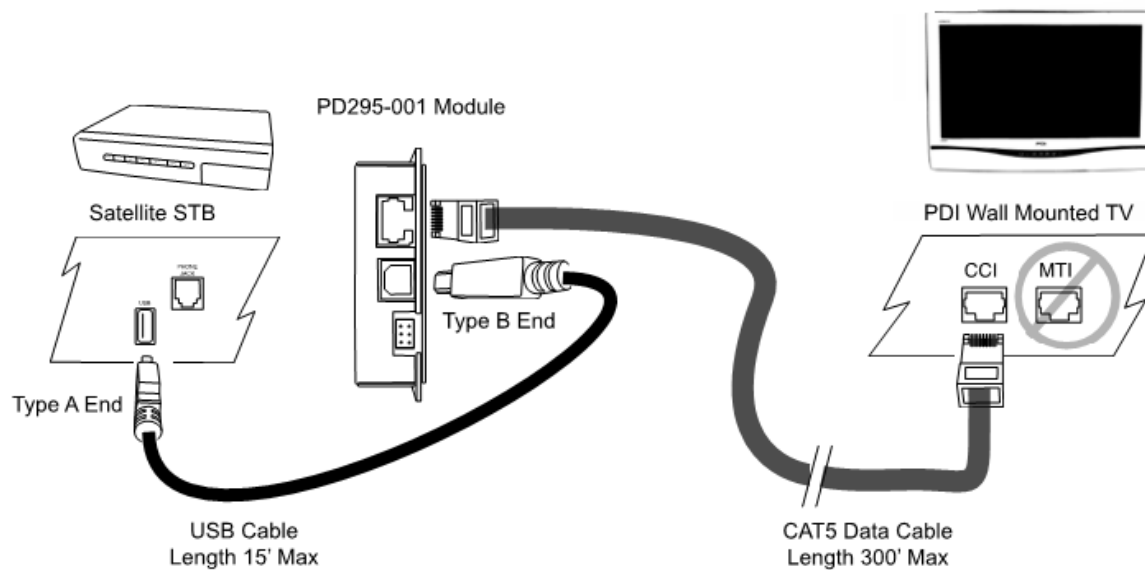
Wall Mounted TV - RF Cable Installation

The RF Output Signal cable from each Satellite Set Top Box must also be routed to each remotely located Television. Please refer to the Satellite Set Top Box installation instructions for details.

Arm Mounted Televisions

The PD295-001 Satellite Interface is also compatible with several of the PDI Arm Mounted televisions that incorporate a CCI Port. Models such as the PDI-P15X, PDI-P14W, and PDI-P19W can be used successfully with the Satellite Interface Module when ordered with the CCI option. The PDI-P10LCD series arm mounted TV can NOT be used with the PD295-001 Satellite Interface as it does not have a CCI Port.

⚠ NOTE: Each TV and its Support Arm must be pre-wired with a CAT5 CCI data cable. Please contact PDi Communication Systems or your PDi distributor for assistance should your TV and/or Arm lack this cable.

Arm Mounted TV - Data Cable Installation

The CAT5 data cable used to connect the remotely located TV to the Interface should not exceed 300 feet in length. CAT5 cables are not provided with the Satellite Interface.

1. Connect one end of the CAT5 cable to the Data Cable from the Arm/TV. The in-room Data Connection is typically wall mounted as illustrated below.
2. Connect the other end of the CAT5 cable to the RJ45 port on the PD295-001 Satellite Interface.
3. Connect the Type-A end (Flat Connector) of the USB cable to the port marked "USB" on the Satellite Set Top Box.
4. Connect the Type-B end (Square Connector) of the USB cable to the USB port on the PD295-001 Satellite Interface.
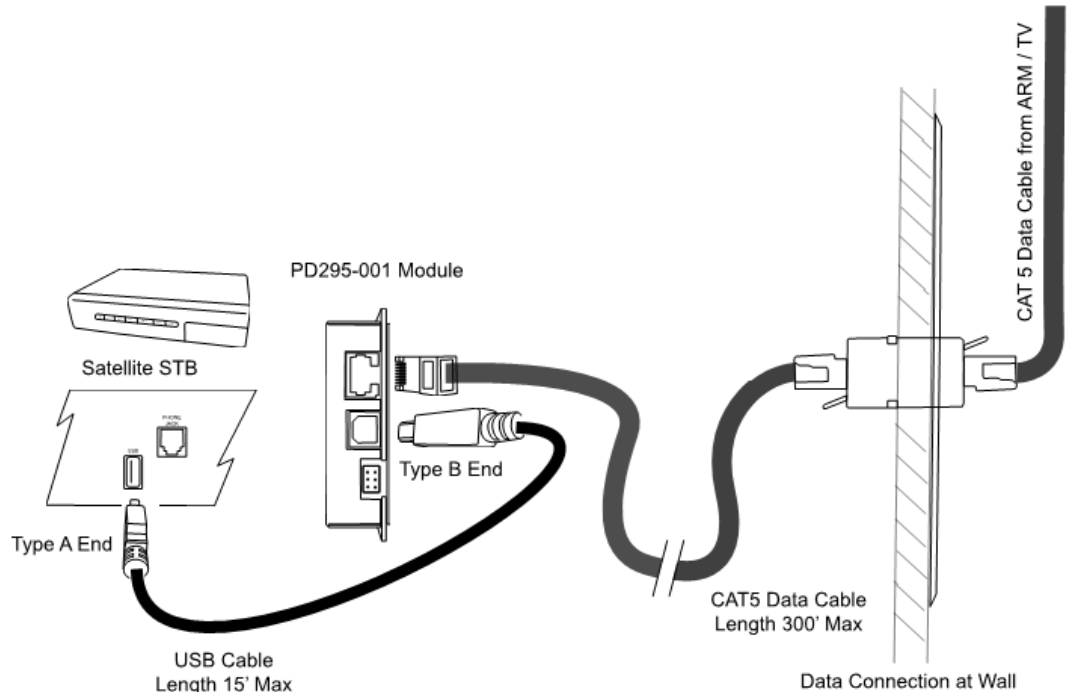
Arm Mounted TV - RF Cable Installation

Unlike AC powered wall mounted TV's, PDi arm mounted television models receive their RF signal and TV power combined together along a connecting coax cable from an external power source. Special consideration must be used in handling the low voltage AC power found on the RF signal coax cable.

Two types of external power supplies are used with arm mounted televisions: individual style and central style. The individual power supply mounts near the TV injecting power from a nearby AC outlet onto the incoming coaxial cable. The central supply injects power onto 10 separate coax cables simultaneously and mounts in a wiring closet as far as 150 feet away from the TV's. Connection of the RF signal coax cable for each style of power supply is detailed below.
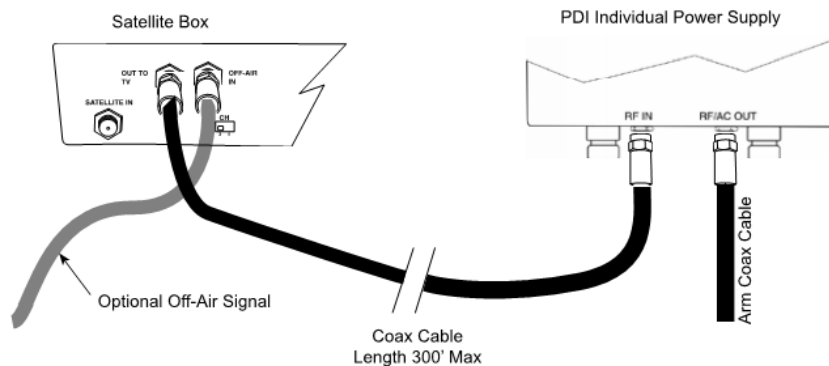
Individual Style Power Supply - RF Cable Installation

Signal connections for an arm mounted TV powered from an individual power supply require a single coax cable no longer than 300 feet, connected at the Satellite Set Top Box's "Output to TV" connection.

Some Satellite Set Top Boxes also allow for the connection of an external Antenna or other signal source via an "OFF-AIR IN" connection. Please consult your Satellite Set Top Box installation instructions for details.

⚠ NOTE: The drawing below is representative of the typical Satellite Set Top Box. Your box may vary in appearance.

Central Style PDI-772HE Power Supply - RF Cable Installation

Low voltage AC TV power is present on each central power supply TV coax cable. A PDi Power Passer (part number PD167-003) is required to route the AC power on the coax cable around any externally connected device such as the Satellite Set Top Box. A Power Passer is required for each TV/STB connection. For new installations, the use of a PDI-772HE-IND instead of PDI-772-HE will eliminate the need for the power passers.

⚠ NOTE: The PD167-003 Power Passer is an optional device NOT supplied with the Satellite Interface Module and is only required for centrally powered arm mounted televisions. Please contact your PDi distributor to order this device.

1. Remove power from the TV at the central power supply.
2. Connect a coaxial cable from the Satellite Set Top Box "OUT TO TV" to the Power Passer's "RF IN FROM EXTERNAL DEVICE".
3. Locate the coaxial cable from the central power supply. Connect this cable to "FROM POWER SUPPLY".
4. Connect the coaxial cable from the TV to "COMBINED SIGNAL TO TV." The TV coax should be limited to 150' to accommodate the central power supply coax length limitations.
5. Connect an Optional Secondary RF signal coaxial cable from the Power Passer's "RF OUT TO EXTERNAL DEVICE" to the Satellite Set Top Box "OFF-AIR IN". This connection is only necessary if you wish to view TV signals that are already present on your system in addition to Satellite Set Top Box signals. Signal strength entering the satellite set top box should be +3dBmV to +10dBmV.
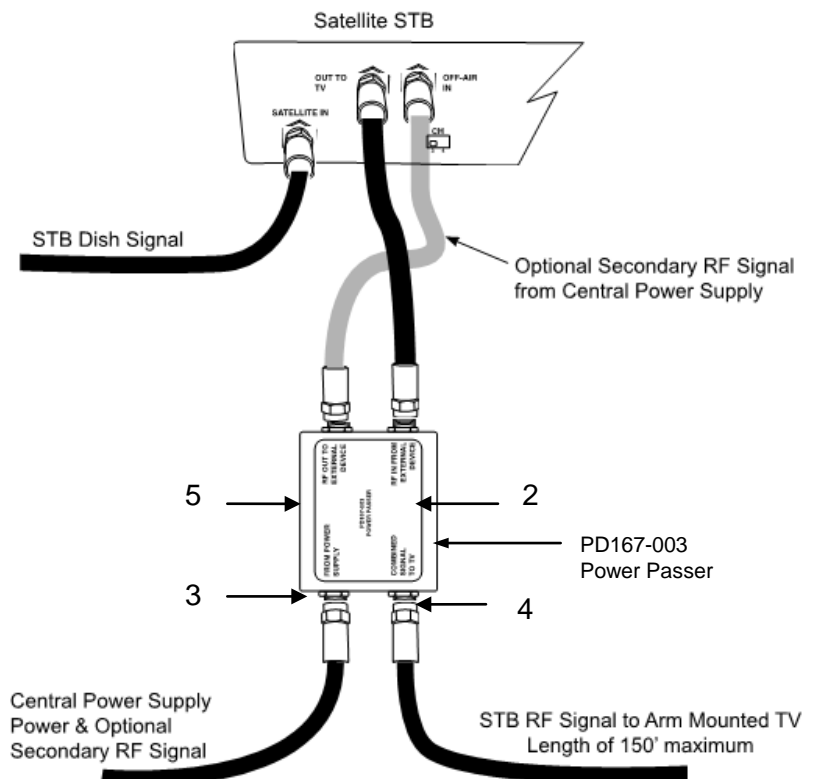
Central Style PDI-772HE-IND Power Supply - RF Cable Installation

Low voltage AC TV power is present on each central power supply TV RF out port. Each RF In port is designed to be connected to a separate RF source with minimal loss and high isolation.
1. Remove power from the TV at the central power supply.
2. Connect a coaxial cable from the Satellite Set Top Box "OUT TO TV" to one of the 10 "RF IN" ports on the PDI-772HE-IND.
3. Connect the coaxial cable from the TV to "RF OUT" on the PDI-772HE-IND. The TV coax should be limited to 150' to accommodate the central power supply coax length limitations.
4. Connect an Optional Secondary RF signal coaxial cable to the Satellite Set Top Box "OFF-AIR IN". This connection is only necessary if you wish to view TV signals that are already present on your system in addition to Satellite Set Top Box signals. Signal strength entering the satellite set top box should be +3dBmV to +10dBmV.
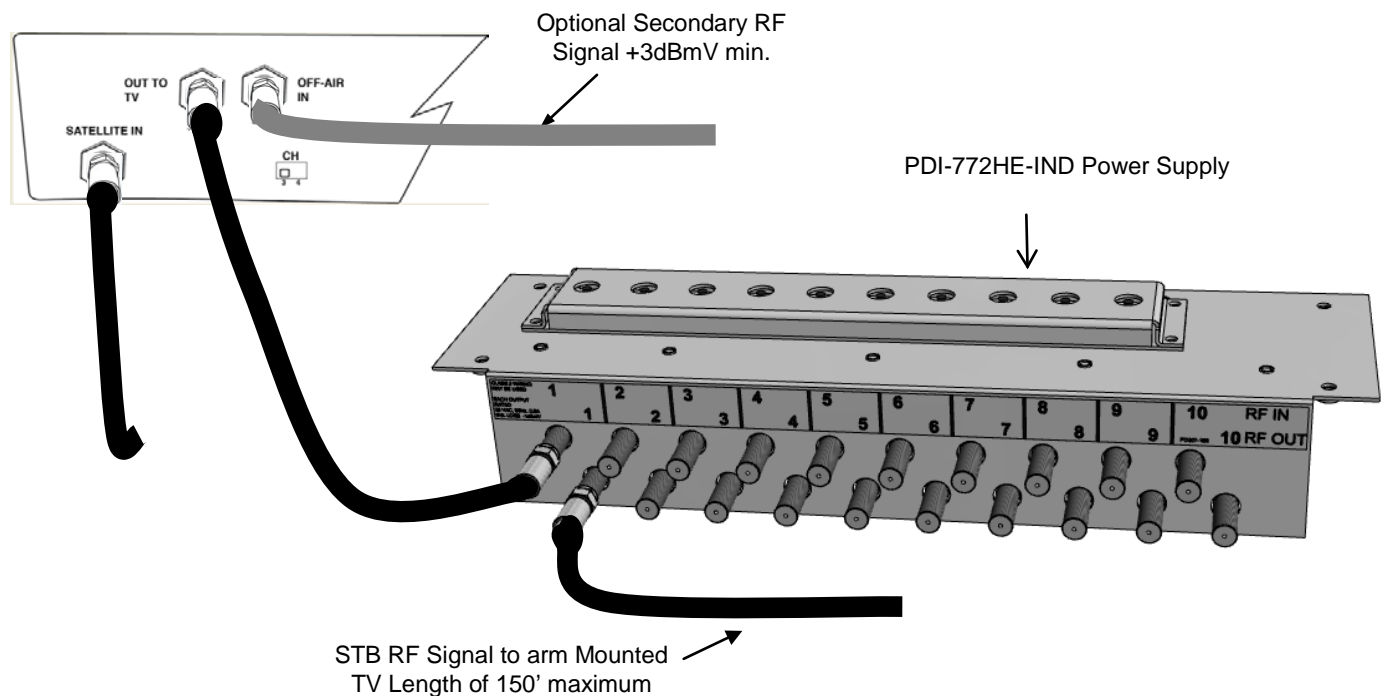

Optional Secondary RF Signal +3dBmV min.

PDI-772HE-IND Power Supply

STB RF Signal to arm Mounted TV Length of 150' maximum

TV Setup

To establish communication to the mini-module satellite interface the CCI port on the TV must be active. Using a PDi programming remote (PD108-420, not included):

1. Press SETUP to enter the TV's setup menu.
2. From the setup menu select "Features".
3. If the "Standby Power" setting shows in this menu, change it to "Normal". Some TV's do not have this setting so this step can be ignored. Other TV's may operate the Satellite Interface on any "Standby Power" setting. This can be determined by trying it or contacting PDi.

Features	
■ Power on Caption Mode	Last
■ Auto Power On	Enabled
■ Inactive Power Off (h:mm)	Disabled
■ Bed A/B	A
■ Caption Text Modes	Disabled
■ Digital Captions	►
■ Digital Mode Time Setup	►
■ Diagnostics	►
■ Channel Up Power Off	Disabled
■ Channel to Other Sources	Disabled
■ Power on ARC Mode	16:9
■ Standby Power	Normal

Position: ▲▼

Exit: SETUP   Next: ◄►

4. From the initial setup menu, select "Channels".
5. Change the "Pro:idiom" option to "MTI Port". Some TV's do not have this setting so this step can be ignored.

Channels	
■ Signal	Cable STD
■ Auto Program	►
■ Add/Delete Channels	►
■ Clear Service Level	►
■ Copy Service Level	►
■ Parental Control	►
■ Power on Channel	►
■ Channel Lock	Disabled
■ Channel Memory Override	Enabled
■ Pro:Idiom	MTI Port

Position: ▲▼

Exit: SETUP   Next: ◄►

6. From the initial setup menu, select "Sources". Set each item as detailed below.

The TV Source Setup must properly reflect the actual connections to the TV. Incorrect settings will result in loss of programming or the addition of blank signal sources. In most installations, both satellite and off-air programming is delivered over RF so the "TV Tuner" must be enabled. If the satellite channels are delivered over an alternate method such as HDMI, then that source must be enabled. All unused sources should be disabled.

Sources	
■ TV	Enabled/APO
■ Composite Video	Enabled/APO
■ S- Video	Enabled/APO
■ Component	Enabled/APO
■ HDMI 1	Disabled
■ HDMI 2	Disabled
■ PC-ANALOG	Disabled
■ FM Radio	Disabled
■ DVD	Enabled/APO
■ Power On Source	TV

APO = Auto Power Off if no video

Position: ▲▼
Exit: SETUP   Next: ◄►

Verifying and Troubleshooting Connections

The following steps verify the Data connections between the STB and TV. The following instructions assume you have followed the previous connection and TV setup sections of this manual.

1. Power the STB. The PDI interface receives power from the externally connected STB.
2. Power the TV.
3. Examine the front mounted status lights on the PD295-001 Satellite Interface Module. It contains a Power status light, a Set Top Box (STB) status light and a TV status light. Each light will turn Green when properly connected.
4. A dark (Off) status light indicates a problem. Blinking indicates data transfer.
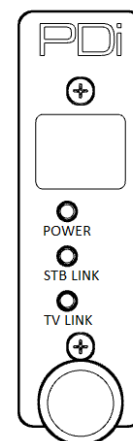
POWER	STB LINK	TV LINK	SUGGESTIONS
OFF	OFF	OFF	1. Verify STB is powered. 2. Verify USB cable is properly connected.
ON	OFF	ON	1. Verify USB cable is properly connected. 2. Allow additional time for Satellite set top box to initialize. Recheck. 3. Unplug satellite set top box and reconnect power. 4. Reset Satellite STB.
ON	ON	OFF	1. Verify TV is powered. 2. Verify connections at interface module, TV Wall Plate, and TV CCI port. 3. Verify TV standby power is set to "Normal" and Pro:Idiom" is set to "MTI Port". 4. Make certain data cable is connected to the TV's CCI port (Not MTI or Ethernet port).
ON	OFF	OFF	1. Verify USB and CCI connections.
ON	ON	ON	1. All connections are proper.

Understanding Interface Module Setup Menus

The STB Interface is configurable from Setup menus accessed by the TV programming remote. The following instructions assume you have connected the TV, Satellite Interface, STB, and the various components according to the previous instructions contained in this manual.

1. Make certain the STB is powered. See the instructions that came with the STB for more details.

   ⚠   NOTE: Some Set Top Boxes (STBs) require several minutes following application of initial power to effectively respond to commands. Please allow enough time for the STB to properly initialize.

2. Stand in front of the TV and press the SETUP button on the PD108-420 programming remote.

3. When the TV Setup menu appears on the TV's screen, press SETUP a second time to display the Interface Module setup menu.

4. Press the "CH▲" or "CH▼" on the remote to highlight the desired option. To advance to the next page, press "CH▼" when the bottom item on the list is highlighted.

5. Press "VOL►" or "VOL◄" on the remote to cycle through a menu item's setting options.

6. Press SETUP on the remote to exit.

Menus 1 ~ 5

Menus 1, 2, 3, 4 and 5 provide the mapping content of a control device's keypad buttons. The factory default settings are shown in the menus pictured here in this manual. A complete listing of STB functions is provided in appendix A.

The left menu column "- TV KEY -" contains a listing of common control buttons found on pillow speakers, remotes, and the television keypads.

The right menu column "- STB -" contains default settings that work well with most STB's. Adjustment can only be made to items in the right column.

⚠   NOTE: An STB menu item that is blank does not provide any STB control functionality, and will operate the standard TV function.

INTERFACE MODULE SETUP 1/6	
-TV KEY-	-STB KEY-
CH Up	CH+
CH Dn	CH-
Vol Up	
Vol Dn	
Last/Prev Ch	Prev Channel
OK / Sel / Enter	Select
CC	
ARC/Ratio	Down Arrow
Mute	
Sleep	Up Arrow
SAP/MTS	
Exit:SETUP/OK	Cancel:POWER

INTERFACE MODULE SETUP 2/6	
-TV KEY-	-STB KEY-
0	Digit 0
1	Digit 1
2	Digit 2
3	Digit 3
4	Digit 4
5	Digit 5
6	Digit 6
7	Digit 7
8	Digit 8
9	Digit 9
Dash (-)	Info
Exit:SETUP/OK	Cancel:POWER

INTERFACE MODULE SETUP 3/6	
-TV KEY-	-STB KEY-
Up Arrow	Up Arrow
Dn Arrow	Down Arrow
Lt Arrow	Left Arrow
Rt Arrow	Right Arrow
Menu	Guide
Home	
Guide	Guide
Info	Info
Recall/Star (*)	Prev Channel
Exit	Exit
Back (Nav)	Back
Exit:SETUP/OK	Cancel:POWER

INTERFACE MODULE SETUP 4/6	
-TV KEY-	-STB KEY-
Play	Play
Pause	Pause
Stop	Stop
Eject	Record
Rewind	Rewind
Fast Forward	FFWD
Last Track	Replay
Next Track	Advance
Exit:SETUP/OK	Cancel:POWER

INTERFACE MODULE SETUP 5/6	
-TV KEY-	-STB KEY-
TV/FM	Exit
TV/AV/Input	
Ch List	Guide
DVD Menu	Guide
RED	Red
GREEN	Green
YELLOW	Yellow
BLUE	Blue
Exit:SETUP/OK	Cancel:POWER

Menu 6
Menu 6 provides STB configuration settings and firmware information.

MENU ITEM	EXPLANATION
STB Signal Input	Sets the TV's signal type input to correspond to the STB's signal output. The majority of STB's utilize modulated RF as the signal type and is the type shown in this instruction manual. TUNER is the default setting. Additional settings are available for STB's with different output signal types.
STB Channel	When the STB Signal Input is set to "Tuner", STB Channel sets the channel the TV tunes to view the STB's signal. This setting should match the STB's "CH" switch setting which is usually 3 or 4.
Restore Factory Defaults	Press vol▶to restore all interface settings to factory defaults
Interface F/W Ver	PDi Satellite Interface Firmware Version
TV CCI Ver	CCI communication protocol version reported by TV
DTV Command Ver	Set Top Box (STB) Command Version reported by STB
DTV Status	Status of communications between the PDI Satellite Interface and the STB.

```
        INTERFACE MODULE SETUP 6/6

STB Signal Input              Tuner
STB Channel                    003
Restore Factory Defaults         >
Flash Power LED                 Off

             DIAGNOSTICS
Interface F/W Ver             V3.01
TV CCI Ver                     V4.7
DTV Command Ver               V1.4
DTV Status                Connected
USB Disconnects                000

Exit:SETUP/OK        Cancel:POWER
```

Programming the Interface Module

Keypad Programming (Mapping) Instructions

The set top box (STB) can be controlled remotely by any of the following that incorporate a keypad: PDi-Qube™, Pillow Speaker, TV's Keypad (Arm Mounted TV's), or Handheld Remote Control. In other words, any control device that incorporates a keypad capable of controlling the TV can also control the Set Top Box.
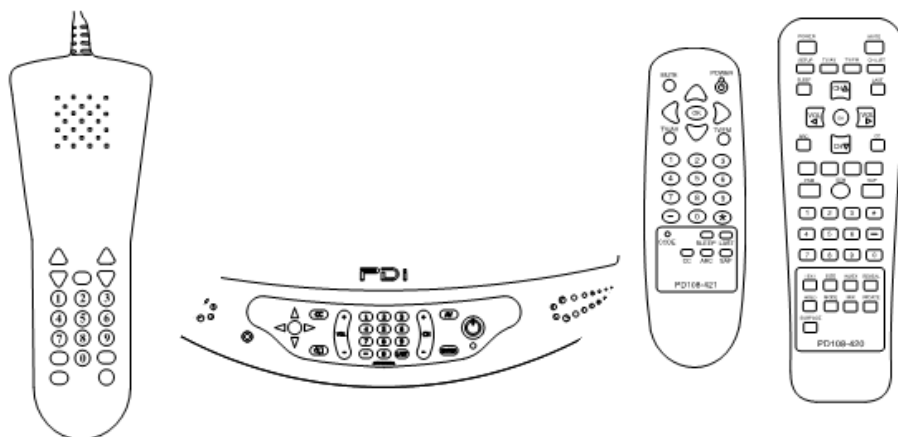
Keypad Programming or Mapping involves assigning key functions to the corresponding Set Top Box (STB) functions. It is common practice to designate a control button to activate the STB's Channel "Guide" feature. This feature allows for quicker selection of satellite channels. Some common control buttons used for "Guide" are listed below. Your installation may vary depending upon the control device's availability of these particular buttons.

Control Button	STB Function
Menu	Guide
(-)	Guide

1. Enter the STB Interface Setup Menu (See STB Interface Setup Menus earlier in this manual).
2. Select menu pages 1 through 5.
3. For each "TV Key" on the left column, set the matching "STB Key" on the right column to the desired STB function.

Programming For Off-Air Non-Satellite Channels Using Off-Air RF Pass-Thru

The Set Top Box (STB) can be remotely turned off, which allows any signal connected to the "OFF-AIR" input of the STB to be active and then viewed downstream by the TV. The Off-Air signal could be a DVD player for an in-house movie channel, an externally connected antenna for local over-the-air channels, or cable TV channels. See pages 7 or 8 for details regarding connection of an Off-Air signal.

⚠ NOTE: Off-Air signals are optional and may not be available at the facility, in which case this instruction section may be skipped.

To view an Off-Air signal, the patient must turn Off the STB. A control key must be assigned to perform this function. The control key should NOT be the TV's POWER button as it is used to power the TV On and Off. Instead, another key must be selected. Below are some suggestions for STB "Power" keys that might be utilized on some common control devices.
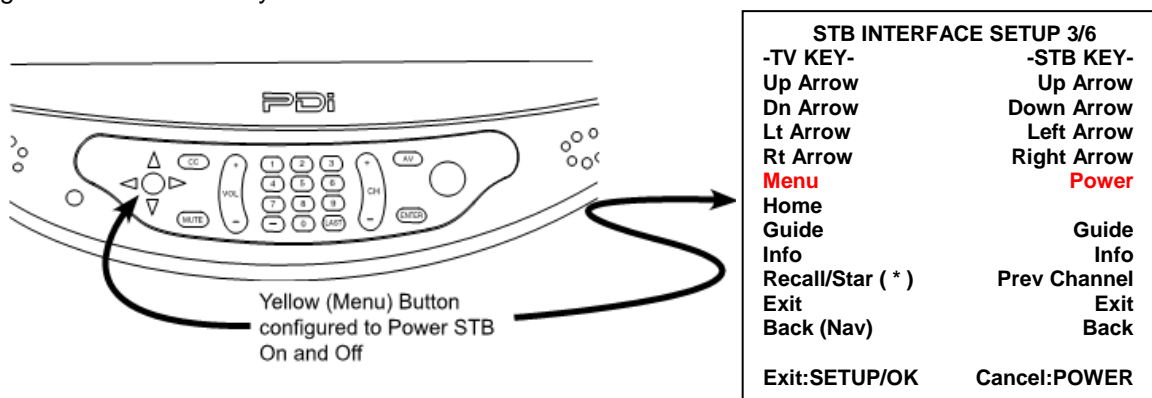
CONTROL DEVICE	SUGGESTED CONTROL KEY
Pillow Speaker	ALT, MENU, TV/AV
TV Keypad	MENU, OK, AV
Remote	TV/AV, (-)

An Example for Off-Air RF Pass-Thru
A facility has an outside antenna that contains several local TV channels that they wish to provide to their patients for viewing in addition to Satellite TV channels.

The facility is equipped with the PDI-P15X arm mounted television powered remotely from a central style power supply. The Off-Air antenna signal is connected to the input of the central power supply and the STB is connected using the Optional Secondary RF Coax cable as shown on pages 7 through 9.

For this configuration, the yellow (Menu) button on the TV's keypad is chosen to Power the STB on and off by changing the mapping of the TV "Menu" key to "Power".


```
STB INTERFACE SETUP 3/6
-TV KEY-                    -STB KEY-
Up Arrow                    Up Arrow
Dn Arrow                  Down Arrow
Lt Arrow                   Left Arrow
Rt Arrow                  Right Arrow
Menu                          Power
Home
Guide                           Guide
Info                             Info
Recall/Star ( * )        Prev Channel
Exit                             Exit
Back (Nav)                      Back

Exit:SETUP/OK       Cancel:POWER
```

Yellow (Menu) Button configured to Power STB On and Off

Now, Exit the STB INTERFACE SETUP menu by pressing the SETUP button on the programming remote.

Pressing the "MENU" button on the TV's keypad should power the STB On and Off with each key press. The only remaining setup involves programming the TV for the Off-Air channels while the STB is Off. The TV's channel programming is not required to include the STB's channel as well. For example, if the STB is set for channel 3 output, the same channel could be omitted from the TV's channel table, if no local channel 3 is available. Please see the programming instructions specific to the model PDI TV being used.

Programming the STB Signal Input Type

The Satellite Interface must be programmed so that it knows which TV source input needs the keys to be mapped to the STB. When any other signal source is selected, all keys will operate normally.

1. Enter the STB interface Setup Menu (See STB Interface Setup Menus earlier in this manual).
2. Select menu "INTERFACE MODULE SETUP 6/6".
3. Set "STB Signal Input" to match the connection to the STB. This is usually Tuner, but may be "HDMI" or "Component" for high definition STB's.
4. If "STB Signal Input" is "Tuner" then set the "STB Channel" to match the STB's modulated RF output. The illustration depicts the channel as number 3 in this example.
5. Exit setup. Verify the STB signal is now displayed on the television.
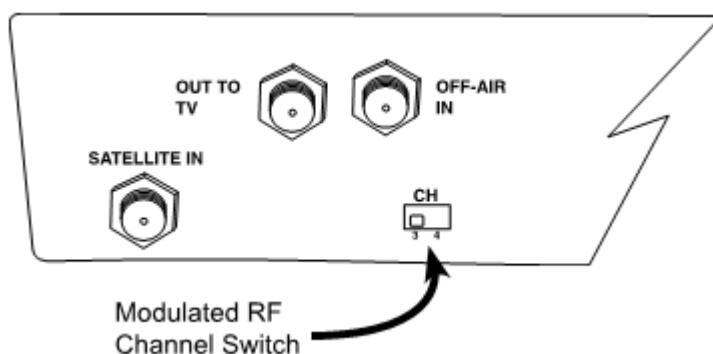
Modulated RF Channel Switch

INTERFACE MODULE SETUP 6/6

STB Signal Input	Tuner
STB Channel	003
Restore Factory Defaults	>
Flash Power LED	Off

DIAGNOSTICS

Interface F/W Ver	V3.01
TV CCI Ver	V4.7
DTV Command Ver	V1.4
DTV Status	Connected
USB Disconnects	000

Exit:SETUP/OK   Cancel:POWER

Restoring Factory Default Settings

The Satellite Interface configuration can be reset to factory defaults. Resetting to defaults cannot be undone. If the Interface is connected to a PDI-P19W the default configuration will be optimized for the P19W's keypad. It will not match the settings that came preloaded onto the Interface.

1. Enter the Satellite Interface Setup Menu (See STB Interface Setup Menus earlier in this manual).
2. Select menu "INTERFACE MODULE SETUP 6/6".
3. Highlight the "Restore Factory Defaults" item.
4. Press "VOL►" to restore factory defaults. The operation will happen immediately and cannot be undone.

```
         INTERFACE MODULE SETUP 6/6

   STB Signal Input                Tuner
   STB Channel                       003
   Restore Factory Defaults            >
   Flash Power LED                    Off

              DIAGNOSTICS
   Interface F/W Ver               V3.01
   TV CCI Ver                       V4.7
   DTV Command Ver                  V1.4
   DTV Status                  Connected
   USB Disconnects                   000

   Exit:SETUP/OK        Cancel:POWER
```

Operation

PDi Satellite Interface operation is straight forward once configured. Site installations that involve a secondary "Off Air" signal require additional instruction to provide a worry-free patient viewing experience.

Satellite Operation
1. Turn the TV On. A satellite channel should be displayed.
2. Channel the TV Up or Down. The satellite channel should follow.
3. Press the designated Guide button. A channel guide should appear.
4. Select a channel from the Guide. The viewed satellite channel should follow the selection.

Off-Air TV Operation (Optional)
1. a. If using the TV Tuner for satellite programming, press the control button designated for STB Power (see section "Programming for Off-Air Non-Satellite Channels Using OFF-AIR RF Pass-Thru").
   b. If using an input other than RF Tuner for satellite programming, press the TV/AV key repeatedly until the TV Tuner source is selected.
2. The STB signal should disappear.
3. Channel the TV Up or Down. The TV should now tune the Off-Air channels (non-STB channels).
4. a. If using the TV Tuner for satellite programming, press the control button designated for STB Power again.
   b. If using an input other than RF Tuner for satellite programming, press the TV/AV key again until the satellite source is selected.
5. The Off-Air channel should disappear and be replaced with a satellite channel.
6. Press the TV's power button to turn off the TV at any time.

Appendix A - Control Device Key / STB Functions Default Mapping

A listing of all the possible STB functions is provided. The listing is shown with default control device key settings.
Each STB Function can be changed to any control device key. Please refer to pages 12-16 for programming details.

NOTE: A "Control Device Key" (also referenced as a 'TV Key') is a key located on the front panel of a PDi TV and/or on a PDi TV compatible controller (IR remote control, pillow speaker, or wireless control device).

Control Device Key	STB Function
Right Arrow	Right Arrow
Left Arrow	Left Arrow
SLEEP, Up Arrow	Up Arrow
ARC, Down Arrow	Down Arrow
	Enter
INFO, Dash (-)	Info
	Active
	List
Back	Back
	(-)
	Pause
Rewind	Rewind
Play	Play
Stop	Stop
Fast Forward	Fast Forward
Eject	Record
Last Track	Replay
Next Track	Advance
Ok, Select, Enter	Select
	Power ON
	Power Off
CH+	CH+
CH-	CH-
DVD Menu, Guide, CH List, Menu (Yellow Button)	Guide
Exit, TV/FM	Exit
	Power
Recall, Last	Prev Channel
0	Digit 0
1	Digit 1
2	Digit 2
3	Digit 3
4	Digit 4
5	Digit 5
6	Digit 6
7	Digit 7
8	Digit 8
9	Digit 9
	Red
	Yellow
	Green
	Blue
	Menu
	Format

PDi Limited Warranty

PDi Communication Systems Inc., ("PDi") warrants, to the original purchaser only, that the product will be free from defects in materials and workmanship, under normal use, for 2 years from the date of original purchase. This warranty does not cover any other equipment that may have been included with PDi's shipment of this product.

After receipt of written notice of a defect or malfunction occurring during the warranty period, PDi will repair or replace goods returned to its Springboro, Ohio location, at its discretion, the whole or any component part of any product manufactured by PDi and found by PDi to be defective. If the decision is made to replace the product, PDi will exchange the model for the same model or a model similar in form and function.

As a condition to obtaining warranty service, written notification of the defective product must be received by PDi within ten (10) days of noticing the defect. Repair of said product requires it to be shipped to the PDi factory in Springboro, Ohio. All shipments shall be F.O.B. Springboro, Ohio, and all shipping and freight charges to PDi's factory shall be paid by the customer.

For information regarding authorized servicing and all other information pertaining to this warranty, please contact PDi COMMUNICATION SYSTEMS at 40 Greenwood Lane, Springboro, Ohio 45066 or phone 800-628-9870 and ask for Service.

This warranty gives specific legal rights and you may also have other rights which vary from state to state.

Exclusions from Warranty

- Products damaged by any catastrophe, accident, or from neglect, misuse, fault, improper assembly, improper maintenance, inadequate return packaging, or negligence by the customer or any third party. They will be treated as out of warranty for external cause to the Products, such as, but not limited to, failure of or faulty electric power, air conditioning, operator error, failure or malfunction of any data communications system. Such conditions will be determined by PDi at its sole unfettered discretion.
- Service and repair of accessories, apparatus, attachments or any other devices which are not PDi products or options.
- Defacing of product, revision control and PDi labeling (label alterations, serial number missing, serial number no longer discernible and serial number invalid). All serial numbers are recorded and tracked for warranty purposes.
- Unauthorized changes, modifications or alterations in or to the Products not installed by PDi.
- Damage to or loss of any programs, data, or removable storage media.
- Damage incurred during installation, relocation or removal of the Products or any accessories, apparatus, attachments or other devices.
- Normal wear.
- The furnishing of accessories or supplies.
- Damage by shipping carrier.
- Incompatibility issues.
- Damages of any kind including, but not limited to, direct or indirect damages, lost profits, lost saving, or other special incidental, exemplary or consequential damages whether for breach of contract, tort or otherwise, or whether arising out of the use of or inability to use the product, even if PDi or any distributor, dealer, or authorized service provider has been advised of the possibility of such damages, or any claim by any other party
- Damage caused by any software or application not installed at the factory.

PDi's liability under this warranty is limited to repair or replacement of defective products and parts as provided above. PDi shall not be liable for incidental or consequential damages.*

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*Some states do not allow the exclusion or limitation of incidental or consequential damages or a disclaimer of warranties implied by law, so the above limitation or exclusion may not apply.

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