

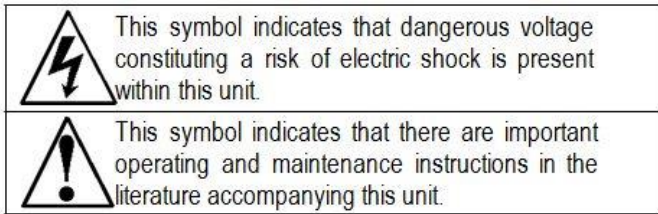
## PD295-001

Satellite TV  
Interface Module

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## CAUTIONS AND WARNINGS



**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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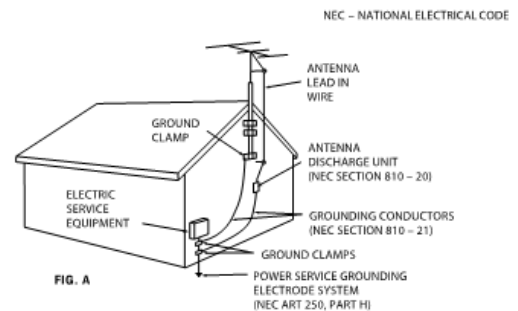
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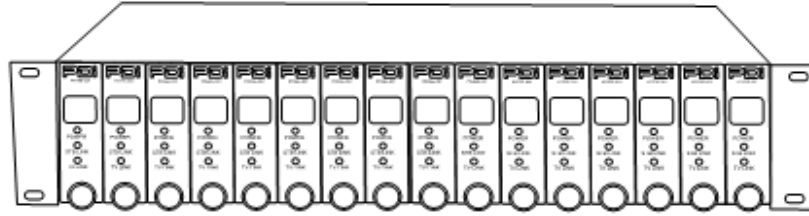
## IMPORTANT SAFETY INSTRUCTIONS

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.



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 must go to the head end and change one of the receivers or tell the patient the channel is not available. 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 channels, any TV nearby will also change.

The PDi 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 retrofit 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 Interface Module

The PDi Satellite Interface Module 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:

ATX / Pico Digital MPC-12C  
Blonder Tongue MIRC-12V  
Drake® RMM-12  
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.

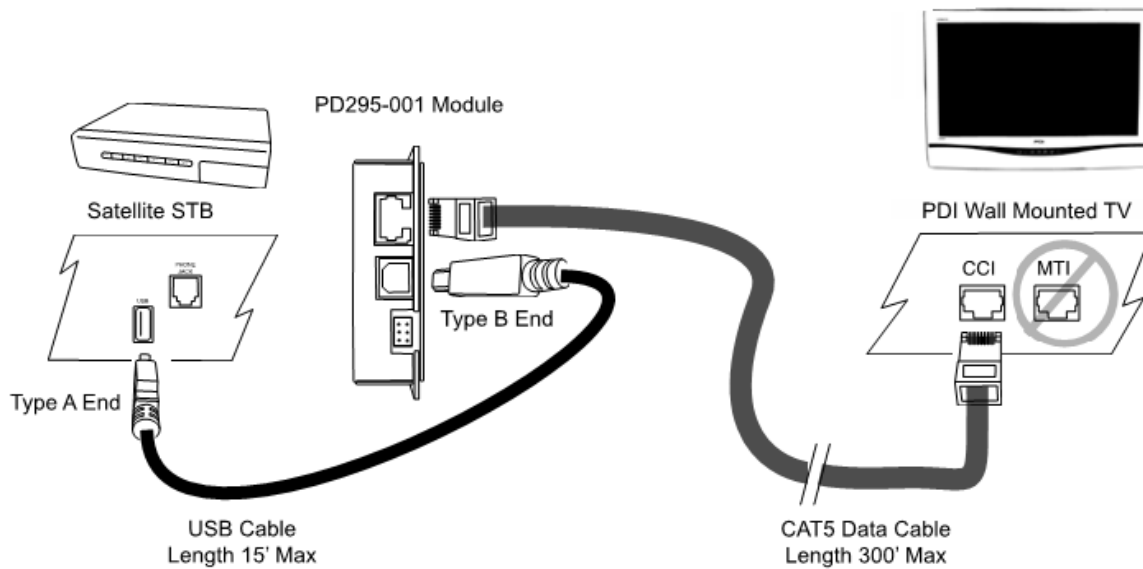


PD295-001 is for use with CCI Port only, Not MTI port

## 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.

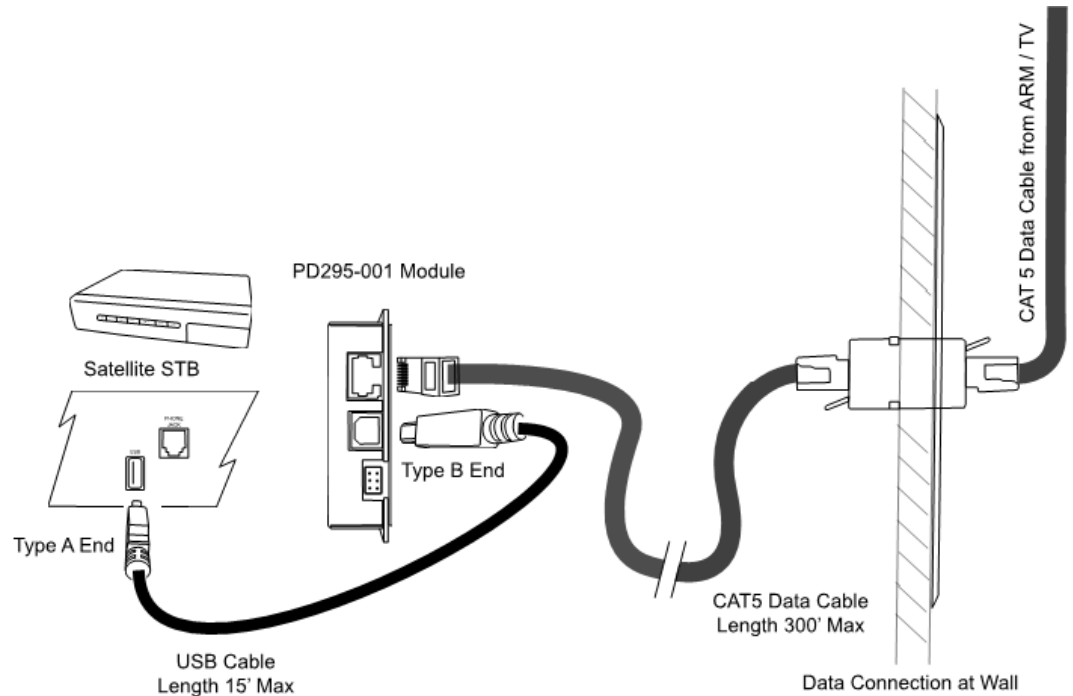


NOTE: Each TV and its Support Arm must be pre-wired with a CAT5 CCI data cable. Please contact PDI Communication Systems or your PDI distributor for assistance should your TV and/or Arm lack this cable.

### 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.

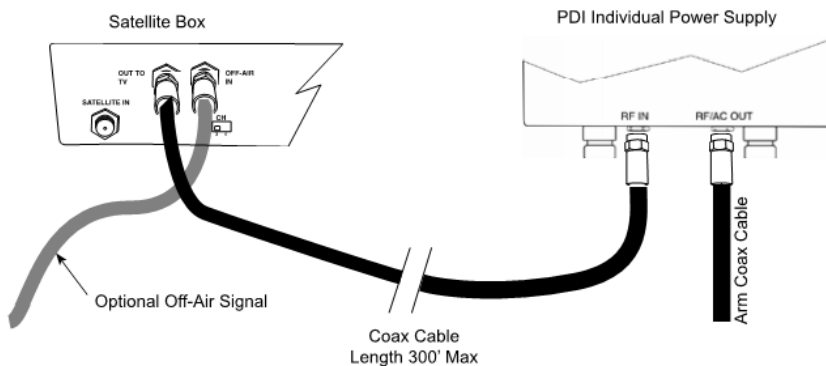
## Individual Style Power Supply - RF Cable Installation

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

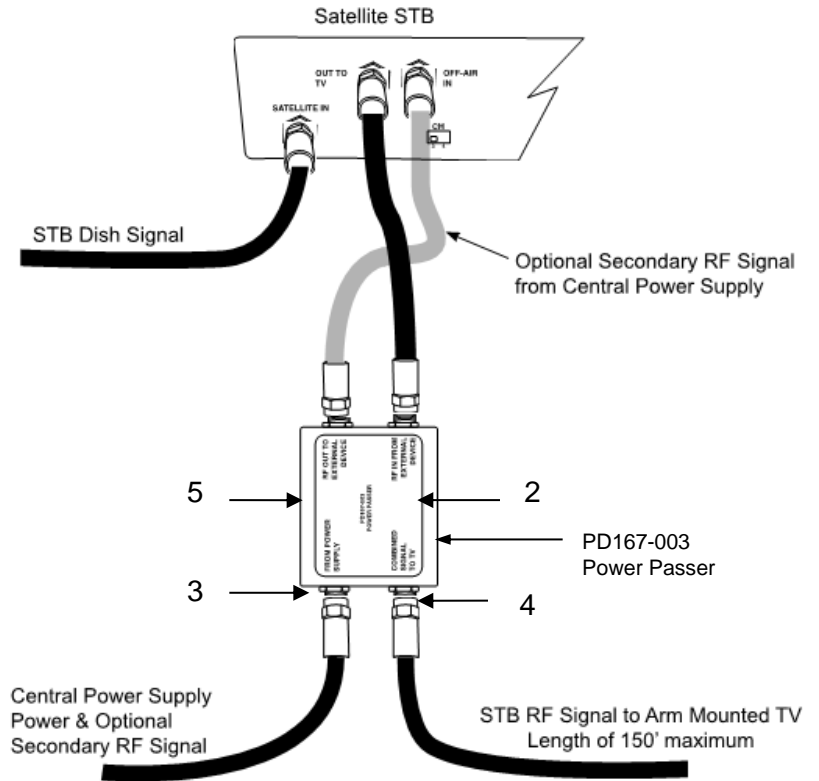
Low voltage AC TV power is present on each central power supply TV coax cable. A PDi Power Passer (part number PD167-003) is required to route the AC power on the coax cable around any externally connected device such as the Satellite Set Top Box. A Power Passer is required for each TV/STB connection. 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.



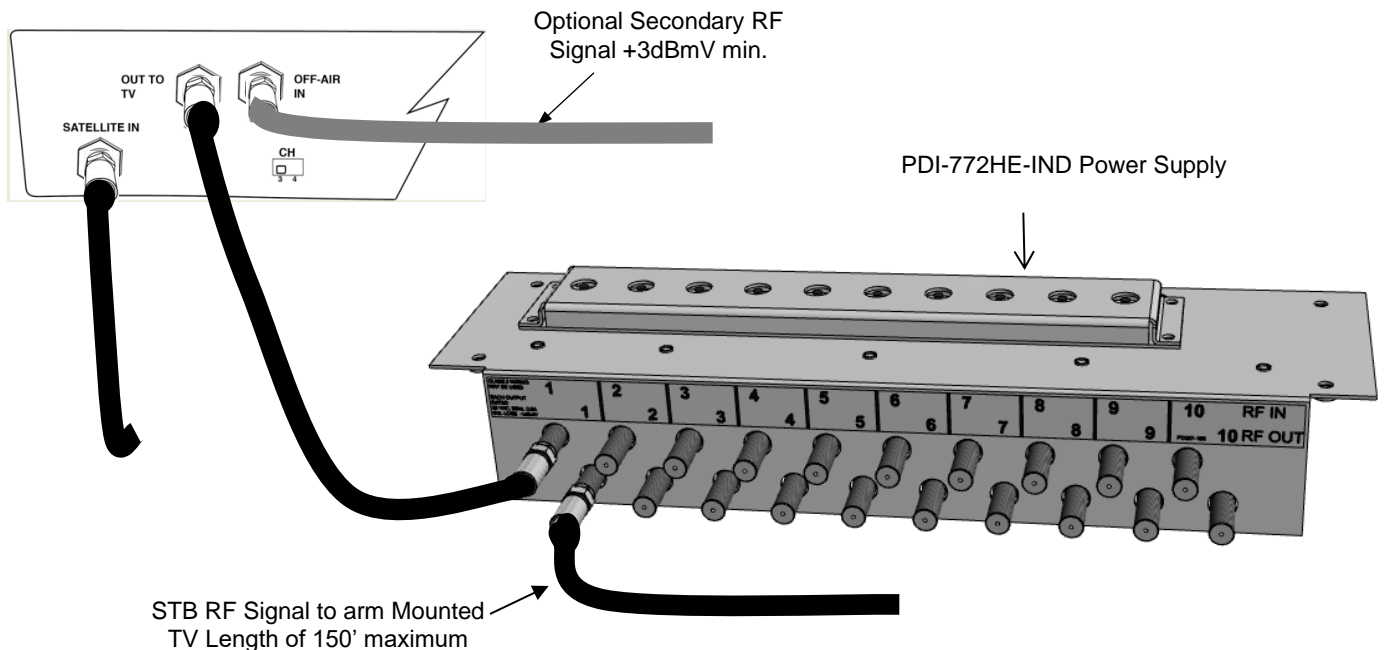
1. Remove power from the TV at the central power supply.
2. Connect a coaxial cable from the Satellite Set Top Box "OUT TO TV" to the Power Passer's "RF IN FROM EXTERNAL DEVICE".
3. Locate the coaxial cable from the central power supply. Connect this cable to "FROM POWER SUPPLY".
4. Connect the coaxial 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.



## TV Setup – Most PDi TVs (P14W, P16TV, P19TV, E-Series)

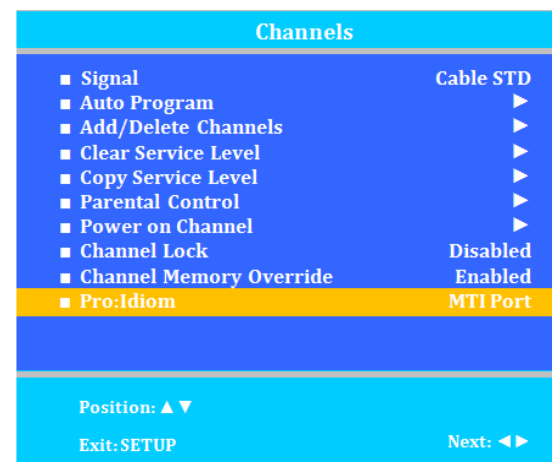
To establish communication to the mini-module satellite interface the CCI port on the TV must be active. Using a PDi programming remote (PD108-420, not included):

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.
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.



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.

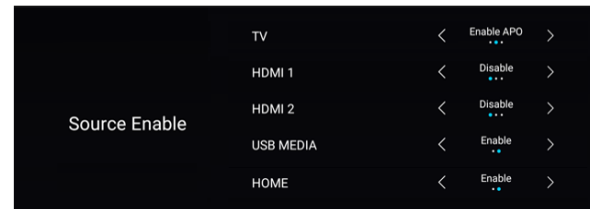


## TV Setup – A-Series

To establish communication to interface module the CCI port on the TV must be active and you must have a PDi programming remote PD108-420 (not included).

1. From the TV, open the TV Setup Menu by pressing SETUP on the programming remote.
2. Select “Sources” and then select “Source Enable”. 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 cable/satellite and off-air programming is delivered over RF so the “TV” must be enabled. If the cable/satellite channels are delivered over an alternate method such as HDMI, then that source must be enabled. All unused sources should be disabled.



## TV Setup – medTAB

medTAB14C, medTAB19C, and medTAB16C are compatible with PDi interface modules. To establish communication to interface module the CCI port on the TV must be active. Setup on the medTAB14C and medTAB16C can be completed with a PDi programming remote PD108-420 (not included). medTAB19C setup is completed through onscreen touchscreen controls.

1. From the TV app, open the TV Settings Menu, by pressing SETUP on the programming remote or by pressing Settings on the touchscreen TV controls. Enter password (“45066” is the factory default).
2. Select “Advanced Option”.
3. Select “Features” then select “Input Sources”. Set each item as detailed below.

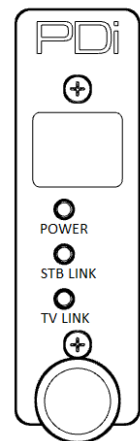
The TV Source Setup must properly reflect the actual connections to the TV. Incorrect settings will result in loss of programming or the addition of blank signal sources. In most installations, both cable/satellite and off-air programming is delivered over RF so the “TV” must be enabled. If the cable/satellite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

## 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 TV.
2. Power the STB. The PDi interface receives power from the externally connected STB.
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.
  - a. Each light will turn green when properly connected.
  - b. A dark (Off) status light indicates a problem.
  - c. Blinking indicates data transfer.
  - d. All 3 lights lit indicates all connections are working properly.

NOTE: While the link lights indicate a working connection, they do not confirm the audio/video (RF or HDMI) from the STB is connected to the correct TV. Please review the “Troubleshooting” section for additional help.



POWER	STB LINK	TV LINK	SUGGESTIONS
OFF	OFF	OFF	<ol style="list-style-type: none"> <li>1. Verify STB is powered.</li> <li>2. Verify USB cable is properly connected.</li> </ol>
ON	OFF	ON	<ol style="list-style-type: none"> <li>1. Verify USB cable is properly connected.</li> <li>2. Allow additional time for Satellite set top box to initialize. Recheck.</li> <li>3. Unplug satellite set top box and reconnect power.</li> <li>4. Reset Satellite STB.</li> </ol>
ON	ON	OFF	<ol style="list-style-type: none"> <li>1. Verify TV is powered.</li> <li>2. Verify connections at interface module, TV Wall Plate, and TV CCI port.</li> <li>3. Make certain data cable is connected to the TV's CCI port (Not MTI or Ethernet port).</li> <li>4. Verify TV standby power is set to "Normal" and Pro:Idiom" is set to "MTI Port".</li> </ol>
ON	OFF	OFF	<ol style="list-style-type: none"> <li>1. Verify USB and CCI connections.</li> </ol>
ON	ON	ON	<ol style="list-style-type: none"> <li>1. All connections are proper.</li> </ol>

## 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.

### Accessing Interface Module Setup Menus on most PDi TVs

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. When finished, press SETUP to exit the "interface module setup" menu and save changes.

### Accessing Interface Module Setup Menus on medTAB-C

1. Make certain the STB and interface module are 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. From the TV app, open the TV Settings Menu, by pressing SETUP on the programming remote or by pressing Settings on the touchscreen TV controls. Enter password (“45066” is the factory default).
3. Select Advanced Option then press SETUP on the programming remote OR tap anywhere on the screen to open the STB interface module setup menu.
4. Press the “CH▲” or “CH▼” on the programming remote OR use the touchscreen navigation arrows ▲ ▼ to highlight the desired option. To advance to the next page, press “CH▼” or ▼ when the bottom item on the list is highlighted.
5. Press “VOL▶” or “VOL◀” on the programming remote OR use the touchscreen navigation arrows ▶ ◀to cycle through a menu item’s setting options.
6. When finished, press SETUP on the programming remote OR press Settings on the touchscreen controls to exit the “interface module setup” menu and save changes. **NOTE: FAILURE TO EXIT the interface module setup menu by following this step 6 could result in patient access to interface module setup menus.**

### 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 COMMAND -” 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 COMMAND-
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 COMMAND-
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 COMMAND-
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 COMMAND-
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 COMMAND-
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.

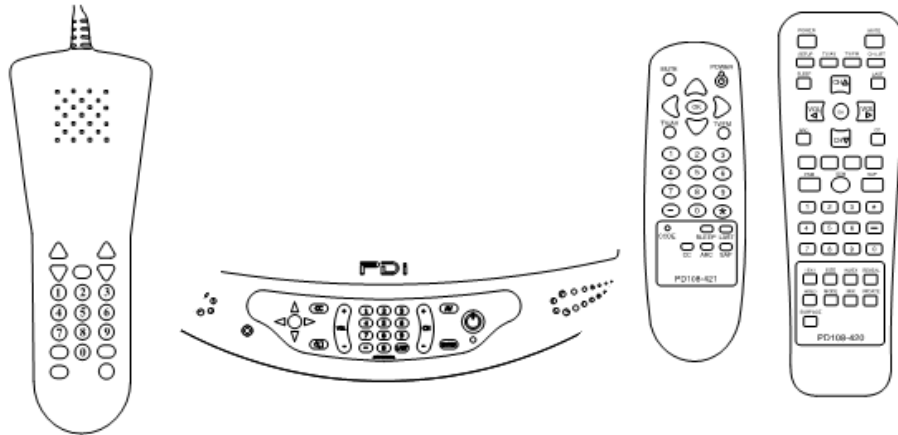
MENU ITEM	EXPLANATION
TV Input for STB	Sets the TV's signal type input to correspond to the STB's signal output. The majority of STB's utilize modulated RF as the signal type and is the type shown in this instruction manual. TUNER is the default setting. Additional settings are available for STB's with different output signal types.
TV Chan for STB	When the STB Signal Input is set to "Tuner", this 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) or the modulator channel number.
Restore Factory Defaults	Press vol▶ to restore all interface settings to factory defaults
Flash Intface Pwr LED	This provides a diagnostic tool to help determine if the TV is connected to the expected Satellite Interface and STB. If "Flash Intface Pwr LED" is turned on, the "POWER" LED on the Satellite Interface module controlled by this TV will flash rapidly. The STB controlled by this interface will also turn on and off continuously.  NOTE: This is not a stored parameter. It is automatically set to "OFF" by cycling power to the interface module.
Power Save	If "Power Save" is turned ON, the STB will be automatically powered off when the TV is turned off
DTV Interface F/W Ver	PDi Satellite Interface Firmware Version
TV CCI Ver	CCI communication protocol version reported by TV
DirecTV Command Ver	Set Top Box (STB) Command Version reported by STB
DirecTV Status	Status of communications between the PDI Satellite Interface and the STB.
DirecTV RID	Reports the RID of the connected DirecTV STB

INTERFACE MODULE SETUP 6/6	
TV Input For STB	Tuner
TV Chan For STB	003
Restore Factory Defaults	>
Flash Intface Pwr LED	Off
Power Save	On
DIAGNOSTICS	
DTV Interface F/W Ver	V3.14
TV CCI Ver	V5.3
DirecTV Command Ver	V1.4
DirecTV Status	Connected
DirecTV RID	0000 0000 0000
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 COMMAND" 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.

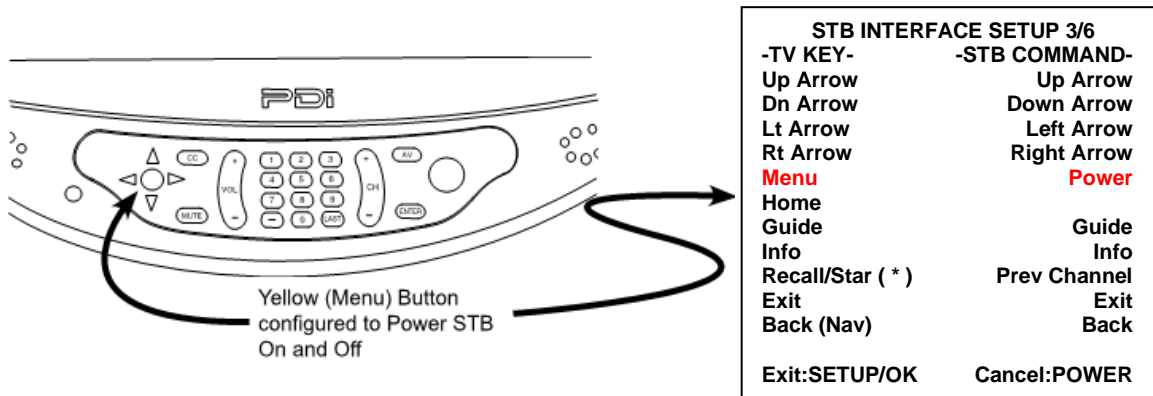
CONTROL DEVICE	SUGGESTED CONTROL KEY
Pillow Speaker	ALT, MENU, TV/AV
TV Keypad	MENU, OK, AV
Remote	TV/AV, (-)

**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”.



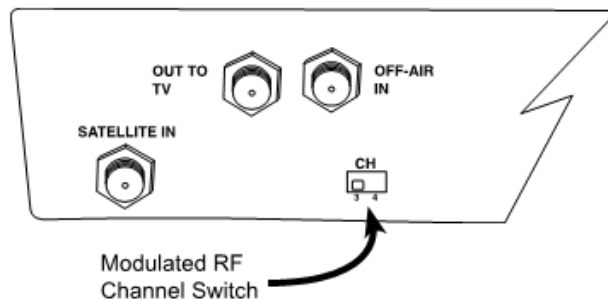
Now, Exit the STB INTERFACE SETUP menu by pressing the SETUP button on the programming remote.

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 “TV Input For STB” to match the connection from the STB. This is usually Tuner, but may be “HDMI” or “Component” for high definition STB’s.
4. If “TV Input For STB” is “Tuner” then set the “TV Chan For STB” 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.



INTERFACE MODULE SETUP 6/6	
<b>TV Input For STB</b>	<b>Tuner</b>
<b>TV Chan For STB</b>	<b>003</b>
Restore Factory Defaults	>
Flash Inface Pwr LED	Off
Power Save	On
DIAGNOSTICS	
DTV Interface F/W Ver	V3.14
TV CCI Ver	V5.3
DirectTV Command Ver	V1.4
DirectTV Status	Connected
DirectTV RID	0000 0000 0000
Exit:SETUP/OK	Cancel:POWER



## Restoring Factory Default Settings

The Satellite Interface configuration can be reset to factory defaults. 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.
5. Restoring defaults can be undone by pressing the POWER key to cancel.

INTERFACE MODULE SETUP 6/6	
TV Input For STB	Tuner
TV Chan For STB	003
<b>Restore Factory Defaults</b>	<b>&gt;</b>
Flash Intface Pwr LED	Off
Power Save	On
DIAGNOSTICS	
DTV Interface F/W Ver	V3.14
TV CCI Ver	V5.3
DirectV Command Ver	V1.4
DirectV Status	Connected
DirectV RID	0000 0000 0000
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 or press "00". 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.

## Troubleshooting

Symptom	Resolution
<p>DirectTV channels race up or down after pressing the channel up or down key one time on the PDi TV.</p>	<p>The DirecTV STB requires a firmware update. Start the update by restarting the receiver and pushing <b>0,2,4,6,8</b>, then <b>select</b> while the receiver is booting up. It should prompt for an auto software download to the latest version.</p>
<p>TV turns on but does not control the STB. There may be only a black screen or a fixed satellite channel that cannot be changed.</p>	<p>There can be many causes including a locked up set top box, miswiring, or incorrect configuration settings.</p> <ol style="list-style-type: none"> <li>1. Reset the set top box using one of two ways.             <ol style="list-style-type: none"> <li>a. Push the reset button on the set top box.</li> <li>b. Remove power from the set top box for 30 seconds.</li> </ol> </li> <li>2. Check the wiring. The signal loop must be correct and complete. The CCI cable from this TV must connect to the Interface Module which is in turn connected by USB to the STB that is sending audio/video and optionally power to the same TV.             <div data-bbox="824 617 1302 1031" data-label="Diagram"> <pre>             graph TD             TV[TV] --&gt; Coax[Coax Power Supply (optional)]             TV --&gt; IM[Interface Module]             IM --&gt; STB[Set Top Box]             STB --&gt; RF[RF Modulator (optional)]             RF --&gt; Coax             Coax --&gt; TV             </pre> </div> <ol style="list-style-type: none"> <li>a. Visually verify as many connection points as possible. Sometimes this is not easy, so proceed to the next step.</li> <li>b. Verify all 3 LEDs are lit for the Interface Module that is supposed to be connected to this TV. See “Verifying and Troubleshooting Connections”. If they are lit there is certainly a connection to a TV and set top box, but possibly not to the correct devices.</li> <li>c. Turn on “Flash Intface Pwr LED” to identify the Interface Module connected to this TV as well as the STB which is being controlled by this TV. See section “Interface Module Setup Menus”. Verify the correct Interface Module has a blinking POWER LED and that the expected STB is slowly turning on and off.</li> </ol> </li> <li>3. Check the Interface Module configuration.             <ol style="list-style-type: none"> <li>a. Verify the Interface Module “TV Input for STB” parameter is set to the source input (such as TUNER, HDMI 1, etc.) that matches the set top box’s connection to the TV. See “Programming the STB Signal Input Type”, page 16.</li> <li>b. If the video input to the TV is RF/TUNER, verify the Interface Module “TV Chan for STB” parameter is set to the channel that matches the set top box’s RF modulator. See “Programming the STB Signal Input Type”, page 16.</li> </ol> </li> </ol>

## Appendix A - Control Device Key / STB Command Default Mapping

A listing of all the possible STB commands is provided. The listing is shown with default control device key settings. Each STB Command can be mapped 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).

Default Control Device Key	STB Command
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.\*

The warranty contained herein is in lieu of all other expressed or implied warranties, including any implied warranty of merchantability or fitness for any particular purpose. PDi neither assumes nor authorizes any person to assume, on its behalf, any other obligation or liability.

\*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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