

# INTERNATIONAL DATACASTING

A Novra Group Company

## MAP<sup>®</sup> Receivers

For Professional Networks

## User's Guide

Revision 1.4



## Preface

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## MAP Receiver User’s Guide

**For models MAP Pro Audio DB and XLR versions; MAP Pro Cinema Cache Server; MAP Pro Video;  
MAP Pro Data**

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## Safety Warnings



DANGER  
Electric Shock  
Hazard

**THE UNIT MUST BE INSTALLED BY A QUALIFIED SERVICE PERSON AND THE EXTERNAL EARTH CONNECTION MUST BE MADE BEFORE CONNECTING THE AC SUPPLY. USE A GROUNDED POWER OUTLET ONLY.**



DANGER  
Electric Shock  
Hazard

**AN ANTI-SHOCK DEVICE MUST BE INSTALLED ON THE ANTENNA CABLE CONNECTING TO THE UNIT.**



DANGER  
Electric Shock  
Hazard

**THE UNIT MUST BE GROUNDED AT THE REAR PANEL GROUND CONNECTION.**



CAUTION  
Please Read  
Carefully

**DO NOT OPERATE THE UNIT IN DIRECT SUNLIGHT, A DUSTY OR DAMP ENVIRONMENT AND DO NOT BLOCK THE VENTILATION HOLES. THE UNIT IS DESIGNED TO OPERATE IN A TEMPERATURE RANGE OF 0°C TO 40°C. THE POWER RATING AND HEAT GENERATION OF THE UNIT ARE SUCH THAT IT CAN BE PLACED IN A 19” CABINET WITHOUT SPECIAL COOLING FACILITIES. HOWEVER, SUFFICIENT CLEARANCE MUST BE MAINTAINED BETWEEN THE UNIT AND OTHER EQUIPMENT (A 1RU GAP).**



CAUTION  
Please Read  
Carefully

**DO NOT OPEN THE UNIT FOR ANY REASON. THIS IS DANGEROUS AND MAY VOID YOUR WARRANTY.**



CAUTION  
Please Read  
Carefully

**IF THE UNIT FAILS TO OPERATE CALL YOUR SERVICE PROVIDER CUSTOMER SUPPORT.**



CAUTION  
Please Read  
Carefully

**THE MAP IS A 19” 1U RACK-MOUNTING UNIT WITH CONNECTOR ACCESS AT THE REAR. THE UNIT CAN BE MOUNTED AT THE FRONT OF A 19” RACK USING AN APPROPRIATE MOUNTING SET. HOWEVER, THE USE OF LATERAL SUPPORT IS STRONGLY RECOMMENDED.**

# Getting Started

International Datacasting Corporation (IDC) would like to thank you for purchasing this MAP receiver (herein referred to as the “receiver”). This User’s Guide provides step by step instructions on how to connect the receiver, access satellite services, and set system and audio output configurations.

## *Models*

This manual covers several models in the family of MAP receivers:

- **MAP Pro Audio Receiver 2 port XLR** 2 Decoders, Audio on XLR connectors
- **MAP Pro Audio Receiver 4 port DB** 4 Decoders, Audio on DB9 connectors
- **MAP Pro Audio Receiver 2 port DB** 2 Decoders, Audio on DB9 Connectors
- **MAP Pro Cinema Cache Server** Cinema Package Reception and Storage, Optional Live Video and Audio Decode, Data Reception
- **MAP Pro Video Receiver** Video and Audio Decode and Output
- **MAP Pro Data Receiver** Data Reception
- **Event Manager and Mistiq Source Gateway** IP data only products with specialized SW
- In addition, there are several hardware and software options that can be added to the MAP Receiver

Please refer to the datasheet for full Technical Specifications of your MAP receiver model. Readers of this manual who do not use a 4 Port DB Pro Audio receiver should ignore any references to audio 3 & 4, decoder 3 & 4 or channel 3 & 4. Users should ignore references to features that are not part of their receiver.

## *How to Use This Guide*

This guide describes the operation of your receiver through the GUI and through the keypad interface. Within the document you will find:

- a **Quick Start** section about connecting to the receiver and what the displays mean.
- a **User Interface** section explaining how to use the GUI interface to configure the receiver and enable the outputs.
- a **GUI Tips** section explaining extra information and on-screen choices.
- an **Advanced Topics** section that covers SNMP control.
- a **FAQ** section.

# Quick Start

If you have installed IDC products before, you can skip this section. If not, you will be familiarized with the status and controls of the MAP receiver prior to being shown how to find the receivers IP Address and how to connect to it through the GUI to configure the receiver for use.

## *What You Should Have Received*

You should have received the following package:

- One (1) MAP Receiver;
- One (1) power cord, suitable for use in your country;

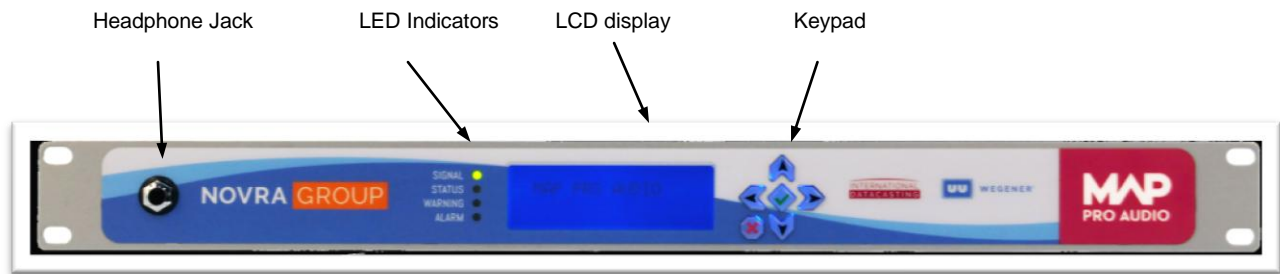
- One (1) copy of this User’s Guide (optional)

You will need audio cables to connect the receiver to your system. It is highly recommended that you retain the set of box and foam packaging that came with the unit, in the rare event that it has to be shipped back for repair.

*The Front Panel*

*Front Panel and Indicators*

The front panels of all models are identical. The indicators are described in the table.



**Front Panel Indicators**

**LCD and Keypad**



The LCD display is used to view receiver status, view receiver configurations and/or set receiver configurations. How to access these settings is described in the section Keypad Control.

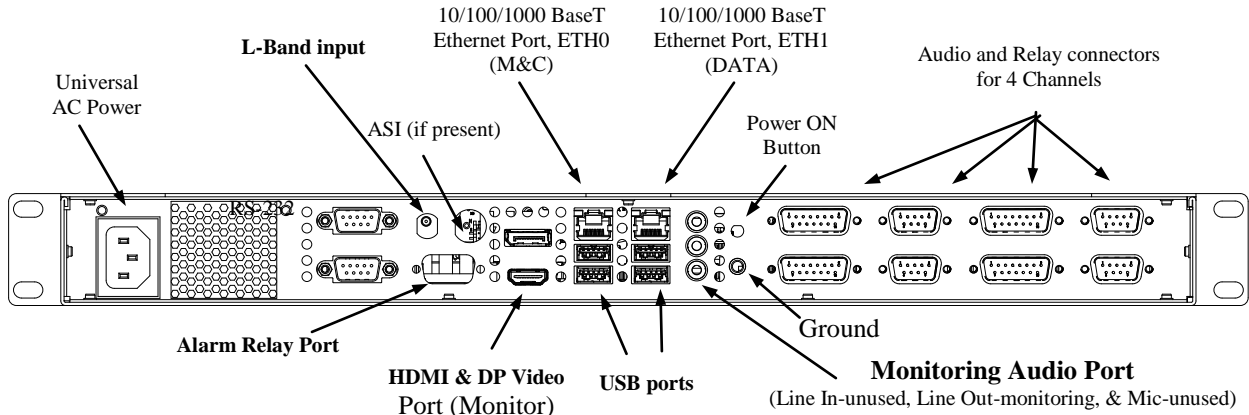
The status information of the receiver is shown on the LEDs as described in the table below. A blank cell shows an unused status/color combination.

LED status indication

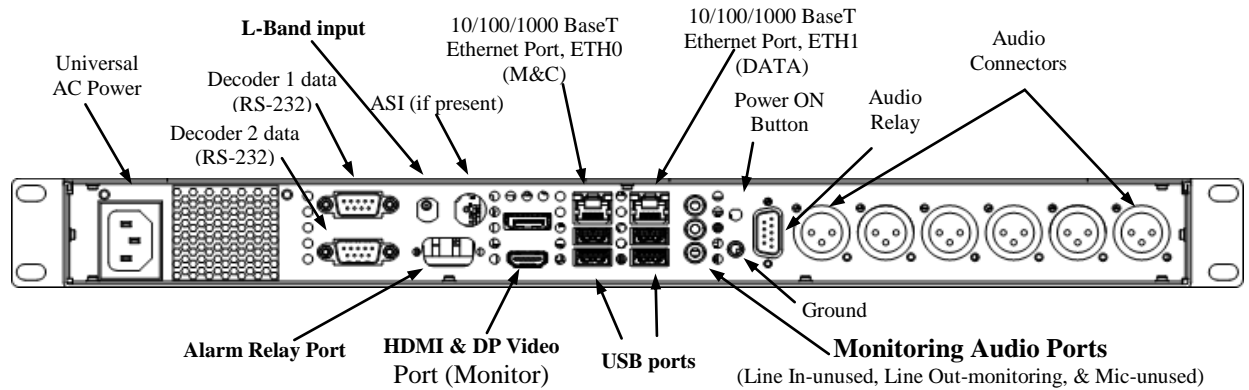
Indication	OFF	GREEN	YELLOW	RED
SIGNAL	Unit disconnected or power failure	Locked to Primary Input	Locked to Backup Input	Not locked to Input
STATUS	LNB Power not Enabled	LNB Powered (Current draw < 350mA)	LNB Voltage Low	LNB Power shorted, Over Temp or, Over Current (>350mA)
WARNING	No Active Warnings		Active Warnings	
ALARM	No Active Alarms			Active Alarms

*Rear Panel and Connectors*

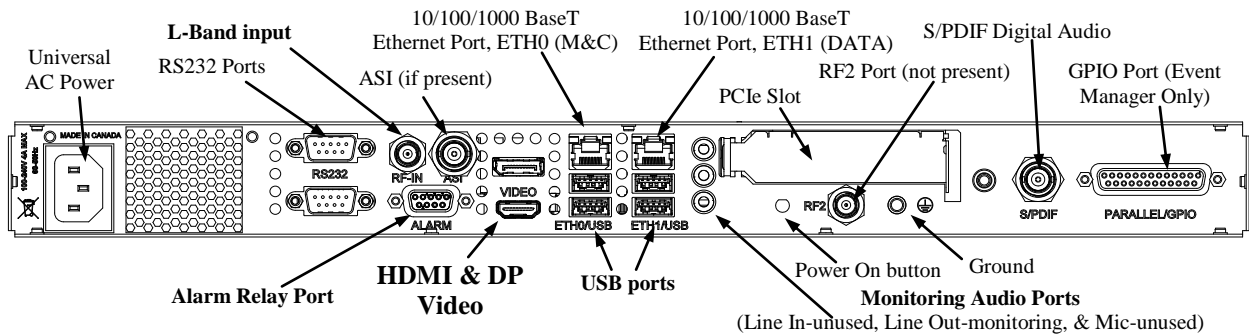
The layout of the rear panel of each model is quite different; the differences are mainly in the number and type of audio connectors. A description of each connector is given under the second figure.



**MAP Pro Audio-Rear (DB version)**



**MAP Pro Audio-Rear (XLR version)**



**MAP Pro Cinema Cache Server, MAP Pro Video, MAP Pro Data, Event Manager and MG1000 Rear**



**Connector Descriptions**

<b>Connector</b>	<b>Description</b>																														
Universal AC Power	<b>The Alternating Current (AC) inlet is the main power disconnect.</b> The power cord connector is used to provide AC power to the satellite receiver. The power requirements for this equipment are quite flexible, with an acceptable voltage range of 100 to 240 VAC at 50 or 60 Hz.																														
RS232	This is a 9-pin RS-232 (DTE) DE-9P (male) connector. These ports are only used on XLR models for embedded data. The pin outs for this port are as follows: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>PIN</th> <th>Acronym</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>DCD</td> <td>Data Carrier Detect</td> </tr> <tr> <td>2</td> <td>RD</td> <td>Receive Data</td> </tr> <tr> <td>3</td> <td>TD</td> <td>Transmit Data</td> </tr> <tr> <td>4</td> <td>DTR</td> <td>Data Terminal Ready</td> </tr> <tr> <td>5</td> <td>GND</td> <td>Ground</td> </tr> <tr> <td>6</td> <td>DSR</td> <td>Data Set Ready</td> </tr> <tr> <td>7</td> <td>RTS</td> <td>Request To Send</td> </tr> <tr> <td>8</td> <td>CTS</td> <td>Clear To Send</td> </tr> <tr> <td>9</td> <td>RI</td> <td>Ring Indicator</td> </tr> </tbody> </table>	PIN	Acronym	Reference	1	DCD	Data Carrier Detect	2	RD	Receive Data	3	TD	Transmit Data	4	DTR	Data Terminal Ready	5	GND	Ground	6	DSR	Data Set Ready	7	RTS	Request To Send	8	CTS	Clear To Send	9	RI	Ring Indicator
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1	DCD	Data Carrier Detect																													
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3	TD	Transmit Data																													
4	DTR	Data Terminal Ready																													
5	GND	Ground																													
6	DSR	Data Set Ready																													
7	RTS	Request To Send																													
8	CTS	Clear To Send																													
9	RI	Ring Indicator																													
10/100/1000 BaseT Ethernet Ports ETHx (2)	These are bi-directional RJ-45 8-wire (female) connectors. The MAP has two 10/100/1000Base-T (gigabit Ethernet) interfaces. Eth0 is used for M&C and Eth1 is used for Data																														
HDMI and DisplayPort (DP) Video Ports	A standard HDMI and DP output, used when a monitor is required for the console. On ProVideo and Pro Cinema Models, the HDMI port can also be used to output the Live Video stream.																														
POWER ON Button	This button is provided in case the motherboard in the receiver needs to be power cycled. Normally, the receiver automatically starts up without having to touch this power button. The button needs to be pressed briefly to turn the unit on, and held for up to 4 seconds to turn the unit off.																														
USB Ports (4)	These are bi-directional USB 2.0 ports. These are standard USB type connectors, used if the keyboard and mouse are required for the console. They are also available for future applications.																														
AUDIO Ports (LI, LO, MIC)	These are standard unbalanced audio ports: Line Input (LI), Line Output (LO) and Microphone input (MIC), as provided by the internal codec. Output is also available on front mounted Headphone Jack. These are standard PC type ports																														
ASI (option)	One port per tuner is optionally available for monitoring the output of the DVB Transport Stream, compliant with EN50083-9. It can also be used for input of a Transport Stream.																														
L-BAND Input	This is a 75 ohm, F-type connector. An RG-6 or similar cable of less than 200 feet is recommended. High quality cabling may be used to provide additional shielding, lower loss or protection from harsh environments. Direct Current (DC) power is provided to the LNB at either 13 VDC or 18 VDC at 350 mA maximum.																														
Audio Connectors (Pro Audio XLR versions only)	This is a set of 3 XLR male connectors per Audio Channel. They are used for Left and Right Analog Audio and Digital Audio. The maximum voltage on the Analog pins is +/- 15V and will drive a standard 600Ohm Audio Load. The Digital output is 0-4V and will drive 45mA. The pin outs for each XLR on this port are as follows. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>PIN</th> <th>Acronym</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>GND</td> <td>Ground</td> </tr> <tr> <td>2</td> <td>OUT +</td> <td>Positive Output</td> </tr> <tr> <td>3</td> <td>OUT -</td> <td>Negative Output</td> </tr> </tbody> </table>	PIN	Acronym	Reference	1	GND	Ground	2	OUT +	Positive Output	3	OUT -	Negative Output																		
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1	GND	Ground																													
2	OUT +	Positive Output																													
3	OUT -	Negative Output																													

Connector	Description																														
Audio RELAY  (Pro Audio XLR version only)	<p>A DE-9P (male) connector used for 8 Form A relays for Legacy Networks. The Relay pins are unpowered but should not have more than 24V applied. Pins common with the GPIs should have a maximum 6V applied to them and will draw no more than 1.5mA in GPI mode. The pin outs for this port are as follows:</p> <table border="1" data-bbox="699 407 1218 814"> <thead> <tr> <th>PIN</th> <th>Acronym</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Relay 6 NO</td> <td>NO Form A Relay 6</td> </tr> <tr> <td>2</td> <td>Relay 5 NO</td> <td>NO Form A Relay 5</td> </tr> <tr> <td>3</td> <td>Relay 8 NO / GPI2</td> <td>NO Form A Relay 8 / GPI2</td> </tr> <tr> <td>4</td> <td>Relay 7 NO / GPI1</td> <td>NO Form A Relay 7 / GPI1</td> </tr> <tr> <td>5</td> <td>Com</td> <td>Common</td> </tr> <tr> <td>6</td> <td>Relay 10 NO / GPI4</td> <td>NO Form A Relay 10 / GPI4</td> </tr> <tr> <td>7</td> <td>Relay 9 NO / GPI3</td> <td>NO Form A Relay 9 / GPI3</td> </tr> <tr> <td>8</td> <td>Relay 4 NO</td> <td>NO Form A Relay 4</td> </tr> <tr> <td>9</td> <td>Relay 3 NO</td> <td>NO Form A Relay 3</td> </tr> </tbody> </table>	PIN	Acronym	Reference	1	Relay 6 NO	NO Form A Relay 6	2	Relay 5 NO	NO Form A Relay 5	3	Relay 8 NO / GPI2	NO Form A Relay 8 / GPI2	4	Relay 7 NO / GPI1	NO Form A Relay 7 / GPI1	5	Com	Common	6	Relay 10 NO / GPI4	NO Form A Relay 10 / GPI4	7	Relay 9 NO / GPI3	NO Form A Relay 9 / GPI3	8	Relay 4 NO	NO Form A Relay 4	9	Relay 3 NO	NO Form A Relay 3
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8	Relay 4 NO	NO Form A Relay 4																													
9	Relay 3 NO	NO Form A Relay 3																													
Audio Connectors (1-4) (Pro Audio DB versions only)	<p>This is a DE-9P (male) connector used as a unidirectional (output) analog audio data port. The maximum voltage on the Analog pins is +/- 15V and will drive a standard 600Ohm Audio Load. The Digital output is 0-4V and will drive 45mA. The pin outs for this port are as follows.</p> <table border="1" data-bbox="712 947 1232 1255"> <thead> <tr> <th>PIN</th> <th>Acronym</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>LEFT +</td> <td>Audio X Left +</td> </tr> <tr> <td>2</td> <td>GND</td> <td>Ground</td> </tr> <tr> <td>3</td> <td>AES +</td> <td>Digital Audio Output X +</td> </tr> <tr> <td>4</td> <td>GND</td> <td>Ground</td> </tr> <tr> <td>5</td> <td>RIGHT +</td> <td>Audio X Right +</td> </tr> <tr> <td>6</td> <td>LEFT -</td> <td>Audio X Left -</td> </tr> <tr> <td>7</td> <td>GND</td> <td>Ground</td> </tr> <tr> <td>8</td> <td>AES -</td> <td>Digital Audio Output X -</td> </tr> <tr> <td>9</td> <td>RIGHT -</td> <td>Audio X Right -</td> </tr> </tbody> </table>	PIN	Acronym	Reference	1	LEFT +	Audio X Left +	2	GND	Ground	3	AES +	Digital Audio Output X +	4	GND	Ground	5	RIGHT +	Audio X Right +	6	LEFT -	Audio X Left -	7	GND	Ground	8	AES -	Digital Audio Output X -	9	RIGHT -	Audio X Right -
PIN	Acronym	Reference																													
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4	GND	Ground																													
5	RIGHT +	Audio X Right +																													
6	LEFT -	Audio X Left -																													
7	GND	Ground																													
8	AES -	Digital Audio Output X -																													
9	RIGHT -	Audio X Right -																													
	<p>This alternative pin out is available when a label “<b>Option B</b>” is affixed to the rear panel.</p> <table border="1" data-bbox="712 1346 1232 1654"> <thead> <tr> <th>PIN</th> <th>Acronym</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>LEFT -</td> <td>Analog Left Out -</td> </tr> <tr> <td>2</td> <td>LEFT +</td> <td>Analog Left Out +</td> </tr> <tr> <td>3</td> <td>AES +</td> <td>AES +</td> </tr> <tr> <td>4</td> <td>RIGHT -</td> <td>Analog Right Out -</td> </tr> <tr> <td>5</td> <td>RIGHT +</td> <td>Analog Right Out +</td> </tr> <tr> <td>6</td> <td>GND</td> <td>Analog Ground</td> </tr> <tr> <td>7</td> <td>GND</td> <td>Analog Ground</td> </tr> <tr> <td>8</td> <td>AES -</td> <td>AES -</td> </tr> <tr> <td>9</td> <td>GND</td> <td>Analog Ground</td> </tr> </tbody> </table>	PIN	Acronym	Reference	1	LEFT -	Analog Left Out -	2	LEFT +	Analog Left Out +	3	AES +	AES +	4	RIGHT -	Analog Right Out -	5	RIGHT +	Analog Right Out +	6	GND	Analog Ground	7	GND	Analog Ground	8	AES -	AES -	9	GND	Analog Ground
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13	Relay 8 NO / GPI2	NO Form A Relay 8 / GPI2																																															
14	Relay 9 NO / GPI3	NO Form A Relay 9 / GPI3																																															
15	Relay 10 NO / GPI4	NO Form A Relay 10 / GPI4																																															
ALARM RELAY Port	<p>This is a DE-9P (male) connector used as an Alarm Relay port. These pins are unpowered electromechanical relays. The pin outs for this port are as follows.</p> <table border="1" data-bbox="698 1167 1214 1470"> <thead> <tr> <th>PIN</th> <th>Acronym</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>A CO</td> <td>Relay A common</td> </tr> <tr> <td>2</td> <td>A NO</td> <td>Relay A normally open</td> </tr> <tr> <td>3</td> <td>B NC</td> <td>Relay B normally closed</td> </tr> <tr> <td>4</td> <td>C CO</td> <td>Relay C common</td> </tr> <tr> <td>5</td> <td>C NO</td> <td>Relay C normally open</td> </tr> <tr> <td>6</td> <td>A NC</td> <td>Relay A normally closed</td> </tr> <tr> <td>7</td> <td>B CO</td> <td>Relay B common</td> </tr> <tr> <td>8</td> <td>B NO</td> <td>Relay B normally open</td> </tr> <tr> <td>9</td> <td>C NC</td> <td>Relay C normally closed</td> </tr> </tbody> </table>	PIN	Acronym	Reference	1	A CO	Relay A common	2	A NO	Relay A normally open	3	B NC	Relay B normally closed	4	C CO	Relay C common	5	C NO	Relay C normally open	6	A NC	Relay A normally closed	7	B CO	Relay B common	8	B NO	Relay B normally open	9	C NC	Relay C normally closed																		
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9	C NC	Relay C normally closed																																															
S/PDIF Audio Port (Pro Cinema and Pro Video versions only)	BNC Connector Containing S/PDIF or AES Digital Audio Output																																																
Parallel/GPIO (Event Manager Only)	(Optional) DB25 Connector containing Relay Input/output information																																																
PCIe Slot (Not on Pro Audio versions)	Expansion slot for Half Height PCIe card. On Pro-Data and some other versions, it is populated with an Ethernet card to provide 2 additional Ethernet ports. Future options could include SDI or expansion card in this slot.																																																

## Installation Precautions

The following points and precautions should be considered when planning the installation of your satellite receiver.

- The receiver should be placed on a stable surface or rack mounted in a sheltered, but well ventilated location away from sources of water or high humidity, extreme heat or cold, excessive dust, vibration or Electromagnetic Interference (EMI).
- Should any foreign material fall into the receiver (either liquid or solid), unplug the receiver immediately and have a qualified technician examine the unit prior to further operation.
- Please see section Titled Service and Contact Information for important notes on proper grounding when connecting the unit to an external Satellite Dish.

### *Power up Procedure*

It is good practice to do a quick test to ensure the receiver is operational after shipment. To do this, plug the supplied AC power cord into the rear panel of the unit and into the proper voltage AC outlet. After waiting a minute, you should notice the LOCK LED is illuminated, indicating that the receiver has power and is commencing operation. You can now connect to the unit through the Web GUI, as described in the next sections. If the LOCK LED is not illuminated, power cycle the unit once, and press the power button on the rear panel. If there is still a problem contact International Datacasting.

### *Options for Control of the Satellite Receiver*

Varying levels of status and control of the receiver can be accomplished by one of the following:

1. Locally, using the Front Panel LCD/Keypad Interface.
2. Remotely, using the Web based Graphical User Interface (GUI) – the operations are described in this Guide.
3. Remotely, using Simple Network Management Protocol (SNMP) – described briefly here, with IDC Application Notes available with more detail.
4. Remotely, using International Datacasting’s NetManager, via the Network Control Channel (NCC).

### *Use the LCD/Keypad Interface to:*

## Control your Receiver

The Front Panel LCD/Keypad Interface provides the most convenient way to configure the receiver when it first comes out of the box, and later on if other means of control are not available. For example, it can provide a quick means to setup IP addresses in order to gain further access with the Web GUI. It also provides essential real time metrics information. Not all functions are available through the LCD.

The front panel interface is divided into two groups of items: information items and control items.

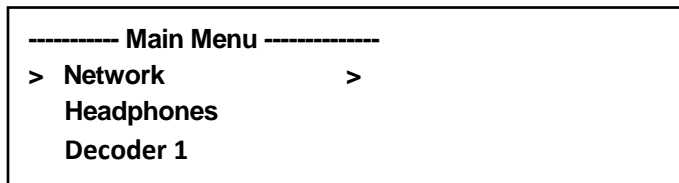
- Information items are used to provide real-time metrics information.
- Control items are used to configure the unit.

## Navigating the Front Panel Menus

The front panel LCD display and buttons were designed to maximize speed and efficiency of navigation through the menu structure.

### LCD Display

The following figure shows a sample menu from the front panel:



The right arrows (>) indicates the cursor position. The position can be moved using the up and down keypad buttons.

Pressing the check mark button is generally the same as pressing Enter on a keyboard and commits an action or selection. Pressing the X button is generally the same as pressing Esc on a keyboard and aborts an action or selection. The X button is also used to exit from the menu item group back to the to the display item group. When you are in the display item group, you can press X twice to return to display item 1.

## Types of Menus

### Parameter Menus

All parameter menus are displayed in the following format:

- The first line indicates the current menu level;
- The second line indicates the configurable parameter;
- The third line indicates the current set value for that parameter;
- Brackets ( [ ] ) around a parameter indicate an available choice;
- An asterisk (\*) preceding a parameter value indicates the currently set value of that parameter.

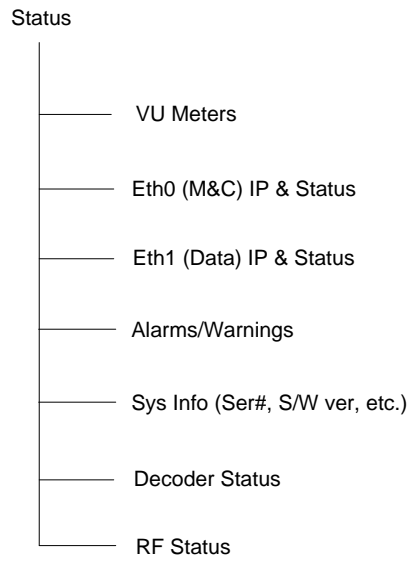
The Up/Down arrow buttons can be used to scroll through available options for the parameter. If a numeric value is displayed, the Up/Down arrow buttons are used to increment or decrement the digits. When setting a numeric value the user can use the right and left arrow buttons to move the cursor’s position.

### Menu Structure

The tree diagrams on the following page present the layout of the keypad interface. Both trees are accessed from the top level, the Information tree by using the Left or Right keys and the Control tree by using the Enter button, or the Up or Down keys. Each level has the Exit key that brings you back one level.

The default information display shows a summary of the selected inputs, the stream status and the Warning and Alarm numbers as shown in Figure 1 – Information Tree.

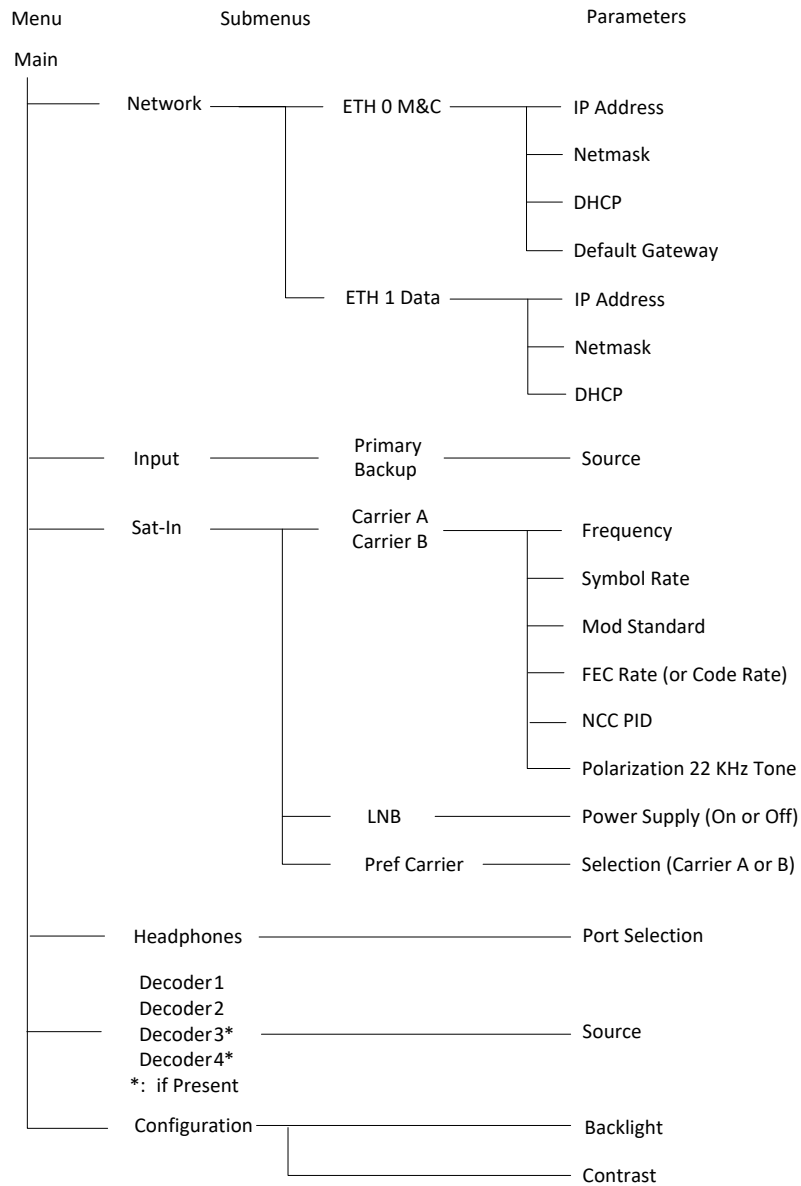
**Information Tree**



All Status menus are read only

**Figure 1 Information Tree**

**Control Tree**



**Figure 2 Control Tree**

## Change the IP address of your receiver

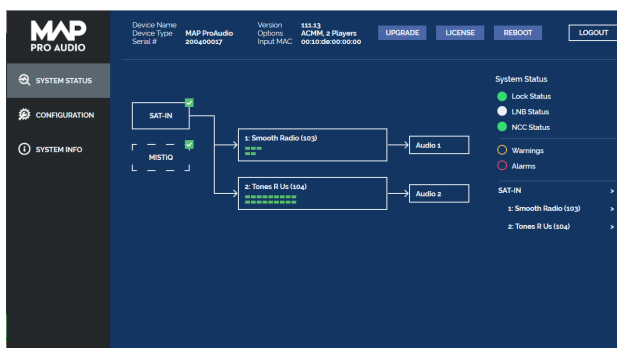
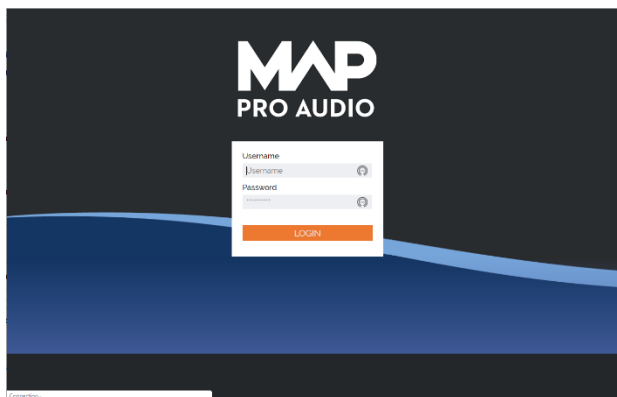
The LCD control panel can be used to configure the IP address of the Ethernet interfaces. Once you configure an Ethernet interface to match your network’s subnet, you can then use the receiver’s Web GUI for status and control (see later sections in this guide). To change the IP address of an interface using the LCD/Keypad Interface, perform the following steps:

1. Make sure that DHCP is disabled for any port that is intended to use a static IP address.
2. Use the Up or Down arrow buttons on the control panel until you get to the interface (e.g. Eth0 or Eth1) menu that you wish to change.
3. Hit the green check mark button on the control panel to enter the Eth0 or Eth1 configuration menu. Once in the configuration menu you will see the interface’s IP Address menu.
4. To edit the IP address, you need to press the green check mark button on the control panel again to bring you into the edit mode. Once in edit mode, you will see a flashing cursor over the first character of the IP address. Now use the up arrow button to increment the numerical value, or the down arrow button to decrement the numerical value. Use the left and right arrow buttons to move the cursor left or right, so that you can adjust every value of the IP address to be compatible with your network’s subnet.
5. Once you have set your desired IP Address, press the green check mark button to accept the changes. When the change has been accepted, the flashing cursor will disappear.
6. If you wish to change the netmask at this point you need to press the right arrow button on the control panel. This will bring you to the Netmask configuration menu. The default netmask is 255.255.255.0 which is for a “class C” network. To change the netmask, hit the green check mark button to enter the edit mode and then use the arrow buttons as described above to change the netmask. Save the changes by pressing the green check mark button.



## First Installation and Configuration of the MAP

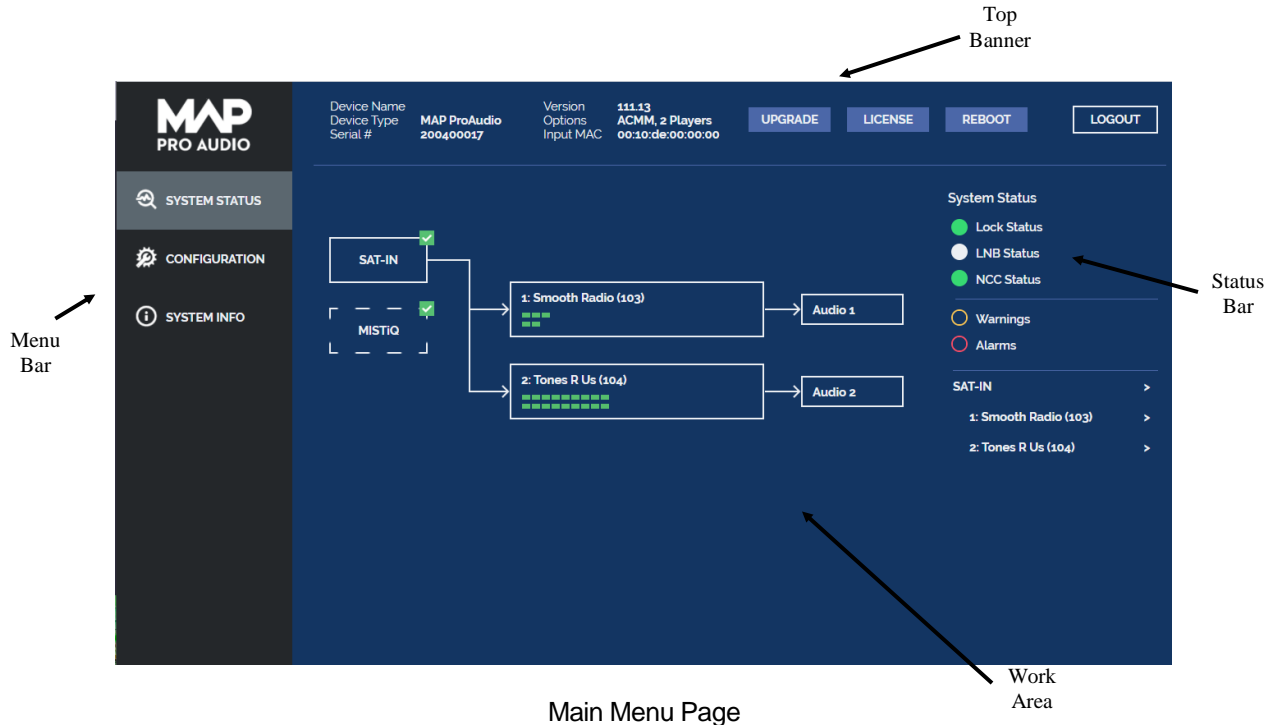
1. Connect the power to the power inlet without connecting the L-band cable to your MAP receiver. The front panel LCD will show MAP during the boot up process.
2. Connect the MAP’s Eth0 (M&C) port to a DHCP IP network. The IP address that is assigned to the MAP can be read in the front panel ETH0 information menu on the LCD (select this parameter using the right arrow on the keypad from the VU Meters). If a DHCP network is not available we recommend that you connect the MAP with a switch (or crossover cable) to a computer. Read the address in the ETH0 Status LCD screen and set your computer’s IP address in the same range (same subnet).
3. Alternatively, use the down arrow to enter the Control Menu and select Network→ETH0→IP Address and change it to a desired IP address on the same subnet as your computer.
4. Connect a personal computer to the network and open the web browser. Enter the MAP’s IP address in the browser’s navigation field.
5. Login with: Username: admin Password: 12345



Your MAP receiver is now ready for use.

# User Interface

When you have logged in, you will see the Web Main Menu page.



## Main Menu Page

Once you have successfully logged in to the Web GUI you will be presented with the Main Menu page. There are various areas of interest on this page described in this section.

### GUI Layout

The basic layout of the GUI consists of a menu bar on the left side of the screen, an informational top banner and a work area and right status bar that change based on menu selection.

### Menu Bar

The Menu Bar is used to change modes of the GUI screen. Selections include System Status, Configuration and System Info. The work area and status bar will change based on the current menu selection.

### Top Banner

The top banner of the GUI screen contains identity information for your unit. It also has buttons to perform upgrade, reboot or logout of the GUI.

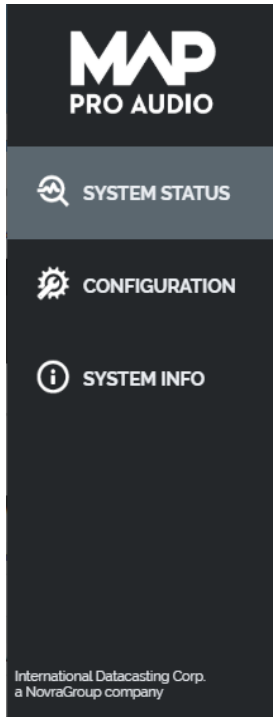
### Status Bar

The Status Bar is only displayed when the System Status menu selection is active.

### Work Area

The middle of the screen is the main Work Area of the GUI. The contents of this section will change based on the active menu selection.

Menu Bar



**MAP Logo**

The MAP Logo is shown at the upper left corner of the GUI screen

**SYSTEM STATUS Menu Selection**

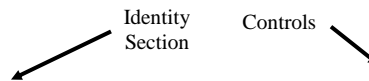
The System Status page is always the first page displayed when the GUI screen is opened. If not active, it can be activated by clicking on the SYSTEM STATUS menu selection. This screen shows the working state of your MAP receiver. The work area of the screen shows signal flow through your unit, along with a VU (volume unit) meter for each active audio stream. The System Status bar on the right shows signal lock status and active warning/alarm conditions. It also provides a quick link to change the active sources.

**CONFIGURATION Menu Selection**

The Configuration page is where parameters for your unit can be changed. See the table below for where to find each parameter.

**SYSTEM INFO Menu Selection**

The System Info page is where parameters for your unit can be viewed. See details below for where to find each parameter.



Top Banner

The following fields are included in the Identity Section of the Top Banner:

Field	Description
Device Name	A meaningful name for the receiver is displayed in this field. When the Configuration menu item is selected, you can edit this field. Up to 32 characters can be entered. Use no space characters.
Device Type	This is the model name of your receiver. It cannot be modified.
Serial #	This is the unique factory assign identification number for your unit. It cannot be modified.
Version	This is the current version number of your unit’s application software. This value will change when software is upgraded.
Options	This is a list of enabled optional features. This value will change when features are enabled or disabled on the unit, via the licensing feature.
Input MAC	This is the factory assigned MAC address of your unit’s satellite interface. It cannot be modified.

**NOTE:** *The MAC Address of each network interface and Serial # of the unit are factory set.*

Description of Top Banner Controls:

## UPGRADE

When the Upgrade Top Banner item is selected, a local filesystem file selection dialog is displayed, providing a means to perform a firmware upgrade of the receiver. Once a file is selected, the upgrade process will proceed. Upgrades will be supplied to you either by your Network Service Provider, or via the International Datacasting Customer Service web site.

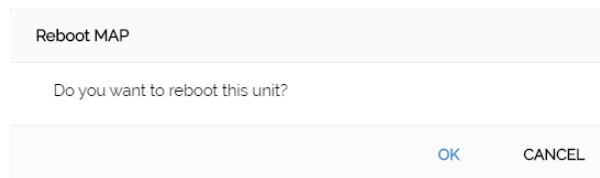
A detailed description of the upgrade process is provided on the Upgrade page. If you have any questions or doubts about performing an upgrade or what versions of upgrades to use then contact your Network Service Provider, or International Datacasting Customer Service.

## LICENSE

Selection of the License button will open a file selection dialog to upload and apply a license file. This will be necessary to add optional features to your MAP unit, and must be requested from your Network Service Provider, or International Datacasting Customer Service.

## REBOOT

Selection of the Reboot button will lead to a dialog to ensure that the selection is intentional.



Reboot Warning

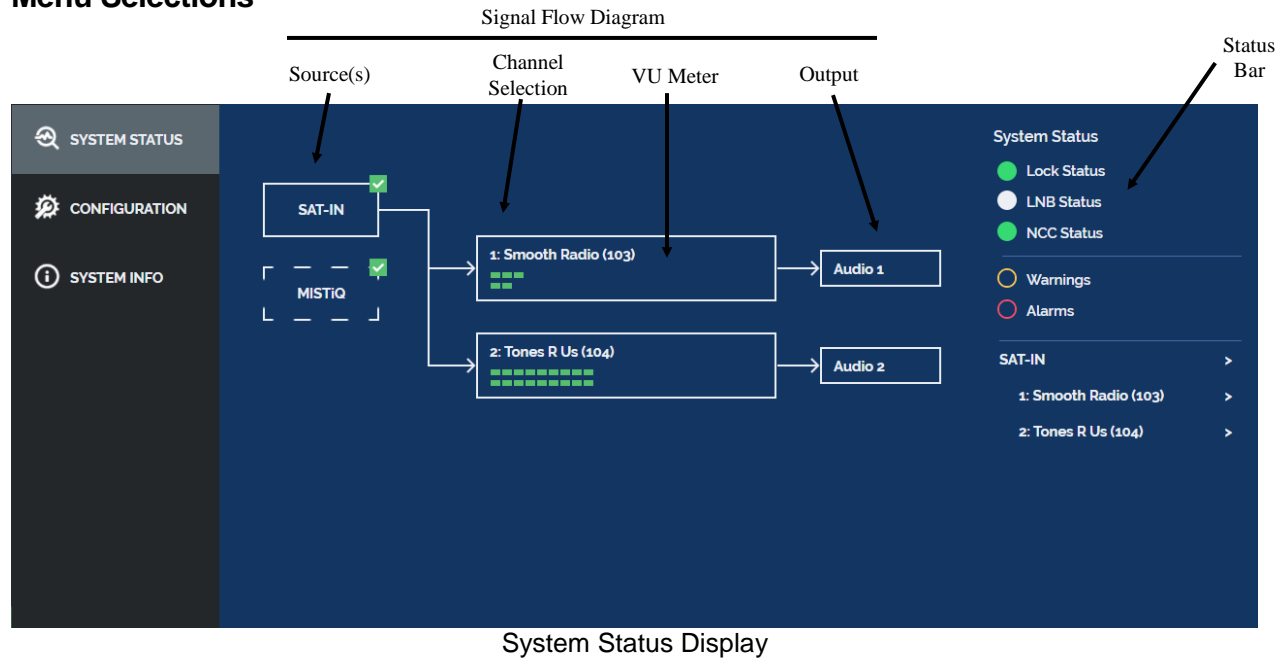
Press OK to reboot your MAP unit or press cancel to abort the reboot process.

Warning: Data services will be interrupted during the reboot process.

## LOGOUT

Press the logout button to immediately end your GUI session. The screen will go back to the login page.

## Menu Selections

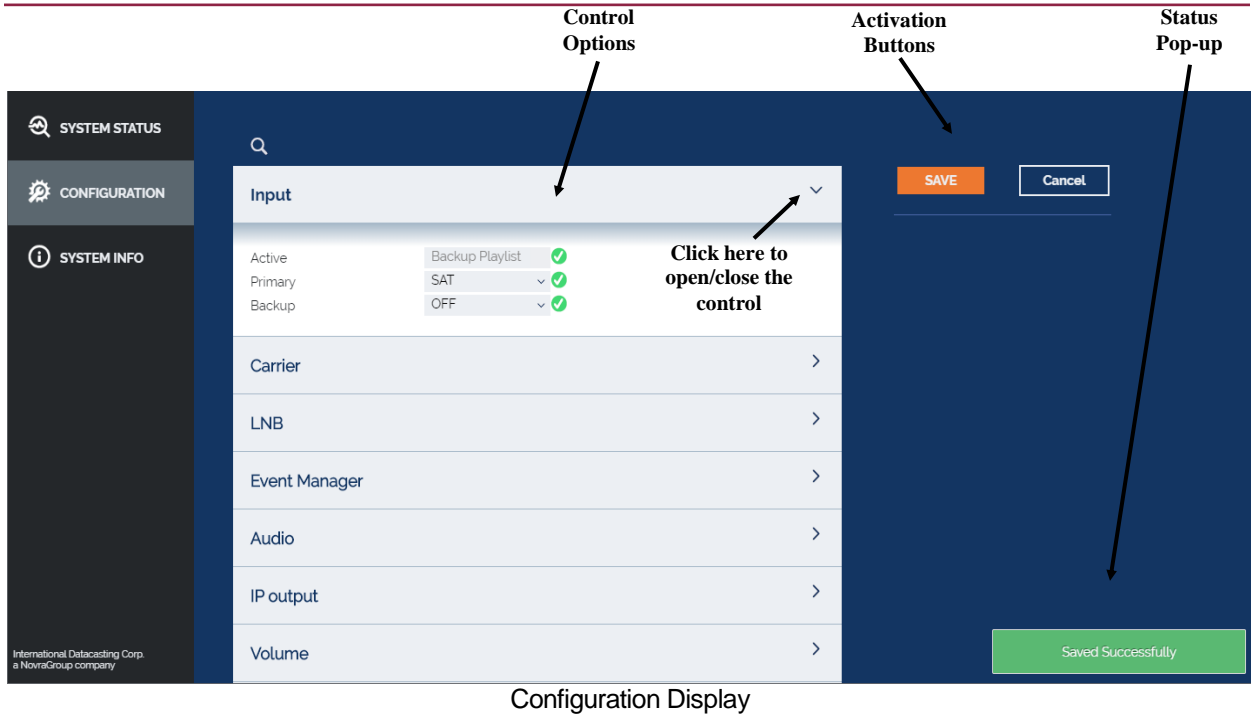


The Signal Flow Diagram consists of:

Section	Description
Source(s)	The audio source is represented by a box on the left side of the diagram. Valid sources include: Sat, Playlist, MISTIQ, MISTIQ on Demand
Channel Selection or Active Playlist	The current channel selection per decoder.
VU Meter	The VU Meter shows audio level as a way to determine if there is activity on each decoder.
Output	Indication of decoder output as physical audio port or Livewire.

The Status Bar includes:

Field	Description
Lock Status	Lock status shows green when the receiver is locked to its primary source. Orange is shown if locked to backup source. Red is shown if there is no lock to any input.
LNB Status	LNB Power indicator: Green when LNB Power is on and white when LNB Power is off.
NCC Status	Network Control Status: Solid green if NetManager packets are being received that are addressed to the unit. Solid yellow if NetManager packets are being received, but none are addressed to the unit. Off if no NetManager packets are being received.
Warnings	The Warnings indication will be solid yellow if there are current active warnings. A number will appear to the right to indicate the number of current active warning conditions. Clicking on the yellow circle will cause the current active warnings to be displayed in the lower section of the Status Bar.
Alarms	The Alarms indication will be solid red if there are current active alarms. A number will appear to the right to indicate the number of current active alarm conditions. Clicking on the red circle will cause the current active alarms to be displayed in the lower section of the Status Bar.
Input Source	The input source is displayed.
Channel Selections	Each channel selection is displayed.



Configuration Display

*Control Options*

The unit’s configuration can be modified under these Control Options. Details of where to locate each parameter are given in the Control Option sections below. Click on the menu options box to open the parameter list.

*Activation Buttons*

Changes made under Control Options will not take effect until the Save button is pressed.

**SAVE**

After making parameter changes, the Save button can be pressed to save those changes. Upon success, a green “Saved Successfully” message will pop up in the lower right side of the GUI display.

**CANCEL**

Press the Cancel button to revert any changes back to their previous saved state.

*Status Pop-up*

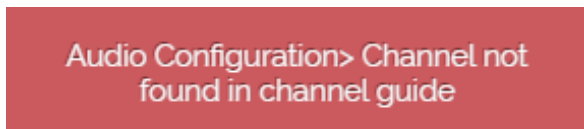
Success or failure of command activation will be displayed as a red or green pop-up box in the lower right corner of the screen. The box will disappear approximately 5 seconds after appearing on the screen.

**Success**

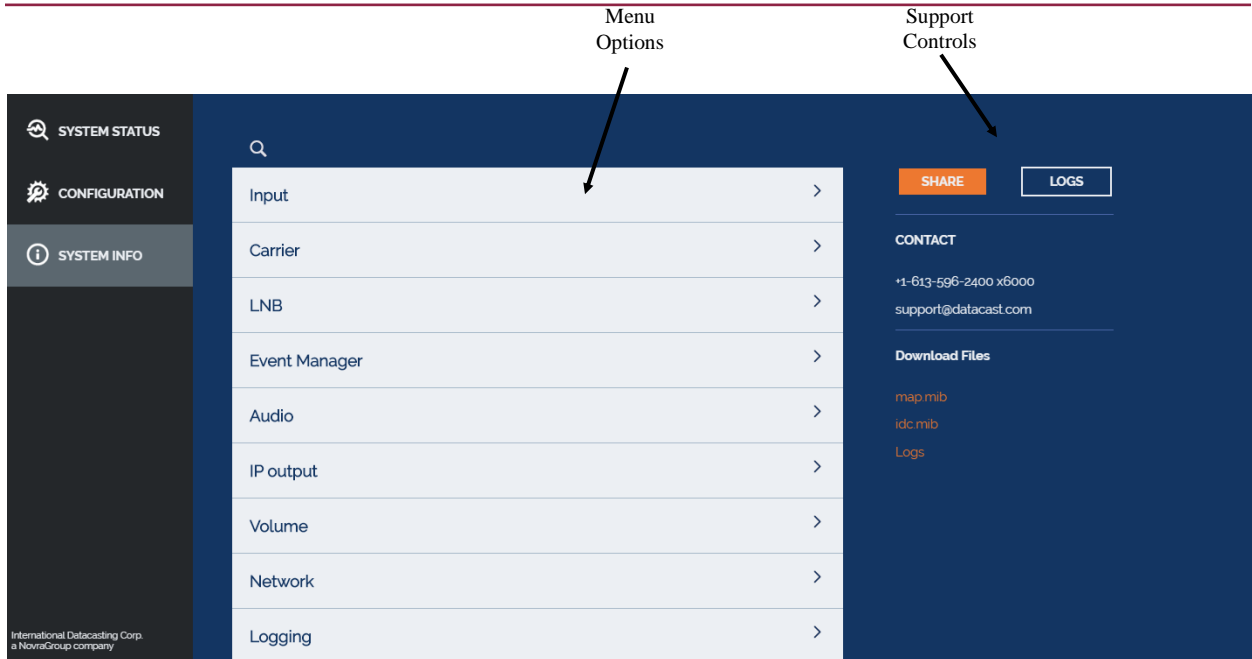


Success will result in display of a green popup box with the words “Saved Successfully” in the lower right hand corner of the screen.

**Failure**



An error will result in display of a red popup box with a descriptive message.



System Info Display

### *Menu Options*

The unit’s configuration can be viewed under this menu options. Click on the menu options box to open the parameter list. Details of where to locate each parameter are given in the Control Option sections below. Note that all information described in the control options section is available for view, but cannot be altered when selected under the System Info Menu.

### *Support Controls*

#### **SHARE**

Pressing the share button will result in the current log files being sent via email to support@datacast.com. This information will enable IDC Support personnel to assist with troubleshooting any problems with your unit.

#### **LOGS**

Pressing the Logs control button will show the Logs Display. The Logs Display is detailed in the next section.

#### **DOWNLOAD FILES**

Various files and logs can be downloaded to your local computer that is running the browser. Specific files available include:

MAP User’s Guide

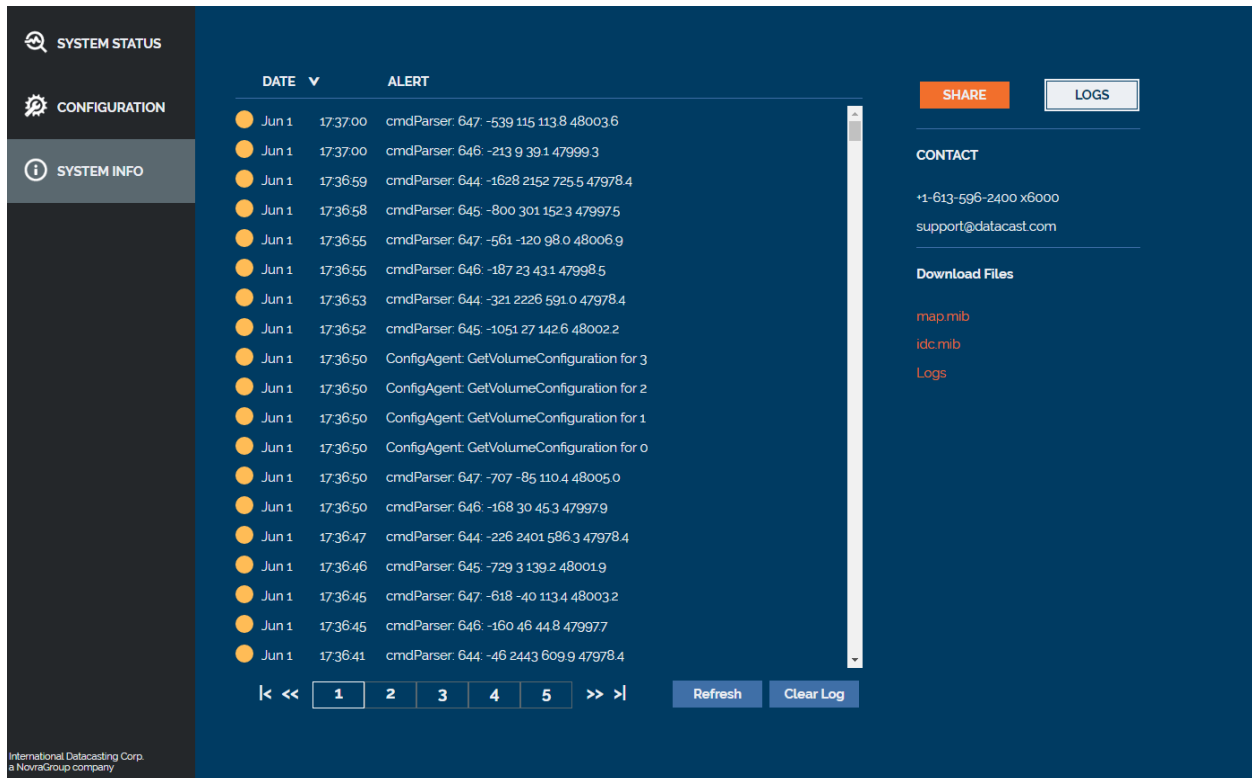
MAP Quick Start Guide

map.mib

idc.mib

Logs

"Logs" is downloaded as a zip file containing a collection of syslog files from the receiver.



### Logs Display

#### Logs Display

When the Logs control button is clicked, the work area of the screen will be filled with current logs. You can scroll through the logs on screen. Each entry contains date, time and some descriptive text. The colored circle at the left margin of each entry indicates either a warning (yellow) or error (red).

There is a scroll bar on the right side of the log display that allows scrolling down to view older entries. If the log being viewed is large, then you can move through the pages using page controls at the bottom of the log work area.

Refresh can be used to update the display to the current log state. Clear Log can be used to erase all log entries for the current day. These control are also found at the bottom of the log work area.



## Control Options



### Input

The Input control option is where you will set up the primary input source for you MAP unit.

Field	Description
Active	This is a read-only field that shows the current Active input. The Active input will be set to Primary under normal conditions, or the unit will revert to Backup if there is a problem with Primary.
Primary	This editable field will indicate the selection of Primary input for the unit. Changing this field may result in a change to the Backup input field, as they cannot be set to the same value. Choices are SAT, MISTiQ or Zixi.
Backup	This editable field will indicate the selection of Backup input for the unit. Changing this field will also result in a change to the Primary input field, as they cannot be set to the same value. Choices are SAT, MISTiQ, MISTiQ on Demand, Zixi or OFF.

### Zixi Input Parameters

If Zixi is selected as primary or backup input, additional parameters will be required.

Field	Description
Host	Specifies the FQDN / IP address of the Zixi Broadcaster from which you are receiving a stream.
Port	Port used on the Zixi Broadcaster.
Stream	Specifies the unique Stream ID that the Zixi Broadcaster expects. Must be identical to the one configured on the Zixi Broadcaster.
Password	Specifies a password string that can be used to authenticate that the receiver is allowed to receive this stream from the configured Zixi Broadcaster.
Latency (ms)	Specifies the maximum number of milliseconds used to buffer the stream for error correction. The useful latency range is 30 milliseconds to 10 seconds and a default of 3000ms is recommended.
Min. bitrate (kbps)	This is the designated minimum bitrate for the stream used to indicate alarm condition.

**Carrier** ▼

Preferred Carrier	Carrier A ▼	
	<b>Carrier A</b>	<b>Carrier B</b>
Carrier Description	Carrier A	Carrier B
Frequency (MHz)	950	950
Symbol Rate (baud)	100000	100000
Standard	DVB-S2 ▼	DVB-S2 ▼
FEC Rate	Auto	Auto
NCC PID (dec)	4151	4151
Polarization	Horizontal ▼	Horizontal ▼
22kHz Tone Enabled	<input type="checkbox"/>	<input type="checkbox"/>

*Carrier*

The Carrier control option is where you will set up the satellite tuning information for Sat input.

There are two columns where Carrier A and Carrier B are defined. Fields include the following items. Values in the left column pertain to Carrier A and values in the right column pertain to Carrier B.

Field	Description
Preferred Carrier	This editable field allows selection of the preferred carrier. Default choices are Carrier A or Carrier B. These labels will be different if the Carrier Descriptions are changed.
Carrier Description	This is the identification of the carrier definition.
Frequency (MHz)	This is the frequency of the carrier in MHz.
Symbol rate (baud)	This is the symbol rate of the carrier.
Standard	DVB-S or DVB-S2
FEC Rate	FEC Rate is set to Auto when Standard is set to DVB-S2. A pick list of settings is available for DVB-S.
NCC PID (dec)	The Network Control Channel (NCC) PID can be set to receive the Net Manager control stream.
Polarization	Polarization can be set to Horizontal or Vertical.
22kHz Tone Enabled	A 22kHz Tone can be turned ON (ENABLED) or OFF. The toggle control is shifted left for OFF and right for ON. The background will be highlighted orange when ON.

**LNB** ▼

---

Power

*LNB*

The LNB control option is where you will enable/disable LNB Power.

Field	Description
Power	LNB Power can be turned ON or OFF. The toggle control is shifted left for OFF and right for ON. The background will be highlighted orange when ON.

**Event Manager** ▼

---

PID

IP Address : Port  :

*Event Manager*

The Event Manager control option is where you will set up the parameters required for Event Manager SAP (Session Announcement Protocol) delivery. This is the mechanism used to deliver Channel Guide information to the MAP receiver.

Field	Description
PID	This is the PID used to transport the Event Manager SAP in the DVB Transport Stream.
IP Address	This is the IP Address of the Event Manager SAP.
Port	This is the Port of the Event Manager SAP that is encapsulated on the MPE PID.

**Audio** ▼

---

**Decoder 1**

Carrier A Source: Sports Radio (102) ▼

Carrier B Source: 101-65535

IP Input Source: 103-65535

Output Device: Audio 1 ▼

**Serial Port Settings**

Baud Rate: 9600 ▼

---

**Decoder 2**

Carrier A Source: Valley Heritage (101) ▼

Carrier B Source: 102-65535

IP Input Source: 104-65535

Output Device: Audio 2 ▼

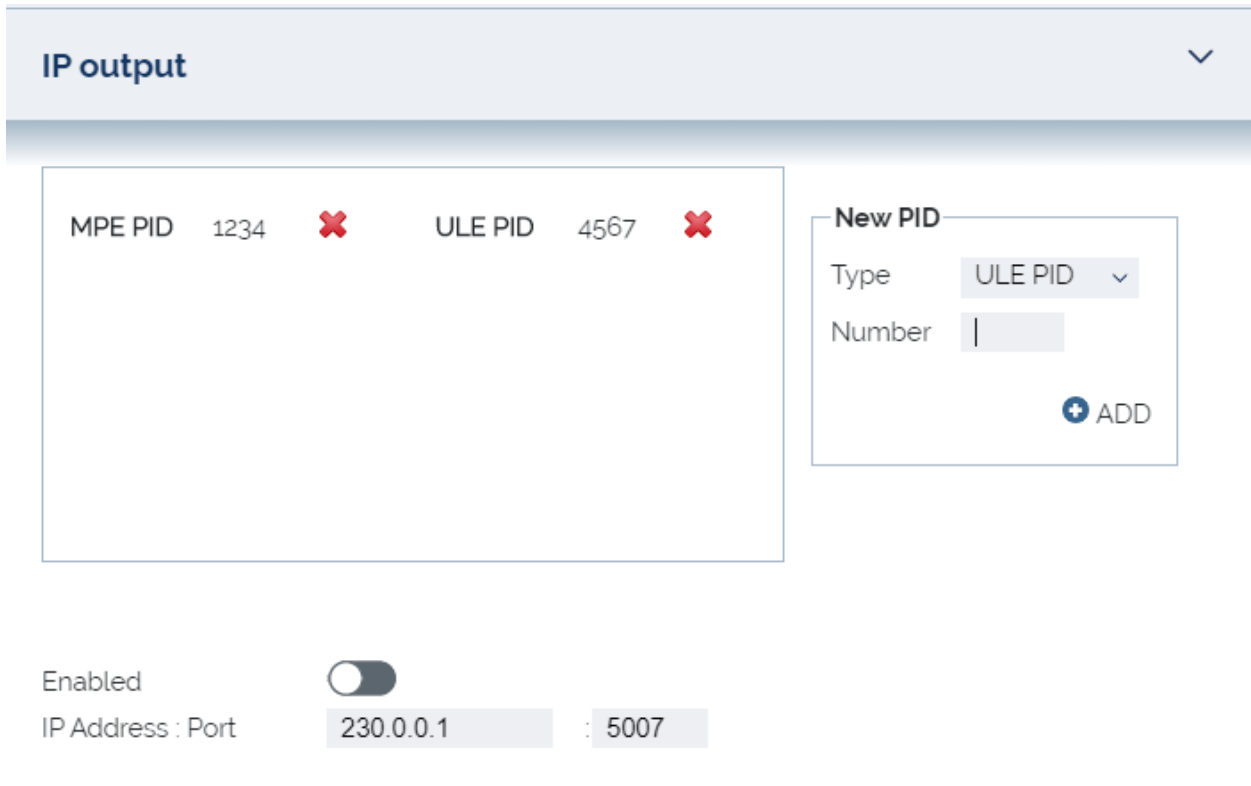
**Serial Port Settings**

Baud Rate: 9600 ▼

*Audio*

The Audio control option is where you will set up the active audio channels for each Decoder. A source selection can be made per input to allow different service assignments per input.

Field	Description
Carrier A Source	Each Audio Decoder can be set to any of the available audio channels on Carrier A or Off. This source value is used whenever Carrier A is the active input.
Carrier B Source	Each Audio Decoder can be set to any of the available audio channels on Carrier B or Off. This source value is used whenever Carrier B is the active input.
IP Input Source	Each Audio Decoder can be set to any of the available audio channels on IP Input or Off. This source value is used whenever IP Input is the active input.
Output Device	The output device can be set to the physical Audio Port or to Livewire. If Livewire is selected, the Livewire audio stream will be output from the IP ETH1 (DATA) port.
Baud Rate	The Baud Rate can be set for the associated serial port for use with RBDS or other data associated with the audio channel.



*IP Output*

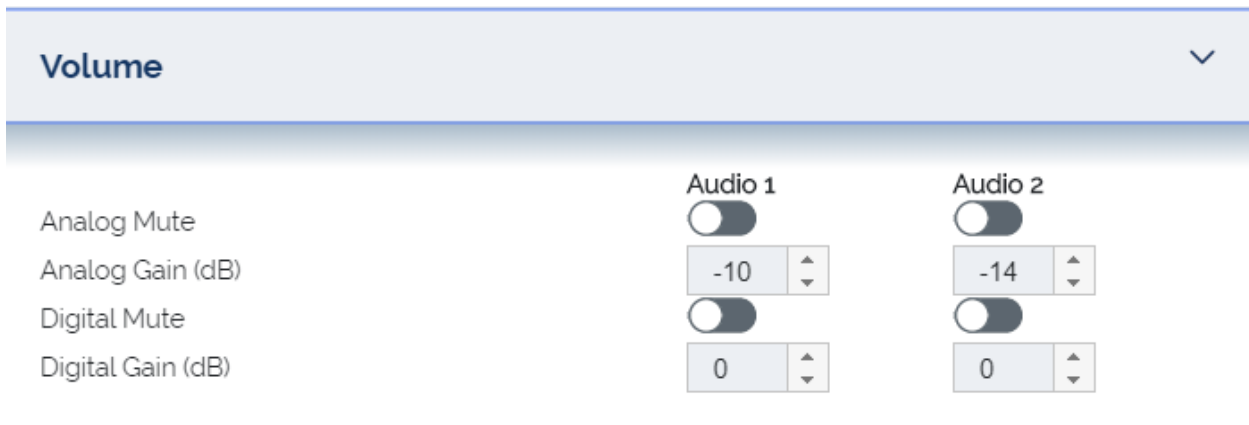
The IP Output control option is where you will set up the MPE or ULE PIDs that will be forwarded out of the Eth1 (DATA) port of your MAP unit.

A PID List can be built by entering the MPE or ULE PID number on the right hand side of the screen and clicking the ADD button. PID numbers are entered in decimal.

PIDs that are in the list can be removed by clicking the large red X that is to the right of the entry.

Controls at the bottom of the screen are used to enable the IP Output stream and to set the destination IP and Port. This is for optional transport stream over IP output of the whole DVB stream.

Field	Description
Enabled	The IP Output can be enabled or disabled by moving the toggle control. The toggle control is shifted left for OFF and right for ON. The background will be highlighted orange when ON.
IP Address	The destination IP Address for the IP Output stream.
Port	The destination IP Port for the IP Output stream.



*Volume*

The Volume control option is where you will set up the audio output levels. The audio level for each Audio Decoder can be set separately as Analog and Digital Gain. Analog and Digital outputs can be muted separately as well.

<b>Field</b>	<b>Description</b>
Analog Mute	The Analog Audio associated with each Audio Decoder can be muted individually. The toggle control is shifted left for OFF and right for ON. The background will be highlighted orange when ON.
Analog Gain (dB)	Analog Gain can be set from -24 dB to 0 dB. Click the up or down arrow on the right of the control to change the value.
Digital Mute	The Digital Audio associated with each Audio Decoder can be muted individually. The toggle control is shifted left for OFF and right for ON. The background will be highlighted orange when ON.
Digital Gain (dB)	Digital Gain can be set from -24 dB to 0 dB. Click the up or down arrow on the right of the control to change the value.

Network <span style="float: right;">▼</span>		
	<b>Eth1 (Data)</b>	<b>Eth0 (M&amp;C)</b>
DHCP Enable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
IP Address	192.168.5.73	192.168.2.73
Netmask	255.255.255.0	255.255.255.0
Gateway	-----	192.168.2.254

*Network*

The Network control option is where you will set up the IP network parameters for each Ethernet port.

There are two columns where Eth0 (M&C) and Eth1(DATA) are defined. Fields include the following items. Values in the left column pertain to Eth1 (DATA) and values in the right column pertain to Eth0 (M&C).

Eth0 (M&C) is used for the Web GUI and SNMP.

Eth1 (DATA) is used for Livewire output and MPE/ULE forwarding.

<b>Field</b>	<b>Description</b>
DHCP Enable	DHCP can be enabled or disabled per Ethernet port. The toggle control is shifted left for OFF and right for ON. The background will be highlighted orange when ON.
IP Address	If DHCP is OFF, then the statically assigned IP Address is entered in this field.
Netmask	If DHCP is OFF, then the Netmask is entered in this field.
Gateway	The Gateway setting is only available for Eth0 (M&C).

**Logging** ▼

---

Keep Log Days	5
Logging Type	Local ▼
Minimum Log Level	Informational ▼
Remote IP	192.168.2.70

*Logging*

The Logging control option is where you will set up the details related to operational and diagnostic logging.

Field	Description
Keep Log Days	This is the number of days of logs that will be maintained. Logs that are older than this number are automatically removed from the unit.
Logging Type	The Logging Type can be set to “Local”, “Remote” or “Local & Remote”. Local logs are stored on the unit. Remote logs are delivered to the IP address indicated under Remote IP, as long as a remote syslog server is running there.
Minimum Log Level	This is the defined level at which logs will be stored. This level can be changed if more information is desired for debug.
Remote IP	This is the IP address to which logs will be delivered if the Logging Type selection includes Remote delivery.



**Alarms** ▼

---

**RF Lock**

Enabled

Delay State Change (seconds)

Relay

SNMP Trap

---

**Carrier to Noise**

Enabled

Warning

Delay State Change (seconds)

Relay

SNMP Trap

Threshold for "Warning"

Threshold for "Alarm"

---

**MISTiQ Lock**

Enabled

Delay State Change (seconds)

Relay

SNMP Trap

*Alarms*

The Alarms control option is where you will set up the details of how the unit will report and respond to various warning and error conditions. Sections include RF Lock, Carrier to Noise and MISTiQ Lock. Fields in each section include one or more of the following:

Field	Description
Enabled	Each Alarm can be enabled or disabled. The toggle control is shifted left for OFF and right for ON. The background will be highlighted orange when ON.
Delay State Change (seconds)	This is the period of time that the unit must remain in the trigger condition before an Alarm or Warning state is set.

Field	Description
Relay	Relay ON will cause the Alarm relay to be energized under the Alarm condition. The toggle control is shifted left for OFF and right for ON. The background will be highlighted orange when ON. (Relay B)
SNMP Trap	SNMP Trap ON will cause an SNMP Trap to be sent over the Eth0 (M&C) Ethernet port when the Alarm condition is met. The toggle control is shifted left for OFF and right for ON. The background will be highlighted orange when ON.
Warning	Warning ON will enable support for a warning condition with a separate level. The toggle control is shifted left for OFF and right for ON. The background will be highlighted orange when ON.
Threshold for Warning	Warning level is programmable between 0 and 20 dB.
Threshold for Alarm	Alarm level is programmable between 0 and 20 dB.

**Net Manager** ▼

---

Multicast IP : Port    224.6.6.6    : 6000

NCC Address            bb00000079

NCC Found?            Yes

Last Update            November 14, 2020 at 11:06:22 PM EST

*Net Manager*

The Net Manager control option is where you will set up the details for Net Manager Control.

Field	Description
Multicast IP	This is the multicast IP address of your Net Manager control signal. This number can be provided by your Network Control operator.
Port	This is the designated UDP port for you Net Manager control signal. This number must be provided by your Network Control operator.
NCC Address	This field indicates you MAP unit’s network control address and cannot be modified.
NCC Found?	This status field indicates presence of a network control stream.
Last Update	This status field indicates when the unit was last updated over the network control stream.

SNMP	
Read Community	read
Write Community	write
Trap Server IP Address	192.168.2.70

*SNMP*

The SNMP control option is where you will set up the details for SNMP control and Alarm/Warning notification.

Field	Description
Read Community	This is the read community name.
Write Community	This is the write community name.
Trap Server IP	This is the IP Address of your SNMP trap server.

**Datacast XD** ▼

---

PID

IP Address : Port  :

**License Information**

Net ID

Site ID

Expires

Service Products

*Datacast XD*

The Datacast XD control option is where you will set up the details for Datacast XD file delivery.

Field	Description
PID	This is the PID used to transport the Datacast XD stream in the DVB Transport Stream.
IP Address	This is the IP Address of the Datacast XD stream.
Port	This is the Port of the Datacast XD stream.
License Information	These are Datacast XD license details including Net ID, Site ID and Expiration.

Time <span style="float: right;">▼</span>	
Mode	NTP ▼
Timezone	America/Toronto ▼
Date and Time	<input type="text"/> (d/m/Y hh:mm)
NTP Servers	0.debian.pool.ntp.org

*Time*

The Time control option is where you will set up the details for the time setting of your unit. NTP can be used to maintain an accurate clock and is highly recommended when using MISTiQ.

Field	Description
Mode	NTP or Manual.
Timezone	This is the local timezone setting in “tz database format”. Choices can be found at <a href="https://en.wikipedia.org/wiki/List_of_tz_database_time_zones">https://en.wikipedia.org/wiki/List_of_tz_database_time_zones</a> .
Date and Time	This field is only available in Manual Mode. A popup date and time selection control will appear when used.
NTP Servers	This is the URL of an NTP Time Server. The default value is: 0.debian.pool.ntp.org

Trigger List <span style="float: right;">▼</span>			
50598	Backup Playlist 1	2005-05-01	2022-05-31
50599	Backup Playlist 2	2005-05-01	2022-05-31
40101	Backup Playlist 3	2020-02-01	2025-02-01
40102	Backup Playlist 4	2020-02-01	2025-02-01

*Trigger List*

Under Trigger List, a list of triggers is displayed as received from Production Manager. Each trigger row is color coded in red if there are missing files.

Clicking on the trigger entry will show the list of files associated. The file list is also color coded to indicate missing files in red.

Columns are as defined below:

Field	Description
Trigger ID	This is the Trigger ID as defined in Production Manager.
Description	This is the Description as defined in Production Manager.
Start Date/End Date	This is the date range that the trigger is valid.

## Advanced Topics

### Remote control by SNMP

SNMP is the abbreviation for “Simple Network Management Protocol”. It is available when connected over the Eth0 (M&C) Monitor & Control LAN connector at the rear of the unit. To have a list of all functions supported in this device, the two necessary MIB files are available to download under the System Info menu option described in the GUI section of this manual.

All SNMP connection related settings are available in the SNMP control option section of the GUI.

The MAP receiver supports SNMP v1 TRAPS, SNMP v2c TRAPS and SNMP v2c INFORMS.

MAP default community names are:

GET=“read”

SET=“write”

## FAQ

### What is Datacast XD? How do I set up Datacast XD in My MAP unit?

Datacast XD is a data delivery system that was developed by IDC. From the uplink, files are divided into packets and passed via a multicast IP stream to an IPE (IP Encapsulator). The IPE passes the stream into a Mux (Multiplexor) where it is added to a DVB Transport Stream (DVB-TS) under a specific PID (Packet Identifier).

Forward Error Correction (FEC) may be added to the multicast packet stream to ensure delivery of files even if a portion of the total packets are lost in transmission. This method adds robustness to the file delivery platform.

The MAP receiver is equipped to read the transport stream, strip out the Datacast XD PIDs and re-build delivered files. To set up this feature, the MAP GUI has a Datacast XD control option under Configuration. The fields to enter are PID value, multicast address and port. This information will be provided by your network operator when needed.

### What is Event Manager? How do I set up Event Manager?

Event Manager is a real time command, metadata and relay delivery system that was developed by IDC. At the uplink, command events are triggered by contact closure, user input or schedule. These command events result in command packets that are delivered via a DVB Transport Stream (DVB-TS).

The MAP receiver is equipped to read the transport stream, strip out the Event Manager packets and action the commands. To set up this feature, the MAP GUI has an Event Manager control option under Configuration. The fields to enter are PID value, multicast address and port. As well, the Net Manager PID must be set as the NCC PID under the Carrier portion of the Configuration page of the GUI. This information will be provided by your network operator when needed.

## **What is Net Manager? How do I set up Net Manager?**

Net Manager is a receiver configuration and command delivery system that was developed by IDC. At the uplink, configuration commands are actioned by a Graphical User Interface (GUI) to setup and control remote receivers. These configuration commands result in command packets that are delivered via a DVB Transport Stream (DVB-TS).

The MAP receiver is equipped to read the transport stream, strip out the Net Manager packets and action the configuration commands. To set up this feature, the MAP GUI has a Net Manager control option under Configuration. The fields to enter are multicast address and port. This information will be provided by your network operator when needed.

## **How do Alarms and Warnings work? How do I set up Alarms and Warnings?**

Your MAP receiver is equipped to provide real time notification of operational issues. These notifications can take the form of GUI messages, relay closures and/or SNMP Traps. Certain conditions are set up as Warnings and Alarms and specific event parameters and notification actions can be configured in the MAP Pro Audi GUI.

To set up this feature, the MAP GUI has an Alarms control option under Configuration. The fields to enter are divided by Alarm/Warning type. This is where you can enable or disable each type, set levels where appropriate and define the actions for the unit to take when a defined condition is met.

## **How does logging work?**

To troubleshoot operational problems or to verify unit behavior, it is often desirable to view logged information on your unit. The MAP is capable of storing logged information locally or sending it to a remote server via IP. Logged information that is stored locally on the unit can be viewed in the GUI under System Info->Logs.

To set up what whether stored locally, remotely or both, and what information to store, the MAP GUI has a Logging control option under Configuration. The fields to enter include whether to store locally or remotely (or both), what information to log and how long to retain logs if local.

## **How do I set up IP output?**

The MAP unit is capable of forwarding de-encapsulated MPE or ULE PIDS from the input DVB Transport Stream (DVB-TS) This feature can be enabled by adding to the PID list. De-encapsulated streams will be forwarded out the Eth1 (DATA).

To set up this feature, the MAP GUI has an IP Output control option under Configuration. The fields to enter include the list of MPE or ULE PIDs to be forwarded. As well, the entire DVB-TS can be forwarded out of the receiver by enabling TS over IP output and configuring the desired multicast IP and port on which to deliver the stream.

## **How do I upgrade software in my unit?**

The MAP receiver is capable of accepting software packages via satellite (via NetManager) or by file on your local browser computer. Software upgrade should only be attempted using files that have been provided by IDC or a trusted source.

To upgrade your unit, there is an Upgrade control button in the top banner of the GUI. Details of the upgrade process can be found in the GUI Top Banner section on pages 19-20.



## How do I select audio channels?

Each decoder in your MAP unit can be set to decode an audio channel that is sourced from DVB over satellite, from an IP audio stream (MISTiQ, Zixi) or from a local audio file that is included in a local playlist definition. A MAP Pro Audio 2 port XLR or the MAP Pro Audio 2 port DB is capable of decoding 1 or 2 audio channels simultaneously, while the MAP Pro Audio 4 port DB can decode 3 or 4 simultaneously. The exact number of ports available will depend on the physical hardware and on the number ports that are licensed.

The MAP receiver will scan the incoming transport stream to build an internal table of available audio services. The list of available audio services is presented as a dropdown box for each decoder, by source. The same audio can be played out on multiple decoders.

The audio output device can be selected as Audio # to be played out of the physical audio connector on the unit. If Livewire output is selected, the Livewire audio will be output on the Eth1 (DATA) Ethernet Port.

The Serial Port baud rate sets the baud rate for the serial port used to output RBDS (Remote Broadcast Data System) data sourced from a PES private PID, embedded in the PES audio, or carried with an Event Manager SAP channel.

## What streaming formats can I use with my MAP unit?

The MAP receiver supports audio streaming using MISTiQ, MISTiQ on Demand or Zixi. The configuration is dependent on which transport stream format is chosen for your audio service.

MISTiQ supports a “zero configuration” feature that will allow you to just select MISTiQ and the rest of the setup is done for you behind the scenes. The MAP Pro Audio player is pre-configured to contact the MISTiQ Cloud service where all setup parameters are managed.

A Zixi stream will require configuration of the Zixi specific parameter sets. See Input section for details.

## What is MISTiQ on Demand?

The MAP receiver supports audio streaming with MISTiQ streaming input. To achieve a quick switch on loss of primary audio, the MISTiQ connection is maintained full time. To alleviate the cost of a full time connection at the expense of longer switch times, MISTiQ on Demand can be used. With MISTiQ on Demand, the connection is not made until the loss of primary audio event occurs.

# WEEE Disposal Instructions

## Disposal Instructions

Do not dispose of this device with unsorted household waste.  
Improper disposal may be harmful to the environment and human health.  
Please refer to your local waste authority for information on return and collection systems in your area.

## Directives de mise au rebut

Ne mettez pas cet appareil au rebut avec les déchets ménagers non triés.  
La mise au rebut incorrecte peut être nocive à l’environnement et à la santé humaine.  
Veuillez vous renseigner auprès des autorités compétentes de votre localité sur les procédures de renvoi et de collecte dans votre région.

## Istruzioni per lo smaltimento

Smaltire questo dispositivo solo in un contenitore previsto per la raccolta municipale di rifiuti separata. Uno smaltimento improprio può inquinare l’ambiente ed essere pericoloso per la salute delle persone. Per informazioni sui centre di raccolta locali rivolgersi alle autorità locali competenti per lo smaltimento dei rifiuti.

## Instruções de disposição

Não disponha a eliminação deste dispositivo como resíduo municipal não classificado.  
Disposição imprópria pode ser danosa ao meio-ambiente e à saúde de seres humanos. Por gentileza consulte a sua autoridade local de eliminação de resíduos para informações sobre os sistemas de retorno e coleta na sua área.

## Instrucciones de deshecho

No tire este dispositivo en los contenedores municipales de basura no clasificados para reciclaje. Tirar residuos inapropiada-damente puede resultar nocivo para el medio ambiente y para la salud de las personas. Por favor diríjase a las autoridades locales responsables de la eliminación de residuos para obtener información sobre los sistemas de devolución y recolección en su área.

## Anweisungen für die Entsorgung

Dieses Gerät darf nicht mit unsortiertem Hausmüll entsorgt werden. Eine unangemessene Entsorgung kann sich schädlich auf die Umwelt und die Gesundheit auswirken. Bitte beachten Sie die Hinweise der für Ihren Ort zuständigen Behörden zu Rückgabe und Sammelverfahren.

# Service and Contact Information

## Troubleshooting

The following are some recommended procedures to follow if your receiver does not operate properly. These procedures should be followed when a system interruption occurs and no obvious cause is immediately apparent, or when experiencing difficulties during installation. This investigation is a general one and implementation may vary from one installation to another.

### WARNING

***DO NOT OPEN your receiver for any reason as this may VOID your warranty!***

### *Preventative Maintenance*

The following actions should be carried out on a routine basis to ensure your receiver remains in serviceable condition.

- Always allow adequate air circulation, especially around the ventilation holes, to prevent any overheating of the receiver.
- Clean your receiver chassis with a dry soft cloth or a soft cloth lightly dampened with a mild cleansing solution. Do not clean the receiver with any type of harsh solution, such as alcohol, as this may damage the finish.
- Ensure cable connections are secure. Check for loose or poor connections.
- Do not allow your cables to become kinked or twisted. Cables are to be connected and secured in such a manner that they will not become subject to constant shifting or accidental disconnection.
- Check your cables for cracks, breaks or abrasions and replace any such cables found.
- Ensure your receiver is on a surface that is stable, or if rack mounted, ensure your unit is properly fastened in the rack and there is adequate ventilation.

### *Troubleshooting Procedures*

If the unit is under power, the quickest indication of a possible problem will be evident from the front panel indicators or the status displayed on the LCD. Refer to the meaning of the indicators and their associated colors.

You can use the metrics and logging information accessed through the Web GUI to determine what the problem might be. If you cannot access the Web GUI with your web browser, ensure that the IP Address configuration is correct, using the Front Panel LCD/Keypad Interface.

Record the nature of the problem and power cycle the unit. If this does not correct the problem or at least make one of the above procedures possible, then proceed to contacting your supplier.

### *Contacting Your Supplier*

If you have determined that your receiver is malfunctioning, **DO NOT ATTEMPT TO ALTER OR REPAIR THE UNIT.**

Please contact either your Network Service Provider (NSP) or an IDC Customer Service Representative. The problem may be solvable over the telephone or by e-mail.

Prior to requesting assistance, record the history of the problem. Your NSP or IDC Customer Service Representative will be able to provide more efficient and accurate assistance if you have a complete problem description, including:

- The nature and duration of the problem – review any applicable log files if possible;
- When the problem occurs;
- Any particular application that, when used, appears to create the problem or make it worse;
- The model and serial number of your unit.

### *Shipping & Packaging*

If you need to transport or ship your satellite receiver:

1. Package the unit carefully. We recommend that you keep and re-use the original container.
2. Prior to shipping your unit for repair or return, contact your NSP who will in turn call an IDC Customer Service Representative for a Return Material Authorization (RMA) number. If you are returning the unit, you should include everything you received with the unit. Also, please ensure the following items are identified in your shipping documentation:
  - a. The serial and part number of the unit being returned;
  - b. The original cost of the unit;
  - c. Specify “Made In Canada” on your paper work.
3. Ensure your RMA number is clearly printed on the exterior of your shipping container.

### *Warranty & Service*

International Datacasting Corporation (Seller) warrants the items manufactured and sold by the Seller to be free of defects in material and workmanship for a period of one (1) year from date of shipment. The Seller’s obligation under its warranty is limited in accordance with the period of time and all other conditions stated in all provisions of this warranty.

This warranty applies only to defects in material and workmanship in products manufactured by the Seller. The Seller makes no warranty whatsoever concerning products or accessories not of its manufacture. Repair, or at the Seller’s option, replacement of products or defective parts therein shall be the sole and exclusive remedy for all valid warranty claims.

#### *Warranty Period*

The applicable warranty period shall commence on the date of shipment from the Seller’s facility to the original purchaser and extend for the stated period following the date of shipment. Upon beginning of the applicable warranty period, all customers’ remedies shall be governed by the terms stated or referenced in this warranty. In-warranty repaired or replacement products or parts are warranted only for the remaining unexpired portion of the original warranty period applicable to the repaired or replaced products or parts. Repair or replacement of products or parts under warranty does not extend the original warranty period.

#### *Warranty Coverage Limitations*

The following are expressly NOT COVERED under warranty:

- Any loss, damage and/or malfunction relating in any way to shipping, storage, accident, abuse,

alteration, misuse, neglect, failure to use products under normal operating conditions, failure to use products according to any operating instructions provided by the Seller, lack of routine care and maintenance as indicated in any operating maintenance instructions, or failure to use or take any proper precautions under the circumstances.

- Products, items, parts, accessories, subassemblies or components, which are expendable in normal use or are of limited life, such as but not limited to bulbs, fuses, lamps, glassware, etc. The Seller reserves the right to revise the foregoing list of what is covered under this warranty.

### *Warranty Replacement & Adjustment*

The Seller will not make warranty adjustments for failures of products or parts which occur after the specified maximum adjustment period. Unless otherwise agreed, failure shall be deemed to have occurred no more than seven (7) working days before the first date on which notice of failure is received by the Seller. Under no circumstances shall any warranty exceed the period stated above unless expressly agreed to in writing by the Seller.

### *Liability Limitations*

This warranty is expressly in lieu of and excludes all other expressed and implied warranties, including but not limited to warranties of merchantability and of fitness for particular purpose, use or applications, and all other obligations or liabilities on the part of the Seller, unless such other warranties, obligations or liabilities are expressly agreed upon to in writing by the Seller.

All obligations of the Seller under this warranty shall cease in the event of its products or parts thereof have been subject to accident, abuse, alteration, misuse or neglect, or which have not been operated and maintained in accordance with proper operating instructions.

In no event shall the Seller be liable for incidental, consequential, special or resulting loss or damage of any kind howsoever caused. The Seller’s responsibility for damages shall not exceed the payment, if any, received by the Seller for the unit or product or service furnished or to be furnished, as the case may be, which is the subject of claim or dispute.

Statements made by any person, including representatives of International Datacasting, which are inconsistent or in conflict with the terms of this warranty, shall not be binding upon International Datacasting unless reduced to writing and approved by an officer of the Corporation.

### *Warranty Repair Return Procedure*

Before any warranty repair can be accomplished, a Return Material Authorization (RMA) number must be received. It is at this time, that the Seller will authorize the product or part to be returned to the Seller’s facility. The RMA number may be requested by contacting an International Datacasting Customer Service Representative by phone or through International Datacasting website [www.datacast.com](http://www.datacast.com)

Any product returned to the Seller for examination must be sent prepaid via the means of transportation indicated as acceptable to the Seller. The RMA number must be clearly marked on the shipping label. Returned products or parts should be carefully packaged in the original container, if possible, and shipped to the above address.

### *Non-Warranty Repair*

When a product is returned for any reason, the Customer and its shipping agency shall be responsible for all damage resulting from improper packing and handling, and for loss in transit, notwithstanding any defect or nonconformity in the product. By returning a product, the owner grants the Seller permission to open and disassemble the product as required for evaluation. In all cases, the Seller has the sole responsibility for determining the cause and nature of failure, and the Seller’s determination with regard thereto shall be final.

## Application Notes

Detailed technical Application Notes and Manuals are available from International Datacasting, including specialized information required to use SNMP or XD. To obtain copies of these, or for any other help you require, please contact International Datacasting Corporation.

## Important EMI & Safety Certification Information

Read these safety and operating instructions before operating your MAP series satellite receiver. Follow instructions and heed all warnings on your unit and in this manual.

**CAUTION:** Equipment must be installed by a qualified service person and earth connection is essential before connecting supply. Connect your power supply to a grounded AC outlet only.



### Receiver Installation

- Operate from a power source indicated on your receiver or in this manual.
- The AC inlet is the main power disconnect. The socket outlet shall be near the equipment and shall be easily accessible. The power requirements for this equipment are quite flexible with an acceptable power range of 100 to 240 VAC at 50 or 60 Hz. The fuse is part of the power supply. Replacement can only be accomplished by a qualified technician.
- Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful at plug-ins, convenience receptacles or cord exit points from the equipment. Frayed power cords or damaged plugs are hazardous. Have them replaced by a qualified service technician. Overloaded wall outlets and extension cords may cause fire or electrical shock.
- Always ensure there is adequate ventilation when installing the equipment. Do not cover or block ventilation holes. Doing so may damage the unit or cause a fire.
- Avoid excessive humidity, sudden temperature changes or temperature extremes. Condensation may form inside your unit.
- To avoid costly damage or injury, place your unit on a solid, stable surface or mount in a rack free from vibrations. Do not place any heavy objects on top.

### Exterior Equipment Installation

Refer to the figure while reading the instructions below.

- Grounding the dish provides protection against static voltage build-up, which may damage equipment. Grounding also provides some protection against surges induced by nearby lightning strikes. Any coax cable that may be exposed to lightning or power conductors must have its outer shield grounded. There may be additional grounding regulations in your area. It is important for you to consult and follow all the codes and regulations in your area as you install your system.
- The best method of grounding the outer shield of a coax cable is to use a ground block. This block is a barrel connector to which you can install a ground conductor, such as a terminal, or a drilled hole and setscrew. The terminal is where the outer conductor of the coax cable is attached to the grounding electrode. When installed, the grounding block passes the LNB signal and DC voltages straight through while grounding the outer conductor of the coax. One factor determining the ground block location is the location of an acceptable ground electrode. The grounding conductor (the wire that runs

between the ground block and the ground electrode) must be in a straight line, if possible from the ground block to the grounding electrode. Also, splices in the conductor between the electrode and the grounding block are prohibited.

- Where coaxial cable is exposed to lightning, the cable shall be connected to the grounding system of the building, as close to the point of cable entry as practical. This can be either inside or outside the building. Therefore, when selecting a location for the grounding block, try to make the ground close to where the cable enters your building.
- The size of the grounding conductor that connects to the ground electrode is to be at least No. 10 copper wire or No. 8 aluminum wire. Insulation over the conductor wire is not required. As with any cable, the grounding connector must be securely fastened to a surface to protect it from physical damage. If the conductor cannot be protected from damage, the size of the wire should be increased to withstand any physical strain placed on it.
- Acceptable ground electrodes are: Grounding Interior Metal Water Piping (cold water), Grounding Rod (must be driven at least 2.44 meters (8 feet) into the ground) and Grounded Metallic Service Raceway.
- The outdoor antenna to be earthed in accordance with National Standards.

### *Operating & Cleaning*

- The unit should be placed in a sheltered location away from sources of water, heat, extreme cold, vibration and electromagnetic interference.
- Use only accessories recommended by the manufacturer to avoid fire, shock or other hazards.
- If your unit has been exposed to rain, moisture or a strong impact, unplug the equipment and have it inspected by a qualified service technician before resuming use.
- Unplug your equipment and disconnect it from the antenna system during a lightning storm or an extended period of discontinued use.
- Unplug your unit before cleaning. Use a damp cloth. Do not use cleaning fluids, alcohol or aerosols, which could enter the unit and cause damage, fire or electrical shock. These substances may also mar the finish of your unit.
- Keep all liquids and foreign objects away from your unit. Never operate the unit if any liquid or foreign object has entered the unit. Electrical shorts could result and possibly cause fire or shock hazards. Unplug your unit immediately and have it inspected by a qualified service technician.
- Never open or remove covers or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also void your warranty.

### *Service*

- Do not attempt to service this equipment yourself. Instead, unplug the unit and contact an International Datacasting Customer Service Technician.
- The International Datacasting Customer Service Technician uses only authorized replacement parts or their equivalents. Unauthorized parts may cause fire, electrical shock or other hazards.

Following any service or repair, the International Datacasting Customer Service Technician performs safety checks to certify that your equipment is in safe operating order.

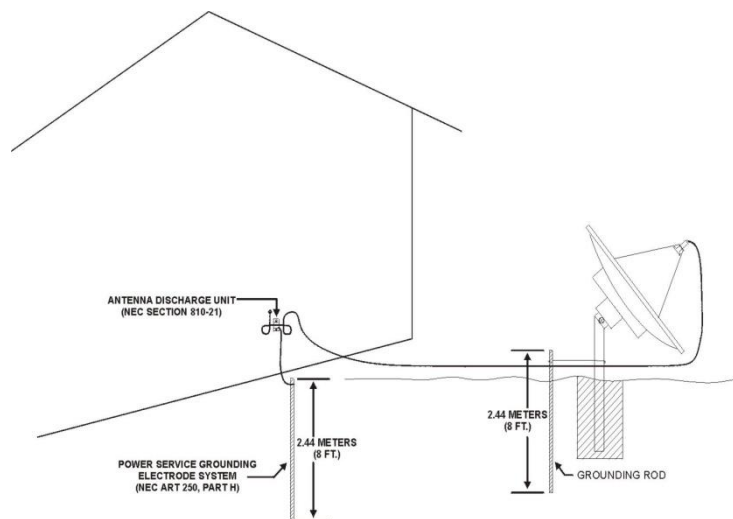
*EMI/EMC Certification*

This equipment has been tested and found to comply with the limits for a ‘Class A’ digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off or on, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for assistance.
- Changes or modifications not expressly approved by International Datacasting could void your authority to operate the equipment.

This Class ‘A’, digital apparatus meets all requirements of the Canadian Interference-causing equipment regulations.

This device also meets the emission and immunity requirements of the CE symbol, in accordance with EN50081-1 and EN50082-1 Class A.



**Exterior Equipment Installation**



## MAP User’s Guide International Datacasting Corporation

This product (“Product”) from International Datacasting Corporation (IDC) contains software (including firmware) origination from IDC and its suppliers and may also contain software from the open source community.

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