7. On-Screen Display (OSD)

The **OSD** information is contained in a **14-line x 40-character display** in the video output from the **U500** receiver. This output is viewed on a monitor connected to the video monitor output of the receiver. Turn it on by pressing either the **SELECT** or **ENTER** push-button on the front panel. Remove the display by selecting **EXIT** from the **Main Menu**. When a menu is first shown, the cursor is always placed on its first **action field** (or **action-with-edit field**, whichever is first).

The **OSD** menus provide the following:

1. Carrier Status,
2. Signal Strength Monitoring,
3. Serial Port device selection,
4. Software Version information, and
5. The ability to make changes to unit settings.

All menus are white text with a solid blue background. Highlighted items display as blue text on a white background. The cursor can be moved only to the **action** and **edit** fields listed below. The function of each push button for each field type is described in **Table 5** below.

Table 5: Unity 500 Types of On-Screen Display (ODS) Action Fields

FIELD TYPE	SELECT BUTTON	ENTER BUTTON
Action Field	Moves the cursor to the next **Action Field** (or **Action w/ Edit Field**, whichever is next). Wraps at end.	Takes action on the current field.
Action w/ Edit Field	Same as for **Action Field**.	Moves cursor to corresponding **Edit Field**.
Edit Field	If the cursor is not on last digit within the **Edit Field**, it moves to the next digit. If on the last digit, it moves to whichever **Action Field** or **Action w/ Edit Field** is next.	Increments current digit within **Edit Field**. Wraps back to beginning after 9.
Edit Field w/ Choices	Moves cursor to next **Action Field** (or **Action w/ Edit Field**, whichever is next).	Scrolls through list of choices. Wraps back to beginning after the last item.

8. Viewing and Customizing the Unity 500's Settings

Although the **Unity 500** is set up at the factory, you can customize its settings to fit your system using the **OSD** and front-panel push buttons. You may also view the existing settings and the various status and version fields by using the push buttons to navigate through the menus displayed on an attached monitor.

9 Warranty

The following warranty applies to all **Wegener Communications** products:

All Wegener Communications products are warranted against defective materials and workmanship for a period of one year after shipment to customer. **Wegener Communications'** obligation under this warranty is limited to repairing or, at **Wegener Communications'** option, replacing parts, subassemblies, or entire assemblies. **Wegener Communications** shall not be liable for any special, indirect, or consequential damages. This warranty does not cover parts or equipment, which have been subject to misuse, negligence, or accident by the customer during use. All shipping costs for warranty repairs shall be prepaid by the customer. There are no other warranties, express or implied, except as stated herein.

10. Technical Support

In the event that the unit fails to perform as described, contact **Wegener Communications Customer Service** at (770) 814-4057, FAX (678) 624-0294, or E-mail "**service@wegener.com**".

Corporate Office
Wegener Communications, Inc.
11350 Technology Circle
Duluth, GA 30097

Service Department
Wegener Customer Service
359 Curie Drive
Alpharetta, GA 30005

WEGENER®

UNITY 500

ENTERPRISE MEDIA RECEIVER

INSTALLATION QUICK START GUIDE

The **UNITY 500** is a digital satellite receiver that will receive signals from both **C** and **Ku** band satellite systems.

1. Unpacking and Inspection

The box containing the unit should include:

- The **Unity 500 Satellite Receiver**
- This one-page **Quick Start Guide**
- A UL Safety Sheet
- An AC Power cord

Carefully unpack the unit and the ac power cord and inspect for obvious signs of physical damage that might have occurred during shipment. Any damage claims must be reported to the carrier immediately. Be sure to check the package contents carefully for important documents and materials.

NOTE: Save the original packing materials and shipping containers in case the unit must be returned for repair. Packing the unit in another container in such a way that the unit is damaged will void the warranty.

2. Environmental Operating Conditions and Physical Specifications

Table 1: Unity 500 Environmental Limits and Physical Specifications

ITEM/LIMIT	SPECIFICATION
Use	Indoor
Altitude	Up to 2000 meters
Temperature Range	10 o C to 40 o C
Relative Humidity (max.)	80% for temperatures up to 31o C decreasing linearly to 50% relative humidity as 40o C.
Weight	10.6 pounds or 4.81 kilograms
Dimensions (H x W x D)	3.5"x 19"x 10.5" or 88.9 mm x 482.6 mm x 266.7 mm
Input Power Rating	90-132Vac & 175-264Vac, 43 Watt, 50/60 Hz

3 Location and Mounting

The **U500** is sized at 1.5 RU, and may be mounted in a standard 19-inch equipment rack or set up for desktop operation. In either location, maintain a clean, dry environment for the **U500**.

3.1. Rack Mounting

First install angle brackets or cross-supports capable of supporting both the unit and its connecting cables. Screw or bolt the supports securely to the equipment rack. The **U500** unit should be installed in such a way that a hazardous condition is not produced by uneven loading, or by resting any unsupported equipment on a rack-mounted **U500** unit.

Place the **U500** on its supports and use four anchor screws or bolts and nuts to secure the **U500** front brackets to the rack.

NOTE: The front brackets must be secured to the rack. If the front brackets are left unsecured, the unit may shift forward and fall from the rack, and may result in personal injury and/or damage to the equipment.

The **U500** should be installed such that the airflow required for safe operation of the equipment is not compromised. If arranged in a rack without empty spaces between units, ***heat buildup must be prevented by ensuring that the side vents remain unblocked***, and that there is adequate clearance around the vent holes.

3.2. Desktop Installation

To set up the **U500** in a desktop environment, place the **U500** on a flat surface where it will not be subject to spills or impacts. Route cables to the unit so that they will not be hit or pulled, causing damage to the connectors or to the unit itself. Ensure a sufficient flow of cool air so that the unit's operating ambient temperature range is not exceeded.

WARNING: FCC-Mandated Suppression of Radio Frequency Emissions

This is a **Class A** product. In a domestic environment this product may cause radio interference for which the user may need to take mitigating action.

If the Ethernet port has a cable connected to it, that cable must be properly shielded and grounded to minimize RF emissions that could interfere with nearby equipment.

3.3. Circuit Protection and Earthing

When connecting the **U500** unit to the power supply, review the ratings of all equipment in the circuit to ensure that the branch circuit, as well as the power source, will not be overloaded. Also make sure that the unit is properly grounded and/or that a protected power strip is used to attach it to the power supply.

4. Rear Panel Connections

The **UNITY 500** rear panel connections are shown in **Figures 1** and **2**, and described in **Table 2** below.

Figure 1: Unity 500 Rear Panel

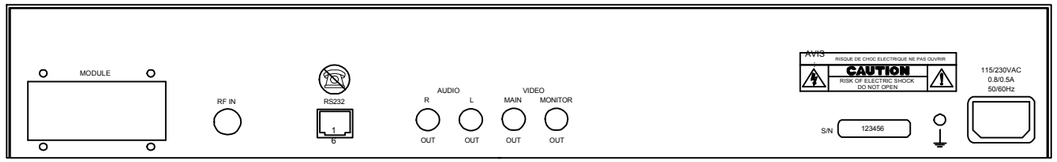


Figure 2: U500 Rear Panel with Smart Card Slot and Ethernet Connector

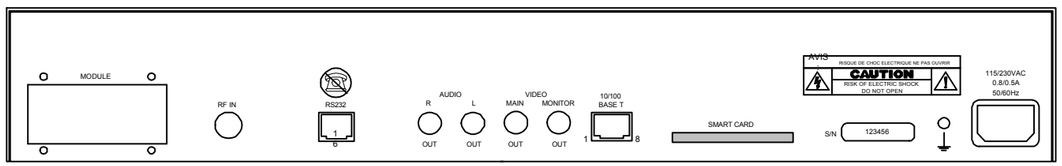


Table 2: Table 2: Unity 500 Interconnect Descriptions

SIGNAL	CONNECTOR	DESCRIPTION
RF IN	F	950 to 2150 MHz signal accepted. LNB power available.
RF Switch IN	F (4 Inputs)	950 to 2150 MHz signal accepted. NO LNB power available.
RF Switch OUT	F	1-of-4 RF inputs selected.
Main Video OUT	Phono Jack	NTSC or PAL , Composite video at 1Vp-p
Monitor Video OUT	Phono Jack	NTSC or PAL , Composite video at 1Vp-p
Audio OUT (R & L)	Two phono jacks	Audio stereo
RS232 Port	RJ-12	Serial Asynchronous Data. May be used for terminal, printer, or modem (to remote terminal).

CAUTION: Do not connect RJ-12 directly to phone line. Equipment damage may result.

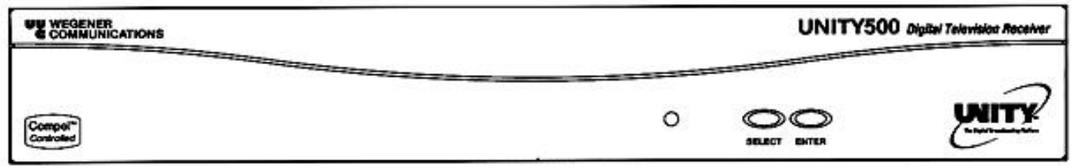
4.1 Smart Card

The **UNITY 500** may be equipped with a smart card slot and an Ethernet connector. The smart card slot (which conforms to the **ISO 7816** standard) is installed for future encryption updating. Installation of the smart card is not necessary for proper operation of the **UNITY 500**, including **COMPEL CA** operation.

5. Front Panel Controls and Indicators

The front panel indicators and controls are shown in **Figure 3** and described in **Table 3**.

Figure 3: Unity 500 Front Panel



The IRD can be controlled via **COMPEL Network Control**, local terminal, modem (remote terminal) and **On-Screen-Display** push buttons. Normally, **COMPEL** is the primary method of controlling the IRD, while the other control methods are supplemental.

Table 3: Unity 500 Front Panel Controls and Indicator LED

ITEM	DESCRIPTION
IRD Status	See **Table 4** for a description of the behavior of the **Status** LED during **Alarms** and **Warnings**.
On-Screen- Display	The **On-Screen-Display** (**OSD**) of IRD may be activated by pressing the **SELECT** push-button switch on the front panel. It is also automatically activated by certain IRD status conditions, such as loss of signal.
SELECT	Push button activates (OSD) and selects options displayed.
ENTER	Push button enters options selected on OSD.

6. LED Indications After Power-Up

Within approximately 15 seconds of power up, the IRD should give an indication of stable operation. (It has initialized all system components and is supplying an operational status.) A steady **Green** LED indicates that it is locked on a carrier and is capable of producing output (Audio/Video/Data).

If there is some problem with the IRD or the signal it is receiving the LED will begin flashing **Red** for **Alarm** conditions or **Amber** for **Warning** conditions. In general, **Alarms** indicate that the unit cannot produce output, while **Warnings** indicate that, although output is being produced, there is a problem that could require attention. The most common conditions that produce **Alarms** or **Warnings** are listed in **Table 4**.

Table 4: Table 4: U500 Front Panel Status LED Alarm and Warning Indications

MODE	CONDITION	STATUS LED
Alarm	Installation Mode	Red Blink = 3
	Carrier Table Search	Red Blink = 4
	Header Search Mode	Red Blink = 5
	Eb/NO Alarm	Red Blink = 7
	Not Authorized	Red Blink = 11
Warning	Marginal Eb/NO	Amber Blink = 2
	COMPEL Required but No **COMPEL** in the last 2 minutes	Amber Blink = 3
	Selected Audio not available	Amber Blink = 4
	RF Level Low	Amber Blink = 5
	RF Level High	Amber Blink = 6