



## **WEGENER i8640 DIGITAL AUDIO SERVER QUICKSTART INSTALLATION INSTRUCTIONS**

**This satellite receiver has been provided for the reception of sports programming. Once installed, please contact network support for activation and programming.**

### **INTRODUCTION**

This quickstart guide provides direction on how to quickly set up and start operating the i8640 professional media server in order to receive WestwoodOne programming. For complete information please go to:

**<https://technology.westwoodone.com/>**

Please expedite the installation of this receiver as it must be installed and online no later than four weeks from the original ship date.

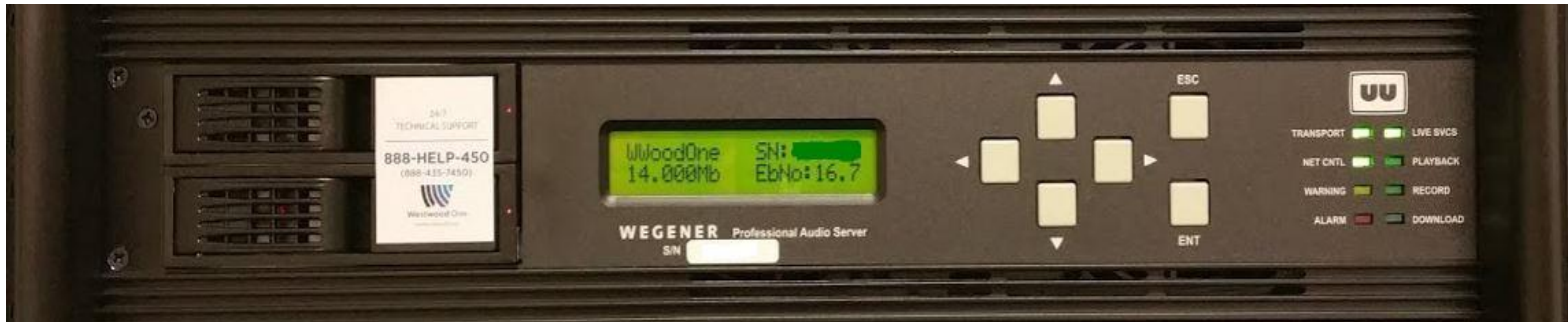
To activate this receiver, please contact WestwoodOne Network Operations Support between **8AM** and **6PM ET**, Monday through Friday at **(888) 435-7450**; **option 1, then option 2**. Our operators are available to assist with:

- Installation questions
- Technical assistance
- Authorization of the receiver after installation.

# INSTALLATION INSTRUCTIONS

- 1) This receiver should be installed in a location that maintains a consistent temperature of 65-75 degrees with ample ventilation to the front, sides and rear of the receiver.
- 2) Connect your RG-6 cable from your satellite dish to the SAT RF input (ANT IN) on the back of the receiver. Do not use "LOOP"; if more than one receiver is to be connected, a professional grade splitter with a DC power pass port is recommended.
  - a. Note: In a multi-receiver installation, it is recommended to use a professional grade power inserter and not to power your LNB from a receiver.
- 3) Connect your stations broadband network (internet) to the receiver at the LAN port.
  - a. Note: A reliable network connection is **required** to maintain a network "return path" communication with our network in order to ensure proper functionality of the receiver and access to web-enabled features. This network communication connection must be maintained at all times. Because of this requirement, we are unable to authorize equipment not connected via "return path".
- 4) Connect the in-house AM and/or FM signal antenna or an independent AM/FM antenna to AM and/or FM input(s).
  - a. Note: This is a **required** connection and must be maintained at all times.
- 5) Connect your DB9 audio and DB37 relay connectors to the ports corresponding with the programs identified on page 1 of this document.
- 6) Plug the receiver into a reliable, stable and properly grounded power source.
  - a. Note: Wegener and WestwoodOne strongly recommend that you use an Uninterruptible Power Supply (UPS) with power line filtering to prevent damage to the unit from "dirty" shore power and during electrical storms or surges. Please be aware that damage caused by any form of electrical surge is not covered under the manufacturer's warranty or courtesy repair policies which may be in place. RF surge filtering is also strongly recommended for this reason.
- 7) Verify your dish alignment and signal strength by looking at the EbNo and RF levels via the front panel display. To meet minimum performance standards, EbNo must be at least 10.0 and RF between 20-60.
  - a. Note: A distribution amplifier is not recommended for main cable runs less than 250 ft. If amplification is necessary to attain minimum specs, a line amp ahead of the splitter yields more favorable results.
  - b. Note: Line attenuators to drop RF to within spec should be used sparingly to avoid unnecessary noise injection. Padding down an already amplified signal is inadvisable.
- 8) Once all connections are made, and levels meet minimum specifications, please contact WestwoodOne Network Operations for authorization.

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### Common Front Panel Operations

#### To setup IP address:

- 1) Use the left/right arrow keys to locate Unit Setup, press ENT
- 2) Locate IP Setup, press ENT
- 3) Locate LAN IP Settings, press ENT
- 4) Press ENT again to unlock (STATIC or DHCP will flash)
- 5) Use left/right arrows to select STATIC or DHCP then press ENT to lock in
- 6) Use the left/right arrow keys to view IP, NetMask & Gateway addresses
  - a) To change the STATIC IP address, press ENT to bring cursor up
  - b) Use up/down arrow keys to edit digits
  - c) Use left/right arrow keys for next digit, press ENT when done to lock in

#### To change Carrier Frequency manually:

If access to this field is denied Contact Network Operations Support at 888-435-7450 option 1, then option 2, for further assistance.

- 1) Use the arrow keys to find Unit Setup, press ENT
- 2) Locate Transport In Setup, press ENT
- 3) Locate Current Channel, press ENT
- 4) Locate Download Frequency, press ENT
  - a) To change Frequency, press ENT to bring cursor up
  - b) Use up/down arrow keys to edit digits
  - c) Use left/right arrow keys for next digit, press ENT when done to lock in

**For technical assistance call:  
(888) 435-7450, option 1 then  
option 2**

#### **WARNING**

Removable hard drives are **NOT** hot swappable and damage will occur if removed while the unit is powered up. Please contact our support hotline for directions should service become necessary.

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Notes: Equipment is shipped with network interfaces set for DHCP IP address assignment. Units must be manually configured for STATIC IP Addresses. Connection is required. Please install equipment in a climate controlled environment from 65-75 degrees with UPS power source.

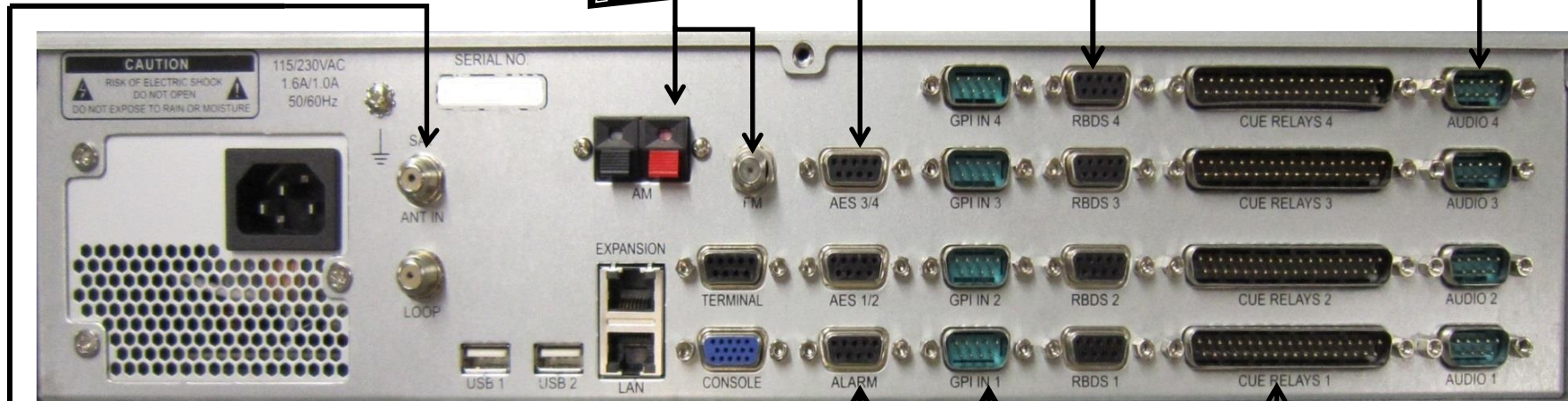
AM/FM Antenna



AES Digital Audio Outputs			
Pin	Function	Pin	Function
1	Audio Port 1/3 (+)	6	Audio Port 1/3 (-)
2	Audio Port 2/4 (+)	7	Audio Port 2/4 (-)
4	Ground	9	Ground
5	Ground		

RBDS Data 1-4	
Pin	Function
2	RxD Data Out
5	Ground

Analog Audio Outputs 1-4			
Pin	Function	Pin	Function
1	Left Out (+)	6	Left Out (-)
2	Ground	7	Ground
4	Ground	9	Right Out (-)
5	Right Out (+)		



12 Ft Solid Dish



Alarm			
Pin	Function	Pin	Function
1	Common	6	Alarm
2	OK	7	Ground
3	Ground	8	Ground
4	Ground	9	Ground
5	Ground		

GPI 1-4			
Pin	Function	Pin	Function
1	Input 1 +	6	Input 1 -
2	Input 2 +	7	Input 2 -
3	Input 3 +	8	Input 3 -
4	Input 4 +	9	Input 4 -
5	Ground		

**Note:** Ground not used, short + to -

Decoder Relay Outputs 1-4			
Pin	Function	Pin	Function
1	Relay 1	20	Relay Commons
2	Relay 2	21	Relay Commons
3	Relay 3	22	Relay Commons
4	Relay 4	23	Relay Commons
5	Ground	24	Ground
6	Relay 5	25	Relay Commons
7	Relay 6	26	Relay Commons
8	Relay 7	27	Relay Commons
9	Relay 8	28	Relay Commons
10	Ground	29	Relay Commons
11	Relay 9	30	Relay Commons
12	Relay 10	31	Relay Commons
13	Relay 11	32	Relay Commons
14	Relay 12	33	Relay Commons
15	Ground	34	Relay Commons
16	Relay 13	35	Relay Commons
17	Relay 14	36	Relay Commons
18	Relay 15	37	Relay Commons
19	Relay 16		

Note: All relay commons are ganged internally

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## Sports Relay Pinouts

Motor Racing Network Relays (Use the relay output assigned to primary MRN channel 109)				
Pin	Function	Pin	Function	Relay Functions
1	Relay 1	20	Relay Commons	Local Stopset Start (Primary Ch. 109)
2	Relay 2	21		Local Stopset Start (Secondary Ch. 110)
3	Relay 3	22		Legal ID (Primary Ch. 109)
4	Relay 4	23		Legal ID (Secondary Ch. 110)
5	Ground	24	Ground	Not Used
6	Relay 5	25	All Relay Commons are connected (ganged)	Not Used
7	Relay 6	26		Not Used
8	Relay 7	27		Show Start (Primary Ch. 109)
9	Relay 8	28		Show Start (Secondary Ch. 110)
10	Ground	29	Ground	Not Used
11	Relay 9	30		Show End (Primary Ch. 109)
12	Relay 10	31		Show End (Secondary Ch. 110)
13	Relay 11	32		Rain Delay Breakaway (Primary Ch. 109)
14	Relay 12	33	Relay Commons	Rain Delay Breakaway (Secondary Ch. 110)
15	Ground	34		Not Used
16	Relay 13	35		Rain Delay Rejoin (Primary Ch. 109)
17	Relay 14	36		Rain Delay Rejoin (Secondary Ch. 110)
18	Relay 15	37		Not Used
19	Relay 16			Not Used
Note: All relay commons are ganged internally.				

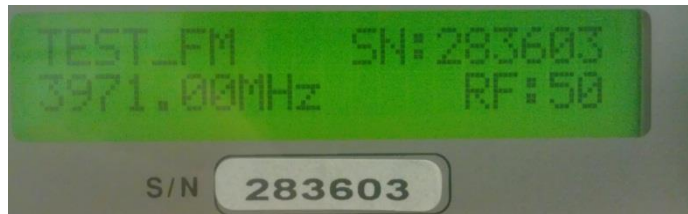
WestwoodOne, Sports USA, Compass Sports & KC Chiefs Radio Network				
Pin	Function	Pin	Function	Relay Functions
1	Relay 1	20	Relay Commons	Local Stopset Start
2	Relay 2	21		Liner / ID
3	Relay 3	22		End of Game
4	Relay 4	23		End of Broadcast Day (WWO Channels only)
5	Ground	24	Ground	Not Used
6	Relay 5	25	All Relay Commons are connected (ganged)	Not Used
7	Relay 6	26		Not Used
8	Relay 7	27		Not Used
9	Relay 8	28		Not Used
10	Ground	29	Ground	Ground
11	Relay 9	30		Not Used
12	Relay 10	31		Not Used
13	Relay 11	32		Not Used
14	Relay 12	33	Relay Commons	Not Used
15	Ground	34		Not Used
16	Relay 13	35		Not Used
17	Relay 14	36		Not Used
18	Relay 15	37		Not Used
19	Relay 16			Not Used
Note: All relay commons are ganged inside the receiver. Please contact WestwoodOne support if you require isolated commons.				

# ShowDirector - Wegener Programming Quickstart

**What it is:** A web-based solution to the Wegener receiver that provides an overview of your complete programming schedule for each port as well as, where authorized, the ability to instantly change *sports* channels, request scheduling of new *sports* programming or change the air times of an existing *sports* schedule.

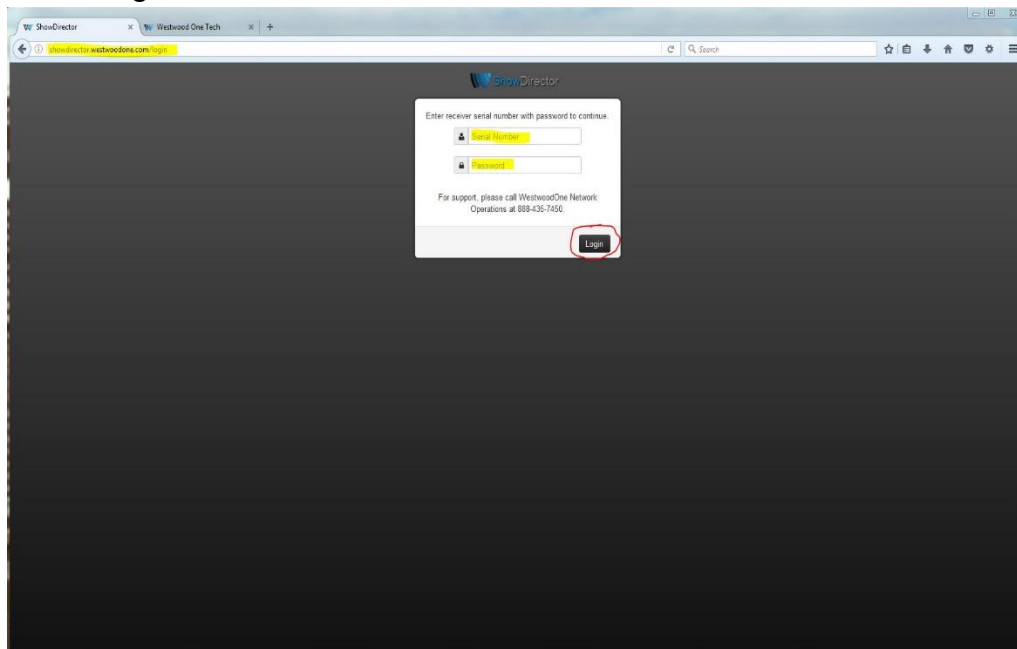
## How to use:

- 1) Browse to <http://showdirector.westwoodone.com/login>
- 2) Enter your login credentials:
  - a. Login: Serial # of Wegener receiver (located in and just below display panel)
  - b. Password: Call letters assigned to the receiver (Exactly as shown in your receiver front panel; it is CASE SENSITIVE)

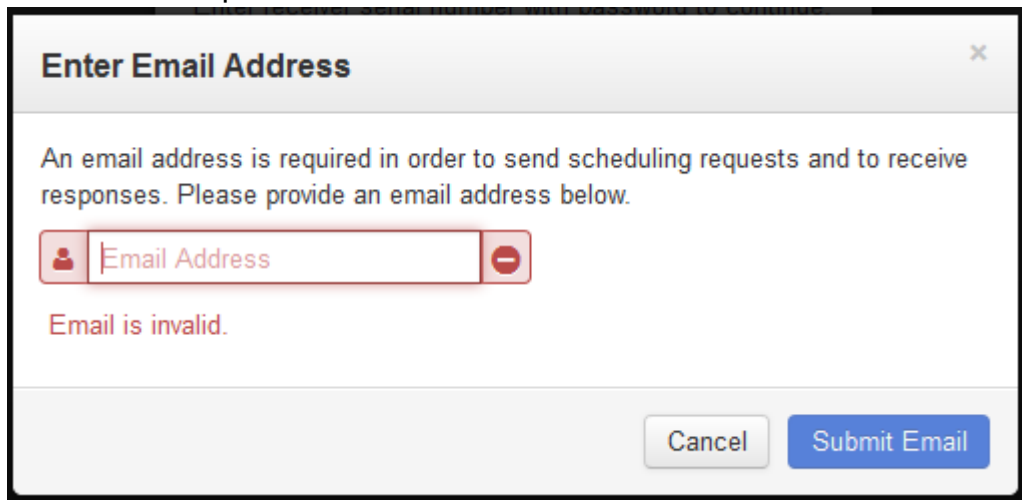


Sample Display Panel

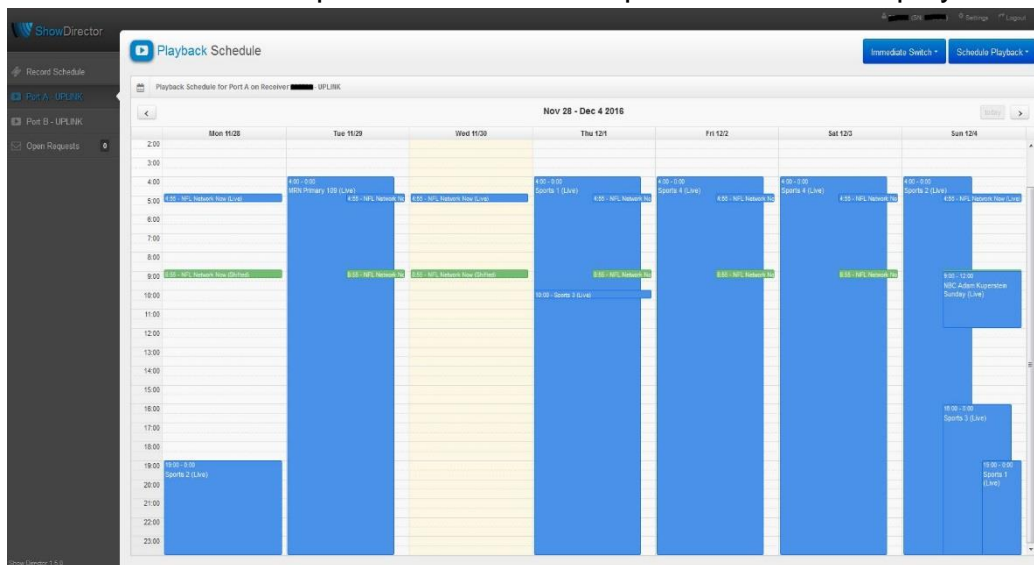
- 3) Click "Login"



- 4) If this is your first time logging in, enter a valid email address to receive confirmation responses (required). We recommend using a distribution address if multiple staff members need to be informed.

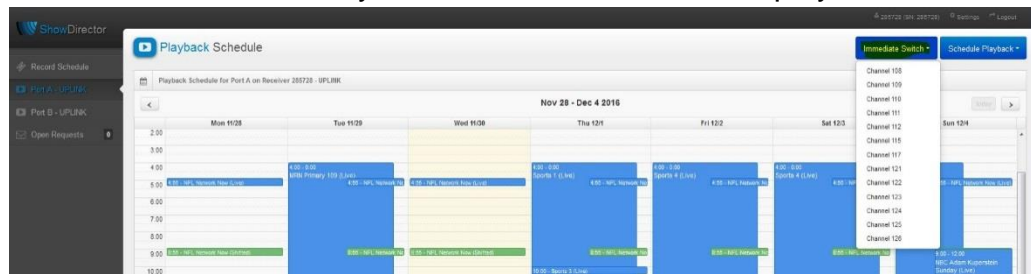


- 5) The main page shows the playback schedule for all programming currently active for each active port. **NOTE:** Inactive ports will not be displayed.

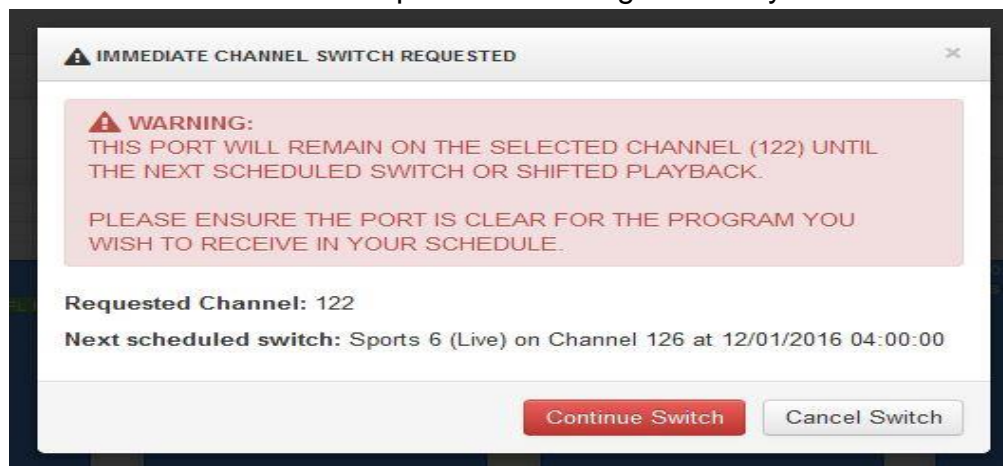


- A solid blue indicates an approved live playback while a solid green indicates an approved shifted playback.
- A live or shifted playback that is pending approval will display with lighter shaded stripes.

- 6) To request an instant channel change, select the “Immediate Switch” drop down menu. **NOTE:** Only authorized channels are displayed.



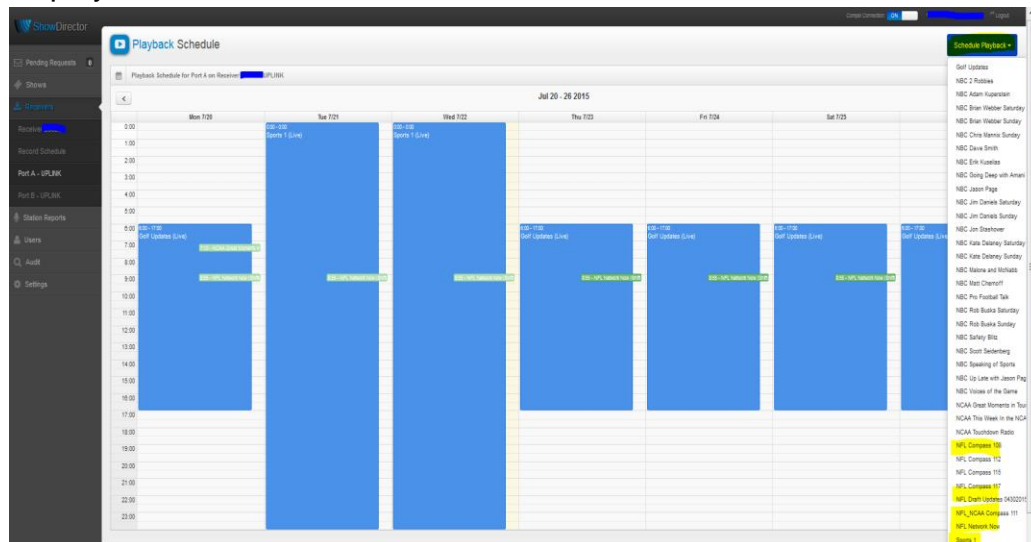
- 7) Be sure the schedule is clear of any live or shifted playbacks in order to avoid an unintended interruption. A warning will alert you to this.



- 8) To request a scheduled playback, select the “Schedule Playback” drop down menu. **NOTE:** Only programming with an active contract will be



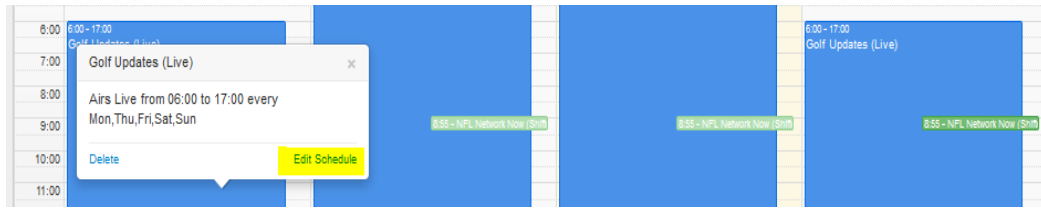
displayed.



- 9) Select the show desired to open the scheduler. Playbacks are **displayed and scheduled in Eastern** time; **ignore any reference to “Local Air Time”**.

- a. The first section provides a choice to playback the live feed or select a time for shifted playback (only select features or shows will allow shifted playback). Weekday live feeds may be shifted to weekend playback using the shifted playback option.
  - b. The second section provides a choice to playback the full show or just a portion of the show.
  - c. The third section contains the days of playback desired.
- 10) To request a change to an existing playback, left click the desired scheduled playback, select Edit Schedule and adjust the playback times

accordingly. Follow this same example to request a playback delete.



- 11) If you need to update your email address, simply select the “Settings” link in the upper right corner and enter a new email address. We recommend using a distribution address when multiple staff need to be informed.

**Enter Email Address**

An email address is required in order to send scheduling requests and to receive responses. Please provide an email address below.

✓

Email is good!

## Safety Summary

The iPump i8640 is designed for safe use with few special precautions required of the user. The following items are basic precautions to use when installing and working with the iPump i8640: Do not open the iPump i8640's chassis cover as this will void the limited product warranty.



## Location and Mounting

The iPump i8640 should be mounted in a standard 19-inch equipment rack. After mounting, maintain a clean, dry environment for the unit.

### Precautions

#### **WARNING**

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.

#### **DANGER**

To avoid damage to this and other equipment, or personal injury, the following items should be strictly observed.

#### **Elevated Operating Ambient**

When equipment is installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than the room ambient temperature. Therefore, consideration should be given to the ambient air temperature within the rack, and not just inside the room, when deciding if the maximum recommended ambient operating temperature (TMRA) is being met.

#### **Reduced Air Flow**

Equipment should be installed such that airflow required for safe operation of the equipment is not compromised. Units may be stacked with other rack-mount equipment without gaps. However, to ensure adequate air flow, leave rear and front vents unobstructed. Providing 1/2 inch clearance for the right side air vents results in a longer product life for the iPump 8640.

#### **Mechanical Loading**

Mounting of the equipment in a rack should be such that a hazardous condition is not produced by uneven loading. This unit is not very heavy, but total rack loading must be considered. Also, do not rest any unsupported equipment on the iPump 8640.

#### **Circuit Overloading**

Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits could have on over-current protection and supply wiring. Ensure that the total rack or breaker power consumption does not exceed the limits of the ac branch circuit. Appropriate consideration of equipment ratings should be used when addressing this concern.

### **DANGER**

#### **Reliable Earthing**

Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (use of power strips, chassis ground lugs, etc.).

#### **Lithium Battery**

Proper disposal and replacement of the motherboard's lithium battery is necessary. Replacing the battery with an incorrect type presents the risk of explosion. Dispose of used batteries according to the package instructions.

#### **Telecommunication Line Cord**

To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.

#### **Rack Installation Procedure**

The iPump i8640 is sized at 2 RU and will fit an EIA-standard, 19-inch-wide equipment rack.

- 1) 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.
- 2) Place the iPump 8640 on its supports and use four anchor screws or bolts and nuts to secure the unit's front brackets to the rack.

### **WARNING**

Do not block any of the ventilation or fan opening on the front, side, or rear of the unit. Support arrangements that do not allow adequate air flow or which block the openings on front, side and rear vents may result in overheating and damage to the iPump 8640.

### **WARNING**

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

**WARNING**

Locate the iPump 8640 and its cables to avoid impacts, spills, and pulling cables and to ensure sufficient air flow. Failure to locate the iPump 8640 in a proper environment may result in damage to the equipment.

**WARNING**

The hard drives are **NOT** hot swappable and permanent damage will occur if removed while the unit is powered up. Please contact our support hotline for directions if service becomes necessary.