Titan *neo*

Owner's Manual

Portable Wireless UHF Sound System

TeachLogic

Titan Neo

INTRODUCTION

Notes

Date of Purchase: _____

Model Number: _____

Serial Number: _____

Notes:

INTRODUCTION

Thank You

Congratulations on the purchase of your new Titan Neo Sound System. You can be assured that the Titan Neo was produced to high quality standards and will fulfill all its specifications. TeachLogic incorporated the latest state of the art technology, employed the most advanced manufacturing methodology and used only premium quality components to assure years of reliable service.

We appreciate your confidence in TeachLogic by your selection of our product. It is the intent of TeachLogic to uphold that confidence by offering you our direct assistance and customer support.

We hope you will take the time to review this manual to familiarize yourself with product features and guide you through its operation. This manual will explain the control functions and how to operate them. Also an explanation on how to setup and use the system so you will gain maximum benefit of the Titan Neo

The manual will conclude with recommended storage, maintenance and troubleshooting procedures.

Contact

If you should encounter some unresolved issue, please contact TeachLogic customer service department for further assistance.
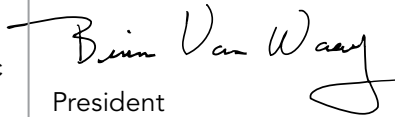
☎ 1·800·588·0018
✉ sales@teachlogic.com
📠 1·760·631·1283
🖥 www.teachlogic.com

Brian Van Waay

President

Titan Neo

INTRODUCTION

Safety Instructions

Read Instructions
All safety and operation instructions should be read before operating this TeachLogic product.

Retain Instructions
Safety and operating instructions should be kept for future reference.

Water & Moisture
This product should not be operated near water or excessively moist area.

Heat Environment
Do not subject this product to excessive heat conditions.

Power Source
This product must be connected to an AC power source per the voltage input specified and marked on the power supply.

Power Cord Caution
Power cable should be routed clear of foot traffic and supported clear of kinking or abrasion.

Object Protection
Locate the operating unit so it will not be subjected to falling objects or water entry.

Proper Installation
Adhere to safe positioning to avoid falling, dismounting, head clearance, or cord cable obstruction

Internal Service
User should not attempt to service this product. A qualified technician must accomplish all internal service.

Electric Shock
Do not adapt or modify the AC power plug thus lifting the earth ground connection.

⚡ CAUTION !

RISK OF ELECTRIC SHOCK:
DO NOT OPEN

Caution: To Reduce The Risk Of Electric Shock Do Not Remove Cover (Or Back)
No User-serviceable Parts Inside
Refer Servicing To Qualified Personnel

Certifications

CE
Listed

Pb
lead-free

FC

TeachLogic systems are manufactured using lead-free processes and are free of materials harmful to the environment. They conform to the most stringent new European guidelines for consumer products (RoHS).

Caution

Recycle—Do not dispose of rechargeable batteries in trash. Actually it is unlawful to do so in CA, NY & ME.
Contact: Earth911.com
        1-800-CLEANUP
Save our resources and don't contaminate.
Go Green

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INTRODUCTION

About RF Transmission

Through today's technology and advanced engineering, wireless microphones reproduce excellent vocal quality and render very reliable service. Thus today, the use of wireless microphones is commonplace. The convenience of no cumbersome cables and freedom of movement has made the wireless microphone very convenient to use.

However, it will helpful to be aware of some inherent anomalies associated with wireless microphones. RF is a radio signal being transmitted from the microphone to a receiver in your sound system. Note; there are thousands of RF signals being transmitted through the air at all times. Therefore, it is always possible that there may be another signal being transmitted at or near the frequency you have selected. This will cause interference resulting in static, intermittent connection or even complete blockage. Therefore, a change in frequency selection will be necessary.

Extensive metal barriers (cyclone fences, screen, steel reinforced walls, etc.) can reduce signal strength, resulting in dropouts and poor performance.

RF can transmit through solid surfaces in all directions. The range can be in excess of 100 feet. Therefore, be aware that what is said off stage will be heard unless the transmitter is turned "off" or microphone is muted.

The most troublesome problem with wireless microphones is the result of weak batteries. Typically, fresh alkaline batteries will provide 6 - 8 hours of service and rechargeable batteries 5 – 7 hours per charge.

INTRODUCTION

About the Titan Neo

The Titan Neo is a compact portable sound system for music playback and voice reinforcement. It is powered by internal batteries and housed in a rugged enclosure. The lightwieght, compact size makes the Titan Neo very versatile and practical for use on all occasions, indoors or out.

The basic system is comprised of an efficient 50 watt power amplifier, a control panel and a rechargeable battery power supply. The control panel provides a battery level indicator, microphone input with volume control, line input with volume control, line output, master volume, and bass and treble controls. The rechargeable NiMH batteries provide 6–8 hours of use at moderate sound level. Titan Neo can also be plugged into AC for continuous use.

With the "Priority" function switch on the control panel engaged, while playing music through the system, the music volume will automatically be lowered 15 dB when speaking into the microphone. After speaking, the music will automatically restore to the previous level.

The Titan Neo can be equipped with several options. One or two wireless microphone receivers can be installed; expanding its capability for use with wireless microphones.

Either a CD/MP3 player for playback of CD / flash drive or a digital MP3 only module can be installed. A unique option, the wireless AirLink module, will transmit the composite program from one Titan Neo to another Titan Neo equipped with a wireless microphone receiver—equivalent to having a powered remote speaker without a cable connection (multiple units can be used).

The Titan Neo is equipped with a neodymium bass speaker that provides greater efficiency, better sound quality, and lighter weight. Coupled with a high frequency horn, the Titan Neo reproduces a full range sound with crystal clear voice projection.

Titan Neo

Titan Neo COMPONENTS & OPERATION

Titan Neo Rear

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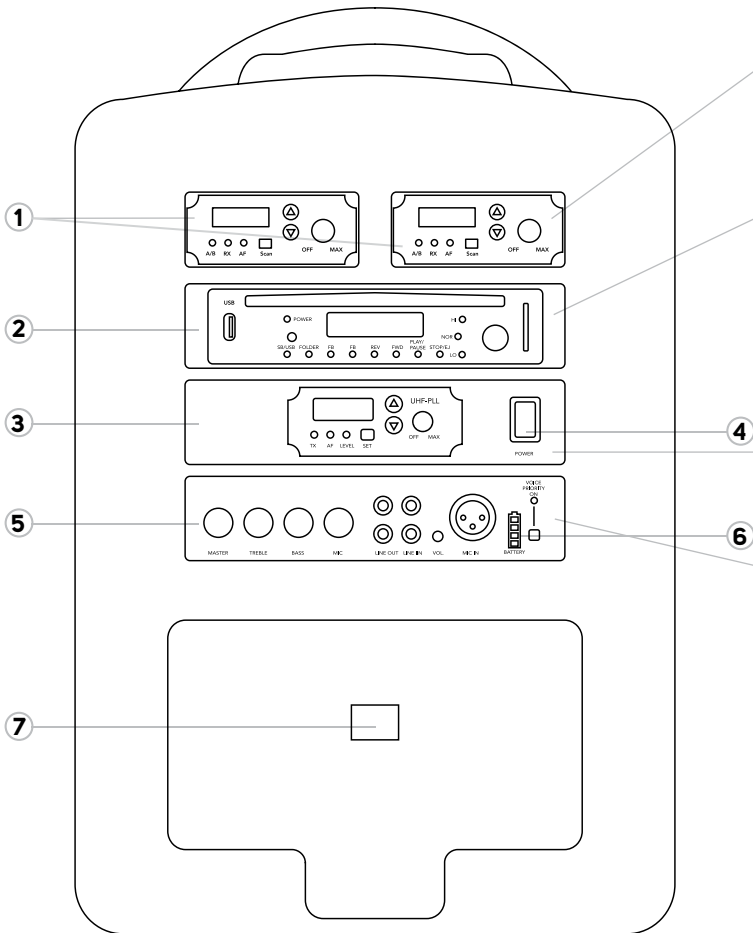
1 Optional DR-800 Receiver Modules
2 Optional CD/MP3 Player Module
3 Optional TX-800 Transmitter Module
4 Power Switch
5 Main Control Panel
6 Charge Indicator Light
7 110–240v AC Input

Titan Neo COMPONENTS & OPERATION

Receiver Module for Wireless Microphone Model: DR-800

The DR-800 module is a 96 channel UHF receiver (640 – 664 MHz). The auto scan feature will automatically select a clear channel and lock on. However, the user can override the auto and manually select a channel of choice. Two DR-800 modules can be installed for dual wireless microphone operation.

CD/MP3 Player Module with Remote Control Model: CD-800S

In addition to being an anti shock CD / MP3 player it also features a USB Input Port and SD/MMC Reader. The pitch can be increased or decreased 10 levels up or down. Controls and functions include: Volume, Play/Pause, Stop/Eject, FWD, Rev, FF, FB and folder select. A fully functional remote control with Keypad provides remote operation of all functions.

AirLink Transmitter Module Model: TX-800

For larger venues or audiences, the TX-800 transmitter module will broadcast a composite program signal to companion units equipped with a DR-800 wireless receiver. The companion systems can be located throughout the venue without the need for speaker cables. The TX-800 will transmit all inputs including the wireless microphones, CD player, and control panel inputs. Typical operating range is 300–500 feet (line of sight).

Main Control Panel

The control panel provides the basic inputs and controls. Inputs include: Balanced (XLR) or Unbalanced (¼" phone) Lo-z microphone Input, Dual Line Input (RCA) with volume control, Dual Line Output (RCA), Mic. Volume Control, Treble & Bass Controls, Master Volume Control, Battery Level Indicator, and Voice Priority Switch

Digital Time Delay Module Model: DD-750

Installed in Companion Systam only
The DD-750 module is a delay module that can store a signal received for 20–500 milliseconds, selectable in 2 millisecond increments. The program signal is transmitted from the Titan Neo through the TX-800 AirLink Module to the companion system equipped with the DD-750 delay module. The signal is digitally stored in the DD-750 per the delay time selected and then released through the companion sound system. Its purpose is to synchronize the sound heard from the master Titan Neo with the sound from the companion system. Typical application, when companion system is more than 50 feet away.

Titan Neo COMPONENTS & OPERATION

Before Using the Titan Neo

It is best to plug the Titan Neo into an AC outlet and restore batteries to full charge condition. Although the batteries were checked and fully charged prior to shipment, NiMH batteries have a tendency to lose some charge when not in use.

Nickel Metal Hydride Battery (NiMH) (environmentally friendly)

The NiMH battery is the present day replacement of the (NiCd) Nickel Cadmium battery. Its energy density is more than double that of Lead Acid and 40% higher than NiCd batteries thus serving a longer performance per charge. Relative to size, weight, and capacity; the NiMH battery is the best performing and cost effective battery for portable applications. Typical life expectancy is three to five years and will provide approximately 500 hundred full recycles.

Battery Care and Maintenance

Inherent to NiMH batteries, they are prone to self discharge while not in use. Therefore, it is best to plug the Titan Neo into an AC outlet while in storage. This will assure full useable charge and ready to use. The regulated power supply of the Titan Neo will maintain a full charge and not overcharge the batteries. Although the NiMH battery does not form a memory like the NiCd, they can form a bit of a barrier at lower discharge levels. It is a good practice to totally discharge and recharge the batteries once or twice a year to maintain full service per cycle.

Four Level Battery Indicator

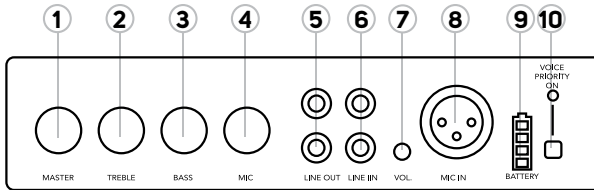|		
Top LED (Green)	80 – 100% Charge	
Second LED (Green)	50 – 80% Charge	
Third LED (Yellow)	20 – 50% Charge	
Bottom LED (Red)	0 – 20% Charge	

Power Panel

The power panel is located above the main control panel. Its houses the master power switch. The internal light in the rocker switch will illuminate "red" when powered "on".
When either the AutoLink (TX-800) or Digital Delay (DD-750) module is installed in lieu of the power panel, the power switch is part of its panel.

Titan Neo COMPONENTS & OPERATION

Main Control Panel

The main control panel is the basic panel for all Titan Neos and Titan Neo companions. It houses the master volume control, hardwired microphone input, auxiliary input, record output, mic & line volume controls, tone controls and the unique "Voice Priority" switch.

|	
1 Master Volume Control	**6** Dual Line Input (RCA)
2 Treble Control	**7** Line Input Volume Control
3 Bass Control	**8** Cabled microphone input
4 Wired Mic. Volume Control	• Balanced Lo-z (XLR)
5 Dual Line Output (RCA)	• Unbalanced Lo-z (¼ phone)
	9 Four Level Battery Indicator
	10 Priority Override Switch

Basic Operation Using a Cabled Microphone

1. Plug in a cabled Lo-z microphone, either a 3-prong XLR or ¼" phone connector.
2. With mic and master volume controls at zero, switch power "on".
3. Battery level indicator should read "Green" indicating the useable battery level.
4. Turn master volume to mid scale.
5. Slowly turn mic volume up while talking into microphone.
6. If additional volume is required, increase master volume.
7. Adjust tone controls.
   • Treble boost improves voice projection, especially outdoors.
   • Bass boost consumes more battery power.
8. To playback music, plug an external audio source such as an **iPod** or MP-3 player, into the dual RCA line input jacks.
9. With the audio source playing, adjust the volume to desired level.
10. Push in "Voice Priority" switch, "red" LED will light.
11. While audio source is playing, talk into microphone.
12. You will note: the volume of the playback will decrease 15 dB while you speak into the microphone and will automatically return to previous volume after announcement.
13. To record or feed a composite program to another system, plug into the dual RCA line output jacks.

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Titan Neo COMPONENTS & OPERATION

Main Control Panel

Master volume adjusts overall system level from all inputs (i.e.: UHF, CD/MP3 player, RCA stereo input and wired microphones). Treble and bass controls affect all system inputs, when set to half way sound output will be flat.
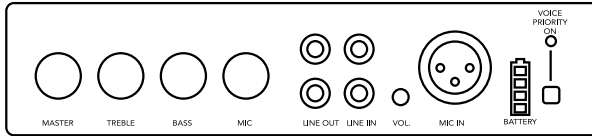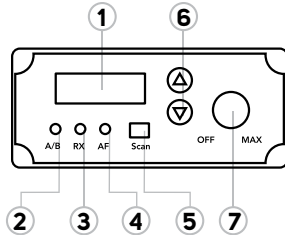

- Mic Input: XLR or ¼" phone jack for wired microphones. Volume of this input is controlled by Mic. and the Master controls
- RCA stereo jacks are provided for an external audio source. This allows connection of a CD player, **iPod** or other audio source. The volume of the Line In is controlled solely by the Master.
- RCA output is provided for use with external zone amplifiers or other PA systems if required or for sending the entire mix signal to other audio devices, such as recorders, mixers, or power amps. This output signal is combined from all inputs (i.e., UHF, CD/MP3 player, RCA stereo input and wired microphones).
- Microphone Priority Override when turned "on" program volume will immediately lower 15dB when microphone is spoken into and volume rise upon completion of announcement.

Titan Neo COMPONENTS & OPERATION

DR-800 Auto Scan Receiver for Wireless Microphone

One or two auto scan receiver modules can be installed in the Titan Neo. Each receiver has 96 selectable channels to assure interference-free operation and is equipped with a diversity antenna for added sensitivity.

1	LCD Display: Ch. # or Freq. Readout	**5**	Channel Scan
2	RF Reception: Diversity A/B Antenna	**6**	Channel "Up/Down" Selector
3	Transmission Signal Present Indicator (Yellow)	**7**	Receiver Module: "on/off" and Master Gain
4	Flash-Audio Level Being Received		

Operation

Auto Scan
1. Turn receiver "on", turning volume/power switch clockwise to 12 o'clock.
2. The receiver will display the last channel previously selected.
3. To scan for a clear channel push the "Scan" button. The LCD screen will display "SCAn" while searching for first available open channel/frequency. The receiver will lock on and display the cleanest available channel.
4. Tune the transmitter frequency to match the displayed channel on the receiver to begin operation.

Manual Tuning
1. Press and hold the "Up or Down" selector until the channel number blinks.
2. Press the "Up or Down" button until the desired channel is selected.
3. The receiver will stop blinking and lock into the selected channel.

Continue Tuning
1. The auto scan receiver is now ready to receive signal from a wireless microphone for AirLink transmitter. Tune the transmitter frequency to match the displayed channel on the receiver to begin operation.
2. When receiving a transmission signal, the A/B diversity antenna LED will illuminate "Red or Green" indicating antenna selection.
3. RX indicator will illuminate "Yellow", indicating reception of signal from transmitter.
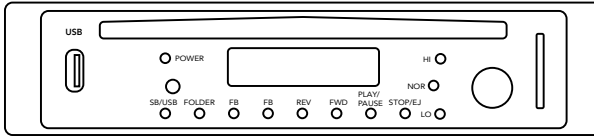4. AF indicator will flash "Green" when receiving an audio signal.

Titan Neo COMPONENTS & OPERATION

Titan Neo COMPONENTS & OPERATION

CD-800S Player

This anti-shock CD/MP3 player allows playback of both standard CD's and data CD's containing MP3 or WMA files.

To operate, push the power button. Insert a CD into the CD slot and press play/pause button.

1. Adjust volume to desired level.

2. To skip forward a whole track press the next track button (>>|). To skip backwards a whole track, press the previous track button (|<<). To search through tracks, press and hold either of these buttons until you reach the desired point in the track.

3. Repeat allows repeating of single songs or all songs. Shuffle plays tracks in a random order.

4. To program specific tracks for playback press the track program button. Select the song you wish to program on the disc using the next track (>>|) and previous track buttons (|<<). Press repeat to enter the track into the program. Repeat as necessary. To playback programmed tracks press the play/pause button. Note: program will be reset whenever the track program button is pressed.

5. For use with MP3 discs you can select folders of music on the CD. Press the folder button and use the next track (>>|) and previous track buttons (|<<) to select your desired folder. Note: this function searches the disc in alpha-numeric order.

Note

For optimum performance a professionally manufactured CD should be used. However, if you are playing a CD/R, burn music at the slowest rate for best playback results.

Titan Neo

Titan Neo COMPONENTS & OPERATION

CD-800S Player Functions
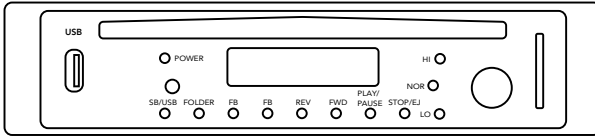
POWER
- ON: Press Power to switch on the power.
- OFF: Press and hold Power to switch off the power.

LCD DISPLAY Displays CD status including track number and playing time.

SD/USB/CD Press this key to change USB, SD or CD mode.

FB Select fast backward. Then press "PLAY/PAUSE" for normal playback.

FF Select fast forward. Then press " PLAY / PAUSE" for normal playback.

FOLDER Selects pre-programmed folders. Available when playing MP3 format files. Press FOLDER key again to advance to next folder.

REV Press to desired previous track number.

FWD Press to desired next track number.

PLAY/PAUSE Press once to play, press again to pause.

STOP/EJECT Press to stop playing, press again to eject disc.

Infrared window Picks up signal from the remote controller.

USB Connector Accepts USB Drive

SD Connector Accepts SD Card and MMC Card.

LO-PITCH To adjust slow-speed play. Press once, the screen will indicate PH-01, press again, the screen will indicate PH-02. There are 10 steps of speed variation.

HI–PITCH To adjust fast-speed play. Press once, the screen will indicate PH-01, press again, the screen will indicate PH 02. There are 10 steps of speed variation.

NOR–PITCH To adjust the speed to zero. Press NOR/PITCH key, the speed will be zero back to normal play.

Titan Neo COMPONENTS & OPERATION

CD-800S LCD Display

CD When in CD mode, the display panel shows "Cd".

USB When in USB mode, the display panel shows "USb"

SD When in SD mode, the display panel shows "Sd"

PLAY When in play mode, the display shows "▶"

PAUSE When paused, the display shows "∥"

REPEAT When repeatedly playing the single track, it shows "REPEAT 1".

REPEAT ALL When all tracks are playing repeatedly, it shows "REPEAT ALL".

REPEAT FOLDER When all tracks in a specific folder are playing repeatedly, it shows "REPEAT FOLDER".

SHUFFLE Will playback Random tracks.

MEMORY When playback programmed tracks.

PROGRAM Will program tracks.

A→B Will continuously loop a track between selected point A and B.

⊟⊟ Under the MP3 mode, it will appear the folder numbers.

⊟⊟⊟ Display the current playing track.

⊟⊟:⊟⊟ Display the time for the current playing track.

VOLUME Turn to adjust & control the desired volume.

Titan Neo

Titan Neo COMPONENTS & OPERATION

Playing CD-800S
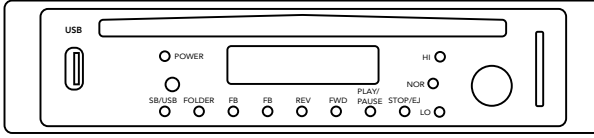
- This player will accept 4.75" (12 cm) discs like CD, CD-R, CD-RW, MP3, USB and SD / MMC memory cards, but will not play CD-ROM / CD-I / CDV, or 3" (8 cm) discs.
- The CD player will accept MPEG-3 (MP3) and WMA format files.
- Insert a disc into disc slot with the playback side down, playback starts automatically. Track number and playing time will be displayed.
- To pause playback or start normal playback, press PLAY/PAUSE or press ▶∥ on the remote controller.
- Press REV, F.WD, or ◀◀ ▶▶ on the remote controller, to select previous or next track. CD player will continue playback while displaying selected track.
- To stop playback, press STOP/EJECT or press ■ once on the remote controller.
- To eject CD press STOP/EJECT once to stop playback. Press again to eject CD. Or press ▲ on remote controller.
- Press FB, FF or ◀◀ ▶▶ on the remote controller, to activate fast back or fast forward until desired selection is located.
- Press LO, NOR, HI/PITCH or LOW NOR HIGH on the remote controller to adjust low, normal and high playback pitch.
- Press FOLDER or FOLDER on the remote controller, will select the next catalogue of tracks to be played.

> **Note**
>
> When inserting or removing a disk into CD player, do not push or pull the disk by hand. Let the CD player pull the disk in and or return disc automatically. Pushing or removing the disk by hand will damage the machine and cause it not to operate normally.

Titan Neo COMPONENTS & OPERATION

Playing SD/MMC Card

• Insert SD Card or MMC Card into the insert hole of SD/MMC CARD in the face plate. Push the card into the SD/MMC card slot. To remove the card, please push the card to the bottom and then release. Please do not use force to pull card out. Pulling the card will damage the card and/or machine.
• Press SD/USB/CD or SD/USB/CD on the remote controller. Select SD then press PLAY/PAUSE or ▶❚❚ on the remote controller to play.

Playing USB Drive

• Insert USB into the insert hole of USB in the face plate.
• Press SD/USB/CD or SD/USB/CD on the remote controller.
• Select USB then press PLAY/PAUSE or ▶❚❚ on the remote controller to play.

Note

USB Input will not accept audio from iPod, iPad or iPhone. You may connect an mp3 from the device headphone jack to the Titan RCA inputs

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Titan Neo COMPONENTS & OPERATION

Remote Controller Functions

EJECT Press 	▲	 to stop playing and eject the disc.

PROG can memorize a set of tracks for playback.

   To Program a set of tracks:
   1) Insert a disk into the CD player, press PROG key one time.
   2) Enter the folder and track number then press ◀◀ to confirm selection.
      For example: To program track 23 then 42 then 19, Press 0 and 1 for
      folder, the LCD will display "01". Then press 2 and 3 for track number,
      the LCD will display "23". Then press ◀◀ to confirm selection, the LCD
      will display "01 23:01". This is Folder number 1, track number 23, first
      selection to play.
      Then press 4 and 2 for track number, the LCD will display "42 :02" for
      track number and selection number 2. Then press ◀◀ to confirm selec-
      tion, the LCD will display "01 42:02".
      This is Folder number 1, track number 42, second selection to play.
      Then press 1 and 9 for track number, the LCD will display "19 :03" for
      track number and selection number 3. Then press ◀◀ to confirm selec-
      tion, the LCD will display "01 19:03".
      This is Folder number 1, track number 19, third selection to play.
   3) Repeat this process until all desired tracks have been memorized.
   4) When all selections have been memorized press ▶II

RAN A random selection of tracks will play. Press RAN and the LCD will display
"SHUFFLE".

REP *REPEAT MODE*. While playing a CD, press REP once, the LCD will display
"REPEAT ALL". Repeat All will repeat all tracks one time. Press REP again,
the LCD will display "REPEAT 1". Repeat 1 will repeat all songs in that folder.
Press REP a third time, all repeats will be cancelled.

Titan Neo COMPONENTS & OPERATION

Remote Controller Functions
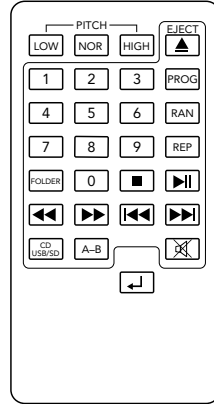
Replacing Remote Battery

1. Pull battery clip
2. Insert battery
3. Replace clip
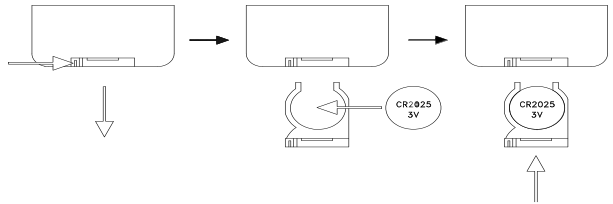
The battery for the remote is (model CR2025 3V).

Titan Neo

Titan Neo COMPONENTS & OPERATION

TX-800 Transmitter Module

For larger venues or audiences, the addition of this module allows several units to be used in the same area without the need for speaker or signal wiring. In this application you have a master and as many slave units as required for the venue. The wireless AirLink module is installed in the master unit, which then transmits any audio signal (including wireless mic, CD player or wired mic) to the slave units, which are fitted with a UHF wireless receiver.
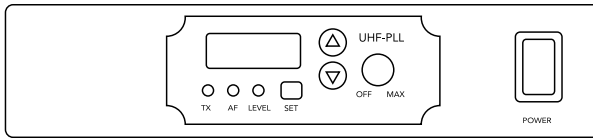
1. On the AirLink unit turn the power switch/volume level control clockwise to turn the transmitter on.

2. The LCD screen will display "ON" then revert to the factory default channel (or the channel last selected).

3. To select a channel press the "SET" button. Using the UP/DOWN frequency adjustment buttons you can select the desired channel. Press set again to lock-in channel.

4. On the slave unit turn the wireless receiver module on. Press "SET" and use the UP/DOWN frequency adjustment buttons to set the unit to the same channel as the master unit. Press the frequency set button again to lock in your channel selection.

5. When transmitting audio from the master to slave unit the TX indicator will light green. The AF indicator displays audio level (flashing red) when user is speaking into the microphone or music is playing.

Titan Neo COMPONENTS & OPERATION

Companion Speaker

The PA-810 is an AC or battery powered Companion System with a 96 Channel Wireless Receiver for a wireless connection from a Titan Neo Sound System with the TX-800 Wireless Transmitter installed.

The PA-810 can also be utilized as a self contained battery powered PA system with the use of a hardwired handheld microphone (UM-66), or wireless microphone (UT-96HH or UT-96BP).

With the addition of the DD-750 Digital Delay Module, the system becomes PA-815.

DD-750 Digital Delay Module

The Digital Delay Module DD-750 is installed in the companion speaker and is interfaced with DR-800 wireless receiver module. The output of the receiver is passed through the delay module in route to the power amplifier. The purpose of the delay module is to store the signal momentarily and then pass it through to the amplifier input. The delay time can be varied from 20–500 milliseconds thus synchronizing the sound output with the master unit on stage.
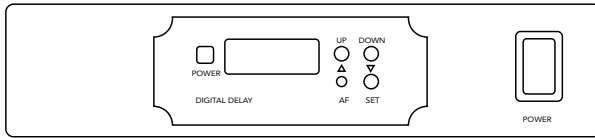
Time Delay Calculation

The true measurement of sound travel is 1125 feet per second. Thus sound travels at the rate of 1.125 feet per millisecond (ms). So the general rule is to round up to 1 foot per ms.

So to calculate the sound delay time from the main sound source to the distant speaker is to pace the distance in feet. Then dial the foot count into the digital delay module in milliseconds (ms). Example, if you were to pace off 150 feet, you would dial the digital delay to 150 ms. Now this approximate setting could be fine tuned by ear for a more exact setting.

Titan Neo COMPONENTS & OPERATION

To Set The Time Delay

Depress the power switch. The LCD screen will display the last saved delay time. To change the delay time select the "SET" button. Using the UP/DOWN time delay adjustment buttons, set the delay to the desired time in milliseconds. Press the "SET" button to lock in your delay time.
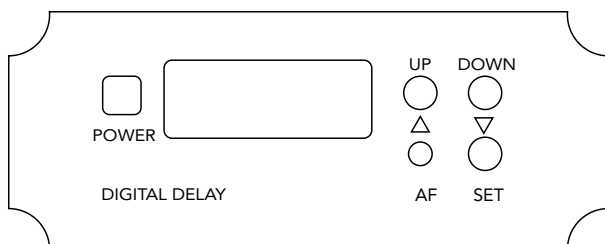
Note

Display times are available in 1.9 ms. increments.

Titan Neo

TRANSMITTER/MICROPHONES

UT-96HH Tranmitter Microphone Description

The handheld microphone/transmitter is equipped with a dynamic microphone element for enhanced clarity and extended dynamic range. Its low handling noise and built-in windscreen makes it well suited for close-up handheld use. It can be powered by either Alkaline or rechargeable NiMH batteries. The rechargeable batteries can be recharged either in the drop-in charger or with the plug-in charger.
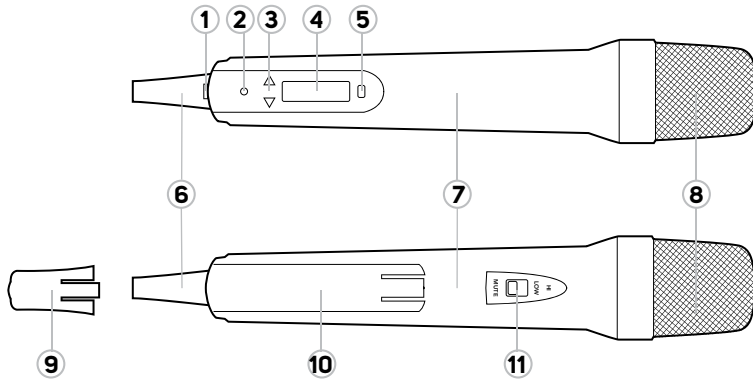
1 Power "on/off" Switch	**7** Soft Comfort, Non-Slip Body
2 LED Power "on"Indicator	**8** Protective Screen Head
3 Up/Down Frequency Select	**9** Color Identity End Cap
4 LCD Readout	**10** Battery Compartment
5 Frequency Set Button	**11** Microphone Sensitivity:
6 Charging Port Connection	HI/LOW/MUTE Select

TRANSMITTER/MICROPHONES

UT-96HH Tranmitter Microphone Operation

1. Be sure the microphone is switched off before inserting batteries.
2. Remove lower identity cap.
3. Remove lower battery compartment door.
4. Insert two (2) AA batteries (use only alkaline or fully charged NiMH batteries).
   Caution: Be sure to observe correct polarity
5. Replace lower battery compartment door.
6. Locate power switch at base of microphone (small gray button)
7. Press upward and hold the power switch for 2-3 seconds.
8. Power LED will illuminate "Red" and "On" will be displayed in the LCD screen.
9. LCD window will also display: Battery condition and CH #
10. A microphone sensitivity selection switch provides three modes of microphone sensitivity (HIGH, LOW, MUTE).
    • MUTE: Mutes microphone "off" while retaining transmission and RF connection.
    • LOW: Use when microphone is held close to mouth or strong vocal input.
    • HIGH: Use when additional sensitivity is required for softer voice.
11. LCD screen displays the channel number selected for the microphone. To display channel frequency: Press and hold the UP or DOWN select button.
12. To change channel selection
    • Press and hold frequency SET button for 2 seconds. LCD panel will commence flashing (indicating programming mode)
    • Press UP or DOWN arrow to select channel desired
    • Press SET button to lock in channel selected

Danger

DO NOT ATTEMPT TO CHARGE ALKALINE BATTERIES

TRANSMITTER/MICROPHONES

UT-96HH Tranmitter Microphone Operation

13. The battery status is displayed on the left of the LCD screen.
    - When battery nears depletion: Icon will flash 3 times.
    - Microphone will automatically turn "off" to prevent damage.
14. To turn microphone "off", press and hold the power switch until the LCD screen displays "OFF".

FCC Regulation

RF transmission equipment must comply with FCC regulations. All TeachLogic transmission devices comply with Part 15 of the FCC rules and operate in the UHF band in the 640–664 MHz frequency range. Power output is limited to less than 50 milliwatts to prevent any interference with any other RF operated equipment.

TRANSMITTER/MICROPHONES

Titan Neo UT-96BP Body-Pack Tranmitter Description

The Body-Pack Transmitter is the component that transmits the voice to the Titan Neo receiver. The audio is transmitted via an RF signal on a selected RF frequency. An external microphone is plugged into the Body-Pack Transmitter which picks up the speaker's voice. The microphone can be either a Lapel, Collar style or a Headset with a boom microphone. The transmitter is usually worn on the waist utilizing the wire belt clip, however; it can be placed in your pocket if it is more convenient. The Body-Pack is battery powered and requires two "AA" size batteries.
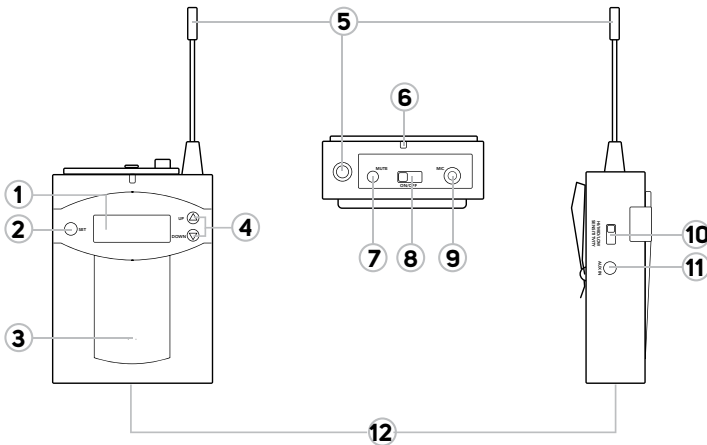
1 LCD Display	**8** Power "ON/OFF" Switch
2 Frequency SET Button	**9** MIC Input Jack (3.5mm)
3 Built-In Microphone for Handheld Use	Microphone Input Sensitivity Selection
4 UP/DOWN Ch. Select Buttons	**10** Switch (L,M,H)
5 Transmitting Antenna	**11** AUX Input Jack (3.5mm)
6 Power "On" LED Indicator	**12** Charging Terminal
7 Microphone Mute Button	

Titan Neo

TRANSMITTER/MICROPHONES

UT-96BP Body-Pack Tranmitter Operation

1. Ensure microphone is switched off before inserting batteries.
2. Remove battery compartment cover.
3. Insert two "AA" batteries, observing polarity (alkaline or rechargeable NiMH).
4. Plug in microphone: Lapel, Headset w/boom, Collar or UltraLite mic.
5. Push power switch to "ON". Top power LED will illuminate "Red"
6. "On" will be displayed in the LCD screen.
7. LCD window will display: Battery condition and CH #
8. A selection switch on the side of the body-pack provides three levels of microphone sensitivity (HI/MID/LOW)
   • High: Most sensitive position for weak voice or distant microphone to mouth.
   • Mid: When the microphone used is further away from mouth, such as: a collar or lapel microphone is clipped on clothing away from mouth
   • Low: When microphone is used close to mouth, such as; a headset with a boom microphone or with a very strong vocal performer.
9. MUTE Button: Mutes microphone "off" while retaining transmission and RF Connection
10. Internal Microphone:
    • Locate two small hole on front of transmitter
    • Hold transmitter in front of mouth and speak into it.
11. LCD screen displays the transmission channel number and battery condition
12. To display channel frequency: Press and hold UP or DOWN button.

Danger

DO NOT ATTEMPT TO CHARGE ALKALINE BATTERIES

TRANSMITTER/MICROPHONES

UT-96BP Body-Pack Tranmitter Operation

13. To change channel selection
    - Press and hold frequency SET button for 2 seconds
    - LCD panel will commence flashing (indicating programming mode)
    - Press UP or DOWN arrow to select channel desired
    - Press SET button to lock in channel selected
14. The battery status is displayed on the left edge of the LCD screen.
    - When battery nears depletion: Icon will flash 3 times
    - Transmitter will automatically turn "off" to prevent damage
15. To turn microphone "Off"; push power switch to "OFF".

FCC Regulation

RF transmission equipment must comply with FCC regulations. All TeachLogic transmission devices comply with Part 15 of the FCC rules and operate in the UHF band in the 640–664 MHz frequency range. Power output is limited to less than 50 milliwatts to prevent any interference with any other RF operated equipment.

TRANSMITTER/MICROPHONES

Optional Microphones for Body-Pack Transmitter

Any of the microphones below may be used with the Body-Pack Transmitter.

LM-835 Lapel Microphone

The Lapel Microphone (LM-835) is a small capsule microphone with a spring clip for securing it on to a clothing edge. The lapel microphone renders excellent vocal reproduction. The lapel micro-phone is less obtrusive to the user and least visible. However, due to the greater distance from mouth to microphone it will require additional gain. As a result it is more prone to feedback. So adjust-ment of volume is more critical, especially near or under a speaker.

HBM-935 Headband Microphone

The Headband Microphone (HBM-935) is worn around the head with a unidirectional microphone located on the end of a flexible boom. This is the best performing microphone due to its unidirec-tional mic element and its always close proximity to the mouth. The microphone also renders maxi-mum gain and is least prone to feedback.

ULM-835 Ultra-Lite Microphone

The Ultra-Lite Microphone (ULM-835) is a minia-ture boom style microphone supported by a wire around the left ear. The unidirectional microphone element renders excellent vocal quality and maxi-mum clarity. Its lightweight and miniature size make it comfortable and inconspicuous. It is avail-able in either beige or black.

Caution: The Ultra-Lite boom can be formed to fit but it is not considered to be flexible. So it cannot be bent back and forth; IT WILL BREAK!
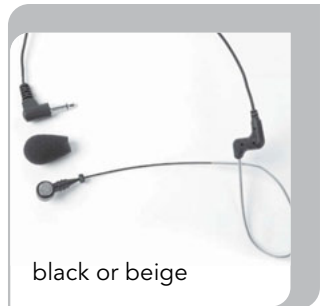
black or beige

TRANSMITTER/MICROPHONES

Optional Microphones for Body-Pack Transmitter

Titan Neo

BATTERY CHARGERS

BRC-10 Plug-In Charger

The BRC-10 charger is designed to charge the UT-96HH Handheld Transmitter/Microphone.

Operating Instructions

- Use "AA" rechargeable NiMH batteries only
- Plug adapter into 110v AC outlet.
- Remove color identification cap.
- Plug cable into jack at the base (bottom end) of transmitter
- Turn Handheld Transmitter "On" to observe battery icon
- During charging, the battery icon will cycle through the charge "block"
- When fully charged, battery icon will display all "blocks" filled
- Charging time; typically 10–12 hours
- Turn Handheld Transmitter "Off" and reinstall color identification cap.

BRC-75 Drop-In Charging Dock

The BRC-75 charger is designed to charge one or two UT-96BP Body-Pack Transmitters.

Operating Instructions

- Use "AA" rechargeable NiMH batteries only in microphones
- Plug power adapter in 110v AC outlet
- Plug cable into base of charger
- Insert one or two body-pack transmitters into charger
- "on" indicator LED lights "Amber" when charging
- "ok" indicator LED lights "Green" when fully charged
- Charging time; typically 10–12 hours

BATTERY CHARGERS

BRC-70 Drop-In Charging Dock

The BRC-70 charger is designed to charge the UT-96HH and/or UT-96BP Body-Pack Transmitter.

Operating Instructions

- Use "AA" rechargeable NiMH batteries only in microphones
- Plug power adapter in 110v AC outlet.
- Plug cable into base of charger
- Charging Handheld Microphone/Transmitter
  - Remove color identification cap from Hand held microphone, store on cap holder
  - Insert Handheld microphone into small square receptacle
  - Push down firmly in place
  - Charging Handheld Indicators (Handheld symbol)
    - "on" indicator LED lights "Amber" when charging
    - "ok" indicator LED lights "Green" when fully charged
- Charging Body-Pack Transmitter
  - Insert Body-Pack into Front/Large receptacle
  - Push down firmly in place
  - Observe front with LCD facing forward (toward you)
- Charging Body-Pack Indicators (Body-Pack symbol)
  - "on" indicator LED lights "Amber" when charging
  - "ok" indicator LED lights "Green" when fully charged
- Charging time; typically 10–12 hours.
- During normal charging the battery icon will cycle through the charge "block" icons
- Remove transmitters when charging is complete
- Reinstall color identification cap on handheld
- Turn transmitter "On", verify battery icon in LCD window shows all blocks filled

TROUBLESHOOTING

UT-96HH Transmitter Microphone

Problem	Solution
Power LED does not illuminate after pressing power switch	• Check batteries are charged and inserted correctly. When pressing power switch ensure you hold it down for 2–3 seconds
LCD panel displays garbled information	• Remove the batteries from the transmitter and re-insert them
No sound output	• Confirm frequency of transmitter is the same as the portable PA receiver • Check volume level of both transmitter and portable PA receiver in range of the receiver • Check for sources of interference, large metal objects etc within range of the microphone

Contact

If you should encounter some unresolved issue, please contact TeachLogic customer service department for further assistance.

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TROUBLESHOOTING

UT-96HH Transmitter Microphone

Problem	Solution
Interference and Signal disturbance	• Make sure there are no other wireless systems operating on the same frequency in the same area. This includes Microphones, Televisions, Radio Stations, etc. • When operating two transmitters in the same area, ensure frequencies selected are several channels apart. This helps to reduce crosstalk between transmitters. • Also note that other wireless devices can cause interference, ensure you adjust your frequency around these devices where possible. • Try setting the transmitter and receiver to a new channel

Titan Neo

TROUBLESHOOTING

UT-96BP Body-Pack Tranmitter Microphone

Problem	Solution
Power LED does not illuminate after switching on	• Check batteries are charged and inserted correctly.
LCD panel displays garbled information	• Check frequency of transmitter is the same as the portable PA receiver • Check mute button is not activated • Ensure body-pack is within range of the receiver • Check for sources of interference, large metal objects etc within range of the body-pack
Signal disturbance	• When operating two transmitters in the same area, ensure frequencies selected are several channels apart. This helps to reduce crosstalk between transmitters. Also note that other wireless devices can cause interference, ensure you adjust your frequency around these devices where possible.

ERR Message

The ERR message may show up on the units ALS-960, DR-702, DR-702D, DR-800, TX-800 and UT-96BP or UT-96HH. In brief, any wireless-based devices that carry a LCD panel might have this potential problem. While the possibility of a glitch is unlikely, it is a possible.

Contact

If you should encounter some unresolved issue, please contact TeachLogic customer service department for further assistance.

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Sorting out LCD ERR message

The ERR message may show up on the units UT-96HH, UT-96BP, DR-800 and TX-800. In brief, any wireless based devices that carry a LCD panel might have this potential problem. The feasibility of such kind of rick shall be quite few, but it might occur. Following I will give you a instructions to kill this problem. LCD panel works "normally" when shown as below…
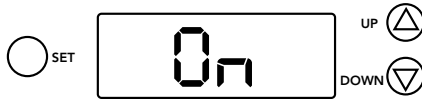
"On" shown on the LCD panel when unit was switched on.

In 1–2 seconds, the LCD panel will show channel number that was used last time on the LCD panel.

Generally, there are two possibilities that bring "Error" message to the devices, software or hardware problem. Following instructions will lead you to sort out problems caused by software.

1. RESET built in software by pressing and holding "SET" + "UP" + "DOWN" then Switch unit on.

2. How to know if the RESET is done successfully? "On" message will be shown on the LCD panel and it will stay on "On" message—it won't display the channel last used.

3. When you've successfully cleared the "ERR" message, switch the unit off, then on. Now use the transmitter normally.

TROUBLESHOOTING

Channel Selection in a Given Area and Simultaneous Use of Multiple Channels.

Transmission by wireless microphones and low power audio transmitters may encounter various interference problems. Interference may be caused by local area TV or commercial broadcast institutions.

In addition, interference can be due to wireless receivers and transmitters used simultaneously in close proximity to each other. Their fundamental or harmonic frequencies can conflict with each other and cause interference problems; noises, static, hiss, dropouts, squealing or totally inoperative.

The following clusters of channels have been designated that are compatible to operate with each other simultaneously.

Clusters of Compatible Frequencies when using Four (4) channels at the same time

(1) 19 20 35 36   **(2)** 10 57 58 59   **(3)** 19 34 36 39

(4) 20 35 39 69   **(5)** 57 75 77 90   **(6)** 11 44 45 57

(7) 07 53 84 87

Clusters of Compatible Frequencies when using Eight (8) channels at the same time

(1) 06 39 42 45 55 70 89 90

(2) 17 18 20 33 34 36 37 89

(3) 01 02 06 37 49 50 70 84

(4) 02 49 50 52 68 69 71 86

(5) 34 40 52 57 68 69 81 82

Note

When interference problem is encountered, verify that the microphones are operating on frequencies in the same cluster.

If TV or other transmission is interfering, change all the wireless components to another cluster.

Clusters of Compatible Frequencies when using Twelve (12) channels at the same time

(1) 20 21 49 50 58 65 66 71 75 85 85 87

(2) 02 17 21 22 25 26 41 42 67 82 85 86

Titan Neo

TROUBLESHOOTING

Channel Frequency Allocation

640–664 MHz LCD

CHANNEL	FREQ	CHANNEL	FREQ	CHANNEL	FREQ
CH 1	640.1	CH 17	640.9	CH 33	640.4
CH 2	641.6	CH 18	642.4	CH 34	641.9
CH 3	643.1	CH 19	643.8	CH 35	643.3
CH 4	644.5	CH 20	645.3	CH 36	644.8
CH 5	646.1	CH 21	646.9	CH 37	646.4
CH 6	647.6	CH 22	648.4	CH 38	647.9
CH 7	649.1	CH 23	649.8	CH 39	649.3
CH 8	650.5	CH 24	651.3	CH 40	650.8
CH 9	651.7	CH 25	652.6	CH 41	652.1
CH 10	653.3	CH 26	654.1	CH 42	653.6
CH 11	655.2	CH 27	656.0	CH 43	655.5
CH 12	656.7	CH 28	657.5	CH 44	657.0
CH 13	658.2	CH 29	658.9	CH 45	658.4
CH 14	659.6	CH 30	660.4	CH 46	659.9
CH 15	661.2	CH 31	662.0	CH 47	661.5
CH 16	662.7	CH 32	663.4	CH 48	662.9

UHF TV Frequencies

TV Channel	MHz
42	638–644
43	644–650
44	650–656
45	656–662
46	662–668

TROUBLESHOOTING

CHANNEL	FREQ	CHANNEL	FREQ	CHANNEL	FREQ
CH 49	641.1	CH 65	640.6	CH 81	641.4
CH 50	642.6	CH 66	642.1	CH 82	642.9
CH 51	644.0	CH 67	643.5	CH 83	644.3
CH 52	645.5	CH 68	645.0	CH 84	645.8
CH 53	647.1	CH 69	646.6	CH 85	647.4
CH 54	648.6	CH 70	648.1	CH 86	648.9
CH 55	650.0	CH 71	649.5	CH 87	650.3
CH 56	651.5	CH 72	651.0	CH 88	651.9
CH 57	652.8	CH 73	652.3	CH 89	653.1
CH 58	654.3	CH 74	653.8	CH 90	654.6
CH 59	656.2	CH 75	655.7	CH 91	656.5
CH 60	657.7	CH 76	657.2	CH 92	658.0
CH 61	659.1	CH 77	658.6	CH 93	659.4
CH 62	660.6	CH 78	660.1	CH 94	660.9
CH 63	662.2	CH 79	661.7	CH 95	662.5
CH 64	663.6	CH 80	663.1	CH 96	663.9

Titan Neo

ACCESSORIES

ALS-960 AirLink Wireless and DR-701 Receiver

The ALS-960 transmitter and DR-701 receiver work perfectly with our Titan Neo portable powered sound system.

SP-300W Spartan Portable Amplifier

The Spartan is a portable battery/AC operated sound system with 20 watt (RMS) amplifier. Weighing only 6 pounds it's packed with versatile features: USB port for MP3 playback, 3.5mm jack for auxiliary line input, 96 channel wireless receiver, ¼" wired mic input and output jack for external speaker.

UM-66 handheld microphone w/ 15' cable

Handheld dynamic microphone for simultaneous use with the wireless microphones. The ¼" phone plug plugs directly into the mic in jack. The wired mic in has its own independent volume control. So you can truly have a three microphone system. The microphone has very low handling noise, a built-in breath filter and wide dynamic range.

CC-750 Carrying Bag for Titan Neo

Carrying case holds PA-700 speaker with opening for handle & side storage pocket for transmitters, etc.

SS-750 Heavy Duty Speaker Stand

Heavy duty speaker stand for Titan Neo sound system. Folding tripod adjustable height from 30" to 60".

HT-175 Mini Mover Handtruck

Superlite folding hand truck. The Mini Mover has three vertical handle positions and the wheels and baseplate fold flat for easy storage. Folds down to only 2" x 15.25" x 24". 110 lbs. load capacity and 5" wheels. Only 7.25 lbs.

Titan Neo

SPECIFICATIONS

Portable PA System

Output Power	50 W RMS, 80 W Max
Sensitivity	91dB, 1W @ 1M
Maximum SPL	95 dB
Frequency Response	20 Hz - 20 kHz (audio)
Speaker	8" LF Neodymium Woofer
	1" HF Horn
Signal to noise Ratio	>70dB
Audio Input	XLR-TRS Balanced Mic
	Line Level, Dual RCA
Audio Output	Line Level, Dual RCA
Controls	Master Volume, Treble, Bass
	Mic Vol.
Rechargeable Battery Type	Two 12 VDC / 4.1 AH, NiMH
Operating Life	About 6–8 hours
Charging Time	About 8–10 hours
Power Supply	100–240 V AC Input
	European Approval
Dimensions	11 ¾" W x 18 ½" H x 9" D
Weight	21 lbs.

General Wireless Systems

Operating Frequencies	640–664MHz
Selectable Channels	96 Pre-Programmed
Maximum Deviation	80 kHz, with Level Limiting
Dynamic Range	110dB
THD	> 0.5%
Pre/De-emphasis	50 µs
Sensitivity	4 µV@ 30 dB SINAD
Squelch	Tone Key and Noise Lock
Frequency Response	50 kHz, -17 kHz, ± 3dB
Operating Power	30 mW
Operating Range	In Excess of 500 ft. with
	Half-Wave Antenna
Power Requirements	12–15 VDC, 1 Amp

SPECIFICATIONS

DR-800 Wireless Receiver

Dimensions	3 ½" W x 1.5" H x 5" D
Weight	4 oz.

TX-800 Wireless Transmitter

Dimensions	7 ½" W x 1 3/16" H x 4" D
Weight	10 oz.

CD/MP3R Player

Formats	MP3, WMA
Media	CD, USB drive, SD&MMC card

DD-750 Digital Delay

Delay Range	20–500 ms.
Increments	1.9 ms.

Titan Neo

SPECIFICATIONS

UT-96HH Handheld Transmitter Microphone

Mic Capsule	Dynamic
RF Output	10mW
Spurious Emission	250mW
AF Controls	Hi/lo/mute switch
Battery	1.2V NiMH rechargeable x 2 or 1.5V Alkaline x 2
Operating Life (fully charged)	11 hrs (NiMH) or 14 hrs (Alkaline)
Dimensions	1.80" x 10.39"
Weight (with batteries)	280g

UT-96BP Body-Pack Transmitter Microphone

Mic Capsule	Dynamic
RF Output	10mW
Spurious Emission	250mW
AF Controls	Hi/lo/mute switch
Battery	1.2V NiMH rechargeable x 2 or 1.5V Alkaline x 2
Operating Life (fully charged)	11 hrs (NiMH) or 14 hrs (Alkaline)
Dimensions	1.80" x 10.39"
Weight (with batteries)	280g

WARRANTY

Three Year Limited Warranty

TeachLogic RF products are guaranteed to be free of defects in workmanship or material for a period of three (3) years from date of original purchase, subject to the following conditions:

1. Warranty excludes defects caused by normal use and wear, any abuse, or failure to use the product in accordance per instructions.
2. Warranty is void if damage occurred because of misuse, or attempted repair or modification by unauthorized personnel.
3. Warranty on cables, and cable connections are limited to one (1) year.
4. Warranty on batteries is for two (2) years.
5. Warranty on microphones and microphone elements are limited to one (1) year.
6. Warranty does not extend to finish or appearance past ninety (90) days.
7. All warranty service will be provided by TeachLogic or authorized service center
8. Warranty is made to the original purchaser and may not be transferred to another user.
9. Warranty service rendered will be on a repair or replacement basis, whichever TeachLogic deems to be most prudent for customer satisfaction and economic feasibility.

Contact

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TeachLogic will only accept warranty shipments accompanied by Return Authorization Number previously assigned by TeachLogic personnel. Advance warranty replacements will be made per the discretion of TeachLogic personnel.

TeachLogic will pay return shipping cost on all warranty repairs or replacements.

TeachLogic

FOR SOUND LEARNING

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