

Owner's Manual

# IMPORTANT SAFETY INSTRUCTIONS

# SAVE THESE INSTRUCTIONS FOR LATER USE. FOLLOW ALL WARNINGS AND INSTRUCTIONS MARKED ON THE AUDIO FOLIPMENT.

- Read instructions All the safety and operating instructions should be read before the product is operated.
- 2 Retain instructions The safety and operating instructions should be retained for future reference.
- 3 Heed Warnings All warnings on the product and in the operating instructions should be adhered to.
- 4 Follow Instructions All operating and use instructions should be followed.
- 5 Cleaning Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Clean only with a dry cloth.
- 6 Attachments Do not use attachments not recommended by the product manufacturer as they may cause hazards.
- 7 Water and Moisture Do not use this product near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
- 8 Accessories Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

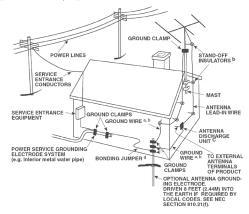


A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

- 10 Ventilation Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- 11 Power Sources This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. The primary method of isolating the amplifier from the mains supply is to disconnect the mains plug. Ensure that the mains plug remains accessible at all times. Unplug the AC power cord from the AC outlet if the unit will not be used for several months or more.
- 12 Grounding or Polarization This product may be equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- 13 Power Cord Protection Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
- 14 Outdoor Antenna Grounding If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

#### NOTE TO CATV SYSTEM INSTALLER

This reminder is provided to call the CATV system installer's attention to Section 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



- 15 Lightning For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power line surges.
- 16 Power Lines An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
- 17 Overloading Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
- 18 Object and Liquid Entry Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

WARNING: THE APPARATUS SHOULD NOT BE EXPOSED TO DRIPPING OR SPLASHING, AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THE APPARATUS. AS WITH ANY ELECTRONIC PRODUCTS, USE CARE NOT TO SPILL LIQUIDS INTO ANY PART OF THE SYSTEM. LIQUIDS CAN CAUSE A FAILURE AND/OR A FIRE HAZARD.

- 19 Damage Requiring Service Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - a) When the power supply cord or plug is damaged.
  - b) If liquid has been spilled, or objects have fallen into the product.
  - c) If the product has been exposed to rain or water.
  - d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
  - e) If the product has been dropped or damaged in any way.
  - f) when the product exhibits a distinct change in performance-this indicates a need for service.
- 20 Replacement Parts When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- 21 Safety Check Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

# IMPORTANT SAFETY INSTRUCTIONS

- 22 Wall or Ceiling Mounting The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
- 23 Heat The product should be situated away from heat sources such as radiators, heat registers, stoves or other products (including amplifiers) that produce heat.
- **24 Headphones** Excessive sound pressure form earphones and headphones can cause hearing loss.
- 25 Battery Disposal When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area. Batteries (battery pack or batteries installed) must not be exposed to excessive heat such as sunshine, fire or the like.

#### CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

#### WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

#### CAUTION

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT



THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAYBE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCKTO PERSONS.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE



THE EQUIPMENT MUST BE CONNECTED TO AN EARTHED MAINS SOCKET-OUTLET.

The mains plug of the apparatus should be easily accessible or free from any obstruction during intended use.

## CAUTION

Changes or modifications to this equipment not expressly approved by NAD Electronics for compliance could void the user's authority to operate this equipment.

#### CAUTION REGARDING PLACEMENT

To maintain proper ventilation, be sure to leave a space around the unit (from the largest outer dimensions including projections) that is equal to or greater than shown below.

Left and Right Panels: 10 cm

Rear Panel: 10 cm Top Panel: 50 cm

#### NOTES ON ENVIRONMENTAL PROTECTION



At the end of its useful life, this product must not be disposed of with regular household waste but must be returned to a collection point for the recycling of electrical and electronic equipment. The symbol on the product, user's manual and packaging, point this out.

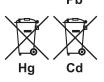
The materials can be reused in accordance with their markings.

Through re-use, recycling of raw materials or other forms of recycling of old products, you are making an important contribution to the protection of our environment. Your local administrative office can advise you of the responsible waste disposal point.

# INFORMATION ABOUT COLLECTION AND DISPOSAL OF WASTE BATTERIES (DIRECTIVE 2006/66/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF EUROPEAN UNION) (FOR EUROPEAN CUSTOMERS ONLY)



Batteries bearing any of these symbols indicate that they should be treated as "separate collection" and not as municipal waste. It is encouraged that necessary measures are implemented to maximize the separate collection of waste batteries and to minimize the disposal of batteries as mixed municipal waste.



End-users are exhorted not to dispose waste batteries as unsorted municipal waste. In order to achieve a high level of recycling waste batteries, discard waste batteries

separately and properly through an accessible collection point in your vicinity. For more information about collection and recycling of waste batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

By ensuring compliance and conformance to proper disposal of waste batteries, potential hazardous effects on human health is prevented and the negative impact of batteries and waste batteries on the environment is minimized, thus contributing to the protection, preservation and quality improvement of the environment.

## RECORD YOUR MODEL NUMBER (NOW, WHILE YOU CAN SEE IT)

The model and serial number of your new C 427 are located on the back of the cabinet. For your future convenience, we suggest that you record these numbers here:

Model no	): .	 															
Serial no	ı.: .	 	 														

# INTRODUCTION

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## THANK YOU FOR CHOOSING NAD.

The C 427 AM/FM Tuner is a technologically advanced and highly capable product — yet we have invested great effort in making it simple and easy to use. We have been careful to ensure that the C 427 is as musically transparent and spatially accurate as possible, incorporating much of what we've learned from more than a quarter century's experience designing audio, video and home-theater components. As with all our products, NAD's "Music First" design philosophy guided the C 427's design, such that it can confidently promise you both state-of-the-art and audiophile-quality music listening for years to come.

We encourage you to take a few minutes now to read right through this manual. Investing a little time here at the outset might save you a good deal of time later, and is by far the best way to ensure that you make the most of your investment in the C 427.

One more thing: We urge you to register your C 427 ownership on the NAD Worldwide Web site:

# http://NADelectronics.com/salon

For warranty information contact your local distributor.

## WHAT'S IN THE BOX

Packed with your C 427 you will find

- An AM loop antenna.
- · A FM ribbon-wire antenna with balun.
- · A detachable AC power cord.
- An audio cable connector (RCA-to-RCA lead).
- The TNR 3 remote control with 2 (two) AAA batteries.
- · Quick Setup Guide

#### **SAVE THE PACKAGING**

Please save the box and all of the packaging in which your C 427 arrived. Should you move or otherwise need to transport your C 427, this is by far the safest container in which to do so. We've seen too many otherwise perfect components damaged in transit for lack of a proper shipping carton, so please: Save that box!

## **CHOOSING A LOCATION**

Choose a location that is well ventilated (with at least several inches to both sides and behind), and that will provide a clear line of sight, within 23 feet/7 meters, between the C 427's front panel and your primary listening/viewing position—this will ensure reliable infrared remote control communications. Avoid placing the unit in direct sunlight or near sources of heat and damp. It is perfectly possible to stack the C 427 on top of other components.

## **QUICK START**

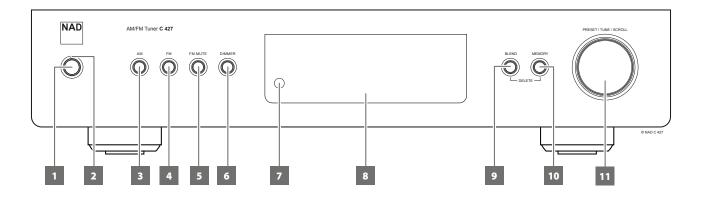
In case you simply cannot wait to experience the performance of your new C 427, we provide the following "Quick Start" instructions to get you underway.

Please make all the connections to your C 427 with the unit unplugged. It is also advisable to power down or unplug all associated components while making or breaking any signal or AC power connections.

- 1 Use the RCA-to-RCA lead to connect the left and right audio output of the C 427 to the tuner input of your amplifier.
- 2 Connect AM and FM antenna.
- 3 Connect corresponding end of the AC power cord to the AC mains input of the C 427 and the plug connected to a mains power source. The Standby LED indicator embedded around the bezel of the STANDBY button will illuminate amber.
- 4 Plug the AC mains plug also of your amplifier to a mains power source. Power up your amplifier and set it to the tuner input where the C 427 is connected.
- 5 Press the front panel STANDBY button to turn ON the C 427. The Standby LED indicator will turn from amber to blue and the VFD is illuminated.
- 6 Select AM or FM band by pressing corresponding front panel button.
- 7 Toggle [PRESET/TUNE/SCROLL] control knob to switch between "Presets" and "Tune" mode. Select TUNE mode ("Tune" is displayed in the second row of the VFD).
- 8 Tune to desired station by rotating the [PRESET/TUNE/SCROLL] control

# **IDENTIFICATION OF CONTROLS**

# **FRONT PANEL**



#### 1 STANDBY BUTTON

- Press this button to switch ON the C 427 from standby mode. The Standby LED indicator will turn from amber to blue and illuminate the VED.
- Pressing the STANDBY button again turns the unit back to standby mode.

#### 2 STANDBY LED

- This indicator will light up amber when the C 427 is at standby mode.
- When the C 427 is powered up from standby mode, this indicator will illuminate blue.

#### NOTE

In order to turn ON the C 427 from standby mode or back to standby mode, the rear panel POWER switch must be in the ON position.

#### 3 AM

Select AM band.

## 4 FM

Select FM band.

## 5 FM MUTE

- The front panel [FM MUTE] button is a dual-purpose control. In the normal position, "Stereo" and "FM Mute" are shown in the VFD; only the stations with a strong signal can be listened to, and the noise between stations is muted.
- Pressing the [FM MUTE] button again ("Stereo" and "FM Mute" are
  extinguished; "Tuned" is displayed) allows distant and potentially
  noisy stations to be received. Noise is reduced if the FM station
  signal level is less than the FM Stereo threshold (since mono FM is
  inherently less noise-prone) though at the sacrifice of the stereo
  effect.
- The "FM MUTE" status can be stored for individual presets.

# 6 DIMMER

Toggle the [DIMMER] button to reduce or restore VFD brightness.

# 7 REMOTE SENSOR

 Point the TNR 3 remote control at the remote sensor and press the buttons. Do not expose the remote sensor of the C 427 to a strong light source such as direct sunlight or illumination. If you do so, you may not be able to operate C 427 with the remote control.

**Distance:** About 23 ft (7 m) from the front of the remote sensor **Angle:** About 30° in each direction of the front of the remote sensor

# 8 VACUUM FLUORESCENT DISPLAY (VFD)

 Provide visual information on the settings, conditions, status and other information relevant to the currently tuned station.

#### 9 BLEND

- The NAD BLEND feature will allow you to reduce the amount of noise and hiss but still retain some level of stereo separation, instead of mono.
- The [BLEND] button toggles between engaging and disengaging the BLEND feature. When activated, "Blend On" is shown in the VFD; "Blend Off" when not activated.
- The "BLEND" status can be stored for individual presets.
- In combination with [MEMORY] button, [BLEND] button is also used in deleting stored presets. Refer also to the item about DELETE A PRESET at the LISTENING TO AM/FM RADIO section of the OPERATION page.

# 10 MEMORY

- Press this button to store tuned AM or FM stations to the C 427's 40 preset-memory locations. One can store a mix of any AM or FM stations to the 40 available presets.
- In combination with [BLEND] button, [MEMORY] button is also
  used in deleting stored presets. Refer also to the item about
  DELETE A PRESET at the LISTENING TO AM/FM RADIO section of the
  OPERATION page.

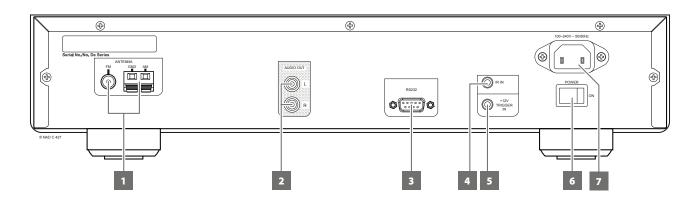
## 11 PRESET/TUNE/SCROLL CONTROL KNOB

 Toggle to switch between "Presets" and "Tune" mode. "Tune" or "Presets" will be displayed in the second line of the VFD depending upon the mode selected.

**Preset mode:** Rotate the PRESET/TUNE/SCROLL control knob to the left to scroll to a lower Preset number; rotate the PRESET/TUNE/SCROLL control knob to the right to scroll to a higher Preset number. This is a "wrap-around" function – upon reaching the last stored Preset number, preset search will continue on with the first stored Preset number and vice-versa. Unused preset numbers are skipped over.

**Tune mode:** Rotate the PRESET/TUNE/SCROLL control knob for precise tuning to a specific frequency. With each brief rotation, the tuner will take 0.05 MHz steps at FM band and 10 kHz (120V version) or 9 kHz (230V version) at AM band. When tuned accurately to a station, "Tuned" is displayed in the VFD.

# **REAR PANEL**



#### ATTENTION!

Please make sure that the C 427 is powered off or unplugged before making any connections. It is also advisable to power down or unplug all associated components while making or breaking any signal or AC power connections.

## 1 FM ANTENNA TERMINAL

 Connect the supplied wire "dipole" FM antenna to the FM antenna terminal using the supplied "balun" adapter. It will usually work best when mounted on a vertical surface such as a wall, with arms fully outstretched forming a horizontal "T" perpendicular to the origin point of the signal.

### **AM ANTENNA TERMINAL**

- The AM loop antenna supplied with the C 427 (or a suitable replacement) is required for AM reception. Open the clip terminal lever; insert the wire making sure to match the color-coded (white and black) ends of the wire to that of the terminal and close the lever ensuring that the lever locks the wire in place.
- Testing different positions for the antenna may improve reception; vertical orientation will usually produce the best results. Antenna proximity to large metal objects (appliances, radiators) may impair reception, as will attempts to lengthen the wire to the loop.
- If an external AM antenna is used, make connections to the AM and GND terminals in accordance with the instructions supplied with the antenna. Refer also to the item about ASSEMBLING THE LOOP ANTENNA at the LISTENING TO AM/FM RADIO section of the OPERATION page.

# 2 AUDIO OUT (L, R)

• Connect to the corresponding analog audio input of an amplifier, receiver or stereo system.

# 3 RS-232

- Connect this interface using RS-232 serial cable (not supplied) to any Windows compatible PC to allow remote control of the C 446 via compatible external controllers.
- NAD is a certified partner of AMX and Crestron and fully supports
  these external devices. Check out the NAD website for information
  about AMX and Crestron compatibility with NAD. See your NAD
  audio specialist for more information.
- Refer to the NAD website for information about RS232 Protocol documents and PC interface program.

# 4 IRIN

- This input is connected to the output of an IR (infrared) repeater (Xantech or similar) or the IR output of another component to allow control of the C 427 from a remote location.
- Most NAD products with IR OUT are fully compatible with the C 427.

# 5 +12V TRIGGER IN

- This input allows the C 427 to be switched remotely to standby mode and ON by ancillary equipment, such as an amplifier, preamp, AV processor, etc. The controlling device must be equipped with a 12V trigger output to use this feature.
- Connect this +12V trigger input to the remote component's corresponding +12V DC output jack using a mono cable with 3.5mm male plug.

#### 6 POWER

- · Supply the AC mains power to the C 427.
- When the POWER switch is set to ON position, the C 427 goes to standby mode as shown by the amber status condition of the Standby LED. Press the front panel Standby button or remote control's [ON] button to switch ON the C 427 from standby mode.
- If you intend not to use the C 427 for long periods of time (such as when on vacation), switch off the POWER switch.
- With POWER switched off, neither the front panel Standby button nor remote control's [ON] button can activate the C 427.

# 7 AC MAINS INPUT

- The C 427 comes supplied with a separate detachable AC power cord. Connect corresponding end of the AC power cord to the AC mains input of the C 427 and the plug connected to a mains power

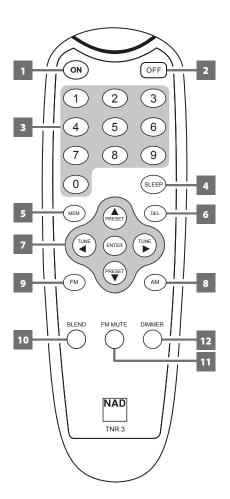
  Source

  Output

  Description:
- Connect only to the prescribed mains power source, i.e., 120V 60
  Hz (for 120V version models of C 427 only) or 230V 50 Hz (for 230V
  version models of C 427 only).
- Always disconnect the plug from the mains power source first, before disconnecting the other end of the AC power cord from the C 427's AC Mains input socket.
- If you intend not to use the C 427 for long periods of time, disconnect the plug from the mains power source.

# **IDENTIFICATION OF CONTROLS**

# TNR 3 REMOTE CONTROL



- 1 ON: Power up C 427 from standby mode.
- 2 OFF: Switch C 427 to standby mode.
- **3 0-9 number buttons:** Direct-entry of frequency channel or Preset number.
- 4 **SLEEP:** Set sleep mode timer.
- **5 MEM:** Save current station to a Preset number.
- 6 **DEL:** Delete selected Preset number.
- 7 PRESET: Step up or down between Presets.

**TUNE:** Tune forward or backwards. **ENTER:** Select Tune or Presets mode.

- 8 AM: Select AM band.
- 9 FM: Select AM band.

10 BLEND: Activate or deactivate BLEND feature.

11 FM MUTE: Activate or deactivate FM MUTE mode.

12 DIMMER: Reduce or restore VFD brightness.

#### **SLEEP MODE**

The Sleep Mode timer will switch the C 427 to standby mode automatically after a preset number of minutes. Toggle TNR 3's [SLEEP] key to select through the following Sleep mode timer settings - Sleep 15 Min, Sleep 30 Min, Sleep 45 Min, Sleep 60 Min, Sleep 75 Min, Sleep 90 Min and Sleep Off. Stop at the desired Sleep mode timer setting.

When the timer is set, "Sleep xx Min" is displayed in VFD where "xx" stands for the number of minutes remaining before the C 427 goes to standby mode.

To cancel the sleep mode, continue pressing the TNR 3's [SLEEP] button until "Sleep Off" is displayed on the VFD. Switching the C 427 to standby mode from either the TNR 3's [OFF] button or the front panel Standby button will also cancel the sleep mode.

# LISTENING TO AM/FM RADIO

The C 427 offers very high quality sound from radio broadcasts. The reception and sound quality will always be dependent to a degree however on the type of antenna(s) used as well as proximity to the broadcast origin, geography and weather conditions.

#### **ABOUT ANTENNAS**

The supplied ribbon-wire FM antenna can be connected to the rear panel FM-antenna input using the included "balun" adapter and should be fully extended to form a "T". This folded-dipole antenna will usually work best when oriented vertically, with the arms of its "T" fully outstretched and arranged perpendicular to the origin of the desired broadcast. There are no "rules" however, and experimenting freely with antenna placement and orientation may yield the clearest sound and lowest background noise.

In areas of poor FM reception, an exterior FM antenna can improve performance dramatically. If radio listening is important to you, consider consulting an antenna installation professional to optimize your system.

The supplied AM "loop" antenna will usually provide adequate reception. However, an exterior AM antenna can be used to improve reception. Consult an antenna professional for more information.

#### **ASSEMBLING THE LOOP ANTENNA**

- 1 Rotate the outer frame of the antenna.
- 2 Insert the bottom edge of the outer frame into the groove on the stand.
- 3 Extend the antenna cord.







# **SELECTING A TUNER BAND**

Select AM or FM band by pressing corresponding front panel button. Using the TNR 3, select desired band by directly pressing [AM] or [FM] button.

# **TUNING STATIONS**

Toggle front panel's [PRESET/TUNE/SCROLL] control knob to switch between "Presets" and "Tune" mode. Select TUNE mode or PRESET mode. "Tune" or "Presets" will be displayed in the second line of the VFD depending upon the mode selected.

# DIRECT TUNING

If you know your desired station's frequency allocation, you can tune directly to the station.

- 1 Toggle front panel's [PRESET/TUNE/SCROLL] control knob to switch between "Presets" and "Tune" mode. Select TUNE mode.
- 2 Using the numeric keys of the remote control, key-in the frequency allocation of the station. For example, to enter 104.50MHz, press "1", "0", "4", "5" and "0" or press "1", "0", "4" and "5".

# **STORING PRESETS**

The C 427 can store a mix of your 40 favorite AM and FM stations for immediate recall.

- 1 To store a desired AM/FM station to a preset, first tune to the desired frequency, then press the front panel's [MEMORY] button. The VFD will show the next available Preset number - for example, "Preset 04 Free".
- 2 Press [MEMORY] button again to store the desired frequency on the Preset number shown ("P04" is shown in the upper right corner of the VFD). Your desired frequency is now stored in the assigned preset number.

#### **DIRECT RECALL OF A PRESET**

You can directly recall a desired Preset number.

- 1 Toggle front panel's [PRESET/TUNE/SCROLL] control knob to switch between "Presets" and "Tune" mode. Select PRESET mode.
- 2 Using the numeric keys of the remote control, key-in directly your desired Preset number.

#### **DELETE A PRESET**

Selected Preset (for example, "P04") can be deleted using either of the following methods.

Using front panel buttons

 Press and hold front panel button's [BLEND] and then [MEMORY] to delete selected Preset – "P04" transforms to "P--".

#### Using TNR 3

• Press and hold TNR 3's [DEL] button until "P04" transforms to "P--".

## **ABOUT RDS**

The Radio Data System (RDS) permits sending small amounts of digital information using conventional FM radio broadcasts. The C 427 supports two RDS modes, program-service name (PS mode) and radio-text (RT mode). Not every FM station incorporates RDS in its broadcast signal. In most areas you will find from one to several RDS-enabled stations, but it is by no means impossible that your favorite stations will not be broadcasting RDS data.

When an RDS-enabled FM broadcast is tuned, the VFD will show its program-service name (PS) text and the station's radio-text (RT) readout, if any, which might scroll song- or artist-name, or any other text of the station's choosing.

# **REFERENCE**

# **TROUBLESHOOTING**

CONDITION	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
No power.	The power cord is disconnected.	Plug the power cord into the wall outlet securely.
No sound	Signal leads incorrectly connected.	Check connections to amplifier.
	Station not selected or weak signal with FM MUTE activated.	Re-tune or deactivate FM MUTE.
Noisy reception, hiss.	• Weak signal.	Check station tuning. Adjust or replace antenna.
Reception with whistling, buzzing noise.	Interference from other computers, games consoles.	Check station tuning. Switch off or move the source of electrical noise.
No rds information.	Station signal too weak.	Check station tuning. Adjust or replace antenna.
	Station not transmitting RDS data.	Tune to an RDS station that supports program-service name (PS mode) and radio- text (RT mode).
C 427 does not respond to remote control commands.	Batteries are flat or incorrectly inserted.	Check batteries.
	Infrared receiver (IR) window of the C 427 or IR transmitter of the remote control is obstructed.	Check IR windows and ensure clear line-of- sight from remote control to C 427.
	C 427 front panel is in very bright sunlight or ambient light.	Reduce sunlight/room lighting.

# **RESTORING C 427 TO ITS FACTORY DEFAULT SETTINGS**

For AH version units

 Press and hold both the front panel [FM] and [MEMORY] buttons until the VFD shows AH Reset... complete

For C version units

Press and hold both the front panel [FM] and [BLEND] buttons until the VFD shows
 C Reset...
 complete

The C 427 is now restored to its factory default settings with all Presets cleared.

# **SPECIFICATIONS**

FM SECTION	
Usable Sensitivity (98 MHz)	10 dBμ
Signal/Noise Ratio	65 dB (60 dBμ IHF-WTD Mono)
	60 dB (60 dBμ IHF-WTD Stereo)
Frequency Response	$\pm 1.5$ dB (20 Hz - 15 kHz, 60 dBµ)
Channel Separation (60 dBµ)	30 Hz:33 dB
	1 kHz: 40 dB
	10 kHz: 32 dB
Capture Ratio (40 dBμ)	3 dB
AM Suppression	$50~dB~(60~dB\mu,100\%$ Mod. FM, $30\%$ Mod. AM)
Image Rejection (119.4 MHz)	70 dB
I.F. Rejection (10.7 MHz)	70 dB
Pilot Suppression (60 dBμ)	60 dB
Total Harmonic Distortion*	Mono: 0.4%
	Stereo: 0.8%
Auto Search Sensitivity	24 dBμ
RDS Decode Sensitivity	26 dBµ

AM SECTION	
Usable Sensitivity (999/1000 Hz)	55 dBµ
Signal/Noise Ratio (5 mV in)	42 dB
Total Harmonic Distortion (5 mV in)	1.5%
IF Rejection (450 kHz)	40 dB
Image Rejection (F+2xIF)	28 dB
Selectivity	20 dB
Loop Sensitivity (20dB S/N)	999/1000 Hz : 66 dB
	603/600 Hz : 66 dB
	1404/1400 Hz : 66 dB
Frequency response (100 - 2.3 kHz, 5 mV)	±6 dB

GENERAL PARAMETERS	
Standby power	<0.5W
Unit dimensions (W x H x D)	435 X 99 X 315 mm
	17 1/8 x 3 15/16 x 12 7/16 inches
Shipping weight	5.4 kg (11.9 lbs)

<sup>\* : 60</sup> dB $\mu$ , L=R 75 kHz for 120V version; 40 kHz Dev for 230V version

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