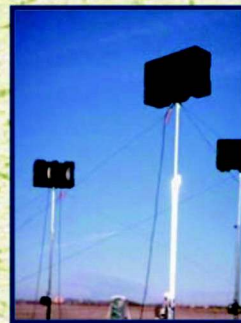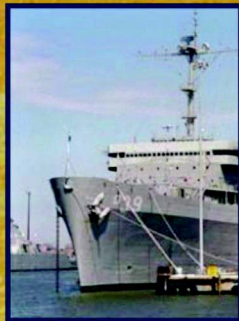# Technomad™

MILITARY AUDIO SYSTEMS

Audio. Anywhere.™

**Now updated with the
FireFly Tactical Micro PA System**

MILITARY PA SYSTEMS
Built by Technomad – Tested by the World.

For mission-critical audio, there's only one choice: Technomad.
Technomad Military PA Systems are used by every branch of the US Armed Forces, the White House Communications Agency, the UK MOD and other national Armed Forces in applications including combat simulation, base-wide paging, ceremonial presentations, ship stand-off, vehicle-mounted PA and more.

Impervious to water, rain, snow, sleet, salt, UV radiation and rough handling, Technomad PA systems offer unmatched audio clarity — ideal for projecting speech, music, or sirens at long range. They are easy to setup and use, and are protected with integral flight-case technology.

No other commercial or military audio system comes close to the reliability and sound quality of these systems.

KEY ADVANTAGES

- Unmatched Speech Clarity

- Systems Arrive Pre-Wired and Ready to Use

- Long Range (up to 1 mile radius per PA System, combine systems for more range)

- **No "Horn" Distortion**

- No Audio Experience Required

- Quick Setup (15 minutes or less)

- **Totally Weatherproof Loudspeaker Design**

- Outstanding Music Playback Quality (Integrated CD Player in Turnkey models)

- Deployed OR Permanent Installation Use

- Self-Casing (Clamp-on Gasketed Lids & Recessed Large-Grip Handles)

- Palletizable & Lightweight for Shipping

- Optional **SuperConductor™ Military MP3 Player/Recorder** - instant or unattended scheduled playback of sirens, music, etc.

- Available Power Inverter for 24 V DC (Vehicle Powered) Operation

- Available Power Adapters for 220V AC 'Euro' power Operation

- Available Link Kits (VERY Large Area Coverage via multiple PA systems joined via **Wireless, Ethernet,** or fiber-optic connections)

15 minutes setup time, from case mode to ready-to-use

15 minutes
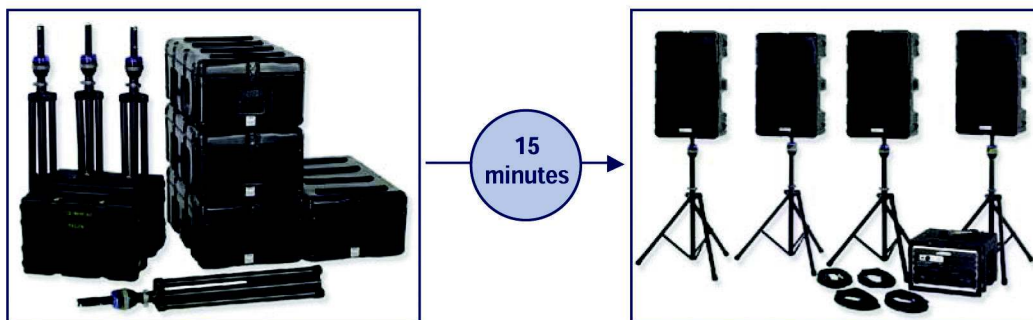
Anyone can connect and use our Turnkey PA systems. And unlike other military audio products, these systems are "open" so you can plug in practically any audio playback device or signal source. Most people can have a system up and running within 15 minutes, even if they have no prior audio experience! The Modular PA systems — used to link one audio source to multiple PAs — are truly 'plug and play' — no programming or complex setup is required.

SELECT THE RIGHT PA SYSTEM FOR YOU

Turnkey Systems **or** Modular Systems

Technomad Military PA Systems come in two varieties: 'all-in-one' Turnkey Systems or flexible Modular Systems. **Turnkey Systems** include everything you need, including loudspeakers, an amplifier, a mic, mixer, CD player, stands and cables in one pre-wired and easy-to-use package. Turnkey PA Systems are the best choice for all-around military audio use because they can handle everything from voice paging to music playback to scheduled siren and warning playback (with the optional SuperConductor Military MP3 Player). They can also handle base-wide paging for areas up to 1 mile in radius.

More complex needs such as VERY large area paging – bigger than 1 mile radius — require the 'building block approach' of Technomad **Modular Systems.** Modular PA modules include the Audio Source Pack (which generates audio for the whole system), Output Packs (loudspeaker/amplifier clusters), and Link Kits (which distribute audio via wireless, Ethernet, or fiber-optic connections).

If you are unsure about which approach is right for your situation, Technomad can help you decide.

Technomad has pre-configured systems for small and large Facilities, FOBs, Firing Ranges, Vehicles, and more - contact us with your requirements.

TURNKEY PA SYSTEMS

All Technomad Turnkey Military PA Systems include a pre-wired Control Rack that includes an amplifier, 6 input mixer (2 mic, 4 line inputs), and CD Player. Also included are a hand-held wired microphone, tripod stands, speaker cables and loudspeakers. Turnkey systems differ primarily in the number and range of the provicded loudspeakers.

Turnkey Systems ship **ready-to-use:** just remove the protective covers, connect power and plug in the loudspeaker cables. You're ready to project audio. You can even connect your own audio devices (like a computer or mp3 player) to the system using the standard inputs — no proprietary adapters needed. Turnkey Military PA Systems are the best choice for simple deployed use and all-around military audio since they can handle everything from voice paging to music to scheduled sirens and warnings (with the optional SuperConductor Military MP3 Player/Recorder).

MODULAR PA SYSTEMS

Technomad Modular Military PA Systems are "building blocks" you can use to custom-build a PA system for your special application. While for most applications a Turnkey PA is the best choice, larger facility setups may require the modular approach.

MODULAR PA ELEMENTS

If you need to use several PA systems to cover a VERY large area (many square miles), the Modular approach is best.
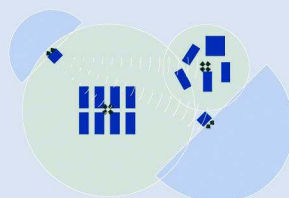
MODULAR PA COVERING A BASE

Example: you want to generate audio at a command post and install loudspeaker clusters someplace else. In that situation, you'd use an Audio Source Pack (to generate audio at the Command Post), Link Kits to distribute the audio signal as needed around the base, and several Output Packs (PA systems) to project audio at several locations.

TURNKEY OR MODULAR

2

165ºW   150ºW   135ºW   120ºW   105ºW   90ºW   75ºW   60ºW   45ºW   30ºW   15ºW

TURNKEY SYSTEMS

Up to 1 Mile Away — Clear Audio Projection

Technomad Turnkey Military PA Systems are simple, complete audio packages. They include everything you need to project voice and music at long distances in real-world applications, both **mobile/tactical** and **permanently installed** (with optional wall-mounting brackets). Systems are pre-wired and **ready for use** upon delivery. They include a microphone, CD player, mixer, tripods, speaker cables, weatherproof loudspeakers and more, and can be set up in 15 minutes. Standard Turnkey PA systems operate from 110V AC power. 220V and 24VDC power supplies are available as well as other **optional accessories** like the **SuperConductor MP3 player**— see page 6.

All systems include:

- MILITARY GRADE WEATHERPROOF LOUDSPEAKERS (impervious to rain, snow, salt, fog, etc.)
- CONTROL RACK (prewired flight case with amplifier, 6-input mixer, CD Player, wired microphone)
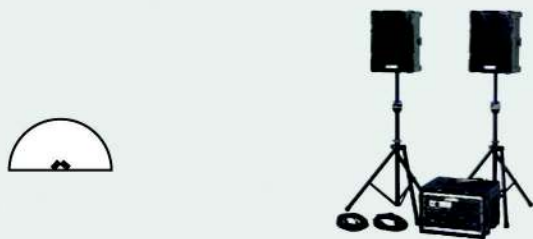- CABLES, TRIPODS

SYSTEMS ARE SELF-CASING FOR STORAGE AND TRANSPORT

DIRECTIONAL PA SYSTEMS —
180 DEGREE/SEMI-CIRCULAR COVERAGE
Choose for sound in one direction.

MiIPA .5
180-DEGREE COVERAGE UP TO 400M
(based on 2 ABRA loudspeakers)
Product #: 472-TNO-1023

MiIPA 1
180-DEGREE COVERAGE UP TO 1/2 MILE
(based on 2 Pismo loudspeakers)
Product #: 472-TNO-723

MiIPA 2
180-DEGREE COVERAGE UP TO 1 MILE
(based on 2 Omaha loudspeakers)
Product #: 472-TNO-725

OMNIDIRECTIONAL PA SYSTEMS —360 DEGREE / CIRCULAR COVERAGE
Choose when you need sound in all directions.

MiIPA 3
360-DEGREE COVERAGE UP TO 1/2 MILE
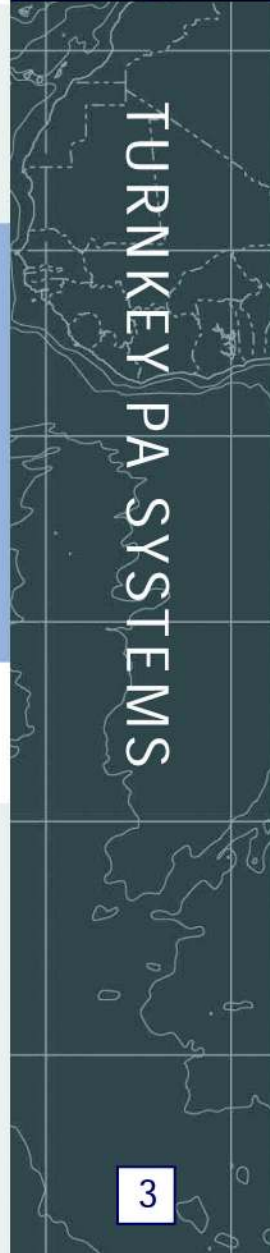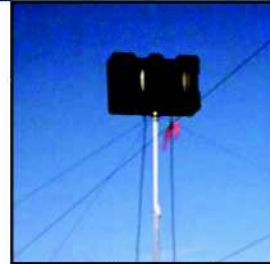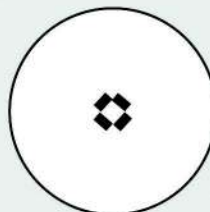(based on 4 Pismo loudspeakers)
Product #: 472-TNO-724

MiIPA 4
360-DEGREE COVERAGE UP TO 1 MILE
(based on 4 Omaha loudspeakers)
Product #: 472-TNO-726

MODULAR SYSTEMS...EASY AS 1,2,3

Technomad Modular Military PA Systems are "building blocks" you can use to custom-build a PA system for your special application. Please note: for applications like small base paging and mobile audio a Turnkey PA is the best choice — see page 3. **Systems can be permanently installed** or deployed for mobile use. Systems connect using Ethernet, fiber-optic or wireless spread-spectrum Link Kits. Standard Modular PA systems operate from 110V AC power. 220V and 24V DC power supplies are available as well as other **optional accessories** – see page 6.

SYSTEMS ARE SELF-CASING FOR STORAGE AND TRANSPORT

BASE-WIDE PAGING SYSTEM EXAMPLE

Gate House
- Semi-circular coverage
- Up to 1/2 mile radius
- Components: Audio Source Pack, Output Pack 1, Wireless Omni directional Link Kit

Operations Center
- Circular coverage
- Up to 1/2 mile radius
- Components: Output Pack 1, Wireless Directional Link Kit

Tent City
- Circular coverage
- Up to 1 mile radius
- Components: Output Pack 4, Wireless Directional Link Kit

Firing Range
- Directional coverage
- Up to 1 mile radius
- Components: Output Pack 2, Wireless Directional Link Kit

1 **AUDIO SOURCE PACK generates audio for transmission to Output Pack(s) via wireless or fiber optic Link Kits.** Audio Source Pack includes: flight case, cd-player, expandable mixer, and a hand-held microphone. Add an optional SuperConductor audio player, LMR interface or other options for additional capability. The Source Pack is pre-wired. No setup is required.

2 **LINK KITS (\wireless, ethernet, or fiber-optic) are used to send audio from the Audio Source Pack to one or more Output Packs.** One Link Kit is required PER location — one at the Audio Source Pack, one at each Output Pack.

3 **Choose from one of four OUTPUT PACKS to complete your modular system.** Output Packs receive the audio signal transmitted by Link Kits and amplify it and project the signal through loudspeakers. There are Directional and Omnidirectional Output Packs available, so you can choose the coverage pattern (and range) you need to provide audio on your facility.

AUDIO SOURCE PACK

Complete Audio Source Pack generates audio for transmission to Output Pack(s) via optional Wireless, Ethernet, or Fiber Optic Link Kits. Includes CD player, 6-input mixer, and hand-held wired microphone, all pre-installed into a weatherproof flight case. Provides room for optional SuperConductor MP3 player, Telephone Audio Interface, LMR Interface, etc.
Product #: 472-TNO-839

LINK KITS / ZONE CONTROL

Link Kits send audio from the Audio Source Pack to one or more Output Packs.
There are three varieties of Link Kit: Wireless, Ethernet, or Fiber Optic. **ZONE CONTROL** lets operator route audio to up to eight specific PA systems, or groups of PA systems.

Wireless Link Kits

LINK KIT — WIRELESS, SEND/RECEIVE OMNI Digital mesh network radio sends/receives audio. Includes encoding rack for installation in Audio Source Pack or Output Pack, 9 dB Omni-directional antenna. Can be used with 472-TNO-911 OR 472-TNO-910. Web Configurable. **Product # 472-TNO-913**

LINK KIT — WIRELESS, SEND/RECEIVE, DIRECTIONAL Digital mesh network radio sends/receives audio. Includes encoding rack for installation in Audio Source Pack or Output Pack, 16 dB directional antenna. Use with 472-TNO-913 OR 472-TNO-911. Web Configurable. **Product # 472-TNO-910**

LINK KIT — WIRELESS REPEATER Does not input or output audio — repeats wireless data to extend the range between send/receive nodes, or to rout signal around obstacles. Includes 9 dB Omni-directional antenna. Use with Technomad 472-TNO-913 OR 472-TNO-910. Web Configurable. **Product # 472-TNO-911**

Fiber-Optic Link Kits

FIBER-OPTIC LINK KITS Transmits / Receives high-quality audio from Audio Source Pack to Output Pack via single mode fiber, not included. Max range 6 Miles.
Transmitter **Product # 472-TNO-799**
Receiver **Product # 472-TNO-800**

Ethernet Link Kit

ETHERNET LINK KIT Transmits / Receives high-quality audio. One per sender/receiver required. Typically used to send audio from Audio Source Pack to Output Pack (two units required in that example). Web Configurable.
Product # 472-TNO-986

ZONE CONTROL OPTION

ZONE CONTROL OPTION
This option lets the system operator direct sound to any of eight target PA systems (or groups of PA systems) - so you can switch between 'all-call', 'housing', or other areas. Simple rotary switch, easy web-configuration. For Wireless or Ethernet systems. **Product # 472-TNO-985**
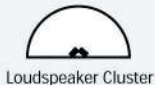
OUTPUT PACKS

Output Packs receive the audio signal from Link Kits – generated by an Audio Source Pack – and amplify and project it through loudspeakers. There are Directional and Omnidirectional Output Pack models.

OUTPUT PACK 1

FOR 180-DEGREE COVERAGE UP TO 1/2 MILE

(based on 2 Pismo loudspeakers)
Product # 472-TNO-843

Loudspeaker Cluster

OUTPUT PACK 2

FOR 180-DEGREE COVERAGE UP TO 1 MILE

(based on 2 Omaha loudspeakers)
Product # 472-TNO-846
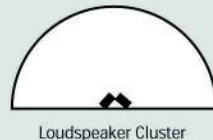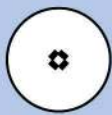
Loudspeaker Cluster

OUTPUT PACK 3

FOR 360-DEGREE COVERAGE UP TO 1/2 MILE

(based on 4 Pismo loudspeakers)
Product # 472-TNO-847

Loudspeaker Cluster
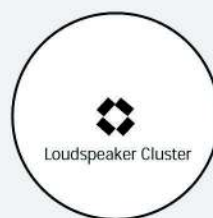
OUTPUT PACK 4

FOR 360-DEGREE COVERAGE UP TO 1 MILE

(based on 4 Omaha loudspeakers)
Product # 472-TNO-848

Loudspeaker Cluster

15°W   30°W   45°W   60°W   75°W   90°W   105°W   120°W   135°W   150°W   165°W

Technomad
Audio. Anywhere.™

DEVICE IP:
192.168.1.2

EXP. BAY   MIC   WIRELESS   LIN

INPUT LEVEL CONTROLS

FireFly
TACTICAL PA SYSTEM

Power ●   Charge ◉ GREEN = FULL CHARGE
                    RED = CHARGING

WIRELESS MIC. PROGRAMMING ACCESS

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25981
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www.technomad.com   MADE IN US

- AC/BATT. -
ON

120-240 VA

EXT. DC -
ON

12v DC

The FireFly - The Ultimate All-In-One PA System

The FireFly Tactical PA System brings Technomad's legendary toughness, clarity, power, and reliability to our smallest PA system yet. Technomad's all-in-one FireFly PA system delivers near 'instant-on' setup times, with no need for external loudspeakers, tangled cables, and complex mixers. Best of all, you don't have to be a gorilla to carry the FireFly - it's compact enough to fit in a standard backpack, and weighs only 25 lbs.

Fully Weatherproof
Like all Technomad products, the FireFly is handcrafted in the USA with a rugged rotationally-molded polyethylene body and self-casing covers– front lid, back hatch.

Voice, Music, even Sirens

Even the softest voice becomes loud and clear when spoken into the FireFly's included wireless microphone. With a powerful compression driver coupled with a highly efficient 3d-generation horn (with an anti-resonant design for superior performance), the Firefly is capable of producing highly intelligible audio at 130 dB SPL. The rich, full sound quality is optimal for small, mid-sized, and large venues and outdoor areas.

Multiple Power Options

When you are away from an electrical outlet you can still project music, voice, and alarms sounds with the FireFly. The FireFly has a long-life NiMH battery pack, fully expandable (far superior to lead acid batteries), providing listeners with up to 5 hours of continuous play. Even more impressive, is the ability to power your sound with an optional solar charger, or DC charge option available for vehicle power operation. A 110-240VAC charger is included.

Quickly Operational

Easy to use for fast deployment : The most versatile of portable audio systems, the FireFly comes complete with a molded, in-stand-mount socket on the bottom of the unit and threaded inserts on the sides for yoke mounting, enabling the FireFly to be permanently installed on buildings. The FireFly can also be easily used as a manpack, on watercraft, land vehicles, and aircraft deployment operations.

Integration Capabilities

- Microphone and line level inputs, four-input mixer
- Built in storage for accessories and cables
   Expansion Slot for SuperConductor MP3 player/recorder, CD Player, wireless and ethernet Link Kits, more
- Networkable – source or member of wide-area modular paging system.

Features & Specifications
- Height: 14.5 in   36.9 cm
- Width: 8.2 in   20.9 cm
- Depth: 14.0 in   35.5 cm
- Weight: 25 lb   11.3 kg

General Specifications
Rigging points: 2x 1/4-20 threaded inserts on top (handle mount points)
Yoke mount points: 2 x 1/4-20 threaded inserts on side
Standmount sockets: 1x 1.5" socket on bottom of unit
Handles: 1x strap handle
Cabinet: Mid-density Polyethylene
Grill: Powder coated stainless steel
Audio Inputs: 1x XLR, mic.level 1x 1/4, line level
Audio Outputs: 1x Neutrik NL4MP
Power Inputs: AC power (90-240vAC) DC power (12v)
Battery: 4400aH NiMH (expandable)
Audio Performance Specifications
Frequency Response: (+/- 2 dB) 350 Hz – 8 kHz
Maximum Output: (long term) 125 dB SPL
Maximum Output: (peak program) 130 dB SPL
HF Dispersion: 60°V x 40°H
All audio specifications based on ALMA EIA 426B test protocols.
COTS NGLS and FOL solution.

http://military.technomad.com

Technomad
Audio. Anywhere.™

Technomad

Microphone & line inputs — Input level controls — Expansion modules — Expansion bay — Additional Wireless Microphone — SuperConductor MP3 player/recorder — CD player — Aux. speaker output — AC power input 90-240vDC
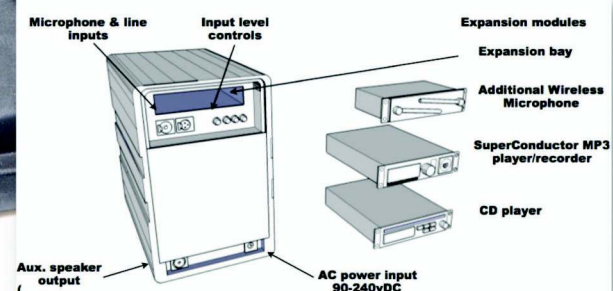
OPTIONAL ACCESSORIES

Technomad offers a complete line of optional accessories to customize or expand your military PA system. Most options can be used with either Turnkey or Modular systems — consult your Technomad sales rep with any system design questions. Options ordered with PA Systems are **normally pre-installed** at the factory if appropriate (i.e. Warning Tone Generators are installed into Turnkey PA Systems unless customer requests otherwise).

472-TNO-873 SuperConductor™ Military MP3 Player/Recorder
The revolutionary SuperConductor store 1GB of mp3 auido (expandable) for **instant playback** - or schedule sounds for **automatic unattended playback** (i.e. Reveille daily at 0600). Easy to use, rugged,reliable. Multiple play modes (loop, once, push).

472-TNO-728 Omaha Expansion Kit
Adds two Omaha military loudspeakers and two 25' cables to either the MilPA2, MilPA4, Output Pack 2, or Output Pack 4 systems. (No more than 6 loudspeakers should be operated from one Technomad PA system)

472-TNO-727 Pismo Expansion Kit
Adds two Pismo military loudspeakers and two 25' cables to either the MilPA1, MilPA3, Output Pack 1, or Output Pack 3 systems. (No more than 6 loudspeakers should be operated from one Technomad PA system).

472-TNO-1079 Abra Expansion Kit
Adds two Abra military loudspeakers and two 25' cables to the MilPA.5 system. (No more than 6 loudspeakers should be operated from one Technomad PA system).

472-TNO-731 Wireless Microphone
Operating range up to 200 yds on US frequencies, dependent on weather conditions and RF environment. VHF.

Also available: 472-TNO-751 Wireless Headset Mic Wireless headset version of -731

Also available: 472-TNO-829 Wireless Lapel Micc Wireless lapel mic version of -731

472-TNO-732 Wallmount Bracket — Omaha Speaker Permanently install your weatherproof Omaha loudspeakers directly on walls or building surfaces. One bracket required per speaker, 4 bolts included.

472-TNO-733 Wallmount Bracket — Pismo Speaker Permanently install your weatherproof Pismo loudspeakers directly on walls or building surfaces. One bracket required per speaker, 4 bolts included.

472-TNO-1080 Wallmount Bracket — Abra Speaker Permanently install your weatherproof Abra loudspeakers directly on walls or building surfaces. One bracket required per speaker, 4 bolts included.

472-TNO-664 Cable Coupler
Allows two loudspeaker cables to be combined into one longer cable. **NOTE:** total cable length from amp-output to last loudspeaker in chain should not exceed 400'.

472-TNO-773 Outdoor LoudSpeaker Cable, 100'
100' of outdoor loudspeaker cable, weatherproof, 12 gauge

472-TNO-811 Outdoor Loudspeaker Cable 200'
200 feet of outdoor loudspeaker cable, weatherproof, 12 gauge.

472-TNO-918 24–Volt Inverter
Allows Technomad Military PA Systems to operate from 24V DC Power. Note: vehicles must have a 100A or larger capacity alternator for continuous high power operation.

472-TNO-793 Step Down Voltage Transformer
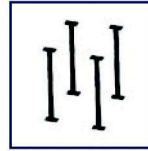Allows Technomad Military PA Systems to operate from 200-240V AC Power ("Euro" power).

472-TNO-833 4 Mounting Plate/Clips, 4
This set of four recessed mounting places installs onto the Rack Case bottom to attach either casters (472-TNO-853) or legs (472-TNO-852) for a secure hold as well as easy release.

472-TNO-852 Legs Kit
Four 25" legs, anodized black aluminum. Raise your military PA control rack above the ground for comfortable operation. Legs clips onto mounting plates – not included (see 472-TNO-833).

472-TNO-853 Removable 3.5" Casters
Get easy-roll transport with these four high quality 3.5" casters that clip onto mounting plates – not included (see 472-TNO-833).

Shock-Rack Case Upgrade
Upgrades standard hard-mount PA control rack to a shock-mounted case with rubber suspension for extreme environment usage. Also adds rugged edge-casters (wheels) to rear case lid for easy transport. Must be ordered at same time as PA system. For MilPA or OutputPack systems.
472-TNO-1020 5-Space Case
Best for Output-Packs or Audio Source Packs
472-TNO-825 7-Space Case
Best choice for Turnkey Systems
472-TNO-1042 9-Space Case
For systems with many options - call for info

External Connector Option for Sealed Rack Operation
This connector allows your Technomad Control Rack to operate with lid closed, exposed to the weather by supplying 2 speaker connectors, and weatherproof power input (3 power inputs types available)

One External Connector Option must be ordered for each power type - i.e. 110 V AC and 24 V DC power would require product 895 **AND** 1065.
472-TNO-895 110 V AC Connector
472-TNO-1064 220 V AC Connector
472-TNO-1065 24 V DC Connector

472-TNO-928 Ethernet Intercom
1U Unit with a built-in loudspeaker, key-to-talk microphone, auxilliary audio outputs, and Ethernet. Instantly create a simple, robust communications network. Connect to Technomad basewide PA for guard-houses, remote site paging, more. Destop or Rack.

472-TNO-1038 Terminal 1 IP Loudspeaker
Powered Ethernet Linkable Compact Loudspeaker for interior alerting / paging use. IP networkable, compatible with Technomad Modular PA systems and Ethernet Link Kits.

472-TNO-1121 LMR Interface
Land Mobile Radio unit rackmounts Turnkey or Modular PA Systems, allows compatible LMRs to speak through PA. UHF and VHV versions available. P-25 Compliant.

472-TNO-822 Telephone Interface
This auto pickup and disconnect telephone answering coupler picks up after one ring and interfaces standard phone POTS lines into the Technomad audio system.
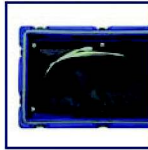
472-TNO-968 Cable/Accessory Pouch
Cable/Accessory pouch, installed on inner front lid of Technomad Military PA Control Rack. Ideal for storing small items, microphones,etc.

472-TNO-967 Accessory Drawer
2 rackspace high drawer, installed into Technomad military PA Control Rack. Ideal for storing accessories, cables, CDs, etc. Note: confirm with Technomad rep if 2U configuration.

472-TNO-922 13' High Lift Loudspeaker Tripod
2 Pismo or 1 Omaha capacity tripod comes with a guying system to stabilize (3 guying lines, ground stakes, etc.). Tripod lifts loudspeakers to maximum height of thirteen feet.

472-TNO-351 6' Loudspeaker Tripod
Standard lightweight aluminum and collapsible tripod supports either Technomad Pismo or Omaha loudspeakers and folds away for easy transport.

472-TNO-925 Guyline Kit
Stabilize your standard tripods in high winds with this kit of 3 tensionable guylines and ground stakes. (Not needed for high-lift tripods, which include their own guylines.)

472-TNO-854 Leg/Caster/Tripod Case
Store and transport your standard tripods, legs, casters and other items in this rotomolded accessory case with 2 easy-transport handles and a gasketed lid. Innal dimensions: 59" x 10" x 10"

472-TNO-962 High-Lift Tripod Case
High-quality rotationally molded mil-spec flight case for Military PA high-lift tripods. Two handles for easy transport. Gasketed lid. Internal dimensions: 69" x 12" x 13" (holds 2 High-Lift tripods).

Addtional options are available, contact Technomad with your exact requirements.

15°W   30°W   45°W   60°W   75°W   90°W   105°W   120°W   135°W   150°W   165°W

TECHNOMAD MILITARY PA SYSTEMS

Frequently Asked Questions

How reliable are Technomad Military PA Systems?

Technomad loudspeakers are completely weatherproof – impervious to rain, snow, sleet, salt fog, UV radiation, insect attack, rough handling, and more. Mil-Spec 810F compliant, they are constructed from thick, one-piece polyethylene and incorporate rugged flight case technology. Control systems are self-casing, as are the loudspeakers. No other commercial or military loudspeaker comes close to the physical and electrical reliability of Technomad.

How clear/intelligible will speech be through a Technomad system?

You'll find unmatched speech and voice clarity, free of horn-mouth distortion and the limited frequency range of other systems. Technomad systems excel not only at being audible, but intelligible even in noisy environments.

Where can I install them?

Technomads can be installed on any ship or building using the optional wall-mounting brackets. All Turnkey systems also include tripods for deployed/field use. They can be installed in any environment, including tropical, arctic, and desert environments without fear of loudspeaker failure.
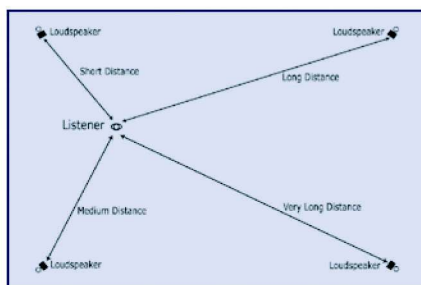
Can I mount a Technomad Military PA system on a vehicle?

YES. With the optional power-inverter, any Technomad system can operate off of 24V vehicle power (AND off of standard US AC power). IMPORTANT: your vehicle must have a 100A alternator and Technomad does not provide mounting hardware to attach loudspeakers to a specific vehicle model. All of our loudspeakers, however, include many strong, molded-in threaded inserts which can be used to bolt the loudspeaker to a support frame or other hardware.

Should I install speakers at the edges of my base pointing in OR in the middle of my base pointing out?

For smaller, "one-PA" facilities it is better to install speakers in a central cluster rather than at the edges of a facility pointing in — this results in all sound originating from the same place, and reduces echo. See our website for more details **(http://military.technomad.com)** and feel free to call us with questions about your particular setup.
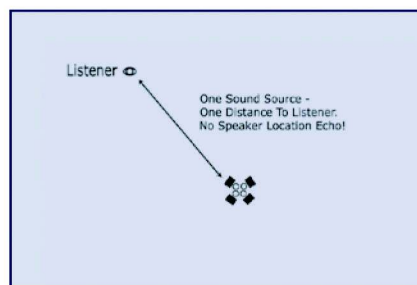
Can the Technomad Military PA Systems be run from solar panels? Vehicles?

Yes. If your power generating system charges a 24V battery rig, then the Technomad Military PA can be driven from the batteries (just as in a vehicle-mounted system) using the Power-Inverter Option. Note that the length of time the system will operate is determined by the amp-hour capacity of the battery rig, the recharge rate provided by the solar panels, and by the type of audio the PA system is reproducing. A 100A alternator is needed for continuous high-volume use from vehicle power.

165ºW   150ºW   135ºW   120ºW   105ºW   90ºW   75ºW   60ºW   45ºW   30ºW   15ºW

Does Technomad offer WIRELESS controlled PA systems?

Yes. Optional wireless Link Kits will allow you to send audio from any audio source to one (or many) receivers. Commonly used to relay audio from an Audio Source Pack to remote Output Pack PA systems, the Link Kits operate at 2.4GHz (optional 5.6GHz or 900 MHz) and use a digital mesh networking system for reliability and ease of setup. The result is VASTLY better audio than typical analog military audio systems, especially narrowband systems. No in-the-field programming is needed — just add power and your system is up. See Modular PA Systems on pages 4–5 for details.

What frequencies and certifications apply to Technomad's Military PA wireless Link Kits?

In general, Technomad Wireless Link kits can be used around the globe without conflict with other military communications systems or local regulations. Contact Technomad with questions about your particular application.

Is any programming required when setting up a Technomad wireless system?

No. Technomad systems don't require a computer and are designed to require zero programming or other technical setup in the field. The Link Kits are pre-configured at the Factory, and automatically locate and connect to each other. Turnkey setups can be out of the box and running in about 15 minutes. Note that simle web-based reconfiguration of your systems will be required if you need to combine them with systems used by other units or other locations, or if you need to change your systems functionality (add/remove transmitters, etc).

Are there ETHERNET or FIBER OPTIC controlled systems?

Yes. Technomad also offers optional Ethernet or fiber optic Link Kits which allow you to send audio from any audio source to one (or many) receivers — while preserving CD quality sound.

Can Technomad Military PA Systems be used for shipboard/marine applications?

Yes. Our systems are ideal for use on ships. The speakers are resistant to salt fog and corrosion, and provide clear speech and music for "standoff" warnings to small craft up to 1 mile away. The Military PA control rack should be operated in a dry location, but the loudspeakers can be permanently installed on-deck. The provided protective lids should be attached during extreme weather/hurricanes, etc.

Why should I used Technomad Military PA Systems instead of a "horn" system?

Horn systems degrade speech and destroy music quality. Technomad systems provide unmatched speech intelligibility, AND can play warning tones, sirens and music with outstanding results.

How is the sound quality? Can I play music through a Technomad PA?

Technomads deliver music playback quality equal to the finest commercial PA systems with "no-compromises" music quality, deep bass and clear, detailed highs. Speech, singing voice and amplified instruments all sound great. Warning tones, local-language announcements, sirens and other sounds are faithfully reproduced. This is essential for clear communications, for deception/PSYOPS use and for music playback.

Can I hook up my existing audio equipment to a Technomad Military PA?

Yes. Unlike other military audio products, Technomad systems are "open." We provide mixers with standard XLR, 1/4" and RCA connectors, allowing you to plug virtually any audio playback device or signal source into the PA system.

Technomad Military PA Systems can be deployed in 15 minutes or less by one operator, and are used for permanent installations or mobile/tactical operations. Systems are palletizable. Operating range: up to 1 mile. If tactical applications, force protection, PSYOPS, high quality music and speech reproduction, or site-wide paging is your priority, Technomad is your solution.
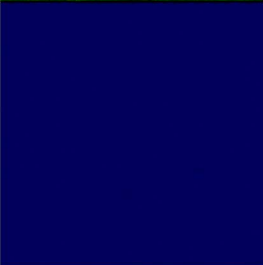
I need to record custom announcements, music, warning tones and sound effects, and play them back. How can I do this?

The revolutionary SuperConductor™ Military MP3 Player / Recorder provides a convenient way to record and play MP3s through your PA system. Offering 1Gb of file storage (upgradeable), the SuperConductor lets you assign sounds like sirens, songs, sound effects, or speech alerts to specific positions on the rotary knob. Each sound can be set to loop, play once and stop, or play as long as the knob is held in. The SuperConductor also allows you to set a schedule for sounds to play **automatically**, without any user interaction. For example, you can assign Reveille to play daily at 0600, a bell sound to ring 12 times at noon on weekdays, etc. Sounds selected by the front knob will superscede any scheduled sounds, allowing quick reponse to emergencies. The SuperConductor is ideal for sheduling base operations, PSYOPS, combat simulation, music playback, and more.
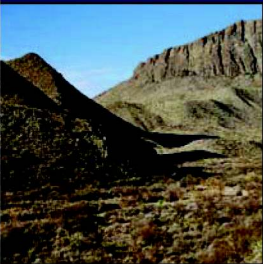
Can I mount a Technomad Military PA permanently on a building?

Yes. Technomad offers optional wall-mount brackets (specific to each loudspeaker model), which allow you to bolt a loudspeaker directly to a wall, pole or other strong stable structure. See page 6.

How easy to transport is a Technomad Military PA? Can one person move it? Is it palletizable?

Technomads can be broken down and moved in compact (1-2 person lift) elements. No part of the system weighs more than 100 lb (45 Kg). The total weight of the systems ranges from 200 lbs (MilPA1) to 600 lbs (MilPA4DC). The largest Technomad Military PA, with a 1 mile radius range, takes up only 25% of a standard Air Force 463L pallet.

Are Technomad Military PA Systems expandable? Can I add more speakers to a basic system later?

YES. You can add like-type loudspeakers to any Technomad system to bring the total quantity up to 6 loudspeakers. You can order expansion kits directly from us (Pismo: 472-TNO-727, Omaha: 472-TNO-728, and Abra: 472-TNO-1079). Each set arrives with 2 additional loudspeakers and cables.

I want to cover a LARGE area (i.e. an entire base). How can I do this?

It is simple to "link" several Technomad systems with optional wireless, Ethernet, or fiber-optic Link Kits. Technomad Sales can help you determine how many Modular PA Systems and link modules you'll need for your large area. Keep in mind that just one omni-directional Turnkey Technomad PA — like the MilPA3 or the MilPA4 — can cover a small base by itself. See pages 4–5 for more information on wide area audio.

Can I use Technomad Military PA Systems for Force Protection/Mass Notification?

Yes. Technomad Military PA Systems offer significant advantages over traditional force protection/mass notification PA systems, such as those that use "horn" loudspeakers. Advantages include: better speech intelligibility, multi-mode use (sirens/speech) and quick setup in tactical and emergency environments.

I am considering upgrading my Whelen PA system. What advantages does Technomad offer vs. Whelen?

Technomads offer a number of advantages over Whelen's military audio products, including: lower system cost for many typical applications, much better speech clarity and music quality, easier setup, no-programming deployment of wireless systems, lighter weight, self-casing design, smaller total volume when palletized, digital audio links with CD quality, no "triggering delay" between multiple speaker locations, open system allowing attachment of standard audio gear (no proprietary connectors), and much more.

FREQUENTLY ASKED QUESTIONS

What kind of operating range can I expect from my Technomad PA system?

Under optimal conditions (still dry air, no obstacles), the MilPA1, MilPA3, Output Pack 1, and Output Pack 3 systems have a range of 1/2 mile (delivering 60 dB at that distance). Under optimal conditions the MilPA2, MilPA4, Output Pack 1, Output Pack 4 systems have a range of 1 mile (delivering 60 dB at that distance). The MilPA.5 has a range of 400M. Note that these maximum ranges will be reduced by high winds, trees or other obstacles blocking the audio path between loudspeakers and listeners, and high levels of background noise. A flat desert will allow better operating ranges than dense, hilly, jungle. It is wise to plan for partial degradation of any system's range in real world conditions. Note that multiple PA systems can be combined using Technomad Link Kits, providing virtually unlimited coverage/range .

Who uses Technomad Military PA Systems?

Technomad Military PA Systems are uses by all branches of the US Armed Forces, by the White House Communications Agency, by the UK MOD, the Canadian Armed Forces, and by other National Armed Forces. Applications include combat simulation, presentations and ceremonial use, PSYOPS, base-wide paging, deployed site communications, ship stand-off/warning systems, mobile/vehicle mounted audio, force protection, mass–notification, and much more. We look forward to supporting YOUR mission.

What is the Technomad Warranty?

Technomad loudspeakers are covered by a 10 year unconditional warranty on the polymer loudspeaker cabinet, a 5 year warranty against manufacturing defects in metal cabinet parts (grill, inserts, etc.), and a 2 year warranty against manufacturing defect in loudspeaker electronic parts (drivers, crossovers, etc.). Failure of any electronic speaker component due to excessive input signal (including but not limited to voice-coil burn-out) is not covered by this warranty. All Control Rack (non loudspeaker) electronic components are covered by a 1 year warranty. This is not a complete statement of the Technomad warranty, which is available at the Technomad website.

Why are Technomad Loudspeakers so Weatherproof?
Here are some of the key elements:

We start with a thick, military-specification, rotationally-molded shell that has outstanding acoustic properties and is virtually indestructible — heat, UV radiation, cold and other sources of damage are inconsequential to our loudspeaker cabinets. Technomad cabinet walls are as thick as the best Baltic-birch touring sound cabinets, and are 3 to 4 TIMES thicker than ordinary injection molded loudspeaker cabinet walls.
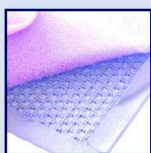
The Technomad WeatherTech™ three-layer grill system is unmatched by anything in the industry. This grill consists of:

• A small-diameter perforated stainless steel layer

• A nylon mesh layer to further break down precipitation

• A acoustically-transparent foam layer — which is treated with a proprietary hydrophobic coating. This special coating causes rain and moisture to "run screaming" away from the loudspeaker's drivers.

Technomad high-frequency and low frequency drivers are weatherized at the component level — for example, our smaller bass drivers use polypropylene cones with pure rubber surrounds. Our larger bass drivers use a fiber cone that is plasticized via a proprietary three-step process, resulting in a driver with outstanding acoustic properties and incredible resistance to moisture and humidity. The spiders and surrounds of all Technomad cone drivers are specially treated to resist water damage, and our high-frequency drivers are mechanically and chemically protected.

Unlike our competitors, we don't pretend that water will never enter our loudspeaker cabinets — we know it will. For example, no matter how excellent a grill system one uses, moisture WILL build up inside a ported loudspeaker through condensation (especially in humid environments with a significant temperature change during the day/night cycle). We solve the problem of in-cabinet condensation by drilling tiny bleed holes through the corners of our cabinets — this allows condensation and water forced through the WeatherTech™ grill to drain harmlessly away. One never opens a Technomad cabinet to find half an inch of disgusting, algae-infested water trapped inside.

Technomad crossovers and internal electronics are sealed, and are totally unaffected by moisture. Proprietary anti-fungal treatments protect the inside of the cabinet, killing mold, fungus, and other biological sources of damage.

Information and specifications presented in this catalog are subject to change without notice.

15ºW   30ºW   45ºW   60ºW   75ºW   90ºW   105ºW   120ºW   135ºW   150ºW   165ºW

ABOUT THE COMPANY

Since 1994 Technomad LLP has delivered "Audio. Anywhere."
With thousands of PA systems installed around the globe, Technomad delivers unmatched audio quality AND reliability in the harshest environments. Technomad PA systems offer a unique combination of fidelity, power, clarity, wide coverage, and long range.

Vitavox (a division of Secomak Ltd.) itself a manufacturer of military communication equipment is Technomad's accredited European distibutor. Vitavox supplies, distributes, provides training and on site support to military and civil end users and operators for all Technomad products.

For complete TECHNICAL info and support or to ORDER please visit: www.vitavox-sound.com or contact us on +44 208 732 1300

We look forward to supporting your mission.

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