

USERS GUIDE

FOR THE

AC POWER SUPPLY DOCKING STATION

FOR

AN/PRC-150



Model # AS0150-HR-150

Perkins Technical Services, Inc. (PTS)
1318-B Putman Drive
Huntsville, AL 35816
www.pts-inc.com

WARNING: TO PREVENT PERSONAL INJURY, DEATH, OR EQUIPMENT DAMAGE: DO NOT SHORT-CIRCUIT, DAMAGE, BY PASS INTERNAL FUSES, OR HANDLE INAPPROPRIATELY THE EXPOSED RADIO AND RFPA HIGH VOLTAGE POWER CONNECTORS.

SAFETY INSTRUCTIONS

Warning and Important Safety Instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when installing, maintaining or operating the Power Supply Docking Station.

When using the Docking Station, basic safety precautions should always be observed including:

1. Read all instructions.
2. Never put hands on any connector pins when the Docking Station is plugged in.
3. Avoid any contact with the Docking Station "Radio and RF Power Amplifier connector pins" when the Docking Station is in the "ON" mode.
4. To protect against risk of electrical shock, do not immerse the cord, plug or Docking Station in water, or other liquids.
5. The Docking Station in its present configuration **"IS NOT"** designed to be used in a vehicle.
6. Do not operate the Docking Station with a damaged cord or plug, or after the Docking Station has been dropped or damaged in any manner. Return the Docking Station to PTS for examination, repair, and electrical or mechanical adjustment if required. Call PTS Toll Free: 1-877-737-5832, or e-mail lchilds@pts-inc.com for any additional instructions or guidance.
7. To reduce the risk of electrical shock or fire, do not take apart. All repairs, if required, must be performed by PTS authorized personnel.
8. High Voltage exists at AN/PRC-150 and Power Amplifier connectors. Turn power switch to OFF when sliding AN/PRC-150 and / or Power Amplifier onto power connectors.
9. Do not work on electric equipment alone. Be sure another person who can give first aid is nearby.
10. RF energy is present near the antenna during transmission. Maintain at least 30 inches between antenna and personnel during transmission.

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1 DOCKING STATION DESCRIPTION

1. 1. Perkins Technical Services, Inc. (PTS), through an innovative design, has developed a rugged, lightweight, easy to use AC Power Supply Docking Station for AN/PRC-150 radio. This Docking Station provides the capability of CONVERTING AC power to DC power to operate an AN/PRC-150 radio in a continuous, safe and cost efficient manner.
1. 2. The Docking Station's unique lightweight, slide-in, slide-out design allows for easy use. The Docking Station has been developed to provide increased flexibility in the use of AN/PRC-150 and to reduce operational costs resulting from the use of expensive batteries and/or other power sources. The Docking Stations worldwide applications include Tactical Operations Centers, Combat Operations Centers, range operations, field & garrison operation centers, test and maintenance facilities, training sites, deployment and staging checkpoints, and remote control operations.
1. 3. Docking Stations provide units the capability of 24/7/365 AN/PRC-150 use at a fraction of the cost, with reduced soldier and logistical workload.
1. 4. The Docking Stations provide the optimum solution for combat support operations requiring continuous uninterruptible communication when AC power is available

2 SPECIFICATIONS

2. 1. Features

- Worldwide AC input from any AC source – 85 to 260 VAC
- Worldwide Frequency input – 47 to 440 HZ
- Fully automatic voltage / frequency selection, no manual change required
- Docking positions for 1 AN/PRC-150
- Continuous 24/7/365 operation
- TOCNET compatible
- Rugged self-contained unit
- Easy one step, slide in, slide out mounting interface
- Voltage surge protection
- Operating temperature range, -30°C to 50°C, relative humidity 5% to 95%
- Illuminating power-on function switches
- Illuminating active network green LED indicators
- 10 foot AC power cord - CONUS
- 4" High Fidelity integral Speaker
- Volume controls for speaker
- Supports two remote LS-671 speaker

2. 2. Physical Description

- Lightweight, 8.2 lbs
- Compact size - (H) 7.5" x (W) 11.5" x (L) 11.0"

2. 3. Operational Benefits

- Enhanced Command and Control
- Increased Flexibility
- Increased radio training opportunities
- Reduced Logistical Burden and Costs

3 OPERATION OF AN/PRC-150 DOCKING STATION

3. 1. The Docking Station is designed to convert AC power to DC power in order to operate one AN/PRC-150 radio. The Docking Station is a rugged enclosure, which contains an internal power supply and several circuit card assemblies.

3. 2. One illuminated "POWER ON-OFF" rocker switch is mounted on the front enclosure.



3. 3. Input power is provided via a commercial style AC jack on the back of the enclosure.

3. 4. The internal power supply is a self-detecting, self-switching 85-260VAC, 47/440 Hertz, single card unit.



3. 5. The cooling fan is located on the bottom of the enclosure, with replaceable filtered input, provides for heat dissipation.



3. 6. Four rubber feet on the bottom provide for non-slip use in a desktop location.

3. 7. The four rubber feet are glued to the bottom of the enclosure. In order to mount the platform in a 19 " rack, use template provided. Drill 4 holes, 1/4" holes. Then remove 4 screws from the feet of the docking station. Place docking station over the 4 drilled holes in rack and reinsert the 4 screws through the rack and rubber feet.



4 OPERATION OF AN/PRC-150 & EXTERNAL POWER AMPLIFIER

Warning: External Amp Power switch must always be in the off position unless there is an external amplifier connected

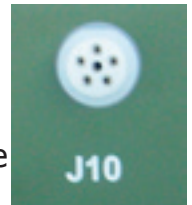
4. 1. Operation of the Power Docking Station is a simple 6-step program:

High Voltage exists at AN/PRC-150 and Power amplifier connectors **“ALWAYS TURN POWER SWITCH TO OFF POSITION”** prior to sliding AN/PRC-5 onto docking station and/or making Power Amplifier connectors.

A. Plug the appropriate Docking Station power cable into the back of the Docking Station and then plug the other end into any AC outlet worldwide.



B. Slide and fully connect rear of the AN/PRC-150 onto the power connector J10 on the front of the Docking Station utilizing the two guide pins to insure alignment



C. Lock the AN/PRC-150 onto the Docking Station utilizing the pre-positioned locking tabs.



D. Turn the “R/T POWER ON-OFF” rocker switch to the “ON” position, the AN/PRC -150 is now powered and ready for normal operation.



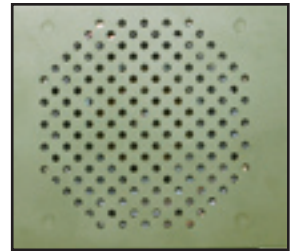
E. Turn the external amplifier power switch, also shown in picture for “D” above, to the on position.

F. J6 is a pin for pin connection to the back of the AN/PRC-150 that can be utilized by the user to tap external signals off the radio.



5 OPERATION-SPEAKER

5. 1. The Docking Station houses a 4" high fidelity integral speaker with a volume control.



5. 2. The volume control knob is located on the front of the Docking Station is utilized to adjust speaker volume.



5. 3. A connector, which allows the user to connect a remote LS-671 speaker, is located on the back of the docking station.



6 MAINTENANCE CARE AND CLEANING

“SAFETY NOTE”

Ensure the AC Power Supply Docking Station is disconnected from the AC voltage source prior to cleaning.

6. 1. The Docking Stations exterior may be cleaned with a mild soapy solution and wiped completely dry. Do not use abrasives or oil-based cleaners. Particular care should be taken to keep soap, water and debris from getting into the connectors and power plugs. At no time should the Docking Station be immersed in water or other solutions.

6. 2. Keep docking station jacks, plugs and cables clean and free of dirt, grime and miscellaneous debris. Clean connectors with a medium stiff bristle brush and wipe off dirt. The air intake filters should be cleaned and or replaced as needed:

Remove / Replace

- A. Remove the filter assembly.
- B. Snap out the filter retainer from the assembly to access the filter for cleaning or replacement.
- C. After cleaning the old filter, or replacing it if it is too worn, insert the filter in the assembly and snap the retainer back into the filter frame.
- D. Replace the assembly in the Docking Station



7 SUPPORT MAINTENANCE

7. 1. Should a Docking Station malfunction or become nonfunctional, the User should notify Dr. Lloyd W. Childs at PTS in Huntsville, AL, Toll Free 1-877-737-5832 or via email to lchilds@pts-inc.com.
7. 2. Be prepared to discuss / troubleshoot the problem. The Docking Station should be available to facilitate actual troubleshooting. PTS will determine if the docking station needs to be turned in for repair/replacement. Have your address ready, including street address and / or Post locator information. Also be prepared with a point of contact and phone number.
7. 3. If it is determined by PTS that the Docking Station needs to be returned for repair, place the Docking Station inside of its transit case with a letter explaining the nature of the malfunction. Label the package/case as follows:

Perkins Technical Services, Inc.
1318-B Putman Drive
Huntsville, AL 35816
ATTN: Dr. Lloyd W. Childs

8 WARRANTY

8. 1. PTS warrants that all AC Power Supply Docking Stations and transit cases furnished under this contract are free from defects in material and workmanship and will conform to all requirements of this contract. The PTS warranty shall be for a period of twelve (12) months from the date of receipt by the user.
8. 2. Any Docking Station or transit case repaired or furnished in replacement shall be subject to the warranty conditions of a new Docking Station. This warranty shall be equal in duration to that set forth in the preceding paragraph and shall run from the date of receipt of the repaired or replaced Docking Station by the user.
8. 3. The Contractor shall not be obligated to repair or replace a Docking Station or transit case if they become damaged through unauthorized maintenance / repair, incorrect operational set-up, abuse, or neglect.
8. 4. When a Docking Station is returned to PTS, within the warranty period set above, PTS shall bear the transportation costs to the PTS plant and return.
8. 5. When a Docking Station is returned to PTS after the warranty period set above, the user shall bear the transportation costs to the PTS plant. PTS will bear the return costs.
8. 6. This Warranty excludes all other warranties including the warranties of merchantability and fitness for a particular purpose.
8. 7. Warranty repairs are normally accomplished within 8-10 business days of receipt of Docking Station at PTS plant.

9 ADMINISTRATIVE

9. 1. Inquiries concerning this manual should be referred to the following address:

Perkins Technical Services, Inc.
1318-B Putman Drive
Huntsville, AL 35816
ATTN: Dr. Lloyd W. Childs
Or e-mail: lchilds@pts-inc.com

9. 2. Technical difficulties or operational problems with the AC Power Supply Docking Station may be resolved by calling Toll Free to the following number:
1-877-737-5832



