

# USERS GUIDE

FOR THE

## AC Power Supply Docking Station

FOR

## AN/PRC-117G/152



## Model # AS0117G/152

Perkins Technical Services, Inc. (PTS)  
1318-B Putman Drive  
Huntsville, AL 35816  
[www.pts-inc.com](http://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 AC Power Supply Docking Station. When using the AC Power Supply Docking Station, basic safety precautions should always be observed including:

1. Read all instructions.
2. Never put hands on any connector pins when the AC Power Supply Docking Station is plugged in.
3. Avoid any contact with the AC Power Supply Docking Station "Radio connector pins" when the AC Power Supply Docking Station is in the "ON" mode.
4. To protect against risk of electrical shock, do not immerse the cord, plug or AC Power Supply Docking Station in water, or other liquids.
5. The AC Power Supply Docking Station in its present configuration "**IS NOT**" designed to be used in a vehicle.
6. Do not operate the AC Power Supply Docking Station with a damaged cord or plug, or after the AC Power Supply Docking Station has been dropped or damaged in any manner. Return the AC Power Supply 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](mailto: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-117G/152 connectors. Turn power switch to OFF when sliding AN/PRC-117G/152 onto the J1 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.

# Table of Contents

1	AC Power Supply Docking Station DESCRIPTION .....	4
2	SPECIFICATIONS .....	5
3	FEATURES OF AC Power Supply Docking Station .....	6
4	OPERATION OF AN/PRC-117G/152 .....	7
5	OPERATION-Speaker .....	8
6	MAINTENANCE CARE and CLEANING .....	9
7	SUPPORT MAINTENANCE .....	10
8	WARRANTY.....	11
9	ADMINISTRATIVE.....	12

## **1 AC POWER SUPPLY 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-117G/152 radios. This AC Power Supply Docking Station provides the capability of CONVERTING AC power to DC power to operate an AN/PRC-117G/152 radios in a continuous, safe and cost efficient manner.
1. 2. This AC Power Supply Docking Station supports the following configurations:
  - AN/VRC-110
  - AN/VRC-110 dual
  - RF300M-V150
  - RF300M-V250
  - RF300M-V255
1. 3. The AC Power Supply Docking Station's unique lightweight, slide-in, slide-out design allows for easy use. The AC Power Supply Docking Station has been developed to provide increased flexibility in the use of AN/PRC-117G/152 configurations to reduce operational costs resulting from the use of expensive batteries and/or other power sources. The AC Power Supply 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. 4. AC Power Supply Docking Stations provide units the capability of 24/7/365 AN/PRC-117G/152 use at a fraction of the cost, with reduced soldier and logistical workload.
1. 5. The AC Power Supply Docking Stations provide the optimum solution for combat support operations requiring continuous un-interruptible 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 AN/VRC-110, AN/VRC-110 Dual, RF300M-V150, RF300M-V250, or RF300M-V255
- Continuous 24/7/365 operation
- 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 speakers

### 2. 2. Physical Description

- Lightweight, 19.25 lbs
- Compact size - (H) 8.5" x (W) 17.5" x (L) 14.0"

### 2. 3. Operational Benefits

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

### 3 FEATURES OF THE AN/PRC-117G/152 AC POWER SUPPLY DOCKING STATION

3. 1. The AC Power Supply Docking Station is designed to convert AC power to DC power in order to operate one AN/VRC-110, AN/VRC-110 Dual, RF300M-V150, RF300M-V250, or RF300M-V255 radios.

3. 2. Two illuminated "POWER ON-OFF" rocker switches are 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. Two cooling fans are located on the bottom of the enclosure, with replaceable filtered input, provide for heat dissipation.



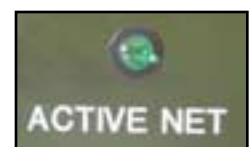
3. 6. Four rubber feet on the bottom provide for non-slip use in a desktop location.



3. 7. In order to mount the platform in a 19 " rack, use template, provided upon request. Drill 4 holes, 1/4" holes. Then remove 4 screws from the bottom of the platform adjacent to the feet of the AC Power Supply Docking Station. Place AC Power Supply Docking Station over the 4 drilled holes in rack and reinsert the 4 screws.



3. 8. Incoming and outgoing transmissions can be monitored by the active net LED.



## 4 OPERATION OF AN/PRC-117G/152

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

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



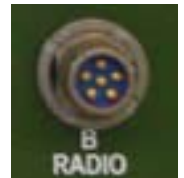
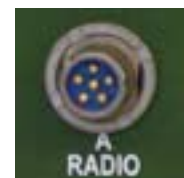
B. Slide and fully connect rear of the AN/VRC-110, AN/VRC-110 Dual, RF300M-V150, RF300M-V250, or RF300M-V255 onto the J1 power connector on the front of the AC Power Supply Docking Station utilizing the guide pin to insure alignment.



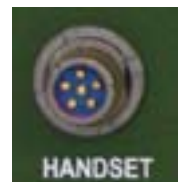
C. Lock the AN/PRC-117G/152 onto the AC Power Supply Docking Station utilizing the pre-positioned locking tabs.



D. Connect the cable(s) PTS-H-002J between the applicable radio output connector on the Platform and the radio.



E. Connect the hand set to the applicable AC Power Supply Docking Station connector.

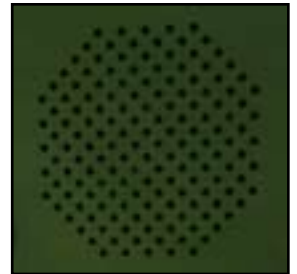


F. Turn the applicable "R/T POWER ON-OFF" rocker switch to the "ON" position, the AN/PRC-117G/152 is now powered and ready for normal operation.



## 5 OPERATION-SPEAKER

5. 1. The AC Power Supply 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 AC Power Supply Docking Station is utilized to adjust speaker volume.



5. 3. Two connectors, which allows the user to connect one or two remote LS-671 speaker(s), are located on the back of the AC Power Supply Docking Station.



## 6 MAINTENANCE CARE AND CLEANING

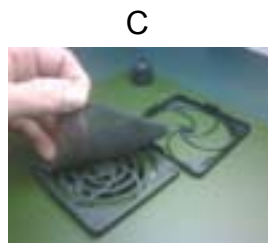
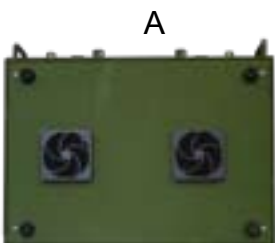
### **“SAFETY NOTE”**

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

6. 1. The AC Power Supply 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 AC Power Supply Docking Station be immersed in water or other solutions.
6. 2. Keep AC Power Supply Docking Station jacks, plugs and cables clean and free of dirt, grime and debris. Clean connectors with a medium stiff bristle brush and wipe off dirt.
6. 3. The air intake filters should be cleaned and or replaced as needed:

#### **Remove / Replace**

- A. Locate filters on bottom of AC Power Supply Docking Station.
- B. Snap off the filter retainer from the assembly to access the filter for cleaning or replacement.
- C. Remove the filter assembly.
- D. After cleaning the old filter, or replacing it if it is too worn, insert the filter in the assembly.
- E. Snap the retainer back into the filter frame.



## **7 SUPPORT MAINTENANCE**

7. 1. Should a AC Power Supply 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 e-mail to lchilds@pts-inc.com.
7. 2. Be prepared to discuss / troubleshoot the problem. The AC Power Supply Docking Station should be available to facilitate actual troubleshooting. PTS will determine if the AC Power Supply 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 AC Power Supply Docking Station needs to be returned for repair, place the AC Power Supply 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 AC Power Supply Docking Station or transit case repaired or furnished in replacement shall be subject to the warranty conditions of a new AC Power Supply 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 AC Power Supply Docking Station by the user.
8. 3. The Contractor shall not be obligated to repair or replace a AC Power Supply Docking Station or transit case if they become damaged through unauthorized maintenance / repair, incorrect operational set-up, abuse, or neglect.
8. 4. When a AC Power Supply 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 AC Power Supply 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 AC Power Supply 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](mailto: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