

# AN8280G-TK System Control Assembly Replacement Procedure

## SCA REPLACEMENT

### Step 1: Preparation

- Turn AC power OFF at service panel.
- Remove front and rear doors.
- Turn power OFF at PSU.
- Verify all LEDs are OFF on front of PSU.
- Wait 5 minutes.

**DANGER!!**

## LOCKOUT/TAGOUT PROCEDURE

This material is to be applied to all replacement procedures that involve the Scaleable Gradient Cabinet modules.

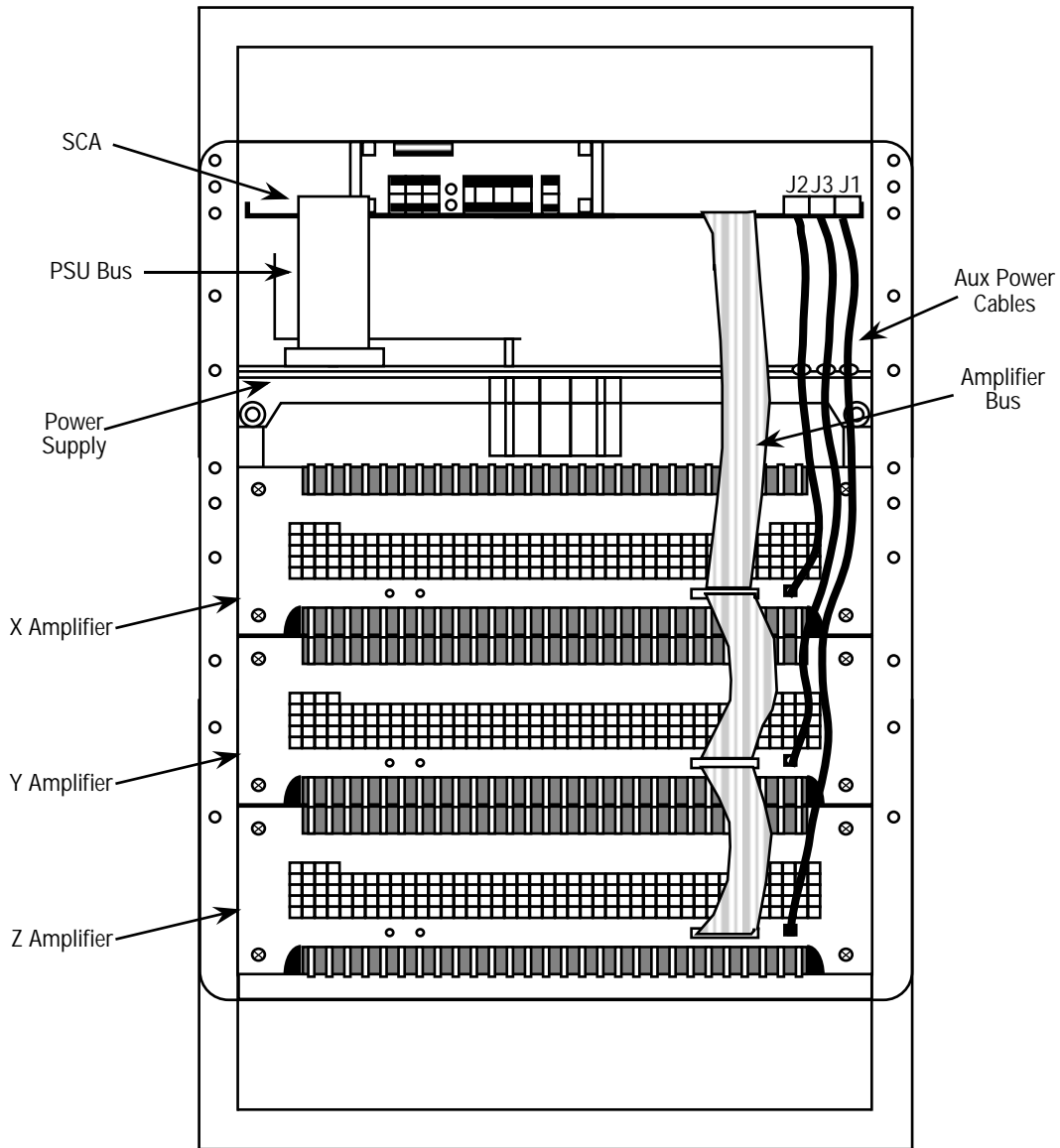
**FATAL ELECTRIC SHOCK HAZARD! TO PREVENT FATAL ELECTRIC SHOCK, DISCONNECT POWER FROM THE PDU BEFORE YOU PERFORM THE FOLLOWING PROCEDURES. PERFORM LOCKOUT/TAGOUT PROCEDURE PER GE OSHA LOCKOUT/TAGOUT REQUIREMENTS 29 CFR 1910.147. DO THIS BY SECURING THE PDU CIRCUIT BREAKER FOR THE SCALEABLE GRADIENT CABINET.**

1. Turn off the SGD Cabinet Breaker at the Power Distribution Unit. Lock out the Breaker and tag it.
2. After power to the SGD Cabinet has had sufficient time to dissipate, take a Digital Multimeter and set it to its highest AC voltage range.
3. Verify that all energy has been dissipated by measuring incoming power to all components of the Scaleable Gradient Cabinet.
  - Place the reference probe (black) on the SGD Cabinet Ground.
  - Locate L1, L2, and L3. These are the 208V, 3 Phase inputs to the SGD Base SR-20 Cabinet.
4. Measure voltage at each of three 208 volt input terminals. The meter should read 0 volts AC at each of the three measuring points. See below.

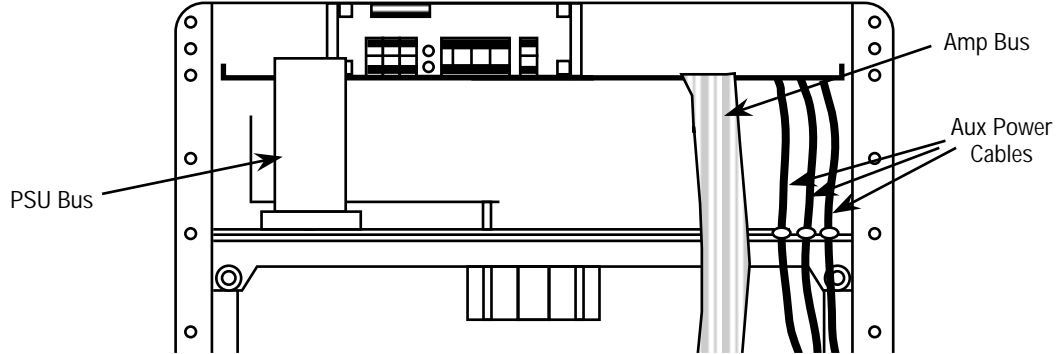
Measure Incoming  
Power Here  
(L1, L2, L3)



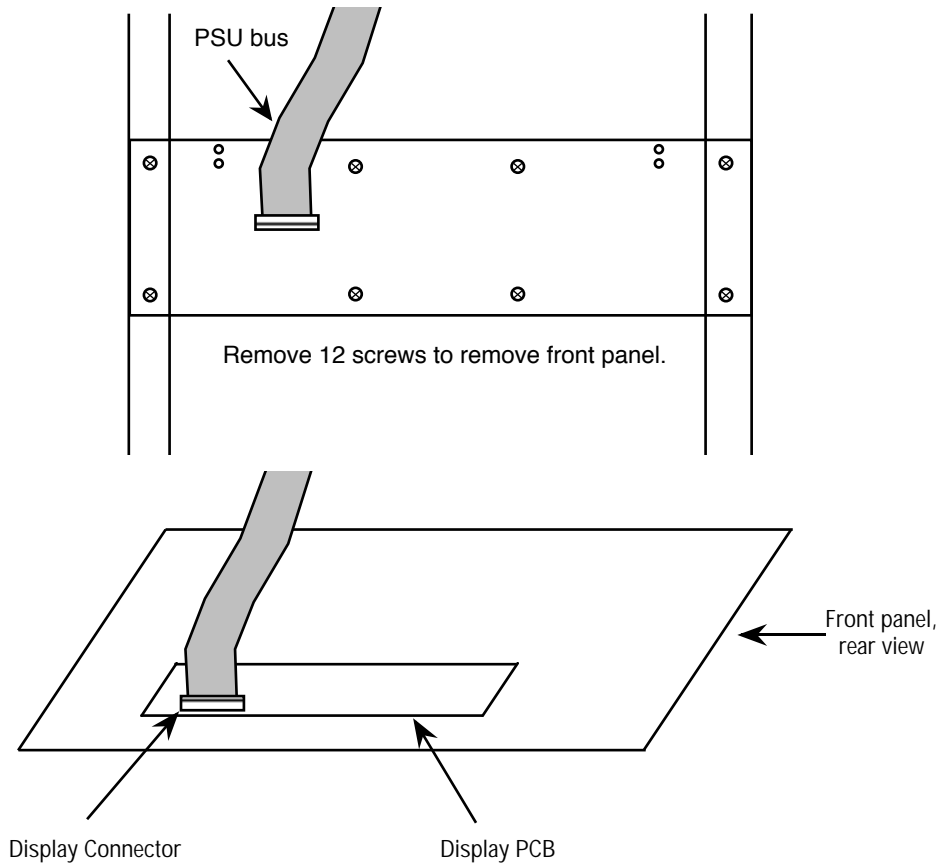
**Step 2: Disconnect Aux Power Cables (3) from Front of SCA. Disconnect Amp Bus Cable from all 3 Amps and Drape Carefully to Avoid Damage.**



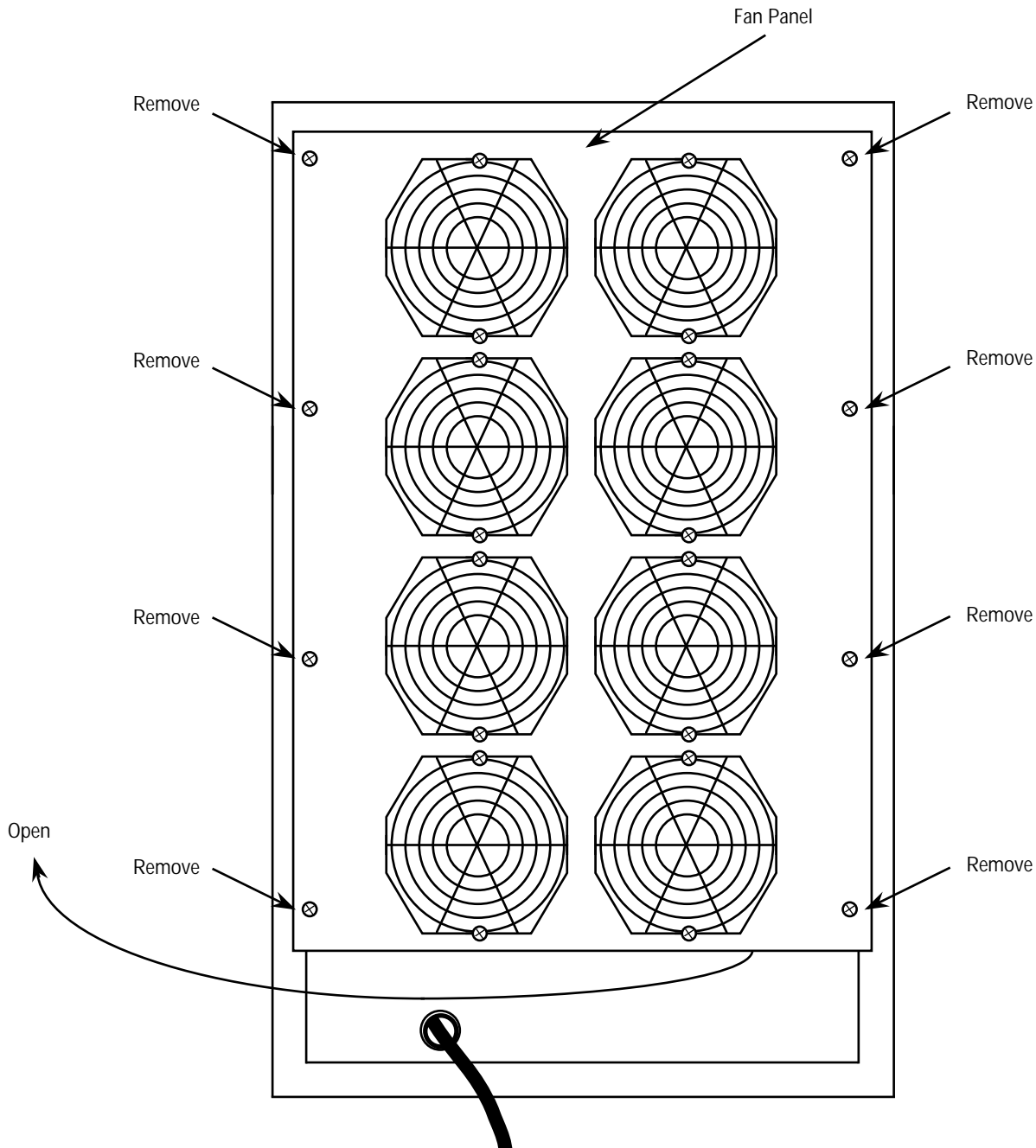
**Step 3: Disconnect PSU Bus, Amp Bus and Aux Power Cables to Amplifiers and Drape Over Top of Rack.**



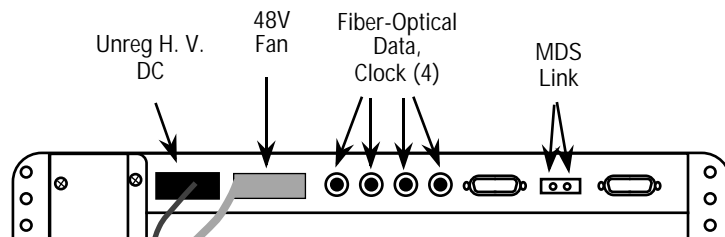
**Step 4: Remove PSU/SCA Common Front Panel and Disconnect Display Connector at Display Card.**



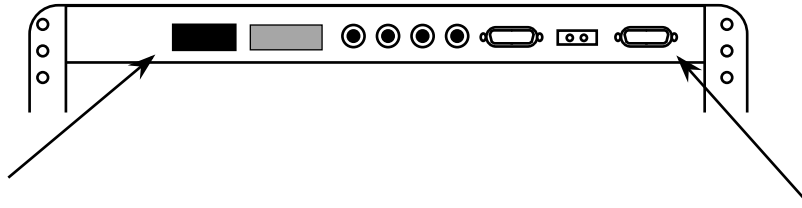
**Step 5: At Rear of Rack, Remove 8 Screws and Open Fan Panel.**



**Step 6: Remove Fiber Optic Cables, H.V. DC Unreg Cable and 48V Fan Power Cable.**

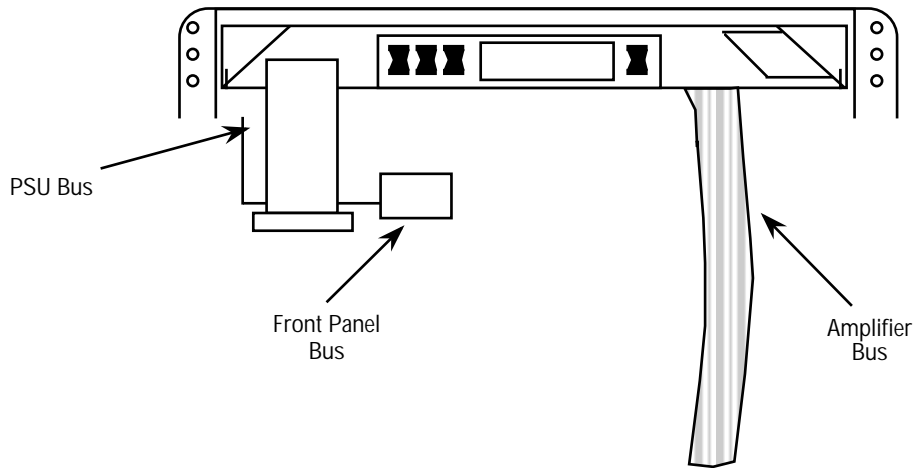


**Step 7: Push SCA Forward in Sleeve 5 cm by Pushing on Rear of SCA.**

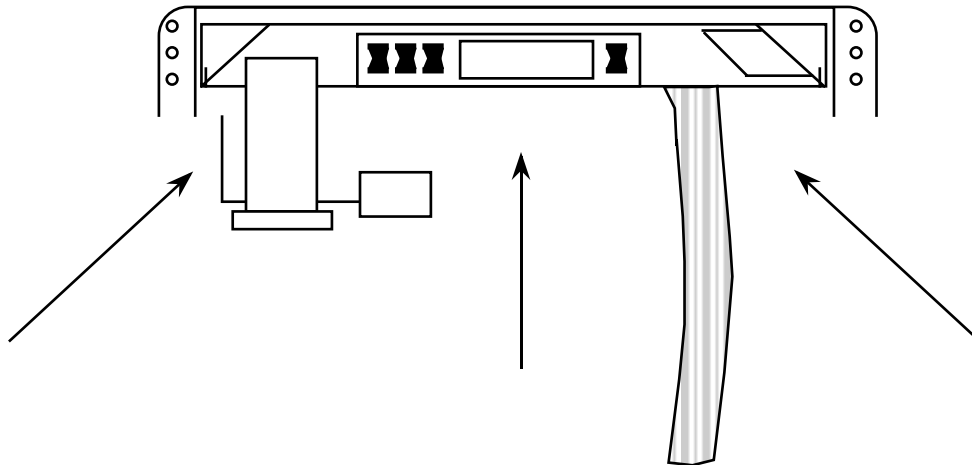


**Step 8: Pull Front of SCA out of Front of Sleeve. Remove SCA from Front.**

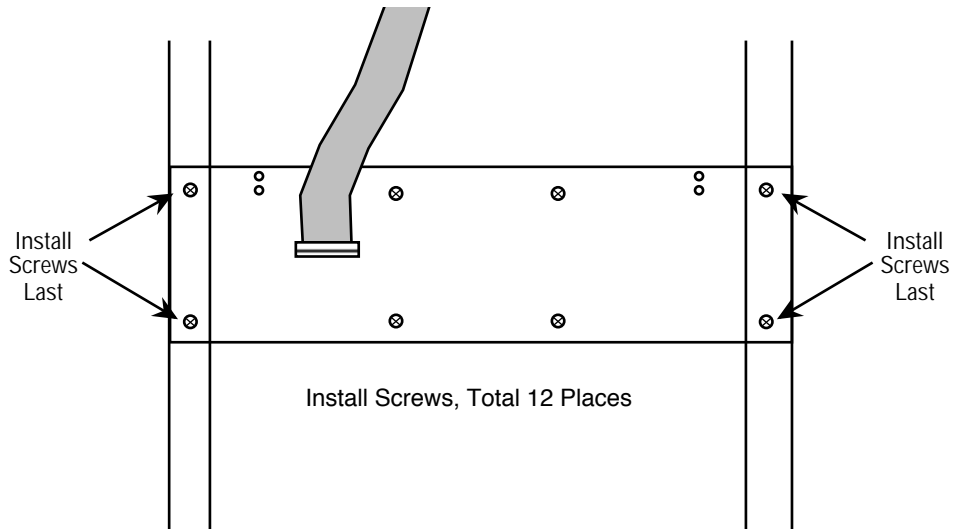
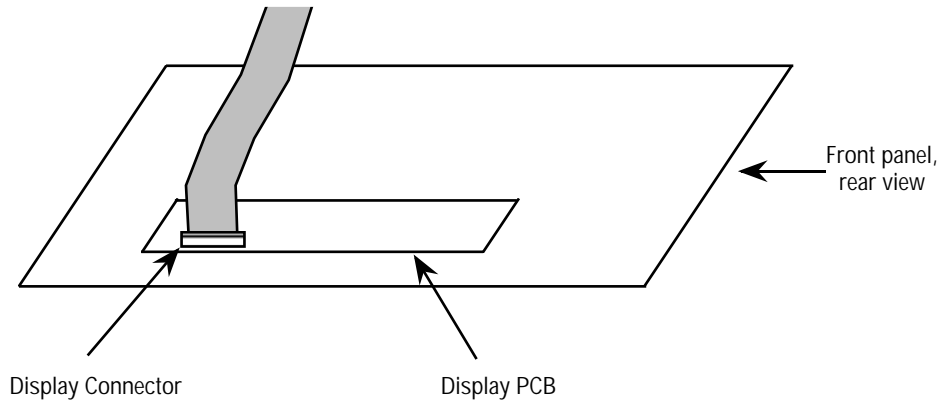
- Carry by sides. Be careful to avoid damage to unit.



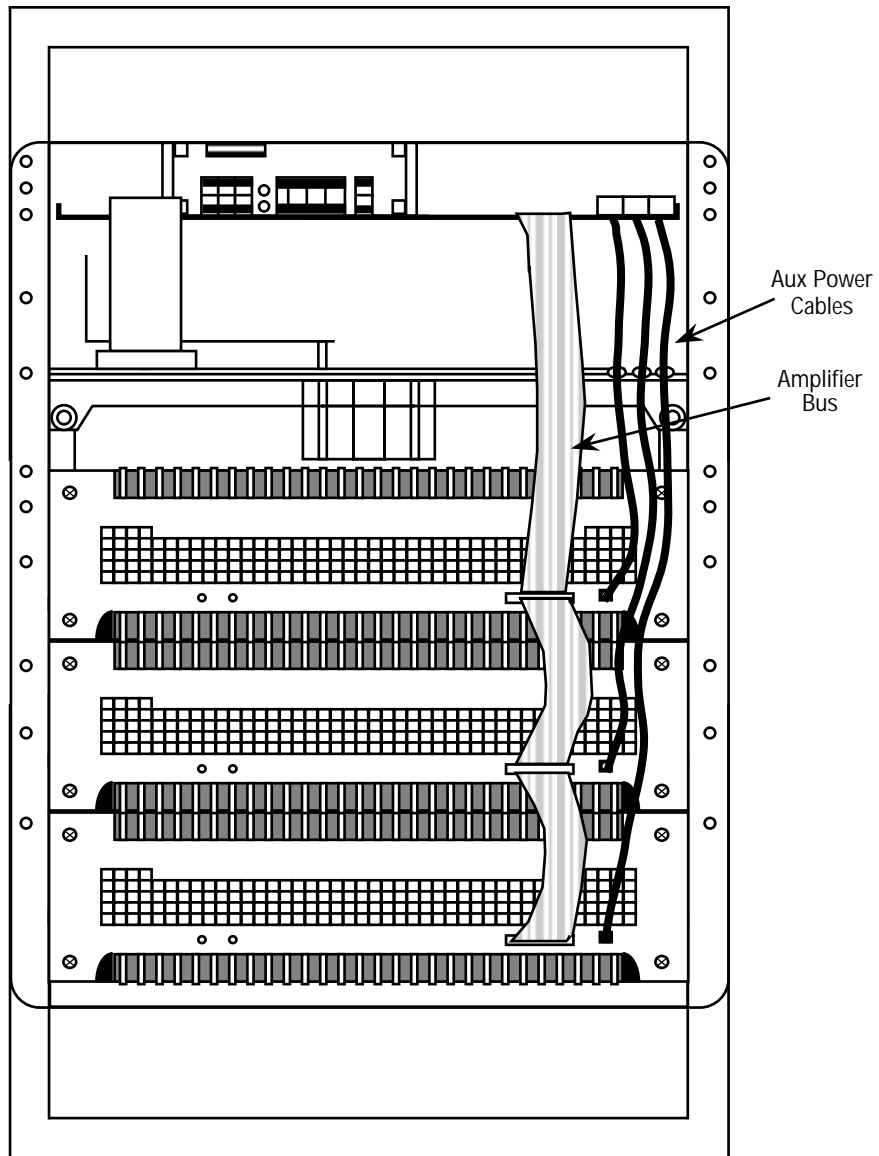
**Step 9. Place New SCA in Sleeve and Slide in from Front to Back. Replace Cables for Amplifier through Front Panel. Engage Guide Pins.**



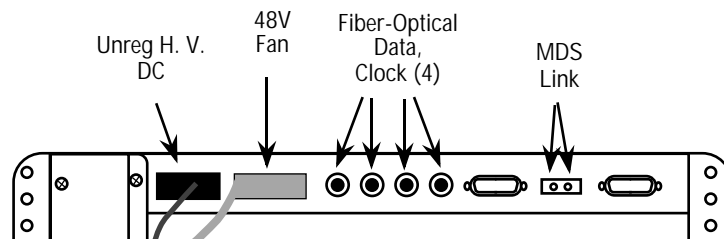
**Step 10: Install Display Connector on Rear of Front Panel Display PCB, Observing Polarization Key. Then Install Front Panel of PSU/SCA.**



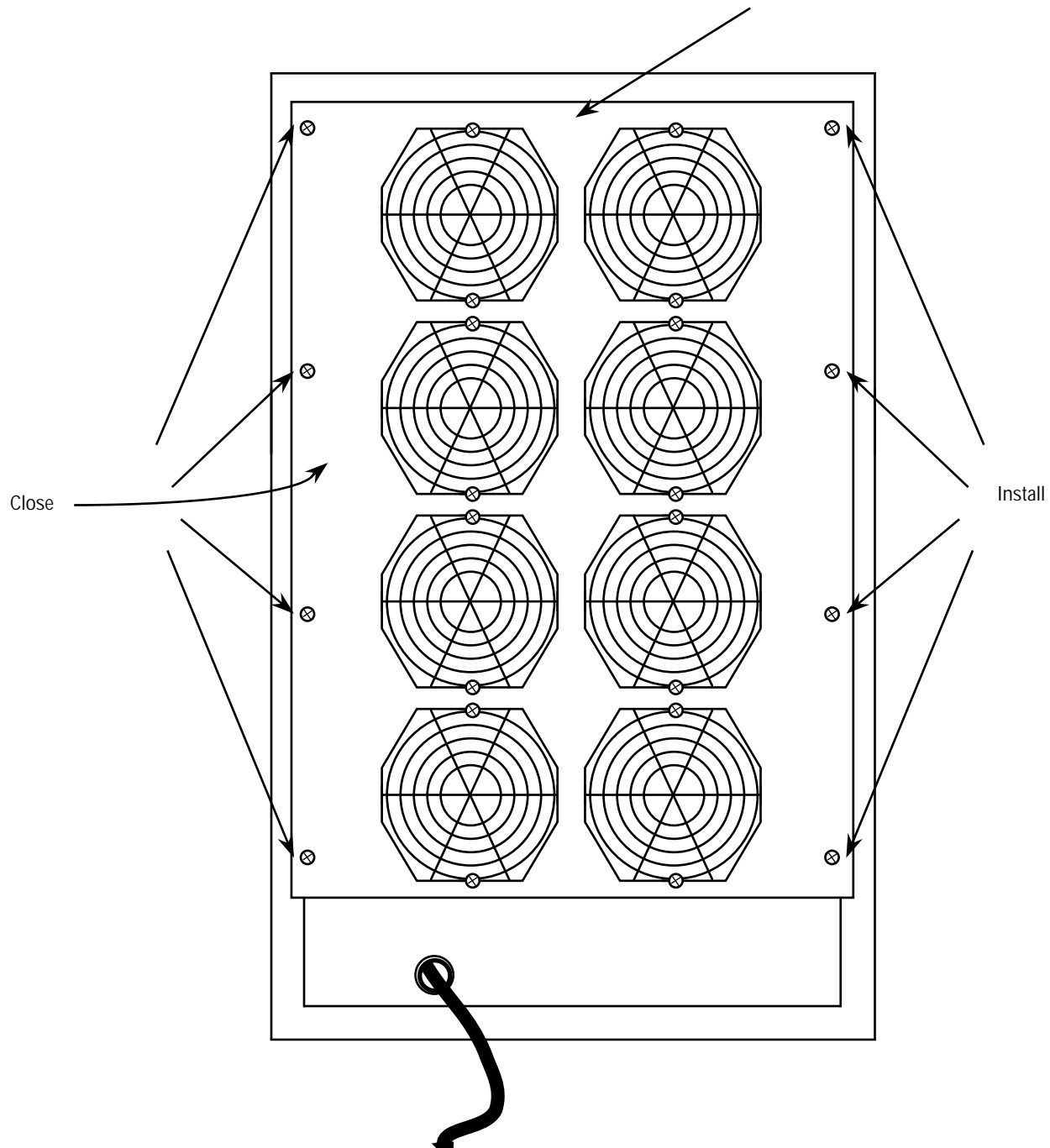
**Step 11: Install Control and Auxiliary Power Cables on Front of Amplifier.**



**Step 12: Install Cables at Rear.**



**Step 13: Close Fan Panel and Install 8 Screws.**



**Step 14: Inspect Unit Prior to Turn-on.**

- Install front and rear doors.
- Turn AC power ON at service panel.
- Verify proper power-up sequence.

**FUNCTIONAL CHECKS REQUIRED**

No calibrations required; power up the cabinet and perform a scan to verify functionality.