AC GENERATION - TROUBLESHOOTING

1. General

A. This section gives the troubleshooting procedures for the AC Generation system. For a general description of the AC Generation system, refer to AC Generation - Description and Operation.

2. AC Generation Troubleshooting

A. None of the Universal Outlets have AC electrical power.

(1) Make sure that the 115 VAC PWR INVTR circuit breaker, found on the left circuit breaker panel, is engaged.

(2) Make sure that the 115 VAC OUTLET CTRLR circuit breaker, found on the left circuit breaker panel, is engaged.

(3) Make sure that the 115 VAC switch (SI029) found on the left switch panel, is set to the ON position.

(4) Get access to the 500 VA Inverter (UT002) electrical connector (PT011). Refer to 500 VA Inverter - Removal/Installation.

(5) Supply external electrical power to the airplane.

(6) Set the EXTERNAL POWER switch (SC006), found on the circuit breaker switch panel to the BUS position.

(7) At electrical connector (PT011) pin A use an AC voltmeter to do a check for 115 Vac.

(8) If there is not 115 Vac at the electrical connector:

(a) Remove the external electrical power unit from the airplane.

(b) Set the EXTERNAL POWER switch (SC006), found on the circuit breaker switch panel to the OFF position.

(c) Check the wire bundle continuity between the 500 VA Inverter electrical connector (PT011) pin A and electrical connector (PC005) pin (z) at the left circuit breaker panel.

(d) If the wire bundle is not serviceable repair or replace it.

(e) If the wire bundle is serviceable replace the 115 VAC PWR INVIR circuit breaker.

(f) Do a check of the universal outlets again.

(9) If there is 115 Vac at the electrical connector get access to the power controller (BF001) electrical connector (PF021). Refer to Power Controller- Removal/Installation.

(a) Connect the electrical connector (PF021) to the inverter.

(b) Supply external electrical power to the airplane.

(c) Set the EXTERNAL POWER switch (SC006), found on the circuit breaker switch panel to the BUS position.

(d) Make sure that the 115 VAC switch (SI029) found on the left switch panel, is set to the ON position.

(e) Use an AC voltmeter to do a check for 115 VAC at electrical connector (PF021) pin 3.

(10) If there is not 115 Vac at the electrical connector:

(a) Set the BATTERY switch (SC005), found on the circuit breaker switch panel to the OFF position.

(b) Set the EXTERNAL POWER switch (SC006), found on the circuit breaker switch panel to the OFF position.

(c) Remove external electrical power from the airplane.

(d) Disconnect the electrical connector (PF021) from the inverter.

(e) Check the wire bundle continuity between the 500 VA Inverter electrical connector (PT011) pin B and electrical connector (PC005) pin (z) at the power controller.

(f) If the wire bundle is not serviceable repair or replace it.

(11) If the wire bundle is serviceable replace the 115 Vac power inverter. Refer to 500 VA Inverter - Removal/Installation.

(a) Do a check of the universal outlets again.

(12) If there is 115 Vac at the electrical connector replace the power controller. Refer to Power Controller- Removal/Installation.

(a) Do a check of the universal outlets again.

B. There is not 115 Vac at one Universal Outlet.

(1) Set the BATTERY switch (SC005), found on the circuit breaker switch panel to the OFF position.

(2) Set the EXTERNAL POWER switch (SC006), found on the circuit breaker switch panel to the OFF position.

(3) Remove external electrical power from the airplane.
(4) Interchange a known good outlet with the outlet that is not serviceable. Refer to Universal Outlet - Removal/Installation.
(5) Supply the airplane with electrical power.
(6) Get access to the applicable outlet electrical connector.
(7) Supply external electrical power to the airplane.
(8) Set the BATTERY switch (SC005), found on the circuit breaker switch panel to the ON position.
(9) Set the EXTERNAL POWER switch (SC006), found on the circuit breaker switch panel to the ON position.
(10) Use an AC voltmeter to do a check of the interchanged outlets for 115 Vac.
(11) If the outlet at the previously unserviceable position shows 115 Vac replace the outlet that is now installed in the previously serviceable position. Refer to Universal Outlet - Removal/Installation.
(12) If the outlet in the previously unserviceable position does not show 115 Vac:
(a) Set the BATTERY switch (SC005), found on the circuit breaker switch panel to the OFF position.
(b) Set the EXTERNAL POWER switch (SC006), found on the circuit breaker switch panel to the OFF position.
(c) Remove external electrical power from the airplane.
(d) Get access to the power controller wire bundle electrical connector related to the unserviceable outlet.
(e) Do a check of the wire bundle continuity.
(f) If the wire bundle is not serviceable repair or replace it.
1 Do a check for 115 Vac at the outlet again.
(g) If the wire bundle is not serviceable replace the power controller. Refer to Power Controller- Removal/Installation.
1 Do a check for 115 Vac at the outlet again.

C. 115 VAC is not shed from the universal outlets when the 115 VAC switch is set to the OFF position.
(1) At the lower left instrument panel get access to the 115 VAC switch.
(2) Do a continuity check of the while it is operated.
(3) If the switch is not serviceable replace it.
(a) Set the 115 VAC switch to the OFF position and do a check for 115 Vac at the outlets again.
(4) If the outlets do not shed the 115 Vac replace the power controller (BF001). Refer to Power Controller-Removal/Installation.
(a) Set the 115 VAC switch to the OFF position and do a check for 115 Vac at the outlets again.