

## 3. SYSTEM START UP

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### 3.1 INITIAL RECEIVER CHECK

Upon first receiving the GDP-32<sup>II</sup> system, perform a brief check to verify that the receiver is ready for operation. Remove the receiver from its shipping case and inspect it for exterior damage due to shipment. If there is anything more than cosmetic damage contact Zonge Engineering immediately.

#### LARGE CASE GDP-32<sup>II</sup> (UP TO 16 CHANNELS)

##### Case Bottom Access

1. Lay the receiver on its back and open the clasps to the bottom battery compartment.
2. Carefully open the bottom compartment.
3. Remove the 12 screws from the bottom panel of the main case. Make sure all cables are attached, and press in each card to make sure they are fully seated in their bus connectors.

*NOTE: All 16-channel GDP-32<sup>II</sup>'s are pre-wired for 16 channels, regardless of how many channels were ordered. After checking attachments, replace the bottom panel, making sure that no wires are being pinched. Secure the panel with 12 screws. Tighten firmly, but do not over tighten.*

4. With the battery compartment still open, connect the battery pack.
5. Check the main fuse holder and make sure that there are spare fuses in the battery compartment.
6. Close the battery compartment and secure with the retaining clasps.

##### Front Panel Access

1. Set the receiver upright and open the top lid.
2. Unscrew the 12 screws from the top panel and carefully remove the panel (be careful to not stress the connecting wires).
3. Verify that each board is firmly mounted and that all cables are firmly connected to the appropriate boards; there should be no unconnected cables.
4. Replace the top panel being careful to not crimp any cables or wires and replace the 12 securing screws.

*NOTE: Turn the screws until the head touches the top of the panel, then turn it ¼ turn more.*

## SMALL CASE GDP-32<sup>II</sup>T (UP TO 6 CHANNELS)

### Front Panel Access

1. With the case lid open, unscrew the 12 screws from the top panel and carefully remove the panel (be careful to not stress the connecting wires).
2. Verify the each board is firmly mounted and that all cables are firmly connected to the appropriate boards; there should be no unconnected cables.
3. Replace the top panel, being careful to not crimp any cable or wires, and replace the 12 securing screws.

### Side Panel Access

1. Remove the 10 securing screws from the Analog side panel.
2. Check all cables.
3. Verify that each board is firmly mounted and that all cables are firmly connected to the appropriate boards. Verify that the retaining bar across the bottom of the card cage is firmly attached.

*NOTE: All 6-channel GDP-32<sup>II</sup>'s are pre-wired for 6 channels regardless of how many channels were ordered.*


4. Replace the Analog side panel, being careful to not crimp any cable or wires, and replace the 10 securing screws.

*NOTE: Turn the screws until the head touches the top of the panel, then turn it ¼ turn more.*

## 3.2 POWERING UP THE GDP-32<sup>II</sup>

### Turn the Crystal Oscillator ON

1. Locate the **POWER ON/OFF** button on the Control I/O panel on the side of the GDP. Press the button once. The “**CRYSTAL ON**” light on the front panel will turn **ON**.


2. Press  to cycle the receiver to **ON**. This activates the digital portion of the receiver.
3. Check the Front Panel to ensure that the Crystal Oscillator indicator light is **ON**. If it is not, the batteries may need to be charged. (See **Section 15 - Maintenance** for complete trouble-shooting instructions).


*Note: For synchronous operation the crystal oscillator must be turned on for at least 60 minutes in order to reach operating stability. The crystal oscillators in both the receiver and the transmitter controller must both be turned on for a minimum of 60 minutes before attempting to synchronize clocks or collecting data.*

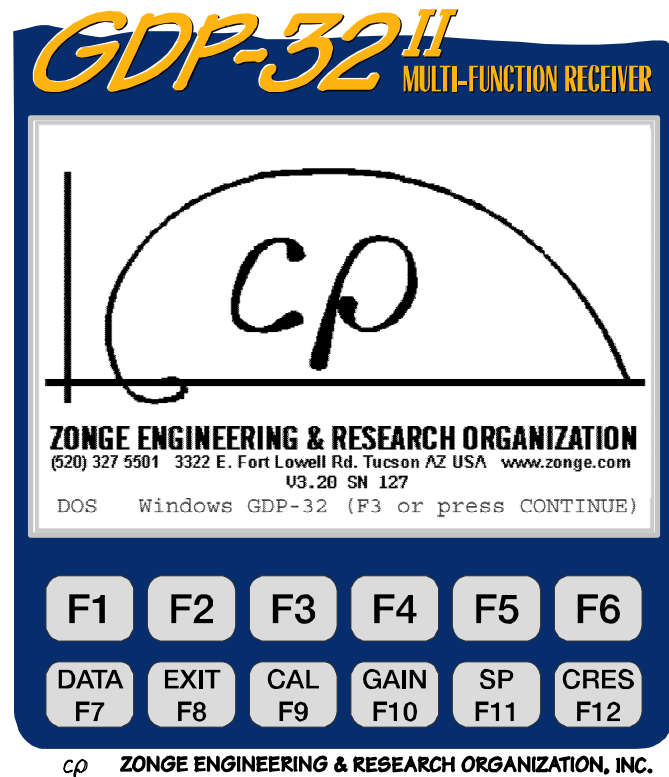
*No warm-up time is necessary if the receiver is to be operated in the asynchronous mode.*

### Turn Power On

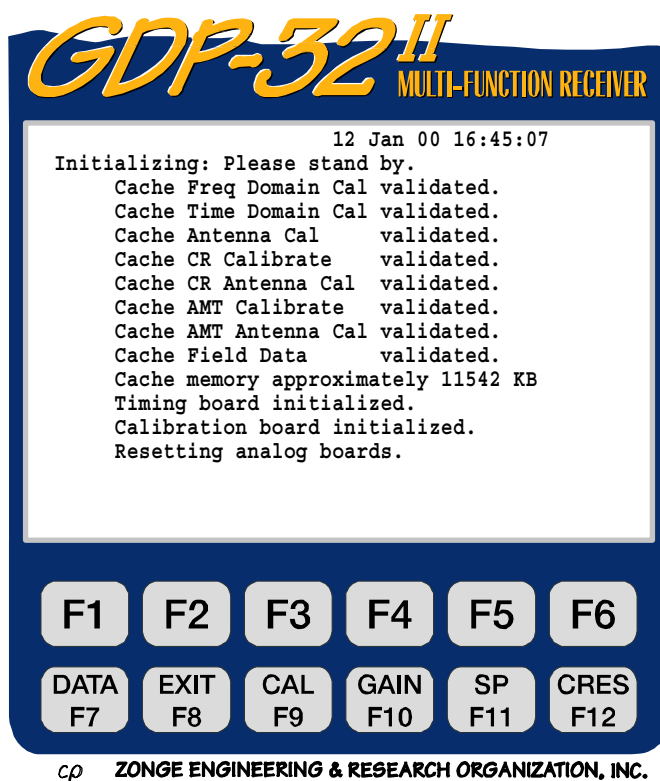
The GDP-32<sup>II</sup> can be powered up directly without making any special checks during normal field operations.

1. Press . The LCD should activate within a few seconds. If you cannot see the display, you may need to adjust the contrast.
2. The first major display is the Zonge Engineering logo with the selection of **DOS**, **Windows 95**, or **GDP** operation displayed

below the logo. Press  to select the **GDP** program and the initializing display will appear on the screen:







3. The last line changes to “**Testing analog boards**” when that portion of the program is entered. The relays on the installed boards will click audibly. This process takes several seconds, and then the LCD displays the *Main Program Menu*.



### 3.3 SHUTTING DOWN THE GDP-32<sup>II</sup>

#### Turn Power Off

Go to the first menu, press  (Utilities), then  (Turn Off Power). Wait until the logo appears on the screen. Then press  until you hear a series of single beeps, and then release the key. The screen goes blank and the unit shuts down. This procedure permits the receiver to turn down power in a regulated sequence, which is necessary for several components. The turnoff sequence will sound like “beep-beep-beep, beep-beep-beep, beep-beep-beep, then bip, bip, bip, ...”. Then you may release . If you are shutting down for the day, you can turn off the crystal, otherwise leave it on.

## 3.4 CHARGING BATTERIES

### SINGLE UNIT CHARGERS

There is a selector switch for either 115 or 230 volts on the base or front of single unit chargers. Select the voltage according to the power system used by the country in which you are working (the charger will work for both 50 and 60 Hz).

*WARNING: Improper switch selection may result in damage to your battery charger and/or to the receiver batteries.*

1. Plug the charger power cable into a power outlet. The **POWER ON** light on the charger should turn on.
2. Connect the charging cable from the charger to the **BATTERY CHARGE** port on the receiver Control I/O panel. Make sure there is a good connection between the military plug and the **BATTERY CHARGE** port. The batteries are charging if the **FAST CHARGE** light on the charger is illuminated. Batteries are fully charged when the **FAST CHARGE** light turns off completely.

### UC-2 UNIVERSAL CHARGER

The UC-2 battery charger works with 85 to 264 VAC and 45 to 440 Hz.

1. Plug the charger cable into the **BATTERY CHARGER** port on the GDP-32<sup>II</sup>.
2. Plug the UC-2 into a power outlet.
3. Turn the UC-2 on.

*NOTE: The UC-2 battery charger must be turned off and turned back on again to reset the circuitry.*

The battery charging cable can be attached or detached even when the receiver is operating. Data acquisition and system checks are not recommended while charging batteries as the charger sometimes introduces noise to the receiver.

If you suspect a problem or if battery charging does not proceed as outlined, see **Section 15 - Maintenance**.