1.4 Controls:

The following controls are accessed on the front of the unit:
POWER ON/OFF
MONITOR (Access to PF function)
AUX (access to second PF function)
REPEAT
Connector Control Lever
Key Pad (on radio)

1.5 Indicators:

The POWER and REPEAT push buttons are LED illuminated. In addition another LED indicates Rapid/Trickle Charge mode.

1.6 In/Out Connectors:

Connectors are provided for DC power input, Accessory connector, RF In/Out, and microphone.

2.0 Physical Characteristics

2.1 Dimensions are 7.0" high by 5.25" wide by 2.8" deep.

2.2 Weight is 3.0 lbs.

2.3 The unit is configurable for either vertical or horizontal mounting by change of a decal which defines control functions. The mounting bracket is adaptable for either orientation.

2.4 Radio connection: Connections to the radio battery are made automatically when it is inserted into the pocket. Side connections are made when a single lever is moved laterally. A press on the lever releases the radio. A tapered pin is installed into the side connector of the radio to accurately index the sliding connector.

2.5 Ruggedness: The unit is designed to be very rugged so as to provide an acceptable level of crash safety in the mobile vehicular environment.

3.0 Battery Charging

3.1 The unit provides "intelligent" charging controls with the following characteristics:

3.1.1 The rapid charge rate is 500 mA or higher which will, for example, charge a fully discharged 1.0 AH battery in approximately 2.5 hours.

3.1.2 The trickle charge rate is typically 40 mA.

3.1.3 The charger uses a digitally controlled negative Delta V charging algorithm.

3.1.4 The charger first assesses battery status. If battery voltage is too low, a trickle rate is applied until voltage rises to an acceptable level. If voltage or temperature is too high, rapid charge will not commence until this condition is corrected. If temperature is too low, trickle rate is applied until temperature becomes acceptable. A timer will cut off rapid charge if other parameters should fail to do so.

3.1.5 The charger automatically senses whether a battery is in the pocket.

3.2 Controller: Charging is controlled by an integrated circuit incorporating the above functions. It also controls a very efficient switching regulator for low dissipation. The charging is done by constant current control.

3.3 Charge Indicator: Charge state monitoring is provided by an LED with Off or On states and Red/Green colors which indicate charge and battery status.

3.4 Charging Control: An ignition sense function is provided to enable or disable the charging function.