Preco Electronics Inc.

PV2000 TIME DOMAIN RADAR

PV2000 USER MANUAL

CLYDE SHAVER 3-1-2000

INTRODUCTION

This manual will discuss the installation and operation of Preco's PV2000 Time Domain Radar.
General radar and electro-magnetics theory will be left for the reader to pursue elsewhere.

INSTALLATION

The radar was designed to be mounted perpindicular to the ground at a height of 3 feet (ground to center of radar). Mount radar at the rear of the vehicle, in the center.
If radar must be mounted at a height of less than 2.25 feet, then radar unit must be tilted Up aprox 5 degrees, to keep the ground from being detected. If radar is mounted at greater than 4 feet, then radar can be tilted down aprox. 5 degrees to avoid missing short Targets within the range.

Connect the two conductor dc power connector to a dc supply of 9.6v-28volts.

Connect the round connector on radar sensor to the extention cable that goes up to the cab of the vehicle, and connect LED box to extension cable.

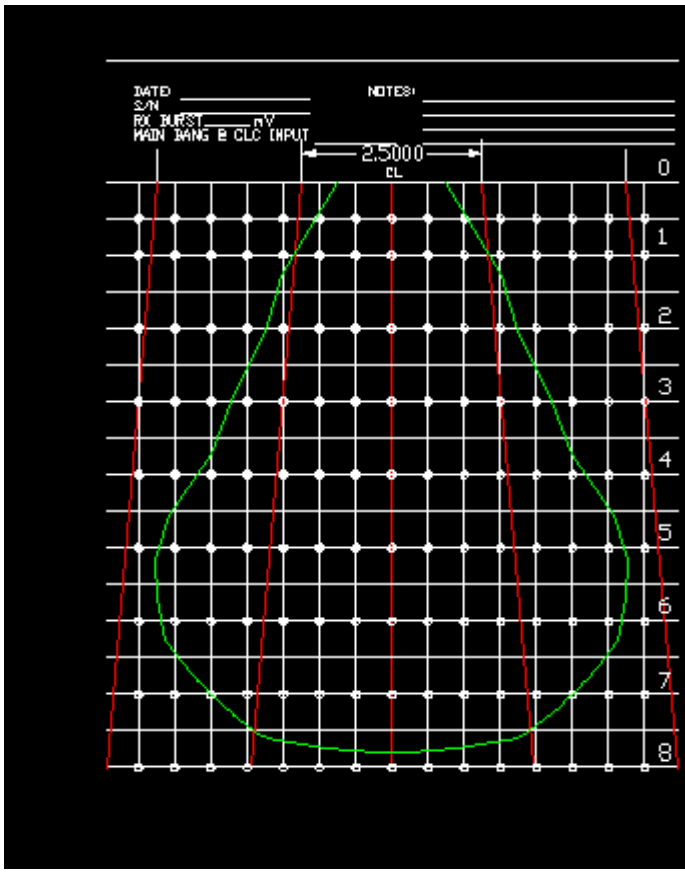
OPERATION

The radar is designed to detect objects up to 8 meters(26.25 ft). The eight lights indicate How far target is from radar unit. When 1 light is on, a target has just entered the detection zone at 8meters away. When all 8 lights are on the target is within 1 meter of The radar sensor. The audible indicator also beeps faster as the target approaches.
The radar was designed to meet SAE J1741, see spec. for zone parameters.
The PV2000 has a detection zone that resembles a pear, see zone pattern plot.
The vertical pattern is aprox. 20 degrees thruout the range and the horizontal is about 150 degrees at 0.5 meters, and about 45 degrees at 26 feet.

RADAR DETECTION ZONE

DIMENSIONS ARE IN METERS

HORIZONTAL PATTERN



VERTICAL PATTERN