Technical Note #71
Waveform Scaling Factor Adjustment

Subject: Waveform Scaling Factor adjustment for PQM firmware versions 3.20 and 3.21.

An error has been discovered in the calculation of the scaling factor for the Waveform Capture feature in PQM firmware versions 3.20 and 3.21. Adjust the Waveform Scaling Factors read from the PQM at the following locations based upon the VT Ratio as indicated below.

REGISTER ADDRESS	GROUP	DESCRIPTION
0848	Waveform Capture	Van Waveform Capture Scale Factor (high)
0849	Waveform Capture	Van Waveform Capture Scale Factor (low)
08D0	Waveform Capture	Van Waveform Capture Scale Factor (high)
08D1	Waveform Capture	Van Waveform Capture Scale Factor (low)
0958	Waveform Capture	Van Waveform Capture Scale Factor (high)
0959	Waveform Capture	Van Waveform Capture Scale Factor (low)

CONDITION	ADJUSTMENT
IF (1.0 <= VT RATIO < 5.1)	Divide converted value by 82799.2
IF (5.0 < VT RATIO < 10.1)	Divide converted value by 41399.6
IF (10.0 < VT RATIO < 35.1)	Divide converted value by 11824.3
IF (35.0 < VT RATIO <= 3500.0)	Divide converted value by 114.34

> **NOTE:** The VT Ratio in the table above refers to the programmed value after conversion, i.e. 5.1:1 refers to value 51 as read in the memory map at register location 1054 hex.

Compensation for this error has been made in PQMPC version 3.21. The calculation scaling factors will be corrected in the next release of PQM firmware.

Last Revised 5/27/99