Using The SWIFT FUTURA Remote Processing Unit For Hall Calls

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1. INTRODUCTION

The RPU_HC2.HEX is a hex file to be burned into the 27c512 chip which is installed on the RPU_HC board. The offset address is 0F0000H and the ending address is 0FFFFFH.

Note that the RPU_HC board must run at 19 Mhz clock or faster to communicate with the SPU and the HPUs without communication errors.

2. SOFTWARE COMPATABILITY

This version of the RPU_HC works only with the SPU Software version above v.012, that is linked & located after May 15, 1996.

3. BOARD ADDRESS

Four of the sixteen pins of J5 connector are used to set the RPU_HC board address. These four pins give the board 16 unique addresses, which range from 214 to 229, and they are labeled on the board as J5-3, J5-5, J5-7 and J5-9. To select the pins, tie them to Ground. Note that pins J-15 and J-16 are Ground pins.

J5 Pin Layout

```
1      .
              .      2
3      .
              .      4
5      .
              .      6
7      .
              .      8
9      .
              .      10
11     .
              .      12
13     .
              .      14
15     .

              .      16
```

Figure 1

4. DIAGNOSTIC COMMANDS

The RPU_HC can execute commands from the SPU. These commands are as
follow:

> RPUR - Reset the RPU_HC board.
> RPUD - Get Hall Call Setup.
> RPUC - Reset HPU communication errors.
> RPUVX - Change video screen display:

>> Top Screen
>>> X = 0 - Show system confidence test.
>>> X = 1 - Show HPU Interrupt Status.
>>> X = 2 - Show Hall Call Interrupt Status.
>>> X = 3 - Show system errors.

>> Bottom Screen
>>> X = 8 - Display HPU packet received.
>>> X = 9 - Display HPU version.
>>> X = 10 - Display Hall Call Setup.

> RPUx -   Display HPU comm status on the HI terminal.
> (where x = 1, 2, ..).

The RPU_HC board will set the Hall Call(Up & Down) for EDS when it loses
communication from the HPU. To disable this feature, set bit 3 of GSW 4
in the Group.