## FC MODULE EXPONENT NORMALIZATION ADDER

The FC module has a fifteen bit adder which is used to adjust the exponent in the normalization process. The add unit receives the result exponent from the FA module and the normalization adjustment value from the FB module. Since the normalization process involves making the exponent smaller the normal operation of the adder is a subtract. The substract is done by adding the result exponent to the compliment of adjustment value.

Adder control terms feed the adder ranks to alter the normal subtraction process. A negative one shift of the coefficient requires a plus one to the exponent. The exponent is discarded and sign extension is required for floating point to constant conversions. The exponent must be cleared or set to 60000 for error conditions.