How to use the:
Special Embedded CALL(@3800) Routine in MCBASIC3/3J

How to use this CALL function:
While at the Basic 3 command prompt ":" just enter the following
CALL(@3800)
Now just press the <CR> key on your terminal.

You should see "Ready to SAVE Program"

You now have approximately 15 seconds to configure your terminal to capture the HEX file that will contain your currently loaded Basic 3 program. If the front panel LED's are enabled then they will also be all turned ON, once the transfer starts the LED's will display the current byte being transferred. Once the transfer is finished, all the LED's will blink OFF and ON. At this point you should stop capturing the HEX file into your terminal program, then either press the <CR> key then you will see the following:

File Saved Successfully

READY
:

Or if you press the IN button on the front panel then
you see will the following:

File Saved Successfully

ERR CODE 0
READY
:

Note: If within the first 15 seconds you decide to Abort this function then you must press the IN button on the front panel, then you will see the following:

ERR CODE 0
READY
:

A few words about the HEX file created:

The HEX file generated is the all the Basic 3 variables along with your Basic 3 program. The first 512 bytes of it are the Basic 3 variables while the rest of it, up to 15 ½K in length is your Basic 3 program in compressed form that Basic 3 uses. The HEX file is automatically offset address of 4000h. This file is **ONLY** functional for use with the Auto Run feature that is within MCBASIC3/3J.

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How to make an Auto Run MCBASIC3/3J ROM:
You will need the following:
1. A 16K binary or hex file of the MCBASIC3/3J program
2. The HEX file created by this CALL(@3800) routine
3. A 32K blank EPROM/ROM

Understanding that there are many kinds of EPROM/ROM programmers that can be used, I will only explain an overview of this process.

1. Set up your EPROM/ROM programmer for your 32K blank EPROM/ROM.

2. Load the 16K MCBASIC3/3J binary or hex file into the EPROM/ROM programmer. This will be loaded in from address 0000h thru 3FFFh

3. Load the HEX file that was created by the CALL(@3800) routine into the EPROM/ROM programmer. This will be loaded in from starting address 4000h.

At this point, make sure that both the MCBASIC3/3J program and your program HEX file are in the EPROM/ROM programmer.

Now before you burn this EPROM/ROM you **MUST** activate the Auto Run feature. To Activate this feature you must write a 00h (or any non-FFh value|) into memory location 3FFFh
Note: Any value other than FFh in location 3FFFh will activate the Auto Run feature.

4. Now burn the new 32K EPROM/ROM then install it into the main Membership Card CPU board. Make sure that all the memory jumpers on the CPU board are set for your EPROM/ROM that you just burned.

NOTE: When the MCBASIC3/3J is running an Auto Run program, the default baud rate is set to 9600 upon reset or power-up.

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