## Application Note:

## Transmitting a Value Bigger than 65,535 in BCD Format with TXD Instructions

You can transmit values from 0 up to 99,999,999 by using the following method.
(1) If a 32-bit value is contained in data registers D0 and D1, you need to convert this value to hex values using $\mathrm{HTOB}(\mathrm{D})$ instruction.


The table below shows examples of conversion results.

| 32-bit value contained in D0\D1 | D2 | D3 |
| :--- | :--- | :--- |
| 0 | 0000 h | 0000 h |
| 1234 | 0000 h | 1234 h |
| 65535 | 0006 h | 5535 h |
| 190000 | 0019 h | 0000 h |
| 12345678 | 1234 h | 5678 h |
| 99999999 | 9999 h | 9999 h |

Note: If the value contained in DOID1 is bigger than 99,999,999, a user program execution error occurs and ERROR LED turns on.
(2) If you want to transmit a 6 digit value with a TXD instruction, you need to configure S1 of the TXD as follows.

| Upper 2 digits setting | Lower 4 digits setting |
| :---: | :---: |
| Variable (Dota Register) $\underline{x}$ | Varisle (Data Register) $\underline{x}$ |
| DRNo Convesion Type | DBNo Convesion Type |
| D0002 - 6 Bil toASCll | D0003 - $\quad$ BIIN LASCII |
| C BCD to ASCll | $\mathrm{CBCO}_{\text {to }}$ |
| $\sqrt{\frac{\text { Dioite }}{\text { a }}}$ | Dipite $\frac{14}{4}$ |
| OK Cancel | 0 OK Cancel |

The TXD instruction dialog box will appear, as shown here:


Click OK to close the dialog box.

(3) Before downloading the program to a PLC, ensure that the communication settings on the port used by the TXD instructions is configured correctly. To check the communication settings, select Function Area Settings... from the Configure menu, and then go to the Communication tab.


| OK | Cancel | Default | List | Help |
| :---: | :---: | :---: | :---: | :---: |

(4) Download the program to the PLC.
(5) With this example, when you turn on M0000, TXD2 instruction will transmit the data.

If the 32-bit value contained in D0\D1 is 0, TXD2 instruction transmits the following data:

| "0" |
| :---: |
| 30 h |


| "0" |
| :---: |
| 30 h |


| "0" |
| :---: |
| 30 h |


| $" 0 "$ |
| :---: |
| 30 h |


| "0" |
| :---: |
| 30 h |

"0"
30 h

If the 32-bit value is 1234 , TXD2 instruction transmits the following data:

| $\begin{aligned} & " 0 " \\ & 30 \mathrm{~h} \end{aligned}$ | $\begin{gathered} \hline " 0 " \\ 30 \mathrm{~h} \end{gathered}$ | "1" 31 h | $\begin{gathered} \text { "2" } \\ 32 \mathrm{~h} \\ \hline \end{gathered}$ | "3" 33 h | "4" 34 h |
| :---: | :---: | :---: | :---: | :---: | :---: |

If the 32-bit value is 12345678 , TXD2 instruction transmits the following data:

| "3" | "4" | "5" | "6" | "7" | "8" |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 33h | 34h | 35h | 36h | 37h | 38h |

