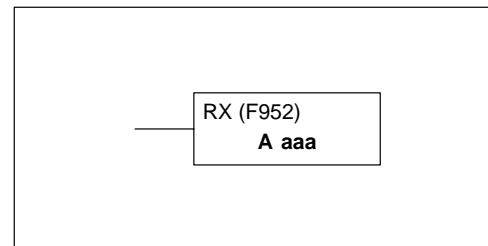


## Network Instructions

### Read from Network RX (F952) DL340 Only

The Read from Network instruction is used by the master device on a **DirectNET** network to read a block of data from another CPU or **DirectNET** interface module. The function parameters are loaded into the accumulator and the first and second level of the accumulator stack by three additional instructions. Listed below are the steps necessary to program the Read from Network function.



Step 1: — Load the slave address (1–90 BCD) into the accumulator with the DSTR instruction. This must always be preceded by 00, so address 20 would be 0020. (Remember, D4–DCM slave device addresses are set with switches that use a hexadecimal format. Make sure you convert this address to the decimal equivalent for use with this instruction.)

Step 2: — Load the number of bytes (1 – 128 BCD) to be transferred from the network slave station.

Step 3: — Load the octal address for the data register that will be used to store the data obtained from the slave station.

Step 4: — Insert the RX instruction which specifies the starting address in the slave station. If you are getting the data from a DL305 station, just enter the Data Register number. If you are getting the data from a DL205 or DL405 station, enter a constant that corresponds to the memory address. For example, to get the current count for Timer 600 from a DL305 CPU, you would use R600 with the RX instruction. If you wanted to get Counter 0 from a DL405 CPU, you would use a constant of 1000 with the RX instruction. (V1000 stores the current count for Counter 0 in a DL405 CPU.)

**NOTE:** The DirectNET manual provides further information on the use of the RX and WX network instructions.

Data Type		D3–330 Range	D3–340 Range	D3–330P Range
A		aaaa	aaaa	aaaa
Inputs / Outputs	R	000–014 070–075	000–014 070–075	000–014 070–075
Control Relays	R	016–036	016–036 100–105	016, 020–027
Shift Registers	R	040–056	040–056	—
Stages	R	—	—	100–116
Timer /Counters (16 bit)	R	600–677	600–677	600–677
Data Registers	R	400–577	400–577 700–777	400–577
*Constant (4–digit BCD)	K	0000–9999	0000–9999	0000–9999

\* A constant is used to obtain data from a DL205 or DL405 system.

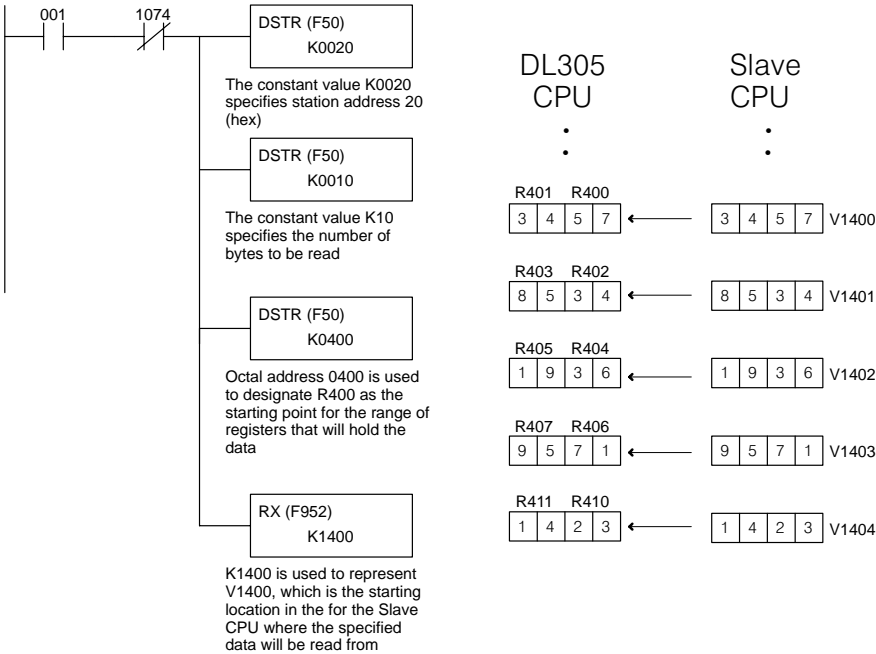
Discrete Bit Flags	Description
777	Parameters are not properly set. Check the slave address, data length, or data address reference.
1074	Communication port busy.
1075	Communication error. Data was not transmitted.

**NOTE:** See the DL205 or DL405 User's Manuals for a listing of V-memory addresses available with these CPUs. Since the DL305 only supports a 4-digit constant, you will not be able to access the entire V-memory ranges of the DL205 and DL405 CPUs. For example, you could not directly access V40400 stored in a DL405 CPU. If you require data from a range outside the area available with a 4-digit constant (from V0 – V9999) then add a routine to the slave station program that moves this data down into one of the accessible areas.

In the following example, when input 001 is on and the CPU busy relay 1074 (see special relays, p. 8-31) is not on, the RX instruction will access a DL405 CPU that has been assigned station address 20. (Note, the D4-DCM slave station addresses are set with switches that indicate a hexadecimal number. Make sure you determine the decimal equivalent to be used with the first DSTR instruction in the sequence.)

Ten consecutive bytes of data (V1400 – V1404) will be read from the slave station and stored in registers R400 – R411. (Remember, the DL205 and DL405 V-memory locations are 16 bits. The DL305 registers are only 8 bits, so you have to use two data registers for each V-memory location.)

DirectSOFT Display



Handheld Programmer Keystrokes

STR SHF 1 ENT  
AND NOT SHF 1 0 7 4 ENT  
F 5 0 ENT  
SHF 0 0 2 0 ENT  
F 5 0 ENT  
SHF 1 0 ENT  
F 5 0 ENT  
SHF 4 0 0 ENT  
F 9 5 2 ENT  
SHF 1 4 0 0 ENT