

REMOTE DEVICE
USER REFERENCE SHEET
 FOR

MAGNETEK'S MAG I/O DRIVER
FOR INTELLUTION'S FIX
 For use with MicroTrac DSD LAN

FUNCTION

MagneTek's I/O Driver for Intellution's FIX program is designed to work in an IBM compatible personal computer (PC) that has a Contemporary Control Systems, Inc. (CCSI) ARCNET card plugged into the PC's bus. The Driver software accepts messages coming into the ARCNET card from MagneTek's MicroTrac DSD ARCNET LAN (Local Area Network) and converts them into a format acceptable to the FIX program.

HARDWARE

- A. For your system computer (PC), you must have the equivalent of an IBM PC/AT (i.e. a machine with an 80286 processor) or better. Also, your machine must have a math co-processor such as an 80287 for the 80286 processor.
- B. Set the jumpers and switches on the CCSI ARCNET card (type PCX-CXB) as shown in Figure 1.

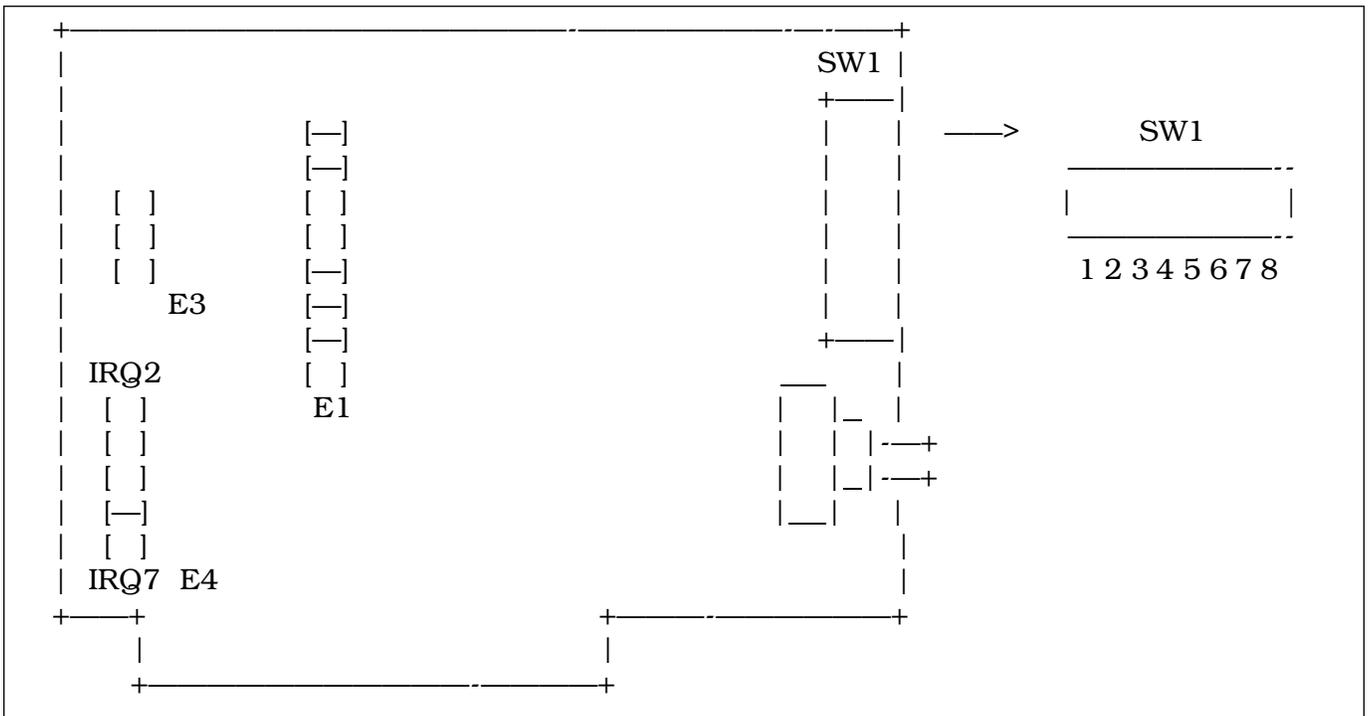


Figure 1. CCSI ARCNET Card Jumper Settings

C. These switch and jumper settings on the ARCNET card set up the following operating environment for the card:

1. The ARCNET node number is D2H (210 decimal)
2. The PC interrupt is IRQ5
3. Memory space from D000:0000 through D000:FFFF is used
4. I/O addresses from 300H through 30FH are utilized

It is imperative that none of the other hardware in your PC uses any of the memory space, I/O addresses or interrupts mentioned above. Unreliable operation will occur if conflicts exist in the hardware addressing.

D. Insert the CCSI ARCNET card into your PC (make certain the power is off first).

E. Connect the ARCNET card to the MicroTrac DSD LAN using RG-62 coaxial cable, as described in the MicroTrac DSD Technical Manual (TM 6100). Use a coaxial "T" connector at the ARCNET card, and, if

the card is the last node on the LAN, insert a 93 ohm terminator on the other side of the "T" connector, as shown in Figure 2.

F. The 115 volt 50/60 Hz power supply for your PC must be supplied through an isolating/noise-suppressing transformer. DO NOT just plug your PC into a wall outlet without utilizing an isolating transformer. The ground connection of the secondary on the isolating transformer should be connected to the nearest good earth ground (the steel structure of the building is usually a good choice). The ground studs on the MicroTrac DSD drive panels or cabinets must also be connected directly to a solid earth ground in order to prevent erratic operation of the LAN system.

G. Insert CCSI's ARC-Control Configuration Program floppy disk into your PC. Execute their "PCX" program and verify that the ARCNET card settings described in paragraph C do not have conflicts with other PC hardware. If there are conflicts, identify them and notify MagneTek so that a new MAG I/O Driver can be generated.

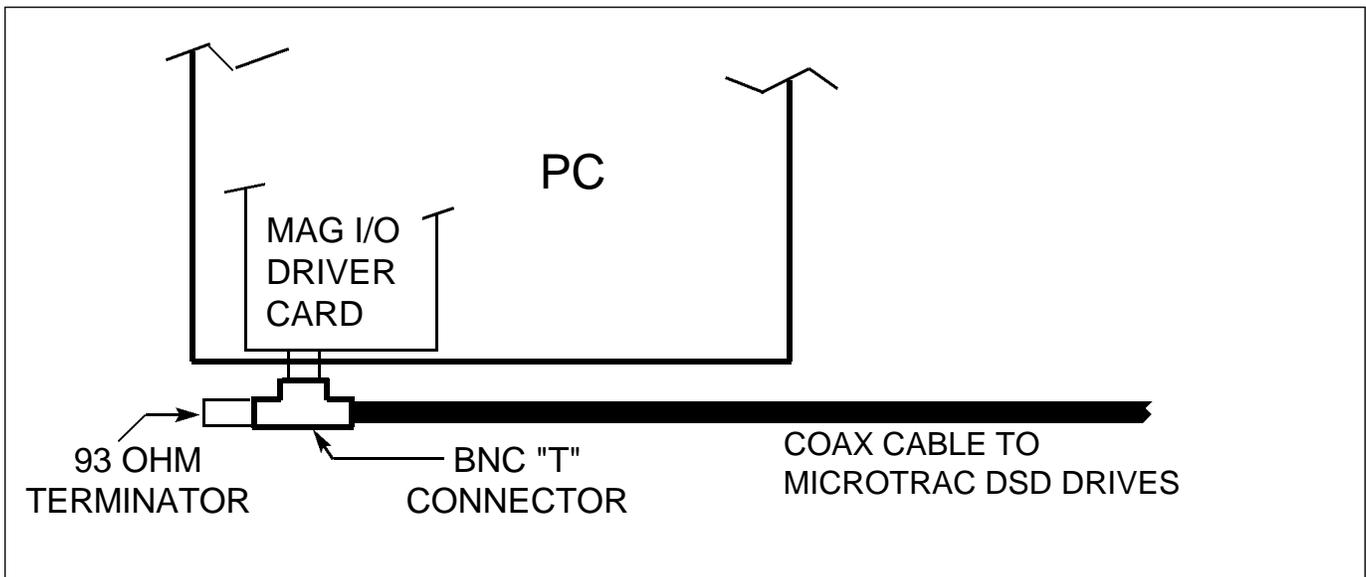


Figure 2. ARCNET Coaxial Connection

SOFTWARE

A. First, install Intellution's FIX program onto your PC using the instructions given in their instruction manual. Don't forget that Intellution's "software key" must be plugged into the parallel printer port of your PC to enable operation of their programs.

B. Copy the MagneTek MAG I/O Driver diskette onto a spare blank diskette to make a backup copy. Put the original diskette away for safe keeping and use the copy for the further processing.

C. Make certain that your current drive on the PC is the hard disk that the FIX programs are loaded on, and then insert the MAG I/O Driver diskette into the "A:" drive. Type:

A:INSTALL

and press the <ENTER> key.

The MAG Driver software should automatically load into the FIXDIR directory.

D. Check to see if your PC has a CONFIG.SYS file in the root directory of the "power up" hard disk (usually C:). If it does not, create one. Then modify the CONFIG.SYS file to contain the following:

```
files=25  
buffers=25  
shell =c:\command.com /e:256 /p
```

The last statement was found to be required on our systems to provide reliable operation of the MAG Driver software and may also be required on your system.

E. After you have completed debugging operations, you may also want to modify

your AUTOEXEC.BAT and RUNFIX.BAT files to give automatic power-up entrance into the first major display of your operational program.

FIX PROGRAMMING

A. Reboot your PC. Then type

```
CD\FIXDIR  
RUNFIX
```

to start the FIX program. Resolve all indicated problems until the following message appears:

```
**System Started**
```

Then type

```
GO
```

to get to the FIX main menu.

B. Enter the Data Base Builder (DBB). Here use CV (Coil Value) and RV (Register Value) blocks to interface your FIX screen displays with the MAG Driver.

C. If you have loaded more than one I/O Driver onto your system, the CV and RV blocks may not come up (in the ADD mode) with the DV label identified as MAG. (It depends on which I/O Driver was loaded first.) If the DV label is not MAG, change it to MAG.

D. Then enter the appropriate TAG name and IO-ADDR addresses for each CV (logic) and RV (numeric) block. Each RV block also requires a HI-EGU entry to define its maximum value. All of these names, addresses and max values should have been supplied to you by the MagneTek design engineer who worked with you on this custom application. If you do not have

a listing of these parameters, they should be decipherable from the file USRTABL.ASM on the MAG Driver diskette supplied for your order.

The MAG Driver currently requires that all numeric and logic data interchanged between the FIX and the MicroTrac DSD Local Area Network (LAN) be predefined in

the USRTABL.ASM file. If a need arises for additional data points, you may contact MagneTek to add those points to the USRTABL and send you a new MAG I/O Driver.

E. Save your new database and proceed with the rest of your FIX programming activities.