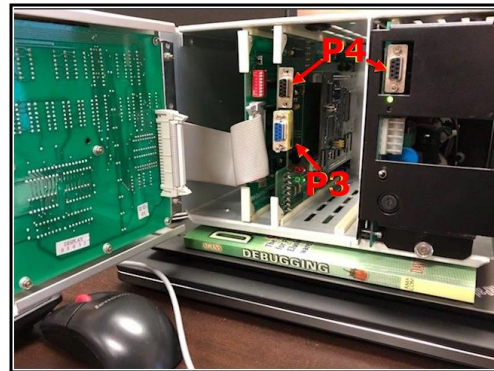


Tech Note 1018 – 170 Controller Host/Engine Board Interface and Setup

The purpose of this Tech Note is to assist the user in setting up a 170 controller with a V76 Host/Engine Board and Adapter.



Setup and programming

Upon installing in the correct 170 controller the user must install the V76 software on the Host/Engine board.

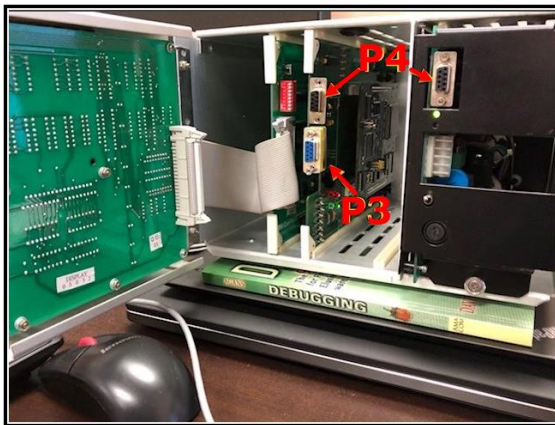
- 1) Please contact your Cubic/Trafficware representative or e-mail support@trafficware.zendesk.com with your software request. This will require an installation program named **TWDevUtil**, the V76 software and instructions to install it.
- 2) Once both are received, refer to **Tecnote 1015: Software Installation Instructions for OS9 Operating Systems Hardware**. <https://trafficware.zendesk.com/hc/en-us/articles/360000339148-Tn1015-Installation-Instructions-for-OS9-Hardware-platforms->
 - a. To load the V76 software on the Host/Engine board, use the **P4** DB-9 male (upper 9 pin connector) on the front panel interface along with a serial cable (**P/N 10225-2115** or equivalent null modem) along with any necessary gender changer.
 - b. Set up the Serial port using the PC serial port number along with the following settings:

PC Port:	COM3
Baud rate:	9600
Data:	8 bit
Parity:	none
Stop:	1 bit
Flow control:	none

- 3) Follow the instructions in **Tecnote 1015: Software Installation Instructions for OS9 Operating Systems Hardware**. When completed, the V76 software will be installed on the Host/Engine board.
- 4) By default, the Host/Engine Board Flash drive is pre-configured with the factory initialized Standard 8 phase traffic programming for V76 which is equivalent to selecting MM->8->4->1 and choosing FULL-STD8 initialization. This program resides on the Host/Engine board flash drive.

Note: If the Host/Engine board has been unpowered for more than about 5 days and the super-cap backed up memory is not retained, it will automatically load the programming that is residing on the Host/Engine board flash drive upon power-up. Please refer to item 7 below for instructions on saving the current database to the Host/Engine board flash drive.

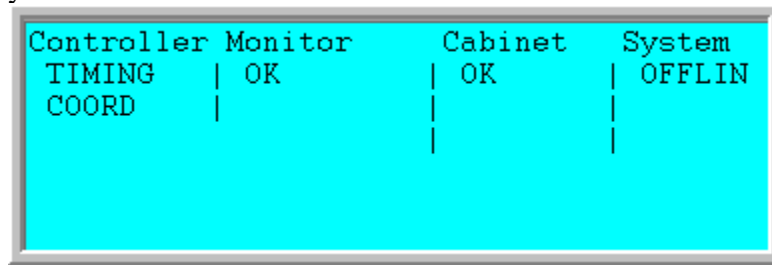
- 5) To interface with the on-board V76 software, you will need the same serial cable (Trafficware P/N 10225-2115 or equivalent null modem). Connect it to **P3**, the DB-9 male connector (lower connector as shown) along and any necessary gender changer.



- 6) The V76 software resides on the Host/Engine boards flash drive. To access the V76 controller software using its “virtual” keypad and display, use a PC or laptop with a terminal emulator/application such as HyperTerminal or Tera Term set it to work as a VT_100 terminal.
 - a. Set up the Serial port using the PC serial1 port number along with the following settings:

PC Port:	COM3
Baud rate:	38400
Data:	8 bit
Parity:	none
Stop:	1 bit
Flow control:	none

- b. Hit the “0” key on the PC keyboard and the V76 Overview screen will be displayed. on your terminal emulator screen.



Controller	Monitor	Cabinet	System
TIMING	OK	OK	OFFLIN
COORD			

- c. V76 Keys that are recognized using the PC keyboard

0 - 9

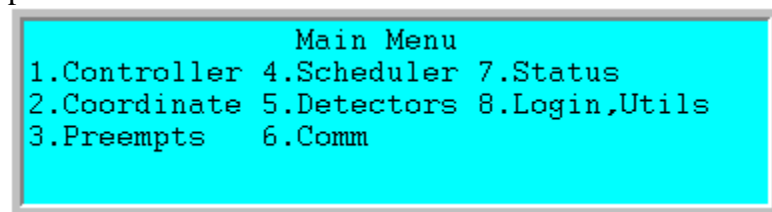
A - F

Esc, Enter

+ (Page Up), - (Page Down), * (Main Menu)

← (Left Arrow), → (Right Arrow), ↑ (Up Arrow), ↓ (Down Arrow)

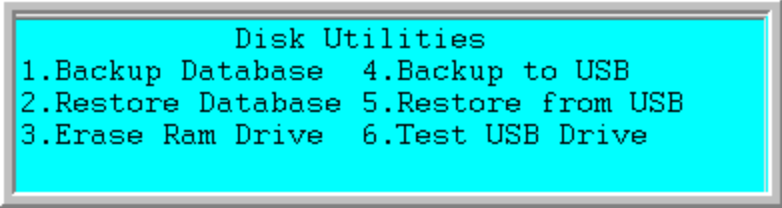
- d. Hit the “*” key repeatedly until the standard V76 menu is displayed, similar to the front panel of the 2070.



Main Menu			
1.Controller	4.Scheduler	7.Status	
2.Coordinate	5.Detectors	8.Login,Utills	
3.Preempts	6.Comm		

- e. The Stop-Time switch on the front panel of the 170 is mapped to the Stop-Time input of the 33x cabinet, by default. The display will show ‘5709’ when Stop-Time is active..
- f. Any key pressed on the front panel will cause the display to show ‘dEAF’.
- g. During normal activity, display will count up once per second. And the Call/Status LED 0 on the Front Panel will toggle at a 1Hz rate.

- 7) Once the database is modified the user should store it on the on-board flash drive. This will insure that the modified database is restored when there is a power down for over 5 days because the database stored on the Host/Engine board will be loaded.
- a. To store the database on the Host/Engine board navigate to **MM->8->3->1** Backup Database. This will store the program to the Host/ Engine Board Flash drive.

A screenshot of a menu titled "Disk Utilities" displayed on a cyan background with a black border. The menu contains six numbered options arranged in two columns: 1.Backup Database, 2.Restore Database, 3.Erase Ram Drive in the first column, and 4.Backup to USB, 5.Restore from USB, 6.Test USB Drive in the second column.

```
Disk Utilities
1.Backup Database  4.Backup to USB
2.Restore Database 5.Restore from USB
3.Erase Ram Drive  6.Test USB Drive
```

Summary

Agencies with a 170 Host board can set up V76 software to run a modern software interface with existing 170 controllers using this technote.