



AIR THROTTLE CONTROL MODEL# ATI-ANALOG PART# 000774

774LIT WL AIR ANALOG
THROTTLE.COMPLETE.1



DESCRIPTION

The model ATI-ANALOG is a microprocessor based product that converts control air pressure to voltage. The required signal to throttle the ECM from 0-100%. There is a serial interface provided to facilitate programming and setup. When multiple engines are chained together the ATI-ANALOG can be adjusted to even load distribution. The ATI-ANALOG will also respond to serial commands to

OPERATION

As the input air pressure is adjusted by the operator or other machinery the ATI-ANALOG converts air pressure to voltage. The (minimum and maximum voltage), pressure range, and tweak factor can be changed by serial command. The tweak factor is the amount of throttle setting that the ATI-ANALOG can be changed relative to another ATI-ANALOG at the same pressure setting. This enables engines to be matched as to load sharing. Pressure range is the maximum pressure required for

PRESSURE TRANSDUCER

Stainless steel membrane compatible with all fluids. Burst pressure is 450 psi. Regulator and filter are recommended but not necessary.

SPECIFICATIONS

Material..... Stainless Steel
 Temperature Range.....-40°F to +185°F
 Power.....SENSOR SUPPLY(5V)
 Output5 to 4.5 volts
 Air Pressure Input.....0-80 PSI, Max 300 PSI

CONNECTIONS

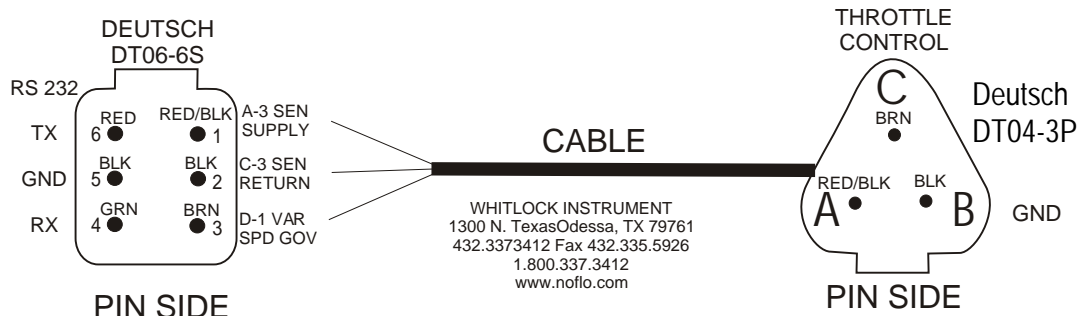
Included: Adapter cable(Part #774-2) to connect to ECM (A-3, C-3,D-1 or D-2). This cable consist of a 6 pin plug (Deutsch DT06-6S) to a 3 pin Receptacle Deutsch DT04-3P) with 3 pin plug (Deutsch DT06-3S).
 Optional: Programming cable (Part #744-1) that attaches to ECM and Serial link(Rx,Tx,Gnd). This cable consist of a 6 pin Plug (Deutsch DT06-6S) to a 3 pin receptacle (Deutsch DT04-3P) and D-SUB 9 pin Female configured to connect to D-sub 9 pin male Standard serial port.

Pin Connections 6 pin receptacle:

- 1) A-3 sensor supply - (RED/BLK)
- 2) C-3 sensor return - (BLACK)
- 3) D-1 or D-2 governor - .5v to 4.5v - (BROWN)
- 4) RS232 Receive Rx - (GREEN)
- 5) RS232 Ground - (BLACK)
- 6) Rs232 Transmit Tx (RED)

SPECIAL INSTRUCTIONS

Mount with the threaded end facing down. This is to prevent water accumulation and ice formation.

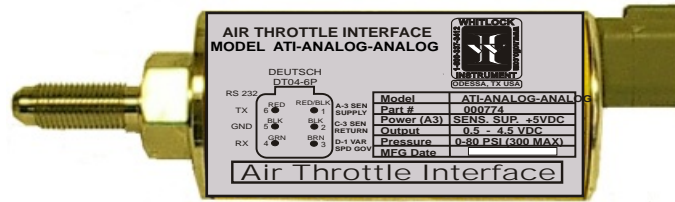


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AIR THROTTLE CONTROL

MODEL# ATI-ANALOG-ANALOG PART# 000774

PROGRAMMING INSTRUCTIONS



PROGRAMMING:

Any terminal program can be used to communicate with the ATI-ANALOG. Microsoft Hyperterminal is one example. All that is necessary is to establish a direct serial link at 9600 baud.

The following key strokes are used to change or display operating parameters.

Pressing lower case (d) will return the following:

V1.1 06/03/02	Verison number and date of last program change
Pn000774 Model ATI-ANALOG	Part number and model designation
Tweak 1.6%	Tweak factor (Range 0.2% - 2.9%)
Idle 10%	Minimum Voltage at 0 PSI (Range 01% - 49%)
Throttle 10%	Current throttle setting in
Max 94%	Maximum Voltage at 100% throttle (range 51%-99%)
Pressure range 80PSI	Current programmed pressure range for maximum throttle (available ranges are 60,80,100,120 PSI)

To change a setting press the first letter of the setting to change then use the (+) plus or (-) minus keys. Use lower case letters not capitals.

Tweak factor:	(t) then + or - will increment or decrement the tweak factor
Idle setting:	(i) then + or - will increment or decrement the minimum at 0 psi
Maximum	(m) then + or - will increment or decrement the maximum at 100 % throttle
Pressure range	(p) then + or - will increment or decrement the pressure range for 100% throttle

To accelerate the engine using keyboard commands press (a) then use the + or - key to increase or decrease the engine speed. Pressing (i) will return the engine to idle immediately. This feature enables an engine to be controlled by computer or PLC commands through a serial link.

Pressing (d) at any time will return a listing as above of all the settings.

Factory default settings:

Tweak	1.6%
Idle	10%,
Max	94%,
Pressure Range	80PSI

The settings are stored in permanent memory and will not change on loss of power.

Connections:

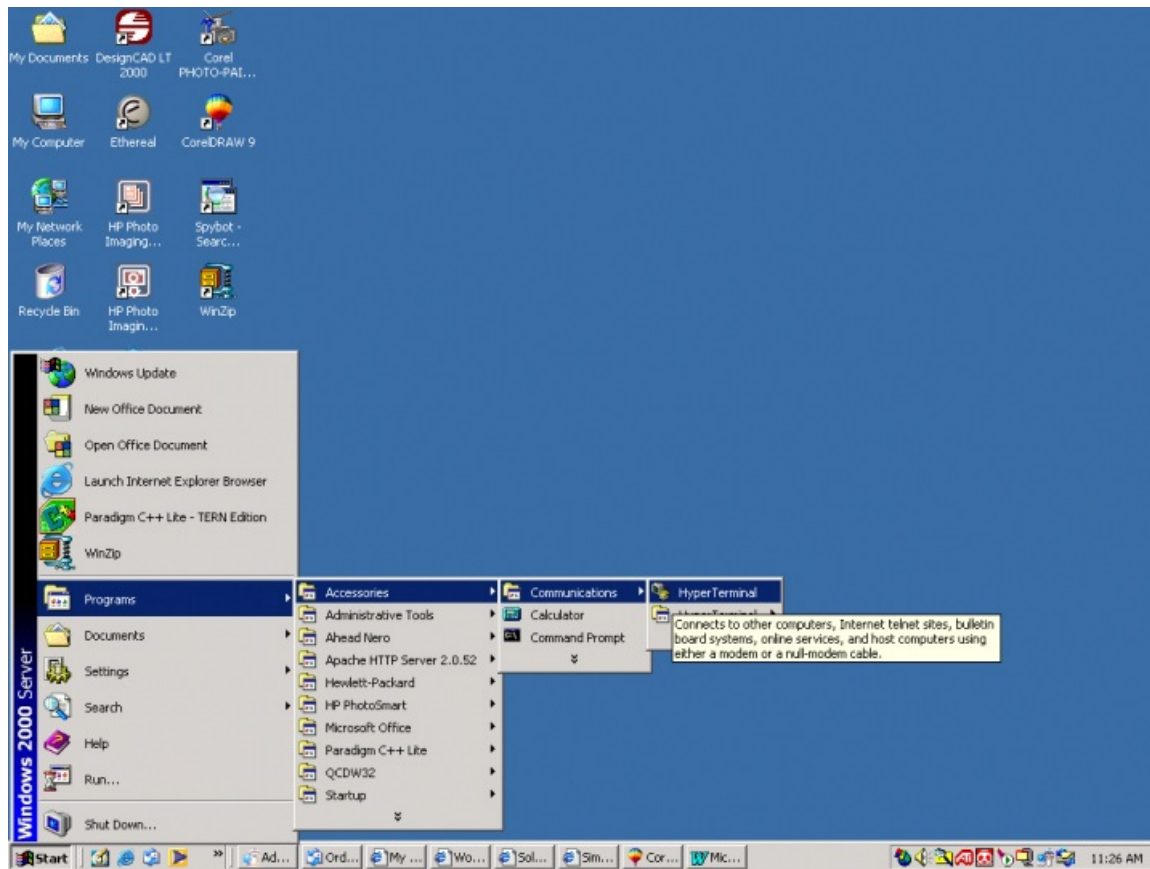
Included: Adapter cable(Part #774-2) to connect to ECM (+12 - +24, GND)
This cable consist of a 6 pin plug (Deutsch DT06-6S) to a 3 pin receptacle (Deutsch DT04-3P) with 3 pin plug (Deutsch DT06-3S).

Optional: A programming cable (Part #774-1) that attaches to ECM and Serial link(Rx,Tx,Gnd).
This cable consist of a 6 pin plug (Deutsch DT06-6S) to a 3 pin receptacle (Deutsch DT04-3P) and D-SUB 9 pin female configured to connect to D-sub 9 pin male standard serial port.

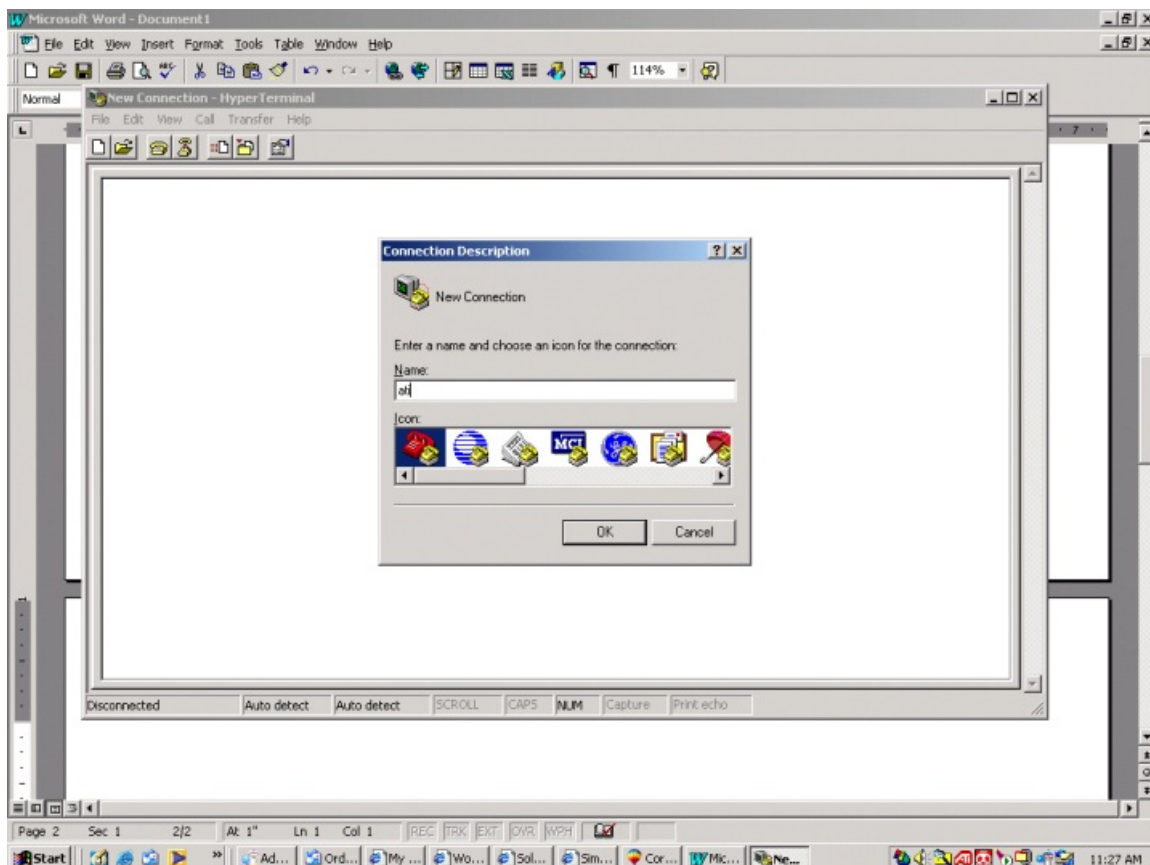
Pin Connections 6 pin receptacle:

- 1) A-3 Sensor Supply RED/BLACK (+5VDC)
- 2) C-3 Sensor Return BLACK
- 3) D-1 or D-2 - .5 to 4.5 volts peak - (BROWN)
- 4) RS232 Receive Rx - (GREEN)
- 5) Rs232 Ground - (BLACK)
- 6) RS232 Transmit Tx - (RED)

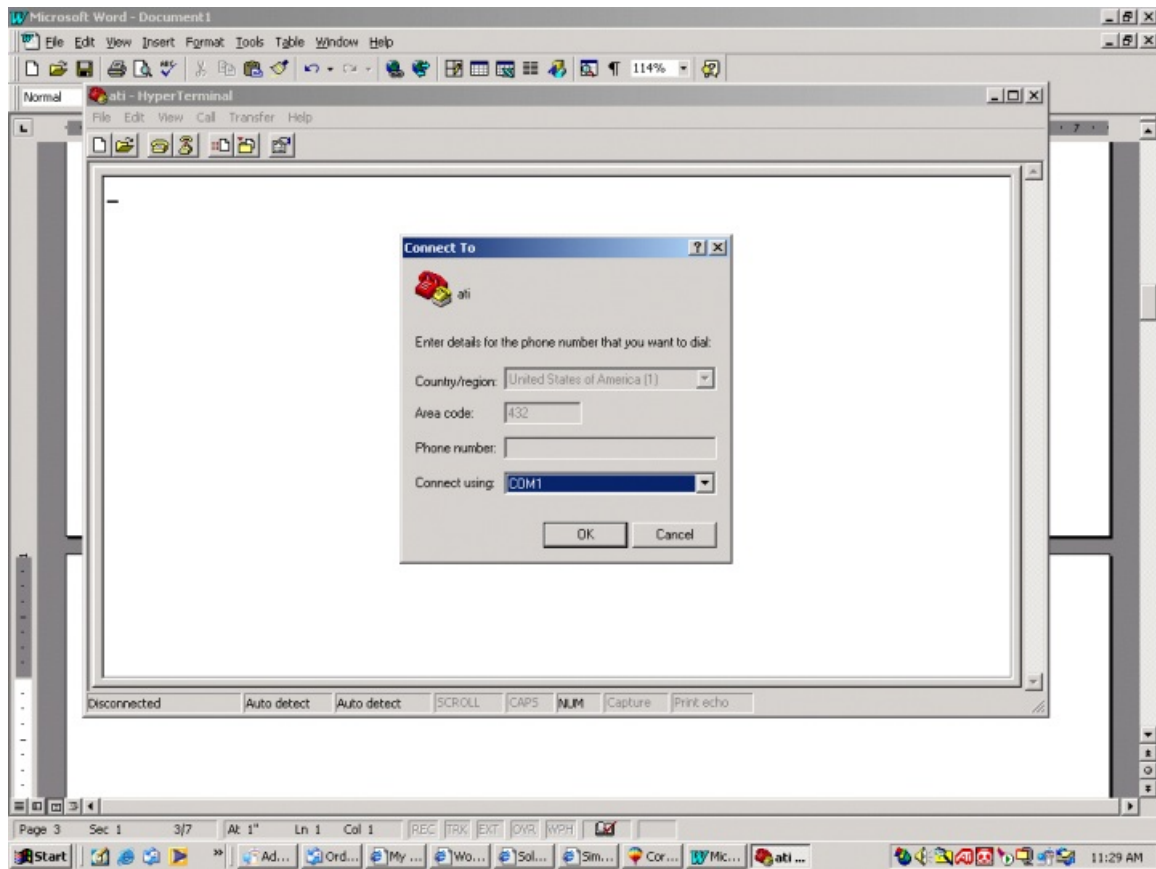
1. WHERE TO FIND HYPER TERMINAL



2. HYPER TERMINAL - OPENING SCREEN



3. HYPER TERMINAL - COMPORT SETTING



4. HYPER TERMINAL - COMPORT PROPERTIES

