AIR THROTTLE CONTROL
MODEL# ATI-ANALOG
PART# 000774

AIR THROTTLE INTERFACE
MODEL ATI-ANALOG

Model	ATI-ANALOG
Part #	000774
Power (A3)	SENS. SUP. +5VDC
Output	0.5 - 4.5 VDC
Pressure	0-80 PSI (500 MAX)
MFG Date	

Air Throttle Interface

DEUTSCH DT04-6P

RS 232
TX — 6 RED / RED/BLK 1 — A-3 SEN SUPPLY
GND — 5 BLK / BLK 2 — C-3 SEN RETURN
RX — 4 GRN / BRN 3 — D-1 VAR SPD GOV

PIN SIDE

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 throttle the engine.

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 100% throttle.

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)
Output ....5 to 4.5 volts
Air Pressure Input...80 Psi (500) Max

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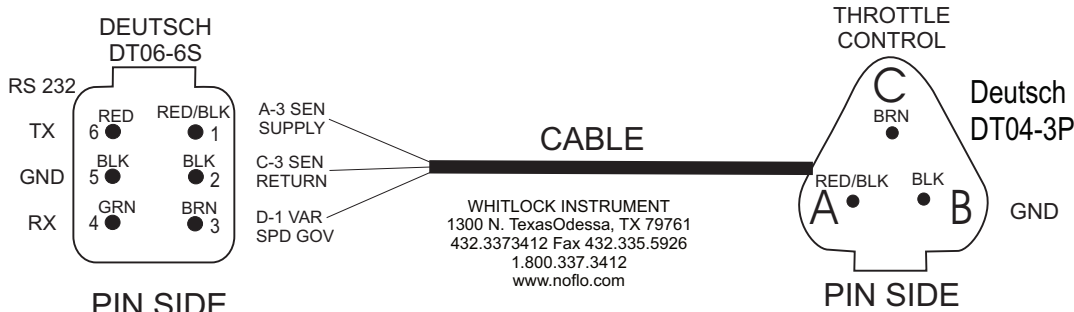
Optional: Programming cable (Part #744-1) that attaches to ECM and Serial link(Rx,Tx,Gnd). This cable consist of a 6 pin Plug (Deutsch DT06-6S) to a 3 pin receptacle (Deutsch DT04-3P) and D-SUB 9 pin Female configured to connect to D-sub 9 pin male Standard serial port.

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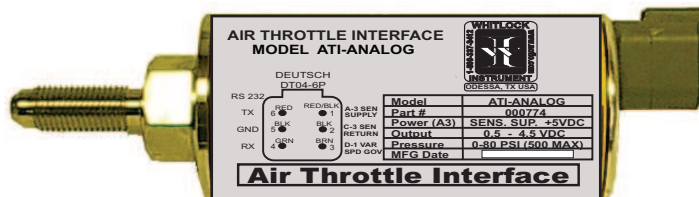
Mount with the threaded end facing down. This is to prevent water accumulation and ice formation.

DEUTSCH DT06-6S

RS 232
TX — 6 RED / RED/BLK 1 — A-3 SEN SUPPLY
GND — 5 BLK / BLK 2 — C-3 SEN RETURN
RX — 4 GRN / BRN 3 — D-1 VAR SPD GOV

CABLE

WHITLOCK INSTRUMENT
1300 N. TexasOdessa, TX 79761
432.3373412 Fax 432.335.5926
1.800.337.3412
www.noflo.com

THROTTLE CONTROL
Deutsch DT04-3P
C BRN
A RED/BLK   BLK B — GND

PIN SIDE

PIN SIDE

AIR THROTTLE CONTROL
MODEL# ATI-ANALOG PART# 000774
PROGRAMMING INSTRUCTIONS

AIR THROTTLE INTERFACE
MODEL ATI-ANALOG

DEUTSCH
DT04-6P

RS 232
TX
GND
RX

RED   RED/BLK   A-3 SEN SUPPLY
6   1
BLK   BLK   C-3 SEN RETURN
5   2
GRN   BRN   D-1 VAR SPD GOV
4   3

Model	ATI-ANALOG
Part #	000774
Power (A3)	SENS. SUP. +5VDC
Output	0.5 - 4.5 VDC
Pressure	0-80 PSI (500 MAX)
MFG Date	

Air Throttle Interface

PROGRAMMING

Any terminal program can be used to communicate with the ATI-ANALOG. Microsoft Hyperminal 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
PN:000774 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 of 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.
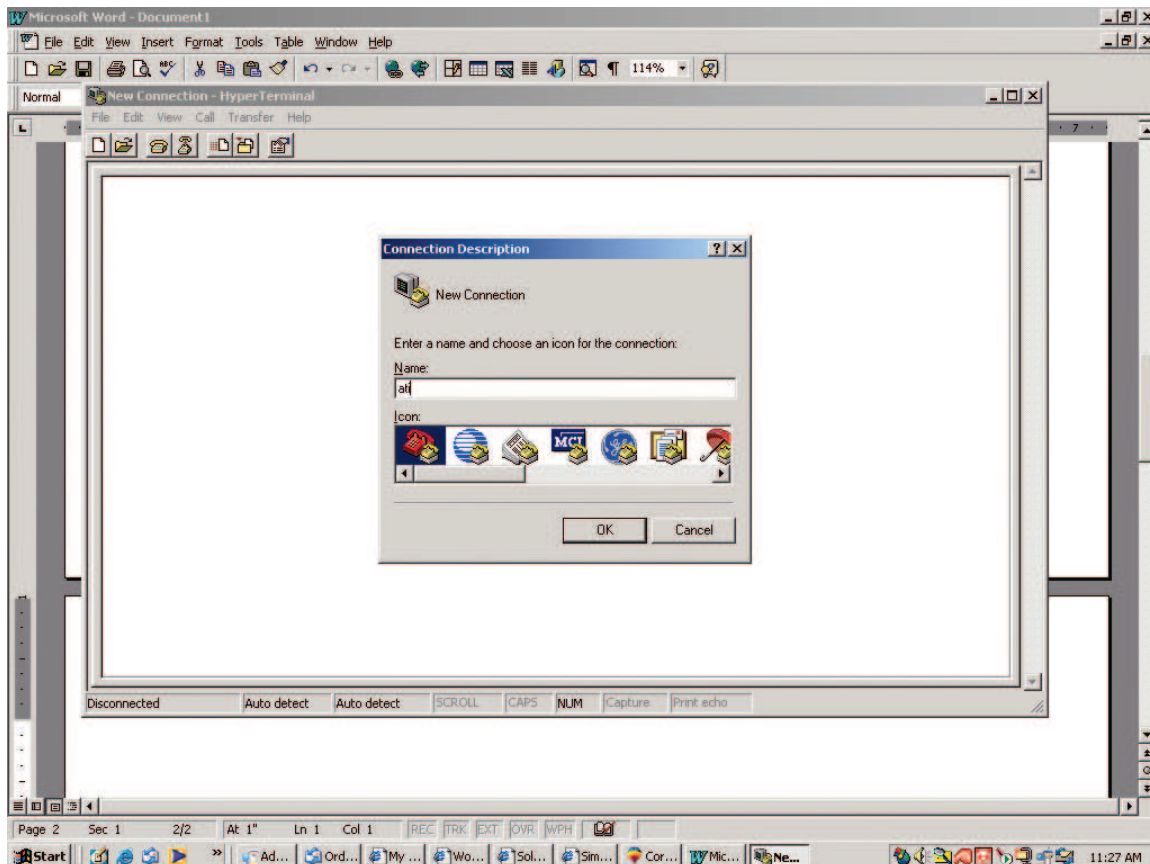
Pin Connections 6 pin receptacle:
  1) A-3 Sensor Supply RED/BLACK (+5VDC)
  2) C-3 Sensor Return BLACK
  3) D-1 or D-2   - .5 to 4.5 volts peak - (BROWN)
  4) RS232 Receive Rx - (GREEN)
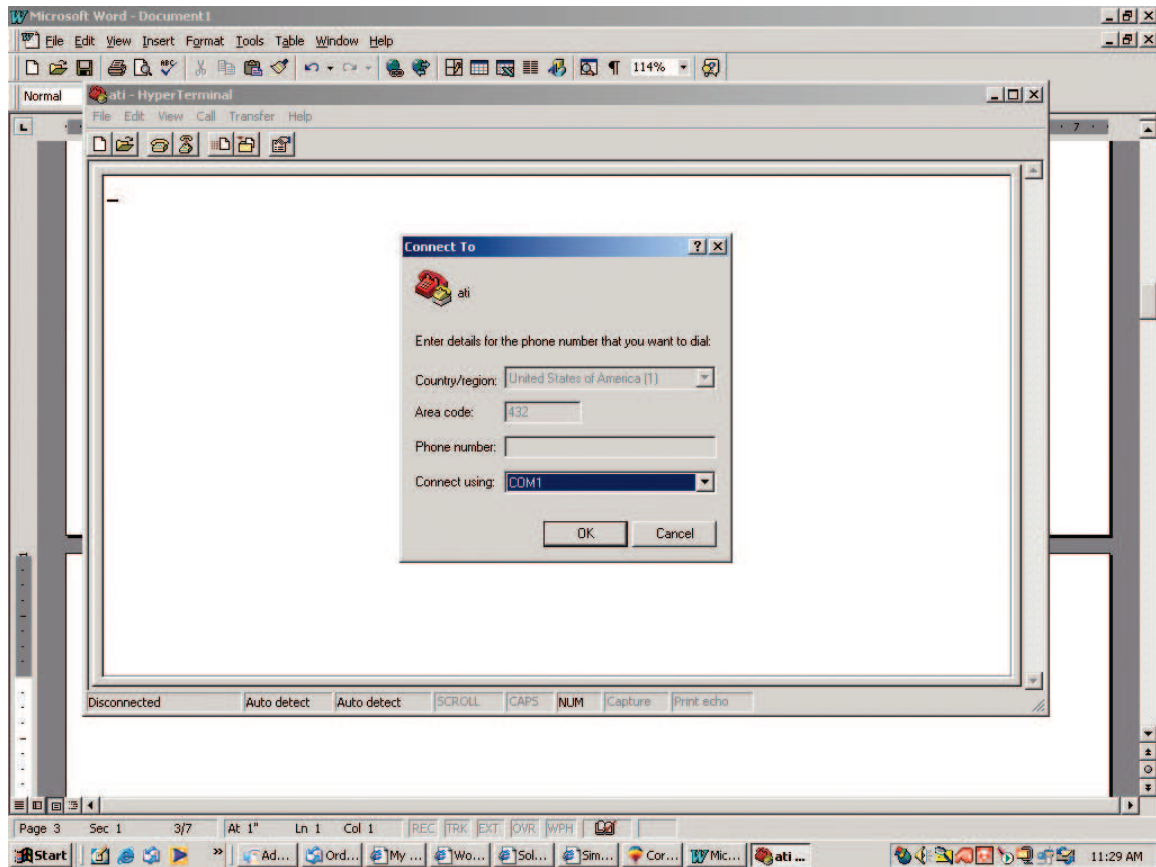 5) Rs232 Ground - (BLACK)
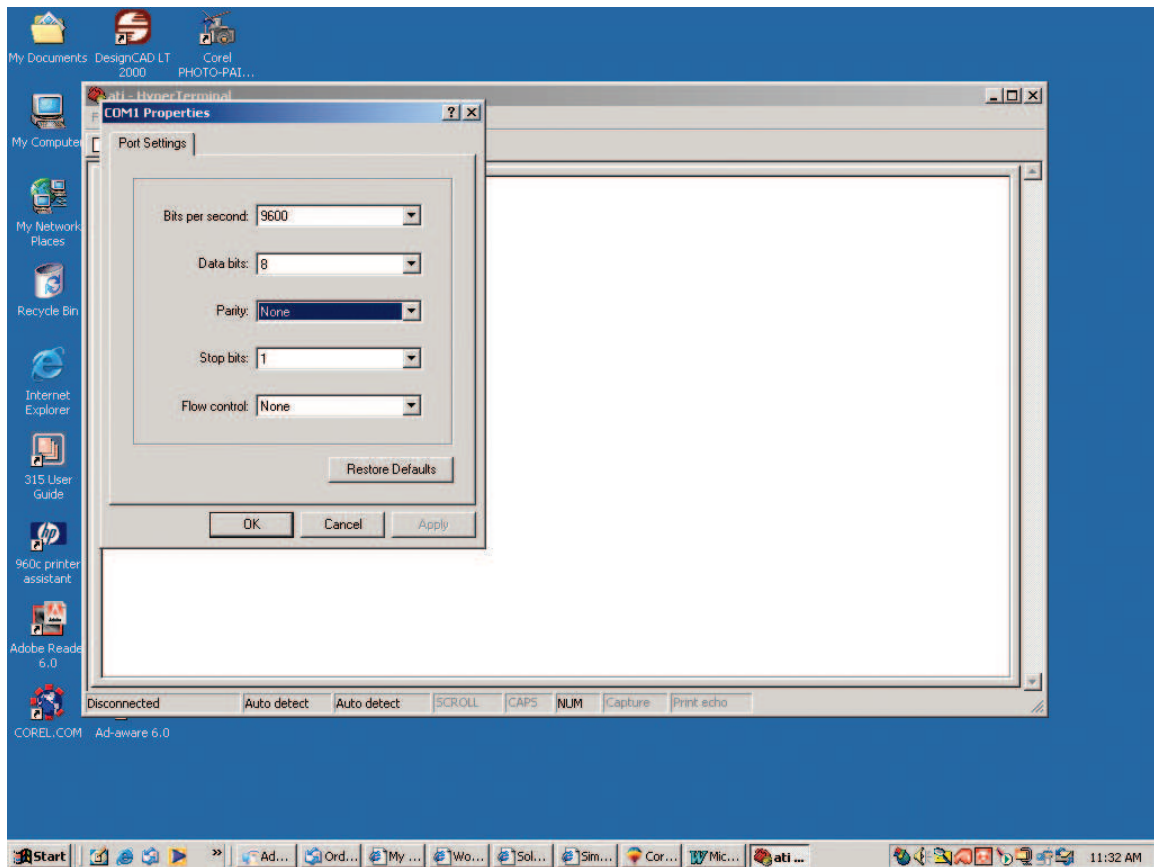 6) RS232 Transmit Tx - (RED)

1. WHERE TO FIND HYPER TERMINAL
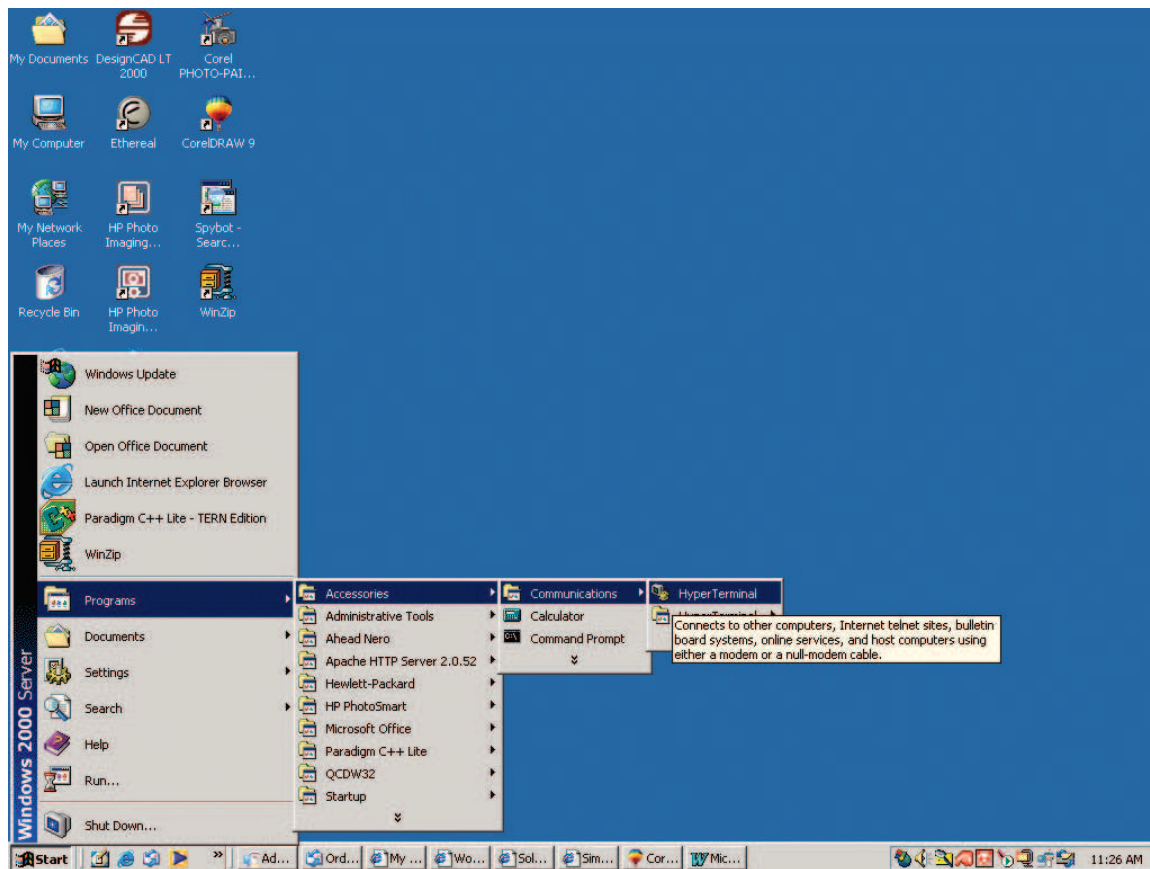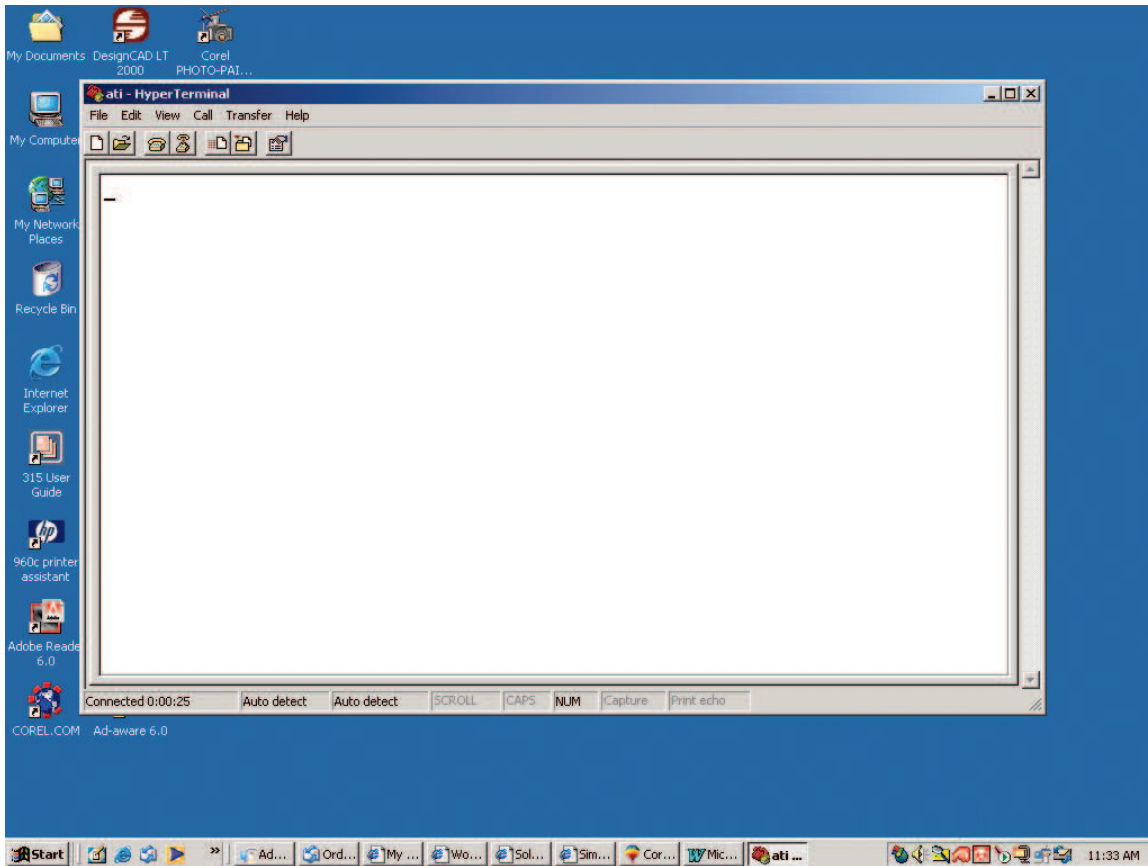

2. HYPER TERMINAL - OPENING SCREEN

3. HYPER TERMINAL - COMPORT SETTING

4. HYPER TERMINAL - COMPORT PROPERTIES

5. HYPER TERMINAL - READY

6. HYPER TERMINAL - WORKING