## VERSION 51 ADDENDUM TO THE VIDEO TAPE

To see how these programs work, just keep hitting ENTER to see the sample set of numbers that are in there now. Check where the decimals are, then put in numbers of your own. The sample will then be gone forever. If you have questions, please call anytime.

| Program | Description | |
|---|---|---|
| 40 | Fuel Volume | The Complement to 39. |
| 41 | Main/Hi Spd Balance | To keep the fuel the same when the Hi/Spd opens. |
| 42 | Prop Slippage | For Boats |
| 43 | Speed | |
| 44 | RPM | Laid out like 12'– 16. |
| 45 | Overdrive | Just hit Enter to see how |
| 46 | Prop Pitch | the sample numbers look. |
| 47 | $C^o$ -- $F^o$ | |
| 48 | $F^o$ -- $C^o$ | |
| 49 | Valve Springs | |
| 50 | Cam Specs | From Timing Specs. |
| 51 | Cam Timing | From Cam Specs. |
| 98 | 1 Car or 6 Car Set–up Choice | Hit 1 or 6 then Enter |
| 99 | Altimeter or Barometer Set–up Choice | Hit 1 or 2 then Enter |

PROGRAM 52

Enter all your down track ET's
If you don't have some of the clocks – like a 330", just put in the previous clock once
again – like a 60 ' ET. Then the 330 – 660 ET will actually be a 60' – 660' ET.
This is just a program to see where you lost ET for diagnostic purposes.

VERSION 54 UPDATE

Programs4 & 2 (off the menu button)
Both of these Programs give an answer in the form of a unit of measure. PROGRAM #1
lets you know how many feet of density altitude change it takes to make the ET change
by .010 ( a hundredth). At the top of PROGRAM #1, there is a statement that says "feet
per hundredth". This is a preview that lets you know what figure is in the program now.
This will make more sense to you later once you watch the tape. Just hit enter to get past
this statement and into the Program. This preview is a way to see what figure is in the
Program now in case you had previously entered this figure directly. PROGRAM #2 uses
the same convention for the TIMER RATIO.

IMPORTANT  --  PLEASE  READ

TO  OPERATE  QUICK-ACTING  TEMP/HUMID  GAUGE

Leave lid on while not in use to shade from sunlight, and to keep exhaust gases off it.

When you think you will need to use it within 2 or 3 minutes, turn the unit on so if there is any benefit from warm up, it will get it.

Walk away 200' or so to get out of the staging area. You need to stay away from exhaust gas and hot car bodies -- etc. Try to find a place that will be in the shade all weekend or at least look down at your shadow and keep the gauge within its perimeter to provide shade.

Take the cap off (above LCD window) by pulling it upward.

The unit should only take 20 seconds or so to settle down to the new environment (200' away) but I like to give it a couple minutes to make sure. While you are looking at it, make sure there are no other words or letters on the display except the % after the Humidity amount, and F after the Temperature amount. If there are -- get rid of them by understanding the following:

When pressing any of the buttons, you have to hold that button down till you get a change in the display. That indicates it has now switched to the new display you want to see.

Hold          Freezes readings on screen while HLD appears
              -- press reset to clear. RST = Reset

C/F           Toggles between Centigrade and Fahrenheit.
              You want to be in the F mode.

TD            Means Dew Point -- press again to revert back to
              ambient temperature.

Min/Max       Switches from Minimum conditions to Maximum and
              back to ambient each time button is pushed.
              You can reset either setting by pressing RST
              while you are in the mode to be reset.

# B&G Racing Computers®

Menu: # program #/ Enter

     High ALT - 160

     High ET - 8.90

     Low ALT - 0

     LOW ET - 8.89

     FT. par Hnd - 160

 

     # program #2 Enter

     Ratio - 3

     ts1/tmr 2 - 2

     Quick ts/tmr - 2.0

     Quick ET - 8.89

     Slow ts/tmr - 2.03

     Slow ET - 8.90

     tmr Ratio - 3

 

Reset Button:

     turn on.

     Hit reset on BACK

     ** ** - Hit enter button

     * - Hit Enter button

     turn OFF, wait 5 secs.

     turn on, 0 should be there

re-enter numbers in pro. #1 + 2 on CAL. side

these are the brains. Do this for each car.

(2) Batteries 2032 only.

# B&G Racing Computers®

Version  49

Instruments
Computer
    Batteries
    Buttons and Programs
    Altimeter or Barometer
*0:21:00* B1  Density Altitude
*0:28:45* P1  Air Set-up
B3  Dial-in
P2  Throttle Stop and Timer Set-up
B2  Throttle Stop and Timer Program
*1:10:40* P12 Torque Converter Slippage
713 Speed
P14 RPM                          For Cars
P15 Gear
F16 Tire -- Don't forget to plan for 1" or 1 1/2" of growth
*1:25:20* P17 Horse Power from Speed
P18 Speed from Horse Power
P19 ET from Speed
P30 Speed
P31 RPM                          For Go-Karts
P32 Gear   •                     and Motorcycles
P33 Tire
B4  Compression
P36 Poured Dome Volume and Compression
*1:48:20* P3  Total Nozzle Area
B6  Pill
P37 Main By-pass Starting Point
P39 Fuel Needed
P4  Orifice Diameter
P6  Parallel Orifices
P5  Combination Change
P20 CFM
P21 Fuel Volume by Time or Quantity
P24 Fuel Consumption, Hose ID for Carburetors
P22 Fuel Line Reverse PSI
*2:16:30* P9  Mikuni Hex Jet
P10 Mikuni Round Jet
P11 Jet by Size
B5  Holley Jet
P23 Power Valve Restriction
P29 Jet Change for Nitro
B7  Nitro %                              *2:24:00* P25 Ealance
P7  Pulley OD %                          P26 compression Distance
P8  Blower OD %                          P27 Rob Length
P34 Horse Power from Torque              P28 Deck Height
P35 Torque from Horse Power              P38 Winning Clearance

# B&G *Racing Computers*®

Bruce Huggard • 4213 N. 18th Place • Phoenix, AZ 85016 • (602) 274-2537 • FAX (602) 274-2515

## OUTLINE FOR USE BY A BRACKET OR SUPER CLASS RACER

**PREREQUISITE:**

For the Bracket racer, the Air Set-Up program must be set up. If you haven't got it loaded up with real numbers from your car, as per the instructions, then give me a call and I will fix you up with some numbers that can get you off to a good start.
For the Super Class racer, you also have to set up the Throttle Stop and Timer Set-up program. I can help you with that as well.

Note:
It is imperative that you get a logbook. Or at least use the sample that came with your computer. Always use the sample as an original, Write original on the back so you won't use it. You don't want to keep copying copies.

### FOR BRACKET RACING:
Catch the weather conditions and compute the Density Altitude immediately after each Time Trial run. You must take these Temperature and Humidity readings in the same place during Time Trials as you are going to during Elimination's. Have a helper; catch the weather details within 1 or 2 minutes of each run if you can't drive straight back. Fill out the log after each run.
After the last Time Trial, pick out the best run (as per the 10-page story) and load it into the Dial-in program—then turn the computer off.
When your class is called, go to the Density Altitude program and enter the Pressure Altitude (Altimeter reading) then turn the computer off. Within a couple minutes before the 1st round, run the Density Altitude program, and finish it off with Temperature and Humidity readings. As soon as the Density Altitude appears on the screen, go to the Dial-in program. Just hit ENTER to get through each question till you get up to the ET Adjust question, the way to think about this is: Think of any odd-ball occurrence that may of happened in relation to the refqence run that you loaded in the Dial-in program. The question you have to think about in your head is: How is this oddball occurrence going to effect the ET? Is it going to make the ET get larger or smaller? If a moderate head wind came up, it may make the ET get larger by .040 seconds of ET — so you would enter that. If you had a head wind and you still have the same head wind, then you enter 0 because there is no difference between the reference run and the run coming up. If you had a head wind and now it has gone away, then you enter - .040. It could also be a more subtle oddball occurrence like the Sun went down, or a Jet Car went within 6 or 8 runs before you. Answer that question, then just hit ENTER for the New Altitude question. Now you will have a Dial-in recommendation.
After each round, you need to reload the Dial-in program with either that run, if it is as good or better than the last round, or leave set up the same as it was, and pretend that last round never happened.

After reach round, repeat the paragraphs above.

OUTLINE:
After each round — Reload, if necessary, the Dial-in program.
Before each round — Run the Density Altitude program, then the Dial-in program.

### FOR SUPER CLASS RACING:
Super Class racing uses the same procedure with a couple exceptions:

1). You will be aiming for a specific ET (your Index): therefore, you must run the Density Altitude Program and the Throttle Stop or Timer program before each Time Trial as well as Eliminations rounds. For 1st round of time trials, you will need to reference a good run from the last time you were at the same track or one that is near the same Index.
2). You still have to set up the Throttle Stop and Timer program after each round—if necessary, but it will be easier to recognize a good run. That will be a run that is on the Index or quicker. Don't be faked out by a run that was on the Index, but the 60' time was abnormally quick by .020 seconds. That means it was really .020 seconds slow. See the 10 page story on 'How to Scrutinize Runs'.
OUTLINE:
After reach round — reload, if necessary, the Throttle Stop and timer program.
Before each round — Run the Density Altitude program, then the Throttle Stop and Timer program.