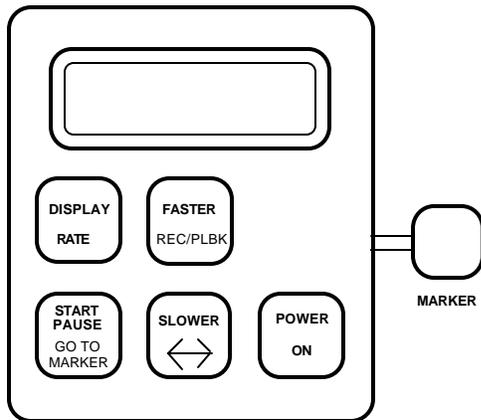# OPERATING INSTRUCTIONS MODEL DT-41 DATA LOGGER

KEYBOARD CONFIGURATION

Note: The White Button (**DISPLAY RATE**) is a shift key. Press it first, and hold it down, while pressing another button to execute the function that is printed in white letters.

INSTALLATION / CONNECTIONS

The Data Logger is installed in series with your Digatron instrument and sensors. Connect the short pigtails on the DT-41 to your tach and mph sensors. It is not necessary for both sensors to be connected to the Data Logger, but all sensors on the Digatron instrument must be connected. Connect the long pigtails on the Data Logger to your Digatron instrument pigtails. Connect the marker switch to the pigtail with the white band on the Data Logger.

POWER ON

When installed, the DT-41 will turn itself on and begin recording data as soon as the engine is started.

If you do not want to begin recording data when the engine starts, turn the Data Logger on by pressing the **POWER ON** *button before the engine is started.* Recording will not start until you press either the remote **MARKER** switch or the **START/PAUSE** button on the Data Logger.

A low battery (Lo b) indicator will appear on the DT-41 display about five hours before the battery needs to be replaced.

SETUP (CONFIGURING INSTRUMENT)

To enter the setup mode, press and hold the **FASTER** button and press the **START/PAUSE** button. The display will show a S , a 7¯, or a 7¯S. Press the **FASTER** button to select the desired operating mode.

Your OPTIONS are:

S   Record SPEEDOMETER only

7¯   Record TACH only

7¯S   Record both TACH and SPEEDOMETER

While still in the setup mode, press the **DISPLAY RATE** button to change the display from input setup to record rate

setup. The current record rate will be displayed. Press the **FASTER** button to change your record rate. Your record rate affects how often data is updated, how precise your markers are, and how long the instrument will record date.

Refer to the chart below to determine the length of time that you can record data based on your record rate and input options.

Recording Options

Sample Rate	Records	Time Available (Min: Sec)	
		One Channel	Two Channels
0:00.1	0.1 Sec	6:49	3:24
0:00.5	0.5 Sec	34:00	17:00
0:01.0	1.0 Sec	68:00	34:00
0:02.0	2.0 Sec	136:00	68:00

Press the **START/PAUSE** button to exit the setup mode. *The display should show 0:00.0 with the colon and decimal blinking. This indicates that the instrument is ready to record.*

RECORDING DATA

To *AUTOMATICALLY* begin recording data, start the engine before the DT-41 is turned on. To *MANUALLY* start recording data, turn the Data Logger on *before* the engine is started. Press the remote **MARKER** switch or the **START/PAUSE** button to begin recording data.

During the data recording session press the remote **MARKER** switch to mark points in the recording stream that you want to look at later (e.g. entering or leaving a corner). There are no restrictions on the number of markers that you can place while recording data. When a marker is placed, the unit displays the time between markers. This function allows the data logger to be used as a lap timer.

During the recording of data, the Data Logger will display the time that the unit has been recording. The + sign in the display toggles on/off every 20 minutes. These numbers can be used to keep track of how long the race or session has been in progress.

Use the **START/PAUSE** button to start and stop recording. Recording will stop automatically when the maximum record time has been reached. When the **START/PAUSE** button is used *during* the data recording session, the time displayed will equal *TOTAL RECORDING TIME* only. The displayed time will not relate to the actual time of the session.

WARNING: **All previously recorded data is lost when you enter record mode and start recording at 0:00.0.** There are two ways to lose your data. If your engine starts while the Data Logger is off, all old data is lost. Data can also be lost by pressing the **START/PAUSE** button while the instrument is in record mode. Either method will cause the DT-41 to start recording data and erase all old data.

LAP TIMER

When markers are set while recording, the data logger displays the time between markers. This allows you to use the data logger as a lap timer, if you press the **MARKER** at the same point on the track each time around. For the most precise lap times use the 1/10 second record rate. The data logger will continue to show the lap time until you press the **DISPLAY RATE** button, which returns the display to elapsed record time.

RESETTING the RECORD MODE

To reset the time to zero while recording, first pause the instrument. Then press and hold the **START/PAUSE** button and then press the **SLOWER** button. When you begin recording again it will write over all previous data.

SELECTING RECORD / PLAYBACK MODES

To enter the playback mode, first press and hold the **DISPLAY RATE** button and then press the **REC/PLBK** button. *When you are in the playback mode an ARROW will appear in the upper left corner of the display window.* Press the same buttons to reenter the record mode and the ARROW in the display will disappear.

PLAYBACK OF DATA

When in playback mode, press the **START/PAUSE** button to view the recorded tach and/or speedometer data saved during the last session. *The recorded data will be displayed in the appropriate window of your Digatron instrument*.

At any time during playback you may freeze the display of data by pushing the **START/PAUSE** button. This will stop the playback until you push the **START/PAUSE** button again.

The ARROW in the upper left corner will blink when the playback time reaches a location where a marker was placed during record. If you wish to go to the next stored marker, press and hold the **DISPLAY RATE** button and then press the **GO TO MARKER** button. The data logger will display the time between markers as long as you hold these buttons down. When you release the buttons the time of the marker placement will be displayed.

RESETTING the PLAYBACK of DATA

To reset the time to zero and view the information from the beginning, press and hold the **START/PAUSE** button and then press the **SLOWER** button.

PLAYBACK DIRECTION

You can choose to view the recorded information either forward or backward. Initially the data will be displayed with time going forward. To change playback direction, press and hold the **DISPLAY RATE** button and then press the **«** button.

PLAYBACK SPEED

While in Playback mode, press and hold the **DISPLAY RATE** button to show the current playback speed of the unit. Press

the **FASTER** button to increase the playback speed of the instrument. Press the **SLOWER** button to decrease the playback speed.

The playback speeds are **1/8x, 1/4x, 1/2x, 1x, 2x, 4x, 8x, 16x, 32x, and 64x** the recorded speed of the data.

NOTE: It is possible for data playback to occur so fast that your instrument may not properly display the stored information. If this occurs, choose a slower playback speed.

TURNING UNIT OFF

The Data Logger must be paused before it can be turned off. Press and hold the **FASTER** and **SLOWER** buttons. The unit will turn itself off automatically after 10 minutes if no tach input, mph input or button presses are detected.

All the recorded data will be retained when the DT-41 is turned off, but it will be lost if the engine is turned on again before turning the Data Logger back on.

NOTE: If the unit is connected to an engine, the unit *will not turn off* while the engine is running.

REPAIRS

If you have any questions about the operation of your instrument, please call. One of our technicians will be happy to help you.

Your instrument is warranted to be free from factory defects and electronic failure for one year from the date of purchase. Physical damage during normal usage is not covered under the warranty. Be sure to fill out and return your warranty card for our records. If we do not have a card on file for your instrument, you will be charged for repairs unless you can provide us with a proof of purchase date.

When returning an instrument for repair, enclose a note indicating your return address, phone number and a detailed description of the problem. Send your instrument and sensors so that we can check the complete system.

Send repairs to:

Digatron
8102 N. Freya St.
Spokane, WA 99217
Phone: (509) 467-3128 Fax: (509) 467-2952

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