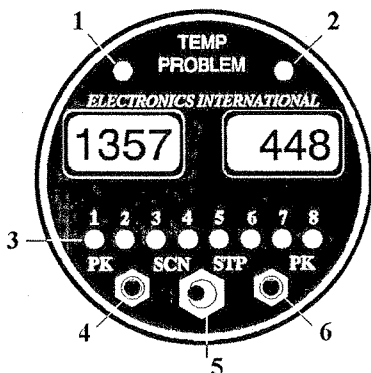


Ultimate Engine Analyzer (US-8A) Quick Reference Guide

1022962

1. Left Temp Problem Warning LED.
2. Right Temp Problem Warning LED.
3. Channel Indicator LED's.
4. Left Peak Locate Button.
5. Mode Selector Switch.
6. Right Peak Locate Button.



Your Configuration: Use the following chart as a record of how your US-8A is configured for your aircraft. List the function (EGT, CHT, Oil Temp, OAT, etc.) monitored on each channel for the Left and Right Display.

Left Display								Right Display							
Channel								Channel							
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Function								Function							
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To Display the Various Channels: To select a channel, push the Mode Selector Switch (5) to the right. This is the Manual Operating Mode. The appropriate green Channel Indicator LED will be lit indicating which Channel is being displayed. The Digital Display will show the temperature reading on the indicated channel. The US-8A can be programmed from the front panel to step through up to 8 channels.

Scan Operating Mode: Push the Mode Selector Switch (5) to the left for the Scan Mode. In the Scan Mode, the US-8A will scan through the channels, automatically analyzing your engine. You do not need to read any temperatures or interpret the display. The US-8A's 16 High Limits, 16 Low Limits, and two Differential Limits stand watch over your engine. In the Scan Mode, a bar high in the left hand corner of the appropriate display will appear any time the hottest cylinder is being displayed.

Temp Problem Warning LEDs (Automatic Engine Analysis): If the displayed temperature violates the programmed High Limit, Low Limit or Differential Limit while in the Scan Mode, the Temp Problem Warning LED over the appropriate display will be lit and the scan will stop on the channel with the problem. If the High Limit has been violated, a bar high in the left hand corner of the display will appear. If the Low Limit has been violated, a bar low in the left hand corner of the display will appear. If the Differential Limit has been violated, the high and low bar will alternately blink.

Peak Locate Buttons: There are two Peak Locate Buttons, one for the left display and one for the right. Either of the Peak Locate Buttons may be used in the Manual or Scan Mode of operation. Its purpose is to eliminate all of the time and mental calculations to find the hottest cylinder.

Leaning with the US-8A: Set the US-8A into the Manual Operating Mode and push the appropriate Peak Locate Button. Rough lean your engine by adjusting the mixture control from full rich to a leaner mixture near peak EGT as determined by experience. Wait 20 seconds for the temperature to stabilize. Again push the appropriate Peak Locate Button. The US-8A may stop on a different cylinder than the one you started with. Begin precision leaning your engine slowly until the EGT peaks. Set your mixture for a specific EGT rich of peak (consult your P.O.H. for recommended setting).

Programming the High Limit, Low Limit, Differential Limit and Shock-Cooling Limit for a Channel: Select the channel you wish to program. Press both Peak Buttons (4 & 6) at the same time and release. The bar in the upper left corner of the display indicates you are programming the High Limit. Select a blinking digit in either display with the left and right Peak Buttons. Increase a blinking digits count by pushing the Mode Selector Switch (5) to the right. To program the Low Limit, Differential Limit and Shock-Cooling Limit, first push the Mode Select Switch (5) to the left to change the displayed limit. Look for a bar in the lower left corner of the display when programming the Low Limit, no bars when programming the Differential Limit or an "Sc" when programming the Shock-Cooling Limit. To exit this programming mode, momentarily push both Peak Buttons (4 & 6) at the same time.

Programming the Scan Rate, Last Channel to be Scanned, and Analyzer Channels: Set the Mode Selector Switch to "SCN." Press both Peak Buttons (4 & 6) at the same time and release. The display may show "Scn" "002." You are now programming the Scan Rate (time in seconds the US-8A stays on a channel when scanning). Push the Mode Selector Switch to the right to increase the count. Push the Mode Selector Switch to the left to program the Last Channel to be Scanned (may show as "Ch" "006") and Analyzer Channels (may show as "1-6" on each display for a six cylinder engine). To exit this programming mode, push both Peak Buttons (4 & 6) at the same time.