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# NDIR Bench Replacement Instruction 3015-5707

Revision 1  
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## 1. Introduction

Bacharach has upgraded the non-dispersive infrared (NDIR) bench assemblies used in their gas monitor product lines (e.g., MZ, SZ, PAGM, and H25-IR). This means that bench replacement kits are also affected. The power settings associated with the new benches may be different than those of older benches, therefore minor changes may be required if a bench replacement is ever needed.

This instruction provides supplemental information necessary to properly re-configure gas monitors that are being upgraded to new bench assemblies from the older style. Use this information in addition to the bench replacement instructions already provided with your replacement bench kits.

## 2. Bench Identification

New bench assemblies are easily identified with a strip of yellow tape around the assembly. New bench assemblies have the yellow tape and older assemblies do not. Replacing an older style bench with the newer bench may require changes to your existing bench replacement documentation. To determine if your bench replacement instructions require these minor modifications, refer to the next section of this instruction.

## 3. Determination of Procedure Change

Monitors that use the NDIR bench have power settings that may need to be changed to accommodate the current IR bench version (marked with a yellow ring). The IR DIGIPOT and DETECTOR DIGIPOT parameters are accessible from your monitor's user interface. Descriptions and access information can be found in your product documentation. If you are replacing the IR bench and the new part has a yellow ring, you must make the following changes to the bench DIGIPOT settings adjustment:

Locate the IR DIGIPOT adjustment section in your documentation (i.e., the bench replacement kit instructions [if applicable] or your product manual).

- For monitors using refrigerant bench P/N 3015-5086:
  1. Instead of using the IR DIGIPOT power setting listed in the original instruction, start at 325 mW. Then, adjust the DETECTOR DIGIPOT count to achieve  $4.2V \pm 0.05V$  output (count range 130-240).
  2. If 4.2V cannot be reached within the indicated count range increase the IR DIGIPOT power setting by 25 mW and try again to adjust the DETECTOR DIGIPOT.
  3. Repeat as needed. An IR DIGIPOT power setting up to 450 mW is acceptable. If higher power is required it may indicate a contaminated bench. Contact Bacharach Technical Support for guidance.
- For the 600a bench P/N 3015-5089, the 540 mW setting for the IR DIGIPOT remains the same and no procedure changes are required. Simply use your newer style bench (with the yellow ring) and the documentation as-is to perform the bench replacement.
- For all other benches not listed above, the power setting remains at 450 mW. Simply use your newer style bench (with the yellow ring) and the original documentation as-is to perform the bench replacement.

If you have any questions about your bench replacement call Bacharach Technical Support.



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