The SM-53 Magazine converts the ALE-50/55 RF decoy system into an advanced infrared expendable decoy system. It does this in a flightline configurable manner, in that the only action required to prepare the system for flight, is to install the appropriate magazine (ALE-55 RF decoy or SM-53 IR decoy).

The SM-53 capitalizes on the existing ALE-50/55 launcher system in three main areas:

1. It uses the ALE-50/55 chassis to house the SM-53 magazine.
2. It uses the ALE-50/55 conditioned/redundant power and (squib fire) commands sent from the cockpit.
3. It passes BIT information through the ALE-50/55 Launch Controller (IMPLC) back to the cockpit.

The SM-53 can be installed in aircraft equipped with ALE-50/55 decoy dispensers (such as the F-18E/F) with no aircraft modifications.

The SM-53 magazine can be programmed to dispense pyrophoric material continuously or to dispense in bursts of virtually any duration and separation ("patterns"). The SM-53 system consists of a magazine (electrical backplane, transmission, and frame assembly) and two all metal o-ring sealed decoy canisters that are installed in the magazine.

When the canister is loaded with pyrophoric material, it is referred to as a “canister decoy”. The SM-53 magazine supports both the original RF decoys and the new SM-53 IR Decoys. It holds a total of 3 decoys. Two of one type and one of the other (i.e. Two IR canister decoys and one RF canister decoy or one IR canister decoy and two RF canister decoys).
Aeromechanical Systems > Countermeasures

SM-53 Magazine / Pre-emptive IR protection

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>6” x 8” x 24”</td>
</tr>
<tr>
<td>Weight (Full)</td>
<td>30 lbs</td>
</tr>
<tr>
<td>Power</td>
<td>ALE-50 compatible</td>
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<tr>
<td>Aircraft systems interface/mounting</td>
<td>ALE-50 launcher</td>
</tr>
<tr>
<td>Pyrotechnics</td>
<td>none</td>
</tr>
<tr>
<td>Environmental</td>
<td>Operating temperature -54c to 70c</td>
</tr>
<tr>
<td></td>
<td>Storage temperature -65c to 90c</td>
</tr>
</tbody>
</table>

- 2 canisters
- Fine pattern control
- IR Special Material
- Programmable patterns

Foil Deployed

Alloy Surfaces

SM-53 being installed in F-18

Specification subject to change - TCO Review #75

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