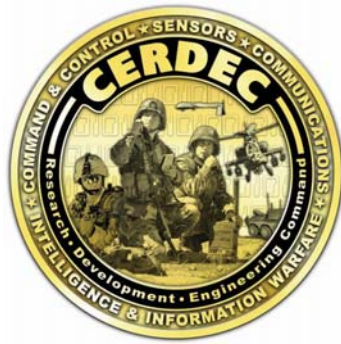


Power Generation and Alternative Energy Branch

US Army RDECOM CERDEC CP&ID Power Division
Aberdeen Proving Ground, MD



PGAE - TR - 12 - 14

Tactical Idle Reduction for Heavy Tactical Vehicles Product Brochure

US Army CERDEC CP&ID, Red Dot Corporation

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Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 11 JUN 2012	2. REPORT TYPE Brochure	3. DATES COVERED 00-06-2010 to 11-06-2012	
4. TITLE AND SUBTITLE Tactical Idle Reduction for Heavy Tactical Vehicles Product Brochure		5a. CONTRACT NUMBER W909MY-10-C-0043	
		5b. GRANT NUMBER	
		5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)		5d. PROJECT NUMBER	
		5e. TASK NUMBER	
		5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Red Dot Corporation, P.O. Box 58270, Seattle, WA, 98138		8. PERFORMING ORGANIZATION REPORT NUMBER ; PGAE - TR - 12 - 14	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. ARMY COMMUNICATIONS-ELECTRONICS RESEARCH DEVELOPMENT AND ENGINEERING CENTER, 5100 Magazine Rd., Aberdeen Proving Ground, MD, 21005-1852		10. SPONSOR/MONITOR'S ACRONYM(S) RDER-CPP-PG	
		11. SPONSOR/MONITOR'S REPORT NUMBER(S) PGAE - TR - 12 - 14	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited			
13. SUPPLEMENTARY NOTES			
14. ABSTRACT This brochure contains the final product specifications and an overview of the benefits of tactical idle reduction for heavy tactical vehicles.			
15. SUBJECT TERMS auxiliary power and environmental control; idle reduction; heavy tactical vehicle			
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	Same as Report (SAR)
			18. NUMBER OF PAGES 3
			19a. NAME OF RESPONSIBLE PERSON



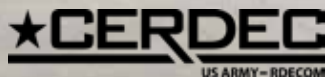
HEATER - AIR CONDITIONER

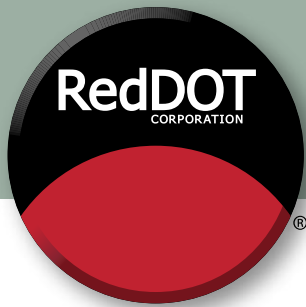
Red Dot Military **TIR**

TACTICAL IDLE REDUCTION

TIR

Red Dot & Impco Technologies were awarded a government (CERDEC CP&ID) contract to develop a military grade tactical idle reduction (TIR) and environmental control unit (ECU) with the objective of reducing main engine idle time along with providing heating/cooling to cab occupants.





Tactical Idle Reduction for Heavy Tactical Vehicles Technology Transition Initiative (TTI)

SPECIFICATIONS

Cooling: 16K BTU/hr @ 90°Fdb/75°Fwb, 125°F condenser air in

Heating: 17K BTU/hr fuel fired coolant heater

Engine: 2-cylinder diesel, 16.8 HP @ 3600 RPM

DC Generator: 5.3kW Pancake PMG

1800 Watt AC True Sine Inverter

0.427 Gal/hr JP-8 fuel consumption in max Cool mode

Estimated 0.620 Gal/hr max JP-8 fuel consumption (Cool + Power mode)

-25°F to 140°F operation temperature range

BENEFITS

Maintain C4ISR and IED-defeat capabilities when prime engine is off

870 gallons per year per vehicle fuel savings

\$12,000 annual operating cost savings compared to idling prime engine (fuel @ \$15/gal)

Significant additional operating cost savings over lifecycle through reduced prime engine use

