Aircosaver Test Report

Exclusively For

Undisclosed Client

Glendale, Az.

Conducted By

Innovation Thru Energy

Innovation Thru Energy

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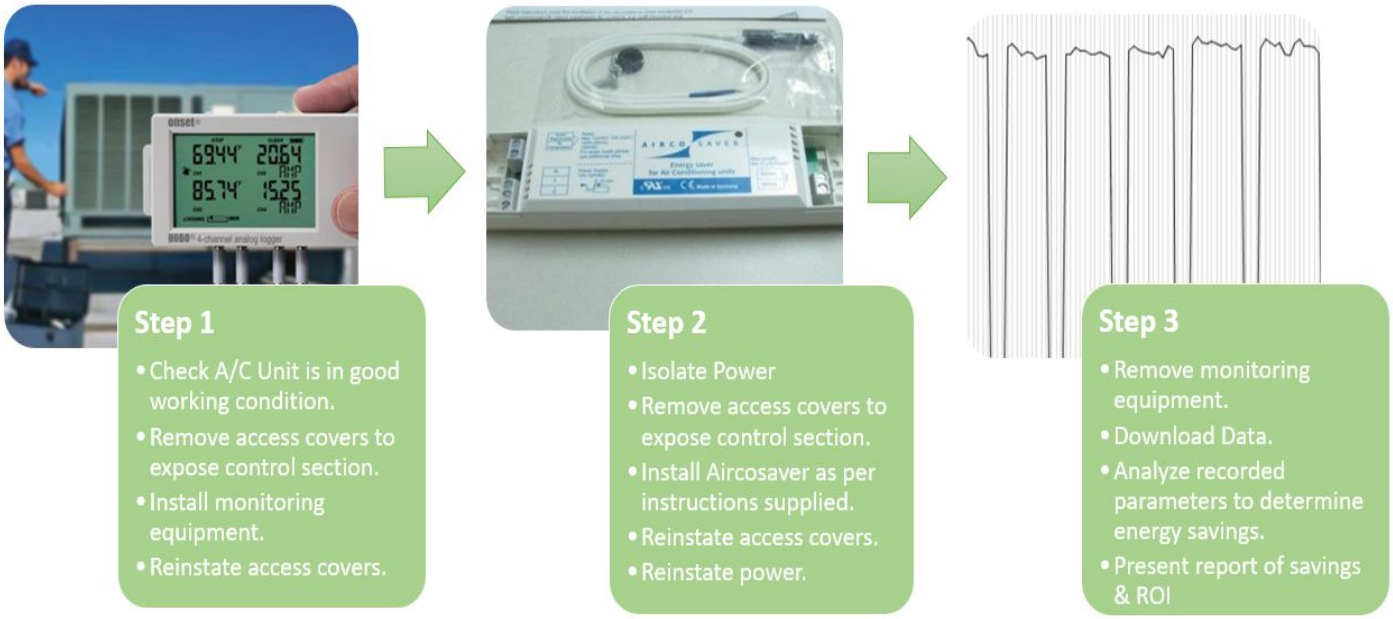
Innovation Thru Energy were commissioned to perform testing of the Aircosaver on A/C units listed below to determine what energy savings would be achieved by installing the Aircosaver. Testing provides detailed results from the measuring & verification process before and after the installation of the Aircosaver.

During the measuring & verification process we record the following parameters:

- Power consumption of A/C unit
- Internal Temperature
- External Temperature

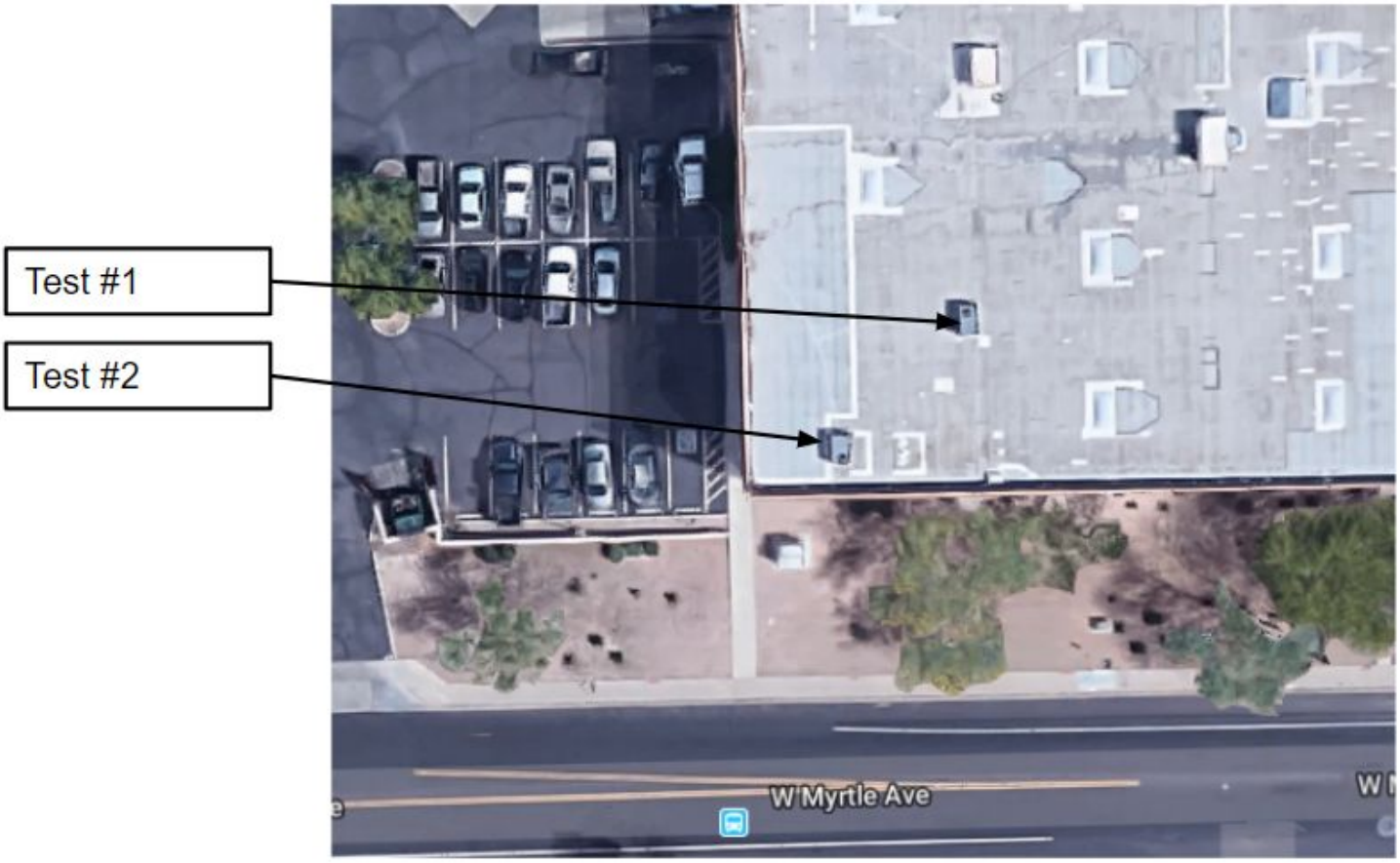
Aircosaver Test Procedure:



All testing & installation is conducted by trained professionals under the supervision of your authorized personnel.

Prepared By:
Date:

Location



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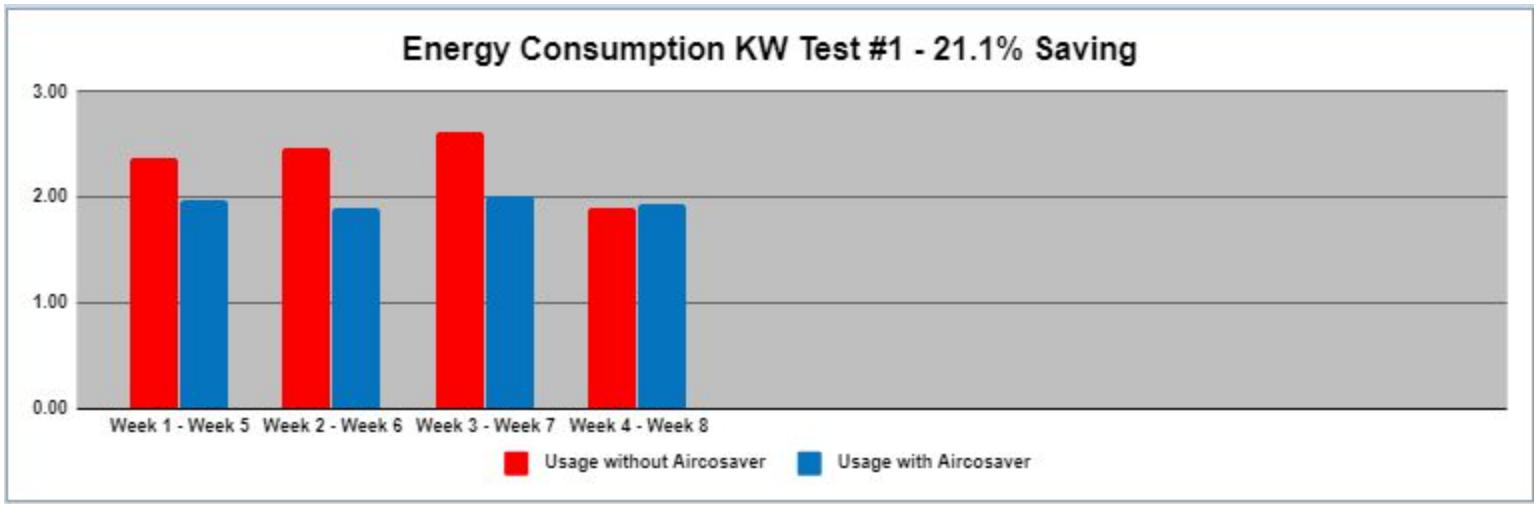
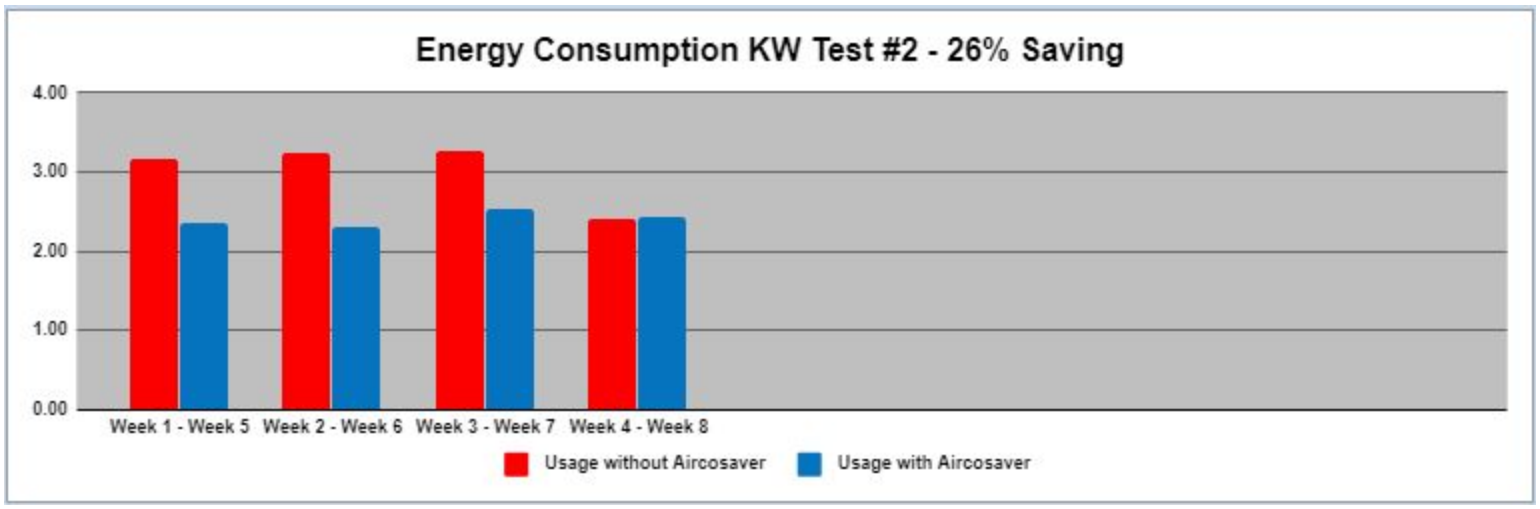
Date:

Data downloaded from loggers

		Front Unit Amps		Rear Unit Amps
Week 1	Total	44574.5119	Without Aircosaver	33410.3018
	Average	4.42		3.31
Week 2	Total	45740.9698		34804.4169
	Average	4.54		3.45
Week 3	Total	46071.6588		36808.571
	Average	4.57		3.65
Week 4	Total	33736.1601		26562.4834
	Average	3.35		2.64
Week 5	Total	33253.1403	With Aircosaver	27792.321
	Average	3.30		2.76
Week 6	Total	32211.0813		26653.7707
	Average	3.20		2.64
Week 7	Total	35448.4666		28417.0989
	Average	3.52		2.82
Week 8	Total	34336.2559		27339.3614
	Average	3.41		2.71

Measured Power Consumption





Prepared By:
Date:

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Test Report & Comparative Study for RTU Test #1

Summary on Energy Savings & ROI

Parameter	Detail
Test Date	July 18th - Sept 19th 2018
Test Duration	8 Weeks
Capacity of A/C Unit	5 Ton
Measured Energy Savings	21%
Tons of $C0^2$ Saved / Year	2.69
Cost to Supply & Install Aircosaver	$599.00
Estimated Return on Investment (ROI)	>1 Year

AC usage & Aircosaver savings Calculator

Results		
EER	11.70	
AC Tons	5	
AC KW usage	5.128	
Annual hours of Operation	4732	
AC Annual KWh usage	24,266.7	
KWh rate	$0.11	
Annual KWh rate increase	2.50%	
Annual Cost of AC	$2,669.33	
Aircosaver Saving %	21%	
1st Year $ Savings =	$563.23	Cumulative
2nd Year $ Savings =	$577.31	$1,140.54
3rd Year $ Savings =	$591.74	$1,732.28
4th Year $ Savings =	$606.54	$2,338.82
5th Year $ Savings =	$621.70	$2,960.52
6th Year $ Savings =	$637.24	$3,597.76
7th Year $ Savings =	$653.17	$4,250.93
8th Year $ Savings =	$669.50	$4,920.44
9th Year $ Savings =	$686.24	$5,606.68
10th Year $ Savings =	$703.40	$6,310.07

Convert SEER to EER	
SEER	13
EER	11.70

AC Annual Hours Calculator	
Description	Units
Hours per Day	13
Days per Week	7
Weeks per Year	52
Annual Hours	**4732**

ROI Calculation	
Installed Cost of Aircosaver:	**$599.00**
Return on Investment:	**1.1 Years**

AC Make:	
AC Model #:	
AC Serial #:	

Prepared By:
Date:

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Test Report & Comparative Study for RTU Test #2

Summary on Energy Savings & ROI

Parameter	Detail
Test Date	July 18th - Sept 19th 2018
Test Duration	8 Weeks
Capacity of A/C Unit	5 Ton
Measured Energy Savings	26%
Tons of $C0^2$ Saved / Year	3.31
Cost to Supply & Install Aircosaver	$599.00
Estimated Return on Investment (ROI)	<1 Year

AC usage & Aircosaver savings Calculator

Results			Convert SEER to EER		AC Annual Hours Calculator	
EER	11.70		SEER	13	Description	Units
AC Tons	5		EER	11.70	Hours per Day	13
AC KW usage	5.128				Days per Week	7
Annual hours of Operation	4732				Weeks per Year	52
AC Annual KWh usage	24,266.7				**Annual Hours**	**4732**
KWh rate	$0.11					
Annual KWh rate increase	1.25%					
Annual Cost of AC	$2,669.33					
Aircosaver Saving %	26%					
1st Year $ Savings =	$694.03	Cumulative				
2nd Year $ Savings =	$702.70	$1,396.73				
3rd Year $ Savings =	$711.49	$2,108.21				
4th Year $ Savings =	$720.38	$2,828.59				
5th Year $ Savings =	$729.38	$3,557.98				
6th Year $ Savings =	$738.50	$4,296.48				
7th Year $ Savings =	$747.73	$5,044.21				
8th Year $ Savings =	$757.08	$5,801.29				
9th Year $ Savings =	$766.54	$6,567.83				
10th Year $ Savings =	$776.12	$7,343.96				

ROI Calculation	
Installed Cost of Aircosaver:	**$599.00**
Return on Investment:	**0.9 Years**

AC Make:	
AC Model #:	
AC Serial #:	

Prepared By:
Date:

Business Case

For the purpose of this Business Case we have used the hours of operation for both A/C units at 13 hours per day which is slightly lower than average from the recorded data, we applied the rate of $0.11 / KWh which was the average cost from the 12 months bills received to calculate estimated savings below.

Air Conditioner efficiency depends on various parameters like the type of unit, age of unit, capacity of unit ambient temperature, humidity levels, hours of operation, size of room etc.

Regardless of the environment Aircosaver continuously learns and adapts intelligently to continuously deliver energy savings without compromising your cooling comfort.

AC Annual KWh usage		48,533.33
KWh Rate		$0.11
Annual Cost of AC		$5,338.67
1st Year $ Savings =	$1,257.26	Cumulative
2nd Year $ Savings =	$1,288.69	$2,545.94
3rd Year $ Savings =	$1,320.90	$3,866.85
4th Year $ Savings =	$1,353.93	$5,220.78
5th Year $ Savings =	$1,387.78	$6,608.55
6th Year $ Savings =	$1,422.47	$8,031.02
7th Year $ Savings =	$1,458.03	$9,489.05
8th Year $ Savings =	$1,494.48	$10,983.53
9th Year $ Savings =	$1,531.84	$12,515.38
10th Year $ Savings =	$1,570.14	$14,085.52
Savings %		24%
Annual Savings Kwh		11648.00
Annual Savings $		$1,281.28
Aircosaver Unit Cost		$599.00
Quantity		2
Supply & Install Aircosavers		$1,198.00
Return on Investment Years		0.9

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Date:

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Environmental Impact

C0² savings by installing Aircosaver would be emitted by the following activities:

1 Year C0² savings

Number of days an average car could be driven non-stop for

8.83

Number of years a 42" LCD TV could be used continuously for

3.73

Number of minutes a 747 could fly non-stop for

10.33

Number of cars removed from the roads for a year

1.07

10 Years C0² savings

Number of days an average car could be driven non-stop for

88.3

Number of years a 42" LCD TV could be used continuously for

37.29

Number of hours a 747 could fly non-stop for

1.72

Number of cars removed from the roads for a year

10.7

Prepared By:
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