Aircosaver Test Report

Exclusively For

CRAWFORD
MECHANICAL SERVICES

408 S Hamilton Ct,
Gilbert, AZ 85233,

Conducted By

Innovation Thru Energy

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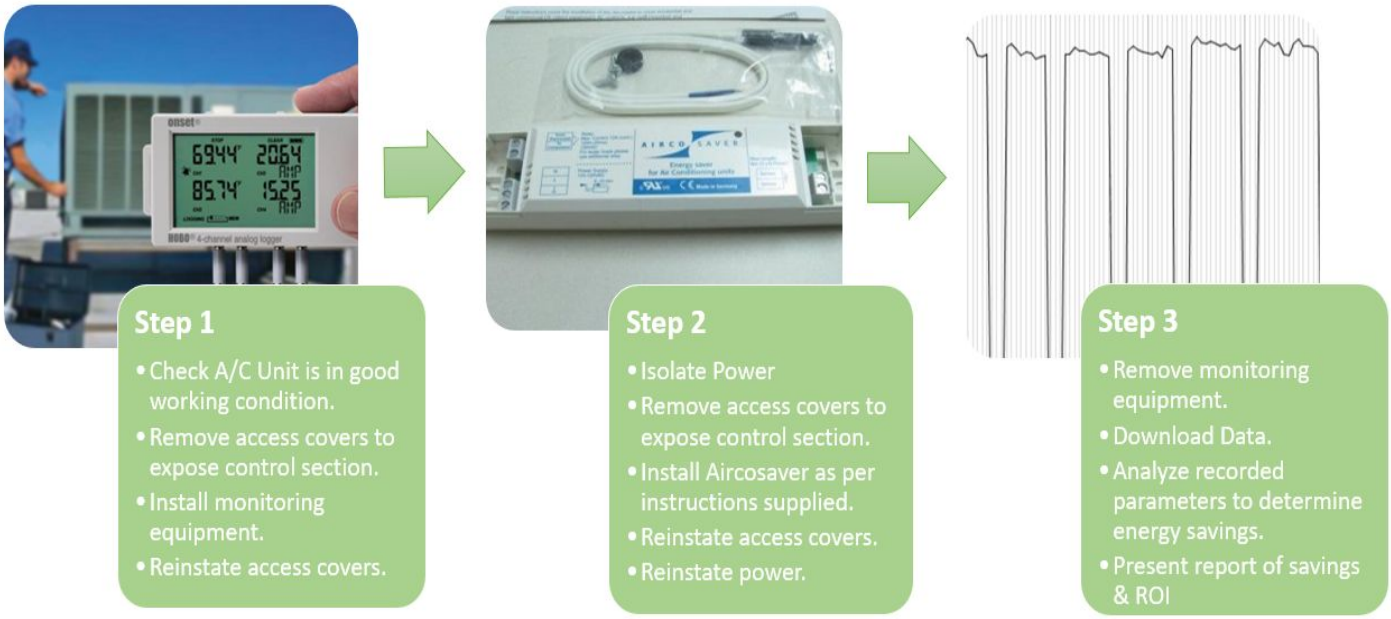
Innovation Thru Energy were commissioned to perform testing of the Aircosaver on A/C units listed below to determine what energy savings would be achieved by installing the Aircosaver. Testing provides detailed results from the measuring & verification process before and after the installation of the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

- Power consumption of A/C unit
- External Temperature

Aircosaver Test Procedure:



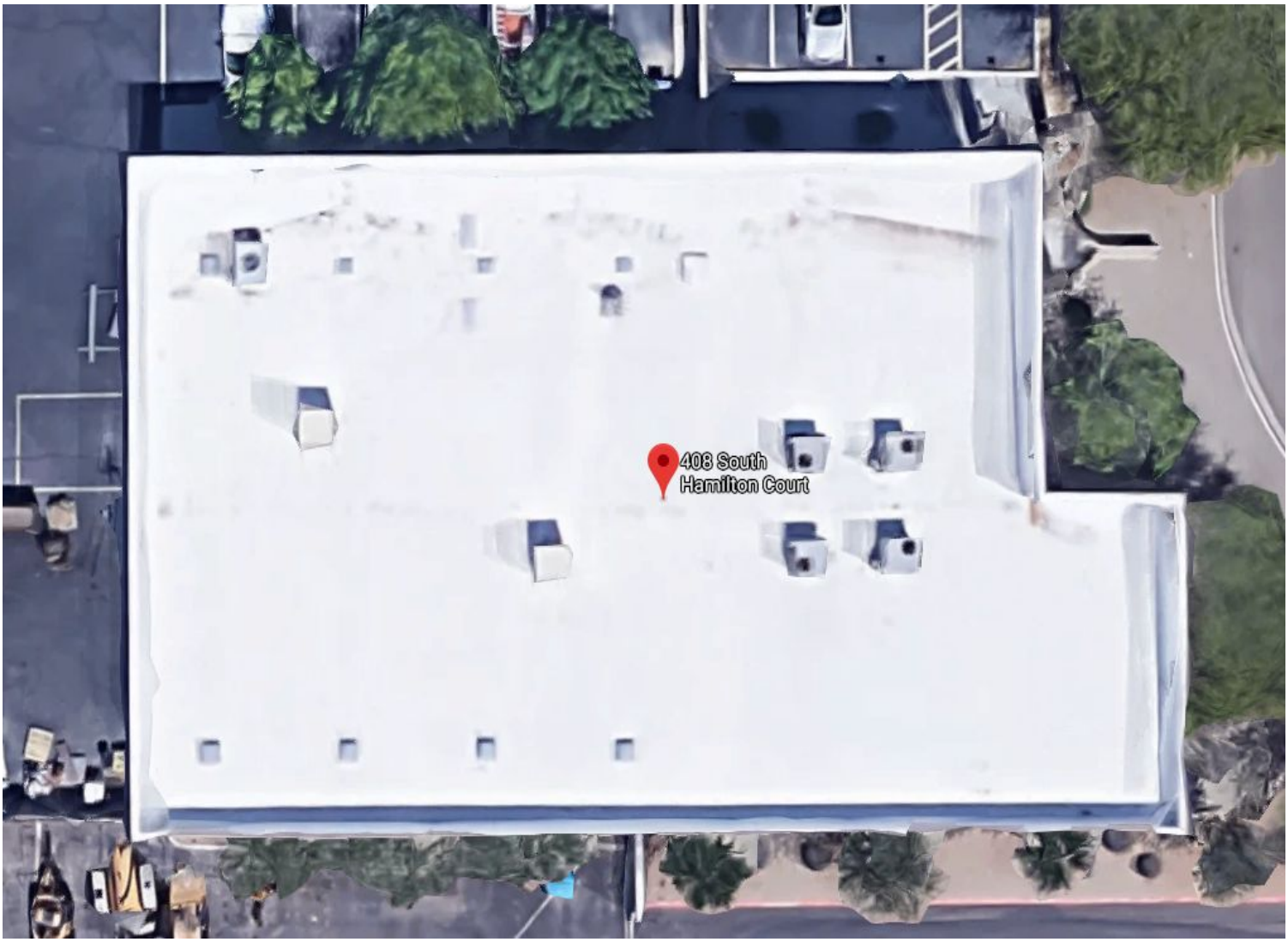
All testing & installation is conducted by trained professionals under the supervision of your authorized personnel.

Data logger installed on 11/1/19 @ 1:49pm

Aircosaver installed on 11/12/19 @ 2:45pm

Data logger retrieved on 11/25/19 at noon.

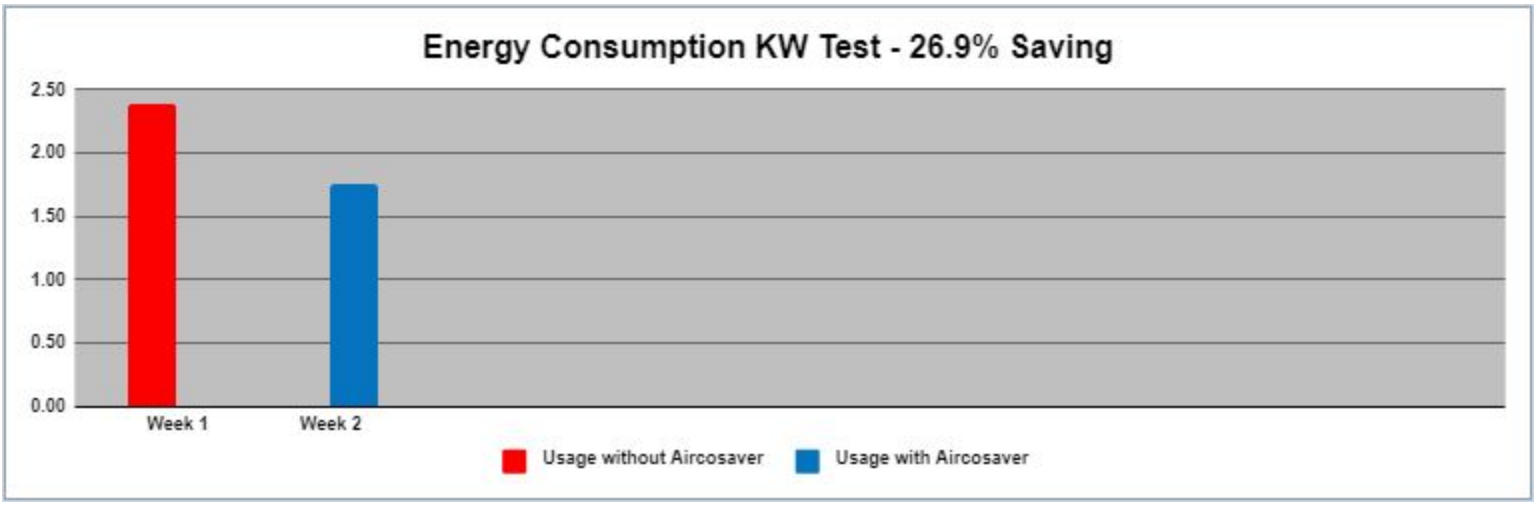
Location



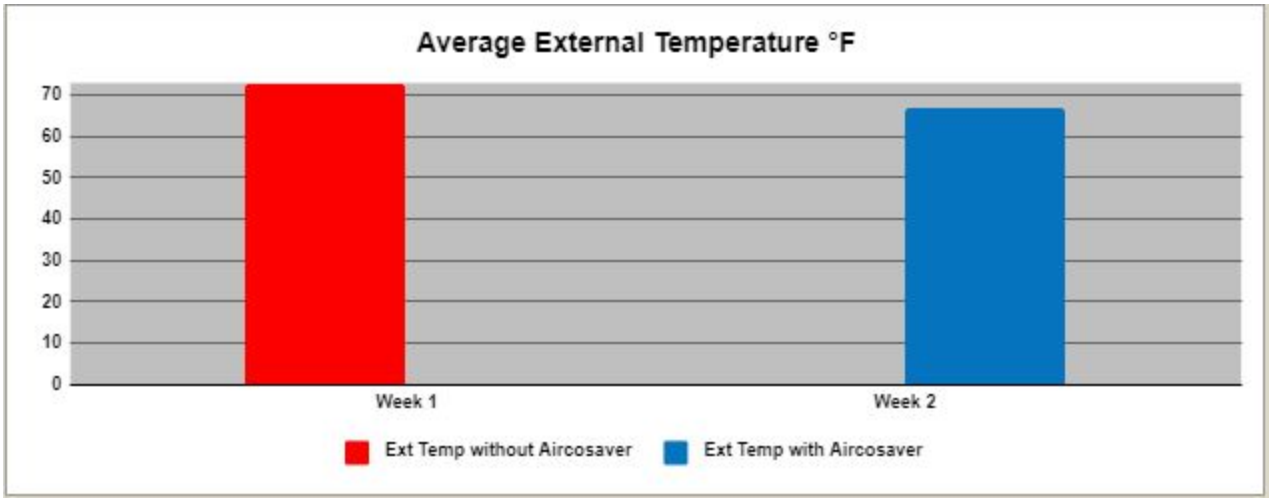
Data downloaded from loggers

Before Aircosaver				
		Amps		Temperature °F
Week 1	11/5/2019 - 11/12/2019	Total	33675.42	
		Average	3.34	73
After Aircosaver				
Week 2	11/12/2019 - 11/19/2019	Total	24617.28	
		Average	2.44	67

Measured Power Consumption



Measured Average External Temperature



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Test Report & Comparative Study for RTU

Summary on Energy Savings & ROI

Parameter	Detail
Test Date	November 5th - November 19th 2019
Test Duration	2 Weeks
Capacity of A/C Unit	5 Ton
Measured Energy Savings	26%
Tons of C0² Saved / Year	1.82
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	2600	
AC Annual KWh usage	13,333.3	
KWh rate	$0.13	
Annual KWh rate increase	1.25%	
Annual Cost of AC	$1,733.33	
Aircosaver Saving %	26%	
1st Year $ Savings =	$450.67	Cumulative
2nd Year $ Savings =	$456.30	$906.97
3rd Year $ Savings =	$462.00	$1,368.97
4th Year $ Savings =	$467.78	$1,836.75
5th Year $ Savings =	$473.63	$2,310.38
6th Year $ Savings =	$479.55	$2,789.92
7th Year $ Savings =	$485.54	$3,275.46
8th Year $ Savings =	$491.61	$3,767.07
9th Year $ Savings =	$497.76	$4,264.83
10th Year $ Savings =	$503.98	$4,768.80

Convert SEER to EER	
SEER	13
EER	11.70

AC Annual Hours Calculator	
Description	**Units**
Hours per Day	10
Days per Week	5
Weeks per Year	52
Annual Hours	**2600**

ROI Calculation	
Installed Cost of Aircosaver:	**$599.00**
Return on Investment:	**1.3 Years**

AC Make:	
AC Model #:	
AC Serial #:	

Prepared By: Brian Hannah
Date: January 2020

Business Case

For the purpose of this Business Case we have used the hours of operation for the A/C units at 10 hours per day, we applied the national avarage rate of $0.13 / KWh to calculate our 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		13,333.33
KWh Rate		$0.13
Annual Cost of AC		$1,733.33
1st Year $ Savings =	$450.67	Cumulative
2nd Year $ Savings =	$461.93	$912.60
3rd Year $ Savings =	$473.48	$1,386.08
4th Year $ Savings =	$485.32	$1,871.40
5th Year $ Savings =	$497.45	$2,368.85
6th Year $ Savings =	$509.89	$2,878.74
7th Year $ Savings =	$522.64	$3,401.38
8th Year $ Savings =	$535.70	$3,937.08
9th Year $ Savings =	$549.09	$4,486.17
10th Year $ Savings =	$562.82	$5,048.99
Savings %		26%
Annual Savings Kwh		3466.67
Annual Savings $		$450.67
Aircosaver Unit Cost		$599.00
Quantity		1
Supply & Install Aircosavers		$599.00
Return on Investment Years		1.3

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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

3.00

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

1.26

Number of minutes a 747 could fly non-stop for

0.06

Number of cars removed from the roads for a year

0.41

10 Years C0² savings

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

29.98

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

12.65

Number of hours a 747 could fly non-stop for

0.58

Number of cars removed from the roads for a year

4.07

Prepared By: Brian Hannah
Date: January 2020