



**Certificate of Compliance  
for the  
Calibration of Redflex HADECS3X Enforcement System**

We, Redflex Traffic Systems Pty Ltd  
of 31 Market Street, South Melbourne, Victoria, Australia 3205  
hereby certify that the Redflex HADECS3X system comprising of the components as listed below, has  
been calibrated according to the Home Office Speed Meter Handbook (fourth edition) 15/05, and the  
timing of the secondary check has been verified and both comply with the terms of the specification for  
type approval.

<b>Location:</b>	4351A - M1
<b>Redflex HADECS3X NK7 serial number:</b>	HAD01478
<b>Speed Radar - Serial number:</b>	112206-0015
<b>Tracking Radar - Serial number:</b>	111793-0011
<b>Date of calibration:</b>	18/02/2020
<b>Certificate Number:</b>	CV10102292
<b>Calibration carried out by:</b>	Martin Watson

**Signature:**

**Checked By:**

Ron Moore

**Signature:**



## CERTIFICATION RECORD

<b>CALIBRATION CERTIFICATE NUMBER:</b>	CV10102292	<b>REDFLEX HADECS3X NK7 SERIAL NUMBER:</b>	HAD01478
<b>SR CERTIFICATE NUMBER:</b>	706193	<b>SERIAL NUMBER:</b>	112206-0015
<b>PRODUCT MODEL:</b>	AGD SR-340		
<b>FIRMWARE VERSION:</b>	MI-096-1	<b>TEST SOFTWARE VERSION:</b>	1.3.1.7
<b>DATE OF CERTIFICATION:</b>	18 February 2020	<b>RADAR TEMPERATURE (°C):</b>	42.13
<b>RELATIVE HUMIDITY (%):</b>	35.50	<b>AMBIENT TEMPERATURE (°C):</b>	22.90
<b>CERTIFICATION TEST PROCEDURE REFERENCE:</b>	See 1201-007 REDFLEXradar-Certification System User Manual		
<b>DESCRIPTION</b>	<b>COMMENT</b>		<b>Pass/Fail</b>
EQUIPMENT TESTS			<i>Pass</i>
VISUAL INSPECTION			<i>Pass</i>
SPEED MEASUREMENTS			<i>Pass</i>
<b>DESCRIPTION</b>	<b>MEASURED</b>	<b>LIMITS</b>	
TRANSMIT FREQUENCY MEASUREMENT (GHz)	24.09452257	24.080 - 24.120	<i>Pass</i>
<b>TRACEABILITY RECORDS OF INSTRUMENTS USED IN CERTIFICATION TEST</b>			
<b>INSTRUMENT DESCRIPTION:</b>	<b>SERIAL NUMBER:</b>	<b>CALIBRATION CERTIFICATE NUMBER:</b>	<b>NEXT CALIBRATION DUE DATE:</b>
TEKTRONIX AFG3022B Function Generator	C014082	20010679	15th January 2021
PENDULUM CNT-90XL Frequency Counter	413964	3208860001	16th January 2021
FLUKE 971 Temperature Humidity Meter	35181596	20010680	15th January 2021
AGD MC-116 Target Simulator	106553-0002	116055	21st January 2021
<b>CERTIFICATION TEST CARRIED OUT BY:</b>	<b>Martin Watson</b>	<b>NEXT CERTIFICATION TEST DUE:</b>	<b>16 February 2021</b>
<b>CHECKED BY</b>	<b>Ron Moore</b>	<i>Template V20190304RX (SR)</i>	



**SPEED MEASUREMENT**

<b>CALIBRATION CERTIFICATE NUMBER:</b>	<b>CV10102292</b>	<b>REDFLEX HADECS3X NK7 SERIAL NUMBER:</b>	<b>HAD01478</b>
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**SERIAL NO: 112206-0015**

Simulated Speed (mph)	Measured Speed (mph)				Speed Limits (mph)	Pass/Fail
	Advancing		Receding			
	Min	Max	Min	Max		
13.05	13.05	13.05	13.05	13.05	12.74 - 13.36	Pass
18.64	18.64	18.64	18.64	18.64	18.33 - 18.95	Pass
24.85	24.85	24.85	24.85	24.85	24.54 - 25.17	Pass
31.07	31.01	31.02	31.01	31.01	30.76 - 31.38	Pass
37.28	37.28	37.28	37.28	37.28	36.97 - 37.59	Pass
43.50	43.43	43.43	43.43	43.43	43.19 - 43.81	Pass
49.71	49.71	49.71	49.71	49.71	49.40 - 50.02	Pass
55.92	55.86	55.86	55.86	55.86	55.61 - 56.23	Pass
62.14	62.14	62.14	62.14	62.14	61.83 - 62.45	Pass
68.35	68.29	68.29	68.29	68.29	68.04 - 68.66	Pass
74.56	74.56	74.56	74.56	74.56	74.25 - 74.88	Pass
80.78	80.72	80.72	80.72	80.72	80.47 - 81.09	Pass
86.99	86.99	86.99	86.99	86.99	86.68 - 87.30	Pass
93.21	93.14	93.14	93.14	93.14	92.89 - 93.52	Pass
99.42	99.36	99.37	99.36	99.37	99.11 - 99.73	Pass
105.63	105.57	105.57	105.57	105.57	105.32 - 105.94	Pass
111.85	111.78	111.78	111.78	111.78	111.54 - 112.16	Pass
118.06	118.00	118.00	118.00	118.00	117.75 - 118.37	Pass
124.27	124.21	124.21	124.21	124.21	123.96 - 124.58	Pass
136.70	136.64	136.64	136.64	136.64	136.39 - 137.01	Pass
149.13	149.00	149.07	149.00	149.07	148.82 - 149.44	Pass
161.56	161.43	161.43	161.43	161.43	161.25 - 161.87	Pass
173.98	173.86	173.86	173.86	173.86	173.67 - 174.29	Pass
186.41	186.29	186.29	186.29	186.29	186.10 - 186.72	Pass

*Template V20190304RX (SR)*



**CERTIFICATION RECORD**

<b>CALIBRATION CERTIFICATE NUMBER:</b>	<b>CV10102292</b>	<b>REFLEX HADECS3X NK7 SERIAL NUMBER:</b>	<b>HAD01478</b>
<b>TR CERTIFICATE NUMBER:</b>	<i>31700668</i>	<b>SERIAL NUMBER:</b>	<i>111793-0011</i>
<b>PRODUCT MODEL:</b>	AGD TR-317		
<b>BIOS VERSION:</b>	<i>MI-135-7</i>	<b>DSP SOFTWARE VERSION:</b>	<i>MI-144-9</i>
<b>PIC FIRMWARE VERSION:</b>	<i>N/A</i>	<b>TEST SOFTWARE VERSION:</b>	<i>1.3.1.7</i>
<b>DATE OF CERTIFICATION:</b>	<i>18 February 2020</i>	<b>RADAR TEMPERATURE (°C):</b>	<i>N/A</i>
<b>RELATIVE HUMIDITY (%):</b>	<i>36.30</i>	<b>AMBIENT TEMPERATURE (°C):</b>	<i>22.80</i>
<b>CALIBRATED BANDWIDTH (MHz):</b>	<i>41.30</i>		
<b>CERTIFICATION TEST PROCEDURE REFERENCE:</b>	See 1201-007 REDFLEXradar-Certification System User Manual		
<b>DESCRIPTION</b>	<b>COMMENT</b>		
EQUIPMENT TESTS			<i>Pass</i>
VISUAL INSPECTION			<i>Pass</i>
SPEED AND RANGE MEASUREMENTS			<i>Pass</i>
<b>DESCRIPTION</b>	<b>MEASURED</b>	<b>LIMITS</b>	<b>PASS/FAIL</b>
TRANSMIT FREQUENCY MEASUREMENT (GHz)	<i>24.12430123</i>	24.123 - 24.127	<i>Pass</i>
BANDWIDTH MEASUREMENT (MHz)	<i>42.00</i>	39.00 - 44.00	<i>Pass</i>
<b>TRACEABILITY RECORDS OF INSTRUMENTS USED IN CERTIFICATION TEST</b>			
<b>INSTRUMENT DESCRIPTION:</b>	<b>SERIAL NUMBER:</b>	<b>CALIBRATION CERTIFICATE NUMBER:</b>	<b>NEXT CALIBRATION DUE DATE:</b>
TEKTRONIX AFG3022B Function Generator	<i>C014082</i>	<i>20010679</i>	<i>15th January 2021</i>
PENDULUM CNT-90XL Frequency Counter	<i>413964</i>	<i>3208860001</i>	<i>16th January 2021</i>
FLUKE 971 Temperature Humidity Meter	<i>17580804</i>	<i>20010680</i>	<i>15th January 2021</i>
AGD MC-116 Target Simulator	<i>117117-00017</i>	<i>116055</i>	<i>21st January 2021</i>
<b>CERTIFICATION TEST CARRIED OUT BY:</b>	<b>Martin Watson</b>	<b>NEXT CERTIFICATION TEST DUE:</b>	<b>16 February 2021</b>
<b>CHECKED BY:</b>	<b>Ron Moore</b>	<b>Template V20190304RX (TR)</b>	



### SPEED AND RANGE MEASUREMENT

<b>CALIBRATION CERTIFICATE NUMBER:</b>	<b>CV10102292</b>	<b>REDFLEX HADECS3X NK7 SERIAL NUMBER:</b>	<b>HAD01478</b>
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**SERIAL NO: 111793-0011**

Simulated Range (m)	Simulated Speed (mph)	Measured Advancing		Measured Receding		Range Limits (m)	Speed Limits (mph)	Pass/Fail
		Range (m)	Speed (mph)	Range (m)	Speed (mph)			
23.80	31.07	24.00	31.01	23.70	31.07	22.10 - 25.50	30.76 - 31.38	Pass
23.80	62.14	24.10	62.14	23.60	62.14	22.10 - 25.50	61.83 - 62.45	Pass
23.80	93.21	24.12	93.27	23.54	93.33	22.10 - 25.50	92.89 - 93.52	Pass
23.80	124.27	24.20	124.34	23.50	124.34	22.10 - 25.50	123.96 - 124.58	Pass
23.80	155.34	24.20	155.34	23.50	155.34	22.10 - 25.50	155.03 - 155.65	Pass
23.80	186.41	24.10	186.41	23.60	186.46	22.10 - 25.50	186.10 - 186.72	Pass
51.00	7.46	51.10	7.46	51.10	7.52	49.30 - 52.70	7.15 - 7.77	Pass
51.00	12.43	51.12	12.37	51.10	12.49	49.30 - 52.70	12.12 - 12.74	Pass
51.00	18.64	51.20	18.65	51.00	18.70	49.30 - 52.70	18.33 - 18.95	Pass
51.00	24.85	51.20	24.85	51.00	24.92	49.30 - 52.70	24.54 - 25.17	Pass
51.00	31.07	51.20	31.01	51.00	31.07	49.30 - 52.70	30.76 - 31.38	Pass
51.00	37.28	51.20	37.22	51.00	37.34	49.30 - 52.70	36.97 - 37.59	Pass
51.00	43.50	51.29	43.56	50.92	43.60	49.30 - 52.70	43.19 - 43.81	Pass
51.00	49.71	51.30	49.71	50.90	49.77	49.30 - 52.70	49.40 - 50.02	Pass
51.00	55.92	51.30	55.86	50.90	55.92	49.30 - 52.70	55.61 - 56.23	Pass
51.00	62.14	51.30	62.07	50.90	62.20	49.30 - 52.70	61.83 - 62.45	Pass
51.00	68.35	51.30	68.41	50.90	68.48	49.30 - 52.70	68.04 - 68.66	Pass
51.00	74.56	51.36	74.56	50.86	74.63	49.30 - 52.70	74.25 - 74.88	Pass
51.00	80.78	51.40	80.72	50.80	80.78	49.30 - 52.70	80.47 - 81.09	Pass
51.00	86.99	51.40	86.93	50.80	87.05	49.30 - 52.70	86.68 - 87.30	Pass
51.00	93.21	51.40	93.27	50.80	93.33	49.30 - 52.70	92.89 - 93.52	Pass
51.00	99.42	51.40	99.42	50.80	99.48	49.30 - 52.70	99.11 - 99.73	Pass
51.00	105.63	51.40	105.58	50.80	105.63	49.30 - 52.70	105.32 - 105.94	Pass
51.00	111.85	51.40	111.78	50.80	111.91	49.30 - 52.70	111.54 - 112.16	Pass
51.00	118.06	51.42	118.12	50.79	118.18	49.30 - 52.70	117.75 - 118.37	Pass
51.00	124.27	51.47	124.34	50.74	124.34	49.30 - 52.70	123.96 - 124.58	Pass
51.00	136.70	51.49	136.66	50.71	136.76	49.30 - 52.70	136.39 - 137.01	Pass
51.00	149.13	51.49	149.19	50.71	149.20	49.30 - 52.70	148.82 - 149.44	Pass
51.00	161.56	51.43	161.56	50.79	161.62	49.30 - 52.70	161.25 - 161.87	Pass
51.00	173.98	51.40	174.05	50.80	174.11	49.30 - 52.70	173.67 - 174.29	Pass
51.00	186.41	51.39	186.41	50.81	186.47	49.30 - 52.70	186.10 - 186.72	Pass
81.60	31.07	81.90	31.01	81.65	31.07	79.90 - 83.30	30.76 - 31.38	Pass
81.60	62.14	82.00	62.07	81.52	62.20	79.90 - 83.30	61.83 - 62.45	Pass
81.60	93.21	82.09	93.24	81.50	93.33	79.90 - 83.30	92.89 - 93.52	Pass
81.60	124.27	82.10	124.27	81.40	124.35	79.90 - 83.30	123.96 - 124.58	Pass
81.60	155.34	82.10	155.34	81.40	155.40	79.90 - 83.30	155.03 - 155.65	Pass
81.60	186.41	82.00	186.35	81.50	186.47	79.90 - 83.30	186.10 - 186.72	Pass

*Template V20190304RX (TR)*