





**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>	4434B - M1
<b>Redflex HADECS3X NK7 serial number:</b>	HAD00794
<b>Speed Radar - Serial number:</b>	37643-01270
<b>Tracking Radar - Serial number:</b>	37642-00092
<b>Date of calibration:</b>	11/01/2022
<b>Certificate Number:</b>	CV10103345
<b>Calibration carried out by:</b>	Martin Watson
<b>Signature:</b>	
<b>Checked By:</b>	Ron Moore
<b>Signature:</b>	



## CERTIFICATION RECORD

<b>CALIBRATION CERTIFICATE NUMBER:</b>	CV10103345	<b>REFLEX HADECS3X NK7 SERIAL NUMBER:</b>	HAD00794
<b>SR CERTIFICATE NUMBER:</b>	705054	<b>SERIAL NUMBER:</b>	37643-01270
<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>	11 January 2022	<b>RADAR TEMPERATURE (°C):</b>	27.12
<b>RELATIVE HUMIDITY (%):</b>	58.00	<b>AMBIENT TEMPERATURE (°C):</b>	21.00
<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)	24.09386406	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	C037185	21081150	19th August 2022
PENDULUM CNT-90XL Frequency Counter	178903	3690360001	01st November 2022
FLUKE 971 Temperature Humidity Meter	17580804	21100752	14th October 2022
AGD MC-116 Target Simulator	117117-00017	116062	25th September 2022
<b>CERTIFICATION TEST CARRIED OUT BY:</b>	<b>Martin Watson</b>	<b>NEXT CERTIFICATION TEST DUE:</b>	<b>10 January 2023</b>
<b>CHECKED BY</b>	<b>Ron Moore</b>	<i>Template V20211125RX (SR)</i>	



**SPEED MEASUREMENT**

<b>CALIBRATION CERTIFICATE NUMBER:</b>	<b>CV10103345</b>	<b>REDFLEX HADECS3X NK7 SERIAL NUMBER:</b>	<b>HAD00794</b>
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**SERIAL NO: 37643-01270**

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	18.58	18.63	18.58	18.63	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	31.02	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	74.50	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	86.93	86.99	86.93	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	149.04	149.00	149.05	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 V20211125RX (SR)*



**CERTIFICATION RECORD**

<b>CALIBRATION CERTIFICATE NUMBER:</b>	<b>CV10103345</b>	<b>REDFLEX HADECS3X NK7 SERIAL NUMBER:</b>	<b>HAD00794</b>
<b>TR CERTIFICATE NUMBER:</b>	<i>31700100</i>	<b>SERIAL NUMBER:</b>	<i>37642-00092</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>11 January 2022</i>	<b>RADAR TEMPERATURE (°C):</b>	<i>N/A</i>
<b>RELATIVE HUMIDITY (%):</b>	<i>58.00</i>	<b>AMBIENT TEMPERATURE (°C):</b>	<i>20.00</i>
<b>CALIBRATED BANDWIDTH (MHz):</b>	<i>41.20</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>24.12452113</i>	24.123 - 24.127	<i>Pass</i>
BANDWIDTH MEASUREMENT (MHz)	<i>41.50</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>C037185</i>	<i>21081150</i>	<i>19th August 2022</i>
PENDULUM CNT-90XL Frequency Counter	<i>178903</i>	<i>3690360001</i>	<i>01st November 2022</i>
FLUKE 971 Temperature Humidity Meter	<i>17580804</i>	<i>21100752</i>	<i>14th October 2022</i>
AGD MC-116 Target Simulator	<i>117117-00017</i>	<i>116062</i>	<i>25th September 2022</i>
<b>CERTIFICATION TEST CARRIED OUT BY:</b>	<b>Martin Watson</b>	<b>NEXT CERTIFICATION TEST DUE:</b>	<b>10 January 2023</b>
<b>CHECKED BY:</b>	<b>Ron Moore</b>	<i>Template V20211125RX (TR)</i>	



## SPEED AND RANGE MEASUREMENT

<b>CALIBRATION CERTIFICATE NUMBER:</b>	<b>CV10103345</b>	<b>REDFLEX HADECS3X NK7 SERIAL NUMBER:</b>	<b>HAD00794</b>
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**SERIAL NO: 37642-00092**

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	23.91	31.07	23.77	31.01	22.10 - 25.50	30.76 - 31.38	Pass
23.80	62.14	24.01	62.19	23.70	62.09	22.10 - 25.50	61.83 - 62.45	Pass
23.80	93.21	24.07	93.33	23.64	93.27	22.10 - 25.50	92.89 - 93.52	Pass
23.80	124.27	24.06	124.34	23.60	124.33	22.10 - 25.50	123.96 - 124.58	Pass
23.80	155.34	24.11	155.39	23.60	155.34	22.10 - 25.50	155.03 - 155.65	Pass
23.80	186.41	24.03	186.47	23.67	186.41	22.10 - 25.50	186.10 - 186.72	Pass
51.00	7.46	51.10	7.58	51.09	7.46	49.30 - 52.70	7.15 - 7.77	Pass
51.00	12.43	51.13	12.51	51.09	12.33	49.30 - 52.70	12.12 - 12.74	Pass
51.00	18.64	51.14	18.77	51.07	18.64	49.30 - 52.70	18.33 - 18.95	Pass
51.00	24.85	51.17	24.92	51.03	24.84	49.30 - 52.70	24.54 - 25.17	Pass
51.00	31.07	51.20	31.07	51.01	31.01	49.30 - 52.70	30.76 - 31.38	Pass
51.00	37.28	51.20	37.37	51.00	37.21	49.30 - 52.70	36.97 - 37.59	Pass
51.00	43.50	51.20	43.62	51.00	43.50	49.30 - 52.70	43.19 - 43.81	Pass
51.00	49.71	51.20	49.77	50.99	49.71	49.30 - 52.70	49.40 - 50.02	Pass
51.00	55.92	51.24	55.93	50.97	55.86	49.30 - 52.70	55.61 - 56.23	Pass
51.00	62.14	51.27	62.23	50.97	62.07	49.30 - 52.70	61.83 - 62.45	Pass
51.00	68.35	51.29	68.48	50.92	68.35	49.30 - 52.70	68.04 - 68.66	Pass
51.00	74.56	51.28	74.63	50.93	74.56	49.30 - 52.70	74.25 - 74.88	Pass
51.00	80.78	51.30	80.79	50.92	80.72	49.30 - 52.70	80.47 - 81.09	Pass
51.00	86.99	51.30	87.08	50.91	86.93	49.30 - 52.70	86.68 - 87.30	Pass
51.00	93.21	51.30	93.33	50.88	93.22	49.30 - 52.70	92.89 - 93.52	Pass
51.00	99.42	51.29	99.48	50.91	99.42	49.30 - 52.70	99.11 - 99.73	Pass
51.00	105.63	51.30	105.68	50.90	105.57	49.30 - 52.70	105.32 - 105.94	Pass
51.00	111.85	51.32	111.93	50.86	111.78	49.30 - 52.70	111.54 - 112.16	Pass
51.00	118.06	51.32	118.18	50.89	118.09	49.30 - 52.70	117.75 - 118.37	Pass
51.00	124.27	51.32	124.37	50.86	124.27	49.30 - 52.70	123.96 - 124.58	Pass
51.00	136.70	51.32	136.79	50.85	136.64	49.30 - 52.70	136.39 - 137.01	Pass
51.00	149.13	51.32	149.25	50.83	149.14	49.30 - 52.70	148.82 - 149.44	Pass
51.00	161.56	51.33	161.65	50.90	161.49	49.30 - 52.70	161.25 - 161.87	Pass
51.00	173.98	51.28	174.11	50.92	174.03	49.30 - 52.70	173.67 - 174.29	Pass
51.00	186.41	51.25	186.50	50.95	186.35	49.30 - 52.70	186.10 - 186.72	Pass
81.60	31.07	81.83	31.13	81.69	30.94	79.90 - 83.30	30.76 - 31.38	Pass
81.60	62.14	81.90	62.27	81.61	62.01	79.90 - 83.30	61.83 - 62.45	Pass
81.60	93.21	81.94	93.38	81.54	93.20	79.90 - 83.30	92.89 - 93.52	Pass
81.60	124.27	82.00	124.40	81.51	124.27	79.90 - 83.30	123.96 - 124.58	Pass
81.60	155.34	81.98	155.42	81.53	155.28	79.90 - 83.30	155.03 - 155.65	Pass
81.60	186.41	81.94	186.55	81.57	186.34	79.90 - 83.30	186.10 - 186.72	Pass

*Template V20211125RX (TR)*