



**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.

Location:	3898B - M1
Redflex HADECS3X NK7 serial number:	HAD01600
Speed Radar - Serial number:	113335-0021
Tracking Radar - Serial number:	112205-0016
Date of calibration:	15/03/2021
Certificate Number:	CV10103174
Calibration carried out by:	Martin Watson

Signature:

A handwritten signature in black ink, appearing to read 'M. Watson', written over a horizontal line.

Checked By:

Ron Moore

Signature:

A handwritten signature in black ink, appearing to read 'Ron Moore', written over a horizontal line.



CERTIFICATION RECORD

CALIBRATION CERTIFICATE NUMBER:	CV10103174	REDFLEX HADECS3X NK7 SERIAL NUMBER:	HAD01600
SR CERTIFICATE NUMBER:	<i>706242</i>	SERIAL NUMBER:	<i>113335-0021</i>
PRODUCT MODEL:	AGD SR-340		
FIRMWARE VERSION:	<i>MI-096-1</i>	TEST SOFTWARE VERSION:	<i>1.3.1.7</i>
DATE OF CERTIFICATION:	<i>15 March 2021</i>	RADAR TEMPERATURE (°C):	<i>30.31</i>
RELATIVE HUMIDITY (%):	<i>32.00</i>	AMBIENT TEMPERATURE (°C):	<i>22.00</i>

CERTIFICATION TEST PROCEDURE REFERENCE: See 1201-007 REDFLEXradar-Certification System User Manual

DESCRIPTION	COMMENT	Pass/Fail
EQUIPMENT TESTS		<i>Pass</i>
VISUAL INSPECTION		<i>Pass</i>
SPEED MEASUREMENTS		<i>Pass</i>

DESCRIPTION	MEASURED	LIMITS	
TRANSMIT FREQUENCY MEASUREMENT (GHz)	<i>24.09035495</i>	24.075 - 24.120	<i>Pass</i>

TRACEABILITY RECORDS OF INSTRUMENTS USED IN CERTIFICATION TEST

INSTRUMENT DESCRIPTION:	SERIAL NUMBER:	CALIBRATION CERTIFICATE NUMBER:	NEXT CALIBRATION DUE DATE:
TEKTRONIX AFG3022B Function Generator	<i>C014082</i>	<i>21011117</i>	<i>22nd Jnuary 2022</i>
PENDULUM CNT-90XL Frequency Counter	<i>413964</i>	<i>3492130001</i>	<i>22nd Jnuary 2022</i>
FLUKE 971 Temperature Humidity Meter	<i>35181596</i>	<i>2101118</i>	<i>21st January 2022</i>
AGD MC-116 Target Simulator	<i>106553-0002</i>	<i>116066</i>	<i>5th February 2023</i>

CERTIFICATION TEST CARRIED OUT BY:	Martin Watson	NEXT CERTIFICATION TEST DUE:	14 March 2022
CHECKED BY	Ron Moore	<i>Template V20210222RX (SR)</i>	



SPEED MEASUREMENT

CALIBRATION CERTIFICATE NUMBER:	CV10103174	REDFLEX HADECS3X NK7 SERIAL NUMBER:	HAD01600
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SERIAL NO: 113335-0021

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	18.64	18.58	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	31.03	31.01	31.03	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	99.41	99.36	99.42	99.11 - 99.73	Pass
105.63	105.57	105.57	105.57	105.57	105.32 - 105.94	Pass
111.85	111.78	111.79	111.78	111.79	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	149.07	149.07	149.07	149.07	148.82 - 149.44	Pass
161.56	161.43	161.49	161.43	161.49	161.25 - 161.87	Pass
173.98	173.86	173.87	173.86	173.87	173.67 - 174.29	Pass
186.41	186.29	186.29	186.29	186.29	186.10 - 186.72	Pass

Template V20210222RX (SR)



CERTIFICATION RECORD

CALIBRATION CERTIFICATE NUMBER:	CV10103174	REDFLEX HADECS3X NK7 SERIAL NUMBER:	HAD01600
TR CERTIFICATE NUMBER:	<i>31700689</i>	SERIAL NUMBER:	<i>112205-0016</i>
PRODUCT MODEL:	AGD TR-317		
BIOS VERSION:	<i>MI-135-7</i>	DSP SOFTWARE VERSION:	<i>MI-144-9</i>
PIC FIRMWARE VERSION:	<i>N/A</i>	TEST SOFTWARE VERSION:	<i>1.3.1.7</i>
DATE OF CERTIFICATION:	<i>15 March 2021</i>	RADAR TEMPERATURE (°C):	<i>N/A</i>
RELATIVE HUMIDITY (%):	<i>32.00</i>	AMBIENT TEMPERATURE (°C):	<i>22.00</i>
CALIBRATED BANDWIDTH (MHz):	<i>41.50</i>		
CERTIFICATION TEST PROCEDURE REFERENCE:	See 1201-007 REDFLEXradar-Certification System User Manual		
DESCRIPTION	COMMENT		
EQUIPMENT TESTS			<i>Pass</i>
VISUAL INSPECTION			<i>Pass</i>
SPEED AND RANGE MEASUREMENTS			<i>Pass</i>
DESCRIPTION	MEASURED	LIMITS	PASS/FAIL
TRANSMIT FREQUENCY MEASUREMENT (GHz)	<i>24.12448811</i>	24.123 - 24.127	<i>Pass</i>
BANDWIDTH MEASUREMENT (MHz)	<i>41.00</i>	39.00 - 44.00	<i>Pass</i>
TRACEABILITY RECORDS OF INSTRUMENTS USED IN CERTIFICATION TEST			
INSTRUMENT DESCRIPTION:	SERIAL NUMBER:	CALIBRATION CERTIFICATE NUMBER:	NEXT CALIBRATION DUE DATE:
TEKTRONIX AFG3022B Function Generator	<i>C014082</i>	<i>21011117</i>	<i>22nd January 2022</i>
PENDULUM CNT-90XL Frequency Counter	<i>413964</i>	<i>3492130001</i>	<i>22nd January 2022</i>
FLUKE 971 Temperature Humidity Meter	<i>17580804</i>	<i>2101118</i>	<i>21st January 2022</i>
AGD MC-116 Target Simulator	<i>117117-00017</i>	<i>116066</i>	<i>5th February 2023</i>
CERTIFICATION TEST CARRIED OUT BY:	Martin Watson	NEXT CERTIFICATION TEST DUE:	14 March 2022
CHECKED BY:	Ron Moore	Template V20210222RX (TR)	



SPEED AND RANGE MEASUREMENT

CALIBRATION CERTIFICATE NUMBER:	CV10103174	REDFLEX HADECS3X NK7 SERIAL NUMBER:	HAD01600
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SERIAL NO: 112205-0016

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	23.99	31.07	23.70	31.01	22.10 - 25.50	30.76 - 31.38	Pass
23.80	62.14	24.10	62.20	23.60	62.07	22.10 - 25.50	61.83 - 62.45	Pass
23.80	93.21	24.12	93.33	23.55	93.21	22.10 - 25.50	92.89 - 93.52	Pass
23.80	124.27	24.20	124.35	23.50	124.27	22.10 - 25.50	123.96 - 124.58	Pass
23.80	155.34	24.20	155.40	23.50	155.34	22.10 - 25.50	155.03 - 155.65	Pass
23.80	186.41	24.10	186.47	23.60	186.35	22.10 - 25.50	186.10 - 186.72	Pass
51.00	7.46	51.10	7.58	51.10	7.39	49.30 - 52.70	7.15 - 7.77	Pass
51.00	12.43	51.12	12.61	51.10	12.29	49.30 - 52.70	12.12 - 12.74	Pass
51.00	18.64	51.20	18.77	51.00	18.58	49.30 - 52.70	18.33 - 18.95	Pass
51.00	24.85	51.20	24.92	51.00	24.79	49.30 - 52.70	24.54 - 25.17	Pass
51.00	31.07	51.20	31.13	51.00	30.94	49.30 - 52.70	30.76 - 31.38	Pass
51.00	37.28	51.20	37.47	51.00	37.16	49.30 - 52.70	36.97 - 37.59	Pass
51.00	43.50	51.29	43.67	50.92	43.43	49.30 - 52.70	43.19 - 43.81	Pass
51.00	49.71	51.30	49.83	50.90	49.65	49.30 - 52.70	49.40 - 50.02	Pass
51.00	55.92	51.30	55.99	50.90	55.80	49.30 - 52.70	55.61 - 56.23	Pass
51.00	62.14	51.30	62.32	50.90	62.01	49.30 - 52.70	61.83 - 62.45	Pass
51.00	68.35	51.30	68.54	50.90	68.29	49.30 - 52.70	68.04 - 68.66	Pass
51.00	74.56	51.37	74.69	50.86	74.50	49.30 - 52.70	74.25 - 74.88	Pass
51.00	80.78	51.40	80.84	50.80	80.65	49.30 - 52.70	80.47 - 81.09	Pass
51.00	86.99	51.40	87.18	50.80	86.87	49.30 - 52.70	86.68 - 87.30	Pass
51.00	93.21	51.40	93.39	50.80	93.14	49.30 - 52.70	92.89 - 93.52	Pass
51.00	99.42	51.40	99.54	50.80	99.36	49.30 - 52.70	99.11 - 99.73	Pass
51.00	105.63	51.40	105.70	50.80	105.56	49.30 - 52.70	105.32 - 105.94	Pass
51.00	111.85	51.40	112.03	50.80	111.72	49.30 - 52.70	111.54 - 112.16	Pass
51.00	118.06	51.43	118.25	50.79	118.00	49.30 - 52.70	117.75 - 118.37	Pass
51.00	124.27	51.47	124.40	50.75	124.27	49.30 - 52.70	123.96 - 124.58	Pass
51.00	136.70	51.50	136.89	50.71	136.58	49.30 - 52.70	136.39 - 137.01	Pass
51.00	149.13	51.49	149.25	50.72	149.13	49.30 - 52.70	148.82 - 149.44	Pass
51.00	161.56	51.44	161.74	50.79	161.43	49.30 - 52.70	161.25 - 161.87	Pass
51.00	173.98	51.40	174.13	50.80	173.98	49.30 - 52.70	173.67 - 174.29	Pass
51.00	186.41	51.40	186.60	50.81	186.29	49.30 - 52.70	186.10 - 186.72	Pass
81.60	31.07	81.90	31.19	81.67	30.88	79.90 - 83.30	30.76 - 31.38	Pass
81.60	62.14	82.00	62.39	81.54	61.95	79.90 - 83.30	61.83 - 62.45	Pass
81.60	93.21	82.10	93.45	81.50	93.08	79.90 - 83.30	92.89 - 93.52	Pass
81.60	124.27	82.10	124.46	81.40	124.21	79.90 - 83.30	123.96 - 124.58	Pass
81.60	155.34	82.10	155.53	81.40	155.22	79.90 - 83.30	155.03 - 155.65	Pass
81.60	186.41	82.00	186.66	81.50	186.22	79.90 - 83.30	186.10 - 186.72	Pass

Template V20210222RX (TR)