



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

We, Redflex Traffic Systems Pty Ltd  
of 31 Market Street, South Melbourne, Victoria, Australia 3205  
hereby certify that the Redflex Enforcement Camera 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>                        | 4565A - M1                                                                           |
| <b>Redflex NK7 - Serial number:</b>    | HAD00779                                                                             |
| <b>Speed Radar - Serial number:</b>    | 101032-0017                                                                          |
| <b>Tracking Radar - Serial number:</b> | 101031-0014                                                                          |
| <b>Date of calibration:</b>            | 22/11/2019                                                                           |
| <b>Certificate Number:</b>             | CV10102271                                                                           |
| <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>                                | <b>CV10102271</b>                                          | <b>REDFLEX NK7 SERIAL NUMBER:</b>      | <b>HAD00779</b>                   |
| <b>SR CERTIFICATE NUMBER:</b>                                         | <i>705292</i>                                              | <b>SERIAL NUMBER:</b>                  | <i>101032-0017</i>                |
| <b>PRODUCT MODEL:</b>                                                 | AGD SR-340                                                 |                                        |                                   |
| <b>FIRMWARE VERSION:</b>                                              | <i>MI-096-1</i>                                            | <b>TEST SOFTWARE VERSION:</b>          | <i>1.3.1.7</i>                    |
| <b>DATE OF CERTIFICATION:</b>                                         | <i>22 November 2019</i>                                    | <b>RADAR TEMPERATURE (°C):</b>         | <i>43.81</i>                      |
| <b>RELATIVE HUMIDITY (%):</b>                                         | <i>37.00</i>                                               | <b>AMBIENT TEMPERATURE (°C):</b>       | <i>24.00</i>                      |
| <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)                                  | <i>24.09076926</i>                                         | 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<br>Function Generator                              | <i>C014082</i>                                             | <i>19011625</i>                        | <i>31st January 2020</i>          |
| PENDULUM CNT-90XL<br>Frequency Counter                                | <i>413964</i>                                              | <i>2928570001</i>                      | <i>21st February 2020</i>         |
| FLUKE 971<br>Temperature Humidity Meter                               | <i>35181596</i>                                            | <i>19011624</i>                        | <i>31st January 2020</i>          |
| AGD MC-116<br>Target Simulator                                        | <i>106553-0002</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>20 November 2020</b>           |
| <b>CHECKED BY</b>                                                     | <b>Ron Moore</b>                                           | <i>Template V20190304 (SR)</i>         |                                   |



## SPEED MEASUREMENT

|                                        |                   |                                   |                 |
|----------------------------------------|-------------------|-----------------------------------|-----------------|
| <b>CALIBRATION CERTIFICATE NUMBER:</b> | <b>CV10102271</b> | <b>REDFLEX NK7 SERIAL NUMBER:</b> | <b>HAD00779</b> |
|----------------------------------------|-------------------|-----------------------------------|-----------------|

**SERIAL NO:**    **101032-0017**

| 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                | 99.39  | 99.36    | 99.39  | 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                | 149.07               | 149.07 | 149.07   | 149.07 | 148.82 - 149.44    | Pass      |
| 161.56                | 161.43               | 161.44 | 161.43   | 161.44 | 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 V20190304 (SR)*



## CERTIFICATION RECORD

|                                                                       |                                                            |                                        |                                   |
|-----------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------|-----------------------------------|
| <b>CALIBRATION CERTIFICATE NUMBER:</b>                                | CV10102271                                                 | <b>REDFLEX NK7 SERIAL NUMBER:</b>      | HAD00779                          |
| <b>TR CERTIFICATE NUMBER:</b>                                         | 31700245                                                   | <b>SERIAL NUMBER:</b>                  | 101031-0014                       |
| <b>PRODUCT MODEL:</b>                                                 | AGD TR-317                                                 |                                        |                                   |
| <b>BIOS VERSION:</b>                                                  | MI-135-7                                                   | <b>DSP SOFTWARE VERSION:</b>           | MI-144-9                          |
| <b>PIC FIRMWARE VERSION:</b>                                          | N/A                                                        | <b>TEST SOFTWARE VERSION:</b>          | 1.3.1.7                           |
| <b>DATE OF CERTIFICATION:</b>                                         | 22 November 2019                                           | <b>RADAR TEMPERATURE (°C):</b>         | N/A                               |
| <b>RELATIVE HUMIDITY (%):</b>                                         | 37.00                                                      | <b>AMBIENT TEMPERATURE (°C):</b>       | 24.10                             |
| <b>CALIBRATED BANDWIDTH (MHz):</b>                                    | 41.90                                                      |                                        |                                   |
| <b>CERTIFICATION TEST PROCEDURE REFERENCE:</b>                        | See 1201-007 REDFLEXradar-Certification System User Manual |                                        |                                   |
| <b>DESCRIPTION</b>                                                    | <b>COMMENT</b>                                             |                                        |                                   |
| EQUIPMENT TESTS                                                       |                                                            |                                        | Pass                              |
| VISUAL INSPECTION                                                     |                                                            |                                        | Pass                              |
| SPEED AND RANGE MEASUREMENTS                                          |                                                            |                                        | Pass                              |
| <b>DESCRIPTION</b>                                                    | <b>MEASURED</b>                                            | <b>LIMITS</b>                          | <b>PASS/FAIL</b>                  |
| TRANSMIT FREQUENCY MEASUREMENT (GHz)                                  | 24.12459880                                                | 24.123 - 24.127                        | Pass                              |
| BANDWIDTH MEASUREMENT (MHz)                                           | 42.00                                                      | 40.00 - 44.00                          | Pass                              |
| <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                                                    | 19011625                               | 31st January 2020                 |
| PENDULUM CNT-90XL Frequency Counter                                   | 413964                                                     | 2928570001                             | 21st February 2020                |
| FLUKE 971 Temperature Humidity Meter                                  | 35181596                                                   | 19011624                               | 31st January 2020                 |
| AGD MC-116 Target Simulator                                           | 106553-0002                                                | 116055                                 | 21st January 2021                 |
| <b>CERTIFICATION TEST CARRIED OUT BY:</b>                             | Martin Watson                                              | <b>NEXT CERTIFICATION TEST DUE:</b>    | 20 November 2020                  |
| <b>CHECKED BY:</b>                                                    | Ron Moore                                                  | Template V20190304 (TR)                |                                   |



## SPEED AND RANGE MEASUREMENT

|                                        |                   |                                   |                 |
|----------------------------------------|-------------------|-----------------------------------|-----------------|
| <b>CALIBRATION CERTIFICATE NUMBER:</b> | <b>CV10102271</b> | <b>REDFLEX NK7 SERIAL NUMBER:</b> | <b>HAD00779</b> |
|----------------------------------------|-------------------|-----------------------------------|-----------------|

**SERIAL NO: 101031-0014**

| Simulated Range (m) | Simulated Speed (mph) | Measured Advancing Range (m) | Measured Advancing Speed (mph) | Measured Receding Range (m) | Measured Receding Speed (mph) | Range Limits (m) | Speed Limits (mph) | Pass/Fail |
|---------------------|-----------------------|------------------------------|--------------------------------|-----------------------------|-------------------------------|------------------|--------------------|-----------|
| 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                          | 23.57                       | 93.27                         | 22.10 - 25.50    | 92.89 - 93.52      | Pass      |
| 23.80               | 124.27                | 24.20                        | 124.34                         | 23.50                       | 124.29                        | 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                       | 186.39                        | 22.10 - 25.50    | 186.10 - 186.72    | Pass      |
| 51.00               | 7.46                  | 51.10                        | 7.58                           | 51.10                       | 7.45                          | 49.30 - 52.70    | 7.15 - 7.77        | Pass      |
| 51.00               | 12.43                 | 51.13                        | 12.55                          | 51.09                       | 12.30                         | 49.30 - 52.70    | 12.12 - 12.74      | Pass      |
| 51.00               | 18.64                 | 51.20                        | 18.77                          | 51.00                       | 18.64                         | 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                        | 31.11                          | 51.00                       | 30.94                         | 49.30 - 52.70    | 30.76 - 31.38      | Pass      |
| 51.00               | 37.28                 | 51.20                        | 37.41                          | 51.00                       | 37.16                         | 49.30 - 52.70    | 36.97 - 37.59      | Pass      |
| 51.00               | 43.50                 | 51.28                        | 43.62                          | 50.95                       | 43.50                         | 49.30 - 52.70    | 43.19 - 43.81      | Pass      |
| 51.00               | 49.71                 | 51.30                        | 49.77                          | 50.90                       | 49.66                         | 49.30 - 52.70    | 49.40 - 50.02      | Pass      |
| 51.00               | 55.92                 | 51.30                        | 55.99                          | 50.90                       | 55.86                         | 49.30 - 52.70    | 55.61 - 56.23      | Pass      |
| 51.00               | 62.14                 | 51.30                        | 62.26                          | 50.90                       | 62.01                         | 49.30 - 52.70    | 61.83 - 62.45      | Pass      |
| 51.00               | 68.35                 | 51.30                        | 68.48                          | 50.90                       | 68.35                         | 49.30 - 52.70    | 68.04 - 68.66      | Pass      |
| 51.00               | 74.56                 | 51.36                        | 74.63                          | 50.89                       | 74.56                         | 49.30 - 52.70    | 74.25 - 74.88      | Pass      |
| 51.00               | 80.78                 | 51.40                        | 80.84                          | 50.80                       | 80.72                         | 49.30 - 52.70    | 80.47 - 81.09      | Pass      |
| 51.00               | 86.99                 | 51.40                        | 87.12                          | 50.80                       | 86.87                         | 49.30 - 52.70    | 86.68 - 87.30      | Pass      |
| 51.00               | 93.21                 | 51.40                        | 93.33                          | 50.80                       | 93.21                         | 49.30 - 52.70    | 92.89 - 93.52      | Pass      |
| 51.00               | 99.42                 | 51.40                        | 99.54                          | 50.80                       | 99.42                         | 49.30 - 52.70    | 99.11 - 99.73      | Pass      |
| 51.00               | 105.63                | 51.40                        | 105.70                         | 50.80                       | 105.57                        | 49.30 - 52.70    | 105.32 - 105.94    | Pass      |
| 51.00               | 111.85                | 51.40                        | 111.97                         | 50.80                       | 111.76                        | 49.30 - 52.70    | 111.54 - 112.16    | Pass      |
| 51.00               | 118.06                | 51.41                        | 118.25                         | 50.80                       | 118.06                        | 49.30 - 52.70    | 117.75 - 118.37    | Pass      |
| 51.00               | 124.27                | 51.44                        | 124.40                         | 50.78                       | 124.27                        | 49.30 - 52.70    | 123.96 - 124.58    | Pass      |
| 51.00               | 136.70                | 51.48                        | 136.83                         | 50.74                       | 136.64                        | 49.30 - 52.70    | 136.39 - 137.01    | Pass      |
| 51.00               | 149.13                | 51.48                        | 149.25                         | 50.74                       | 149.13                        | 49.30 - 52.70    | 148.82 - 149.44    | Pass      |
| 51.00               | 161.56                | 51.43                        | 161.68                         | 50.80                       | 161.49                        | 49.30 - 52.70    | 161.25 - 161.87    | Pass      |
| 51.00               | 173.98                | 51.40                        | 174.11                         | 50.80                       | 173.98                        | 49.30 - 52.70    | 173.67 - 174.29    | Pass      |
| 51.00               | 186.41                | 51.39                        | 186.54                         | 50.82                       | 186.35                        | 49.30 - 52.70    | 186.10 - 186.72    | Pass      |
| 81.60               | 31.07                 | 81.90                        | 31.13                          | 81.67                       | 30.94                         | 79.90 - 83.30    | 30.76 - 31.38      | Pass      |
| 81.60               | 62.14                 | 82.00                        | 62.32                          | 81.56                       | 61.99                         | 79.90 - 83.30    | 61.83 - 62.45      | Pass      |
| 81.60               | 93.21                 | 82.10                        | 93.39                          | 81.50                       | 93.14                         | 79.90 - 83.30    | 92.89 - 93.52      | Pass      |
| 81.60               | 124.27                | 82.10                        | 124.40                         | 81.40                       | 124.21                        | 79.90 - 83.30    | 123.96 - 124.58    | Pass      |
| 81.60               | 155.34                | 82.10                        | 155.47                         | 81.40                       | 155.28                        | 79.90 - 83.30    | 155.03 - 155.65    | Pass      |
| 81.60               | 186.41                | 82.00                        | 186.60                         | 81.50                       | 186.29                        | 79.90 - 83.30    | 186.10 - 186.72    | Pass      |

*Template V20190304 (TR)*