

Transports Canada

# Department of Transport

# Supplemental Type Certificate

This approval is issued to:

Number: SA97-129

Technisonic Industries Limited

Issue No.: 20

240 Traders Blvd. E

Approval Date: December 31, 1997

Mississauga, Ontario

Issue Date: December 01, 2010

Canada L4Z 1W7

10000 500

Responsible Office:

Ontario

Aircraft/Engine Type or Model:

See eligibility list (on continuation sheet)

Canadian Type Certificate or Equivalent:

See eligibility list (on continuation sheet)

Description of Type Design Change:

Installation of Technisonic Industries Limited Transceivers

- TFM-138, -138A, -138B, -138C FM Transceiver
- TFM-403 UHF/FM Transceiver
- TFM-500 VHF/UHF FM Transceiver
- TFM-30 VHF low band FM Transceiver
- RC-500 Remote Control
- TDFM-136 VHF/FM Transceiver
- TFM-550 VHF High/VHF Low/UHF Multi-band Transceiver
- RC-550 VHF/UHF/VHF Low FM Transceiver Remote Control Head
- ATC-550 Antenna Tuner Controller
- TDFM-600/6000 Series VHF/UHF Low/UHF High/800 MHz Multi-band Transceiver
- RC-6000 Remote Control Head
- TFM-530 VHF/VHF Low FM Multi-band Transceiver
- TFM-566 VHF/VHF Low FM Multi-band Transceiver
- AMS-6000 Audio Mode Selector
- TFM-66 VHF Low Band FM Transceiver
- TFM-556 VHF High/VHF Low/UHF Multi-band FM Airborne Transceiver
- TDFM-7000 VHF/UHF Low/UHF High/800 MHz Multi-band TransceiverRC-7000 Remote Control Head
- TDFM-7300 VHF Low/VHF High/UHF Low/UHF High 800 MHz Multi-band Transceiver
- RC-7300 Remote Control Head
- TDFM-136A Transceiver



**Conditions:** This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.

Vlad Vujosevic For Minister of Transport

Canada



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#### NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

#### Basis Of Certification:

FAR 23 of the United States Federal Aviation Regulations (FAR 23) dated February 1, 1965, Plus Amendments 23-1 through 23-54 inclusive.

The TFM-138, -138A, -138B and -138C FM Transceiver models are manufactured to TIL Engineering Release 921012, Rev. B, dated November 24, 1997, or later Transport Canada approved revision.

The TFM-403 UHF/FM Transceiver model is manufactured to TIL Engineering Release 941059, Rev. A, dated Oct. 27/99, or later Transport Canada approved revision.

The TFM-500 VHF/UHF FM Transceiver model is manufactured to TIL Engineering Release 971083, Rev. N/C, dated March 16, 1999, or later Transport Canada approved revision.

The TFM-30 VHF low band FM Transceiver model is manufactured to TIL Engineering Release 961082, Rev. N/C, dated Apr. 19, 1999, or later Transport Canada approved revision.

The Remote Control RC-500 model is manufactured to TIL Engineering Release 991097, Rev. N/C, dated Nov. 17, 1999, or later Transport Canada approved revision.

The TDFM-136 VHF/FM Transceiver model is manufactured to TIL Engineering Release 981087, Rev. N/C, dated Jan. 13, 2000, or later Transport Canada approved revision.

The TFM-550 VHF High/VHF Low/UHF Multi-band Transceiver model is manufactured to TIL Engineering Release 991095, Rev. N/C, dated March 1, 2000, or later Transport Canada approved revision.

The RC-550 VHF/UHF/VHF Low FM Transceiver Remote Control Head model is manufactured to TIL Engineering Release 991099, Rev. N/C, dated March 27, 2000, or later Transport Canada approved revision.

The ATC-550 Antenna Tuner Controller model is manufactured to TIL Engineering Release 991102, Rev. N/C, dated March 20, 2000, or later Transport Canada approved revision.

The TDFM-600/6000 Series VHF/UHF Low/UHF High/800 MHz Multi-band Transceiver is manufactured to TIL Engineering Release 011210, Revision A, dated June 20, 2004, or later Transport Canada approved revision.

The Remote Control RC-6000 model is manufactured to TIL Engineering Release 021213, Rev. N/C, dated October 17, 2002, or later Transport Canada approved revision.

The TFM-530 VHF/VHF Low FM Multi-band Transceiver model is manufactured to TIL Engineering Release 031216, Rev. N/C, dated April, 2003, or later Transport Canada approved revision.

The TFM-566 VHF/VHF Low FM Multi-band Transceiver model is manufactured to TIL Engineering Release 031217, Rev. N/C, dated April, 2003, or later Transport Canada approved revision.

The AMS-6000 Audio Mode Selector model is manufactured to TIL Engineering Release 031220, Rev. N/C, dated August, 2003, or later Transport Canada approved revision.



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The TFM-66 VHF Low Band FM Transceiver model is manufactured to TIL Engineering Release 031218, Rev. N/C, dated September 19, 2003, or later Transport Canada approved revision.

The TFM-556 VHF High/VHF Low/UHF Multi-band FM Airborne Transceiver model is manufactured to TIL Engineering Release 031219, Rev. N/C, dated September 23, 2003, or later Transport Canada approved revision.

The TDFM-7000 VHF/UHF Low/UHF High/800 MHz Multi-band Transceiver is manufactured to TIL Engineering Release 051240-1, Rev. --, dated February 3, 2006 or Engineering Release 051240-2, Rev. --, dated February 3, 2006 or Engineering Release 051240-4, Rev. --, dated February 3, 2006 or later Transport Canada approved revision.

The RC-7000 remote control is manufactured to TIL Engineering Release 051242-1 Rev.--, dated June 20, 2006 or Engineering Release 051242-2, Rev.--, dated June 20, 2006 or later Transport Canada approved revision.

The TDFM-7300 VHF Low/VHF High/UHF Low/UHF High/800 MHz Multi-band Transceiver is manufactured to TIL Engineering Release 061245-1 Rev. – dated October 27, 2008, or Engineering Release 061245-2 Rev. – dated October 27, 2008, or Engineering Release 061245-3 Rev. – dated October 27, 2008, or Engineering Release 061245-4 Rev. – dated October 27, 2008, or later Transport Canada approved revision.

The RC-7300 remote control is manufactured to TIL Engineering Release 061247-1 Rev. --, dated December 22, 2008 or Engineering Release 061247-2 Rev. --, dated December 22, 2008 or later Transport Canada approved revision.

The TDFM-136A Transceiver is manufactured to TIL Engineering Release 091258-1-10 Rev. -, dated April 22, 2009, or TIL Engineering Release 091258-1-11 Rev. -, dated April 22, 2009, or TIL Engineering Release 091258-2-10 Rev. -, dated April 22, 2009, or TIL Engineering Release 091258-3-10 Rev. -, dated April 22, 2009, or TIL Engineering Release 091258-3-11 Rev. -, dated April 22, 2009, or TIL Engineering Release 091258-3-11 Rev. -, dated April 22, 2009, or TIL Engineering Release 091258-4-11 Rev. -, dated April 22, 2009, or TIL Engineering Release 091258-4-11 Rev. -, dated April 22, 2009, or TIL Engineering Release 091258-5-10 Rev. -, dated April 22, 2009, or TIL Engineering Release 091258-6-10 Rev. -, dated April 22, 2009, or TIL Engineering Release 091258-6-10 Rev. -, dated April 22, 2009, or TIL Engineering Release 091258-6-11 Rev. -, dated April 22, 2009, or later Transport Canada approved revision.

For the TFM-138, -138A and -138B, (does not include TFM-138, s/n 1540 and up, TFM-138B, s/n 1500 and up) installation must be in accordance with TIL Installation and Operating Manual 95RE177, Revision E, Transport Canada approved April 13, 1998, or later Transport Canada approved revision.

For the TFM-138B, installation must be in accordance with TIL Installation and Operating Instructions Manual 97RE221, Revision A, Transport Canada approved September 21, 2010, or later Transport Canada approved revision.



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For the TFM-138C, installation must be in accordance with TIL Installation and Operating Instructions Manual 96RE192, Revision B, Transport Canada approved April 13, 1998, or later Transport Canada approved revision.

For the TFM-138 (s/n's 1540 and up with F10-B Software), installation must be in accordance with TIL Installation and Operating Instructions Manual 98RE229, Revision A, Transport Canada approved September 21, 2010, or later Transport Canada approved revision.

For the TFM-403, installation must be in accordance with TIL Installation and Operating Instructions Manual 95RE175, Revision C, Transport Canada approved May 2, 2003, or later Transport Canada approved revision.

For the TFM-500, installation must be in accordance with TIL Installation and Operating Instructions Manual 98RE243, Revision N/C, Transport Canada approved September 21, 2010, or later Transport Canada approved revision.

For the TFM-30, installation must be in accordance with TIL Installation and Operating Instructions Manual 98RE244, Revision N/C, Transport Canada approved November 15, 1999, or later Transport Canada approved revision.

For the RC-500, installation must be in accordance with TIL Installation and Operating Instructions Manual 99RE260, Revision N/C, Transport Canada approved January 25, 2000, or later Transport Canada approved revision.

For the TDFM-136 VHF/FM Transceiver, installation must be in accordance with TIL Installation and Operating Instructions Manual 99RE255, Revision D, Transport Canada approved June 24, 2010, or later Transport Canada approved revision.

For TFM-550 VHF High/VHF Low/UHF Multi-band FM Transceiver, installation must be in accordance with TIL Installation and Operating Instructions Manual 99RE262, Revision A Transport Canada approved September 21, 2010, or later Transport Canada approved revision.

For the RC-550 VHF/UHF/VHF Low FM Transceiver Remote Control Head, installation must be in accordance with TIL Installation and Operating Instructions Manual 00RE270, Revision N/C, Transport Canada approved May 19, 2000, or later Transport Canada approved revision.

For the ATC-550 Antenna Tuner Controller, installation must be in accordance with TIL Installation and Operating Instructions Manual 00RE269, Revision A, Transport Canada approved May 19, 2000, or later Transport Canada approved revision.

For the TDFM-600/6000 Series VHF/UHF Low/ UHF High/800 MHz Multi-band Transceiver, installation must be in accordance with TIL Installation and Operating Instructions Manual 01RE293, Revision F, Transport Canada approved November 1, 2010, or later TC approved revision.



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For the RC-6000, installation must be in accordance with TIL Installation and Operating Instructions Manual 02RE299, Revision A, Transport Canada approved November 26, 2002, or later Transport Canada approved revision.

For the TFM-530 VHF/VHF Low FM Multi-band Transceiver, installation must be in accordance with TIL Installation and Operating Instructions Manual 03RE317, Revision B, Transport Canada approved January 16, 2007, or later Transport Canada approved revision.

For the TFM-566 VHF/VHF Low FM Multi-band Transceiver, installation must be in accordance with TIL Installation and Operating Instructions Manual 03RE318, Revision B, Transport Canada approved September 3, 2003, or later Transport Canada approved revision.

For the AMS-6000 Audio Mode Selector, installation must be in accordance with TIL Installation and Operating Instructions Manual 03RE325, Revision N/C, Transport Canada approved November 26, 2003, or later Transport Canada approved revision.

For the TFM-66 VHF Low Band FM Transceiver, installation must be in accordance with TIL Installation and Operating Instructions Manual 03RE320, Revision N/C, Transport Canada approved January 14, 2004, or later Transport Canada approved revision.

For the TFM-556 VHF High/VHF Low/UHF Multi-band FM Airborne Transceiver, installation must be in accordance with TIL Installation and Operating Instructions Manual 03RE328, Revision N/C, Transport Canada approved January 14, 2004, or later Transport Canada approved revision.

For the TDFM-7000 VHF/UHF Low/ UHF High/800 MHz Multi-band Transceiver, installation must be in accordance with TIL Installation and Operating Instructions Manual 05RE375, Revision N/C, Transport Canada approved September 21, 2010, or later Transport Canada approved revision.

For the RC-7000, installation must be in accordance with TIL Installation and Operating Instructions Manual 06RE377, Revision N/C, Transport Canada approved November 1, 2006, or later Transport Canada approved revision.

For the TDFM-7300 30-50 MHz/VHF/UHF Low/UHF High/800MHz Multi-band Transceiver, installation must be in accordance with TIL Installation and Operating Instructions Manual 08RE389, Revision A, Transport Canada approved September 21, 2010, or later Transport Canada approved revision.

For the RC-7300, installation must be in accordance with TIL Installation and Operating Instructions Manual 08RE400 Revision N/C, Transport Canada approved May 28, 2009, or later Transport Canada approved revision.

For the TDFM-136A, installation must be in accordance with TIL Installation Instructions 09RE404 Revision C, Transport Canada approved June 17, 2010, or later Transport Canada approved revision.



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#### NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Maintenance of the TDFM-600/6000 Series VHF/UHF Low/ UHF High/800 MHz Multi-band Transceiver, and RC-6000 Remote Control Head must be in accordance with Transport Canada accepted Technisonic Industries Limited Instructions for Continued Airworthiness MMS02030-1 Revision D, November 3, 2010, or later Transport Canada accepted revisions.

Maintenance of the TFM-530 and TFM-566 VHF/VHF Low FM Transceiver must be in accordance Transport Canada accepted Technisonic Industries Limited Instructions for Continued Airworthiness MMS03055-1 Revision B, November 3, 2010, or later Transport Canada accepted revisions.

Maintenance of the AMS-6000 Audio Mode Selector must be in accordance with Transport Canada accepted Technisonic Industries Limited Instructions for Continued Airworthiness MMS02030-1 Revision D, November 3, 2010, or later Transport Canada accepted revisions.

Maintenance of the TFM-66 VHF Low Band FM Transceiver and TFM-556 VHF High/VHF Low/UHF Multiband FM Airborne Transceiver must be in accordance with Transport Canada accepted Technisonic Industries Limited Instructions for Continued Airworthiness MMS03099-1 Rev. B, November 3, 2010, or later Transport Canada accepted revisions.

Maintenance of the TDFM-7000 / TDFM-7300 VHF/UHF Low/UHF High/800 MHz Multi-band Transceiver and RC-7000 / RC-7300 Remote Control Head must be in accordance with Transport Canada accepted Technisonic Industries Limited Instructions for Continued Airworthiness ICA06045-1 Revision D, November 3, 2010, or later Transport Canada accepted revisions.

Maintenance of the TDFM-136A Transceiver must be in accordance with Transport Canada accepted Technisonic Industries Limited Instructions for Continued Airworthiness ICA06045-1 Revision D, November 3, 2010, or later Transport Canada accepted revisions.



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# **Eligibility List**

MANUFACTURER	MODELS	CANADIAN TC	FAA TC
Cessna Aircraft Company	172, 172A/B/C/D/E/F/G/H/I/K/L/M/N/P/Q, 172R	A-199 (1)	3A12
Cessna Aircraft Company	180, 180A/B/C/D/E/F/G/H/J/K	(3)	5A6
Cessna Aircraft Company	182, 182A/B/C/D/E/F/G/H/J/K/L/M/N/P/Q/R, 182S, T182, TR182, R182	A-204 (2)	3A13
Cessna Aircraft Company	185, 185A/B/C/D/E, A185E/F	(3)	3A24
Cessna Aircraft Company	206, P206, P206A/B/C/D/E, TP206A/B/C/D/E, U206, U206A/B/C/D/E/F/G, TU206A/B/C/D/E/F/G	(3)	A4CE
Cessna Aircraft Company	208, 208A/B	(3)	A37CE
Piper Aircraft, Inc.	PA-32-260/300/301/301T, PA-32R- 300/301(SP)/301(HP)/301T, PA-32S-300, PA-32RT- 300/300T	A-211 (3) & (4)	A3SO
Piper Aircraft, Inc.	PA-28-40/150/151/160/161/180/181/201T/235/236, PA-28R-180/200/201/201T, PA-28RT-201/201T, PA-28S-160/180	(3)	2A13
Twin Commander	500, 500-A/B/U/S, 520, 560, 560-A/E	(3)	6A1
Twin Commander	560-F, 680, 680E/F/FL/FL(P)/T/V/W, 681, 685, 690, 690A/B/C/D, 695, 695A/B, 720	(3)	2A4
Pilatus Aircraft Ltd.	PC-6, PC-6-H1, PC-6-H2, PC-6/350, PC-6/350-H1, PC-6/350-H2, PC-6/A, PC-6/A-H1, PC-6/A-H2, PC-6/B-H2, PC-6/B1-H2, PC-6/B2-H2	A-78	



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### **Additional Notes**

- Canadian Type Certificate A-199 is limited to Model 172R; other variants are accepted in accordance with FAA TC 3A12.
- (2) Canadian Type Certificate A-204 is limited to Model 182S; other variants are accepted in accordance with FAA TC 3A13.
- (3) Except as provided in (1), (2), and (4) the FAA Type Certificate has been accepted by Transport Canada no Canadian TC was issued.
- (4) Canadian Type Certificate A-211 is limited to Model PA-32R-301T; other variants are accepted in accordance with FAA TC A3SO.

#### Limitations:

Pressure vessel penetrations are not included in this approval. Any required pressure vessel penetrations require a separate approval.

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