

INFORMATION

This catalogue provides a presentation of External Change Solutions aiming at enhancing the efficiency, comfort, and operations of ATR aircraft. All the External Change Solutions presented in this catalogue are designed, delivered and supported by our External Design Organizations partners ("External partners").

All External Partners have notably been selected on their ability to design and certify the External Change Solutions through the relevant authority.

Should you be interested in purchasing any External Change Solution presented in this catalogue, please contact directly the relevant(s) External Partner(s) to request a quotation. All orders will be placed between your company and the relevant External Partner. The Customer Support for each External Change Solution will be also performed directly by the relevant External Partner.

The applicability of any presented External Change Solution depends on aircraft configuration and is equally subject to review by the External Partners. Information on price range, weight change, lead time, and manpower is given as estimated guidelines only, and may be different according to aircraft configuration.

Should none of the available solutions presented in both *ATR Upgrades Services Catalogue* and *ATR External Change Catalogue* fit your needs, please contact your ATR Service Sales Director or place a request on ATRactive Portal for further information.

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USER GUIDE

CATALOGUE & PARTNERS PRESENTATION



USER GUIDE GLOSSARY

TERMS & ABBREVIATIONS	DEFINITION
DOA	Design Organization Approval - The recognition that a Design Organization complies with the requirements of EASA Part 21 Subpart J.
POA	Production Organization Approval - The recognition that a Production Organization complies with the requirement of EASA Part 21 Subpart G.
STC	Supplemental Type Certificate - A national aviation authority approved major modification or repair to an existing type certified aircraft, engine or propeller.
SB	Service Bulletin - The document used to communicate details of modifications which can be embodied in aircraft.
EO	Engineering Order - The document that explains how a check can be done and how to plan and keep track of modifications of components.
ICAO	The International Civil Aviation Organization is a specialized agency of the United Nations
NEW LOOK	The cabin interiors of ATR aircraft installed prior to the Armonia Cabin interior, installed on ATR 42 MSN 443 and ATR 72 MSN 468 and higher (with exceptions).
ARMONIA	The newest Cabin interiors of ATR aircraft installed on ATR 42 MSN 859 and ATR 72 MSN 958 and higher (with exceptions).
LEGACY	All avionics suite systems embedded on ATR aircraft before New Avionics Suite (NAS).
NAS	New Avionics Suite. The latest avionics system of ATR aircraft, installed on ATR 42 MSN 859 and ATR 72 MSN 940 and higher (with exceptions), this avionics suite is manufactured by Thales.
IFE	In-Flight Entertainment refers to the entertainment available to aircraft passengers during a flight
LPV	Localizer Performance with Vertical guidance
ADS-B OUT	Automatic Dependent Surveillance-Broadcast
XPDR	Transponder is short for transmitter-responder and sometimes abbreviated to XPDR
RNAV	Area Nav igation is a method of navigation that permits aircraft operation on any desired course within the coverage of station-referenced navigation signals or within the limits of a self-contained system capability, or a combination of these
SBAS	Satellite-Based Augmentation Systems support wide-area or regional augmentation through the use of additional satellite-broadcast messages.



EXTERNAL PARTNERS
PRESENTATION





REGIONAL PRESENCE



EXTERNAL PARTNER	LOCATION
AERO ENGINEERING services	FRANCE
PASSION FOR 1ECHNOLOGIES	FRANCE, CANADA, DUBAI, SINGAPORE
Engineering Conception Maintenance	FRANCE
Eirtech Aviation Services	IRELAND, UNITED KINGDOM, SINGAPORE
PMV	FRANCE
7ECA€70	FRANCE, BRAZIL



PRESENTATION



OVERVIEW

Aero Engineering Services is specialized in turnkey solutions for aircraft interior retrofit supported by PART 21J and PART 21G approval.

- ENGINEERING AND CERTIFICATION: Specialized in cabin modification design and certification including; LOPA change, textile change, monument refurbishment, livery change, interior and exterior markings change...
- PARTS MANUFACTURING: Manufacturing of all textile parts in the aircraft (seat covers, carpet kits, curtains, pouches, mooring kits, etc.), exterior markings, exterior decor stencils/decals and interior placards.

Aero Engineering Services support you throughout the modification development process:











REGIONAL COVERAGE

- · Worldwide network coverage
- Multi-disciplinary team with wide experience and capability to provide assistance to customers and address all types of projects globally

KEY INFORMATION

- Large range of customers: airlines, MRO, and lessors
- In-house placards, markings, stencils, decorative films, seats covers, carpet, curtains, pleated curtains and other textile manufacturing
- PART 21J (DOA) approved No. EASA.21J.624
- PART 21G (POA) approved No. FR.21G.0289
- large suppliers network on kits solution (seats or seats) shipset, galleys, closets, partitions, etc.)

CONTACTS



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www.aero-engineering-services.com



PRESENTATION



OVERVIEW

AKKA Technologies is an Engineering and Technology Consulting Group:

- · With an Air Transport International Business Line fully specialized in aerospace domain
- With a PART 21J and PART 21G:
 - → EO & STC in the fields of Avionics, Structure, Repair, Cabin (acoustics, air-conditioning, connectivity, electricity, galleys, IFE, lavatories, lighting, monuments, seats...) and liveries, for all A/C types.
 - → Design, Engineering, Certification package, Producing and Supplying of the associated kits, Manual supplements (operation and maintenance).
 - → 10 CVEs (Compliance Verification Engineers), expert in Aerodynamic, Cabin, Avionics, Structure, Flight, Rotorcraft and Environment Protection (noise)
- With an EASA Part M and an EASA Part 145 approvals

AKKA is fully capable of providing global solutions covering the full cycle of services required for major projects.



REGIONAL COVERAGE

Offices in Europe, Africa, Middle-East, Asia and Americas

KEY INFORMATION

- In-house R&D Center to promote innovation and technology transfer
- Part 21J (DOA) approved No. EASA.21J.039
- Part 21G (POA) approved No. FR.21G.0194
- More than 1200 Engineering orders, 20% major STC
- GCAA (UAE) & TCCA (Canada) DOA approved
- Large range of customers: Manufacturers, Parts Suppliers, Airlines, Lessors
- Leader of Certification Together International Conference, DO254 User Group

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PRESENTATION



OVERVIEW

ECM is a subsidiary of CRIT group and its expertise activity SKY SERVICES holds EASA Part 21J approval on all types of aircraft.

The SKY SERVICES department relies on a group of technical experts in aircraft modifications and retrofits (cabin, avionics, electrical system and structure).

ECM operates on all types of commercial, business, military and VIP aircraft and offers a customized solution from engineering to certification activities, including associated kit supply, management of Vendors and OEMs, as well as support for integration on aircraft.

ECM's agility and expertise make it possible to offer an optimized solution to operators, airlines and lessors at the best costs. The gain is a reduction in downtime for aircraft in service, and integration of innovative solution.



REGIONAL COVERAGE

ECM support its customer worldwide, from our Skyservices department headquarter in Toulouse, to customer facilities.

KEY INFORMATION

- Founded in 1973, revenues: 25 M €, fully owned subsidiary of CRIT Group (USD 3 billion in revenues)
- PART 21J (DOA) approved No. EASA.21J.464 since 2015
- 400 Experts and engineers, including 50 cabin specialists
- More than 185 aircraft modification programs (SA, LR. and Business Jet)
- More than 115 Retrofits on civil or military aircraft

CONTACTS



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PRESENTATION



OVERVIEW

PMV Engineering is an EASA (EU) approved Design Organization (PART 21J) and GCAA (UAE) approved Design Organization for minor changes and STCs.

We provide customized turnkey solutions for :

- Cabin Interiors
- · Cabin Systems
- Avionic Modifications
- External Liveries
- Structure, Minor and Major Repairs
- Mods associated kits and parts for small & large aircraft, either in commercial or VIP configuration

Thanks to a strong and long lasting partnership with JVaeroservices, PMV Engineering can support your needs in terms of POA and equipment maintenance requirements.











REGIONAL COVERAGE

- · PMV Engineering works with worldwide aircraft manufacturers, lessors, OEMs, MROs and airlines
- · 150 customers around the world
- Operational activities in 50 countries

KEY INFORMATION

- More than 500 Minor and Majors Modifications
- 30 experts in aeronautical domain
- · 20 years of involvement in aerospace
- PART 21J (DOA) approved No. EASA.21J.487
- GCAA Design Organization approved No. DOA/132
- PART 21G (POA) with JVaeroservices No. FR.21G.0166
- PART 145 with JVaeroservices No. FR.145.0378

CONTACTS



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PRESENTATION



OVERVIEW

Eirtech Aviation Services (EAS) is a world-leading specialist Aviation Services Company providing tailor made engineering services, advanced composite repair services, and asset management solutions that ensure regulatory compliance to International airlines, private operators and aviation leasing companies across the globe.

ENGINEERING





PRODUCTION COMPOSITES



CAMO



SERVICES



MATERIALS





REGIONAL COVERAGE

- · Eirtech Aviation provides Global coverage to our Customers
- · Headquartered in Shannon, Ireland with offices also based in Dublin, Belfast & Singapore

KEY INFORMATION

- Design Engineering, Production, CAMO, Materials, **Technical Services and Composites**
- EASA, FAA, GCCA and other global aviation approvals as required.
- Part 21J (DOA) approved No. EASA.21J.452
- Part 21G (POA) approved No. IE.21G.0002
- Turnkey services to support airlines, aircraft leasing companies and OEMS for fleet transitions and modifications

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PRESENTATION



OVERVIEW

Recaero offers one stop services for modifications and repairs on Aircraft and Rotorcrafts. Complete project monitoring: design and production, while insuring short delivery lead-times and customised product.

A team of over 50 engineers and technical experts in charge of Design engineering and manufacturing engineering.

> Complete project follow-up **DESIGN PRODUCTION**

21 G



- Engineering package (with doc supplement)
- Minor modification approval
- Supplemental Type Certificate (STC) provider
- Working party assistance
- Kits Industrialization
- Kits Manufacturing
- Kits Certification

EQUIPMENT QUALIFICATION

PLACARDS

SEATS

EMERGENCY EQUIPMENT



PROJECT MANAGEMENT

TESTING



FLOOR COVERING

EXTERNAL LIVERY CABIN INTERIOR

ELECTRICAL SYSTEM

ENGINEERING PACKAGE

REGIONAL COVERAGE

- · Worldwide on-site support,
- · Offices in Europe, Asia and South America,
- North America to come

KEY INFORMATION

- 30 years of aerospace expertise, more than 50 M€ turnover.
- · Part 21J (DOA) approved No. EASA.21J.664
- Part 21G (POA) approved No. FR.21G.0181
- One stop services for modifications and repairs,
- Experimented and flexible team, project managers acting as single focal point,
- More than 700 professionals working 24/7 to anticipate, design, produce and ship parts

CONTACTS



Mr. Francisco RODRIGUES







www.recaero.fr



SYSTEMS

CARGO LOADING ASSISTANCE SYSTEM

DESCRIPTION

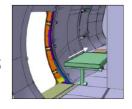
The cargo Loading Assistance System allows easier loading and unloading of the AFT cargo compartment for both ATR 42 and ATR 72 aircraft models.

During flight phases, the system should be tied in a storage position.

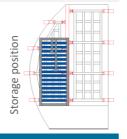
The new roller conveyor system will be carried onboard with low impact on Weight & Balance.

- · Improved working conditions: Efficient system inclination for loading & unloading / Storage on existing nets masts
- · Saves money: Loading time optimization
- Lower maintenance: Proven reliability
- Low impact on Weight & Balance (Less than 10 Kg)

oading position







PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Equipment
- Instructions for continued airworthiness
- Manual supplements

APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

- · Improved working conditions for ground handling staff
- Loading time optimization
- Lower maintenance costs (preventing damages in cargo area)

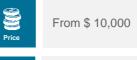


PRE-REQUISITE

NONE

SEE ALSO

NONE





< 10 kg



6 weeks



2 to 4 hours

CONTACT













SYSTEMS

UNIVERSAL CRADLE FOR EFB TABLETS

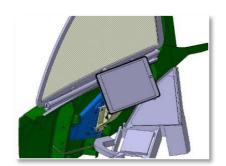
DESCRIPTION

Install a flexible, versatile, fixed cockpit mounting solution.

The move towards the Electronic Flight Bag (EFB) has driven the demand for safe, secure mounting options for iPads and other tablet devices in the working cockpit area for both Captain and First Officer.

In option, installation of one or more dual USB outlets (15w) in the cockpit. These USB ports can be used to charge portable electronic devices (PEDs) i.e. iPads or other equivalent tablet devices being used for Electronic Flight Bag (EFB).









APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.					
AIRCR	AFT MODELS	AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	N/A
ATR 72	ALL	New Avionics Suite	YES	New Look	N/A
				Armonia	N/A

BENEFITS

- Large range of tablet compatibility
- · Easy to use last models of tablet without aircraft modification



PRE-REQUISITE

NONE

SEE ALSO

EFB CLASS II - IPAD CAPABILITY

PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- Manual supplements

Price

On quote



< 4 kg



Depending on configuration



Depending on configuration

CONTACT



CREW

FFFICIENCY







AVIONICS





AVIONICS

LPV APPROACH CAPABILITY (ROCKWELL XPDR)

DESCRIPTION

LPV (B-RNAV + vertical guidance function) aims at providing precision approach (ILS lookalike) guidance along the Final Approach Segment, it's a Landing support using GPS signal.

In Europe, many airports are decommissioning the ILS ground installation. The LPV is also an operational benefit when airport is not equipped with the ILS system (outside of Europe for example).

The LPV function replaces the ILS Cat1 (200 feet = 61m) → SBAS.

The system is composed of:

- 2 CMA-5024 GPS Landing System Sensor Units (GLSSU) installed in the 85VU avionics shelf.
- 2 CMA-5025 Satellite Landing System Control Panels (SLS CP) fitted on the cockpit pedestal.
- · 2 Digital / Analogic converters.
- 2 GPS active antennas installed on the top of the fuselage.
- 2 switches to select ILS or SLS signals (fitted on glareshield panel 11VU),
- 2 annunciators to display the GLSSU status (SLS Fault, fitted on glareshield panel).
- 2 connectors to perform the update of SLS databases (installed on the 85VU).





APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AIRCRAFT MODELS AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	N/A
ATR 72	ALL	New Avionics Suite	NO	New Look	N/A
				Armonia	N/A

BENEFITS

- An operational benefit when airports are not equipped with the ILS system
- Answer to potential new regional mandatory requirement



PRE-REQUISITE

NONE

SEE ALSO

Solution for New Avionics Suite is available

PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- Manual supplements

Price

From \$ 225,000



+17 kg (37.5 lb)



6 months



350 hours









LPV APPROACH CAPABILITY (ACSS XPDR)

DESCRIPTION

LPV (B-RNAV + vertical guidance function) aims at providing precision approach (ILS lookalike) guidance along the Final Approach Segment, it's a Landing support using GPS signal.

In Europe, many airports are decommissioning the ILS ground installation. The LPV is also an operational benefit when airport is not equipped with the ILS system (outside of Europe for example).

The LPV function replaces the ILS Cat1 (200 feet = 61m) → SBAS.

The system, compatible with ATR ADS-B OUT solution, is composed of:

- 2 CMA-5024 GPS Landing System Sensor Units (GLSSU) installed in the 85VU avionics shelf.
- 2 CMA-5025 Satellite Landing System Control Panels (SLS CP) fitted on the cockpit pedestal.
- · 2 Digital / Analogic converters.
- · 2 GPS active antennas installed on the top of the fuselage.
- 2 switches to select ILS or SLS signals (fitted on glareshield panel 11VU),
- 2 annunciators to display the GLSSU status (SLS Fault, fitted on glareshield panel).
- 2 connectors to perform the update of SLS databases (installed on the 85VU).





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APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	N/A
ATR 72	ALL	New Avionics Suite	NO	New Look	N/A
				Armonia	N/A

BENEFITS

- An operational benefit when airports are not equipped with the ILS system
- Answer to potential new regional mandatory requirement



PRE-REQUISITE

ADS-B Out DO260B ATR Solution

SEE ALSO

Solution for New Avionics Suite is available ADS-B Out DO260B for Legacy Series

PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- Manual supplements

Price

From \$ 170,000



+17 kg (37.5 lb)



6 months



350 hours











CABIN

RECONFIGURATION OF ORIGINAL & NEW LOOK CABINS

DESCRIPTION

Aircraft cabin configuration can be modified to accommodate specific customer choices and operational needs, from high density to comfort configuration. Various solutions with different types of galleys and storages are available.

Configuration of Original and New Look cabins is customizable from color choice to general arrangement.







PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- Manual supplements
- **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	NO

BENEFITS

- Higher per-flight profits due to increased aircraft capacity
- Fleet commonality in terms of passenger capacity











PASSENGER COMFORT

FFFICIENCY

PRE-REQUISITE

NONE

SEE ALSO

VIP cabin configuration Cabin reconfiguration for Armonia



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT

















VIP CABIN CONFIGURATION

DESCRIPTION

Reconfiguring VIP cabin or converting PAX cabin to VIP cabin.

New specific seats, sofas and monuments can be provided as well as refurbished ones.





PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- Manual supplements
- APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

Improved comfort for specific requirements.



COSTS SAVINGS









V

PRE-REQUISITE

NONE

SEE ALSO

Reconfiguration of Original & New Look cabins



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT















EXIT SIGNS REPLACEMENT

DESCRIPTION

Replace or modify the exit lenses in the aircraft cabin. The solution is available in various languages and pictograms.









PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Equipment
- Instructions for continued airworthiness
- · Manual supplements

APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

- · Fleet commonality
- · Compliance to local authorities regulations
- Aircraft transition



COSTS SAVINGS











CREW **FFFICIENCY**

PRE-REQUISITE

NONE

SEE ALSO

Placards & markings replacement



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT

















PLACARDS & MARKINGS REPLACEMENT

DESCRIPTION

Replace partial or complete set of interior placards and markings. The solution is available in various languages and pictograms. Placards categories:

- Mandatory placards
- Sanitary measures
- Passengers and Crew recommendations











PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Instructions for continued airworthiness
- Manual supplements

APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

- · Fleet commonality
- Compliance to local authorities regulations
- Aircraft transition









PRE-REQUISITE

NONE

SEE ALSO

Exit signs replacement

Decorative laminate replacement



From \$ 3.000



Depending on the configuration



2 weeks



Depending on the configuration

CONTACT

















EMERGENCY EQUIPMENT REPLACEMENT & RELOCATION

DESCRIPTION

Relocate, replace, remove or add emergency equipment:

Extinguisher

Megaphone

- Flashlight
- First aid kit
- Life vest
- · Seat belt

- Fire fighting glove
- Portable ELT

EMERGENCY EQUIPMENT IN ATR CABIN



PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- Manual supplements
- **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

- · Optimize equipment disposal in the cabin
- · Aircraft transition
- · Compliance to local authorities regulations







MAINTENANCE COSTS SAVINGS



PASSENGER COMFORT



CREW **FFFICIENCY**



PRE-REQUISITE

NONE

BOOST

SEE ALSO

Halon free extinguisher for pre-Armonia cabins Halon free extinguisher for Armonia cabins



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT

















CABIN

FLOOR COVERING REPLACEMENT

DESCRIPTION

Replace or install textile or non-textile floor covering and path markings in passenger cabin, entry area or flight deck.

Solution available in various patterns and colors.



PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Instructions for continued airworthiness
- Manual supplements

APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

- · Improve cabin comfort
- Fleet commonality
- Aircraft transition



OPERATIONAL MAINTENANCE **COSTS SAVINGS COSTS SAVINGS**



OPERATIONAL BOOST



PASSENGER COMFORT

· Compliance to local authorities



CREW **FFFICIENCY**

regulations

PRE-REQUISITE

NONE

SEE ALSO

Seats replacement, refurbishing & repair Seat covers replacement



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT

















CABIN

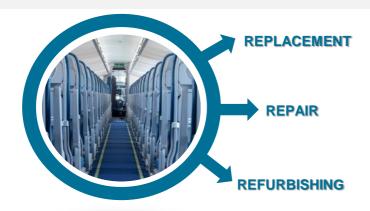
SEATS REPLACEMENT, REFURBISHING & REPAIR

DESCRIPTION

The modification offers solutions such as:

- Seats replacement
- Seats refurbishing
- Seats repair
- Seat belt replacement

- · Foam replacement
- Seat cushion replacement
- Soft plastic replacement
- Front and rear stud inspection, etc.



PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- Manual supplements

APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

- · Improve cabin comfort
- · Airline differentiation
- Fleet commonality











FFFICIENCY

PRE-REQUISITE

NONE

SEE ALSO

Floor covering replacement Seat covers replacement



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT

















CABIN

SEAT COVERS REPLACEMENT

DESCRIPTION

Replace seat covers (leather or fabric material). The solution is available in various patterns, quality and colors.





PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Manual supplements

- Instructions for continued airworthiness
- Flammability test plan & report

APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

- Improve cabin comfort and passenger experience
- Fully customizable
- · Fleet commonality



PRE-REQUISITE

NONE

SEE ALSO

Floor covering replacement

Seats replacement, refurbishing & repair



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT





CREW













DECORATIVE LAMINATE REPLACEMENT

DESCRIPTION

Replace or install decorative films onto cabin partitions and monuments.

This solution is available in various colors, and customized decoration. In addition, a large option of suppliers can be advised or proposed by the operator.







PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Instructions for continued airworthiness
- Manual supplements

APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

- Provide a fully customizable interior look
- Fleet commonality
- · Aircraft transition



PRE-REQUISITE

NONE

SEE ALSO

Placards & Markings replacement



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT

















CABIN IN-SEAT POWER SUPPLY

DESCRIPTION

Install in-seat power supply (USB port) and associated aircraft hardware.





PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Equipment
- Instructions for continued airworthiness
- · Manual supplements

ADDITIOADILITY	
APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

- Provide an additional function to passengers
- Enhance air travel experience



PRE-REQUISITE

NONE

SEE ALSO

NONE



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT















OVERSIZE LUGGAGE IN FORWARD CARGO HOLD PRE-ARMONIA CABINS

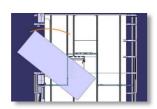
DESCRIPTION

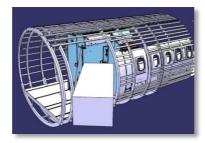
Modify layout arrangement in forward cargo hold in Original & New Look cabins in order to transport massive objects such as;

- Coffins (Compliance to IATA Airport Handling Manual (AHM)
- · Surfboard and longboard
- Ski equipment

- Musical instruments
- Bicycles (Mountain bikes)







SPORTS EQUIPMENT

COFFIN LAYOUT

PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Instructions for continued airworthiness
- Manual supplements

APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	NO

BENEFITS

- Improve transportation capabilities for specific requirements
- · Enhanced logistics management



PRE-REQUISITE

NONE

SEE ALSO

Solution for Armonia cabin



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT









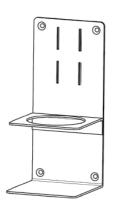




DESCRIPTION

Install different wall mounted hand sanitizers protecting Crew and Passengers. Multiple installation locations available in cabin, lavatories, and cockpit.

In option, foam sanitizer can be proposed. This product is Mild, Non-Toxic, Non-Irritant, Non-Hazardous, Ecologically Harmless and alcohol free.





PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Filled foaming sanitizer bottles (option)
- Instructions for continued airworthiness
- Manual supplements

APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

- · Easy sanitization of Passengers and Crew
- · As effective as Alcohol based gel
- Airline Branding available on Bottles





PRE-REQUISITE

NONE

SEE ALSO

Hand sanitizer bottle holder



From \$ 6,000 per fleet



~ 250g



2 weeks



1 hour

CONTACT











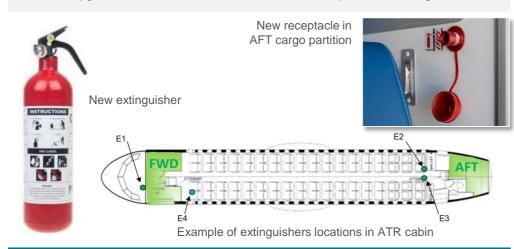
HALON FREE EXTINGUISHER FOR PRE-ARMONIA CABINS

DESCRIPTION

Under ICAO recommendations, the use of halon in aircraft fire extinguishing application will no longer be authorized by 2025 due to environmental concerns.

The modification consist in replacing the cabin halon fire extinguishers by portable Ümlaut extinguishers (P3 Hafex).

Note: The upgrade needs a modification of diffusers and adaptors in AFT cargo aera.



PACKAGE CONTENT

- SB validation & supply
- Update of technical publications
- · Manual supplements

- Installation kit
- Equipment
- Instructions for continued airworthiness

APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.
APPLICABILITY	For information only. Applicability of the modification to each work is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	NO

BENEFITS

- Compliance with ICAO recommandation and local authorities regulations
- Environment friendly





PRE-REQUISITE

NONE

SEE ALSO

Cabin halon free extinguisher for Armonia



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT

















EQUIPMENT/

FURNISHINGS

STANDALONE Wi-Fi IFE

DESCRIPTION

In-Flight Entertainment (IFE) system is one among many services that on-board Wi-Fi servers can deliver. PMV can support you at every stage of your IFE project with a turnkey solution, starting with your high level requirements to daily management on your behalf.

More in details, closely with PMV, you will be able to:

- Select the most accommodate Standalone Wi-Fi IFE product for your needs;
- Customize passengers and crew portals to appear on Personal Electronic Devices;
- Select and manage the contents of your IFE system with movies, audio, magazines...
- Monetize your contents through commercial partnership as an example;
- Enlarge your IFE system capabilities with full In-Flight Connectivity for internet on-board.

Content management can be proposed by PXCOM





The applied methodology encompasses a P&L projection to ensure a maximized ROI federating all the involved stakeholders.



Example of Hardware proposed:

APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.
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AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	YES	New Look	YES
				Armonia	YES

BENEFITS

- Elevated passenger experience
- Boost your airline ancillary revenues
- Operational cost savings









PRE-REQUISITE

ATR IFE wireless streaming capability

SEE ALSO

COSTS SAVINGS



PACKAGE CONTENT

- Server and installation kits when applies
- Software portals
- Consulting



On quote



minimum 2.0 kg per box + 0.7 kg batteries when applies



Max 16 weeks



Depending on the configuration









EQUIPMENT/

FURNISHINGS

AIRCRAFT POWERED Wi-Fi_IFE

DESCRIPTION

aWAP-MS (aircraft Wireless Access Point with Media Server) provides aircraft cabin with Wi-Fi coverage through a Wireless Local Area Network while hosting data. aWAP-MS allows operators to offer crew and passengers, various Data and In-Flight Entertainment (IFE) Services, while minimizing investments and optimizing their profits:

- Passengers through their own device (Bring Your Own Device (BYOD) concept)
- Crew through dedicated devices (tablets, ...)

aWAP-MS is a very high throughput, compact and lightweight "all in one" equipment with 1TB Storage Capacity.

Contents providers can be proposed in the package.





aWAP-MS recommended location (A/C powered)

Control Panel recommended location

APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	YES	New Look	YES
				Armonia	YES

BENEFITS

- Elevated passenger experienceEasy and Quick Installation
- (Overnight)
- Optimized end to end Network Security (WPA3)
- Easy set-up



COSTS SAVINGS









COMFORT





PRE-REQUISITE

ATR IFE wireless streaming capability

SEE ALSO



PACKAGE CONTENT

- Engineering package (SB / EO)
- Installation kit
- Equipment (aWAP-MS)

- Instructions for continued airworthiness
- Manual supplements



From \$ 25,000



< 10kg



Max. 4 months



10 hours









EQUIPMENT/

FURNISHINGS

CABIN

PARTITIONS PROTECTION IN CARGO AREAS

DESCRIPTION

This solution consist in the installation of:

- Protection against impact on partitions in both AFT and FWD cargo areas
- Panel edge caps to the Forward Cargo Hold panel exposed edges







PACKAGE CONTENT

- SB validation & supply
- Update of technical publications
- · Manual supplements

APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

- Partitions protected against luggage impacts
- · Reduce repair rate on partitions











PASSENGER COMFORT

CREW **FFFICIENCY**

PRE-REQUISITE

NONE

SEE ALSO

Cargo aera floor covering



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT

















EQUIPMENT / FURNISHINGS

MULTIPLE MEDICAL STRETCHERS TRANSPORTATION

DESCRIPTION

During sanitary crisis, operators may face a need for more than a single stretcher aboard the Aircraft. This Major (STC) modification allows the installation of 3 stretcher carriers aboard ATR42 and 4 in an ATR72 for medical evacuation flights.

The stretchers must be qualified for ATR42/72 through an ETSO. PMV Engineering can recommend airworthy equipment.

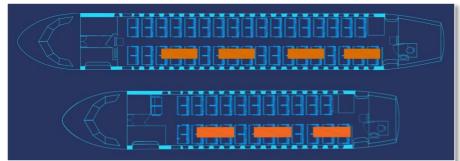
Emergency equipment layout, flight crew and cabin crew procedures are adapted to these medical evacuation flights that allows medical crew to be next to the patient.

Example of Stretchers:





Example of layout configuration:



APPLICABILITY	For information only. Applicability of the modification to each MSN is subject to validation.
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AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	YES
ATR 72	ALL	New Avionics Suite	N/A	New Look	YES
				Armonia	YES

BENEFITS

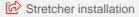
- · Several evacuations are possible simultaneously
- Easy and Quick Installation above the passenger seats



PRE-REQUISITE

NONE

SEE ALSO



PACKAGE CONTENT

- Engineering package (SB / EO)
- Installation kit
- Equipment in option (Stretchers)
- Instructions for continued airworthiness
- Manual supplements



From \$ 10.000



Approx. +5 kg



8 weeks



Approx. 4 hours









LIVERIES





MARKINGS

LIVERIES

TECHNICAL MARKINGS

DESCRIPTION

Install or replace technical markings on aircraft.

The markings are available in various languages.







PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Instructions for continued airworthiness
- Manual supplements
- **APPLICABILITY** For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	N/A
ATR 72	ALL	New Avionics Suite	N/A	New Look	N/A
				Armonia	N/A

BENEFITS

- · Improve technical visibility in order to decrease maintenance workloads
- Compliance to local authorities regulations
- Aircraft transition











CREW **FFFICIENCY**

PRE-REQUISITE

NONE

SEE ALSO

White & customized liveries



On quote



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT

















LIVERIES

WHITE & CUSTOMIZED LIVERIES

DESCRIPTION

Provide liveries to aircraft such as customized livery, special livery, white livery, decals, etc.







PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit

- Instructions for continued airworthiness
- · Manual supplements

APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	N/A	Original	N/A
ATR 72	ALL	New Avionics Suite	N/A	New Look	N/A
				Armonia	N/A

BENEFITS

- · Improve airline visibility
- Fleet commonality
- Aircraft transition



COSTS SAVINGS









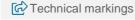


CREW **FFFICIENCY**

PRE-REQUISITE

NONE

SEE ALSO





From \$ 3.000



Depending on the configuration



Depending on the configuration



Depending on the configuration

CONTACT



















PAX TO FREIGHTER

BULK FREIGHTER CONVERSION WITH VERTICAL NETS

DESCRIPTION

This modification converts ATR 42 & 72 series to an E-Class "Full cargo" interior with verticals nets for bulk freight.

The system is composed of:

- Vertical restraint nets and fire resistant structural liners (wall and ceiling)
- Class E conversion (smoke detectors and shut-off valves installation)
- Reinforced cargo floor panels
- Fluorescent lights
- Cargo air distribution outlets
- Placards and marking
- Aluminum windows plug (Option)



ATR72

STRUCTURAL PAYLOAD: 7.9 to 8.7 tons (*)
MAX USABLE VOLUME: 75 m3

ATR42

STRUCTURAL PAYLOAD: 5,6 tons MAX USABLE VOLUME: 54 m3

(*) Depending on ATR series & weight variant

APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	NO	New Look	YES
				Armonia	YES

BENEFITS

- Maximum use of cabin volume with wall to wall and floor to ceiling loading possible
- Transversal nets speed up both load and unload process



PRE-REQUISITE

NONE

SEE ALSO

Floor to floor nets with ATR Class E

PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Installation kit
- Equipment

- Instructions for continued airworthiness
- Manual supplements



From \$ 250,000



Depending on the configuration



12 weeks



From 1,400 to 1,800 hours









PAX TO FREIGHTER

FLOOR TO FLOOR NETS WITH ATR CLASS E

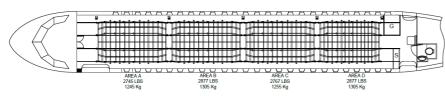
DESCRIPTION

Floor to floor nets installed on aircraft equipped with Class E after removal of passenger seats, forward partitions and door between cabin and cargo area.

The Service Bulletin also covers floor to floor nets removal, and the re-installation of removed parts and equipment, in order to come back to a commercial cabin enabling the transport of passengers.

The system is composed of:

- Floor to Floor nets (3 nets for ATR42 & 4 nets for ATR72)
- Nets to floor fasteners and placards



ATR 72

PAYLOAD: up to 5,5 tons

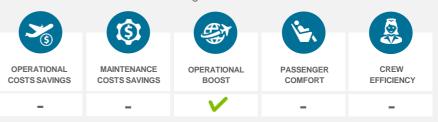
ATR 42 PAYLOAD: up to 3,8 tons

APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	YES	New Look	YES
				Armonia	YES

BENEFITS

- Reversible conversion enabling operators to serve both passenger and cargo markets with the same aircraft
- · Quick modification from one configuration to the other



PRE-REQUISITE

ATR Service Bulletins for cargo floor reinforcement and Class E capability.

SEE ALSO

Bulk freighter conversion with vertical nets installation

Versatile Cargo/Pax configuration (ATR Class E)

PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- · Parts list

 Nets installation kit (Floor to Floor nets, nets to floor fasteners,



From \$ 42,000



Depending on the configuration



10 weeks



From 16 to 20 hours

placards)

CONTACT







PAX TO FREIGHTER

FLOOR TO FLOOR NETS WITHOUT ATR CLASS E

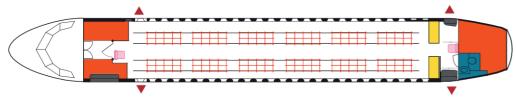
DESCRIPTION

After seats removal, installation of floor to floor nets attached to seat tracks. The system is composed of:

- Floor to Floor nets (quantity depending on the configuration)
- Net to floor fasteners

Two crew members are needed for smoke detection and fire fighting, for this reason an aisle is required.

Example of configuration:



ATR 72

 ${\sf PAYLOAD: up\ to\ 4,7\ tons}$

ATR 42

PAYLOAD: up to 3,7 tons



Cabin Crew required



AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	YES	New Look	YES
				Armonia	YES

BENEFITS

- Easy to implement on all ATR aircraft
- No Class E needed
- Solution adapted to large and voluminous items



PRE-REQUISITE

NONE

SEE ALSO

Bulk freighter conversion with vertical nets installation Cabin Floor Reinforcement (400kg/m²)

PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- Parts list

 Nets installation kit (Floor to Floor nets, nets to floor fasteners, placards)



From \$ 30,000



Depending on the configuration



6 weeks



1 day









PAX TO FREIGHTER

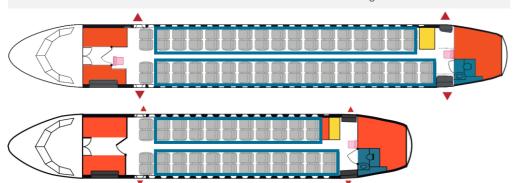
DOUBLE SEAT BAGS

DESCRIPTION

Installation of double seat bags on passenger seats. Can be easily installed within just few minutes. Typical installation:

- 33 seat bags on ATR 72*
- 21 seat bags on ATR 42*

* additional configurations can be studied







Cabin Crew required

ATR 72 PAYLOAD : up to 7,4 tons

ATR 42

PAYLOAD: up to 5,3 tons



APPLICABILITY For information only. Applicability of the modification to each MSN is subject to validation.

AIRCRAFT MODELS		AVIONICS		CABIN	
ATR 42	ALL	Legacy	YES	Original	YES
ATR 72	ALL	New Avionics Suite	YES	New Look	YES
				Armonia	YES

BENEFITS

- Easy and quick solution for cargo transportation in passenger compartment without seats removal.
- No Class E needed



PRE-REQUISITE

NONE

SEE ALSO

Floor to floor nets without Class E

PACKAGE CONTENT

- Engineering package (SB / EO / Installation drawings)
- · Seat Bags kits
- Operational Manuals update



From \$ 20.000



Depending on the configuration



2 to 3 weeks



2 to 3 hours















ATR

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F: +33 (0)5 62 21 68 00











