RealAppleIQ™ Suite

RealAppleIQ™ — RealTrackIQ™ — RealStartIQ™ — RealBruiseIQ™

Travel Guide

Air travel, security, customs, and battery compliance

! IMPORTANT — READ BEFORE TRAVEL

All instruments in this suite contain lithium batteries. The cases exceed standard carry-on size and weight limits on most international airlines. Both cases will typically need to travel as checked hold baggage. The RealStartIQ™ units must always be removed from the case and carried in hand luggage regardless of how the case travels. This document explains the correct procedure for every scenario.

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Covers:	RealAppleIQ™, RealTrackIQ™, RealStartIQ™, RealBruiseIQ™
Regulatory Basis:	IATA Dangerous Goods Regulations 2026; IATA Passenger Lithium Battery Guidance 2026
Review Cycle:	Annual — IATA regulations are updated each January. Confirm current rules before travel.

1. Case Specifications & Baggage Compliance

Both instrument cases use the same physical enclosure. The table below shows dimensions, weights, and compliance against standard international carry-on limits.

Case	Dimensions (W × H × L)	Weight (loaded)	Std carry-on size limit	Std carry-on weight limit	Verdict
RealAppleIQ™ Case	420 × 210 × 570 mm	7.0 kg	✗ Exceeds	⚠ Marginal	Width (420 mm) and length (570 mm) exceed standard limits. Weight (7.0 kg) is at or above economy limits on many international carriers.
RealBruiseIQ™ Case	420 × 210 × 570 mm	10.2 kg	✗ Exceeds	✗ Exceeds	Width (420 mm) and length (570 mm) exceed standard limits. Weight (10.2 kg) exceeds economy carry-on weight limits

Case	Dimensions (W × H × L)	Weight (loaded)	Std carry-on size limit	Std carry-on weight limit	Verdict
					on all major international carriers.
Standard carry-on limit (reference)	~400 × 230 × 560 mm	7–10 kg (international economy)	—	—	Reference only. Limits vary by airline, route, and cabin class. Always confirm with your specific airline.

> ⚠ **Both cases will typically need to travel as checked hold baggage on international routes.**
>
> The cases exceed standard carry-on size limits in two dimensions and the RealBruiseIQ™ case exceeds carry-on weight limits on all major international carriers in economy class. Plan for both cases to be checked as hold baggage. The procedure in Section 3 must be followed before checking either case.

2. Quick Reference: What Must Travel Where

Regardless of how the cases travel, the following rules apply at all times. The RealStartIQ™ column is non-negotiable — it is a regulatory requirement, not a preference.

Item	Carry-On / Hand Luggage	Checked Hold	Key Rule
RealStartIQ™ × 2	**MUST be in hand luggage**	FORBIDDEN	Primary lithium cell. Forbidden in checked baggage under all circumstances. Must be removed from the case before checking.
RealAppleIQ™	**Preferred**	Permitted if powered off	Switch off before placing in checked case. Foam insert must be in place.
RealTrackIQ™	**Preferred**	Permitted if powered off	Switch off before placing in checked case. Foam insert must be in place.
HP Laptop	**Strongly recommended**	Permitted if powered off	Most airlines recommend carry-on for laptops. If checked, power off and protect.
RealBruiseIQ™	**Permitted**	Permitted (no battery)	No battery. May be checked without restriction.
RealAppleIQ™ case (complete)	**Unlikely to be accepted**	Primary scenario	Exceeds size limits in 2 dimensions. 7.0 kg at or above economy weight limits.
RealBruiseIQ™ case (complete)	**Will not be accepted**	Primary scenario	Exceeds size limits in 2 dimensions and weight limits on all international economy.

3. Before You Check the Cases: Mandatory Preparation

This procedure must be completed before either case is handed to the airline as checked baggage. It is not optional — steps 1 and 2 are regulatory requirements.

Step	Action	Detail
1	Remove both RealStartIQ™ units	Remove both RealStartIQ™ units from the case and place them in your carry-on hand luggage. This is a mandatory regulatory requirement. Primary lithium cells are forbidden in checked baggage under IATA 2026 rules regardless of size or packaging. Do not check these units under any circumstances.
2	Power off all instruments	Switch off the RealAppleIQ™ and RealTrackIQ™ before the case is closed and checked. IATA requires portable electronic devices containing lithium batteries in checked baggage to be switched off and protected from accidental activation.
3	Confirm foam inserts	Ensure all instruments are seated correctly in their foam inserts with no movement. Checked baggage is subject to drop and impact events that may exceed instrument design limits. The foam inserts are the only protection during hold transit.
4	Remove laptop if possible	Remove the HP laptop from the RealAppleIQ™ case and carry it as hand luggage if at all possible. If the laptop must be checked, power it off completely — not sleep mode — before closing the case.
5	Lock the case	Use TSA-recognised locks (red diamond logo) on routes to or via the United States. TSA agents are authorised to cut non-TSA locks to inspect checked baggage without notice or liability. On all other international routes, check the destination country's security requirements. A locked case cannot be inspected without forcing the lock — TSA-approved locks allow inspection without damage.
6	Label the case	Attach Fragile and This Way Up labels to the outside of the case. Request these at the check-in counter if not pre-applied. These labels do not guarantee careful handling, but they reduce the likelihood of rough treatment.
7	Declare at check-in	Inform the check-in agent that the case contains precision scientific instruments. Most airlines require declaration of electronic equipment. Being proactive avoids delays and ensures the case is handled appropriately.

✕ CRITICAL

Step 1 is not optional. The RealStartIQ™ units contain primary lithium cells and are forbidden in checked baggage under IATA 2026 regulations. Failure to remove them before checking the case may result in the case being held by security, the batteries being forcibly removed, or the passenger being refused boarding. They must travel in your hand luggage on every flight.

4. Your Hand Luggage: What Must Always Be With You

Because the instrument cases typically travel as checked hold baggage, the following items must always travel in your personal carry-on hand luggage — a laptop bag, backpack, or similar item that remains with you in the cabin.

Item	Why it must be hand luggage	What to do if challenged at security
RealStartIQ™ × 2	Regulatory requirement. Primary lithium cells are forbidden in	Present this document. State the battery is a sealed primary lithium cell of 0.42 Wh — well within carry-on limits. Contact Real Instruments Limited if detained.

Item	Why it must be hand luggage	What to do if challenged at security
	checked baggage.	
HP Laptop (recommended)	48.84 Wh battery. Most airlines and most countries recommend or prefer carry-on for laptops.	Standard laptop. No special action required.
This travel document	Provides battery specifications and regulatory basis if questioned by security or customs.	Present to security officer. Battery ratings and IATA compliance are stated in Section 5.
Instrument serial numbers	Required for ATA Carnet stamping and customs re-entry documentation.	Keep a printed record separate from the cases.

⚠ The RealStartIQ™ units are small instruments

They are compact enough to travel in a laptop bag or coat pocket. Place each one in a small zip-lock bag or protective pouch to prevent accidental activation and to make them easy to present at security if questioned. They will likely appear on the X-ray screen as small electronic devices. Security staff may ask about them — describe them as sealed measurement instruments containing a small sealed battery of 0.42 Wh.

5. Battery Compliance: IATA 2026

The instruments contain two types of lithium battery with different regulatory requirements. The distinction matters most when packing for check-in.

5.1 Battery Summary

Instrument	Battery Type	Capacity (Max)	Watt-Hours (Max)	IATA Rule
RealAppleIQ™	Li-ion rechargeable (sealed)	1700 mAh	6.3 Wh	Permitted carry-on. Permitted checked if switched off.
RealTrackIQ™	Li-ion rechargeable (sealed)	1700 mAh	6.3 Wh	Permitted carry-on. Permitted checked if switched off.
2RealStartIQ™ (each)	Lithium primary (sealed)	Not specified	0.42 Wh	Carry-on ONLY. Forbidden in checked baggage.
RealStartIQ™ (both)	Lithium primary (sealed)	Not specified	0.84 Wh combined	Carry-on ONLY. Forbidden in checked baggage.

Instrument	Battery Type	Capacity (Max)	Watt-Hours (Max)	IATA Rule
HP Laptop	Li-ion rechargeable	Not specified	48.84 Wh	Permitted carry-on. Permitted checked if switched off.
All items combined	—	—	62.4 Wh total	Well within 100 Wh carry-on threshold per battery.

Total battery load across all instruments and the laptop is approximately 62.4 Wh. The IATA 2026 carry-on limit is 100 Wh per battery with no airline approval required, and up to 160 Wh with airline approval. All items in this suite are comfortably within the standard limit for carry-on. The only restriction is the primary cell in the RealStartIQ™ units, which is a category restriction, not a size restriction.

5.2 Primary vs Rechargeable: The Critical Distinction

Rule	Lithium-Ion Rechargeable	Lithium Primary / Metal (Non-Rechargeable)
Carry-on baggage	Permitted (devices and spare batteries)	Permitted (installed in device)
Checked baggage	Permitted if switched off and protected	FORBIDDEN under all circumstances
Applies to in this suite	RealAppleIQ™, RealTrackIQ™, Laptop	RealStartIQ™ × 2
Required action if checking	Switch off, protect from activation	Remove from case. Place in hand luggage.

5.3 Security Screening

When passing through airport security with the hand luggage containing the RealStartIQ™ units and laptop:

- Place the RealStartIQ™ units in a small zip-lock bag or pouch for easy presentation if asked.
- Be prepared to remove the laptop from your bag for separate X-ray screening, as is standard practice at most international airports.
- If asked about the RealStartIQ™ units, describe them as sealed measurement instruments containing a sealed primary lithium battery of 0.42 Wh each.
- Carry this document. Battery ratings and IATA basis are in Section 5.1.
- The RealAppleIQ™ is apple-shaped. If it is in your hand luggage, mention it proactively before it appears on the X-ray screen to avoid unnecessary delays.

⚠ At US airports (TSA screening)

The TSA may swab instruments for explosive residue as part of enhanced electronic equipment screening. This is routine. If an instrument is selected for additional screening, remain calm, cooperate fully, and present this document. Do not touch a detained instrument without being asked.

5.4 Courier and Cargo Shipping

If instruments are being shipped as cargo rather than carried as passenger baggage, different rules apply. As of 1 January 2026, batteries packed with equipment shipped as air cargo must be at a state of charge not exceeding 30% of rated capacity. This applies to courier shipments but not to passenger baggage.

- Primary lithium cells (RealStartIQ™) may not be shipped on passenger aircraft as cargo under any circumstances. Cargo-only aircraft must be used.
- Do not ship RealStartIQ™ units via standard international courier without confirming the courier is compliant for primary lithium cell shipments. Non-compliant shipments may be seized, returned, or destroyed.

- For warranty returns to Real Instruments Limited, contact Real Instruments Limited for current shipping instructions before sending any instrument.
- The RealBruiseIQ™ (no battery) may be shipped via standard courier with no lithium battery restrictions.

✕ CRITICAL

Do not ship the RealStartIQ™ units via standard international courier (DHL, FedEx, UPS, NZ Post, etc.) without first confirming lithium primary cell compliance. Contact Real Instruments Limited for guidance before shipping any instrument.

6. Checking the Cases: What to Expect in the Hold

The instrument cases are well-constructed hard-shell cases with foam inserts designed to protect the instruments during transport. However, checked baggage is subjected to handling conditions that differ significantly from normal use.

6.1 Drop and Impact Risk

Independent studies have recorded checked baggage drops of 1 metre or more during sorting and loading at busy airports. This significantly exceeds the 800 mm warranty void threshold for the RealAppleIQ™ and RealBruiseIQ™ suite instruments.

- The foam inserts attenuate impact forces from normal handling but cannot guarantee protection against all baggage handling events.
- After any checked hold journey, run a health check on all instruments before the next commercial session.
- If a health check fails, do not use the instrument. Contact Real Instruments Limited.
- If a case arrives visibly damaged (crushed, cracked, or deformed), photograph it before opening and contact Real Instruments Limited before using any instrument inside.

Real Instruments Limited recommends photographing the cases before check-in on each trip. This provides documentary evidence if a damage claim needs to be made against the airline.

6.2 Temperature in the Hold

Aircraft hold temperatures can drop to −20 °C or below on long-haul routes. This is outside the storage temperature range of the lithium batteries in the RealAppleIQ™ and RealTrackIQ™.

- Cold hold exposure does not typically cause permanent battery damage but may temporarily reduce available charge on arrival.
- Allow instruments to return to room temperature before charging or using after a cold-hold journey.
- Do not charge instruments immediately if the case feels cold to the touch. Allow 30 minutes at room temperature first.

6.3 Cabin Class and Weight Limits

Cabin class significantly affects carry-on weight limits and may change the picture for the RealAppleIQ™ case on some routes:

Cabin class	Typical carry-on weight limit	Implication for instrument cases
Economy (international)	7–10 kg	RealAppleIQ™ case (7.0 kg) is at or above the limit on most carriers. RealBruiseIQ™ case (10.2 kg) exceeds all economy limits. Both cases will typically need to be checked.
Business / Premium Economy	10–18 kg	RealAppleIQ™ case (7.0 kg) may be within limit on many carriers. RealBruiseIQ™ case (10.2 kg) may be accepted on business class on some carriers. Confirm with airline before travel.

Cabin class	Typical carry-on weight limit	Implication for instrument cases
First Class	15–20 kg+	Both cases may fall within carry-on weight limits on some carriers. Size limits still apply — advance booking required for oversized cabin items.

⚠ Upgrading cabin class for equipment travel

On routes where both instrument cases need to travel, booking business or premium economy may allow the RealAppleIQ™ case to travel as cabin baggage and avoid the hold entirely. This eliminates the drop and temperature risk for that case. Contact the airline's special assistance or cargo desk to confirm acceptance of oversized cabin items before booking.

7. When Carry-On May Be Possible

While checked hold baggage is the default scenario, there are circumstances where one or both cases may travel in the cabin. This requires advance planning and airline confirmation.

- Some airlines permit oversized cabin items for professional equipment, musical instruments, or medical devices for a fee. This must be confirmed in writing before travel, not assumed at the gate.
- Purchasing an adjacent seat for the equipment is permitted by some carriers. This is the most reliable way to guarantee the cases travel in the cabin, but requires advance booking through the airline's special equipment or instrument desk.
- Gate check — where the case travels in the hold for that flight only and is returned at the jet bridge on arrival — is a practical middle option that reduces total handling exposure compared to full check-in.
- On some short-haul domestic routes, size and weight enforcement is lighter and the RealAppleIQ™ case may be accepted as an oversized carry-on at the gate. Do not rely on this for international travel.

When contacting the airline, describe the cases as: hard-shell precision instrument cases, 420 × 210 × 570 mm, 7.0 kg (RealAppleIQ™) or 10.2 kg (RealBruiseIQ™), containing precision scientific instruments with lithium batteries totalling approximately 62.4 Wh across all devices. Ask specifically about oversized cabin baggage, adjacent seat purchase, and gate-check options. Ask for written confirmation of any arrangement.

8. Customs and Temporary Import

The instruments are professional scientific equipment with significant commercial value. When travelling internationally, customs considerations are important regardless of how the cases travel.

8.1 ATA Carnet

An ATA Carnet is an international customs document that allows temporary import of professional equipment into participating countries without payment of import duties or taxes, provided the equipment is re-exported within the validity period (typically up to one year). It is strongly recommended for any international travel with the full instrument suite.

- ATA Carnets eliminate the risk of being charged import duty on arrival and significantly simplify the customs process when entering and re-entering multiple countries on a single trip.
- The Carnet must list all instruments by description, serial number, and approximate value.
- Allow 5–10 working days for preparation. ATA Carnets are issued by national chambers of commerce — in New Zealand, contact the New Zealand Chamber of Commerce; in Australia, the Australian Chamber of Commerce and Industry.
- The Carnet must be stamped by customs on entry and exit in each country visited.

ATA Carnet participating countries include most major apple-producing nations: New Zealand, Australia, USA, EU member states, UK, Chile, South Africa, Japan, South Korea, China, and many others. Confirm the destination country participates before applying.

8.2 Without a Carnet

- Carry proof of purchase or a letter from Real Instruments Limited confirming the instruments are company property being carried for demonstration or service purposes.
- Declare the instruments at customs on arrival. Do not pass through the Nothing to Declare channel with equipment of significant commercial value.
- Retain all receipts and customs documentation for re-entry to your home country.
- New Zealand Customs: goods taken out of and returned to New Zealand are generally not subject to duty, but proof of origin may be required for high-value items.
- Australian Border Force: the Goods Exported from Australia (B957) form can be completed before departure to facilitate re-entry.

9. Pre-Travel Checklist

Action	When	Notes
Contact airline to confirm checked baggage dimensions and fees	2–5 days before	Case dimensions: 420 × 210 × 570 mm. Weights: 7.0 kg and 10.2 kg. Ask about fragile handling.
Apply for ATA Carnet if travelling internationally	5–10 days before	Required lead time. Contact NZ or Australian Chamber of Commerce.
Photograph cases (all sides) before travel	Morning of travel	Documentary evidence if an airline damage claim is required.
Remove both RealStartIQ™ units and place in hand luggage	At packing	Mandatory. Not optional.
Power off RealAppleIQ™ and RealTrackIQ™	At packing	Required for checked hold travel.
Power off or remove laptop	At packing	Recommended carry-on. If checked, power off completely.
Run health check on all instruments	Morning of travel	Confirm all instruments functioning before departure.
Confirm foam inserts are seated correctly	At packing	No movement inside the case.
Attach TSA lock (US routes) or appropriate lock (other routes)	Before check-in	TSA locks only for US travel. Check destination requirements.
Attach Fragile and This Way Up labels	At check-in	Request from check-in counter if needed.
Declare instruments at check-in	At check-in	Precision scientific instruments.
Print this document and battery spec sheets	Before travel	Present at security if questioned.
Allow instruments to reach room temperature before use on arrival	On arrival	Especially important after cold-hold journeys on long-haul routes.
Run health check on all instruments on arrival	On arrival	Before any commercial session.

10. If Something Goes Wrong

10.1 Battery Damage Before Travel

If any instrument shows signs of battery swelling, unusual heat, or electrolyte leakage before departure:

- Do not pack the instrument in any baggage. Do not transport it by air under any circumstances.
- A swollen or leaking lithium battery must not be transported by air.
- Contact Real Instruments Limited immediately for instructions.

10.2 Instrument or Case Detained by Security

- Remain calm and cooperate fully with security staff.

- Present this document and the instrument battery specification sheet.
- Request a receipt or documentation for any item removed from your possession.
- Contact Real Instruments Limited as soon as possible if an instrument is confiscated or not returned.

10.3 Case Arrives Damaged

- Photograph the case before opening it. Photograph any damage to instruments inside.
- Report the damage to the airline before leaving the baggage claim area. Obtain a Property Irregularity Report (PIR) from the airline.
- Run a health check on all instruments before use. If a health check fails, do not use the instrument.
- Contact Real Instruments Limited with photographs and the PIR reference number.
- Airlines have strict time limits for damage claims — typically 7 days for checked baggage damage. Do not delay reporting.

10.4 Instrument Dropped During Travel

- Do not power on the instrument immediately.
- Inspect externally for cracks or deformation.
- Run a full health check in RealUserIQ™ at the earliest opportunity. Do not use for a commercial session until the health check has passed.
- Refer to the RealAppleIQ™ Drop Limit Reference Document (RIL-RAQ-DRP-001) for the post-drop procedure.

11. Contact & Support

Real Instruments Limited:	www.realinstruments.com
Warranty & service:	Contact Real Instruments Limited directly.
ATA Carnet — New Zealand:	New Zealand Chamber of Commerce — www.nzchamber.co.nz
ATA Carnet — Australia:	Australian Chamber of Commerce and Industry — www.acci.asn.au
IATA battery guidance (2026):	www.iata.org/en/programs/cargo/dgr/dgr-guidance-passengers
TSA (US security):	www.tsa.gov/travel/security-screening/whatcanibring/items/lithium-batteries
US CBP (customs):	www.cbp.gov/travel

Real Instruments Limited — www.realinstruments.com — For warranty and support enquiries contact your authorised distributor or Real Instruments Limited directly.