Salt Spray and Cyclic Corrosion Test Chambers
ACC01 - Kit for Renault D17 2028 compliance
The Renault D17 2028 cyclic corrosion test specification - known widely as ECC-1, requires special features for compliance. This kit ensures that an Ascott CC1000ip chamber is fully equipped with these features.

ACC112 - Midi dehumidification unit
Introduced as a cost-effective way of ensuring Ascott CCT chambers can comply with the increasing number of CCT specifications that require a period of ambient temperature and humidity exposure (typically around +23°C/+74°F & 50%RH) during the test. This must be accomplished independently of the room conditions in which the chamber is located, since these conditions can vary over time. The midi unit comprises of a mid-size, free-standing air conditioner, which is connected to the chamber via flexible hoses.

ACC114 - SIM Card Connectivity
Equips the chamber with a SIM card reader, integrated into the chamber control system but accessible to the chamber user. The chamber user procures a SIM card from a local service provider (of the same type as used in mobile cellular phones) and inserts this into the SIM card reader. The user can then program the chamber, via the front panel controller, to use the SIM card reader to send preset SMS messages to phone numbers of the users choice, should predetermined conditions arise in the chamber. For example, the user could program the chamber to send a text message alerting them if a predetermined alarm condition has been triggered.

ACC116 - Electronic Catchpots®
Most test standards require the salt spray fall-out inside a salt spray chamber to be collected and measured regularly during testing. The traditional method requires the chamber to be opened at regular intervals to ensure the fall-out is within the specified limits. This interrupts the testing and unsettles the temperature inside the chamber. Ascott Electronic Catchpots address these issues by automating much of this process. They continuously measuring the weight/volume of fall-out inside the chamber, displaying the results digitally at the operator interface. The system can be configured to automatically adjust the salt spray delivery system, to keep the fall-out within specification.

ACC118 - Automatic salt dosing brine reservoir
This ‘intelligent’ salt solution reservoir features its own self-contained control system and electronic salinity probe. During operation the system automatically doses water with salt, within an internal mixing vessel, to produce brine of the required concentration. The system continuously monitors and adjusts itself to maintain a precise concentration, before it is decanted automatically to an internal holding tank, from where it is used for salt spray testing. The holding tank can supply multiple corrosion test chambers.

ACC120 - Software
All suffix IP chambers can be connected to a local area network (LAN) via the RJ45 (Ethernet) port. If the ACC120 software is installed on a suitable computer connected to the LAN (either wired or wirelessly) then the computer and chamber can communicate with each other. The software can be used to remotely monitor and log the temperature & humidity levels inside the chamber and display these variables graphically, in comparison with the set values, over time. It also enables remote control and programming of the chamber, using icon based on-screen commands, which mimic those used by the chamber control system.
Ascott have been at the forefront of test chamber design for many years, and our latest product range embodies customer led innovation, blending performance with technical excellence. The creation and control of corrosive climates has never been more demanding. The development of new materials and surface coatings, plus increasing user expectations gives rise to ever more rigorous testing. This is our forte. Let our expertise be your reassurance that choosing an Ascott chamber will ensure your testing is precise, compliant and repeatable.

Salt Spray Corrosion Test Chambers

The salt spray test (also known as salt fog or salt mist) has been the bench-mark corrosion test in many industries for decades. With such a long history, so much test data and many international test standards written around it, it remains a very popular choice as a relatively quick comparative test, to check whether or not test samples corrode in accordance with expectations. Its main application is therefore to audit the effectiveness of a production process.

Cyclic Corrosion Test (CCT) Chambers

Cyclic Corrosion Testing is a means of recreating/accelerating a variety of corrosive climates, within the convenience of a test chamber. It is a useful test for predicting the life expectancy of materials and components under simulated service life conditions. It has gained wide acceptance, particularly in the automotive industry, where many manufacturers have developed their own CCT standards.
Ascott salt spray test chambers are offered in two model ranges: **Standard** & **Premium**.

**Standard** models meet the requirements of basic, continuous salt spray tests conducted at a single temperature only, such as ASTM B117 and similar international test standards, and may be used with pH neutral salt solutions (NSS) or those acidified by the addition of Acetic Acid (ASS) or Cupric Acid (CASS).

**Premium** models can perform the same basic salt spray tests, but in addition are equipped with extra features which enable them to undertake ‘modified’ tests such as those defined in ASTM G85. Here conventional salt spray is often combined with one other climate, in a two-part cycle, to accelerate the test. For example: salt spray and condensation humidity (SWAAT) or salt spray and drying (PROHESION) or salt spray and SO2 testing.
Ascott CCT chambers are designed to be flexible enough to comply with as many of the different CCT specifications as possible. As standard they come with the ability to create 4 distinct climates:
1. Salt spray
2. Condensation humidity (wetting)
3. Air drying
4. Controlled humidity
- any of which many be programmed to occur in sequence and be repeated automatically. By choosing from a wide range of optional accessories, these climates may be added to as required to further extend the number of climates and conditions that can be created.
Test Chambers

Key features

All Ascott corrosion test chamber models feature:

- Touch-screen operator control interface.
- ‘Easy Open’ pneumatically operated canopy.
- Dry seal gasket prevents wetting operator’s clothes, etc.
- Low loading threshold for loading and unloading.
- Large capacity salt solution reservoir mounted on castors for mobility.
- Calibration certificate
- Canopy color choice
- Set of sample racks
- Interior viewing window
- Consumables spares kit
- Easily accessible salt spray atomizer(s) in transparent hard wearing acrylic.
- Purge of the cabinet interior with fresh air after testing and before the chamber is opened.

Additional features of Premium Salt Spray and CCT models:

- Touch-screen, full colour user control interface, employing the latest version of our highly intuitive operating software, for ease of programming and use.
- The operating software has a very large capacity for the creation of complex multi-step test programmes, so that the widest possible range of test profiles can be accommodated.
- The icon based control interface offers a variety of languages built-in for ease of understanding and use.
- RJ45 communications port enabling the chamber to be wired or wirelessly connected to a Local Area Network (LAN) for logging and remote programming via a computer running optional software.
- A real-time, user configurable ‘clock’ to enable different test samples to be batched and have their exposure time monitored separately, with alarms to warn when a pre-set test period has been completed.
Test Chambers Specifications

Salt spray chamber performance

<table>
<thead>
<tr>
<th>Standard salt spray chambers</th>
<th>S120iS</th>
<th>S450iS</th>
<th>S1000iS</th>
<th>S2000iS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chamber capacity</td>
<td>120 Ltrs./4.2 cu.ft</td>
<td>450 Ltrs./15.8 cu.ft</td>
<td>1000 Ltrs/35.3 cu.ft</td>
<td>2000 Ltrs/70.6 cu.ft</td>
</tr>
<tr>
<td>Mounting format</td>
<td>Bench top</td>
<td>Floor standing</td>
<td>Floor standing</td>
<td>Floor standing</td>
</tr>
<tr>
<td>Loading threshold, max W D H</td>
<td>1315mm/51.8”</td>
<td>1660mm/65.4”</td>
<td>2025mm/80.0”</td>
<td>2885mm/113.6”</td>
</tr>
<tr>
<td>Chamber external dimensions</td>
<td>715mm/28.2”</td>
<td>1010mm/39.5”</td>
<td>1300mm/51.2”</td>
<td>2160mm/85.0”</td>
</tr>
<tr>
<td>Chamber internal dimensions</td>
<td>490mm/19.3”</td>
<td>640mm/25.0”</td>
<td>980mm/38.5”</td>
<td>980mm/38.5”</td>
</tr>
<tr>
<td>Salt solution reservoir ext. dimensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W D H</td>
<td>460mm/18.1”</td>
<td>620mm/24.5”</td>
<td>710mm/27.9”</td>
<td>710mm/27.9”</td>
</tr>
<tr>
<td>Salt solution reservoir capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 Ltrs/10.5 US gal</td>
<td>80 Ltrs/21 US gal</td>
<td>115 Ltrs/30.4 US gal</td>
<td>115 Ltrs/30.4 US gal</td>
<td></td>
</tr>
</tbody>
</table>

Cyclic corrosion test chamber performance

<table>
<thead>
<tr>
<th>Standard salt spray chambers</th>
<th>S120iP</th>
<th>S450iP</th>
<th>S1000iP</th>
<th>S2000iP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chamber capacity</td>
<td>-</td>
<td>CC450iP</td>
<td>CC1000iP</td>
<td>CC2000iP</td>
</tr>
<tr>
<td>Mounting format</td>
<td>Bench top</td>
<td>Floor standing</td>
<td>Floor standing</td>
<td>Floor standing</td>
</tr>
<tr>
<td>Loading threshold, max W D H</td>
<td>1200mm/47.2”</td>
<td>1660mm/65.4”</td>
<td>2025mm/80.0”</td>
<td>2885mm/113.6”</td>
</tr>
<tr>
<td>Chamber external dimensions</td>
<td>715mm/28.2”</td>
<td>1010mm/39.5”</td>
<td>1300mm/51.2”</td>
<td>2160mm/85.0”</td>
</tr>
<tr>
<td>Chamber internal dimensions</td>
<td>490mm/19.3”</td>
<td>640mm/25.0”</td>
<td>980mm/38.5”</td>
<td>980mm/38.5”</td>
</tr>
<tr>
<td>Salt solution reservoir ext. dimensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W D H</td>
<td>460mm/18.1”</td>
<td>620mm/24.5”</td>
<td>710mm/27.9”</td>
<td>710mm/27.9”</td>
</tr>
<tr>
<td>Salt solution reservoir capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 Ltrs/10.5 US gal</td>
<td>80 Ltrs/21 US gal</td>
<td>115 Ltrs/30.4 US gal</td>
<td>115 Ltrs/30.4 US gal</td>
<td></td>
</tr>
</tbody>
</table>

Removable slotted sample racks

<table>
<thead>
<tr>
<th>Standard salt spray models</th>
<th>1 phase</th>
<th>1 phase</th>
<th>1 phase</th>
<th>1 phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium salt spray models</td>
<td>1 phase</td>
<td>1 phase</td>
<td>1 phase</td>
<td>3 phase</td>
</tr>
<tr>
<td>CCT models</td>
<td>3 phase</td>
<td>3 phase</td>
<td>3 phase</td>
<td></td>
</tr>
</tbody>
</table>

Voltage (VAC) and frequency (Hz) dependant on country/region of installation

Deionized/distilled for topping up air saturator and making salt solution. Air saturator requires a continuous water connection 0.5–6.0 bar (7.3–87 psi). If air saturator is topped up manually, option ACC66 must be ordered

Clean dry & oil free, 4.0 to 6.0 bar (58-87psi) with 240 Ltrs (8.5cu.ft) per minute flow

3m (10ft) exhaust pipe is provided which should be terminated outside building

3m (10ft) drain pipe provided which should be terminated into floor level drain

+15 to +30°C (+59 to 86°F), 85% max RH (non-condensing) ambient

* Option ACC01 increase fallout rate to 5.5 ml per 80 cm² per hour.
Test Chambers

Optional accessories

All Ascott chambers are supplied comprehensively equipped and ready to run, once connected to the necessary external service utilities. The following optional accessories may not therefore be necessary, but some may be considered desirable. Most of the accessories on this page may be used with any of our chamber types. The color key shown alongside each item provides a clear guide to the compatibility between the accessory and the chamber types.

Optional testing facilities

Kit for Renault D17 2028 (ECC-1) compliance ACC01 A convenient kit of all necessary accessories (at a specially discounted price) to equip a CC1000ip chamber for compliance with ECC-1. Kit comprises of one of each of: ACC42/1000, ACC80/1000, ACC82/1000, ACC90/1000, ACC102, ACC104, ACC106, ACC108.

Note: Only suitable for use with CC1000ip chambers.

Air Conditioner interface ACC29/INTERFACE/**** Pre-equips a CCT chamber with everything needed to connect it to an ACC29 air conditioning unit (available separately). The fitting of this interface enables the air conditioning unit to be procured at the same time as the chamber, or later if required.

**** Specify chamber size in Ltrs. Note: not suitable for use with option ACC46.

Air Conditioning ACC29/TEMP/**** Refrigeration control only

A separate and freestanding air conditioning unit to provide a refrigerated atmosphere inside the chamber. Refrigeration control is from ambient to below freezing. Two types are available: ACC29/TEMP/****/-20°C for refrigeration to -20°C/-4°F

ACC29/TEMP/****/-40C for refrigeration to -40°C/-40°F

**** Specify chamber size in Ltrs.

ACC29/HUMIDITY/**** Refrigeration & humidity control

A separate and freestanding air conditioning unit to provide refrigeration & humidity control inside the chamber. Refrigeration control is from ambient to below freezing. Humidity control is from ambient to -10°C/50°F above freezing. Two types are available: ACC29/HUMIDITY/****/-20C for refrigeration to -20°C/-4°F

ACC29/HUMIDITY/****/-40C for refrigeration to -40°C/-40°F

**** Specify chamber size in Ltrs.

Note: all versions of ACC29 require the chamber to be pre-equipped with option: ACC29/INTERFACE.

Salt spray (vertically down) ACC30/****

High level, multiple spray nozzles, salt spray ng, sprays salt water directly down onto the samples under test. Spray time and duration are both user programmable. A separate holding tank holds salt water at ambient temperature. Required by some General Motors & Volvo GM9540P and SAEJ2334 and other tests.

**** Specify chamber size in Ltrs.

Water fog humidity ACC32/****

Provides high humidity conditions (95 -100% RH) by spraying water as a fog. Includes a second 100 Ltr/26 US Gal water reservoir, fog atomizer(s) and associated pumping equipment.

**** Specify chamber size in Ltrs.

Liquid Immersion Interface ACC34/INTERFACE/**** Pre-equip a CCT chamber with everything needed to connect it to an ACC34 liquid immersion facility (available separately). The fitting of this interface enables the liquid immersion facility to be procured at the same time as the chamber, or later if required.

**** Specify chamber size in Ltrs.

Note: not suitable for use with option ACC46.

Liquid immersion ACC34/****

Under programmed control, heated immersion liquid (usually salt water at heated to a user adjustable temp up to +50°C/+122°F) is automatically pumped from the holding tank into the chamber, immersing the test samples. The liquid is automatically returned to the holding tank at the end of the immersion period.

**** Specify chamber size in Ltrs.

Note: all versions of ACC34 require the chamber to be pre-equipped with option: ACC32/INTERFACE.

External service utilities

Additional 80 Ltr salt solution reservoir ACC02/80

80 Ltr/21 US gal capacity; transparent front with graduated scale for viewing contents, hinging lid for filling & cleaning, mounted on castors.

A

Additional 115 Ltr salt solution reservoir ACC02/115

115 Ltr/30 US gal capacity; transparent front with graduated scale for viewing contents, hinging lid for filling & cleaning, mounted on castors.

A

Additional 160 Ltr salt solution reservoir ACC02/160

160 Ltr/42 US gal capacity; with graduated scale for viewing contents, hinging lid for filling & cleaning, mounted on castors.

A

Air compressor ACC04

Provides continuous supply of oil free compressed air to enable chamber to function without a local compressed air supply. Can be used to back-up a main compressed air supply if fitted with a pressure switch (separate option ref: ACC21).

A

Regenerable cylinder water deionizer system ACC06

Provides water of suitable purity for topping up a salt spray chamber air saturator, and for making up salt solution. Requires a continuous mains water supply (max 6 bar/90 psi). Supplied with conductivity indicator. Must be regenerated or replaced when exhausted.

A

Waste water trough & pump ACC20

Where a floor level drain connection is unavailable this option provides a holding tank into which the chamber drain outlet is terminated. When full, waste water is automatically pumped to an existing remote drain/effluent tank, up to 10m/32ft horizontally & 3m/10ft vertically from the chamber. Note: not suitable for use with option ACC46.

F

Air compressor pressure switch ACC21

Pressure switch and components to enable the optional air compressor (ref: ACC04 - available separately) to operate as a back-up to a local main compressed air supply.

F

- Standard salt spray chambers
- Premium salt spray chambers
- Cyclic corrosion test chambers
- F = factory fitted only
- A = available separately
Test Chambers

Optional accessories

External service utilities continued

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trolley</td>
<td>ACC24</td>
<td>Converts the bench standing chamber to floor standing. Mounted on lockable castors. There is space underneath for one additional reservoir (separate option ref: ACC02/115).</td>
</tr>
</tbody>
</table>
| SO2 Gas Dosing | ACC46/**** | Designed to meet the requirements of ASTM G85 annex A4, this optional accessory comprises of a chamber mounted dispersion tube, through which SO2 gas is introduced, at a user adjustable rate and for a programmable duration. 
**** Specify chamber size in Ltrs 
Notes:
1. The provision of the SO2 gas cylinder and connector are the users responsibility and are not included as part of this option.
2. The ACC46 is not suitable for use with options: ACC10, ACC29/INTERFACE, ACC34/INTERFACE, ACC92 and ACC112/INTERFACE. |
| Interface for ACC90 | ACC80 * | Pre-equips a CCT chamber with everything needed to connect it to an ACC90 dehumidifier (available separately). The fitting of this interface enables the dehumidifier to be procured at the same time as the chamber, or later if required. 
* Specify as: ACC90/450/1000 for 450 or 1000 Ltr chambers & ACC90/2000 for 2000 Ltr chambers |
| Multi-solution salt spray | ACC86/**** | Enables up to three different salt spray climates to be created which can be individually programmed to occur within any test program. Additional salt solution reservoirs, atomizers etc. are included. 
**** Specify chamber size in Ltrs |
| Dehumidifier | ACC90/**** | To deliver dehumidified air to CCT chambers where humidity control at, or just below ambient conditions, is required. See graph for range of operation. 
Note: ACC90 requires the chamber to be pre-equipped with option: ACC80/INTERFACE (available separately) 
**** Specify chamber size in Ltrs. |
| Exhaust salt scrubber | ACC92 † | Removes highly corrosive salt fog from the chamber exhaust where it is not convenient or possible to vent to the outside of the building. Removes salt through condensation and by spraying with water. Note: not suitable for use with option ACC46. 
† Specify as: ACC92/A for salt spray chambers and ACC92/B for CCT chambers. |
| Automatic control unit for ACC92 | ACC93 | Automatically switches the water supply to ACC92 on when the chamber is salt spray testing, and off when it is not, to minimise water consumption. |
| Automatic airflow optimizer | ACC106 | An airflow anemometer with adaptor, to enable the chamber optimizer airflow to be checked and optimized. |
| Compressed air coupling | ACC94 | A control panel mounted, quick release coupling to facilitate the connection of a third-party air pressure gauge (not supplied) for checking/calibrating the chamber’s own air pressure gauge. |
| Air agitation of salt solution reservoir | ACC96 | Designed to assist dissolving salt within an Ascott salt solution reservoir to create a thoroughly mixed salt solution. Regulated compressed air supplies a bubbling device that rests in the bottom of the reservoir. Not available for 120 Ltr models. |
| Midi dehumidification unit | ACC112/**** | A mid-size, air conditioning unit, to enable controlled ‘ambient’ climates to be created within a CCT chamber, independent of the temperature and humidity of the room in which it is located. 
**** Specify chamber size in Ltrs. |
| Interface for ACC112 | ACC112/INTERFACE/**** | Pre-equips a CCT chamber with everything needed to connect it to an ACC112 mid dehumidification unit (available separately). The fitting of this interface enables the mid dehumidification unit to be procured at the same time as the chamber, or later if required. 
Note: not suitable for use with option ACC46. 
**** Specify chamber size in Ltrs. |

Automation accessories

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
</table>
| SIM Card Connectivity for suffix iP chambers | ACC114 | A SIM card reader, integrated into the chamber control system which can be configured to send SMS messages to user nominated cellular phones, in the event of a user specified conditions arising at the chamber. 
Note: excludes SIM card which user must procure and fit locally. |
| Electronic Catchpots® for suffix iP chambers | ACC116 | Electronic Catchpots for collecting and measuring the weight/volume of salt spray fall-out when salt spray testing. This system also offers users the option of automatically controlling the quantity of salt water delivered to the chamber salt spray atomizer(s). May be ordered singularly - the maximum that can be accommodated per chamber are: 120L, 450 & 1000L chambers: up to 2 x ACC116 per chamber 2000L chambers: up to 4 x ACC116 per chamber |
| Automatic salt dosing brine reservoir | ACC118 | For continuously and automatically generating brine (salt solution) to a user specified concentration (%) for use in salt spray testing. 
Note: requires a continuous supply of salt and water and connection to a compressed air and electrical supply. |
Test Chambers

Automation accessories

Software for suffix IP
chambers ACC120

When loaded on a suitable network connected computer, this software allows logging of chamber variables and editing of chamber programs. It uses a graphics based display, which mimics the chamber control interface.

Software ACC120 pre-
installed on Laptop Computer ACC122

This option comprises of the ACC120 software pre-installed on a state of the art laptop computer. A wireless router is also included for the chamber, to enable the computer and chamber to communicate wirelessly, if required. Everything is configured and ready to run.

1 pen chart recorder
paper type †† ACC08/1

1 pen, 100mm/4” wide, paper strip chart recorder, coupled to a temperature sensor, for continuously recording the chamber air temperature (°C).

Hand held pH meter ACC11

Digital pH meter, for measuring the pH of salt solution fallout over range 0-14 pH with a resolution of 0.01 pH. Supplied complete with buffers.

Hand held temp &
humidity probe ACC28

Precision hand-held thermo-hygrometer for independently checking the chamber temperature and humidity. Special salt resistant measuring probe with 5m/196” cable. Range: -40 to +85°C & 0 to 100%RH. Requires any size entry port (see option ACC10) to access the chamber interior.

Re-transmission of
temperature & humidity signals ACC36

Re-transmission of chamber temp & humidity as 2 x 0-10VDC signals via externally mounted socket. For remote data logging.

Thermometer pocket in
air saturator ACC37

This option provides a 6mm/0.24” internal diameter thermopocket, mounted in the air saturator. Users may insert their own independent temperature probe into this, if they wish to independently monitor the air saturator temperature.

2 pen chart recorder-
paperless type †† ACC40/2

2 pen paperless chart recorder, coupled to temperature and humidity sensors, for continuously recording the chamber air temperature (°C) and relative humidity (%RH). Records values electronically on to a virtual chart. Data can be stored on integral USB drive and/or downloaded to a network computer running appropriate software (see option ACC41) via RJ45 (Ethernet) connector.

†† Recorder is free-standing for 120 Ltrs chambers, & chamber mounted for other models.

Software for paperless
chart recorder ACC41

Software for paperless chart recorder (separate option ACC40). When loaded on a network computer enables monitoring and graphical storage of actual chamber temperature and humidity profiles.

Temperature data
logger ACC50

A battery powered mini data logger and temperature sensor. Continuously records the chamber air temperature (°C). Logs can be downloaded to a computer running appropriate software (provided).

Temperature & humidity
data logger ACC52

As ACC50, but also records humidity (%RH) levels using a combined temperature and humidity sensor. Requires any size entry port (see option ACC10) to access the chamber interior.

Salt solution reservoir
low level alarm ACC70

Operates if the salt solution level falls below requirement for approximately 18 hours testing at 1-2ml/hour fall-out rates. Sounds audible alarm and displays warning message. If reservoir is not refilled within 18 hours the running chamber program will automatically pause/stop.

Hand-held salinity
refractometer ACC100

A salinity refractometer optimized to give a direct reading of percentage sodium chloride in the range 0 to 28%, with automatic temperature compensation. A single drop of the salt solution to be measured is placed on the viewing window, using the pipette supplied, and its salinity read against a high contrast scale, graduated in % sodium chloride, to give an accurate reading.

Salt solution consumption
sensor ACC102

This option comprises of an electronic liquid flow sensor mounted inside the chamber and situated in-line between the salt solution reservoir and the salt spray atomizer. The sensor measures the flow of salt solution from the reservoir to the atomizer. The output from the sensor is displayed digitally at the chamber HMI as instantaneous consumption in ml per min and total consumption in ml.

Temperature & humidity
sensor extension cable ACC104

Extension cable to allow chamber sensor to be positioned (& chamber to be controlled) at any point inside chamber.

Fallout measuring kit ACC108

Comprises of 4 x 100ml measuring cylinders and 4 x 100mm funnels, for manually collecting sand measuring salt spray fall-out inside a chamber, during salt spray testing.

Data measurement &
recording

Software for suffix iP
chambers ACC120

When loaded on a suitable network connected computer, this software allows logging of chamber variables and editing of chamber programs. It uses a graphics based display, which mimics the chamber control interface.

Software ACC120 pre-
installed on Laptop Computer ACC122

This option comprises of the ACC120 software pre-installed on a state of the art laptop computer. A wireless router is also included for the chamber, to enable the computer and chamber to communicate wirelessly, if required. Everything is configured and ready to run.

1 pen chart recorder
paper type †† ACC08/1

1 pen, 100mm/4” wide, paper strip chart recorder, coupled to a temperature sensor, for continuously recording the chamber air temperature (°C).

Hand held pH meter ACC11

Digital pH meter, for measuring the pH of salt solution fallout over range 0-14 pH with a resolution of 0.01 pH. Supplied complete with buffers.

Hand held temp &
humidity probe ACC28

Precision hand-held thermo-hygrometer for independently checking the chamber temperature and humidity. Special salt resistant measuring probe with 5m/196” cable. Range: -40 to +85°C & 0 to 100%RH. Requires any size entry port (see option ACC10) to access the chamber interior.

Re-transmission of
temperature & humidity signals ACC36

Re-transmission of chamber temp & humidity as 2 x 0-10VDC signals via externally mounted socket. For remote data logging.

Thermometer pocket in
air saturator ACC37

This option provides a 6mm/0.24” internal diameter thermopocket, mounted in the air saturator. Users may insert their own independent temperature probe into this, if they wish to independently monitor the air saturator temperature.

2 pen chart recorder-
paperless type †† ACC40/2

2 pen paperless chart recorder, coupled to temperature and humidity sensors, for continuously recording the chamber air temperature (°C) and relative humidity (%RH). Records values electronically on to a virtual chart. Data can be stored on integral USB drive and/or downloaded to a network computer running appropriate software (see option ACC41) via RJ45 (Ethernet) connector.

†† Recorder is free-standing for 120 Ltrs chambers, & chamber mounted for other models.

Software for paperless
chart recorder ACC41

Software for paperless chart recorder (separate option ACC40). When loaded on a network computer enables monitoring and graphical storage of actual chamber temperature and humidity profiles.

Temperature data
logger ACC50

A battery powered mini data logger and temperature sensor. Continuously records the chamber air temperature (°C). Logs can be downloaded to a computer running appropriate software (provided).

Temperature & humidity
data logger ACC52

As ACC50, but also records humidity (%RH) levels using a combined temperature and humidity sensor. Requires any size entry port (see option ACC10) to access the chamber interior.

Salt solution reservoir
low level alarm ACC70

Operates if the salt solution level falls below requirement for approximately 18 hours testing at 1-2ml/hour fall-out rates. Sounds audible alarm and displays warning message. If reservoir is not refilled within 18 hours the running chamber program will automatically pause/stop.

Hand-held salinity
refractometer ACC100

A salinity refractometer optimized to give a direct reading of percentage sodium chloride in the range 0 to 28%, with automatic temperature compensation. A single drop of the salt solution to be measured is placed on the viewing window, using the pipette supplied, and its salinity read against a high contrast scale, graduated in % sodium chloride, to give an accurate reading.

Salt solution consumption
sensor ACC102

This option comprises of an electronic liquid flow sensor mounted inside the chamber and situated in-line between the salt solution reservoir and the salt spray atomizer. The sensor measures the flow of salt solution from the reservoir to the atomizer. The output from the sensor is displayed digitally at the chamber HMI as instantaneous consumption in ml per min and total consumption in ml.

Temperature & humidity
sensor extension cable ACC104

Extension cable to allow chamber sensor to be positioned (& chamber to be controlled) at any point inside chamber.

Fallout measuring kit ACC108

Comprises of 4 x 100ml measuring cylinders and 4 x 100mm funnels, for manually collecting sand measuring salt spray fall-out inside a chamber, during salt spray testing.
Test Chambers

Additional & alternative chamber fittings

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry ports</td>
<td>ACC10† Seals chamber entry port through the chamber's left hand wall (other locations available on request) to enable the connection of external monitoring/driving equipment. Note: not suitable for use with option ACC46.† Specify as: ACC10/SSC 25mm/1.777&quot; diameter ACC10/110 110mm/4.33&quot; diameter (not available for 120 Ltr chambers)</td>
</tr>
<tr>
<td>Mesh type racking</td>
<td>ACC15/**** Mesh type racking for testing small components. Locates on the high level shelf supports provided as standard inside the chamber, and removable if required. **** Specify chamber size in Ltrs.</td>
</tr>
<tr>
<td>Slotted type sample racks</td>
<td>ACC16/**** Removable slotted type sample rack for testing panels/coupons. Each slot is 3mm/1/8&quot; wide and angled at 15 degrees from vertical. Such racks are supplied as standard, unless otherwise specified. Wider slots and/or different angles are available on request.</td>
</tr>
<tr>
<td>Rod type sample racks</td>
<td>ACC17/**** Removable rod type sample rack for suspending small test samples hung beneath, or for supporting larger test samples placed on top of these racks. **** Specify chamber size in Ltrs.</td>
</tr>
<tr>
<td>Spiked type sample racks</td>
<td>ACC18/**** Removable spiked type sample rack for suspending test samples from the 10mm/0.4&quot; diameter x 55mm/2&quot; long spikes, equally spaced, and protruding from opposite sides. **** Specify as: ACC18/120 (9 spikes), ACC18/450 (12 spikes), &amp; ACC18/1000/2000 (18 spikes) for 120, 450 &amp; 1000/2000 Ltrs models respectively.</td>
</tr>
<tr>
<td>Reinforced false floor</td>
<td>ACC19/**** Removable reinforced false floor, providing a horizontal platform over the chamber base for supporting large/heavy test samples. **** Specify chamber size in Ltrs.</td>
</tr>
<tr>
<td>Interior illumination</td>
<td>ACC26/**** Illuminates the chamber interior when a control panel push-button is pressed. **** Specify chamber size in Ltrs.</td>
</tr>
<tr>
<td>Canopy color change</td>
<td>ACC60 As standard, and unless otherwise specified, chambers will be fitted with a blue canopy (RAL 5005). By specifying this 'no cost' option, the canopy color can be changed to: (specify color required).</td>
</tr>
<tr>
<td>Manual filling air saturator</td>
<td>ACC66 Enables air saturator to be manually filled and periodically topped up with water by hand as an alternative to the automatic fill and top up provided as standard. Adds 75mm/3&quot; to external chamber width.</td>
</tr>
<tr>
<td>Window insulated cover</td>
<td>ACC82/**** Comprises of a removable insulated cover, which is specially shaped to match the window aperture. This will reduce the amount of condensation that can form on the inside of the window during testing and will also improve thermal efficiency. **** Specify chamber size in Ltrs.</td>
</tr>
<tr>
<td>Racks for radiators</td>
<td>ACC84 Support racking for different sizes of vehicle radiator. Attachment points allow radiator to be positioned at various angles. Several radiators may be accommodated if the inclination angle is shallow. 1000 Ltr chambers can accommodate 1x ACC84; 2000 Ltr chambers can accommodate up to 2x ACC84 (not suitable for 120 or 450 Ltr chambers).</td>
</tr>
<tr>
<td>Racks for brake disks</td>
<td>ACC88 Specifically designed to support vehicle brake disks at an angle of 15 degrees from vertical. Each rack support two disks. The rack locates over two adjacent sample racks as supplied with each new Ascott chamber.</td>
</tr>
<tr>
<td>Compressed air coupling</td>
<td>ACC94 A control panel mounted, quick release coupling to facilitate the connection of a third-party air pressure gauge (not supplied) for checking/calibrating the chamber's own air pressure gauge.</td>
</tr>
<tr>
<td>Atomizer airflow optimizer</td>
<td>ACC106 An airflow anemometer with adaptor, to enable the chamber atomizer airflow to be checked and optimized.</td>
</tr>
<tr>
<td>Vertically operating canopy</td>
<td>ACC110/**** Special design of canopy to allow it to open to a vertical position, to enable access from above (e.g. by hoist) for large and/or heavy test samples. **** Specify chamber size in Ltrs.</td>
</tr>
</tbody>
</table>

Colors are a representation only:

- RAL 5005 blue
- RAL 7035 gray
- RAL 6027 light green
- RAL 4005 mauve
- RAL 2009 orange
- RAL 3003 red
- RAL 4002 red/violet
- 16-E-56 turquoise
- RAL 1028 yellow

Standard salt spray chambers

- F = factory fitted only
- A = available separately

Optional accessories

- 1 year consumables
- spares kit

- 1 year service & spares kit for ACC04/SSC

- 1 year service & spares kit for ACC08/1

- 3 year chamber service & spares kit

- 6 year chamber service & spares kit

ACC12/C A kit of consumables sufficient for up to 1 year. Note: 1 consumables spares kit is supplied as standard with every new chamber.

ACC12/AR/SSC A kit of spare parts for servicing and maintaining the chamber air compressor optional accessory for up to 1 year.

ACC12/REC/1 A kit of spare parts for servicing and maintaining the 1 pen paper chart recorder optional accessory for up to 1 year.

An initial kit of spare parts for servicing and maintaining a chamber for up to 3 years from its first use.

ACC12/SSC/6 A comprehensive kit for servicing and maintaining a chamber for up to 6 years from its first use, or its last service.
All Ascott chambers are CE marked.

Catchpots® is a trademark of Ascott Analytical Equipment Limited
Prohesion® is a trademark of Croda Mebon Ltd

It is the policy of Ascott Analytical Equipment Ltd to protect its products by means of patents, registered trademarks and registered designs. The information contained herein was correct at time of going to press and is subject to change without notice.

© 2011 Ascott Analytical Equipment Ltd

Local representative/supplier

Astro Instrument Ltd., Part.
2122/4 Moo 7, Srinakarin Rd.,
T. Thepharak, A. Muang, Samutprakarn 10270 THAILAND
Tel. (+66)2-716-3144, (+66)2-701-7732
Fax. (+66)2-716-3155
http://www.astroinstrument.com
email. sales@astroinstrument.com

North American Office

Ascott Analytical Equipment
39830 Grand River Avenue, Suite B3
Novi, MI 48375, USA
phone: +1 248 306 0394
fax: +1 248 306 0396
email: info@ascott-analytical.com
web: www.ascott-analytical.com

European Office

Ascott Analytical Equipment Limited
Unit 6 Gerard, Lichfield Road Industrial Estate
Tamworth, Staffordshire, B79 7UW, Great Britain
phone: +44 (0) 1827 318040
fax: +44 (0) 1827 318049
email: info@ascott-analytical.co.uk
web: www.ascott-analytical.co.uk