ADTS550F
(ADTS552F, ADTS553F, ADTS554F)

Wireless ADTS500 series
easy-to-use Pitot Static Tester

Features
- ADTS Touch hand terminal with Bluetooth® wireless technology (backup cable supplied)
- Swipe-action, touch screen user interface with colour graphics and menu
- Standard icons and layouts for routine testing
- Multiple languages
- High flow proportional pressure control technology
- Large capacity pressure/vacuum pump
- TERPS high accuracy pressure sensors inside
- Accuracy suitable for RVSM validation
- 15-month accuracy
- 18-month accuracy option
- Engine Pressure Ratio (EPR) option
- Low Airspeed option
- Extended Altitude option (EALT)
- Stores customized aircraft test sequences
- Accessories bag supplied, ADTS Touch carry case option
- Available in a 2-channel, 3-channel or 4-channel configuration
- A 2nd ADTS Touch hand terminal can be used as an indicator
- Retrospectively upgradeable (ADTS552F upgradeable to a 3-channel or a 4-channel and ADTS553F upgradeable to a 4-channel)
- Druck ADTS global service support
ADTS Touch

The ADTS Touch is a removable, robust wireless hand terminal that communicates to the test set via secure Bluetooth® wireless technology. This technology and the innovative design of the ADTS Touch remove the need to run cables or hoses into the cockpit.**

A rechargeable battery pack enables up to eight hours of continuous ADTS Touch wireless use. The battery can be charged by the ADTS Touch when connected to the test set, by power cable, or by an optional desk charger.

As an alternative, the ADTS Touch can be used as a conventional wired hand terminal, with or without a battery pack, by attaching a supplied cable, or as a local user interface by docking the hand terminal onto the ADTS550F.

A large, easy-to-read display in pressure or aeronautical units and swipe navigation, with intuitive icons that are logical and easy to remember, allow you to quickly scroll through available tasks. The ability to set “aircraft safety limits,” enable “auto leak recovery” and save or recall aircraft test sequences make the ADTS Touch an easy-to-use hand terminal. Its multi-language selection further enhances the ADTS Touch’s usability.

For the more demanding wireless application, such as a large aircraft outside of a hanger (nothing for the wireless signal to bounce off), the ADTS Touch-ER offers a solution. The ADTS Touch-ER extends the wireless range, by the use of a fixed external antenna, or by using the supplied window attach antenna.

**Due to individual country radio license requirements, Bluetooth® wireless technology may not be available in some countries. An up-to-date list of countries that the ADTS Touch with Bluetooth® wireless technology is licensed to be used in is available upon request from Druck.

ADTS550F

(ADTS552F, ADTS553F, ADTS554F)

The ADTS550F, supplied with an ADTS Touch, is a family of portable, self-contained pitot static testers, with a large pitot static volume capability for use on an extensive range of aircraft. With the option of a 2-channel, 3-channel or 4-channel model, the ADTS550 is ideal for most light to wide body passenger and freight aircraft. Because business needs change such as the addition of new aircraft to the fleet, the ADTS550F family can be retrospectively upgraded by Baker Hughes.

To ensure an accuracy that is suitable for RVSM (Reduced Vertical Separation Minimum) validation, the new ADTS550F incorporates advanced Druck TERPS (trench etched resonant pressure sensor) technology.

To satisfy the demand for a smooth rate of change into a high pitot static volume, the ADTS550F uses Druck proportional control technology coupled with a large pump capacity.

ADTS550F Standard Specifications

- ADTS550F pitot static tester
- ADTS Touch hand terminal
- AC power lead: 1.8 m (6 ft) length approximately
- ADTS Touch remote connecting cable: 1X 5m (16ft) and 1X 18m (59 ft) length approximately
- ADTS Touch battery pack
- ADTS Touch AC power supply unit
- Pack of Ps and Pt color labels
- Multi-language installation manual
- Accessories bag
- Operator manual (installed in ADTS Touch)
- Calibration certificate traceable to international standards
**ADTS552F**

The ADTS552F, supplied with an ADTS Touch, is a portable, self-contained 2-channel pitot static tester. The ADTS552F is designed to be connected to the aircraft Ps and Pt ports via hoses to leak check and accurately control pressures that simulate altitude, airspeed and rate of climb. The ADTS552F can be retrospectively upgraded by Druck to an ADTS553F or ADTS554F.

**ADTS553F**

The ADTS553F, supplied with an ADTS Touch, is a portable, self-contained 3-channel pitot static tester. The ADTS553F has the same 2-channel capability as the ADTS552F with the addition of a third pressure controller to connect to an aircraft Ps2 and simulates “angle of attack” (AOA). The ADTS553F can also be used as 2-channel pitot static tester by selection in the set up menu on the ADTS Touch. The ADTS553F can be retrospectively upgraded by Druck to an ADTS554F.

**ADTS554F**

The ADTS554F, supplied with an ADTS Touch, is a multi-purpose 4-channel portable, self-contained pitot static tester.

By selection in the set up menu on the ADTS Touch, the ADTS554F:
- Operates as a 2-channel pitot static tester with the same capability as the ADTS552F
- Operates as a 3-channel pitot static tester with the same capability as the ADTS553F.
- Operates as two independent 2-channel pitot static testers for simultaneous testing of two pitot static systems.

**ADTS550F and ADTS Touch Specifications**

**Scaling Factors**

- Altitude: ft, meters
- Airspeed: knots, km/hr, mph
- Rate of Climb: ft/min, m/min, m/s
- Others: mbar, inHg, inH2O, mmHg, kPa, hPa, psi

**Rate Control/Indication**

- Roc: Rate of Climb
- Rt Ps: Rate of Static
- Rt Pt: Rate of Pitot
- Rt Qc: Rate of Pt-Ps
- Rt CAS: Rate of calibrated airspeed
- Rt EPR: Rate of engine pressure ratio

**Overpressure**

Negligible calibration change with up to 1.25 x full scale (FS) overload applied

**Calibration Stability**

ADTS550F: Better than 0.05 mbar (Ps) and 0.05 mbar (Pt) over 15 months
ADTS550F-E3: Better than 0.05 mbar (Ps) and 0.05 mbar (Pt) over 18 months
### ADTS550F and ADTS Touch Specifications (cont.)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Operating Range</th>
<th>Resolution</th>
<th>ADTS550F 15 mth Accuracy</th>
<th>ADTS550F-E3 18 mth Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altitude (EALT Option)</td>
<td>-3,000 to 60,000 ft (-3,000 to 65,000 ft)</td>
<td>1 ft</td>
<td>±3 ft at sea level</td>
<td>±3 ft at sea level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>±7 ft at 29,000 ft</td>
<td>±7 ft at 29,000 ft</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>±12 ft at 41,000 ft</td>
<td>±12 ft at 41,000 ft</td>
</tr>
<tr>
<td>Ps1 and Ps2 Aeronautical</td>
<td>56 to 1,130 mbar abs</td>
<td>0.01 mbar</td>
<td>±0.10 mbar abs</td>
<td>±0.10 mbar abs</td>
</tr>
<tr>
<td>Ps1 and Ps2 Measurement</td>
<td>35 to 1,400 mbar abs</td>
<td>0.01 mbar</td>
<td>±0.10 mbar abs</td>
<td>±0.10 mbar abs</td>
</tr>
<tr>
<td>Standard Airspeed (SCAS)</td>
<td>20 to 650 knots</td>
<td>0.1 kt</td>
<td>±1.2 kt at 20 kts</td>
<td>±1.2 kt at 20 kts</td>
</tr>
<tr>
<td>Standard Airspeed Pt1 and Pt2</td>
<td>56 to 1,997 mbar abs</td>
<td>0.01 mbar</td>
<td>±0.11 mbar abs</td>
<td>±0.11 mbar abs</td>
</tr>
<tr>
<td>Low Airspeed Option (ECAS)</td>
<td>20 to 650 knots</td>
<td>0.1 kt</td>
<td>±0.7 kt at 20 kts²</td>
<td>±0.7 kt at 20 kts²</td>
</tr>
<tr>
<td>Low Airspeed Option Pt1 and Pt2</td>
<td>56 to 1,997 mbar abs</td>
<td>0.01 mbar</td>
<td>±0.10 mbar abs</td>
<td>±0.10 mbar abs</td>
</tr>
<tr>
<td>Pt1 and Pt2 Measurement</td>
<td>35 to 1,997 mbar abs</td>
<td>0.01 mbar</td>
<td>±0.11 mbar abs</td>
<td>±0.11 mbar abs</td>
</tr>
<tr>
<td>Rate of Climb</td>
<td>0 to 20,000 ft/min</td>
<td>1 ft/min</td>
<td>±1% Aim</td>
<td>±1% Aim</td>
</tr>
<tr>
<td>Mach²</td>
<td>0 to 2.0</td>
<td>0.001</td>
<td>Better than 0.005</td>
<td>Better than 0.005</td>
</tr>
<tr>
<td>Engine Pressure Ratio (EPR)</td>
<td>0.1 to 10</td>
<td>0.001</td>
<td>Better than 0.005</td>
<td>Better than 0.005</td>
</tr>
</tbody>
</table>

1. Accuracy over operating temperature includes: calibration uncertainty, non-linearity, hysteresis, repeatability, measurement stability over calibration period and control stability
2. Auto zero must be enable
3. Depends on altitude at max Qc

### Recalibration
Simple keypad instruction, use of primary standard pressure reference is recommended.

### Display
7" WVGA (800X480) TFT, LED back lit display. High contrast ratio, wide view angle, two readings-per-second update.

### Power Supplies
Auto-selection between:
- 110/230 Vac, 50/60 Hz and 115 Vac, 400 Hz
- Power – 200 VA (ADTS552F)
- Power – 300 VA (ADTS553F/ADTS554F)

### Power Failure Protection
System locks and a manual let-down feature provided

### Self Test
Integral test routines and reporting for both electrical and pneumatic systems

### Temperature Range
- Storage: -20°C to 70°C (-4°F to 158°F)
- Operating: 0°C to 50°C (32°F to 122°F)
- EALT option Operating: 0°C to 40°C (32°F to 104°F)

### Humidity
0 to 95% non-condensing

### Environmental
Vibration, shock/drop and solar radiation to MIL-PRF-28800F Class 2

### Conformity
**EMC EN61326, LVD EN61010** (Electrical safety, PED, WEEE, CE marked)

### Physical
- ADTS552F base weight: 22.0 kg (48.5 lb)
- ADTS553F base weight: 23.5 kg (52 lb)
- ADTS554F base weight: 24.5 kg (54 lb)
- Base unit dimensions: H 300mm, D 425mm, W 525mm (H 11.8 in, D 16.7 in, W 20.7 in) (base unit including lid).
- Hand terminal weight: 1.1 Kg (2.4 lb), battery 0.4 Kg (0.9lb)
- Hand terminal dimensions: H 153mm, D 58mm, W 223mm (H 6 in, D 2.3 in, W 8.8 in)

### Pneumatic Connections
- AN6 for Ps1 and Ps2
- AN4 for Pt1 and Pt2

### Sealing
Weatherproof in operating mode (lid removed). Base unit IP23, ADTS Touch IP65

### Pneumatic Supplies
Integral pressure and vacuum pumps capable of generating:
- 1,829 m/min (6,000 ft/min) into a 6L total volume (Ps 4L + Pt 2L) up to 9,144 m (30,000 ft)
- Water/moisture content vented automatically
Options and accessories

Options

Option – Low Airspeed
To facilitate the testing of aircraft with low airspeed such as helicopters, the ADTS550F low airspeed option offers an improved QC measurement accuracy.

Option – EPR Test
Engine Pressure Ratio (EPR) test (Pt/Ps for inlet/exhaust)

Option – ADTS Touch-ER
ADTS Touch-ER with external antenna for greater Bluetooth® range

Option – EALT
Extended altitude range: -3,000 to 65,000 feet

Option – ADTS550F-E3
ADTS552/3/4F with 18-month accuracy (includes one UKAS calibration with new instrument)

Accessories

<table>
<thead>
<tr>
<th>Part number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AATOUCH-4</td>
<td>ADTS Touch carry case</td>
</tr>
<tr>
<td>AA500F-7</td>
<td>Additional ADTS Touch remote connecting cable – 5 m (16 ft) length approximately (can be connected to ADTS Touch connecting cable for 10 m (32 ft) total length)</td>
</tr>
<tr>
<td>AA500F-8</td>
<td>Additional ADTS Touch remote connecting cable – 18 m (59 ft) length approximately</td>
</tr>
<tr>
<td>AATOUCH-5</td>
<td>ADTS Touch battery pack AC desk charger (state mains lead requirement, US, UK or EU)</td>
</tr>
<tr>
<td>AATOUCH-1</td>
<td>Additional ADTS Touch battery pack</td>
</tr>
<tr>
<td>ADTSTOUCH</td>
<td>Additional ADTS Touch hand terminal (state mains lead requirement)</td>
</tr>
<tr>
<td>ADTSTOUCH-ER</td>
<td>ADTS Touch with external antenna for greater Bluetooth® range (state mains lead requirement)</td>
</tr>
<tr>
<td>AA500F-1</td>
<td>Pressure connector AN3 male</td>
</tr>
<tr>
<td>AA500F-2</td>
<td>Pressure connector AN4 male</td>
</tr>
<tr>
<td>AA500F-3</td>
<td>Pressure connector AN6 male</td>
</tr>
<tr>
<td>AA500F-4</td>
<td>2 X Staubli quick fit female pressure connector kit (2 X G 1/8th plus 1 X red dot Staubli plus 1 X black dot Staubli)</td>
</tr>
<tr>
<td>AA500F-5</td>
<td>Pressure connector AN4 to Hansen quick fit male</td>
</tr>
<tr>
<td>AA500F-6</td>
<td>Manifold, one way + one way switched</td>
</tr>
<tr>
<td>AA500F-9</td>
<td>Pressure connector AN6 to Hansen quick fit male (does not include AN6 connector, part number AA500F-3 is also required)</td>
</tr>
<tr>
<td>AA500F-10</td>
<td>Bulkhead service kit for 1 connector</td>
</tr>
<tr>
<td>AA500F-17</td>
<td>Black hose (please state length in meters or feet)</td>
</tr>
<tr>
<td>AA500F-18</td>
<td>ADTS552F accessories bag</td>
</tr>
<tr>
<td>AA500F-19</td>
<td>Red hose (please state length in meters or feet)</td>
</tr>
<tr>
<td>AA500F-20</td>
<td>Blue hose (please state length in meters or feet)</td>
</tr>
<tr>
<td>AA500F-21</td>
<td>Hose pressure connector AN3 female</td>
</tr>
<tr>
<td>AA500F-22</td>
<td>Hose pressure connector AN4 female</td>
</tr>
<tr>
<td>AA500F-23</td>
<td>Hose pressure connector AN6 female</td>
</tr>
<tr>
<td>AA500F-24</td>
<td>2 X Staubli quick fit male pressure connector kit (1 X red dot Staubli plus 1 X black dot Staubli)</td>
</tr>
<tr>
<td>AA500F-25</td>
<td>Hose pressure connector AN4 Hansen quick fit female</td>
</tr>
<tr>
<td>AA500F-27</td>
<td>Hose pressure connector AN6 Hansen quick fit female</td>
</tr>
<tr>
<td>AA500F-41</td>
<td>10m (33 ft) length approximately mains lead – UK plug</td>
</tr>
<tr>
<td>AA500F-42</td>
<td>10m (33 ft) length approximately mains lead – Japan plug</td>
</tr>
<tr>
<td>AA500F-43</td>
<td>10m (33 ft) length approximately mains lead – Europe plug</td>
</tr>
<tr>
<td>AA500F-44</td>
<td>10m (33 ft) length approximately mains lead – USA plug</td>
</tr>
<tr>
<td>AA500F-45</td>
<td>10m (33 ft) length approximately mains lead – India plug</td>
</tr>
<tr>
<td>AA500F-46</td>
<td>10m (33 ft) length approximately mains lead – China plug</td>
</tr>
<tr>
<td>AA500F-47</td>
<td>10m (33 ft) length approximately mains lead – Australia/New Zealand plug</td>
</tr>
<tr>
<td>AA500F-48</td>
<td>10m (33 ft) length approximately mains lead – South Africa plug</td>
</tr>
</tbody>
</table>
Ordering information

1. Select model number

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADTS552F</td>
<td>2-channel pitot static tester, CW ADTS Touch</td>
</tr>
<tr>
<td>ADTS553F</td>
<td>3-channel pitot static tester, CW ADTS Touch</td>
</tr>
<tr>
<td>ADTS554F</td>
<td>4-channel pitot static tester, CW ADTS Touch</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E0</td>
<td>15 Month Accuracy Option</td>
</tr>
<tr>
<td>E3</td>
<td>18 Month Accuracy Option</td>
</tr>
<tr>
<td>SCAS</td>
<td>Standard Airspeed Accuracy</td>
</tr>
<tr>
<td>ECAS</td>
<td>Low Airspeed Option</td>
</tr>
<tr>
<td>SR</td>
<td>ADTS Touch Standard Range Bluetooth®</td>
</tr>
<tr>
<td>ER</td>
<td>ADTS Touch Extended Range Bluetooth®</td>
</tr>
</tbody>
</table>

Typical Model Number: ADTS552F - E0 - SCAS - SR

2. Options

- EPR
- Wireless Disabled
- EALT

3. Mains lead

Choose one from this list:
- MAINS LEAD - UK PLUG
- MAINS LEAD - JAPAN PLUG
- MAINS LEAD - EU PLUG
- MAINS LEAD - USA PLUG
- MAINS LEAD - SOUTH AFRICA
- MAINS LEAD - INDIA PLUG
- MAINS LEAD - CHINA PLUG
- MAINS LEAD - AUSTRALIA/NEW ZEALAND PLUG

4. Country of use

Please state country of use for Bluetooth® wireless technology setup.**

** Due to individual country radio license requirements, Bluetooth® wireless technology may not be available in some countries. An up-to-date list of countries that the ADTS Touch with Bluetooth® wireless technology is licensed to be used in is available upon request from Baker Hughes.

5. Accessories

Please state any accessories required as separate items when placing order.

Warranty terms

New product is supplied with an initial warranty of 24 months. For peace of mind, extend coverage on your equipment beyond the initial period up to a total four-year term.

Supporting services

Should your equipment need calibration or maintenance, our global repair facilities are happy to serve.

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