

AB01 Recall campaign - Replacing central wheel bolts

Vehicle Type:	911 Turbo (997)/911 Turbo S (997) 911 GT3 (997)/911 GT3 RS (997)/911 GT2 RS (997)
Model Year:	As of 2007 up to 2011
Equipment:	Central lock (I-no. 422, 430)
Concerns:	Central wheel lock
Situation:	<p>The usage profile of many customer vehicles in terms of mileage and performance on the race circuit, e.g. when used in the Porsche Sports Cup, now corresponds to that of genuine racing cars, which are not authorised for use on public roads.</p> <p>Based on the findings from the successful 24-hour race on the Nordschleife of the Nürburgring with the road-licensed Porsche 911 GT3 RS, Porsche has provided additional instructions for the use of central wheel lock components when driving on race circuits for all affected 997 models.</p> <p>Porsche instructions for race circuit driving now involve increasing the tightening torque of the central bolt to 600 Nm (444 ftlb.) and greasing various surfaces of the central bolt.</p> <p>A sufficient tightening torque will prevent significant relative movements between the components in the entire system and eliminate increased wear on components resulting from these movements.</p> <p>Since vehicles with a central wheel lock are high performance vehicles, Porsche has also decided to make this a standard requirement for all 997 vehicles with central wheel lock.</p> <p>The central bolts on the affected vehicles must therefore be replaced and fitted in accordance with the new greasing specification.</p> <p>The central bolts fitted on the vehicles bear the inscription for the previously required tightening torque specification. This inscription is not shown on the new central bolts.</p>
Affected Vehicles:	Vehicles assigned to the campaign (see also PIWIS vehicle information) and 911 Turbo (997) vehicles as of model year 2007 on which the central lock was retrofitted from the Tequipment range.
Action Required:	<ul style="list-style-type: none"> • Measures to be carried out on the vehicle <p>Check central lock components for signs of wear and replace the central bolt on all four wheels.</p> <p>Other components might also have to be replaced, depending on the loosening torque of the central bolt and depending on whether individual central lock components show signs of wear.</p> <ul style="list-style-type: none"> • Driver's Manual Supplement entitled "Wheels with central lock" <p>The updated information relating to the greasing specification and tightening torque for central bolts has made it necessary to update the Driver's Manual. For this reason, a Driver's Manual Supplement describing the changes and entitled "Wheels with central lock" has been created.</p>

The Driver's Manual Supplement is supplied to your importer free of charge and must be sent to customers along with the customer letter.

When your customers come into the workshop, check that they have received the Driver's Manual Supplement.

If they have not yet received it, please give the Driver's Manual Supplement to your customers.

Overview of Driver's Manual Supplement entitled "Wheels with central lock"

Order No.	Designation
WKD 997 810 11	Central Wheel Lock Supplement German
WKD 997 820 11	Central Wheel Lock Supplement English
WKD 997 821 11	Central Wheel Lock Supplement US English
WKD 997 830 11	Central Wheel Lock Supplement French
WKD 997 831 11	Central Wheel Lock Supplement Canadian
WKD 997 840 11	Central Wheel Lock Supplement Italian
WKD 997 850 11	Central Wheel Lock Supplement Spanish
WKD 997 891 11	Central Wheel Lock Supplement Dutch
WKD 997 892 11	Central Wheel Lock Supplement Swedish

Equipment: • **Additional central bolts or Equipment central bolts**

If, in addition to the central bolts fitted on the vehicle, a customer has other **standard central bolts or central bolts from the Equipment range** with the **tightening torque inscribed on them**, these must also be replaced with the corresponding **new central bolts without the torque inscription**.

In this case, the customer must always get the complete central bolt with the cone ring fitted (for part numbers, see "Part Nos.").



Information

Additional central bolts are always invoiced using the same campaign scope used for invoicing the work required for replacing the central bolts and any other central lock components.

- **Central wheel lock retrofitted from the Equipment range** (only for 911 Turbo as of model year 2007)

Vehicles on which the central lock was retrofitted from the Equipment range must be identified and assigned to this campaign.

Letters must be sent to the affected customers. The Driver's Manual Supplement entitled "Wheels with central lock" must be enclosed with the letter.

Please send the vehicle identification numbers of the affected vehicles to Porsche AG via your importer so that they can be assigned to campaign AB01. The vehicles will then be assigned to the campaign so that the required rework can be invoiced under campaign number AB01.

Overview of affected Tequipment central bolts and Tequipment parts kits containing central bolts:

Affected Tequipment central bolts

- 997.044.650.01 **Central bolt (individual part), anodised red – set**
- 997.044.650.03 **Central bolt, complete (incl. cone ring), anodised red – set**

The central bolts are also included in the following **Tequipment wheel sets:**

- 997.044.650.02* **GT3 wheel set incl. 4 central bolts (complete), anodised red**
- 997.044.650.04* **GT3 RS wheel set incl. 4 central bolts (complete), anodised red**

* The part numbers of the wheel sets have not changed as a result of the modified wheel bolts. Wheel sets supplied by Porsche AG since 24.01.2011 already contain the modified wheel bolts without the inscribed tightening torque specification.

Central wheel lock retrofit kits

- 997.044.602.98** **Central lock for RS Spyder wheel on 911 Turbo with steel brakes, set**
- 997.044.602.99** **Central lock for RS Spyder wheel on 911 Turbo with PCCB, set**

** The part numbers of the central wheel lock retrofit kits have not changed as a result of the modified wheel bolts. Retrofit kits supplied by Porsche AG since 23.11.2010 already contain the modified wheel bolts without the inscribed tightening torque specification.

If you still have the wheel bolts or Tequipment parts kits specified above - containing central bolts with the torque specification inscribed on them - in stock, please return these, specifying YT11 "Recall campaign" as the reason for return.

Part Nos.:	Central bolt		
	000.043.301.42	⇒ Central bolt, grey 1 ea.	X bolts***
	and/or		
	000.043.301.43	⇒ Central bolt, black 1 ea.	X bolts***
	and/or		
	997.044.650.13	⇒ Central bolt, anodised red (set) 1 set (4 bolts)	X bolts***

*** Quantity in accordance with the number required – depending on whether or not the customer has other central bolts.

Assembly grease

000.043.020.00

⇒ Optimoly TA assembly grease

100g tube
(approx. 20 grams of grease
required per vehicle)**Information**

If individual central lock components show signs of wear, other parts are required in accordance with the information given under ⇒ 'Procedure'.

Part numbers of the parts that might have to be replaced are listed under ⇒ 'Scope 2'.

The central bolts and all other parts that might have to be replaced will be requested and must be returned to the Warranty Parts Test Centre.

Tools:

Socket wrench 9796

Assembly aid 9794 (for vehicles with PCCB – Porsche Ceramic Composite Brake)

Torque wrench Nr.91 Pos.2 (300–800 Nm/222–592 ftlb.)

1/2" square socket wrench

Procedure:

The procedure described here must be carried out **on all four wheels**.

- 1 Loosen the central bolt and determine the loosening torque of the central bolt.
To do this, first set the torque wrench to **400 Nm (296 ftlb.)** and try to loosen the central bolt.

**Information**

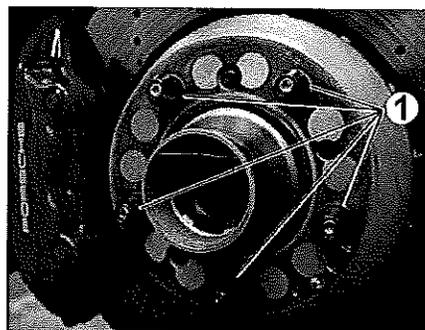
When loosening the central bolt and removing the wheels, refer to the description in the Workshop Manual ⇒ *Workshop Manual '440519 Removing and installing wheel with central bolt'*.

- If the **loosening torque** of the central bolt is **> 400 Nm (296 ftlb.)** (i.e. a torque of 400 Nm (296 ftlb.) was reached and the central bolt still has not loosened) ⇒ Loosen the central bolt completely. Then **continue with Step 2**.
- If the **loosening torque** of the central bolt is **< 400 Nm (296 ftlb.)** (i.e. the central bolt has loosened before a torque of 400 Nm (296 ftlb.) was reached), the **wheel hub** must be replaced. **Prerequisite:** The central bolt was originally tightened to the prescribed tightening torque and the vehicle has since been driven.

**Information**

Before replacing the wheel hub, first carry out the work described under ⇒ **Step 2** and ⇒ **Step 3** and check other central lock components for signs of wear in order to determine whether other components might also have to be replaced.

- 2 Remove the wheel and check whether the **wheel adapters** ⇒ *Wheel adapters -1-* can be turned by hand.
 - If **not** ⇒ **Continue with Step 3.**
 - If **they can** ⇒ The **wheel hub** and **wheel adapters** must be replaced. Replace the **wheel adapters** completely (assembly kit, Part No. 997.341.901.00).



Wheel adapters



Information

Before replacing the wheel hub and wheel adapters, first carry out the work described under ⇒ **Step 3** and check other central lock components for signs of wear in order to determine whether other components might also have to be replaced.

- 3 Check the following components for signs of wear as described in ⇒ *Workshop Manual '4X00IN Central wheel lock: Component assessment'*:
 - Wheel hub
 - Wheel adapters
 - Wheel
 - Brake disc



Information

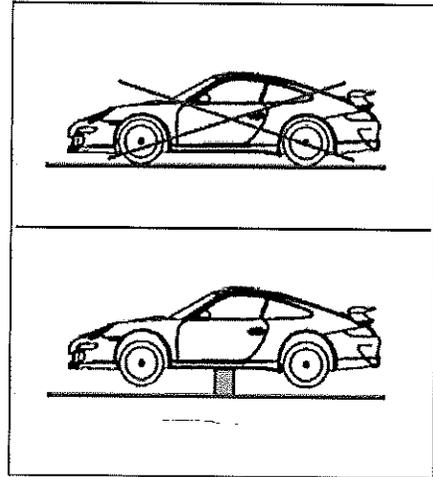
Apart from the wheels, no other parts must be removed for component assessment purposes.

- 4 Determine which parts need to be replaced using the table below.
 - **The central bolts must always be replaced.**

Sign of wear	Component to be replaced			
	Wheel hub	Wheel adapters	Wheel	Brake disc
Part numbers of the parts that might have to be replaced are listed under ⇒ 'Scope 2'.				
General information <ul style="list-style-type: none"> • Loosening torque of central bolt < 400 Nm (296 ftlb.) • Wheel adapters can be turned by hand 	X	—	—	—
Wheel hub assessment <ul style="list-style-type: none"> • The wheel hub shows signs of wear as described in ⇒ <i>Workshop Manual '4X00IN Central wheel lock: Component assessment'</i> (direct check on wheel hub) 	X	—	—	—

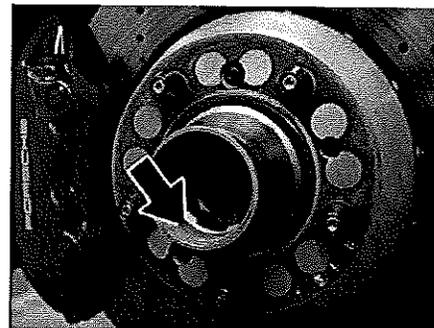
<ul style="list-style-type: none"> The removed central bolt shows signs of wear as described in ⇒ <i>Workshop Manual '4X00IN Central wheel lock: Component assessment'</i> (indirect check on wheel hub) 	X	—	—	—
<ul style="list-style-type: none"> The wheel cone shows signs of wear as described in ⇒ <i>Workshop Manual '4X00IN Central wheel lock: Component assessment'</i> (indirect check on wheel hub) 	X	—	—	—
Wheel adapter assessment				
<ul style="list-style-type: none"> The wheel adapters show signs of wear as described in ⇒ <i>Workshop Manual '4X00IN Central wheel lock: Component assessment'</i>. 	X	X*	—	—
Wheel assessment				
<ul style="list-style-type: none"> The wheel contact surface for the brake disc shows signs of wear as described in ⇒ <i>Workshop Manual '4X00IN Central wheel lock: Component assessment'</i>. 	X	—	X	—
Brake disc assessment				
<ul style="list-style-type: none"> The contact surface for the wheel on the brake disc shows signs of wear as described in ⇒ <i>Workshop Manual '4X00IN Central wheel lock: Component assessment'</i>. 	X	X*	—	X
* Replace the wheel adapters completely (assembly kit, Part No. 997.341.901.00)				

- If additional parts in accordance with the table shown above must also be replaced along with the central bolts, replace these according to the relevant description in the Workshop Manual.
- Fit wheels with new central bolts as described in ⇒ *Workshop Manual '440519 Removing and installing wheel with central bolt - section on "Installing"* and pay particular attention to the following points:
 - When fitting all wheels, the vehicle must never be supported by the wheel to be fitted ⇒ *Lifting the vehicle*.



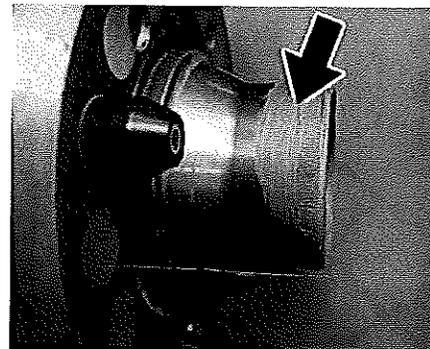
Lifting the vehicle

- Apply a pea-sized amount of Optimoly TA to the trapezoidal thread on the wheel hub ⇒ Greasing trapezoidal thread on wheel hub -arrow- and spread it out.



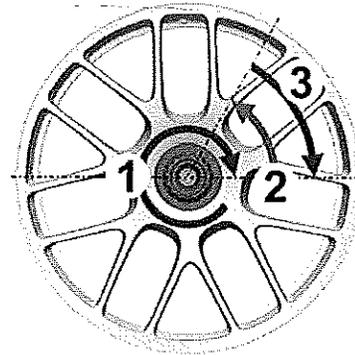
Greasing trapezoidal thread on wheel hub

- Grease the cylindrical surface of the wheel hub in the contact area of the cone ring on the central bolt ⇒ Greasing wheel hub -arrow- with a light coating (approx. 0.2 mm – 0.5 mm thick) of Optimoly TA.



Greasing wheel hub

- Use a suitable torque wrench to tighten the central bolt **using the three-step tightening procedure**:



Tightening wheel

- **Step 1:** Tighten central bolt to a **tightening torque of 600 Nm (444 ftlb.)** - ⇒ *Tightening wheel-1-*
- **Step 2:** Loosen central bolt by **approx. 60° (1/6 turn)** ⇒ *Tightening wheel-2-*
- **Step 3:** Tighten central bolt to a **tightening torque of 600 Nm +/- 30 Nm (444 ftlb. +/- 22 ftlb.)** - ⇒ *Tightening wheel-3-*



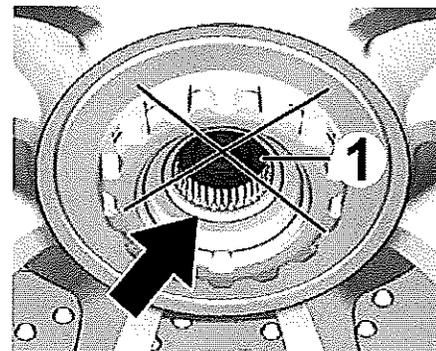
Unsecured central bolt

- Risk of damage to components
- Danger of accidents

⇒ **After fitting the wheel, make sure that the locking pin is engaged correctly in the central bolt.**

If the locking pin ⇒ *Bolt not secured -1-* is still at the rear position after fitting the wheel and has not yet engaged in the inner toothing of the central bolt, the central bolt is still not secured ⇒ *Bolt not secured* and must be secured **manually** to prevent it from becoming loose.

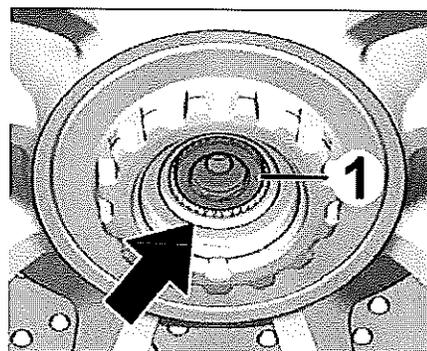
To do this, turn the locking pin to the left and right using a square extension until it engages in the central bolt.



Bolt not secured

When the central bolt is secured, the end of the locking pin ⇒ *Bolt secured -1- will be flush* with the inner toothing of the central bolt ⇒ *Bolt secured*

- 7 Enter the campaign in the Warranty and Maintenance booklet.



Bolt secured

Scope 1: **Checking central lock components for signs of wear and replacing the central bolt on all four wheels.**



Information

Scope 1 must be invoiced if **no signs of wear** are found on the central lock components during component assessment (Step 3).

In this case, only the central bolts must be replaced.

The central bolts will be requested and must be sent to the Warranty Parts Test Centre.

Working time:		
Checking central lock components for signs of wear and replacing central bolts on all four wheels		Labor time: 130 TU
Includes:	Removing and fitting four wheels Replacing any additional central bolts for the customer	
Required materials:		
000.043.301.42	Central bolt, grey 1 ea.	X bolts***
and/or		
000.043.301.43	Central bolt, black 1 ea.	X bolts***
and/or		
997.044.650.13	Central bolt, anodised red 1 set (4 bolts)	X bolts***
Also required:		
000.043.020.00	Optimoly TA assembly grease	0.2 ea. (i.e. 20 grams of grease)
*** Quantity in accordance with the number required – depending on whether or not the customer has other central bolts.		

Invoicing: ⇒ Damage Code AB01 99 000, Repair Code 2

Scope 2:

Checking central lock components for signs of wear and replacing the central bolt on all four wheels as well as other central lock components.



Information

Scope 2 must be invoiced if **signs of wear** are found on the central lock components during component assessment (Step 3) and not only the central bolts, but **other components** must also be replaced.

The following points must be taken into consideration:

- Apart from the central bolts and assembly grease, additional parts from the overview below can be invoiced under the campaign number if these parts show signs of wear as described in ⇒ *Workshop Manual '4X00IN Central wheel lock: Component assessment'*.
- **The parts will be requested and must be sent to the Warranty Parts Test Centre for examination. Parts replaced without authorisation will be re-debited.**
- Essentially, only the scope "Checking central lock components for signs of wear and replacing central bolts on all four wheels" (130 TU) can be invoiced as the working time under the campaign number.
- **Additional working time - over and above the specified working time of 130 TU - as a result of replacing worn central lock components must be invoiced using a separate warranty claim.**
- The additional warranty claim must be processed by specifying ⇒ **damage code 4407 97 000, repair code 2**
- Document the work in the **PQIS job** by entering **4407A** (Central bolt for wheel mounting) under "Location" and **9735** (Repair in accordance with PAG instructions) as the "Symptom".
- Specify the test matrix criteria used as the basis for replacing the components under "Further Information" for the PQIS job.

Working time:

Checking central lock components for signs of wear and replacing central bolts on all four wheels

Labor time: **130 TU**

Includes: Removing and fitting four wheels
Replacing any additional central bolts for the customer

Required materials:

000.043.301.42 Central bolt, grey
1 ea.

X bolts***

and/or

000.043.301.43 Central bolt, black
1 ea.

X bolts***

and/or

997.044.650.13 Central bolt, anodised red 1 set (4 bolts) X bolts***

Also required:

000.043.020.00 Optimoly TA assembly grease 0.2 ea. (i.e. 20 grams of grease)

*** Quantity in accordance with the number required – depending on whether or not the customer has other central bolts.

Additional parts (only required if they show signs of wear as described in ⇒ *Workshop Manual '4X00IN Central wheel lock: Component assessment'*).

Front wheels

- **911 Turbo/911 Turbo S** 997.362.157.06 19-inch RS Spyder wheel Only if required
- **911 GT2 RS** 997.362.157.96.539 19-inch GT3 wheel, White Gold Metallic Only if required
- **911 GT3** 997.362.157.95.EP8 19-inch GT3 wheel, Titanium Only if required
997.362.157.95.9A1 19-inch GT3 wheel, Silver Only if required
- **911 GT3 RS** 997.362.157.96.9A1 19-inch GT3 wheel, Silver Only if required
997.362.157.96.539 19-inch GT3 wheel, White Gold Metallic Only if required
997.362.157.96.84A 19-inch GT3 wheel, Guards Red Only if required

Rear wheels

- **911 Turbo/911 Turbo S** 997.362.163.04 19-inch RS Spyder wheel Only if required
- **911 GT2 RS** 997.362.165.91.539 19-inch GT3 wheel, White Gold Metallic Only if required

• 911 GT3	997.362.165.90.EP8	19-inch GT3 wheel, Titanium	Only if required
	997.362.165.90.9A1	19-inch GT3 wheel, Silver	Only if required
• 911 GT3 RS	997.362.165.91.9A1	19-inch GT3 wheel, Silver	Only if required
	997.362.165.91.539	19-inch GT3 wheel, White Gold Metallic	Only if required
	997.362.165.91.84A	19-inch GT3 wheel, Guards Red	Only if required
Front brake discs			
• 911 Turbo/911 Turbo S	997.351.405.02	Left brake disc/grey cast iron	Only if required
	997.351.406.02	Right brake disc/grey cast iron	Only if required
	997.351.031.33	Left brake disc/PCCB	Only if required
	997.351.032.33	Right brake disc/PCCB	Only if required
• 911 GT2 RS	997.351.031.96	Left brake disc/PCCB	Only if required
	997.351.032.96	Right brake disc/PCCB	Only if required
• 911 GT3/911 GT3 RS	997.351.409.91	Left brake disc/grey cast iron	Only if required
	997.351.410.91	Right brake disc/grey cast iron	Only if required
	997.351.031.96	Left brake disc/PCCB	Only if required
	997.351.032.96	Right brake disc/PCCB	Only if required
Rear brake discs			
• 911 Turbo/911 Turbo S	997.352.405.03	Left brake disc/grey cast iron	Only if required
	997.352.406.03	Right brake disc/grey cast iron	Only if required
	997.352.031.01	Left brake disc/PCCB	Only if required
	997.352.032.01	Right brake disc/PCCB	Only if required
• 911 GT2 RS	997.352.031.94	Left brake disc/PCCB	Only if required
	997.352.032.94	Right brake disc/PCCB	Only if required

<ul style="list-style-type: none"> 911 GT3/911 GT3 RS 	997.352.405.92	Left brake disc/grey cast iron	Only if required
	997.352.406.92	Right brake disc/grey cast iron	Only if required
	997.352.031.94	Left brake disc/PCCB	Only if required
	997.352.032.94	Right brake disc/PCCB	Only if required
Wheel adapters			
<ul style="list-style-type: none"> All types 	997.341.901.00	Assembly kit Comprising: Driving pins (5x) Sleeves (5x) Fastening screws (5x)	Only if required
Front wheel hub			
<ul style="list-style-type: none"> All types 	997.341.607.02	Front wheel hub	Only if required
Rear wheel hub			
<ul style="list-style-type: none"> 911 Turbo/911 Turbo S 	997.331.607.02	Rear wheel hub	Only if required
<ul style="list-style-type: none"> 911 GT2 RS 911 GT3/911 GT3 RS 	997.331.607.04	Rear wheel hub	Only if required
Front wheel bearing			
<ul style="list-style-type: none"> All types 	999.053.054.06	Front wheel bearing	Only if required
	999.053.055.02	Rear wheel bearing	Only if required
Invoicing: ⇒ Damage Code AB01 99 000, Repair Code 2			

References: ⇒ Workshop Manual '440519 Removing and installing wheel with central bolt'
 ⇒ Workshop Manual '4X00IN Central wheel lock: Component assessment'

Parts Information

911 (997)

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D115

Binder - Parts Bulletins, Group 12-15.

Parts Withdraw - 997 044 650 01/02/03/04
997 044 602 98/99

Attention: **Parts Managers / Parts Counter Personnel**

Porsche Cars North America requests return of the following part/s to PCNA:

Return Part Number	Description
99704465001	Central Wheel Lock Bolt - Anodized Red
99704465003	Central Wheel Lock Bolt, Complete (including cone ring) - Anodized Red
99704465002	911 GT3 Set of 4, Complete (including cone ring) - Anodized Red
99704465004	911 GT3 RS Set of 4, Complete (including cone ring) - Anodized Red
99704460298	911 Turbo w/RS Spyder Wheel w/o PCCB, Complete (including cone ring) - Anodized Red
99704460299	911 Turbo w/RS Spyder Wheel w/PCCB, Complete (including cone ring) - Anodized Red

Please check your stock of the above-mentioned parts/sets and return any of the parts/sets with central wheel lock bolt that have torque settings "500Nm" inscribed on the nut (See Figure 1). The correct central wheel lock looks like Figure 2.

To avoid restocking charges and receive full credit, follow these steps:

- Fill out the fax form on page two and fax back to PCNA by Friday, June 10, 2011.
- Be sure to note quantities for each part returned.
- PCNA will key the parts withdraw for you and you will receive a return delivery note. Include the return delivery note with the withdrawn part and return them to your facing PDC.
- Parts returned to PCNA without a return delivery note will be sent back to the dealer at dealer's expense.
- Return requests received after the specified return date **will not be processed** and the parts will not be accepted for return. Parts will be coded non-returnable from that date on.
- These parts must be physically returned by close of business day on Friday, June 17, 2011, to your facing PDC.

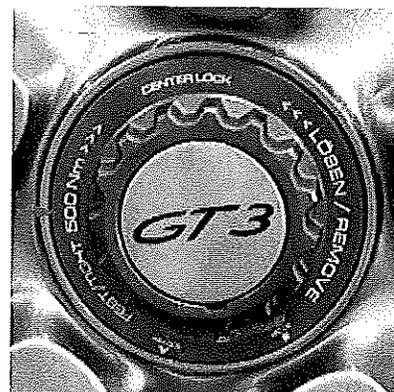


Figure 1 - Incorrect

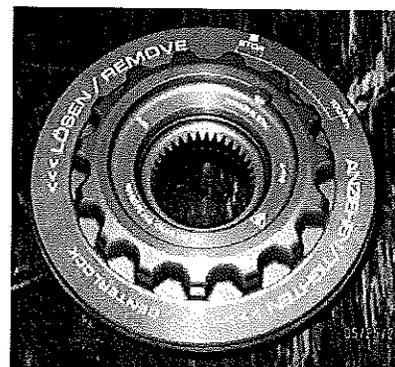


Figure 2 - Correct

Thank you for your cooperation in this matter.

Porsche Cars North America AfterSales

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911 (997)

D115

Parts Information

Parts Return Fax Form

Note: This form must be faxed back to PCNA by close of business day in your time zone, Friday, June 10, 2011. Credit will not be applied if faxes are received after that date.

Fax Date: _____ **Parts Manager:** _____

Parts Mgr. Phone No. _____

Porsche Dealer Number: _____ **Porsche Dealership Name (Print):** _____

Return Quantity	Return Part Number	Description
_____	99704465001	Central Wheel Lock Bolt - Anodized Red
_____	99704465003	Central Wheel Lock Bolt, Complete (including cone ring) - Anodized Red
_____	99704465002	911 GT3 Set of 4, Complete (including cone ring) - Anodized Red
_____	99704465004	911 GT3 RS Set of 4, Complete (including cone ring) - Anodized Red
_____	99704460298	911 Turbo w/RS Spyder Wheel w/o PCCB, Complete - Anodized Red
_____	99704460299	911 Turbo w/RS Spyder Wheel w/PCCB, Complete - Anodized Red

Fax this form to PCNA at (770) 290-3532.

Keep your copy for your records.

Dealership Distribution Routing Parts Manager _____ Parts Specialist _____
 Asst. Manager _____ Parts Specialist _____

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