

## Target

How to identify and deal with potential mixed sample results on **cobas** e601 if the two alarms below occur within a short time.

- |  |  |                            |
|--|--|----------------------------|
|  | Tip/Cup pick up error (Caution Level)    | Alarm 301-0002 or 301-0015 |
|  | Abnormal L2-line Movement (S.Stop Level) | Alarm 104-0005             |

### 1. Identification of the software malfunction

Whenever an Abnormal L2-line Movement 104-00005 (S.Stop Level) is issued by the system, check whether Tip/Cup pick up error 301-000002 and / or 301-000015 (Caution Level) is issued in advance shortly, by the Alarm screen and Daily Alarm Trace.

1. Check Alarm screen and make sure the alarm "104-00005 Abnormal L2-line Movement (S.Stop Level)" occurs.

Stand By bmserv 13/06/17 13:55

Code	Module	Level	Alarm	Date/Time
104-0005	e601	Sample Stop	Abnormal L2-line Movement	13/06/17 13:34
402-0401	e601	Caution	Sample Short	13/06/17 13:33
315-0015	e601	Caution	Solid Waste	13/06/17 13:33
301-0015	e601	Caution	Tip/Cup pick up error	13/06/17 13:32
301-0002	e601	Caution	Tip/Cup pick up error	13/06/17 13:32

**Description and Remedy**

Code :104-0005  
Level :Sample Stop  
Description:L2-line rack transfer mechanism does not reach at Out-Buffer when L2-line rack transfer mechanism moving from sampling position.

Remedy :(1) Execute <<Rack Reset>> on the [Maintenance] screen of [Utility] job.  
Resume operation; if the alarm recurs, contact Service Representative.

Delete New Alarm Sound Maint. Close

? Help Select the alarm from the list box.

2. Collect the remained racks in the corresponded **cobas** e601 module.
  - | Standalone system:
    - 2-1) Wait until system status turns to Stand-By.
    - 2-2) Perform "Reset or Rack Reset" to collect racks to Unloader.

- I CLAS connected system:
  - 2-1) Stop sending racks from CLAS, then wait until all results for measuring samples output.
  - 2-2) Press "Stop" button to make system status turns to Stand-By.
  - 2-3) Perform "Reset or Rack Reset" to collect racks to Unloader.
- 3. Printout "Daily Alarm Trace" and check the alarm "301-000002 Tip/Cup pick up error" or "301-000015 Tip/Cup pick up error" occurs in short time from the occurrence time of "104-000005 Abnormal L2-line Movement".

13/06 13:35	2	2	A	01-029-0001-065	Inc. Water Level Too Low
13/06 13:35	2	2	A	01-113-0009-063	Abnormal Temp Control
13/06 13:34	2	1	A	01-029-0001-065	Inc. Water Level Too Low
13/06 13:34	2	1	A	01-113-0009-063	Abnormal Temp Control
13/06 13:34	62	1	A	02-104-0005-342	Abnormal L2-line Movement
13/06 13:34	62	2	A	02-113-0006-281	Abnormal Temp Control
13/06 13:34	4	3	A	02-329-0003-271	Pressure Sensor Error
13/06 13:33	4	1	A	02-402-0401-276	Sample Short
13/06 13:33	4	1	A	02-315-0015-091	Solid Waste
13/06 13:32	4	1	A	02-301-0015-315	Tip/Cup pick up error
13/06 13:32	2	23	A	01-113-0009-063	Abnormal Temp Control
13/06 13:32	4	2	A	02-301-0002-315	Tip/Cup pick up error
13/06 13:31	2	30	A	01-029-0001-065	Inc. Water Level Too Low
13/06 13:31	2	7	A	01-113-0010-063	Abnormal Temp Control
13/06 13:31	4	25	A	02-113-0006-141	Abnormal Temp Control

If two alarms below occur in a short time, the failure could happen.

- I Tip/Cup pick up error (Caution Level)
- I Abnormal L2-line Movement (S.Stop Level)

**If you identified that the software failed follow the next procedure!**

## 2. Handling of potential mixed sample results on cobas e602

### 2.1. Sample Barcode mode

2.1.1. Go to Workplace > Data Review screen, search Sample ID of the samples on the racks collected by performing "Reset or Rack Reset" to Unloader.

Follow 1 through 4 in the Figure 1 below.

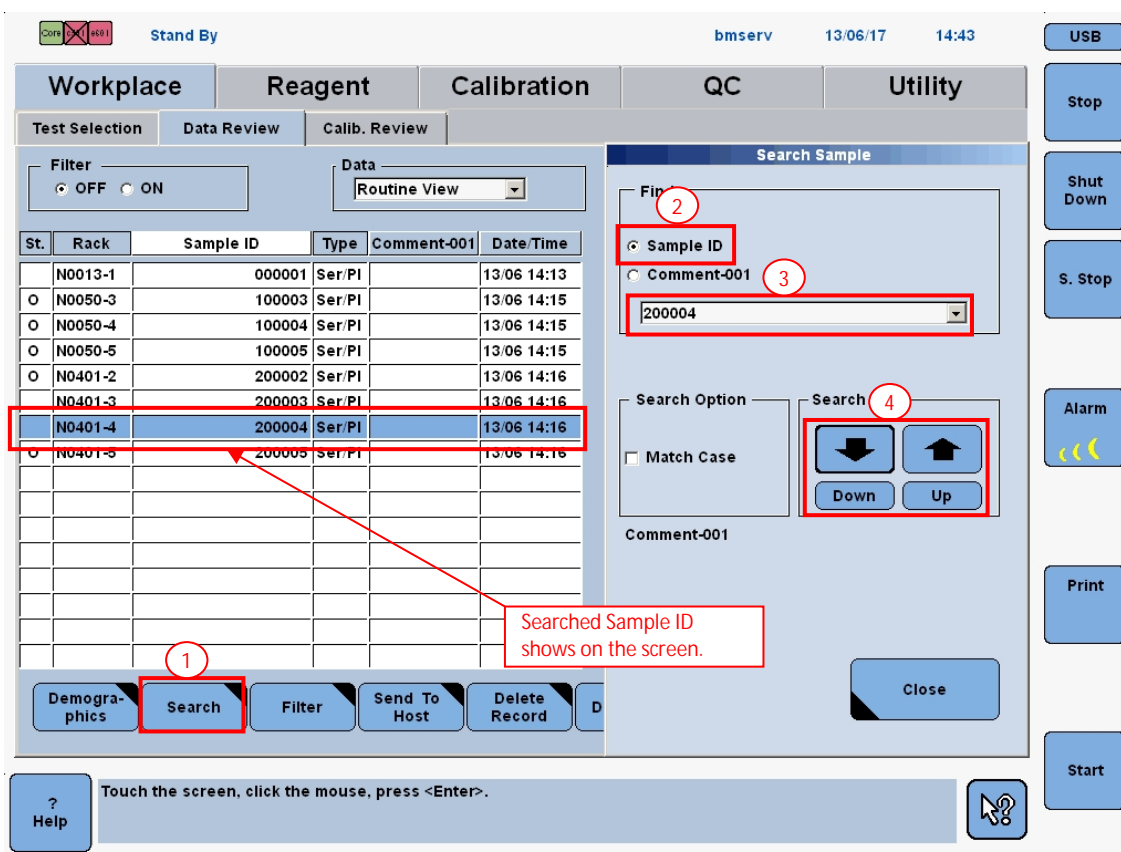


Figure 1. Data Review screen

- 2.1.2. Select the searched Sample ID and then, open "Test Review" screen.  
Verify corresponded **cobas** e601 module and sampling time.

The screenshot shows the 'Test Review' screen of a cobas e601 module. At the top, there are tabs for 'Workplace', 'Reagent', 'Calibration', 'QC', and 'Utility'. Below these are sub-tabs for 'Test Selection', 'Data Review', and 'Calib. Review'. The main area displays sample information: Sample: Routine, Type: Ser/PI, Sample ID: 200004, Status: Complete, and Carryover Evasion. A red box highlights 'Rack No. - Pos.: N0401-4' with an arrow pointing to it and the text 'Rack and position'. Below this is a table with columns for Test, Data, Alarm, R.M., A.U., Time, and St. The first row shows 'TOXIGG' with a value of '1.00' and a time of '14:18'. A red box highlights the '14:18' time with an arrow pointing to it and the text 'Verify corresponded e601 module and sampling time.' At the bottom, there are buttons for 'Cancel', 'Demographics', 'Show Detail', 'Delete Test', 'Update', 'Manual Test', 'Previous', 'Next', and 'Close'. On the right side, there are buttons for 'USB', 'Stop', 'Shut Down', 'S. Stop', 'Alarm', 'Print', and 'Start'.

Figure 2. Test Review screen

Note:

Corresponded **cobas** e601 means that the module which has alarm "Abnormal L2-line Movement (S.Stop Level)". Please check the alarm from Alarm screen or Daily Alarm Trace.

- 2.1.3. Repeat step 2.1.1. and 2.1.2. above for all samples on the collected racks.

- 2.1.4. The rack concerned sample mismatching can be identified by the sample which sampling time is the latest.

## 2.2. Rack position number mode

2.2.1. Go to Workplace> Data Review screen, search racks collected by performing "Reset or Rack Reset" to Unloader.

Note: If the same rack is repeatedly using, the newest "Date/Time" is the latest used.

Stand By      bm serv      13/06/17      13:55      USB

Workplace      Reagent      Calibration      QC      Utility

Test Selection      Data Review      Calib. Review

Filter: ☐ OFF ☐ ON      Data: Routine View      Sample Count: 700

St.	Seq. No.	Rack	ID	Type	Comment-001	Date/Time	Test	Result	R.M.	Alarm	Unit
O	N001015	N0050-5		Ser/PI		08/06 11:34	TOXIGG	1.00			IU/mL
O	N001016	N0401-1		Ser/PI		08/06 11:35					
O	N001017	N0401-2		Ser/PI		08/06 11:35					
O	N001018	N0401-3		Ser/PI		08/06 11:35					
O	N001019	N0401-4		Ser/PI		08/06 11:35					
O	N001020	N0401-5		Ser/PI		08/06 11:35					
O	N001021	N		Ser/PI							
O	N001022	N		Ser/PI							
O	N001023	N0050-3		Ser/PI		13/06 13:31					
O	N001024	N0050-4		Ser/PI		13/06 13:31					
O	N001025	N0050-5		Ser/PI		13/06 13:31					
O	N001026	N		Ser/PI							
O	N001027	N0401-2		Ser/PI		13/06 13:31					
O	N001028	N0401-3		Ser/PI		13/06 13:31					
O	N001029	N0401-4		Ser/PI		13/06 13:31					
O	N001030	N0401-5		Ser/PI		13/06 13:31					

Demographics      Search      Filter      Send To Host      Delete Record      Delete All      Backup Data      Test Review      Reaction Monitor

Help      Start

Figure 3. Data Review screen

- 2.2.2. Select the sample on the searched racks, then open "Test Review" screen.  
Verify corresponded **cobas** e601 module and sampling time.

The screenshot displays the 'Test Review' screen with the following elements:

- Top Bar:** Status 'Stand By', server 'bmserv', date '13/06/17', and time '13:55'.
- Navigation Tabs:** Workplace, Reagent, Calibration, QC, and Utility.
- Sub-Tabs:** Test Selection, Data Review, and Calib. Review.
- Sample Information:**
  - Sample: Routine, Sequence No.: 001029, Rack No. - Pos.: N0401-4
  - Type: Ser/PI, Sample ID: , Pre-dilution: ☐
  - Status: Complete, Carryover Evasion:
- Test Results Table:**

Test	1st Result						Rerun Result					
	Data	Alarm	R.M.	A.U.	Time	St	Data	Alarm	R.M.	A.U.	Time	St
TOXIGG	1.00			E-2	13:34							
- Buttons:** Cancel, Demographics, Show Detail, Delete Test, Update, Manual Test, Previous, Next, Close, USB, Stop, Shut Down, S. Stop, Alarm, Print, Start.
- Footer:** A help box with a question mark icon and the text: 'Type the result data from -999999 to 9999999, then press <Enter>.'

Figure 4. Test Review screen

Note:

Corresponded **cobas** e601 means that the module which has alarm "Abnormal L2-line Movement (S.Stop Level)". Please check the alarm from Alarm screen or Daily Alarm Trace.

- 2.2.3. Repeat step 2.2.1. and 2.2.2. above for all samples on the collected racks.

- 2.2.4. The rack concerned sample mismatching can be identified by the sample with the latest sampling time.

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