


<b>BOSCH</b> <b>RBAU</b>	<b>SUPPLIER INSTRUCTION</b>	ISSUED BY PUR	PAGE 1	OF 6
AUTHOR PUR	Section 9. The SMART report Supplier Monthly Assessment Reporting Tool	ED./AMEND. 1/1	ISSUE DATE 12/08/04	

## CONTENTS

<b>1</b>	<b>INTRODUCTION.....</b>	<b>2</b>
	1.1 Purpose .....	2
	1.2 Applicability .....	2
	1.3 Definitions .....	2
<b>2</b>	<b>PROCEDURE .....</b>	<b>2</b>
<b>3</b>	<b>PAGE 1- SUMMARY REPORT.....</b>	<b>3</b>
	3.1 On Time Delivery Performance .....	3
	3.2 Measure of Top 10 Worst Parts .....	3
	3.3 Deliveries That Exceed Due Quantity.....	3
	3.4 Effect of Returns .....	4
<b>4</b>	<b>QUALITY PERFORMANCE SUMMARY.....</b>	<b>4</b>
	4.1 EMKZ - PPAP Performance Indicator .....	4
	4.2 PLKZ – Problem Supplier Indicator .....	4
	4.3 PPM – Parts per Million.....	5
	4.4 Quality Notifications .....	5
	4.5 Quality System Status.....	5
<b>5</b>	<b>PAGE 2 TO PAGE X- REPORT DETAILS.....</b>	<b>6</b>

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<b>BOSCH</b>  <b>RBAU</b>	<b>SUPPLIER INSTRUCTION</b>	ISSUED BY PUR	PAGE 2	OF 6
AUTHOR PUR	Section 9. The SMART report Supplier Monthly Assessment Reporting Tool	ED./AMEND. 1/1	ISSUE DATE 12/08/04	

## 1 INTRODUCTION

The SMART report was devised to constructively provide regular feed back to suppliers and to assist with the continuous improvement of quality & delivery performance.

### 1.1 Purpose

This supplier instruction provides an explanation of the various sections in the SMART report.

### 1.2 Applicability

This instruction is applicable to all direct suppliers.

### 1.3 Definitions

RBAU : Robert Bosch (Australia) Pty. Ltd.

New supplier : Suppliers that have not previously supplied product or services to RBAU.

Direct supplier (DS) : A manufacturer who supplying directly to OE (original equipment).

SAP : (Software Application Programs) It is the Enterprise Resource Planning software.

## 2 PROCEDURE

The SMART report conveys RBAU's perception of delivery and quality performance to the supplier. The report is based on data entered by the Purchasing, Quality and Logistics Departments and is automatically generated by RBAU's SAP system.

All direct suppliers with a reasonable purchasing volume will receive monthly, a faxed copy of the report.

Please feel free to contact your RBAU Buyer or Supplier Quality Engineer if you have any questions regarding the report.

<b>BOSCH</b> <b>RBAU</b>	<b>SUPPLIER INSTRUCTION</b>	ISSUED BY PUR	PAGE 3	OF 6
AUTHOR PUR	Section 9. The SMART report Supplier Monthly Assessment Reporting Tool	ED./AMEND. 1/1	ISSUE DATE 12/08/04	

### 3 PAGE 1- SUMMARY REPORT

#### 3.1 On Time Delivery Performance

On time delivery performance is based on SAP/ LEB reporting. The assessment system has two functions:

- It records the number of receipts counted as deliveries on specific dates.
- It reports on the number of receipts in specified ranges from the 'on-time' date.

Sub routines in the system ensure that the dates transmitted on schedules to the vendors are the relevant dates for supplier assessment. For the purpose of assessment any partial receipt is counted as one delivery.

A delivery within 2 days prior to, and 2 days after the due date is counted as 'on-time' and score for this delivery is 100.

A delivery within 3 to 4 days prior to, and 3 to 4 days after the due date is counted as early or late and score for this delivery is 75.

A delivery within 5 to 7 days prior to, and 5 to 7 days after the due date is counted as early or late and score for this delivery is 50.

A delivery within 8 days prior to, and 8 days after the due date is counted as early or late and score for this delivery is 1.

The due date is the scheduled due date ex supplier, not the RBAU required date.

It is RBAU's intention to tighten these parameters, when the reporting system reliability has been proven.

#### 3.2 The worst 10 deliveries for On Time Delivery Performance

10 worst deliveries , late or early, will be recorded.

#### 3.3 Deliveries That Exceed Due Quantity

If a delivery exceeds the due quantity on a specific date, the system counts this as one delivery, and records the date according to the average variation in days from the two relevant dates.

<b>BOSCH</b> <b>RBAU</b>	<b>SUPPLIER INSTRUCTION</b>	ISSUED BY PUR	PAGE 4	OF 6
AUTHOR PUR	Section 9. The SMART report Supplier Monthly Assessment Reporting Tool	ED./AMEND. 1/1	ISSUE DATE 12/08/04	

### 3.4 Effect of Returns

A return of goods does not count. The schedule is re-instated.

## 4 QUALITY PERFORMANCE SUMMARY

RBAU uses four quality indicators to track a supplier's performance: EMKZ, PLKZ, PPM and QN's. For an explanation of these indicators please see below.

### 4.1 EMKZ - PPAP Performance Indicator

EMKZ is an indicator of problems associated with PPAP submission, with zero representing a perfect score.

EMKZ is calculated in the following way

$$\text{EMKZ} = (1*S + 1*V + 2*U + 3*A + 5*T + 6*R + 8*R1) / (\text{number of submissions})$$

Where:

- S: The PPAP is provisionally approved, the PPAP delivery is used under concession and further action is required.
- V: The PPAP is approved, but the submission was received late.
- U: The PPAP is approved, but the submission was incomplete.
- T(V): The PPAP is approved, but the submission was received late and affected start of production.
- A: The PPAP is rejected.
- T(A): The PPAP is rejected, and the start of production was effected.
- R: The PPAP is rejected on re-submission.
- R1: The PPAP is rejected on re-submission, and start of production was effected.

### 4.2 PLKZ – Problem Supplier Indicator

PLKZ is an indicator of problems in production, with zero representing a perfect score.

<b>BOSCH</b> <b>RBAU</b>	<b>SUPPLIER INSTRUCTION</b>	ISSUED BY PUR	PAGE 5	OF 6
AUTHOR PUR	Section 9. The SMART report Supplier Monthly Assessment Reporting Tool	ED./AMEND. 1/1	ISSUE DATE 12/08/04	

Where PLKZ is calculated in the following way

$$PLKZ = (1*S + 2*W + 3*M + 4*F + 5*K)$$

- S: The number of deliveries under concession (Concession issued before parts delivered to RBAU)
- W(S): The number of deliveries for which a concession was raised at RBAU to release the parts after arrival.
- W(R): The number of rejected deliveries at receiving inspection.
- M: The number of reminders to the supplier for late Corrective Action.
- F: The number of problem supplier deliveries identified in the RBAU production area.
- K(O): The number of customer 0Km/0Hr problems.
- K(F): The number of customer warranty complaints.

#### 4.3 PPM – Parts per Million


A universal measure of quality, details how many parts per million supplied are defective.

#### 4.4 Quality Notifications

Details the number of quality notifications raised during the month. For additional information regarding quality notifications please refer to Supplier Quality Problem Reporting section.

#### 4.5 Quality System Status

Shows the supplier's current quality system status according to RBAU records. Please contact your supplier quality engineer or buyer if your quality status changes.

<b>BOSCH</b>  <b>RBAU</b>	<b>SUPPLIER INSTRUCTION</b>	ISSUED BY PUR	PAGE 6	OF 6
AUTHOR PUR	Section 9. The SMART report Supplier Monthly Assessment Reporting Tool	ED./AMEND. 1/1	ISSUE DATE 12/08/04	

**5 PAGE 2 to PAGE X- REPORT DETAILS**

Subsequent pages of the report detail the delivery and quality problems by part number for the month and show how each part contributed to the supplier's delivery and quality data.