

RADIATION SURVEY WORKSHEET

eXaminer Radiation Survey Information

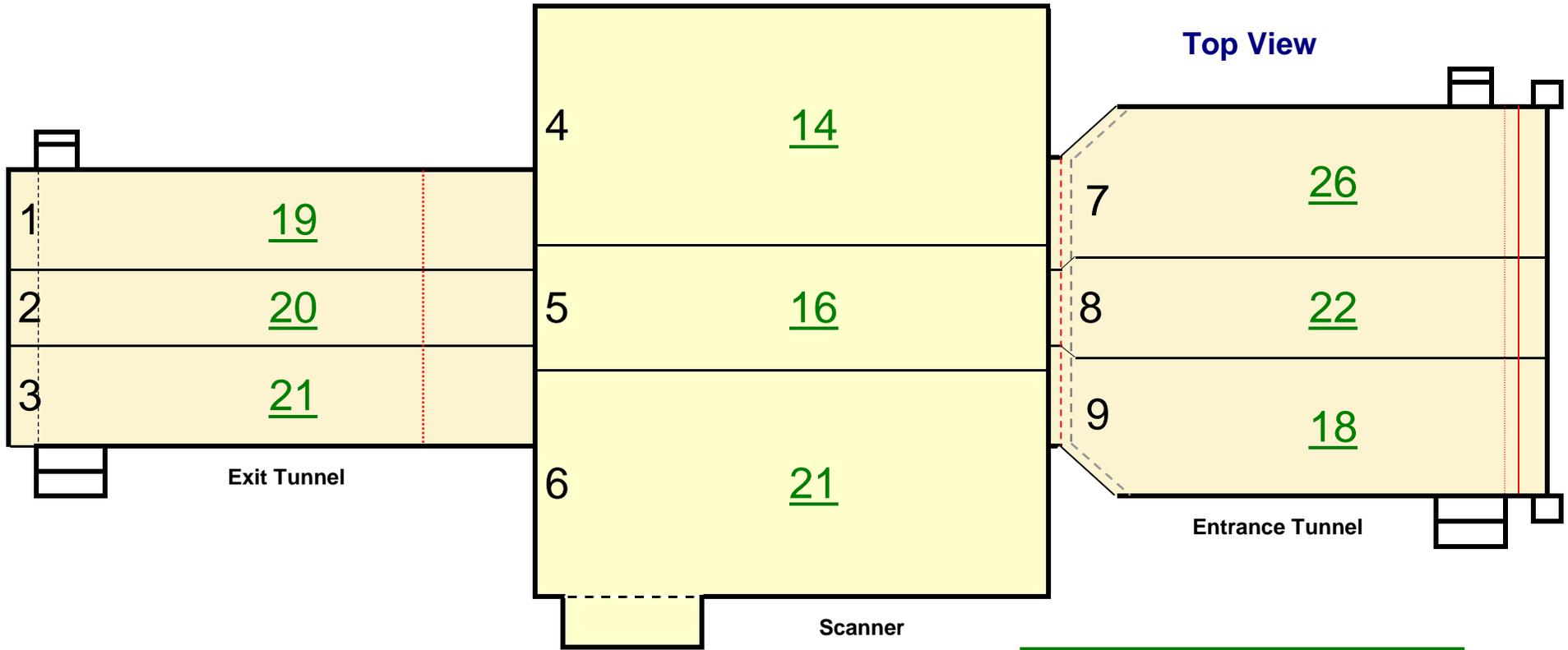
Airport: PHX	Scanner Location: Terminal 4 East Line 3	Case#: PHX-358060
Personnel Performing Radiation Survey:		Date Survey Performed: 3/13/2011
Scanner Serial Number: 6770	Entrance Tunnel Serial Number: 4530-A	Exit Tunnel Serial Number: 1100-1B
High Reading: 64	Average Reading: 26.01	Min. Reading: 14
High Reading: 94	Average Reading: 38.46	Min. Reading: 18
High Reading: 54	Average Reading: 32.67	Min. Reading: 19
Good		
Radiation Meter: Type Meter: 451P	Meter Serial Number: 263	Calibration Due Date: October 18, 2011

NOTES

Complete Radiation Survey (CRS)	Record Voltage and Beam Current here:
Rename this Document before starting the Survey to: PHX-CRS-13MAR2011-6770	Voltage: <u>165</u> KV Beam Current: <u>9.9</u> mA
	Maximum Safe Readings Scanner 350 Tunnels 350 Curtains 350

Step:	Procedure	Expected results
1.	Set Up: Obtain Inovision Ion Chamber Survey Meter and in an area away from the scanners, turn on the meter by pressing the On-Off key. Wait approx. 4 minutes for the meter to run through the initialization procedure.	The GUI will be visible and will indicate Standby. After the radiation meter initialization procedure is complete the meter will be reading less than 20 μ R/hr and the meter will be ready for use.
2.	The scanner will be in Standby. Change the conveyor switch on the scanner to Stop. Change the exit tunnel conveyor switch to Off to stop the conveyor.	Both conveyors should be stopped.
3.	On the GUI dropdown screen, select diagnostic, followed by Radiation Survey. A radiation survey window will appear. Click "Turn On" button to turn x-rays on. Turn on x-rays prompt will say "Place survey bag on belt". Place IQTK bag on Entry Conveyor Belt.	A window indicating "Radiation Survey" will appear.
4.	When "Bag in survey position" appears, go to the FCC monitor and select "2" then <Enter>, verify and record the voltage and current in the displayed on the FCC screen in the planks provided above.	The high voltage is between 144KV and 176KV . The current is between 8.8mA and 10.6mA and the scanner X-ray indicator lights are on.
5.	Survey one of the areas indicated by the boxes in Appendix A2. Record the highest reading within the area. Repeat the process until all areas are surveyed and readings are recorded.	As the survey is conducted, the radiation meter indicates the degree of radiation emission.
6.	Review all radiation data sheets for high readings.	Readings shall not exceed 350 uR/hr in any box.
7.	After radiation survey is complete, click on "Start Conveyor" button on the GUI. Click the "Turn Off" button to turn off x-rays. Next click "Done". The IQTK bag will eject from exit tunnel. EDAC will reboot.	IQTK bag is ejected and scanner reboots.
7.	Visually inspect the entrance and exit of the system for X-ray caution hazard signs.	X-ray hazard signs reading "Do not insert any part of the body when system is energized" are posted at entrance and exit of system.
9.	Fill out the eXaminer radiation sticker and adhere to to the frame of the eXaminer under door #5 on the left side of the scanner.	Readings shall not exceed 350 uR/hr in any box.

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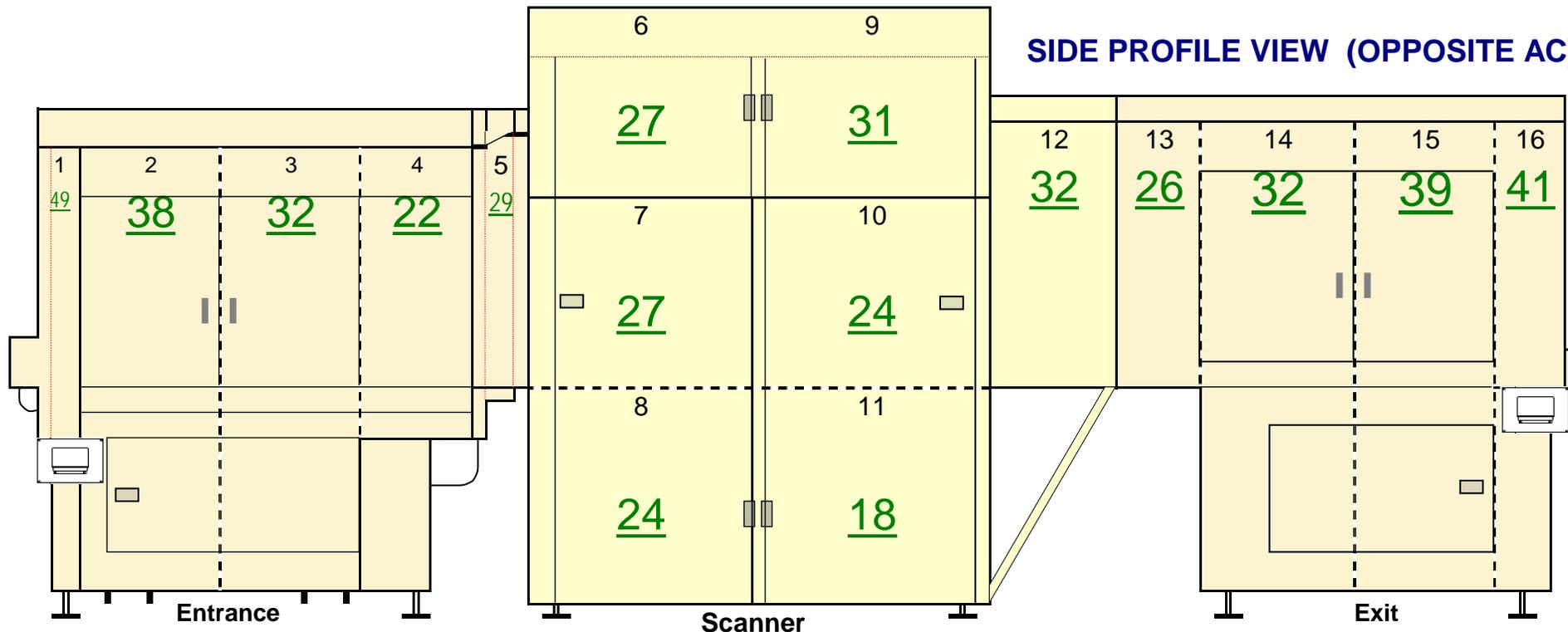
Top View			
Scattered Radiation Measurement Points Worksheet			No PROBLEM
Record highest reading per panel		μR/Hr	
1	Exit Conveyor Top Panel	19	
2	Exit Conveyor Top Panel	20	
3	Exit Conveyor Top Panel	21	
4	Scanner Conveyor Top Panel	14	
5	Scanner Conveyor Top Panel	16	
6	Scanner Conveyor Top Panel	21	
7	Entrance Conveyor Top Panel	26	
8	Entrance Conveyor Top Panel	22	
9	Entrance Conveyor Top Panel	18	

GOOD

Highest Reading	26
Average Reading	20
Lowest Reading	14

RADIATION SURVEY WORKSHEET

SIDE PROFILE VIEW (OPPOSITE AC)

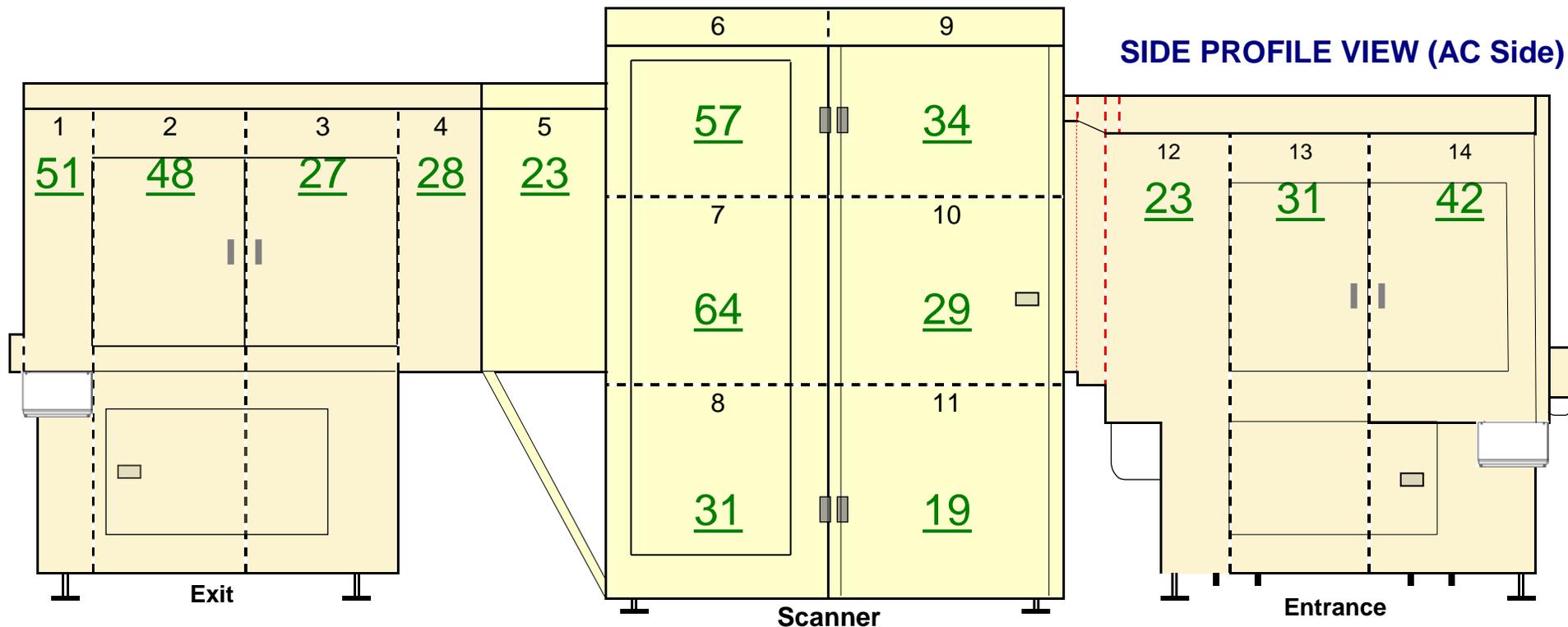


SYSTEM - SIDE PROFILE VIEW (Opposite AC Side)			
Scattered Radiation Measurement Points Worksheet			
	Record highest reading per panel	μR/Hr	No PROBLEM
1	Entrance Conveyor Panel	49	
2	Entrance Conveyor Panel	38	
3	Entrance Conveyor Panel	32	
4	Entrance Conveyor Panel	22	
5	Entrance Conveyor / Scanner Panel	29	
6	Upper Scanner Panel	27	
7	Middle Scanner Panel	27	
8	Lower Scanner Panel	24	
9	Upper Scanner Panel	31	
10	Middle Scanner Panel	24	
11	Lower Scanner Panel	18	
12	Exit Conveyor / Scanner Panel	32	
13	Exit Conveyor Panel	26	
14	Exit Conveyor Panel	32	
15	Exit Conveyor Panel	39	
16	Exit Conveyor Panel	41	

GOOD

Highest Reading	49
Average Reading	31
Low Reading	18

RADIATION SURVEY WORKSHEET



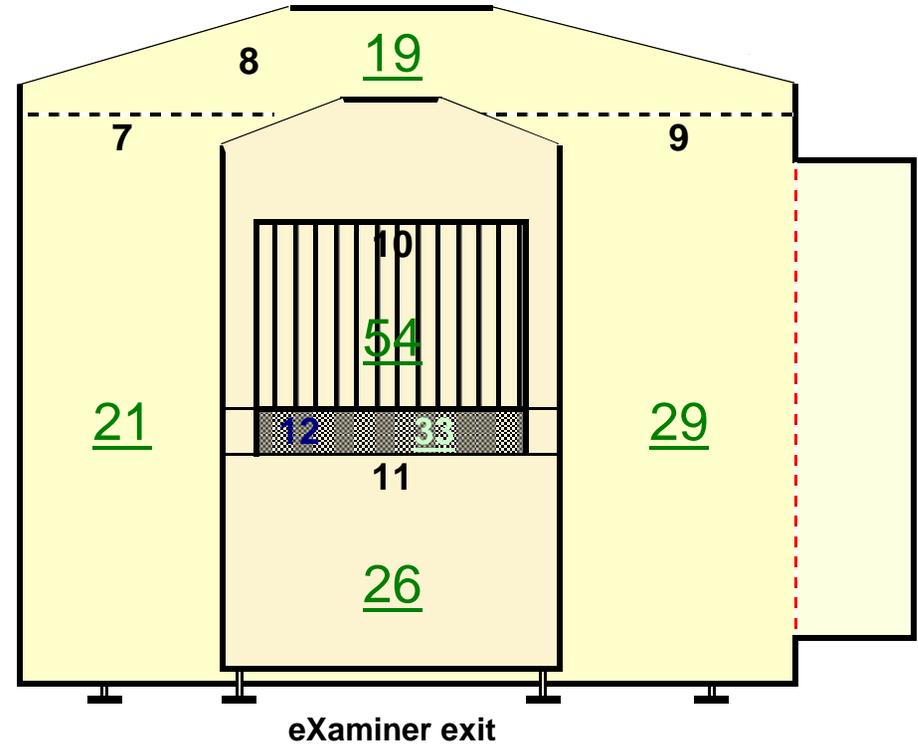
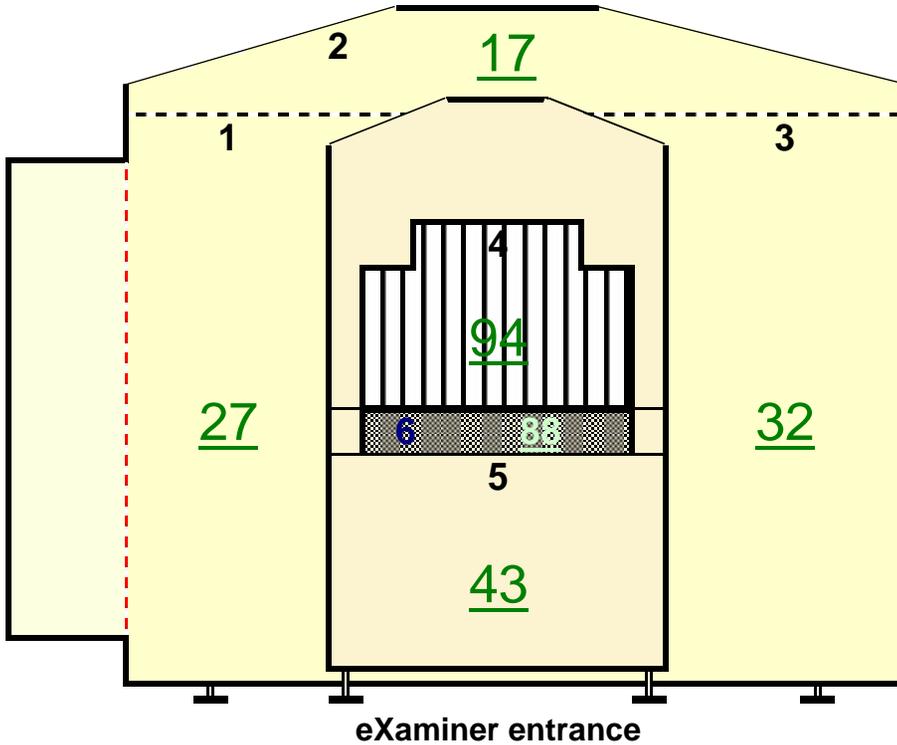
SYSTEM - SIDE PROFILE VIEW (AC Side)		
Scattered Radiation Measurement Points Worksheet		
Record highest reading per panel		μR/Hr
1	Exit Conveyor Panel	51
2	Exit Conveyor Panel	48
3	Exit Conveyor Panel	27
4	Exit Conveyor Panel	28
5	Exit Conveyor / Scanner Panel	23
6	Upper Scanner Pane	57
7	Middle Scanner Panel	64
8	Lower Scanner Panel	31
9	Upper Scanner Panel	34
10	Middle Scanner Panel	29
11	Lower Scanner Panel	19
12	Entrance Conveyor / Scanner Panel	23
13	Entrance Conveyor Panel	31
14	Entrance Conveyor Panel	42

GOOD

Highest Reading	64
Average Reading	36
Low Reading	19

RADIATION SURVEY WORKSHEET

SYSTEM - FACES (End Views)



SYSTEM - FACES (End Views)		
Scattered Radiation Measurement Points Worksheet		
Record highest reading per panel		$\mu\text{R}/\text{Hr}$
1	Scanner Panel	27
2	Scanner Top Panel	17
3	Scanner Panel	32
4	Belt Entrance	94
5	Entrance Lower Panel	43
6	Belt Lower Facia Cover Entrance	88
7	Scanner Panel	21
8	Scanner Top Panel	19
9	Scanner Panel	29
10	Belt Exit	54
11	Exit Lower Panel	26
12	Belt Lower Facia Cover Exit	33

GOOD

Highest Reading	94
Average Reading	40
Low Reading	17