

FAPS MODELWSE MATRIX & Check Sheet

AA/QA/FAPS/CS-005

Model	Smoke detector	Alarm	FDSS cylinder 6kg	Water cylinder		Nitrogen cylinder				Cylinder Mtg Chassis /Rear Dickey	Nozzle qty	FAPS Cyl Fit	OUTER	INTER	TRIM	FVI	PDI
				85	115	VECV	Other	VECV	Other								
20.90L	3	2	1	NA	✓	NA	NA	✓	✓	Chassis	6+6+6=18						
20.90K	3	2	1	NA	✓	NA	NA	✓	✓	Chassis	6+6+6=18						
20.75H	3	2	1	NA	✓	NA	NA	✓	✓	Chassis	6+6+6=18						
20.70E	2	2	1	✓	NA	✓	✓	NA	NA	Rear Dickey	4+4+5=13						
20.65E	2	2	1	✓	NA	✓	✓	NA	NA	Rear Dickey	4+4+5=13						
20.50D	2	2	1	✓	NA	✓	✓	NA	NA	Rear Dickey	4+4+5=13						
PRO 3010	4	2	1	NA	140 ltr	NA	NA	24 ltr	NA	Chassis	7+8+7=22						
PRO3009	4	2	1	NA	140 ltr	NA	NA	25 ltr	NA	Chassis	7+8+7=22						
CNG all models	Above	Above	Above	Above	Above	NA	Above	NA	above	CNG all models Rear dickey	Above						

Check points -

1) Check water tank balata(rubber) packing fitted and stopper fitted in chassis mount buses																	
2) Check water and nitrogen cylinder bracket mount on support . All bolts are tightened																	
3) PVR fitment a) Not loose; b) Input Air pressure - 125 bar (Min); c) Outout Pressure 17 bar (Min)												NA	NA	NA			
4) a) Rear dome pipe hole dia - 38 mm ; b) Check grommet fittment; c) Rear window area pipe not loose												NA	NA				
5) a) FDSS cylinde not loose; b) Pressure gauge at green mark; c) Engine hood area nozzle qty 09 required												NA	NA	NA			
6) FAPS device green indicator blinking - OK. If yellow or red then connection error.												NA	NA	NA			
7) Smoke detector blinking ok												NA	NA	NA			
8) a) Solenoid valve fitment ok. B) Check arrow direction - Front water pipe and back nitorgen pipe.												NA	NA	NA			
9) Check Water leakage visually; Notrogen leak check with soap water. Safety pin plug nitrogen tank after pressure release												NA	NA	NA	NA	NA	
Supervisor sign																	

Safex FAPS - Control Panel Description

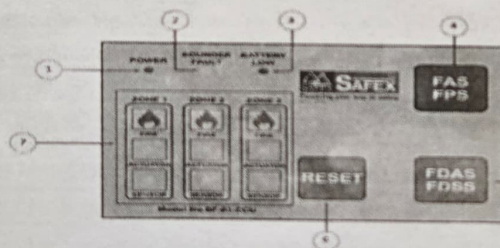


Fig 1.9: Control Panel User Interface

Sr No	Description	Function
1	Power	GREEN Led will glow when the control unit is in ON condition.
2	Sounder fault	YELLOW Led will glow when sounder connection is not connected.
3	Battery Low	RED led will glow when system battery is dead
4	FAS / FPS	Manual Activation button For FAS / FPS
5	FDAS / FDSS	Manual Activation button For FDAS / FDSS
6	RESET/ACTION	Long press will start all the led's & Alarm for 3sec to check the functionality.
7	Zone wise error indication	FIRE led will glow when there is fire detected in respective zones. ACTUATOR led will glow when there is a fault in actuator or in its wiring harness of the respective zones. SENSOR led will glow when there is a fault in Sensor cable or in its wiring harness of the respective zones.

Process Manual	Starline / Skyline / Legacy BUS COMPLAIN Points	AA/QA/FC/FM-013	
Process Mcode : MFG		Revision : 00	
Chassis No.:-		Model	

Note - Field complain Check sheet fill per day Model wise min 2 bus

s.n	Descp.	Field points	Verified				
			Outer	inner	Trim	FVI	PDI
1	Welding	mudguard chanda missing					
2	outer panel	LH Side skirt panel front welding broken on border		NA			
3	FRP	Rear Dome corner side heavy waviness		NA			
4	FRP	Bazzale ring minior crack found		NA			
5	FRP	Rear Dome outer on air bubbles		NA			
6	FRP	Front dome / bumper level not ok		NA			
7	E Door	E door out (off set with pillar)		NA			
8	D Door	Driver side door not fitting properly.		NA			
9	E hood	Hot air not pass from E hood bottom		NA			
10	E hood	E hood sealant finish ok		NA			
11	Dash board	Dash board crack Co driver side -Vecv bus		NA			
12	Inner panel	Roof inner panel drumming during vehicle run	NA				
13	Roof hatch	Roof hatch gap and leakage	NA				
14	Rear Door	Rear Dickey lock missing faps - skyline model	NA	NA			
15	Rear Door	Rear dickey lock not works	NA	NA			
16	JK Door	J.K Door hinge bolt loose	NA	NA			
17	FAPS	Water leakage from FAPS Water tank	NA	NA			
18	FAPS	Nitrogen cylinder empty	NA	NA			
19	fire ext.	Fire Extingusher missing found-Not fit from here - mtg also missing	NA	NA			
20	window	3-piece window noice-Tower bolt in gap	NA	NA			
21	window	window screw loose	NA	NA			
22	RVM	Right side upper mirror - Left side view is not visible after sitting on the seat.	NA	NA			
23	glass	Rear / front Glass Rubber Not Fitted Properly.	NA	NA			
24	Glass	Front / Rear glass fitment rubber resting ok	NA	NA			
25	ELECTRICAL	Side marker Cracked and damaged , tail light cover not crack	NA	NA			
26	ELECTRICAL	FRP Rear inner tail light cover in gap LH/RH side- Dust inserting - skyline	NA	NA			
27	VINYL	1.Vinyl Broken on cowl area	NA	NA			
28	Wiper	Wiper arm glass not clean - legacy camoflex	NA	NA			
29	seat	Driver seat forward & backward mechanism driver seat is not adjustable	NA	NA			
30	seat	LH side Seat leg spac differnet from other buses	NA	NA	NA	NA	
31	seat	Gangway pipe fitted in gangway center	NA	NA	NA	NA	
32	seat	Staff seat not mount on support	NA	NA	NA	NA	
33	AC	1.Ply excess cut by AC pipe , AC not work , AC cover paint peel off ,	NA	NA	NA	NA	
34	paint	Front panel received in various painted issues	NA	NA	NA	NA	
35	paint	Paint condition not ok - front facia	NA	NA	NA	NA	
36	GSL COVER	cover Missing	NA	NA	NA	NA	
37	leakage	Leakage fill sealant paint not touch up .	NA	NA	NA	NA	

Process Manual		VECV pithampur Specs check sheet		AA/QA/VECV/FM-014	
Process Mcode : MFG				Revision : 06	
Chassis No.:-					
s.n	Descp.	Field points	Model		
			Method	OK/Not OK	After rework varification
1	Outer	Side marker hole 20.90L -04 NOS , 20.75H - 3NOS , 20.65E- 3 NOS			
		Emergency door 1570mm height			
		Sliding foot step manalee make -Stopper pin Functional verification			
		Grab rail support / Faps support			
		Wheel Hump as per Arai Flat type welded			
		Light support per blaock and last rear two support			
		20.75H /20.90 K/ 20.90L Water tank bkt height redcue - 370mm height from floor to bkt bottom Mount in chassis			
		20.75G/20.65E/20.70E VECV bus cylindr 85 ltr / 6.5 ltr on rear dickey			
		Wiper linkge camoflex fitted			
		Roof middle panel sealant past in middle area			
2	INNER	1) Wiring harness for FDSS,VLTS , ALL ROOF LIGHT , FAN			
		2) FAPS pipe / wiring fitted			
		3) FAPS support / grab rail supoort welded and hanress ok passed			
3	Mount	Water bottle as new supply camoflex make			
		Camoflex linkage not foul in function			
4	Paint	Chassis covered			
		Foot step chaqured plate covered , wiper linakge covered			
5	Trim/FVI	FDSS 6 ltr -09 nozzles and make safex , cylender assembly behind the co driver side , Activation to be ok			
6		Sliding foot step manalee make -Stopper pin Functional verification			
7		Head lamp area - one marker lamp and one without marker lamp , make Neo lite			
8		Roof light - 20.90L -10 no, 20.75H- 9 nos , 20.65 -7 nos with night lamp function verification			
9		Roof Grab rail assembly without Hand grip , grab rial bkt bolt not loose			
10		VLTS beading mounting not loose			
11		All sticker Body - Emergency Exit white , Hemmar , Fire extunghisher , Break glass , First aid kit need self illumination as per VECV			
12		Side marker lamps - 20.90L - 04 NOS , 20.75H- 03 Nos , 20.65- 03 nos			
14		Handle as per ARAI - JK door B pillar , Driver door B pillar			
15		window guard rail -03 number , check window glass unable to lock			
16		Galss breaking hemmar wire rop type-03 nos for all models			
17		Wipr assembly cemoflex - linkage and blade butterfly type , motot pipe connection complete and functional verify			
18		Sticker chiild -200x200mm , fuse boxsitcker , EOS , Ad blue sticker pasted in cabin			
19		Hemmar wire rop -03nos , LH/RH RVM not loose			
20		Side brown sticker (Patta) Pasted LH/RH side ,			
21		Wheel Hump as per Arai Flat box type welded			
22		JK door assembly Lock position as per ARAI - 965mm lock knob			
23		Seat Divesitech supply - Emergecny door area clearence min 300mm , co driver seat seat belt req, RH 1st , last seat seat belt required .			

24		LH/RH Mirror as per homologation requirement Manas supply and Proximity mirror fitted in RH side . Screwing proper tight			
25		Branding - EICHER / HORSE Emblum In front facia , only Eicher Emblum in rear facia			
26		Passenger door , E door and Retractable foot step (sliding foot step) open Hazard functionality shall function .			
27		Rear bumper red replcator both side			
28		Rear number plate light box type			
29		Proximity mirror RH side			
30		Side marker 20.90L -4 nos ,20.75H-03 nos ,20.70E -3 nos			
31		Driver seat as per chassis supply - vecv bus			
32		Fire extinguisher 6+4 kg , front 4 kg and rear 6 kg . Pipe proper tightening jyoti make			
33		Battery cut off terminal not loose			
34	PDI	Diversitech seat make - RH 1st -01 no , Rear 5 seater -02 no, co drvier seat -01 no seat belt fitted			
35		Seat assembly with Flange bolt M8 GRADE 8.8 and Flange nut			
36		Emergecny door area seat clearance 280mm required			
37		Body vin plate seat capacity to be check as Layout (i.g -20.90l , 50+CD+D, 20.75H - 40+CD+D ,20.65 - 30+CD+D)			
38		GSL lever (Gear shift liver) /Steering pad/ Rubber boot / oil cap assembled			
		All sticker Body - Emergency Exit white as per vecv			
39		Seat leg not overlap on floor stepny service hatches			
1	Complain points	Battery harness burned by touched with EATS Unit			
2		Inner dome in air bubbles			
3		FAPS Fire alram siren continuesely get on			
4		GSL Cover missing found			
5		wind shield water wiper not clean properly -Camoflex			
6		Wiper cleaning issues-Glass not clean properly-VECV Kollam)			
7		FRP Bubbels on rear dome			
9		1.Dashboard Glow box black bolt loose			
10		FAPS Tank belt broken-As per customer around 4 to 5 vehicles in same issue			
11		Dashboard suface cracked			
12		Nitrogen Cylinder empty found			



In Process Check Sheet Outer paneling BS-VI (Legacy / new starline/ OLD starline/ Skyline)

AA/QA/IPS-OP/IR-006

Revision : 00

Model -		Face					Date :			
Chassis No.										
S.No.	Area Descp	Point to be Checked				Class	Method	Status OK/ NOT OK/ NA (√ / X)	After rework varification OK/Nok	
1	Special Features	FAPS- as per check sheet -				Critical	Prod report			
		AC support -				Critical				
		Window Fix glass -				Critical				
		Ac Type driver partition -				Critical				
		Roof hatch support -				Critical				
		Camera support -				Critical				
		Child foot step -				Critical				
		Destination board support -				Critical				
		FDSS/FDAS support -				Critical				
		Rear / side dickey -				Critical				
		RLC support -				Critical				
		Grab rail support -				Critical				
		Hatrack support welded -				Critical				
		2	Cowl weld	Cowl weld with body A pillar in 3 places				Critical	Visual	
3	Chassis no	Chassis number visible on chassis				Critical	Visual			
4	Ply / Grinding	ply joint should be level & grind & no uneven cutting & no chipping on ply .Cabin ply level match with cowl				Major	Visual			
		Bolt (6x30 with lock nut) in side and middle Screw (12x32) pitch on ply require 200+/-20mm. 12X38MM Screw used in foot step ply.				Major	visual			
5	Front FRP									
		Parameter	Model legacy	Model New starline	Model skyline	Legacy Gen 4				
		Height	1218±2	1147±2	1147±2	1125±2	Critical	M.tape		
		width Top	1980+/-5	1950+/-5	2150±2	2200+/-5	Major	M.tape		
		Diagonal C-D	2250± 7MM	2235± 7MM	2410± 7MM	2200± 7MM	Critical	M.tape		
		Profile	FRP match with Template top ,bottom ,and side				Critical	Template		
		1) Front angle rivet pitch 150+/- 15mm and screw open /no high points				Minor	M-Tape			
		2) Front FRP mesh fitment to be ok , No loose and gap with FRP				Minor	Manual			
6	FOP/Toe hook	Check FOP area pipe welding , fop bolt not loose/ Toe hook access				Major	Visual			
7	Front bumper	1) Front bumper should be level verticly & horizontaly match with side panel , Bolt tight				Major	Visual			
8	D.door /E Door	1) Gap b/w driver door & aperture as per CTC Matrix-check 1 bus / 10th bus lot								
		Area	D door spec	Obs	Area	E door Spec	Measure			
		A	8 ±2		A	8 ±2	T.scale			
		B	8 ±2		B	8 ±2	T.scale			
		C	8 ±2		C	8 ±2	T.scale			
		D	6 ±2		D	6 ±2	T.scale			
		E	6 ±2		E	6 ±2	T.scale			
		F	6 ±2		F	6 ±2	T.scale			
		G	6 ±2		G	6 ±2	T.scale			
		H	6 ±2		H	6 ±2	T.scale			
		I	6 ±2		I	6 ±2	T.scale			
		J	6 ±2		J	6 ±2	T.scale			
		2) Cabin area covered steering / dash board / hand break etc					Critical	Visual		
		3) Door hinge no play , Hinge bkt welding not missing , hinge bkt nut welded , flushness - 2mm inside with aperture					Critical	Functional/ visual		

9	Rear bumper	Rear bumper mounting not loose / bkt welded , leveling ok with side and bottom skirt rail ,Aluminium strip cutting ok	Major	Manual/ Visual		
10	Rear dome	1) Rear dome not waviness LH/RH window area	Major	Visual		
		2) Rear dome proper rest side ,top and bottom	Major	Visual		
11	Roof panel	1)Should be proper weld 80-100mm distance and front and rear pillar area 12-15mm weld	Major	M-tape		
		2) Roof top front and rear FRP rivet should be Steel sheild with 160+/- 10 mm pitch	Minor	M-tape		
		3) Sealent should be finish and no hole in roof and gutter .	Major	Visual		
12	Stretch panel	1) check No waviness/ No line marks visible	Minor	Visual		
		2) Stretch panel stretching min 0.8 to 1mm per meter	Major	M.tape		
13	Skirt panel	1)Panel level at bottom with front / rear bumper should be match.	Major	Visual		
		2) Skirt panel welding ok bottom area / wheel arch panel not loose	Major	visual / Manual		
		4) Skirt panel side marker light hole below waist rail 870 +/- 5mm alignment to be ok Side replactor hole : 20.75H, 20.90L -3 Hole, 20.70E,20.50C,D = 02 .	Major	M-tape / visual		
14	All flaps	1)Fuel and Urea tank flap Not off set fitted and rubber stopper fitted	Critical	Visual		
		2) Battery / EATS tank flap rivet fitment ok	Critical	Visual		
15	Volvo / Strip/ JK door	1) Volvo Al. section sealant pasting ok , leveling ok from jk door /E door area , screw (6x25) pitch 400+/-20mm maintained	Major	Visual		
		2) In front and behind jk door volvo section should be in level .	Minor	Visual		
		4) Side strip rivet (Al. 19mm) pitch 150+/- 15mm maintain.	Minor	M-tape		
		5) side Strip should not be wavi and taper and No short length	Minor	Visual		
16	Rear panel/ tail lamp /rear dome	1)Rear panel No Loose and no drumming, side corner level ok	Minor	Visual		
		2) tail lamp cover selaant should be ok pasting / No inclined	Minor	Visual		
		3) Al. strip Rivet pitch = 150+/-15 maintain.	Minor	MT		
17	Rear Dickey	1) Rear dicky Hinge bolt not loose and not fouling with aperture	Major	Visual		
		2) Hinge welding to be ok , catcher bkt welding ok,ply tight and no corner gap	Major	Visual		
18	Noise	Skirt / streth panel no abnormal noise observed	Major	Visual		
19	CNG	1) Roof exhause welded all cylender / AC two exhause provision	Critical	Visual		
		2) Side flap all cylender not off set / cylinder connect with pipe	Critical	Visual		
		3) Air in tank mesh fitted / Air in tank box welded	Critical	Visual		
20	AC	Ac bus structure aperture provide / RH window tube welded	Critical	Visual		
		AC bus drain pipe hole provide in structure	Critical	Visual		
21	RLC	1)RLC Bkt.Should be straight fit and sealing thorough out the bottom edge to be check (As per requirement) No's Of RLC Bracket : 20.50D = 6, 20.70E = 8, 20.70H = 12, 20.90L = 14	Major	Visual		
		2) RLC bkt weld as per matrix for modelwise	Major	Matrix		
Checked By:-						
Name and Sign :-						
						HOD sign if any deviation

		In Process Check Sheet Inner paneling BS-VI				AA/QA/IPS-IP/IR-007 Revision : 00	
Chassis No.						Date -	
		Model	Face -		Sealant -		
S.No.	Area descp	Point to be Checked	Class	Method	After rework varification OK/Nok		
1	All support	Graib rail support single line for normal staff bus and (RP bus two line)	Critical	Visual			
		Internal light support 20.90L-5 ,20.75-H-4nos /Speaker plate is welded in line. 25mm hole to be given for harness passing in structure.	Critical	Visual			
OUTPUT							
2	Special features	Root board -	Major	Prod report			
		AC-	Major	Prod report			
		Ac Type driver partition -	Major	Prod report			
		Roof hatch function ok - / Driver cabin /	Major	Prod report			
		Camera qty- / Speaker - / FDAS / FDSS / FAPS	Major	Prod report			
		Speaker-	Major	Prod report			
		Inner panel - pvc/ pre coated/ ACP -	Major	Prod report			
3	Wiring Harness	1)Harness Should not short in length. Driver fan , roof light , cabin light , rear height marker , front hieght marker .	Major	Visual			
		2) Grommate fit in wiring hole area	Major	Visual			
4	Front / Rear inner Dome	1) Front / Rear inner FRP dome fitment ok, Rivet proper butt	Critical	Visual			
		2) Front dome fitment middle height skyline and starline 1147+/- 2mm , Legacy 1220mm , Pro legend 1325mm , Leg gen 4 1140mm , Pro amts VE0-31 -1280mm	Critical	M.tape			
		3) Front /rear inner FRP dome rivet(Al solid rivet 14mm)pitch 150 +/- 15mm. Rivet butt properly check per day 1 bus	Major	M-Tape			
5	Sealant apply	40mm Thermacol fitted in all roof and side areas	Major	MT			
		Sealant apply in roof tube and all plates for panel bonding	Major	Visual			
6	Roof Panel	1) paneling - Check no scratch /dent / drill marks	Minor	Visual			
		2) Inner Roof panel beading Rivet (Steel Rivet 17mm)pitch At middle- 125+/- 15mm	Minor	M-Tape			
		3) Inner FRP dome joint(screw 6x25) properly with roof & no gap from sides	Minor	Visual			
		4) Plastic beading fit at Roof panel / caint rail 150+/-15mm screw pitch to be maintain. (Screw 6x19)	Minor	M-tape			
7	Marking	Check all interior supprot marking ok	Major	Visual			
8	JK door & E door aperture	1)JK door & E door inner top Pre -coated GP panel No, dent, No damage, No scratch , No drumming	Major	Visual			
9	Driver Door	Cabin area No gap visible in door hinge area , A pillar area and Cowl LH/RH side no gap	Major	Visual			
10	Side Panel	1) Inner side panel beading screw(6x19) pitch At middle- 150+/- 15mm check per day 1 bus	Minor	M-Tape			
		2) Side panel bottom rivet(steel 17mm) fitted at 275±25mm check per day 1 bus	Minor	M-Tape			
11	Rear panel	Rear panel not loose pasted and rivet ok , No gap with rear dome	Minor	Visual			
12	Pillar Cover / waist rail,cant rail angle	Window pillar cover no dent / sealant pasting proper and match on bottom area Z section sealant .	Major	Visual			
13	Body clean	No sheet metal chips on Engine area / body clean	Major	Visual			
Checked By:-			HOD Name and signature if any deviation				

		In Process Check Sheet Surfacers BS-VI						AA/QA/IPS-S/IR-008	
Model -		Revision : 00						Date -	
Chassis No.		Face -			School /Staff				
S.No.	Area Desp	Point to be Checked	Class	Method	Status OK/ NOT OK/ NA (√ / X)	Freq	After rework varification Ok / Nok OK/ NOT OK/ NA (√ / X)		
INPUT FOR SURFACER									
1	Under body	Under body epoxy ok in border tube , foot step , side diceky , rear dickey cowl joint , base frame channel , front structure / rear structure	Critical	Visual		100%			
2	Front side /Dome area	Front rear frp dome primer quality ok	Minor	Visual		100%			
		Front and rear bumper match with panel , No extra cutting.	Minor	Visual		100%			
3	RH / LH Side	Driver & Eme. Door, aperture and frame no welding spatter	Minor	Visual		100%			
		Volvo gola no major waviness , Al. strip not short fitted	Major	Visual		100%			
4	Roof	Roof shoulder not dent	Major	Visual		100%			
		Rain gutter joint ok	Minor	Visual		100%			
5	Floor	Ply level match , joint properly grinding	Major	visual		100%			
OUTPUT- OBJECT FOR SURFACER									
Putty histry		Painting Date	Painting Shift	Painter Name					
				Front	Side LH	Side RH	Rear		
1	Chassis cover	Chassis parts diesel tank , urea tank, steering , handbreak,faps tank covering properly to avoid fumes / overspray	Major	Visual		100%			
2	Mansoon Tape	Straight, edage pasting, no wrinkel	Major	Visual		100%			
		No hole on (panel & rain gutter)	Major	Visual		100%			
3	Under body	Under body paint ok front show top and tubes	Critical	Visual		100%			
		Under body paint ok mudguard area and CNG pipe	Critical	Visual		100%			
		Under body paint coverage ok all over flooor	Critical	Visual		100%			
4	Degreasing	Clean with cotton /tissue paper	Major	Manual		100%			
5	Dry sanding	Metal with P180/P80 and FRP with P180 from all area.	Major	Visual		100%			
6	Primer	Etch primer / Wash primer, No Coverage less	Major	Visual		100%			
7	PUPS surfacer	Viscosity (18-24)sec.	Major	FORD CUP		1/ day			
8		Baking temperture 70-80° (60-65°Effective on metal)	Major	Meter		100%			
9		DFT (50 +/-10)micron	Major	DFT Meter		5th Bus			
10		No Rundown, no coverageless	Major	Visual		100%			
11		Film appearance - (X-cut Adhesion) Test	Critical	Manual		per 5th			
12		Stretch panel no line marks visible after surfacer	Critical	Manual		100%			
13	FRP	Front / rear dome surface no air bubbles	Critical	Manual		100%			
14	Chassis part	No fumes / over spray on steering / diesel / urea tank / hand break / faps tank	Major	visual		100%			
Checked by									
Sign			HOD sign if any Deviation						
Checked By:-			Name and signature						



In Process Check Sheet TOP coat BS-VI

AA/QA/IPS-TC/IR-009

Revision : 00

Model - _____ Date : _____

Chassis No. _____ Face - _____ School / Staff - _____

S.No.	Area Descp.	Point to be Checked	Class	Method	Status	Freq.	After rework verification OK/ NOT OK/ NA
					OK/ NOT OK/ NA (√ / X)		

OUTPUT- OBJECT FOR PUTTY

1	Putty Application	Putty Fill on Dent area	Major	Visual		100%	
		Sanding with P80 and P180	Major	Visual		100%	
2	Surfacer Sanding	Surface Preparation on surfacer Sanding with P320	Major	Visual		100%	
		Finishing with black Guide Coat P400	Major	Visual		100%	
3	Sealant Finish	Driver door Sealent finish proper surround door Aperture and rain gutter	Major	Visual		100%	
		Sealant finish proper at Rear both corner and Rear dicky area	Major	Visual		100%	
		Sealant finished in all flaps area / volvo gola	Major	Visual		100%	
4	Finished	Front dome/ bumper joint finished	Major	Manual		100%	
		Rear dome / bumper joint finished	Major	Manual		100%	
5	Covering	Steering /tyre/ diesel/ urea tank and UB Cylinder covered	Major	Visual		100%	

Checked and certified Ok for top coat process -

OUTPUT- OBJECT FOR TOP COAT

Painting histry		Painting Date	Painting Shift	Painter Name			
				Front /Rear	Side LH	Side RH	Roof
1	Covering	Steering /tyre/ diesel/ urea tank and UB Cylinder covered	Major	Visual		100%	
2	Paint viscosity	Top Coat Viscosity (16 - 22) sec	Critical	Ford cup		1/ day	
	Tempreture	Drying Tempreture 70-80°C / 30-35 minutes	Critical	Tem meter		100%	
	Colour shade	As require match with master sample	Critical	Visual		100%	
	Final DFT (90-130) micron	LH Side	Major	DFT Meter		Every 5th /1 vehicle	
		RH side	Major	DFT Meter			
		Roof	Minor	DFT Meter			
		Rear	Minor	DFT Meter			
	Gloss (Minimum 85 %)						
	LH Side / RH side		Major	G meter		5th /1Per day	
	Front /Rear FRP		Major				
3	Topcoat Adhesion for FRP & Metal. (2*2)mm	Film appearance - (X-cut Adhesion) check after 72 hrs of application.	Critical	Manual		Every 5th /1 vehicle	
4	No Rundown / pin holes	Stretch panel ,Skirt panel	Major	VISUAL		100%	
		LH / RH front and rear roof corners	Major	VISUAL		100%	
		All flape and bumper corners	Major	VISUAL		100%	
5	Grey / Black paint at head lamp area, window area and rear wind shield ,tail lamp FRP . Rear dickey	Should not be rundown, no orange peel , no peel off coverage should be even.	Major	VISUAL		100%	
		Masking tape use properly during Grey/Black graphics b/w window and stretch panel.	Major	VISUAL		100%	
6	Black graphics	Seat rail dust cleaning and paint ok	Major	Visual		100%	
		Rear dickey , side flap , battery flap black paint coverage should be ok	Major	Visual		100%	
		Black graphics should be ok as defin modelwise	Major	Visual		100%	
7	D Door/E Door	1) Black Paint finish at Driver / Emergency door aperture area	Minor	VISUAL		100%	
8	Roof	Roof panel paint proper / Mansoon tape paint proper	Major	VISUAL		100%	

Checked By:- _____ HOD (If any deviation) Sign. _____

Name:- _____ Name and signature _____



In Process Check Sheet TRIM BS-VI

AA/QA/IPS-TR/IR-010

Revision : 06

Model -					Date -
Chassis No.-		Face -			school /staff

S.No.	Area descp	Point to be Checked	Class	Method	Status	After rework varification
					OK/Nok/ NA	OK/Nok

INTPUT

1	Check All Tyre	No cut marks no damage	Major	Visual		
2	Toe hook	Check front toe hook fitted	Major	Visual		
3	Hand brake	Hand brake Not Damage , pipe not open , No fumes	Critical	Manual / visual		
4	Floor cutouts	Stepny cutout check spinner access , Diesel and urea cutout position to be ok	Critical	Manual / visual		
5	Radiator area	Radiator covered Open	Critical	Visual		
		No leakages from radiator area , coolant oil level ok	Critical	visual		
6	Chassis part	Coolant level ok , , starter relay ok , steering not cut marks	Critical	Visual		
7	Toe Hook	Check Toe hook provision from front	Critical	Visual		

OUTPUT TRIM 1

1	Fuel Tank , Urea tank	check fuel and urea tank align with flap (Not off set)	Critical	visual		
2	Battery Cable fitment on terminal.	Clamping not loose mounting , Grommate fitment ok	Critical	Visual		
		Battery cable terminal not loose & Earth cable should be tight	Critical	Manually		
		Electronic cut off switch , maxi fuse tight properly	Critical	Functional		
		Harness not pinch & not foul with ETS tank	Critical	Visual		
3	Spare tyre	Spare tyre fitment tight ok , Not loose / hole access to rod	Major	Functional		
4	Window Fitment	Window lock ing ok , Bottom level not off set .powder coating ok	Major	Visual / Manual		
		Driver / co driver window glass not gap / sliding ok	Major	Manual		
5	Window Guard rail fitment	Bkt not tilt fitted , powder coating ok , distance ok 100mm	Major	Visual / M.tape		
6	Service point	1) Coolant oil , clutch oil , steering oil access to be easily	Critical	Manual		
		2) Diesel flap , Urea Flap , stepny cut out not off set	Critical	Manual		
		3) Air tank , Stepny hole rod access to tyre remove panel hole 70mm with grommet	Critical	Manual		
7	Under body	Outtrigger bolt tight / Ubolt tight torque check per day 1 bus	Critical	Manual/ Tw		
		Harness not loose and pinch , not foul ETS tank	Critical	Manual		
		Front / rear bumper bkt tight	Critical	Manual		
		Chassis number visible	Critical	visual		
8	Hatrack Fitment	Leg & bkt. Not taper and damage	Major	Visual		
		Check Powder coating, no scratch, damages & no peel off	Major	Visual		
9	Front / rear bumper	bumper bkt tiight , welding not missing , level ok with side and front frp	Critical	visual		
10	Chequered Plate /vinyl (As per Need)	1) Chequered plate fitment No loose and no gap at joint	Major	Visual		
		3) chaquered plate Al. strip Lock nut pitch 250 +/- 15mm maintain	Major	M- tape		
		2) Screw 12x19 tight from cabin , seat mtg area LH/RH wider body	Major	visual		
		4) Vinly no bubbles in pasting / no short length rear and cabin area	Major	visual		
11	Front / Rear glass fitment	1)Glass Seating properly showing no gap in outside & inside the windshield corners	Critical	visual		
		2) Glass rubber not cut and not be damage , insdie proper fitted	Critical	Visual		
12	Rear dickey	1) Rear dickey locking ok , No foul with side and No hard unlock function , vinyl ok , no gaps in corner , light cover fitted	Major	Functional / manual		

OUTPUT TRIM 2

1	Driver Door Assembly	1) Driver door locking ok and handle not damage	Major	Visual		
		2) Driver Door opening closing and lock working smoothly	Major	Functional		
		3) Inner trim and panel around the door Not loose and not damage and not faul with aperture	Major	Visual		
2	JK Door Assembly	1)JK Door- opening/closing not hard and no foul top , lock work smooth , bottom catcher ok	Major	Functional		
		2) Door hinge and Handle should not be taper fitted & bolt & screw not loose.	Major	Visual		
		3)J.K Door foot step vinyl/chequered plate seated properly, No gaps	Major	visual		
3	Emergency Door Assy.	Eme. Door opening closing and lock working smoothly	Critical	Visual		
4	Driver Cabin Area	Driver seat movement ok / raxine not damage , seat belt , first add box with + sticker , Sunvisor , saloon mirror Fitment ok and Fire extinguisher not expire date,	Major	visual / Mnaul		
		Engine hood straight and locking ok , no foul with partition ,Not hot air leak	Major	visual		
		ABS fitment ok no gaps , no loose , Driver and co driver side handle not loose fitted	Major	visual		
		Side RVM fitted LH/RH side , Not loose fitment	Major	visual/ manual		
5	Dash Board Assembly	1) Glove box flap - locking ok , Dash board not loose from LH/RH side and front side ,	Major	Functional		
		2) Harness - Clamp under the dashboard,all harnes tight with tie	Major	Visual		
		3) Check ABS , ECO switch ,Battery cut off switch , head light switch, fitted	Major	Manual		
		4) Telematics , USB socket, Painic switch and POM TOM pin cap fitment propelry	Major	visual		
		5) Cluster meter not damage / CNG OR DIESLE working check	Critical	Manual / visual		
6	Partition, & Graib rail Pipe	JK door & D.door-partition / grab pipe Should Not be loose and taper fitted , paint no scratch and no extra holes	Major	Visual		
	All flaps	1) Locking proper , No fouling	Major	Visual		
		2) Opening stopper provide in Battery and EATS service flap	Major	Visual		
	Rear Grab Handle	Rear Grab Handle should be straight and not loose fitted .	Major	Visual		
7	Electrical Connection-12 Volt / 24 Volt	Exterior light - Head lamp working ok , not off set with rubber cap fitted , All side replactor , Side indicator , rear tail lamp light yellow , white and red working ok , height marker front / rear working ok	Critical	Functional		
		RPAS sensor filemt ok and functiona ok , rear number plate light not incleined and working ok	Critical	Functional		
		Rear diecky light , rear registration number plate work ok	Major	visual		
		Stop switch working , fan working ok and fitment position ok	Critical	Manual		
		check All roof light working ok and no loose	Critical	visual		
		buzzer fitted at driver cabin area to jk door open / e door open in school bus	Critical	visual		
		Roof light 20.90L - 5 nos , 20.75H- 4 nos , 20.70 E -4 nos ,20.50D -3 nos	Major	Count		
		VLTS gola beading not loose	Major	manual		
	Check panic switch-blinking ok	Critical	visual			
8	CNG Bus	CNG cylender connection ok , Air tank mesh fitted , Hose pipe connection and service indicator fitted ok , Exhaust cap fitted as cylender qty	Critical	Visual / Manual		
9	RLC	RLC Luggage / ladder bolt not loose , no scratches, no paint peel off	Major	Visual		
10	Pneumatic door	Pneumatic door pipe connection in cylender bolt not loose . Cylinder pressure flow nut should be tight	Critical	Visual		
		Pneumatic door cylender mtg 4 screw locking nut	Critical	Visual		
11	AC bus	AC device fitted / Raxene not loose / blower not loose	Major	Visual		
		AC bus hatrack duct not loose and partition door locking ok	Major	Visual		
		AC buses Partition E hood not foul	Major	Visual		
12	Special Features					
Checked By:-			HOD sign if any deviation			
Name:-						



Final vehicle Quality Check Sheet BS-VI

AA/QA/FVI/IR-011

Revision : 00

Chassis No.:-						Date:-
Model :-		Face -		School / Staff -		
S.No	Quality Parameters	Specifications	Class	Method	Status	After rework varification
					OK/ NOT OK/ NA (v / x)	OK/ Not OK (v / x)

INPUT CHECK

Shortage list		If material shortage , after fitment varify on check sheet		Critical	List		
S.No	AREA	Check points	Class	Insp. method	Obs	After rework varification	
1	Under body	U bolt tight / Outrigger tight / not tapered	Critical	Manual			
		Wiring not pinch in U bolt / wiring not foul on ETS tank	Critical	visual			
		Front / rear bumper bracket tight / Toe hook tight	Major	visual			
		Chassis number visible -	Major	visual			
		Under body paint ok Front / Rear / LH/RH side etc	Major	visual			
2	Door locking	E door locking / level ok / Hazard function ok	Critical	Functions			
		D door locking 1& 2nd lock ok / not level out with pillar	Critical	Functions			
		JK door locking / hazard function ok	Critical	Functions			
		Battery flap locking ok / Rear dickey locking	Critical	Functions			
3	Fitment - Interior parts	Dash board tight screw not loose , no gap front and co driver side / glove box locking ok / E hood locking ok	Major	Visual			
		Cluster meter tight CNG/DIESEL -function ok / no gap	Critical	manual			
		Switch plate tight / Driver fan not loose / sunvisor not loose / saloon mirror not loose	Major	Visual			
		Front glass rubber rest proper / A pillar cover not loose	Major	Visual			
		Driver / C o driver window glass sliding ok / Co driver handle fitted	Major	Visual			
		All parttion jk door / D door no extra hole and fitment ok	Major	Visual			
		Powder coating ok hatrack , parttion , grab rail , window guard etc	Major	Visual			
		Front and rear glass rubber seating ok , no gaps	Major	Visual			
		All cutout fitment , Rear Tail light cover not gap	Major	Visual			
		Grab rail / FAPS pipe fitment ok /Gola beading not short / cap not missing	Major	Visual			
4	Exterior fitment	If roof hatch to check functional ok (no gap witg rubber and flap)	Major	Manual			
		Window guard not missing / bkt not taper , rear tail light not crack / rear bumper sensor fitted / rear grab handle fitted not inclined / side indicator and replactor fitted not loose / RVM not loose	Major	Manual/ visual			
7	Side skirt panel / stretch panel	No waviness ,No line marks and No drummung	Major	Manual/ visual			
8	Roof panel	No dent in shoulder and rain gutter	Major	Visual			
9	Interior panel	No damage or dent , No scratches , Roof no drumming	Major	Visual			
10	Floor Vinyl/Chequered plate	No extra cut or gap with side and cabin area , chaqured plate no loose in cabin and hump , seat area	Major	Manual			

OUTPUT

11	Paint / Powder coat Finish	Cabin area - Dash board / E hood paint ok / sealant ok	Minor	Visual			
		Paint ok window / hatrack / partition / Door aperture	Minor	Visual			
		Dash board carpet / A pillar carpet pasting ok	Minor	Visual			
12	Sealant filling at Window top, Height marker and tail lamp.	Sealant filling ok all window / front / rear dome /height marker	Minor	Visual			
		Rain guttter and A pillar area sealant finishing to be ok	Minor	Visual			
13	Eicher horse and Emblum fitted properly	Should not be loose, inclined and off set fitted .	Major	Manually/ visually			
14	Driver cabin	Driver seat movement ok , rexenon not damage	Major	Manual/ visual			
15	Door Beading	E door / D door beading fitment ok not loose fitted / no light pass	Major	Manually/ visually			

16	Wiper operation & Nozzle setting	1) Water nozzles pipe tight , Arm not foul with fws rubber	Critical	manually		
		2) Water tank not loose / linakge not foul with structure	Critical	Visual		
		3) wiper testing-Check all 3 speed ok / water nozzle flow ok	Critical	Manually		
		4) Start washered and check glass cleaning by wiper at low speed	Critical	Manually		
		5) Check wiper blade mounting nut fully tighted	Critical	Manually		
17	Electrical function	All interior lights should be glowing/Working	Critical	Functions		
		Head light not off set / working ok - grommer fitted	Critical	Functions		
		Check all exterior light replacor and indicator / tail light glowing / working	Critical	Function		
		Check buzzer working jk door / e door open	Critical	Functions		
18	Dash board electricals.	Telematic switch / ECO / ABS / Pom tom / cut off switch pin Not loose fitted	Critical	visual		
19	Service point	Coolant oil , clutch oil , steering oil , easily Access	Critical	Manual		
20	Battery aassembly	Cut off work , terminal not loose , wiring not foul ETS and not loose	Critical	Manual		
21	Body builder Plate & Chassis no VIN plate	1) Weight as per Body builder weight list 2) Position Should be straight and align	Major	Visual		
22	Radiator	Radiator not puncher / coolant level ok	Major	Visual		
23	FOP setting	FOP locking to be ok . No loose fitting	Major	Manual		
24	Stepney tyre	Check stepney tyre not loose / hole access to rod	Critical	Manual		
25	Toe hook	Check Front Toe hook fitment ok	Major	Visual		
26	CNG Bus cylinder details plate	Cylinder number match with cng plate / service indicator fitted	Critical	Visual		
		Check air in tank , Cng knob filling feasible and flap align ok ,	Critical	Visual		
		Cylinder connction ok , hose pipe connection ok	Critical	Visual		
		Dust panel welded ok , No gap with Body	Critical	Visual		
27	AC buses	AC bus drain pipe fitment ok , AC cooling properly , AC duc match with seat / Pvc beading not loose and short fitted , AC display fitted	Major	Visual		
28	Pneumatic door	Pneumatic door hydraulic tight / function ok / connection ok on air tank	Major	Visual		
29	RLC / Dickey	1) Lagguaage fitment ok , lader fitment ok , Dickey locking ok , Diekcy vinyl past ok , paint ok	Major	Manual /Visual		
30	FAPS	As per FAPS check sheet	Critical	Visual		
31	Cleaning	Engine hood cleaning ok				
32	Special features					
Checked By :-			HOD Sign if any deviation			



PDI CHECK SHEET BS-VI

AA/QA/PDI/IR-012

Revision : 00

Chassis No-		School /Staff -		Date		
Model	Face -					
S.No.	Area	Check points	Class	Method	OK/Not OK	After rework verification
1	Check sheet	If material shortage , after fitment list to be verify	Critical	visual		
2	Paint	Paint Finished ok - front /rear / cabin / side LH/RH				
3	Vin plate	Chassis & Body builder Plate fitment at driver top properly	Major	Visual		
4	Seat	Seat type-	Capacity-	Critical	Prod report	
		Gangway	Min 350mm		MT	
		Leg Space	Min 245mm		MT	
		E door seat clearance	Min 280mm		MT	
		Rexine No cuts,not loose,, handle should not loose and damage, No scratch		Critical	Visual /manual	
		Seat pitch min 680mm school and 815mm pushback to be ok , seat not inclined fitted		Major	Template / MT	
		Check If Passenger seat belt fitted then accesible for locking		Critical	Manual	
		Rear dickey seat not touch to rear glass in fitment		Major	visual	
		Seat leg not mount on stepny cutout . Co driver seat not Shift E hood area , Rear dickey Seat mount on support		Major	visual	
		5	Under body	Seat mounting on base frame seat support .should not be taper	Major	Visual
Seat bolt tightening at 1.7~2.6 kgfm (M8) check 1 bus per day	Major			Torque wrench		
6	SPECIAL FEATURES		Critical	Prod report		
			Critical	Prod report		
			Critical	Prod report		
			Critical	Prod report		
			Critical	Prod report		
7	Chassis part	Chassis number visible -	Critical	Visual		
		Stepney tyre not loose / any tyre not cut	Major	Visual		
		Check all tyre should not cut	Critical	Visual		
8	Battery	Battery Cable fitment not loose , electronic cut off switch, maxi fuse tight properly , Harness Not foul in EATS tank	Critical	Visual		
9	Stanchion tube	check support mark check in roof and floor , No Inclined and loose fitted , 20.90L-2 QTY ,20.75H & 20.70E,G - 1QTY fitted	Critical	Manual/ visual		
10	Electric	All Electrical function should be working	Critical	Functional		
11	Cabin	Clutch oil cap fitted , No scratched or polythene marks in paint E hood and dash bord	Major	Visual		
		sealant filled proper . Steering not cut and damage and no fumes , No extra holes /dent	Major	Visual		
12	Front face	Front dome, FOP and Rear FRP dome Painting to be ok	Major	Visual		
13	Check School bus/legacy sticker/	Not inclined and no air bubbles inside the sticker	Major	Visual		
14	Functional	Driver door / jk door / E door locking ok / wiper function ok / Roof hatch function ok	Critical	Functional		
15	Service point	Check All flap - Diesel flap not off set , urea flap not off set	Critical	Functional		
16	CNG	CNG - cylender connection ok , Exhaust fitted on roof ,service Indicator fitted	Critical	Visual		
		CNG - Air tank and Gas knob flap not off set	Critical	Functional		
		CNG - plate fitted and cylender number match with actual chassis	Critical	Visual		
17	AC	AC bus drain pipe fitment ok , AC cooling properly , AC duc match with seat / Pvc beading not loose and short fitted , AC display fitted	Critical	Visual		
18	Pnuematic door	IF Pnuematic door- cover fitment ok , door working speed check . Pnuematic cylinder flow control valve nut should be tight	Critical	Manual / visual		
19	Shower	Shower testing -OK / DA lite ok	Major	Shower report		
		After shower sealant fill to be paint apply	Major	Visual		
20	Cleaning	1) Driver seat stand clean not rusty . 2) Cabin area clean . seat area clean, engine area clean	Major	Visual		
21	Polishing	Polishing properly with 2000 paper	Major	Visual		
22	Part missing	Acrilic sheet E door inside & outside , GSL cover / Steering cover / proximity mirror in legacy / Dash board switch not missing / JK door & battery key not missing	Major	Visual		
23	Covering	Poly cover pasting at dashboard and enginehood area	Major	Visual		
		Poly cover pasting at engine cutout and gangway area .	Major	Visual		
Checked By :						
Name :			HOD sign if any deviation			