

CT SL51-4 Extended Function Mapping

Example Mapping

	Output	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0				
	Notes				(Bell)	Air	Ventilator	Cylinder release	Water filling	Short whistle	Coal shovelling	Long whistle				Cab light	Coach Lights	Additional rear lantern	Additional front lantern	Firebox glow	Smoke	Tender lantern	Front lanterns				
Function Key	CV	Z9	Z8	Z7	Aux Sound 8	Aux Sound 7	Aux Sound 6	Aux Sound 5	Aux Sound 4	Aux Sound 3	Aux Sound 2	Aux Sound 1	Alt (not used)	Main Sound	Shunting Mode	Z6	Z5	Z4	Z3	Z2 (wired purple)	Z1 (wired green)	Rear Light (wired yellow)	Front Light (wired white)	Function Key	Example Programmed Action	CV	Example Programmed CV Value
F0 (front)	CV33															128	64	32	16	8	4	2	1	F0 (front)	Lanterns (front)	CV33	1
	CV163							128	64	32	16	8	4	2	1											CV163	0
F0 (rear)	CV34															128	64	32	16	8	4	2	1	F0 (rear)	Lanterns (rear)	CV34	2
	CV164							128	64	32	16	8	4	2	1											CV164	0
F1	CV35															128	64	32	16	8	4	2	1	F1	Smoke	CV35	4
	CV165							128	64	32	16	8	4	2	1											CV165	0
F2	CV36															128	64	32	16	8	4	2	1	F2	Firebox glow	CV36	8
	CV166							128	64	32	16	8	4	2	1											CV166	0
F3	CV37															128	64	32	16	8	4	2	1	F3	Additional lights (both front & rear)	CV37	48
	CV167							128	64	32	16	8	4	2	1											CV167	0
F4	CV38												128	64	32	16	8	4	2	1				F4	Cabin light & coach lights	CV38	24
	CV168				128	64	32	16	8	4	2	1														CV168	0
F5	CV39												128	64	32	16	8	4	2	1				F5	Main running sounds	CV39	64
	CV169				128	64	32	16	8	4	2	1														CV169	0
F6	CV40												128	64	32	16	8	4	2	1				F6	Short whistle	CV40	0
	CV170				128	64	32	16	8	4	2	1														CV170	4
F7	CV41												128	64	32	16	8	4	2	1				F7	Long whistle	CV41	0
	CV171				128	64	32	16	8	4	2	1														CV171	1
F8	CV42												128	64	32	16	8	4	2	1				F8	Coal shovelling	CV42	0
	CV172				128	64	32	16	8	4	2	1														CV172	2
F9	CV43																							F9	Water filling	CV43	0
	CV173	128	64	32	16	8	4	2	1																	CV173	1
F10	CV44																							F10	Cylinder release	CV44	0
	CV174	128	64	32	16	8	4	2	1																	CV174	2
F11	CV45																							F11	Ventilator	CV45	0
	CV175	128	64	32	16	8	4	2	1																	CV175	4
F12	CV46																							F12	Air	CV46	0
	CV176	128	64	32	16	8	4	2	1																	CV176	8

Each function key may control multiple outputs, although there is some restriction on which function keys can access which outputs as can be seen where the matrix entry is blank. There are 2 CVs relating to each function key to define the key's action. Add the values shown in the corresponding cells to get the function mapping you want.

Example: if you want F5 to operate Aux Sound 3 and also to switch on lighting function Z2, you should set CV39=1 and CV169=4.