SHOP MANUAL

WEBM000100

PC12R-8
PC15R-8

HYDRAULIC EXCAVATOR

SERIAL NUMBER

PC12R-8 F30001 and up

PC15R-8 F20001 and up

KOMATSU®

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CABLE

ELECTRIC WIRE CODE

In the wiring diagrams various colours and symbols are employed to indicate the thickness of wires.
This wire code table will help you understand WIRING DIAGRAMS.
Example: R -N 1.5 indicates a cable having a nominal number 1.5 and red coating with black stripe.

CLASSIFICATION BY THICKNESS

Nominal number	Copper wire			Cable O.D. (mm)	Current rating (A)	Applicable circuit
	Number strands	ø of strands (mm)	Cross section (mm^2)			
0.8	11	030	0.78	2.80	8	Instruments, sensor
1	14	0.30	0.99	2.80	11	Warning light, light etc.
1.5	21	0.30	1.48	3.35	14	Working beam, solenoid valve, etc.
2.5	35	0.30	2.47	3.80	20	Control panel, etc.
4	56	0.30	3.95	4.60	28	Pre-heating
6	84	0.30	5.93	5.20	37	Control panel
25	189	0.4	23.75	9.3	100	Ground - Starter motor

CLASSIFICATION BY COLOUR AND CODE

	Primary	Auxiliary							
Code	A	A-R	A/R	A-G	A/G	A-B	A/B	A-N	A/N
Colour	Light blue	Light blue - Red		Light blue - Yellow		Light blue - White		Light blue - Black	
Code	B	B-R	B/R	B-N	B/N	—	—	—	—
Colour	White	White - Red		White - Black		—		—	
Code	C	C-N	C/N	C-L	C/L	C-V	C/V	—	—
Colour	Orange	Orange - Black		Orange - Blue		Orange - Green		—	
Code	G	G-V	G/V	G-N	G/N	G-R	G/R	—	—
Colour	Yellow	Yellow - Green		Yellow - Black		Yellow - Red		—	
Code	H	H-R	H/R	H-N	H/N	H-L	H/L	—	—
Colour	Gray	Gray - Red		Gray - Black		Gray - Blue		—	
Code	L	L-R	L/R	L-B	L/B	L-N	L/N	L-G	L/G
Colour	Blue	Blue - Red		Blue - White		Blue - Black		Blue - Yellow	
Code	M	M-N	M/N	M-V	M/V	—	—	—	—
Colour	Brown	Brown - Black		Brown - Green		—		—	
Code	R	R-C	R/C	R-V	R/V	R-N	R/N	R-B	R/B
Colour	Red	Red - Orange		Red - Green		Red - Black		Red - White	
Code	S	S-N	S/N	—	—	—	—	—	—
Colour	Pink	Pink - Black		—		—		—	
Code	V	V-N	V/N	—	—	—	—	—	—
Colour	Green	Green - Black		—		—		—	
Code	Z	Z-G	Z/G	—	—	—	—	—	—
Colour	Violet	Violet - Yellow		—		—		—	

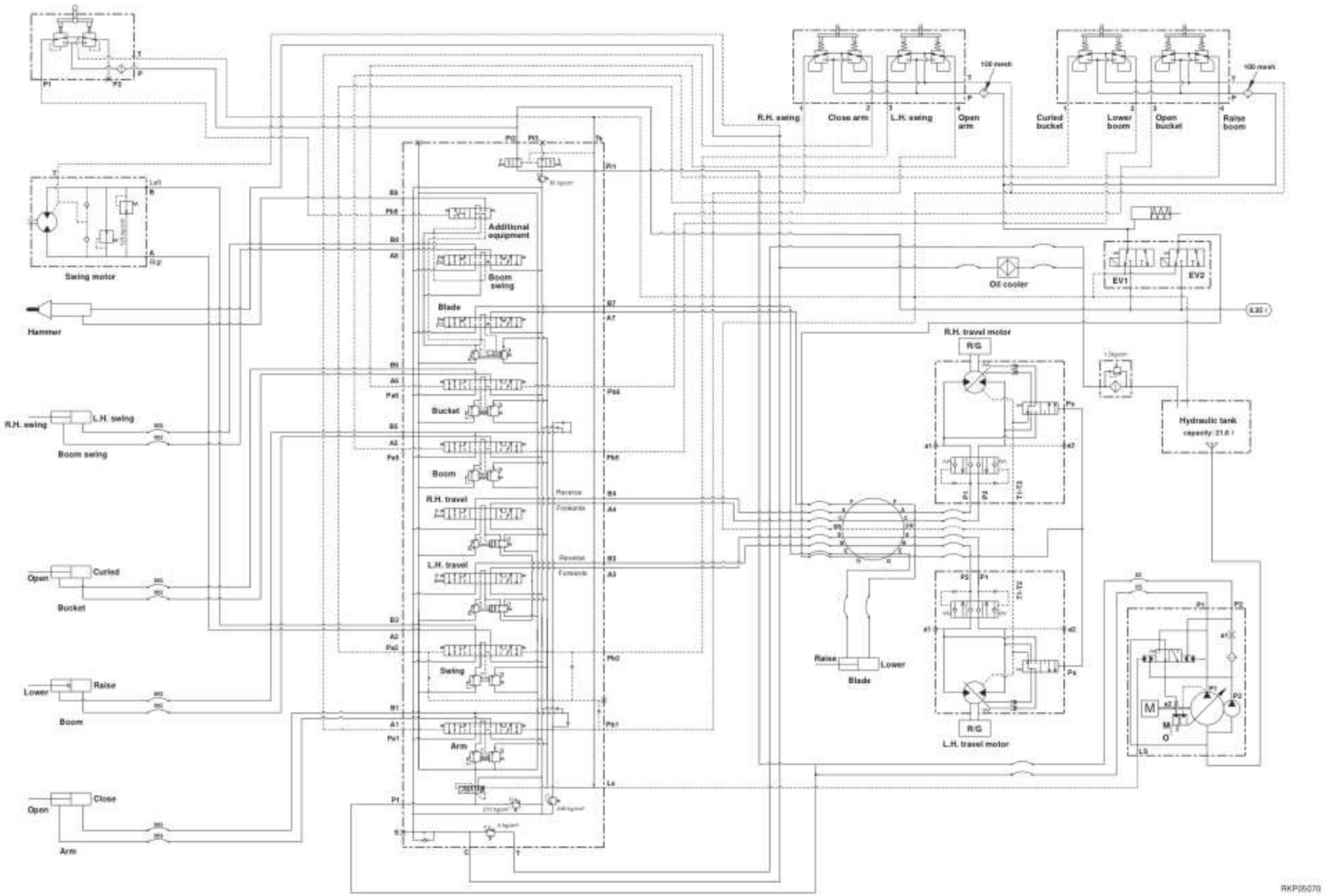
COMPOSITION OF THE COLOURS

The coloration of two-colour wires is indicated by the composition of the symbols listed.
Example: G-V = Yellow-Green with longitudinal colouring.
G/V = Yellow-Green with transversal colouring.

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HYDRAULIC CIRCUIT DIAGRAM

PC15R

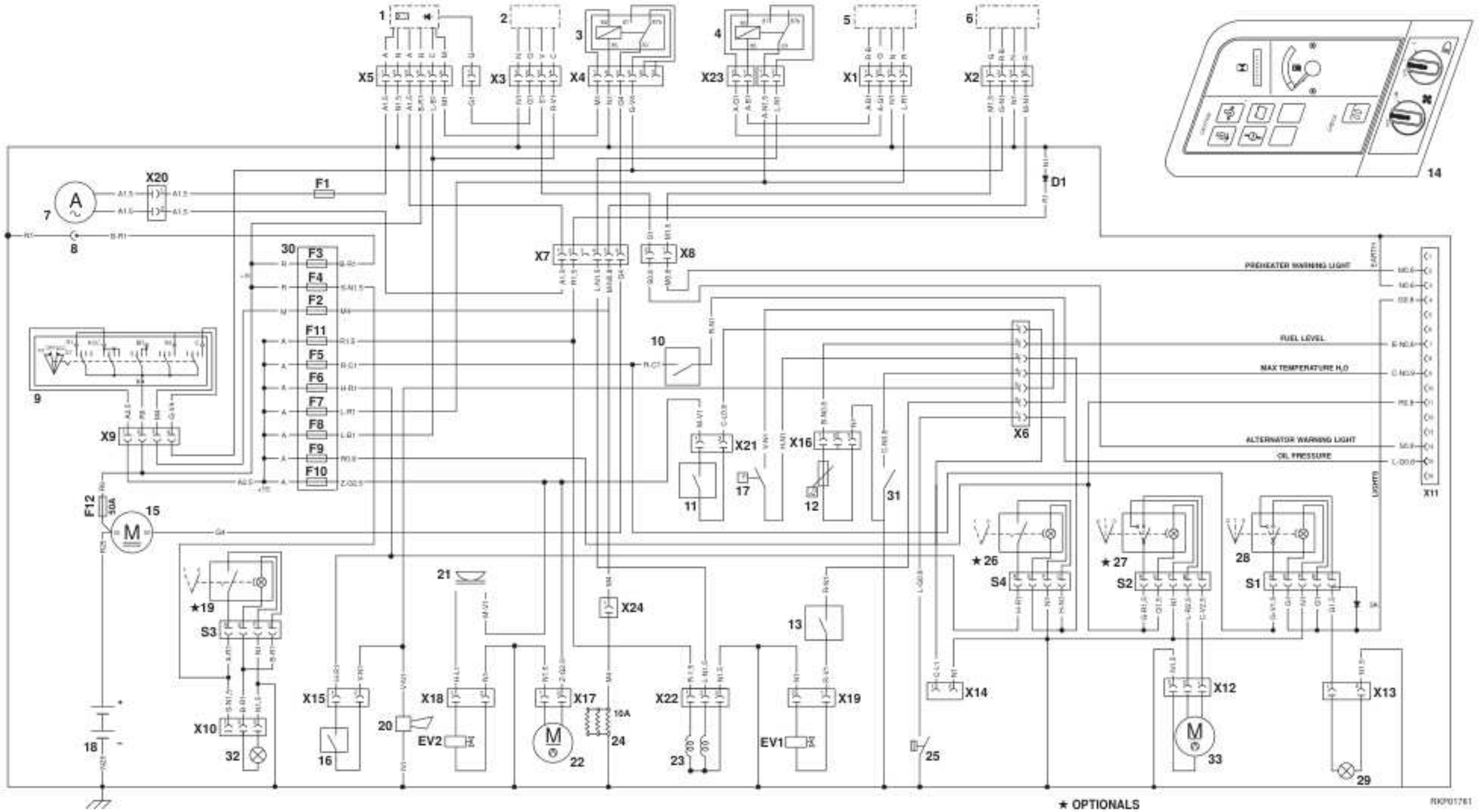


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ELECTRICAL CIRCUIT DIAGRAM



COMPONENTS

1 - Rectfier - Voltage regulator
2 - Battery warning light relay
3 - Starter relay
4 - Stop motor relay
5 - Timer 1" stop motor solenoid
6 - Timer 15" preheather warning light
7 - Alternator (20A)
8 - Electric socket
9 - Starter switch
10 - R.H. Servocontrol push-button
11 - Optional push-button (L.H. PPC valve)
12 - Fuel level
13 - L.H. Servocontrol push-button
14 - Warning lights - Instrument - check box
15 - Starting motor
16 - Horn push-button
17 - Safety pressure switch (TBG)
18 - Battery (12V 45Ah 210A)
19 - Rotating beam switch (optional)
20 - Horn
21 - Travel increment pedal
22 - Fuel pump
23 - Stop motor (instantaneous current 30A - constant current 0.8A)
24 - Preheater (10A)
25 - Engine oil pressure switch
26 - TBG switch (optional)
27 - Fan heating switch (optional)
28 - Working beam and dashboard switch
29 - Working beam
30 - Fuses box
31 - Coolant temperature sensor
32 - Rotating beam
33 - Fan heating
EV1 - Servocontrol solenoid valve
EV2 - Travel increment solenoid valve
D1 - Hold solenoid diode
S1 - Working beam and dashboard switch
S2 - Fan heating switch (optional)
S3 - Rotating beam switch (optional)
S4 - TBG switch (optional)

CONNECTORS

X1 - 4 ways connector stop motor timer, solenoid
X2 - 4 ways connector preheater timer
X3 - 4 ways connector battery warning light relay
X4 - 6 ways connector starter relay
X5 - 6 ways connector voltage regulator relay
X6 - 6 ways connector motor line
X7 - 7 ways connector motor line
X8 - 2 ways connector check box line
X9 - 4 ways connector starter switch line
X10 - 3 ways connector cabin line
X11 - 6 ways connector instrument and warning light line
X12 - 3 ways connector heater line
X13 - 2 ways connector working beam line
X14 - 2 ways connector optional solenoid valve line
X15 - 2 ways connector horn line
X16 - 3 ways connector fuel indicator level line
X17 - 2 ways connector fuel pump line
X18 - 2 ways connector travel increment solenoid valve line
X19 - 2 ways connector servocontrol solenoid valve line
X20 - 2 ways connector alternator line
X21 - 2 ways connector optional push-button line
X22 - 3 ways connector stop motor line
X23 - Connector stop motor relay
X24 - Connector preheater

FUSES

F1 - Alternator
F2 - Preheater
F3 - Electrical socket
F4 - Rotating beam + cabin
F5 - Servocontrol + working beam
F6 - Horn + TBG
F7 - Stop motor relay
F8 - Compound alternator
F9 - Instrument
F10 - Fuel pump + travel increment push-button
F11 - Stop motor solenoid
F12 - General fuse

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