SEN05393-06

Shop Manual

HYDRAULIC
EXCAVATOR

HB205 -1
HB215LC-1

SERIAL NUMBERS HB205- 1001 and up
HB215LC- 1001

Hybrid

ecot3

KOMATSU®

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Table of Contents

00 Index and Foreword
- Table of Contents 00- 2
  - Table of Contents 00- 2
- Foreword and general information 00- 4
  - Safety notice 00- 4
  - How to read the shop manual 00- 9
  - Explanation of terms for maintenance standard 00- 11
  - Handling of hydraulic components 00- 13
  - Method of disconnecting and connecting push-pull type coupler 00- 15
  - Handling of electric equipment 00- 18
  - How to read electric wire code 00- 28
  - Precautions when performing work 00- 33
  - Handling of hybrid devices and high-voltage wirings 00- 36
  - Standard tightening torque table 00- 42
  - List of Abbreviation 00- 46
  - Conversion table 00- 50

01 Specifications
- Specifications 01- 3
  - Outline of hybrid system 01- 3
  - Specification dimension drawing 01- 4
  - Working range diagram 01- 5
  - Specifications 01- 6
  - Weight table 01- 9
  - Table of fuel, coolant and lubricants 01- 11

10 Structure and function
- Engine and cooling system 10- 3
  - Engine related parts 10- 3
  - Cooling system 10- 4
- Hybrid relation 10- 6
  - Configuration and safety functions of hybrid system 10- 6
  - Cooling system of hybrid component 10- 10
  - Motor-generator 10- 12
  - Swing electric motor 10- 13
  - Electric control unit 10- 14
  - High-voltage wiring (power cable) 10- 15
  - Water pump 10- 16
- Power train system 10- 18
  - Power train 10- 18
  - Swing circle 10- 19
  - Swing machinery 10- 20
  - Swing brake 10- 22
  - Final drive 10- 24
- Undercarriage and frame 10- 26
  - Track frame and idler cushion 10- 26
- Hydraulic system 10- 28
  - Hydraulic components layout drawing 10- 28
  - Valve control 10- 30
  - Hydraulic tank 10- 31
  - CLSS 10- 32
  - Main pump 10- 36

MidWestTech | Komatsu HB205-1, HB215LC-1 Hybrid Hydraulic Excavator Service Ma... Order the manual at mid-west-tech.com >

Control valve 10- 58
Functions and operation by valve 10- 70
Travel motor 10-107
PPC valve 10-117
Solenoid valve 10-136
Attachment circuit selector valve 10-138
Return oil filter 10-140
Center swivel joint 10-142
Accumulator 10-143
Electrical system 10-144
Electrical control system 10-144
Machine monitor system 10-174
KOMTRAX system 10-190
Sensors 10-192

20 Standard value table
Standard value table 20- 3
Standard value table for engine 20- 3
Standard value table for machine 20- 4

30 Testing and adjusting
Tools for testing, adjusting and troubleshooting 30- 4
Tools for testing, adjusting and troubleshooting 30- 4
Engine and cooling system 30- 9
Testing engine speed 30- 9
Testing boost pressure 30- 11
Checking exhaust gas color 30- 12
Adjusting valve clearance 30- 13
Testing compression pressure 30- 15
Testing blowby pressure 30- 18
Testing engine oil pressure 30- 19
Handling fuel system parts 30- 20
Releasing remaining pressure from fuel system 30- 20
Testing fuel system pressure 30- 21
Cylinder cut-out test mode operation 30- 23
No injection cranking operation 30- 23
Testing fuel delivery, return rate and leakage 30- 24
Bleeding air from fuel circuit 30- 28
Testing fuel circuit for leakage 30- 29
Handling of controller high-voltage circuit 30- 30
Testing and adjusting air conditioner compressor belt tension 30- 31
Replacement of fan belt 30- 32
Undercarriage and frame 30- 33
Testing swing circle bearing clearance 30- 33
Testing and adjusting track tension 30- 34
Hydraulic system 30- 37
Testing and adjusting hydraulic oil pressure in work equipment and travel circuits 30- 37
Testing source pressure of control circuit 30- 40
Testing and adjusting oil pressure in pump PC control circuit 30- 41
Testing and adjusting oil pressure in pump LS control circuit 30- 44
Testing solenoid valve output pressure 30- 48
Testing PPC valve output pressure 30- 51
Adjusting play of work equipment and swing PPC valves 30- 53
Checking parts which cause hydraulic drift of work equipment 30- 54

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Releasing remaining pressure from hydraulic circuit 30- 56
Testing oil leakage 30- 57
Bleeding air from each part 30- 59
Cab and its attachments 30- 61
Checking cab tipping stopper 30- 61
Adjusting mirrors 30- 62
Angle adjustment of rear view camera 30- 65
Hybrid relation 30- 66
Testing swing holding brake 30- 66
Cleaning and replacement of oil filter of swing electric motor 30- 67
Operation check of swing emergency stop switch 30- 68
Electrical system 30- 70
Special functions of machine monitor 30- 70
Handling voltage circuit of engine controller 30-132
Precautions related to hybrid machines 30-133
Preparation work for troubleshooting of electrical system 30-134
Procedure for testing diodes 30-140
Pm Clinic 30-141
Pm Clinic service 30-141

40 Troubleshooting
General information on troubleshooting 40- 10
Points to remember when troubleshooting 40- 10
Sequence of events in troubleshooting 40- 11
Checks before troubleshooting 40- 12
Classification and procedures for troubleshooting 40- 41
Failure codes table 40- 44
Symptom and troubleshooting numbers 40- 52
Information in troubleshooting table 40- 55
Troubleshooting method for open circuit in wiring harness of pressure sensor system 40- 57
Connector list and layout 40- 59
Connection table for connector pin numbers 40- 70
T- branch box and T- branch adapter table 40-106
Fuse location table 40-109
Troubleshooting by failure code 40-111
Failure code [989L00] Engine Controller Lock Caution 1 40-111
Failure code [989M00] Engine Controller Lock Caution 2 40-111
Failure code [989N00] Engine Controller Lock Caution 3 40-111-1
Failure code [AA10NX] Air Cleaner Clogging 40-111-2
Failure code [AB00KE] Charge Voltage Low 40-112
Failure code [B@BAZG] Eng Oil Press Low 40-114
Failure code [B@BAZK] Eng Oil Level Low 40-115
Failure code [B@BCNS] Eng Water Overheat 40-116
Failure code [B@BCZK] Eng Water Level Low 40-118
Failure code [B@HANS] Hyd Oil Overheat 40-120
Failure code [CA111] ECM Critical Internal Failure 40-121
Failure code [CA115] Eng Ne and Bkup Speed Sens Error 40-121
Failure code [CA122] Chg Air Press Sensor High Error 40-122
Failure code [CA123] Chg Air Press Sensor Low Error 40-124
Failure code [CA131] Throttle Sensor High Error 40-126
Failure code [CA132] Throttle Sensor Low Error 40-128
Failure code [CA144] Coolant Temp Sens High Error 40-130
Failure code [CA145] Coolant Temp Sens Low Error 40-132
Failure code [CA153] Chg Air Temp Sensor High Error 40-134

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Failure code [GA14KR] HYB Control. KOMNET Comm. Failure

Hybrid

User code	Failure code	Failure	KOMNET communication error of HYB controller (Hybrid controller system)
E09	**GA14KR**		
Detail of failure	• Inverter (hybrid controller) fails in CAN communication with pump controller or engine controller.		
Action of controller	• Continues to control by using CAN information obtained before failure detection. • Disables low speed matching function. • Disables hoist matching function. • Limits swing speed, etc. • If cause of failure disappears, machine becomes normal by itself.		
Problem on machine	• Low speed matching function does not operate. • Swing speed, etc. are limited. • Machine monitor may not operate normally or may not display correct information.		
Related information	• Method of reproducing failure code: Turn starting switch to ON position. • Start of CAN communication is notified to each controller by ACC signal from starting switch. • Failure code is sent to machine monitor by CAN communication. Accordingly, if this failure code is displayed on machine monitor, wiring harness (CAN communication line) is free from ground fault, short circuit and hot short. • Since each controller and machine monitor receive power from battery directly, they are kept ON even while starting switch is OFF position. • Since active CAN communication line signal is pulse voltage, it cannot be measured by using multimeter.		

	Cause	Procedure, measuring location, criteria and remarks
1	[If failure code [**DA2RMC**] is also displayed, perform troubleshooting for it first.	
2	Improper power supply to pump controller	Perform troubleshooting for failure code [**DAFRMC**], cause 2 first.
3	Defective inverter (hybrid controller)	If no failure is found by above checks, hybrid controller is defective. (Since this is an internal defect, troubleshooting cannot be performed.)

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5. Using impact wrench **Z** and socket wrench **Z**, remove counterweight mounting bolts (9). [*1]



6. Sling and remove counterweight assembly (10). [*2]
   - Counterweight assembly: **3,450 kg**



Installation

- Perform installation in the reverse order to removal.

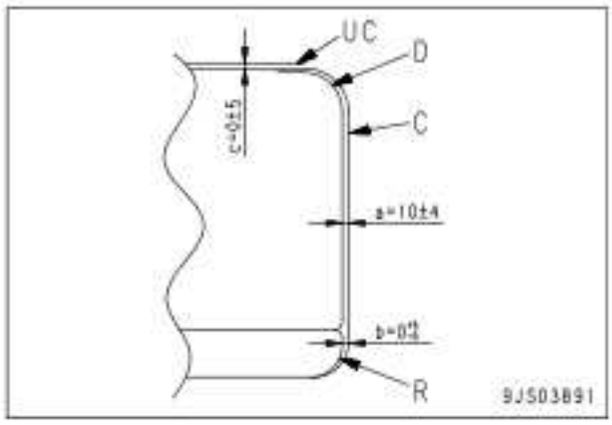
[*1]

Mounting bolt:
Adhesive (LT-2)

Counterweight mounting bolt:
1.52 – 1.91 kNm {155 – 195 kgm}

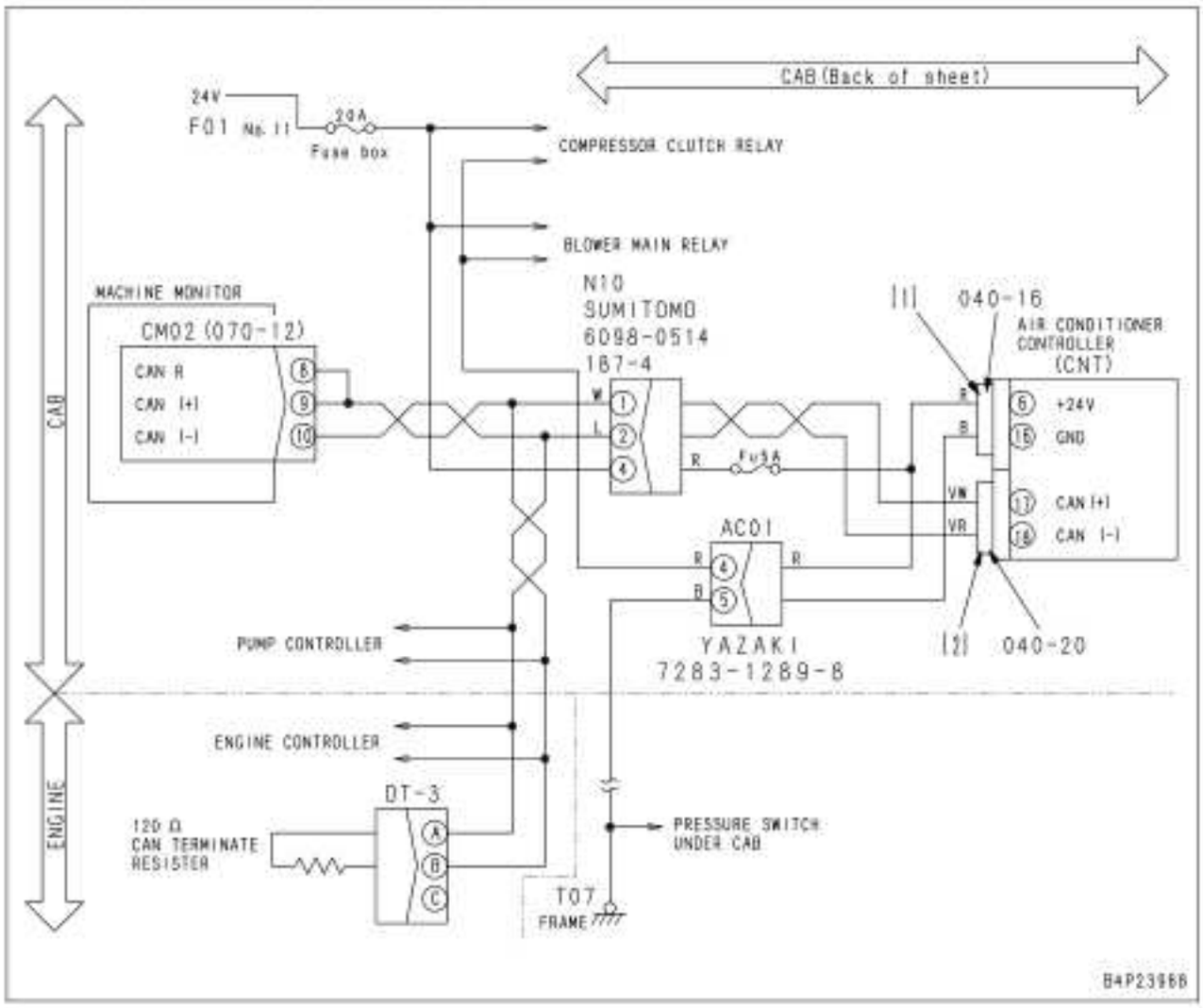
[*2]

★ Installation and adjustment of counterweight
1) Adjust the level difference from the exterior parts (horizontal clearance) with shims.
   ★ Shims: **1 mm(205-46-25150)**
2) Fix the counterweight so that the clearances in the direction of front and rear are even and within the limit of 10 ± 5 mm for both from the doors and from the revolving frame.
3) The difference in level in left to right direction between the exterior of door (D) and counterweight (C)
   (a): **10 ± 4 mm**
   The difference in level in left to right direction between revolving frame (R) and counterweight (C)
   (b): **5 mm** or less
   The difference in level in up and down direction between exterior upper cover (UC) and counterweight (C)
   c: **0 ± 5 mm**
   are the respective limits for the mounting adjustment.
   ★ Rear view (Enlarged drawing for right hand side)



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Circuit diagram related to power supply and CAN communication

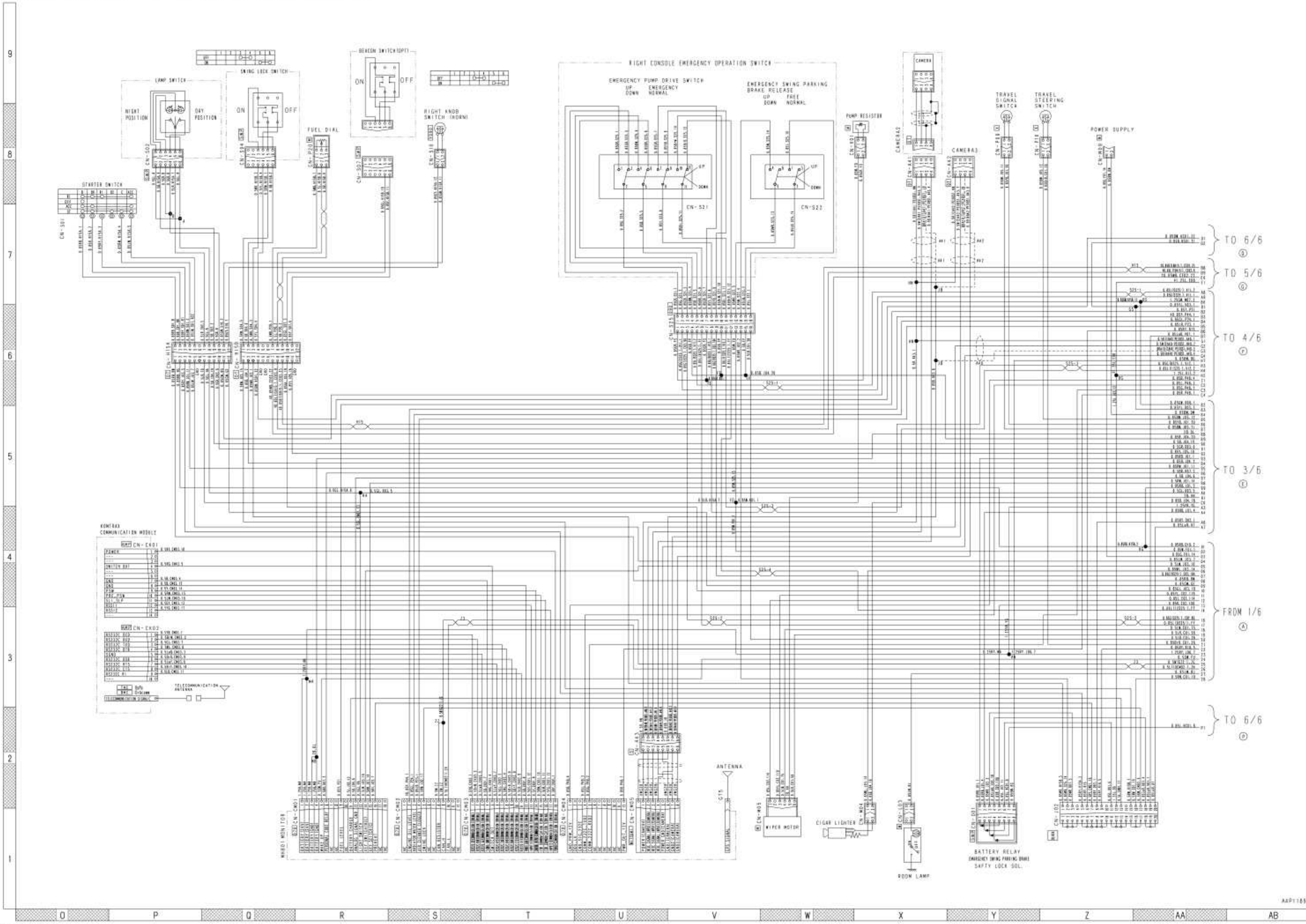


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Electrical circuit diagram (2/6)

(Standard spec.)
HB205-1, HB215LC-1

★ This figure covers the equipment and devices that are unavailable as optional items in some areas.



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