

TROUBLESHOOTING MANUAL

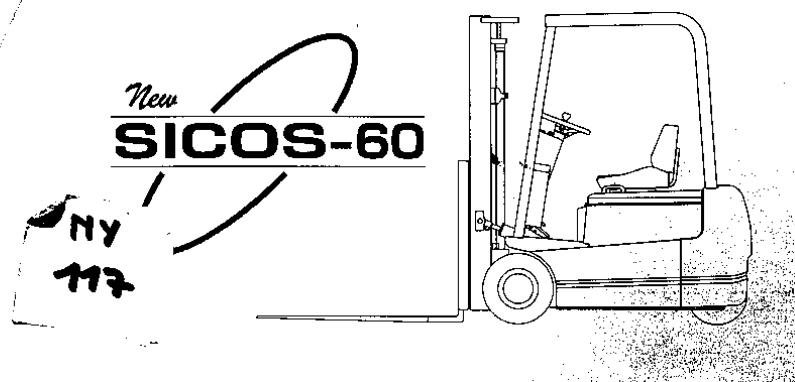
NY 117

98-W-2101

NICHYU

FBT-60 SERIES

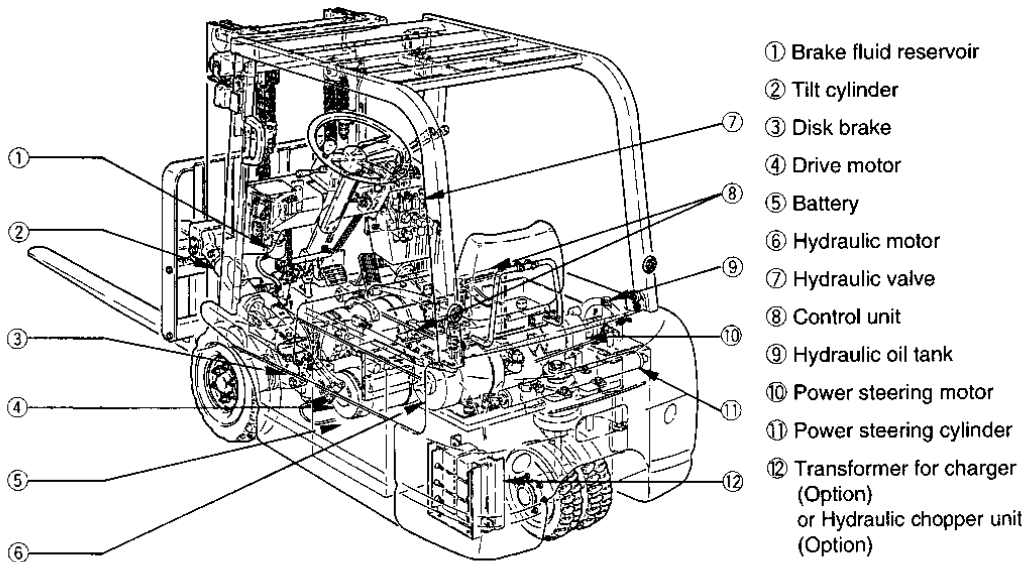
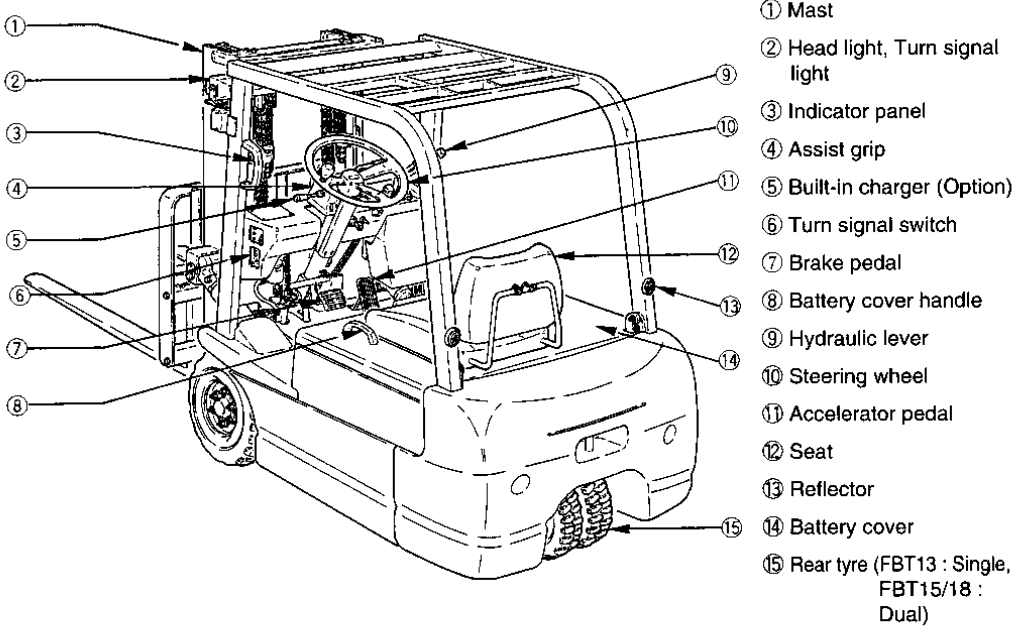
FBT13/15/18



Contents

0. Layout of components	0
1. Outline of model change	1
1-1 Comparison with previous/other model.....	1
1-2 LCD monitor and MPU board.....	1
① LCD monitor.....	1
② MPU board.....	2
1-3 Initial setting.....	2
① Hour meter working.....	2
2. How to adjust NEW-SICOS 60 (Major point only)	4
2-1 The name and function of mode select switch.....	4
2-2 How to set the each mode.....	5
① Speed setting mode.....	5
② Power setting mode.....	6
③ Acceleration feeling mode.....	6
④ Option setting.....	7
⑤ Language selection on LCD display.....	8
⑥ Safety monitor symbol.....	8
2-3 Adjustment of starting current and current limitation.....	9
① Zero (o) adjusting for the installed current detector.....	9
② Adjustment of starting current and current limitation.....	12
2-4 Adjustment of other specifications.....	15
① Adjustment of switch back (Plugging/Regenerative) braking distance.....	15
② Adjustment of regenerative braking force. (Option).....	16
③ Level adjustment of regenerative function. (Option).....	17
④ Adjustment of hydraulic speed and hydraulic current limitation.....	18
⑤ Adjustment of brightness of the back light on monitor.....	19
2-5 Check and adjustment for other functions.....	20
3. Self diagnosis history memory and I/O check	21
3-1 Self diagnosis history memory.....	21
3-2 I/O check.....	27
4. Practical trouble shooting (How to find the cause of problem)	31
4-1 Before starting.....	31
4-2 Attention for the troubleshooting.....	33
4-3 Analysis of fault cause.....	35
4-4 Monitor message in each language.....	37
① Error messages.....	37
② General messages.....	39
5. Wiring and layout of control unit	41
6. Setting of volume and rotary switch	49
6-1 Volume.....	49
6-2 Rotary switch.....	49
6-3 The specification of each adjustment for FBT-60 series.....	51

0. Layout of components.



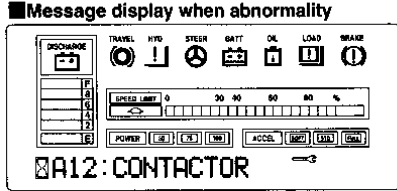
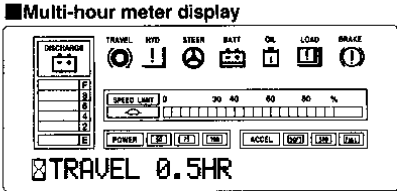
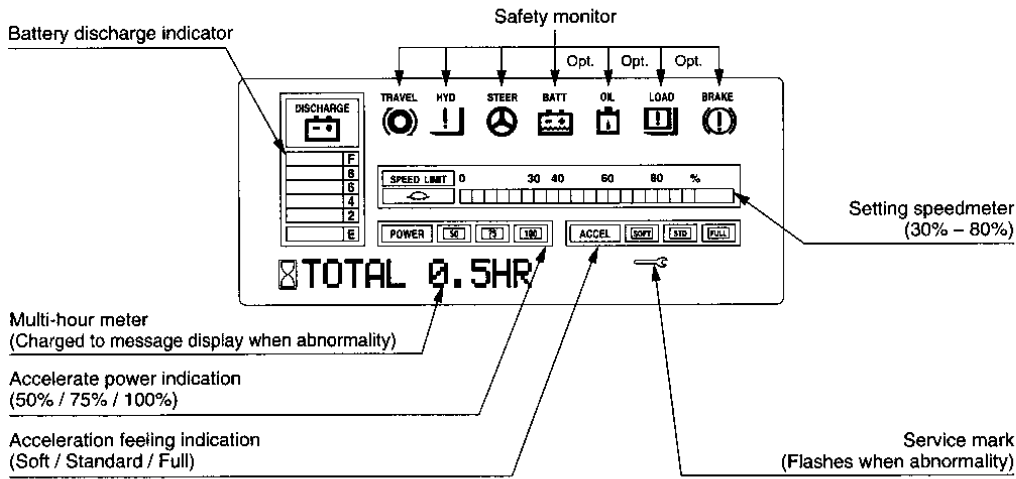
1. Outline of model change.

1-1 Comparison with previous/other model

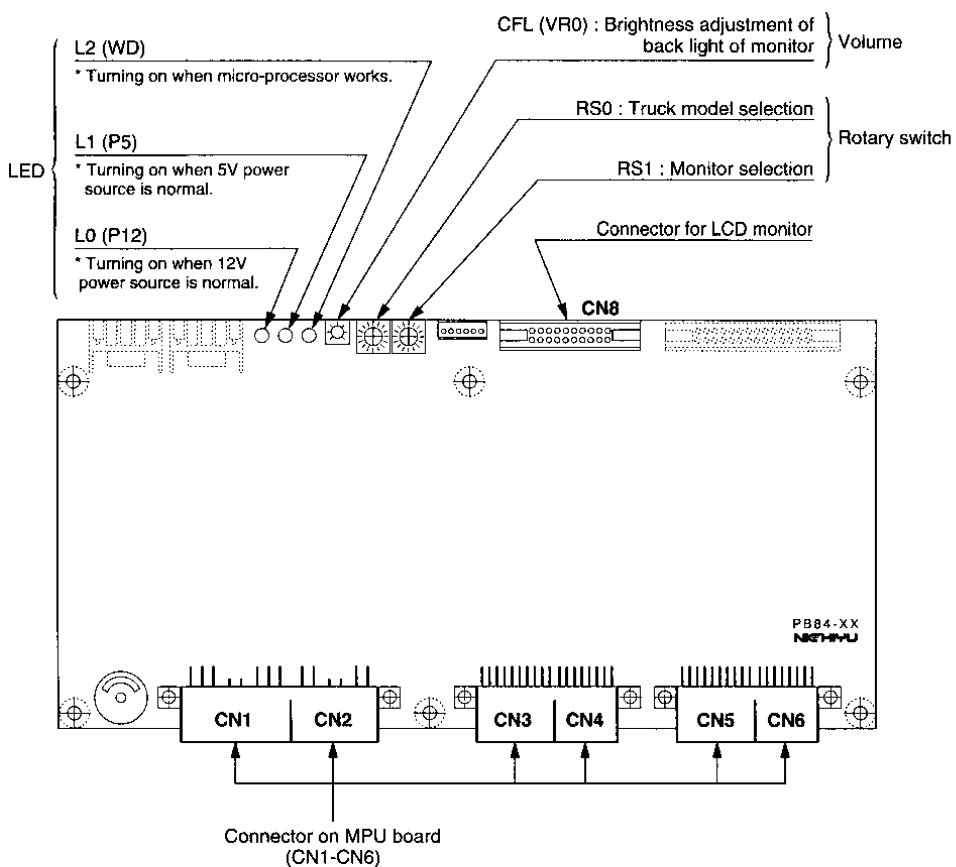
No.	Major point	FBT-50 series	FBT-60 series	FBRF-60 series
1	Control unit	SICOS 50	NEW-SICOS 60	A-SICOS
2	Chopper system (Travel)	FET (Transistor)	←	IGBT (Transistor)
3	Chopper system (Hydraulic)	FET (Transistor)	←	IGBT (Transistor)
4	Steering system	EPS (Electric power steering)	Hydraulic power steering	EPS (Electric power steering)
5	Contacting (for travel)	Conventional type (MS34-)	plunger type	←
6	Automatic power off function	NIL	○	○
7	Neutral safety circuit for travel and hydraulic	NIL	○	○

1-2 LCD Monitor and MPU board.

① LCD monitor.



② MPU board.



All LEDs (L0(P12), L1(P5), L2(WD)) are lighted up normally when key switch is turned on.

1-3 Initial setting

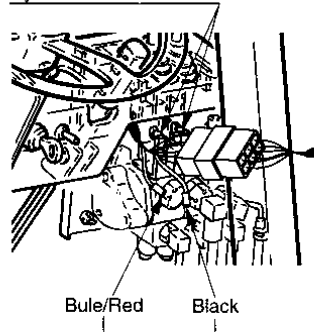
① Hour meter working.

- 1) Connect the wireharness of [Blue/Red 1] and [Black] located near the hydraulic micro switches.



Turn the key switch off and disconnect the battery plug when connect the wire-harness.

Hydraulic micro switches



Connect to start the hour meter counting