EMPLOYEES'
GUIDE
TO
EQUIPMENT
TROUBLE

BUS TROUBLE RADIO TROUBLE



# INDEX

BUS TROUBLE	Page	ltem
• ACCELERATOR PEDAL CAN BE DEPRESSED		
BEFORE REAR DOORS ARE CLOSED		1
AFTER REAR DOORS ARE CLOSED	1	2
· ACCELERATOR PEDAL STICKS		3
• AIR PRESSURE HIGH	1	4
MAIR PRESSURE LOW	2	5
• AIR SUSPENSION FAILS	2	6
BACKFIRING REPEATEDLY (PROPANE ONLY)	3	7
•BATTERY DISCHARGING	3	8
BELL RINGS OR BUZZER SOUNDS CONTIN-		
UOUSLY- AIR PRESSURE NORMAL, NO	3	9
INDICATING LIGHTS LIT	3	10
BRAKE PEDAL STICKS		
LIGHT COMES ON	4	11
	4	12
• DEFROSTER NOT WORKING	4	13
DIRECTIONAL SIGNALS NOT WORKING	4	14
DIRECTIONAL SIGNALS NOT WORKING	4	15
• EMERGENCY DOOR TROUBLE	5	16
ENGINE WON'T SHUT OFF (DIESEL ONLY)	5	17
BENGINE WON'T STADT	5	18
ENGINE WON'T START	6	19
FRONT DOOR WON'T OPEN OR CLOSE	6	20
OHEADLIGHTS NOT WORKING WHEN REQUIRED .	6	21
	6	22
HEAT, INSUFFICIENT	6	23
OHORN WILL NOT SOUND	6	24
HORN WILL NOT STOP SOUNDING	7	25
SINTERIOR LIGHTS NOT WORKING	7	26
WARKER LIGHTS NOT WORKING	7	27
MARKER LIGHTS NOT WORKING	7	28
MIRROR (OTHER THAN SIDE OR REAR VIEW) IS		
BROKEN	7	29
OIL PRESSURE LOW	7	30
PASSENGER'S SIGNAL BUZZER SOUNDS AND		
CONTINUES SOUNDING	8	31
REAR DOOR FAILS TO OPEN	8	32
SLOW PICK-UP	8	33
STOP LIGHTS NOT WORKING	8	34
TAIL LIGHTS NOT WORKING	9	35
TRANSMISSION TROUBLE - STUCK IN GEAR	9	36
TRANSMISSION TROUBLE - WON'T SHIFT INTO		
"HIGH"	9	37
WINDOW BROKEN	9	38
WINDSHIELD WIPERS NOT WORKING	9	39
RADIO TROUBLE		
BLUE "TRANSMIT" LIGHT OUT WHEN		
TRANSMITTING	10	43
BLUE "TRANSMIT" LIGHT REMAINS ON	10	40
CHANNEL LIGHT(S) OUT WITH IGNITION ON	10	44
CONTINUOUS LOUD NOISE FROM HANDSET .	. 10	41
DAMAGED CONTROL HEAD ANTENNA	10	45
DAMAGED HANDSET	10	46
• FALSE CALL SIGNALS	10	47
HOT HANDSET CORD OR SMOKE FROM RADIO		
FOUIPMENT	. 10	42
OUNABLE TO CONTACT RADIO DISPATCHER		
OVER RADIO	. 10	48

#### **FOREWORD**

#### TO OPERATORS:

Part of your responsibility is to eliminate unnecessary road calls. Whenever you have equipment trouble, refer to this book and follow the instructions. If the trouble is not covered in the book, call the Radio Dispatcher for instructions.

Any time it is necessary to call the Radio Dispatcher and the bus is equipped with Monitor-CTA, use the bus-radio. Remember - the ignition must be "on" for the bus-radio to work; reception is best when the engine is running.

Make entries on the Sign In Sheet, Trip Sheet and Bus Defect Card as to the condition of all buses operated during the course of the day.

# **BUS TROUBLE**

# 1. ACCELERATOR PEDAL CAN BE DEPRESSED BEFORE REAR DOORS CLOSE

- Make certain that door interlock switch is "on"
   If accelerator pedal can still be depressed before rear doors close,
  - 1. Curb bus
  - 2. Call Radio Dispatcher for instructions

#### 2. ACCELERATOR PEDAL CANNOT BE DE-PRESSED AFTER REAR DOORS ARE CLOSED

- Make certain that handbrake is fully released
- Make certain that door control lever is in neutral position
- Pull the red emergency knob down, then push it all the way up
- Make certain that doors have closed completely - pull doors closed

If accelerator pedal still cannot be depressed although rear doors are closed,

- 1. Curb bus
- 2. Call Radio Dispatcher for instructions

## 3. ACCELERATOR PEDAL STICKS

- Turn engine off and apply foot brake
- Attempt to work pedal loose manually

If pedal cannot be worked loose, call Radio Dispatcher for instructions

#### 4. AIR PRESSURE HIGH

• Check whether safety valve is popping

If valve is popping,

1. Continue in service

2. Call Radio Dispatcher at first opportunity

If valve is not popping,

1. Curb bus

2. Call Radio Dispatcher for instructions

#### 5. AIR PRESSURE LOW

• Attempt to raise air pressure

1. Stop bus

Turn off windshield wipers and open butterfly valve

3. Put shift selector in neutral

- 4. Fast-idle engine (1/3 throttle or fast-idle switch)
- Observe air pressure gauge or indicating light

If air pressure gauge reading builds up to 75 lbs. or if indicating light goes out, continue in service

If air pressure gauge reading remains below 75 lbs. or if indicating light remains on, call Radio Dispatcher for instructions

# 6. AIR SUSPENSION FAILS (BODY TILTS OR STRIKES FRAME OR TIRES)

- 1. Curb the bus
- 2. Place shift selector in neutral
- 3. Place door control handle in farthest forward position

4. Open butterfly valve

 Fast-idle engine (1/3 throttle or use fastidle switch)

If bus body levels off, close butterfly valve and continue in service

If bus body does not level off, call the Radio Dispatcher for instructions

## 7. BACKFIRING REPEATEDLY (PROPANE ONLY)

1. Curb bus

2. Call Radio Dispatcher for instructions

#### 8 BATTERY DISCHARGING

- Check whether indicator light is defective or whether battery is really being discharged
  - 1. Curb bus
  - 2. Place shift selector in neutral

3. Turn "on" dome lights

4. Open butterfly valve5. Fast-idle engine (1/3 throttle or use fast-idle switch)

If lights brighten, indicator light is defective and battery is being charged, continue in service

If lights do not brighten, generator or regulator is defective and battery is being discharged

1. Continue in service

2. Do not shut off engine (may not start again)

3. Call Radio Dispatcher at first opportunity

#### 9. BELL RINGS OR BUZZER SOUNDS CONTIN-UOUSLY - AIR PRESSURE NORMAL, NO INDICATING LIGHTS LIT

 Make certain that passenger is not exerting pressure on push-type door before door is set to be opened

If bell or buzzer continues to sound,

1. Continue in service

2. Call Radio Dispatcher at first opportunity

#### 10. BRAKE PEDAL STICKS

Attempt to work pedal loose manually

If pedal cannot be worked loose, call Radio Dispatcher for instructions

## 11. COOLING, NONE OR "A/C STOP" TELL-TALE LIGHT COMES ON

1. Continue in service

- Move "air cond-heat" switch to "off" position
- 3. Place "vent" switch in "vent" position
- 4. Call Radio Dispatcher at first opportunity

#### 12. DEFROSTER NOT WORKING

(Propane bus - make certain that damper switch is in proper position to direct air to windows). If visibility is not bad or windshield can be cleared by wiping

1. Continue in service

2. Call Radio Dispatcher at first opportunity

If visibility is bad and windshield cannot be cleared by wiping,

1. Curb bus

2. Call Radio Dispatcher for instructions

#### 13. DESTINATION SIGN WILL NOT TURN - DIS-PLAYS IMPROPER DESTINATION

If bus will be used by your relief

1. Continue in service

2. Call Radio Dispatcher at first opportunity

3. Announce destination to boarding passengers

If bus will pull in to station

1. Continue in service

2. Announce destination to boarding passengers

## 14. DIRECTIONAL SIGNALS NOT WORKING

1. Continue in service

Use hand signals when making turns, changing lanes, or pulling from curb

3. Call Radio Dispatcher at first opportunity

#### 15. EMERGENCY DOOR TROUBLE

 Make certain that emergency door handle is pushed all the way down

If light remains on and alarm continues sounding

1. Continue in service

2. Call Radio Dispatcher at first opportunity

#### 16. ENGINE HOT

- Attempt to lower water temperature
  - 1. Curb bus
  - 2. Place shift selector in neutral
  - 3. Open butterfly valve
  - 4. "Fast-idle" engine

If red water temperature indicating light goes out, continue in service

If red indicating light remains lit,

- 1. Shut off engine
- 2. Call Radio Dispatcher for instructions

## 17. ENGINE WON'T SHUT OFF (DIESEL ONLY)

• Continue in service

If it is necessary that engine be shut off (low air, low oil, hot engine, air pressure too high)

- 1. Curb bus
- 2. Activate emergency stop switch
- 3. Call Radio Dispatcher for instructions

#### 18. ENGINE WON'T START

- Make certain that ignition switch is "on"
- Make certain that "master control" switch is "on" (Diesel bus only)
- Check for dead battery
  - 1. Turn on dome lights
  - 2. Depress horn button

If lights do not come on or are very weak, or if horn does not sound or is very weak, battery is dead, call Radio Dispatcher for instructions

If battery is not dead and engine still fails to start (Propane bus only) determine if regulator is frozen or fuel is shut off

- 1. Close fuel shut-off valve completely
- 2. Wait one minute
- 3. Turn valve slowly until completely open
- Attempt to start engine, avoiding excessive use of choke

CAUTION: Do not engage starter switch longer than 15 seconds continuously

If engine still fails to start, call Radio Dispatcher for instructions

#### 19. FLAT TIRE

- 1. Curb bus
- 2. Call Radio Dispatcher for instructions

#### 20. FRONT DOOR WON'T OPEN OR CLOSE

- Check that butterfly valve is closed
- Check for required air pressure
- Pull the red emergency knob down, then push it all the way up
- Check if door is stuck

  If door still won't open or close
  - 1. Curb bus
  - 2. Call Radio Dispatcher for instructions

#### 21. HEADLIGHTS NOT WORKING WHEN REQUIRED

- Press "high beam" button
  - If headlights come on, continue in service
    If headlights do not come on
    - 1. Curb bus
    - 2. Call Radio Dispatcher for instructions

#### 22. HEAT, INSUFFICIENT

Continue in service; some buses do not generate as much heat as others

#### 23. HEAT, NONE

- 1. Continue in service
- 2. Call Radio Dispatcher at first opportunity

#### 24. HORN WILL NOT SOUND

 Make certain that horn switch under dash near steering column is "on" If horn switch is "on" and horn still will not sound

1. Continue in service

2. Call Radio Dispatcher at first opportunity

#### 25. HORN WILL NOT STOP SOUNDING

1. Shut off horn switch, pull horn fuse if possible, or remove horn button

2. Continue in service

3. Call Radio Dispatcher at first opportunity

#### 26. INTERIOR LIGHTS NOT WORKING

If interior lights are not required, continue in service

If interior lights are not required but you know that bus is scheduled to remain out after dark

1. Continue in service

2. Call Radio Dispatcher at first opportunity

If interior lights are required

1. Curb bus

2. Call Radio Dispatcher for instructions

#### 27. MARKER LIGHTS NOT WORKING

1. Continue in service

2. Call Radio Dispatcher at first opportunity

#### 28. MIRROR (SIDE VIEW OR REAR VIEW) IS BROKEN

1. Continue in service

2. Call Radio Dispatcher at first opportunity

#### 29. MIRROR (OTHER THAN SIDE VIEW OR REAR VIEW) IS BROKEN

Continue in service

#### 30. OIL PRESSURE LOW

1. Curb bus

2. Open butterfly valve

3. Observe low oil pressure indicating light while advancing engine speed from "idle" while advancing engine speed from to approximately 1/2 full throttle

If low oil indicating light remains lit,

(Continued next page)

1. Shut off engine

2. Call Radio Dispatcher for instructions

# 31. PASSENGER'S SIGNAL BUZZER SOUNDS AND CONTINUES SOUNDING

Attempt to release cord or button

If cord or button will not release,

1. Shut off passenger's buzzer switch

- Continue in service, using mirrors to check for passengers who wish to alight at exit door
- Make announcements that buzzer is out of order
- 4. Call Radio Dispatcher at first opportunity

#### 32. REAR DOOR FAILS TO OPEN

- Make certain door control lever is in proper position
- Make certain master door control switch is "on"

If door still fails to open

- 1. Continue in service
- 2. Advise passengers to exit at the front door
- 3. Call Radio Dispatcher at first opportunity

#### 33. SLOW PICK-UP

- Make certain that handbrake is fully released
- Fuel shut-off valve may be partly closed (Propane bus only)
  - 1. Close valve completely

2. Wait one minute

3. Turn valve slowly until completely open

If acceleration is still slow, keep bus in service

#### 34. STOP LIGHTS NOT WORKING

1. Continue in service

2. Use hand signals

3. Call Radio Dispatcher at first opportunity

#### 35. TAIL LIGHTS NOT WORKING

1. Continue in service

2. Call Radio Dispatcher at first opportunity

#### 36. TRANSMISSION TROUBLE - STUCK IN GEAR

- Place shift selector in neutral
- Touch starter several times with ignition turned "off"

If bus remains stuck in gear, pump brake pedal until air pressure is below 5 lbs.

If bus comes out of gear, do not move until air pressure warning light goes out or air pressure gauge has reached 75 lbs.

If bus still remains stuck in gear,

1. Shut off ignition

2. Call Radio Dispatcher for instructions

# 37. TRANSMISSION TROUBLE - WON'T SHIFT INTO "HIGH"

- Make certain that engine control switch is in full "on" position
- Check air pressure gauge

If air pressure is below 75 lbs., take actions indicated in Item 5, "Air Pressure Low"...

If air pressure is not low and bus still will not shift into high gear

1. Continue in service

2. Call Radio Dispatcher at first opportunity

#### 38. WINDOW BROKEN

If hole is small and there is little danger of injury to passengers

1. Continue in service

2. Call Radio Dispatcher at first opportunity

If there is danger of injury to passengers

- 1. Turn seat nearest window upside down to prevent use of seat
- 2. Attempt to clear aisle of broken glass

3. Continue in service

4. Call Radio Dispatcher at first opportunity

#### 39. WINDSHIELD WIPERS NOT WORKING

• Try starting wiper by hand

If rain is light and visibility is not bad,

- 1. Continue in service
- 2. Call Radio Dispatcher at first opportunity

If rain is heavy and visibility is bad,

- 1. Curb bus
- 2. Call Radio Dispatcher for instructions

# RADIO TROUBLE

# 40. BLUE "TRANSMIT" LIGHT REMAINS ON 41. CONTINUOUS LOUD NOISE FROM HANDSET

- 1. Continue in service
- 2. Call Radio Dispatcher at first opportunity

# 42. HOT HANDSET CORD OR SMOKE FROM RADIO EQUIPMENT

- 1. Curb bus
- Tum "master control" switch to the "stop" position
- 3. Call Radio Dispatcher on a public or CTA telephone for instructions
- 43. BLUE "TRANSMIT" LIGHT OUT WHEN TRANSMITTING
- 44. CHANNEL LIGHT(S) OUT WITH IGNITION ON
- 45. DAMAGED CONTROL HEAD ANTENNA
- 46. DAMAGED HANDSET
- 47. FALSE CALL SIGNALS
- 48. UNABLE TO CONTACT RADIO DISPATCHER OVER RADIO

1. Continue in service

2. Enter defect on Sign In Sheet, Trip Sheet and Bus Defect Card at station when run is completed

CHICAGO TRANSIT AUTHORITY
TRAINING AND PUBLIC SAFETY DEPARTMENT
REV. 8/73