Exhibit A

Instruction and Installation Manuals
Sec. 2.1033(b)(3)

Attached are a draft instruction manual for the RVLU and preliminary drawings and instructions demonstrating typical RVLU and antenna installations, including wireless LAN antenna installations.

Note: The RVLU's Part 15 2.4 GHz wireless LAN functionality is not controlled by the operator through the mobile data terminal. The attached draft instruction manual covers other RVLU functionality. 2.4 GHz Wireless LAN functionality is automatic and only operational in the vicinity of a base station which would typically be located in a garage or depot.

1 June 1999

Welcome aboard

the *TransitMaster2001*™

Advanced Public Transit System.

The TransitMaster2001 automates tasks and provides self-performing features to help you create loyal customers with quick, regular, and punctual service.

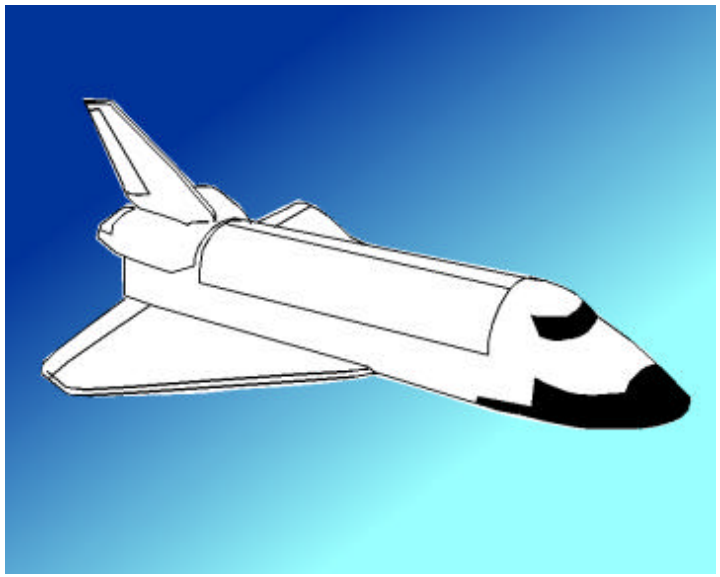
- Instant emergency reporting — provides vehicle location to police, fire, and medical emergency agents
- Private line radio linkage to dispatch (if equipped)
- Digital communications with dispatch
- Automatic, hands-off calling of stops (if equipped)
- Computer-assisted transfer management
- Messaged schedule performance
- Accurate time point indication

TM

TransitMaster and TransitMaster2001 are Rockwell Collins Trademarks.

The TransitMaster system uses the same technology as today's most sophisticated aircraft to make your job easier and help you better serve your customers by putting you in command.

The TransitMaster system allows you to easily send and receive data messages for transfer information or to report an overt emergency. The system includes a covert alarm, door, and wheelchair lift sensors (where applicable) to make your



bus safer and your job easier. The TransitMaster system works for you. Much of what the system does happens without you doing anything.

The system tracks vital engine operating conditions and senses mechanical alarms (where applicable). The system also tracks bus mileage to enable the mechanics to schedule maintenance for your bus, making it safer and more comfortable for you and your passengers.

The TransitMaster mobile data terminal (MDT), shown in the next section, is your "command console." Its screen shows a number of different displays. The operation determines how the display appears.

This manual covers MDT functions found in the following sections:

Function	Refer To
About the keys	**MDT CONTROLS**
Log in to system	**LOG IN**
Fixed route operation Route List Help List Count	**MAIN**
Talk on the radio Public address (PA) control	**TALK REQUEST**
Request passengers transfer	**TRANSFER REQUEST**
Read a received message	**RECEIVED MESSAGE**
Send a message to dispatch Ten-digit data entry	**CANNED MESSAGE**
Send an overt emergency message to dispatch	**EMERGENCY MESSAGE**
Log out	**LOG OUT**
Paratransit operation	**PARATRANSIT**

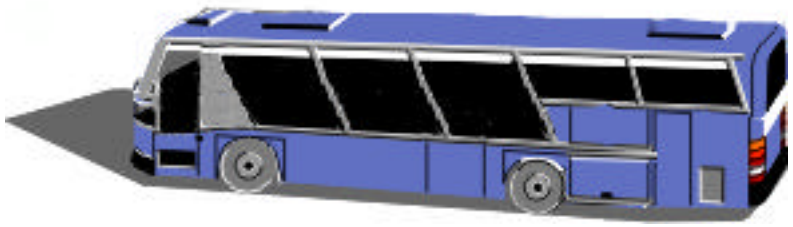
The MDT is configured for your transit property. This manual explains only MDT displays used by vehicle operators. Other MDT displays used for system initialization, setup, supervisory, or maintenance are explained in separate dedicated documentation.

An option that may be included on your vehicle is the American with Disabilities Act (ADA) annunciation system. This system includes a large display and an interface to the internal and external public address (PA) system. The annunciation system provides visual and/or audible announcements of routes, stops, and miscellaneous information. This system is preprogrammed and automatic but allows you and dispatch control for flexibility.

System alert tones heard on your speaker are as follows:

- A series of short beeps is an individual call to your handset.
- A series of longer beeps is an incoming message.
- A single short tone indicates an alarm, such as low oil pressure. Other alarms monitored include: hot engine, low coolant level, low air pressure, compressed natural gas (CNG) leak or fire, and wheelchair lift.
- A single long tone is an all call or group call.

TransitMaster provides
a valued transit environment
to help you create loyal customers.



Numbered procedures in this manual are for your convenience. Please follow these procedures in the order indicated.

Perform all other instructions on an as needed basis.

This is the mobile data terminal (MDT). TransitMaster operations are performed using the buttons surrounding the screen located in areas A through E.

A. Overt emergency message button
B. Contrast and brightness
C. Function buttons
D. Numeric entry keys (0 -9)
E. Select buttons

A. The round button at the top left of the screen is the overt emergency message button. Using this button immediately sends an emergency code to let dispatch know you are involved in an emergency situation. Depending upon how your system is configured, after pressing the button, the screen automatically changes to the emergency message display. The emergency message display allows you to select and send an emergency data message to dispatch with a description of your situation.

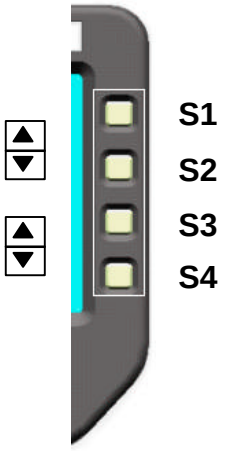
B. Two dedicated contrast and brightness rocker buttons are also on the left side of the MDT. Contrast and brightness are adjusted any time during operation. The half-blackened circle on the top rocker indicates screen contrast. A circle with radiating lines on the bottom rocker indicates brightness. Both rocker buttons work the same way. Press the top of the rocker to increase the adjustment and the bottom of the rocker to decrease the associated adjustment.

C. Five function buttons are directly below the screen and above the numeric entry keys. The five function buttons do whatever the word on the screen above the button indicates. For example, if you press the function button under the word **TALK**, the screen changes to the talk request display.

D. Ten numeric entry keys are along the bottom of the MDT. The numeric entry keys provide an easy way for you to enter your driver identification number, route-block information, or any other numerical value associated with an adjustment.

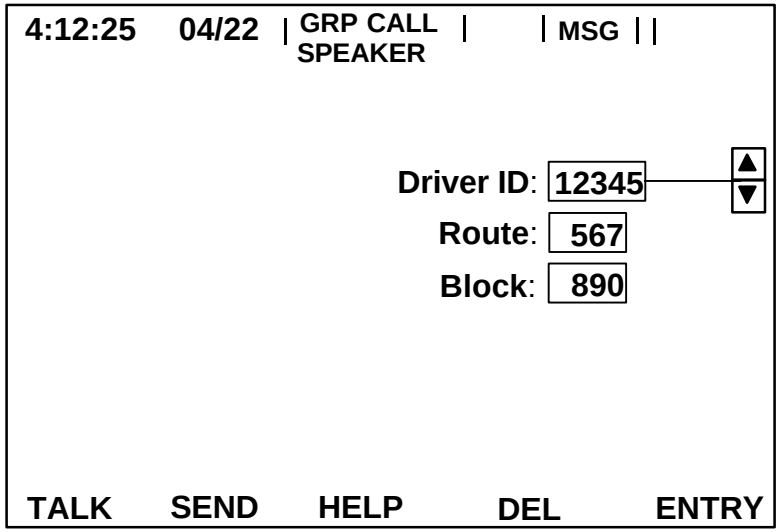
E. Four select buttons are on the right side of the MDT. These four select buttons are used to select an area on the screen. They allow you to change the value of the selected area using the numeric entry keys. This manual refers to these select buttons from the top to the bottom as **S1, S2, S3,** and **S4.**

The symbol on the actual display representing the select buttons is a box containing up and down arrows. Up is always **S1** and **S3**. Down is always **S2** and **S4**.



LOG IN

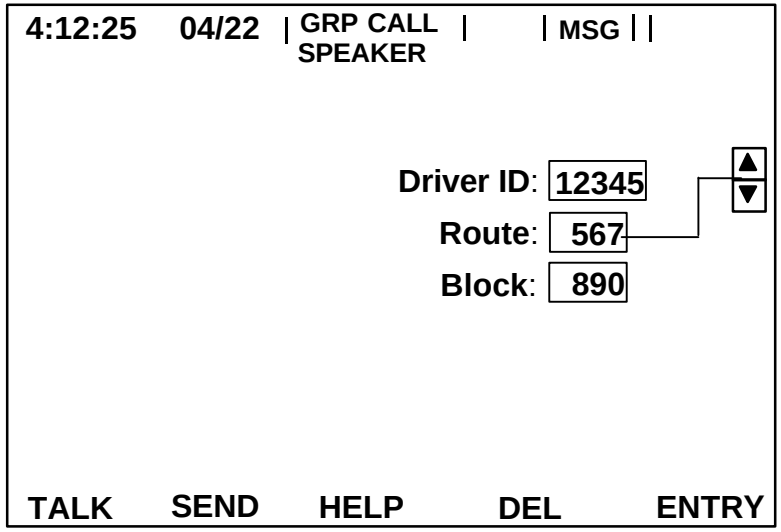
You must log in completely at the beginning of your run. If you do not log in, a theft message is automatically sent to dispatch after the bus moves a short distance. This is a sample log in display.



If the display looks similar to the picture above, the TransitMaster system is ready for you to enter your driver identification (ID).

1. To enter your driver ID, press **S1** until it points to driver ID.
2. Use the numeric entry keys (0-9 under the function buttons) to enter the digits of your driver ID. Press the button under **DEL** to correct an entry.
3. Repeat step 2 until your driver ID is correct.

A valid driver ID is defined by your property and assigned to your badge or employee number. The MDT does not accept numbers outside the range 1 to 65535.



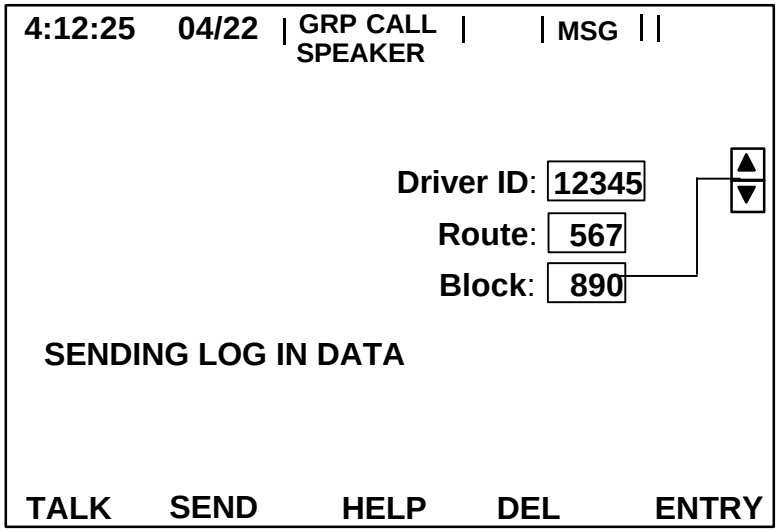
Next you must enter the first half of your current route-block number in the indicated route number area.

1. Press **S1** or **S2** to activate the route number area as shown.

2. Use the numeric entry keys (0-9 under the function buttons) to choose the digits of your route. Press the button under **DEL** to correct an entry. After pressing more than three numeric entry keys, the route area returns to a single digit.

3. Repeat step 2 until your route number is correct.

In the example above, use select buttons **S1** and **S2** to move the selection pointer up and down. Use **S1** to return to the driver ID area. Use **S2** to move the selection pointer to the block number area.



The last half of your route-block number must also be entered in the indicated block number area.

1. Press **S2** to activate the block area.

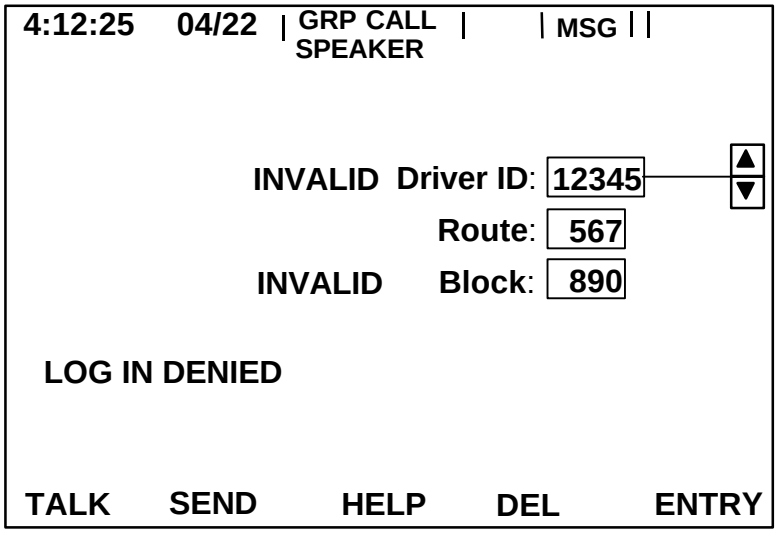
2. Use the numeric entry keys (0-9 under the function buttons) to choose the digits of your block. Press the button under **DEL** to correct an entry. After pressing more than three numeric entry keys, the block area returns to a single digit.

3. Repeat step 2 until your block number is correct.

When the driver ID, route, and block are all correct, press **SEND** to send the information to dispatch. Messages appearing on the display indicate the progress of your log in such as **WAITING FOR VALIDATION** and **VALIDATION TIMEOUT.** If a validation timeout occurs, press **SEND** once more before manually logging in.

When your log in data is accurate and the system acknowledges your login, allow sufficient time for the main display to appear.

If the system encounters an error in the login information, a display like the following example appears. Notice both driver ID and block data are invalid and a message indicates **LOG IN DENIED**. Reenter correct data for the invalid entries and press **SEND** again.



An **INVALID VEHICLE** message indicates you are on the wrong vehicle.

If **LOG IN MSG NOT DELIVERED** appears, press **SEND** to reissue your log in data a second time before attempting to log in manually.

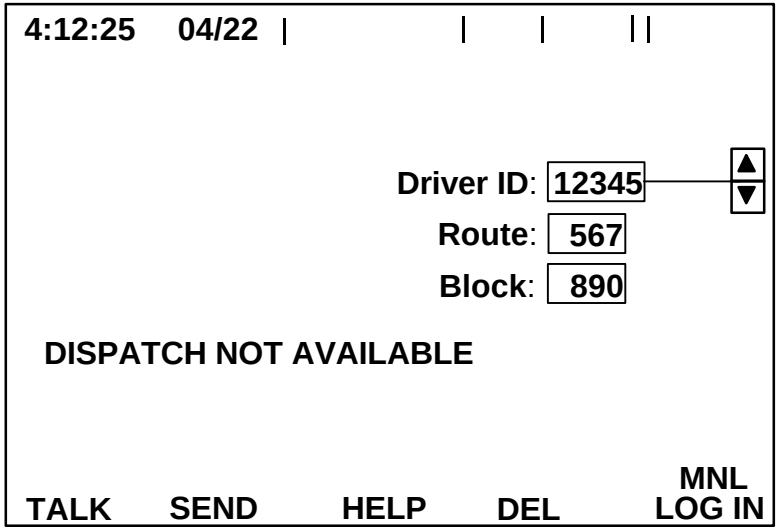
To talk to dispatch, press **TALK** and refer to the talk request section of this manual.

If a relief driver takes over the route, you must log out first and the relief driver log in and send a proper driver ID. To log out refer to the **LOG OUT** section of this manual. The MDT maintains previously entered route and block numbers if the vehicle is not powered down.

Press **HELP** for a listing of help topics.

Press **ENTRY** to return to the entry display.

Manual LOG IN

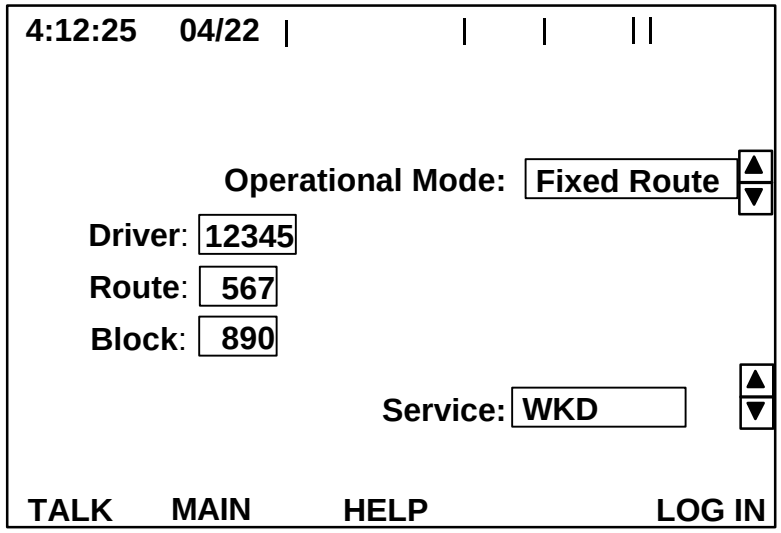


Manual log in is required when the system network is down or your vehicle is out of range of the transmitters. **DISPATCH NOT AVAILABLE** indicates the lack of connection to the system network. The message appears when scheduled maintenance of the system network occurs during operational periods. The message also appears for vehicles in non-coverage radio areas on inter-regional routes.

It is necessary to log in when the system network is down to collect on-board vehicle data and maintain schedule adherence, time point crossings, engine alarms, wheelchair cycling, and count capability. This information is retained by the MDT and transmitted once reconnection to the network is achieved.

When the MDT displays this message, ensure voice communications is operating properly by the method your property prescribes.

When dispatch is not available, the manual log in function appears. Press **MNL LOG IN** to use the manual log in display.



Use select buttons **S1** and **S2** to choose the correct operational mode. Other choices are:

Training
Maintenance
Charter
Staged
Special
Paratransit

Use select buttons **S3** and **S4** to choose the correct service operation. This example shows weekday (WKD).

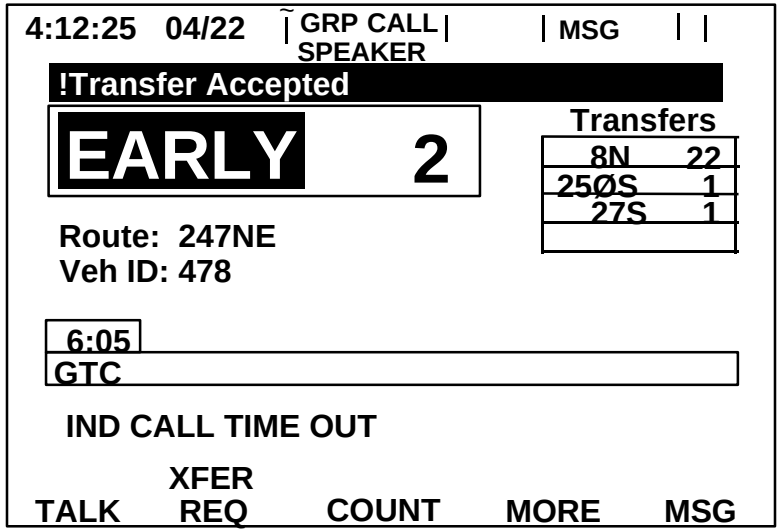
If the driver ID and route-block information are missing,
press **LOG IN** and refer to the **LOG IN** section of this manual to enter driver ID and route-block information.

Once all information is entered correctly, press **MAIN** to complete the manual log in and enter the main display.

To talk to dispatch, press **TALK** and refer to the talk request section of this manual.

Press **HELP** for a listing of help topics.

MAIN



This is an example of the main display. The local global positioning system (GPS) time is displayed in the upper-left corner next to the current date. This time signal is very accurate and is identical in all fleet vehicles to assure all vehicles operate on the same time reference. The time is either in 12-hour time (ie, 04:12 -- hours: minutes), or in 24-hour time (ie, 16:12). Seconds are optional. Supervisor/setup determines the type of time displayed.

When the system first "wakes up," time is not displayed for about 30 seconds while a communication link is established with the GPS satellites.

If you send a covert alarm, a wave appears above the vertical line behind the date once dispatch acknowledges the alarm. (~ is shown in the illustration)

Group call (**GRP CALL**) is a type of call displayed only if the system receives a group call from dispatch. A group call is a call to a specified group of vehicle operators. A single long tone is audible for an all call or group call.
Other types of calls displayed in this same area are individual call (**IND CALL**) and all call (**ALL CALL**). An individual call is a call to an individual operator with an audible series of short beeps. An all call is a call to all operators. Descriptions such as speaker, handset, or PA (public address) are included to describe where the call is heard.

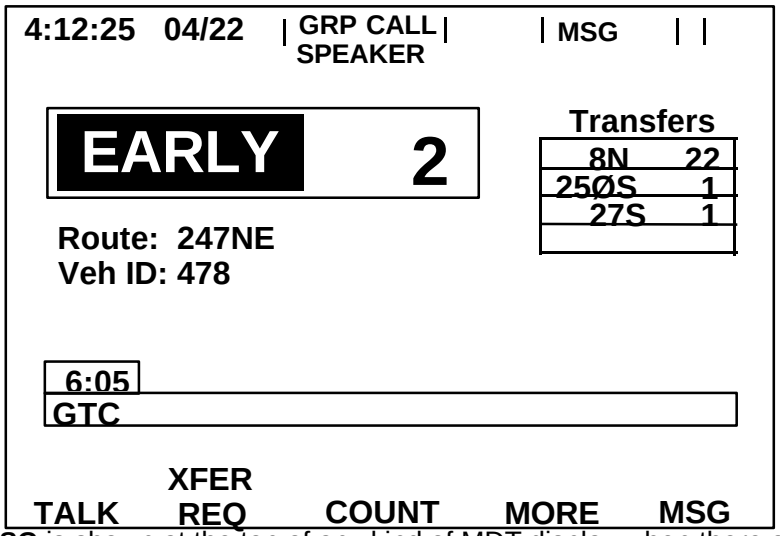
If **IND CALL TIME OUT** is displayed, it means dispatch placed a call and you did not answer in the specified time. If you see this displayed, place a return call to dispatch. Refer to the talk request section of this manual.

The information under the GPS time is called the advisory line. **!Transfer Accepted** is on the advisory line of the previous display. Advisories appearing on this line from lowest priority (top) to highest priority (bottom) are listed below.

Advisory	Action Required
RF Network Down	Test voice mode
Incomplete Route Files	Notify dispatch
Off Course	Return to route
Resyncing to route	No action
Check Wheelchair	Cycle wheelchair lift
Login Required	Perform log in
Transfer Not Possible	Notify passenger
Transfer Accepted	Notify passenger
System Hardware Failure	Notify dispatch

Only one advisory displays at any one time. If more than one advisory condition exists, the highest priority advisory displays. When the condition causing the highest priority advisory is corrected, the next lower priority advisory displays.

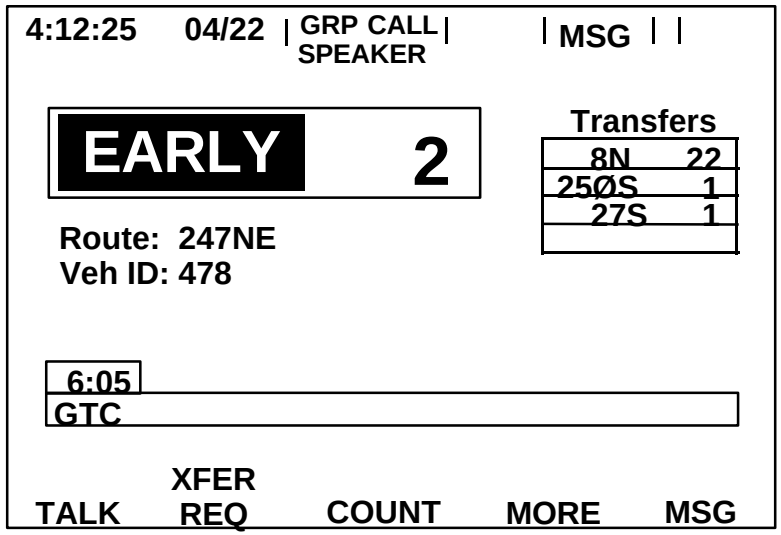
1 June 1999



MSG is shown at the top of any kind of MDT display when there are unread received messages. When the MDT receives a message, a series of long beeps is audible and **MSG** flashes for about 10 seconds. **MSG** stays on until all messages are read. To read the message, press **MSG**, and refer to the received message section of this manual.

The large rectangle in the center of the display tells you how you are doing relative to your schedule. Your current route is shown directly under the rectangle. In this example, you are on Route 247NE and are ahead of schedule by 2 minutes. Your vehicle ID is under the route indicator.

If the location of your vehicle during log in was sunny, you may want to adjust the contrast of the MDT. Contrast and brightness are adjusted any time with the two rocker buttons on the left of the MDT. The half-blackened circle on the top
rocker indicates screen contrast. A circle with radiating lines on the bottom rocker indicates brightness. Press the top of the rocker to increase the adjustment and the bottom of the rocker to decrease the adjustment.



Under the vehicle ID is the arrival time and name of the next stop according to schedule. In this example, you should arrive at 6:05 at GTC.

If transfers are requested for the next stop, the transfers block appears with an audio tone as you approach the stop. The transfer block lists transfers to your route. The transfer block does not appear if transfers are not requested.

To talk to dispatch, press **TALK.** Refer to the talk request section of this manual.

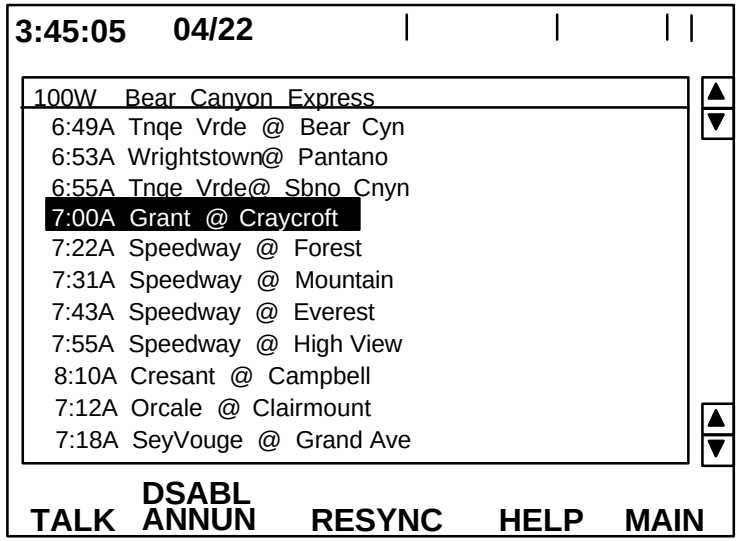
To request a transfer for a passenger, press **XFER REQ** and refer to the transfer request section of this manual.

To perform a passenger count, press **COUNT** and refer to the count display later in this section.

To read your received messages, press **MSG** and refer to the received message display section in this manual.

Repeatedly pressing **MORE** cycles the functions of the second and third buttons as follows: the second button cycles between **XFER REQ, LOG OUT,** and **HELP**; the third button cycles between **COUNT**, **ROUTE LIST**, and **MAINT**. Pressing **COUNT** changes the screen to the **COUNT** display. Pressing **MAINT** changes the screen to a maintenance display to let you see the system operational status.

Pressing **ROUTE LIST** changes the screen to the route list display. The route list shows the current route of the vehicle and the stops on that route.

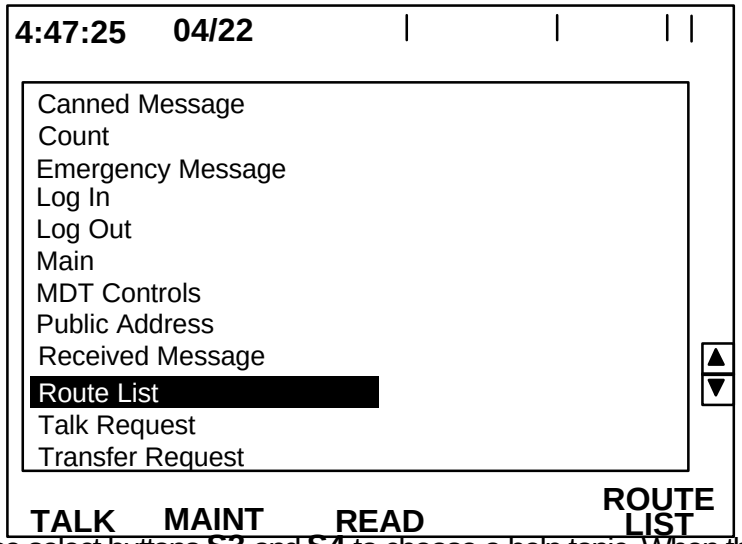


Use select button **S2** to choose the next route the vehicle encounters and a listing of the time points on the next route. **S1** lists the previous route encountered and the associated time points.

Use select buttons **S3** and **S4** to scroll through the selected route to view the listing.

Only at direction of dispatch, press **DSABL ANNUN** to toggle off and on (**ENABL ANNUN**) the annunciation system.
Only at the direction of dispatch, when readjusting the vehicle to a change in schedule, press **RESYNC** to realign the MDT with the closest stop (in time) for the vehicle.

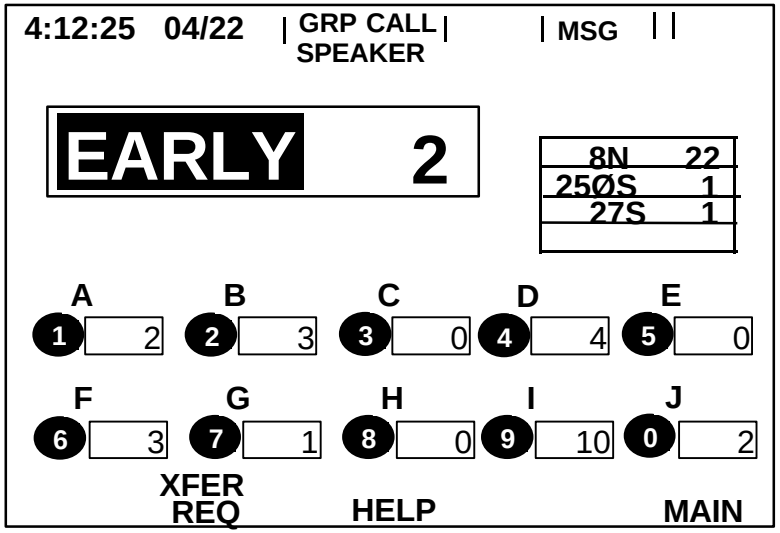
Pressing **HELP** when shown changes the screen to the help display. The help function is context sensitive. Pressing **HELP** on any display when shown provides a help list with the help topic for that display highlighted. In this example, pressing **HELP** changes the screen to the help list with route list highlighted. The help list shows help topics in alphabetical order.



Use select buttons **S3** and **S4** to choose a help topic. When the topic is highlighted, press **READ** to read the information on the help topic selected.

To talk to dispatch, press **TALK** and refer to the talk request section of this manual.

Maintenance (**MAINT**) information is explained in the TransitMaster Advanced Public Transit System Mobile Equipment Maintenance Manual.
Pressing **COUNT** changes the screen to the count display. Perform your passenger count before leaving the stop.



This display allows you to count up to ten different types of passengers. Press the numeric entry key associated with the appropriate label once for each type of passenger. Each press of the numeric entry key representing the passenger type increases the count for that passenger type by one. The count is automatically sent to dispatch after leaving the stop and the system resets the count types for the next stop.

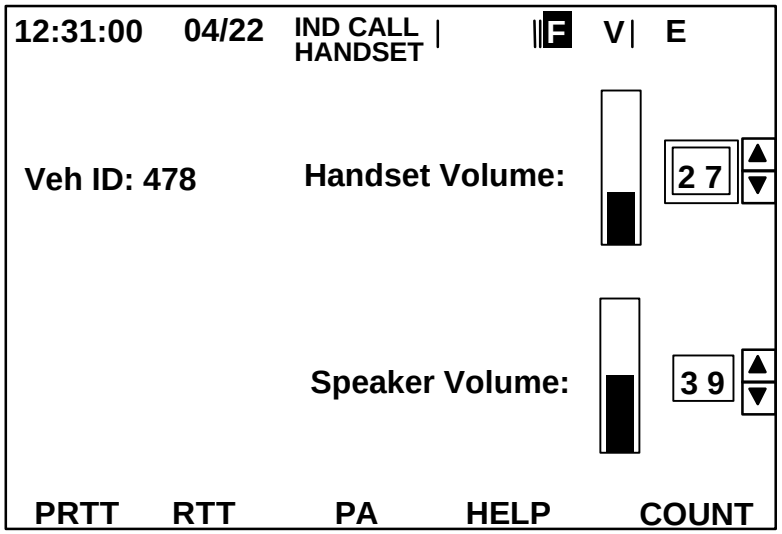
Supervisor/setup establishes labels for the passenger types, which vary for each property. The labels on your display may vary from the labels in the example above.

To request a transfer, press **XFER REQ** and refer to the transfer request section of this manual.

To view a list of help topics, press **HELP**.

To return to the main display, press **MAIN**.

TALK REQUEST



When you press the **TALK** function, the screen changes to a display similar to the one above.

The local GPS time is displayed in the upper-left corner followed by the current date.

An individual call (**IND CALL**) displays only if the system receives an individual call from dispatch. In this example, the call is routed to the handset.

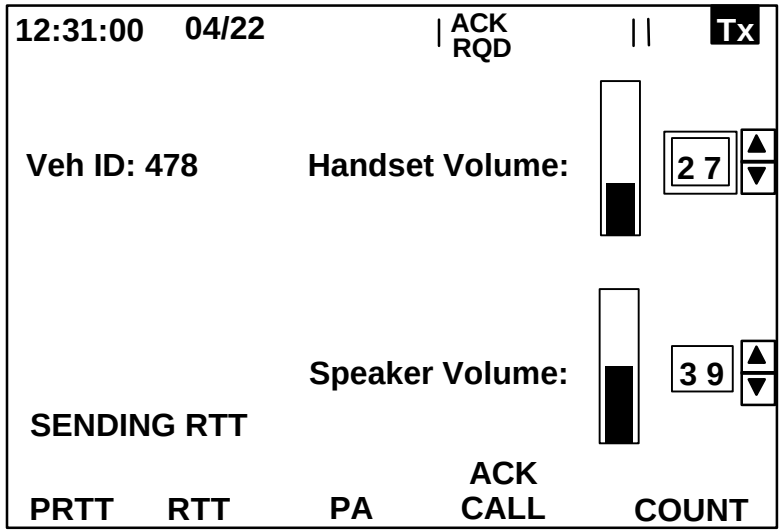
Normally, there is constant data communication between your vehicle and dispatch. If the system detects a lapse in this communication for longer than a predetermined time, the reverse video “F” is displayed in the top line of your MDT. This stands for fallback mode and places your radio into voice mode. All audio is routed to your speaker. In fallback mode, or if the network system fails, voice communication is still possible using your handset.

V in the top line indicates the radio is in voice mode.

E in the top line indicates you pressed the overt emergency message button on the MDT.

Use select buttons **S1** or **S2** to select and adjust the level of handset volume or use the numeric entry keys to adjust handset volume after selection. The slider bar displays the volume change.

Use select buttons **S3** or **S4** to select and adjust the level of speaker volume or use the numeric entry keys to adjust speaker volume after selection. The slider bar displays the volume change. The speaker volume has a preset minimum to prevent complete silence.



Acknowledge required (**ACK RQD**) is displayed if you have received a group call or all call dispatch has requested a receipt of acknowledgement.

"Tx" in reverse video on the top line displays when the radio is keyed (transmitting), except when the covert microphone audio or a covert alarm is transmitted.

Press **RTT** to send a request to talk to dispatch. Use **RTT** for normal communication. When **RTT** is pressed, the **RTT** disappears from the screen for several seconds or until transmitted to dispatch. Notice the advisory line.
Press **PRTT** to send a priority request to talk to dispatch. Use **PRTT** only for urgent communication. If **PRTT** is pressed, both **PRTT** and **RTT** disappear from the screen for several seconds or until transmitted to dispatch.

When dispatch responds, use the handset to talk normally; press the microphone (MIC) key switch to talk, release it to listen. If either **RTT** or **PRTT** fail, press the button again to retry.

Press **PA** to go to the public address display.

Press **ACK CALL** when displayed to acknowledge receipt of a call. **ACK RQD** disappears and reappears only when a new all call or group call is received.

Press **HELP** when displayed for a listing of help topics. **HELP** appears after an **ACK CALL** is completed.

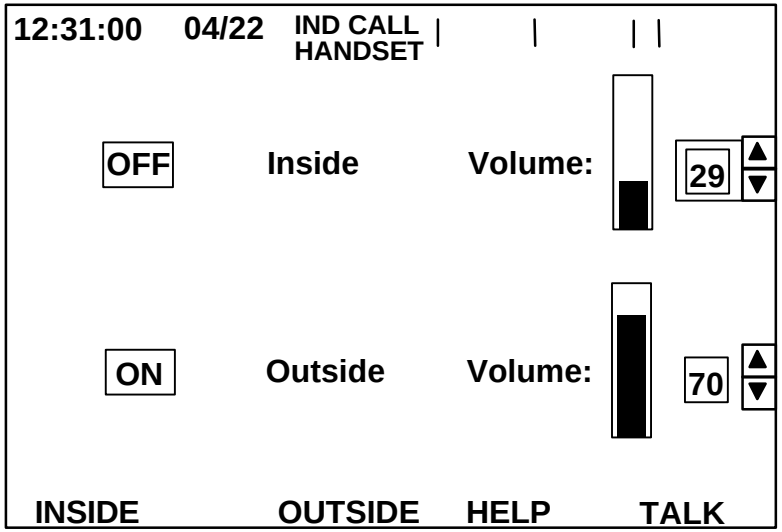
Press the fifth button to return to the display where you were before you pressed **TALK**, the count display in this example.

Even if a call is in progress, it is all right to leave the talk request display and go to another display and resume operation.

A review of special symbols appearing across the top line of the MDT indicating a specific condition are:

E	The overt emergency button was pressed
F	The system is in fallback
V	The radio is in voice mode
Tx	The radio is keyed (transmitting)

When you press **PA** from the TALK display, the MDT displays a screen similar to the one shown.



Use select buttons **S1** and **S2** to select and adjust the inside PA. Once the choice is outlined with a box, press **INSIDE** to toggle the PA on or off. While the inside PA volume is highlighted, adjust the volume up or down with select buttons **S1** and **S2** or use the numeric entry keys to enter a value. The slider bar displays the volume change. The volume has a preset minimum.

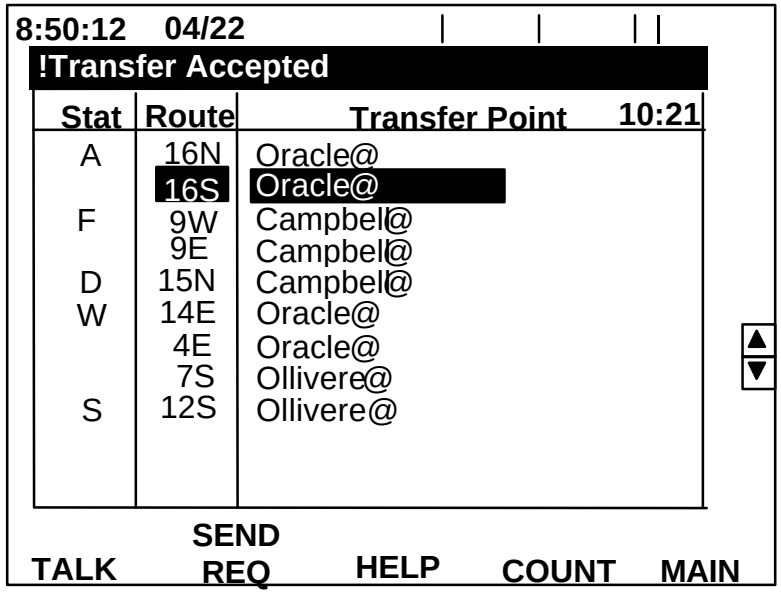
Use select buttons **S3** and **S4** to select and adjust the outside PA. Once the choice is outlined with a box, press **OUTSIDE** to toggle the PA on or off. While the outside PA volume is highlighted, adjust the volume up or down with select buttons **S3** and **S4** or use the numeric entry keys to enter a value. The slider bar displays the volume change. The speaker volume has a preset minimum.

Press **HELP** for a listing of help topics.

To talk to dispatch, press **TALK** and refer to the talk request section of this manual.

TRANSFER REQUEST

When you press **XFER REQ**, the screen changes to a display like this.



This display lists the possible routes and transfer points you will encounter in the next several minutes. The routes are listed in the order you encounter them.

Use select buttons **S3** and **S4** to choose a transfer point. The selected route is shown in reverse video (Route 16S at 10:21 in the above example).

Press **SEND REQ** to send a request for transfer to dispatch.

The dispatch computer calculates if the requested transfer is possible. The advisory line on the MDT then displays either **!Transfer Not Possible**, or **!Transfer Accepted**. You should notify the passenger whether or not the requested transfer was accepted. If the transfer was accepted, the dispatch computer sends a message to the bus on the selected transfer route to advise the driver to wait for the transfer. Refer to the transfer list on the main display.

Status codes on the transfer request display are:

S	Sending	The MDT is sending the request
W	Waiting	The MDT is waiting for a response
F	Failed	Dispatch did not receive the request
A	Accepted	The request was accepted
D	Denied	The request was denied

To talk to dispatch, press **TALK** and refer to the talk request section of this manual.

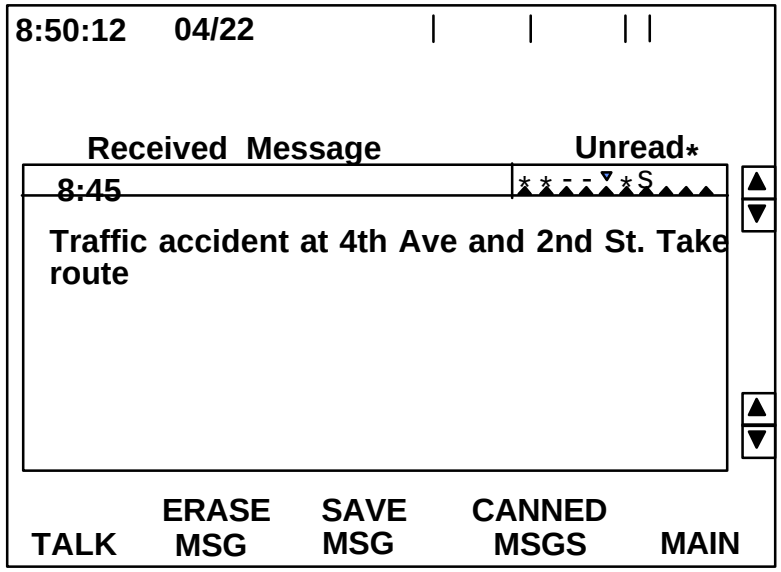
Press **HELP** for a listing of help topics.

To perform manual passenger count, press **COUNT** and refer to the count description in the main section of this manual.

To return to the main display, press **MAIN**.

RECEIVED MESSAGE

If you received a message, heard a series of beeps, and pressed **MSG**, the screen changes to a display like this.



Use select button **S1** to choose a newer message and **S2** to choose an older message. Use select buttons **S3** and **S4** to scroll through the complete message.

Received messages are shown in the upper-right block (under unread***** in the above illustration). Asterisks (*****) over triangles (▲) are unread messages, dashes (**-**) are messages that have been read, and **S** is a saved message. The pointer ( ) indicates the current selected message. The time the current selected message was received is shown on the same line (8:45 in the example shown).

To delete the current selected message from the list, press **ERASE MSG**. When you press **ERASE MSG**, the function changes to **CANCL ERASE** and **SAVE MSG** changes to **CNFRM ERASE**. If you pressed **ERASE MSG** by mistake, press **CANCL ERASE**. You will return to the standard received message display shown.
To delete the selected message, press **CNFRM ERASE** and the message is deleted.

When dispatch sends a message requiring an acknowledgment, the second button is labeled **SEND ACK** instead of **ERASE MSG** whenever that message is selected. This continues until an acknowledgement is sent. After the message is acknowledged, the function changes back to **ERASE MSG**.

In the previous illustration, seven messages have been received. Two have been read, three are unread, one is currently displayed, and one is saved. The messages are stored in the order they are received. The oldest is to the right and the newest to the left. In this illustration, the saved message is the oldest message. The MDT can hold 10 received messages. If 10 messages are received and another message is received (a total of 11), the oldest unsaved message is erased. To prevent a message from being deleted when new messages are received, save the message. To save a message, press **SAVE MSG**.

Up to four messages can be saved at any time. After four messages are saved, **SAVE MSG** disappears until a saved message is erased. When a saved message is displayed, **CANCL SAVE** appears to allow the message normal deletion. Saved messages are deleted at power down of the vehicle.

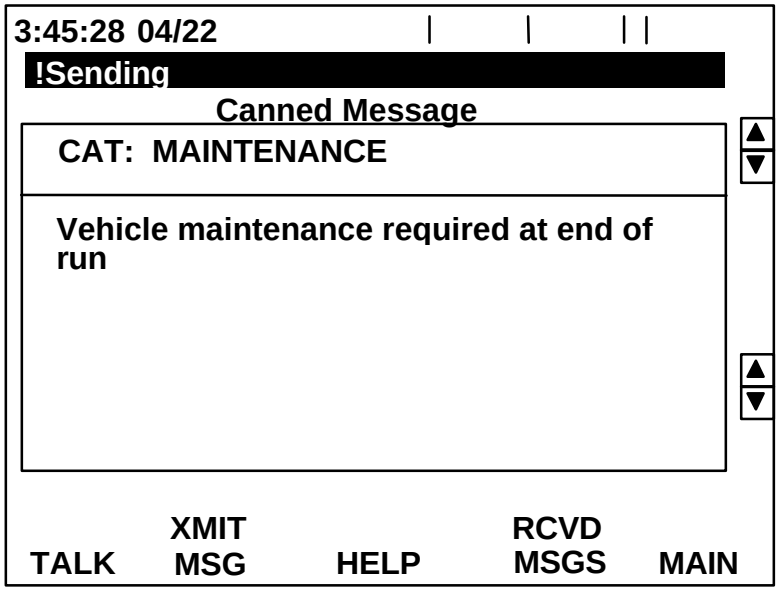
To send a canned (preprogrammed) data message to dispatch, press **CANNED MSGS** and turn to the canned message section of this book.

To talk to dispatch, press **TALK** and refer to the talk request section of this manual.

To return to the main display, press **MAIN**.

CANNED MESSAGE

When you press **CANNED MSGS**, the screen changes to a display like this.



Use select buttons **S1** and **S2** to select a message category (CAT), then use the select buttons **S3** and **S4** to select a message within the category.

To send the selected message, press **XMIT MSG**.

When an annunciation category is selected, **XMIT MSG** changes to **PLAY MSG.** Use **S3** and **S4** to select a message and press **PLAY MSG** to play the message over the internal public address system.

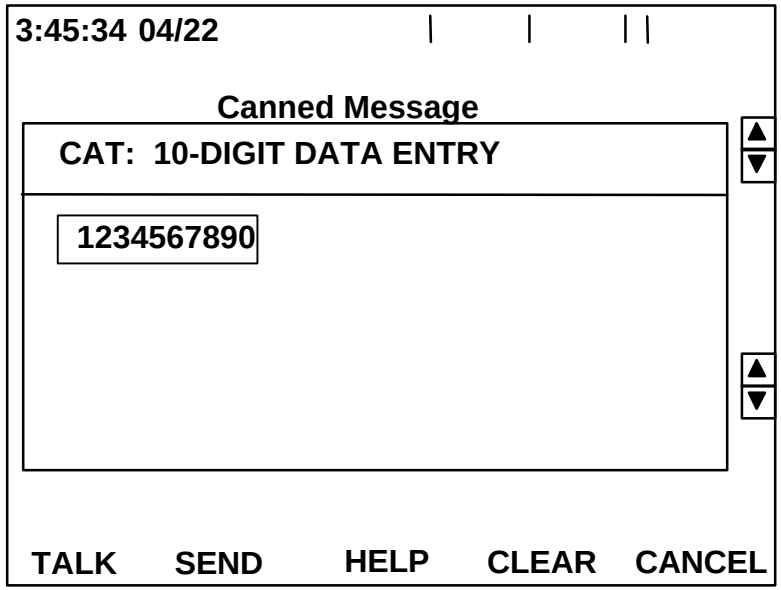
To talk to dispatch, press **TALK** and refer to the talk request section of this manual.

Press **HELP** for a list of help topics.

To read received messages, press **RCVD MSGS** and refer to the received message section of this book.

To return to the main display, press **MAIN**.

The **CANNED MSGS** function provides a 10-digit data entry category as a special purpose utility determined by property policy. Use the entry for any numeric message sent to dispatch.



Use select buttons **S1** and **S2** to select the 10-digit data entry category (CAT), then use the numeric entry keys to enter the code.

To send the data entry and return to the canned message function, press **SEND**.

To clear the data entry, press **CLEAR**. Retype the code again from the beginning.

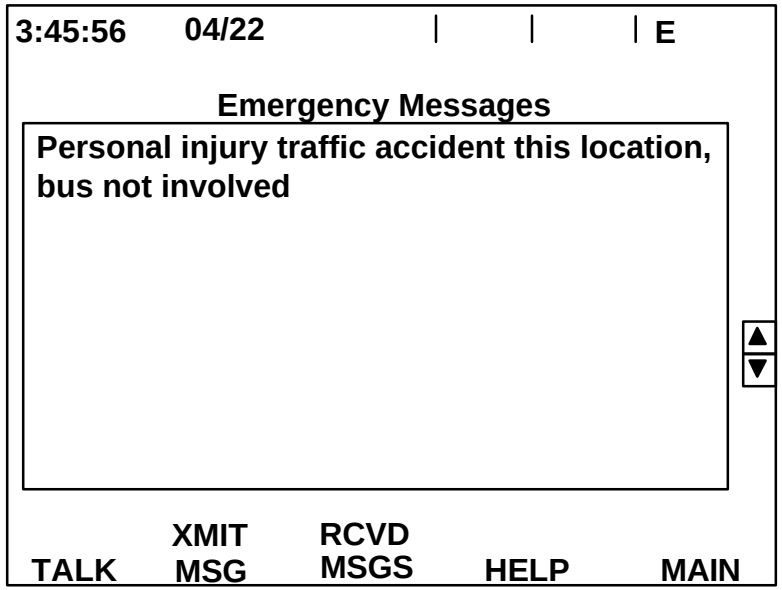
To cancel the data entry and return to the canned message function, press **CANCEL**.

To talk to dispatch, press **TALK** and refer to the talk request section of this manual.

To list help topics, press **HELP**.

EMERGENCY MESSAGE

When you press the emergency message button on the left of the MDT, a display looking similar to this appears. Notice the **E** (emergency) in the upper right of the top line.



Use select buttons **S3** and **S4** to select a preprogrammed emergency message, then press **XMIT MSG** to send the message to dispatch.

To talk to dispatch, press **TALK** and turn to the talk request section of this manual.

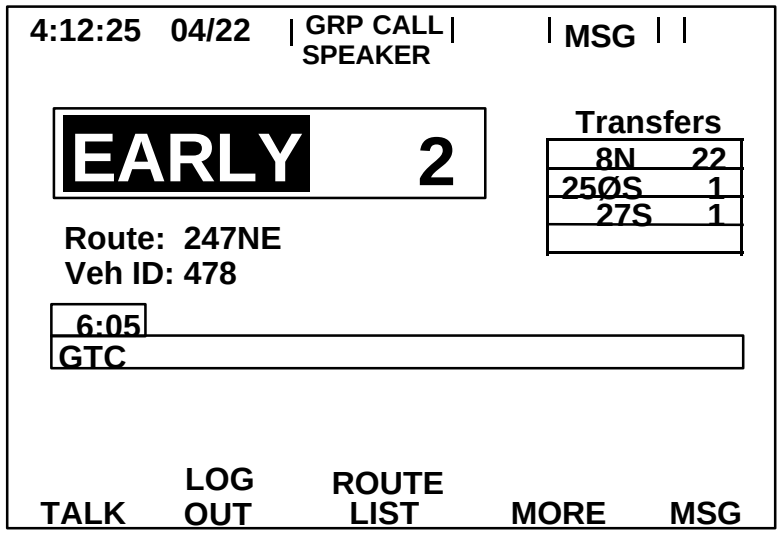
To read received messages, press **RCVD MSGS**, then refer to the received message section of this manual.

Press **HELP** for a list of help topics.

To return to the main display, press **MAIN**.

LOG OUT

At the end of the shift, you must log out of the MDT to let dispatch know you have completed your run.



1. From the main display, continue to press the **MORE** function button until **LOG OUT** displays as shown.

2. Press **LOG OUT**. When you press **LOG OUT**, the function changes to **CANCL LG OUT** to allow you to cancel logging out.

3. Press **CNFRM LG OUT** to complete the log out.

When you are logged out, the screen returns to the log in display. The values for your route-block information remain. A new driver continuing the route need only enter the driver ID and complete the log in procedures. Refer to the log in section of this manual.

When the bus is shut off, the MDT remains on for a length of time determined by supervisor/setup. This allows you to log out of the MDT after the bus is powered down. It prevents loss of MDT data in case of a temporary shutdown on the road and allows dispatch to communicate with the MDT after the end of a run.

If the bus is off long enough for the MDT to shut off, the driver ID, and route-block information is reset. The MDT automatically logs off. You must reenter the driver ID, route, and block information and log in again when the bus is restarted.

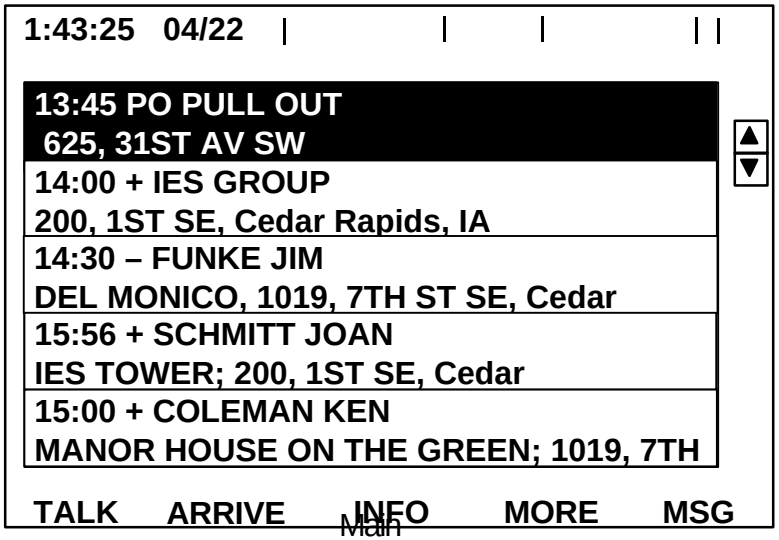
**TransitMaster helps
you promote accurate and
prompt passenger service.**

PARATRANSIT Operations

Some paratransit functions are the same as the fixed route, such as **TALK, LOG ON**, **LOG OUT**, and **MSG**. This section describes the MDT displays unique to paratransit operation.

All paratransit operations are performed from two displays: main, and arrive. This section describes these displays in detail.

When starting a paratransit route, log in as described in the log in section of this manual. The system recognizes the route and block as a paratransit workpiece and changes to the paratransit main display shown here.



The main display shows the run schedule in the order the activities are expected to occur. Activity times, customer name, status indicator, and address appear in the center area of the screen. Status indicators are marked with a plus (+) for pick up, and a minus (-) for drop off. Other status indicators appearing are discussed later.

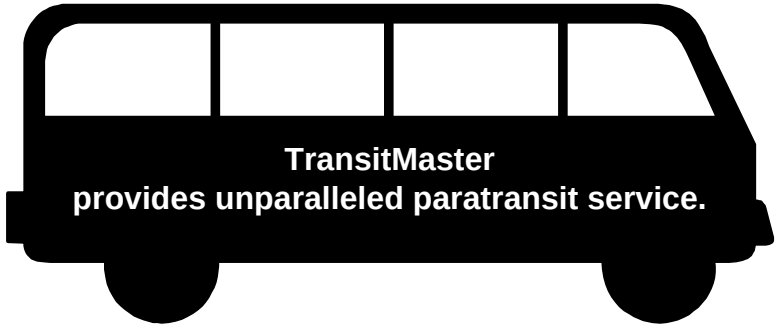
Use select buttons **S1** and **S2** to scroll through the run schedule.

To talk to dispatch, press **TALK** and refer to the talk request section in this book.

Press **INFO** to view additional information about a selected activity. When **INFO** is accessed, the system does not allow you to make changes. **INFO** is for information purposes only.

When **MORE** is pressed, additional options appear as functions across the bottom of the screen. More options are described later.

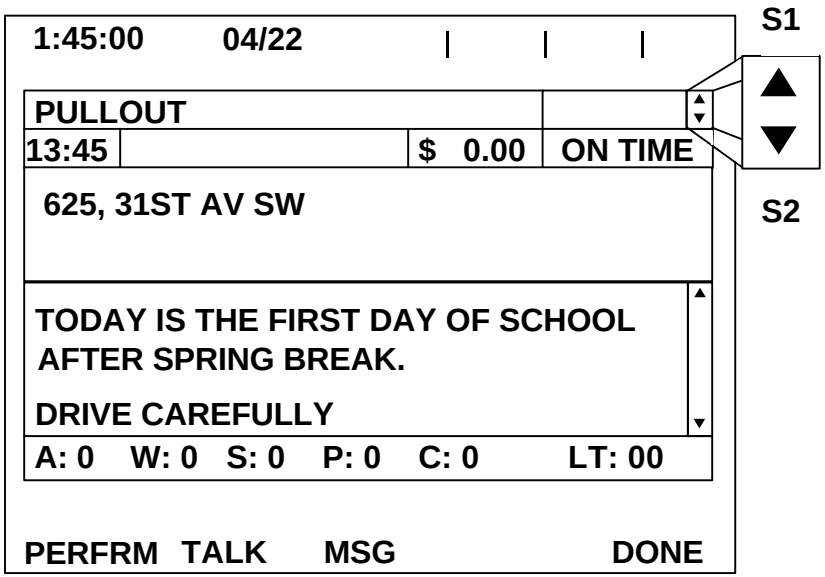
To read received messages, press **MSG** and refer to the received message section of this manual.



Both the main and arrive displays provide operations for two types of service: non-revenue and customer service. The following descriptions detail separately each service.

If the scheduled item on the main display is a non-revenue service (pull out, lunch, etc.), pressing **ARRIVE** changes the screen to an arrive display describing the highlighted non-revenue service.

From the arrive display, use select buttons **S1** and **S2** to view detailed information for all the scheduled items on the main display. Notice placement of **S1** and **S2** is different from fixed route displays.



Arrive

In the center of the screen, the arrive display shows the service activity, time and status, address of the activity, and comment box. Additional information displays in the comment box. Be sure to use the bottom select buttons **S3** and **S4** to scroll through all the information.

The passenger type line always shows on an arrive display. The system automatically indicates which aid a specific customer uses. These passenger aids indicate:

A Ambulatory
W Wheelchair
S Scooter or electrical wheel chair
P Personal care attendant
C Companion

LT represents the anticipated time to load the passenger.

In the example above, once the driver presses **PERFRM** the activity title changes to pulled out.

The system allows you to change your mind about performing the activity. Press **PERFRM** again to toggle or take back the activity. Pulled out changes back to pull out. A time stamp for the activity is not sent to dispatch until you press **DONE**.

After pulling out, press **DONE** to complete the operation. The MDT returns to the main display, a time stamp is recorded by the system for the activity, and the activity for pullout is removed from the run schedule.

The system, if configured, automatically performs the **DONE** function after the vehicle moves 200 feet and returns to the main display.

Non-revenue service activities are:

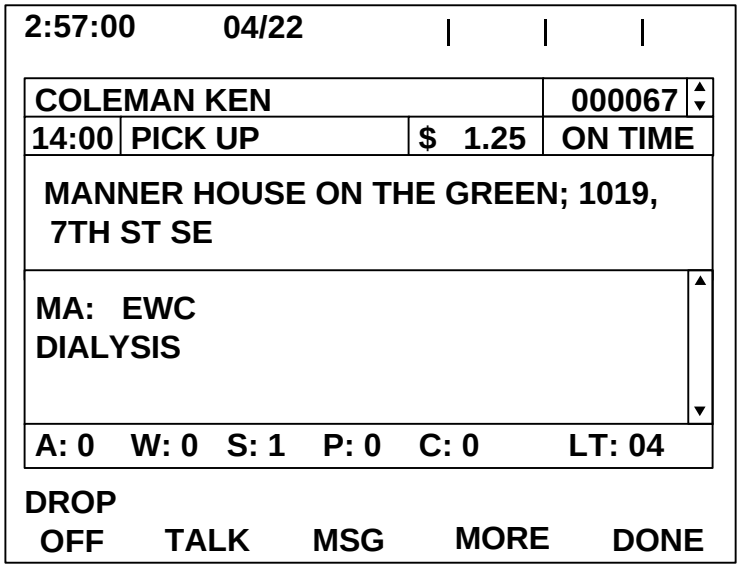
- PULL IN
- PULL OUT
- LUNCH
- OUT OF SERVICE
- REFUEL
- TAKE BREAK

Customer service activities performed are:

- PICK UP
- DROP OFF
- NO SHOW
- CANCEL

To talk to dispatch, press **TALK** and refer to the talk request section in this book.

To read received messages, press **MSG** and refer to the received message section.
If the next scheduled item on the main display is a customer service listing (pick up, drop off, etc), pressing **ARRIVE** changes the screen to the display as shown.



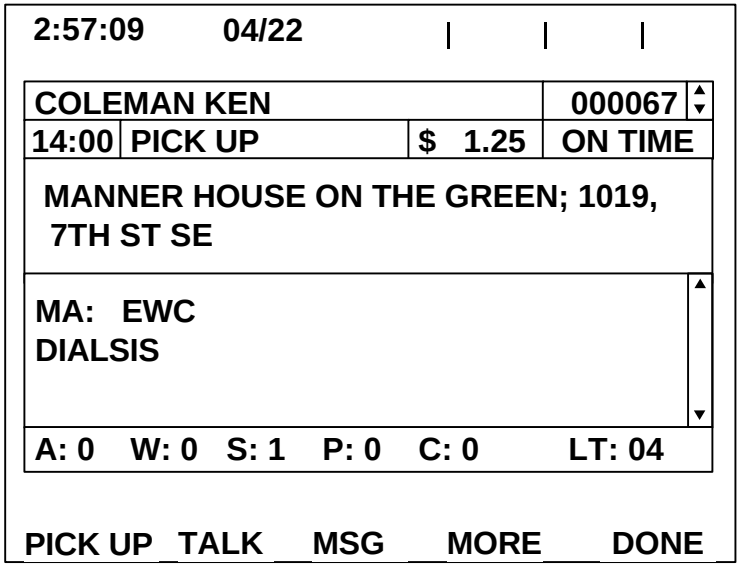
Arrive

The arrive display shows when **ARRIVE** or **INFO** is pressed from the main display. If the **INFO** button was pressed, **MAIN** is the only function provided.

The first line shows the customer's name and identification. Press **S1** or **S2** to scroll through the run schedule. The second line shows the pick up or drop off time, fare charge, and status. The third and fourth lines show the customer's address.

The comment box displays detailed activity comments. Be sure to use the bottom select buttons (**S3** and **S4**) to scroll through all the information. If a customer requires a mechanical aid, MA**:** is specified on the first line followed by the device. This example uses EWC, electric wheel chair. This information is recapped in the passenger type line including the estimated load time.

Press **PICK UP** if a customer is to be picked up, or **DROP OFF** if a customer is to be dropped off.



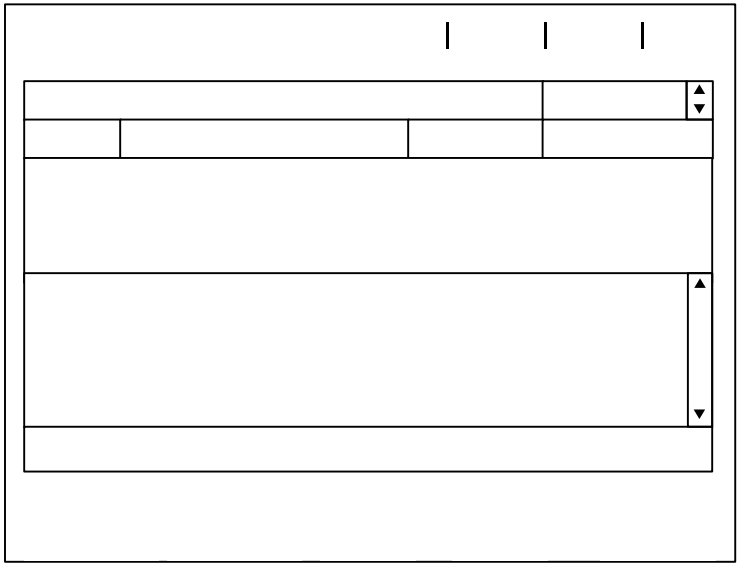
Arrive

Press **PICK UP** or **DROP OFF** when completed with the customer service activity. The pick up changes to picked up. If multiple customers are serviced at one location, use **S1** and **S2** to select each and press **PICK UP** for each before pressing **DONE** to complete the multiple operation.

To toggle (or take back) the operation, press **PICK UP** a second time. Picked up changes back to pick up on the screen.

To complete the operation, press **DONE** while picked up is displayed to send a time stamp to dispatch. Once the action is performed (eg, when you have pressed **DONE**), the record on the roster is deleted and no longer displays. The time between pressing **ARRIVE** and pressing **DONE** is recorded as the time required to load or unload the customer(s).

Press **MORE** for more options. When **MORE** is pressed on the arrive display, different options appear: **NO SHOW** and **CANCEL**.

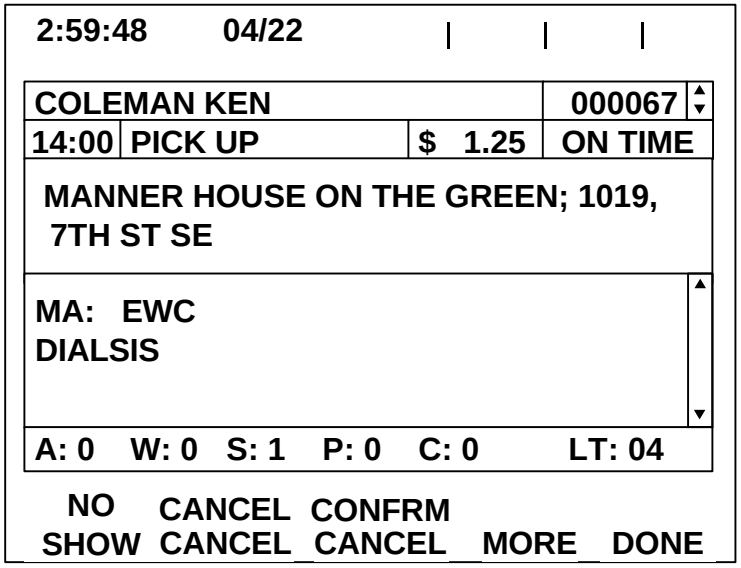


Arrive (No Show Option)

Press **NO SHOW** if you arrive at the pick up location and the customer is unavailable. The pick up changes to no show. This sends a message to notify dispatch the customer is unavailable. Dispatch will take appropriate action (eg, call the customer on the telephone). Dispatch will let you know what to do either by sending a message to be displayed on the screen or by calling on the radio. The passenger's record remains on the main display with an N status indicator (in place of the + sign) until dispatch removes the record.

Press **NO SHOW** a second time to toggle (or take back) the operation. The no show changes to pick up again and the + sign replaces the N status indicator on the main display.

After pressing **MORE** on the arrive display the first time, press **CANCEL** to cancel a customer. The following screen displays.



Arrive (Cancel Option)

For example, if you arrive at the pick up location and are informed by a customer representative the customer is

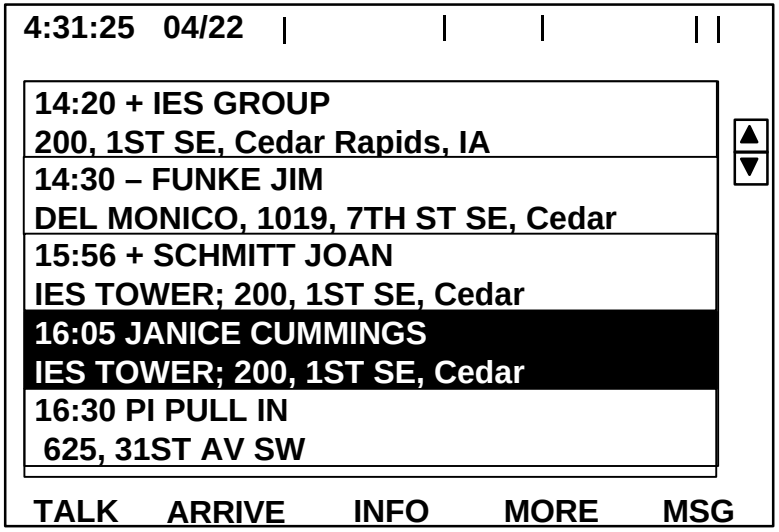
not available, press **CANCEL**, the activity changes to canceled, the third button changes to **CONFRM CANCEL** and the second button changes to **CANCEL CANCEL**. Press **CONFRM CANCEL** to confirm the customer should be canceled or press **CANCEL CANCEL** to stop the cancel process. If you cancel the process, the activity indicator returns to pick up. Dispatch will let you know what to do either by sending a message displayed on the screen or by calling on the radio. Until dispatch cancels the record, the passenger's record remains on the main display with a C indicator in place of the + sign.

Press **CANCEL** a second time to toggle (or take back) the operation. The canceled changes to pick up again and the + sign replaces the C indicator on the main display.

NOTE

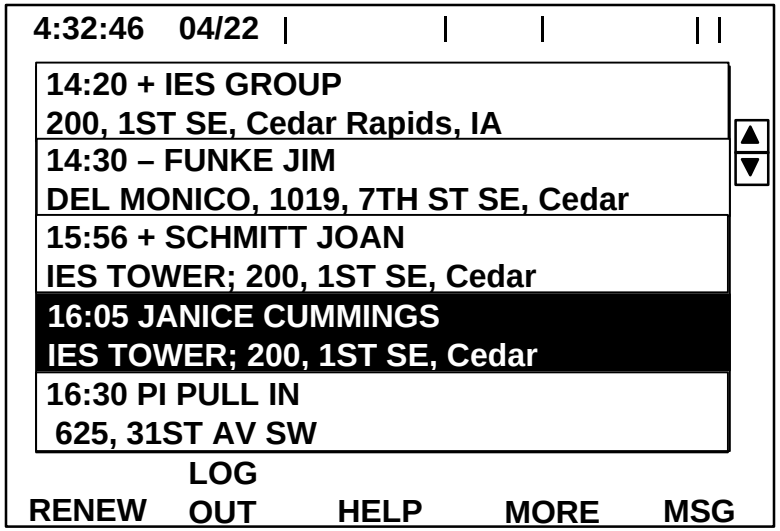
Depending upon your system configuration, when **CONFRM CANCEL** or **NO SHOW** is pressed, the screen may change to the **TALK** display. If it does, a request to talk (**RTT**) is automatically sent to dispatch.

Remember to press **DONE** when you are finished loading and unloading all customers at any stop. Pressing **DONE** returns the screen to the paratransit main display as shown. Notice how the main display has changed since the schedule run began.



Main

From the main display, press **MORE** for additional options: **RENEW, LOG OUT** and **HELP.**



Main (More Options)

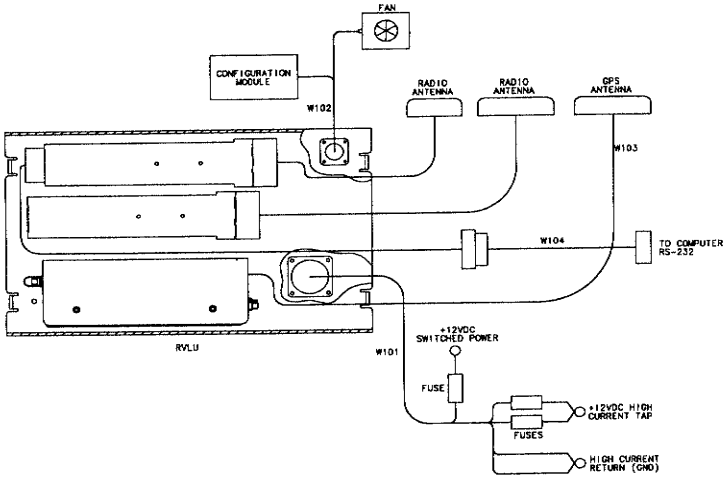
The **MORE** function on the main display provides additional options. Do not perform the following action unless instructed by dispatch. Press **RENEW** to delete the customer database loaded into the MDT and download a new database from dispatch. Pressing **RENEW** provides options to **CANCEL RENEW** and **CONFRM RENEW** to either cancel operation or confirm you want to perform the renew operation.

Press **LOG OUT** to log out. When **LOG OUT** is pressed, you can either cancel log out or confirm you want to log out.

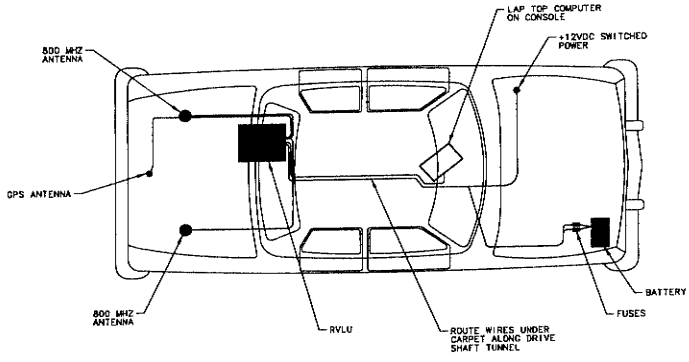
Press **HELP** for a list of help topics.

Press **MORE** to return to the main display.

Press **MSG** and refer to the received message section to read received messages.



SYSTEM INTERCONNECTIONS



LOCATION OF MAIN COMPONENETS

SIZE	CAGEC	DWG NO	REV LTR
D	13499		
SCALE			SHEET 2/7

8 7 6 5 4 3 2 1

REVISIONS			
LTR	DESCRIPTION	DATE	APVD

QTY	ITEM NO	PART OR IDENTIFING NO	NOMENCLATURE OR DESCRIPTION	DOCUMENT NO	CAGEC	UM	HCI	NOTES	REF DESIGNATOR
1			RVLU ASSY, PUBLIC SAFETY AUTO						
1			RVLU BASE ASSY, PUBLIC SAFETY AUTO						
1			AUTO CABLE KIT, PUBLIC SAFETY						
1			AUTO ANTENNA KIT, PUBLIC SAFETY						
1			AUTO BLOWER KIT, PUBLIC SAFETY						
1			AUTO HARDWARE KIT, PUBLIC SAFETY						
	AUTO CABLE KIT, PUBLIC SAFETY								
1			POWER CABLE, PUBLIC SAFETY AUTO						W101
1			BLOWER & CONF MOD CABLE, PS AUTO						W102
1			GPS ANTENNA CABLE, PS AUTO						W103
1			DATA CABLE (RS-232), PS AUTO						W104
	AUTO ANTENNA KIT, PUBLIC SAFETY								
2		LP800NMOUO W/INC CRIMP (WHITE)	800 MHZ ANTENNA (LARSEN)						
1		~~019-1926-100~~	GPS ANTENNA (AEROANTENNA)						
4		343-0187-000	.164-32 UNC-2B x 3/8 PH SCREW						
4		MS 15795-841	#10 FLAT WASHER					(MCp2579,98019A326)	
	AUTO BLOWER KIT, PUBLIC SAFETY								
1		N20354W	12 VOLT VENT (MICRO)						
8		90065A245	#10 FH TAPPING SCREW (McMASTER)					103 p2437	
2		02-08-2103	TERMINAL, MALE (MOLEX)						
1		03-06-2023	POWER CONNECTOR, PLUG (MOLEX)						
	AUTO HARDWARE KIT, PUBLIC SAFETY								
1	BAG	RVLU HARDWARE KIT							
7		A25-80	RIVNUT, 1/4-20						
5		93705A542	1/4-20 x1" SHCS, CRS, SELFLOCKING					(MC, p2486)	
5		MS15795-810	1/4" FLAT WASHERS, CRS					(MC, p2579)	
2		90319A11	SAFETY PIN					(MC, p2633)	
2		91772A196	.190-32 UNC-2B x 5/8 PH MACHINE SCREW					SAFETY BOLT (MCp2507)	
1	BAG	ANTENNA HARDWARE							
4		343-0187-000	.164-32 UNC-2B x 3/8 PH SCREW						
4		MS 15795-841	#10 FLAT WASHER					(MCp2579,98019A326)	
1	BAG	BLOWER HARDWARE							
8		90065A245	#10 FH TAPPING SCREW (McMASTER)					103 p2437	
2		02-08-2103	TERMINAL, MALE (MOLEX)						
1		03-06-2023	POWER CONNECTOR, PLUG (MOLEX)						

DASH NO	NEXT ASSY	USED ON
APPLICATION		

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOL ON DIM: .XX=±.02, .XXX=±.008
HOLE DIA: UNDER ø.251=±.005
ø.251 TO .500 = +.006-.005
OVER ø.500 =+.008-.005
ANGLES: ±1.0°
CONCENTRICITY BETWEEN DIA ON A COMMON AXIS TO BE WITHIN ø.010
THIRD ANGLE PROJECTION

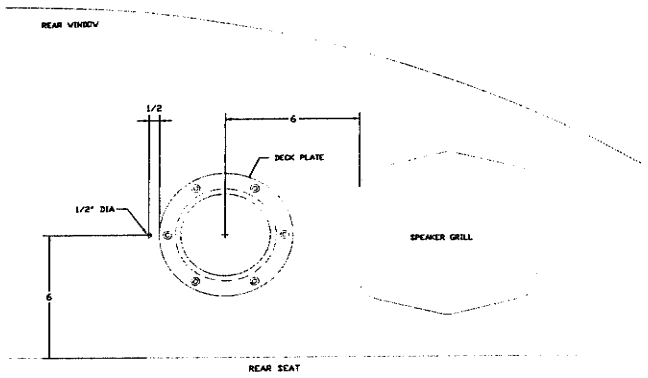
CONTRACT NO
PREP R EVERETT WILLIAMS 4-21-99
CHK
APVD

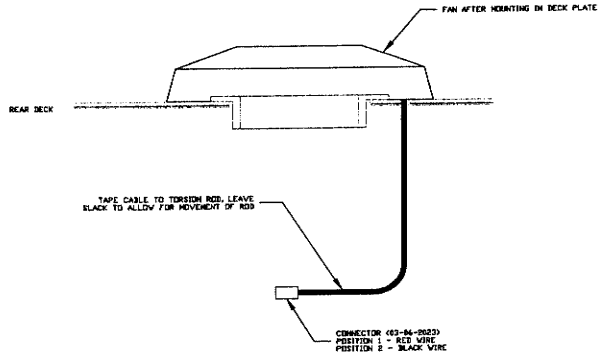
ROCKWELL INTERNATIONAL CORPORATION
COLLINS AVIONICS & COMMUNICATIONS DIVISION
350 COLLINS ROAD NE CEDAR RAPIDS, IA 52498

PUBLIC SAFETY RVLU
AUTOMOBILE INSTALATION

SIZE D | CAGEC | DWG NO. XXX | SIZE
SCALE | SHEET / OF 7

8 7 6 5 4 3 2 1





VENT INSTALATION

1. THE VENT WILL BE INSTALLED THROUGH THE DECK BELOW THE REAR WINDOW ADJACENT TO THE DIRVERS SIDE SPEAKER. MARK THE LOCATION SHOWN IN THE DRAWING. VERIFY THAT THERE WILL BE NO INTERFERENCE WITH WIRING OR STRUCTURE BELOW THE DECK, CUT A 4.75" HOLE THROUGH THE DECK WITH A HOLE SAW.
2. INSTALL THE DECK PLATE IN THE HOLE AND MARK THE LOCATION OF THE SIX MOUNTING HOLES. REMOVE THE DECK PLATE AND DRILL 5/32" HOLES. REPLACE THE DECK PLATE AND FASTEN IT IN PLACE WITH #10 SHEET METAL SCREWS. DO NOT OVERTIGHTEN THE SCREWS OR THE DECK PLATE MAY BE DISTORTED.
3. DRILL A 1/2" HOLE IN THE DECK APPROXIMATELY 1/2 INCH FROM THE DECK PLATE AS SHOWN.
4. LOCATE THE WIRING EXTENDING FROM THE VENT. INSTALL PINS (02-06-2103) ON THE TWO CONDUCTORS IN THE CABLE.
5. INSTALL THE VENT IN THE DECK PLATE WHILE FEEDING THE WIRING THROUGH THE 1/2" HOLE. SEAT THE VENT UNTIL IT SNAPS INTO PLACE.
6. GO TO THE TRUNK; LOCATE THE WIRING FROM THE FAN. USING THE LOOSE CONNECTOR (03-06-2023), INSERT THE PIN ON THE RED WIRE INTO LOCATION 1. INSERT THE PIN ON THE GREEN WIRE INTO LOCATION 2.
7. TAPE THE VENT WIRING TO ONE OF THE TORSION RODS, MAKE SURE THE WIRING HAS SUFFICENT SLACK TO ALOW ANY MOVEMENT OF THE TORSION ROD.

REVISIONS

LTR	DESCRIPTION	DATE	APVD

BASH NO	NEXT ASSY	USED ON
APPLICATION		

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOL ON DIM .XX=±.02, .XXX=±.008
HOLE DIA: UNDER ø.251=±.005
ø.251 TO .500 = +.006-.005
OVER ø.500 =+.008-.005
ANGLES: ±1°
CONCENTRICITY BETWEEN DIA ON A COMMON AXIS TO BE WITHIN ø.010
THIRD ANGLE PROJECTION

CONTRACT NO
DRFD R. EVERETT WILLIAMS 5-11-99
CHK
APVD

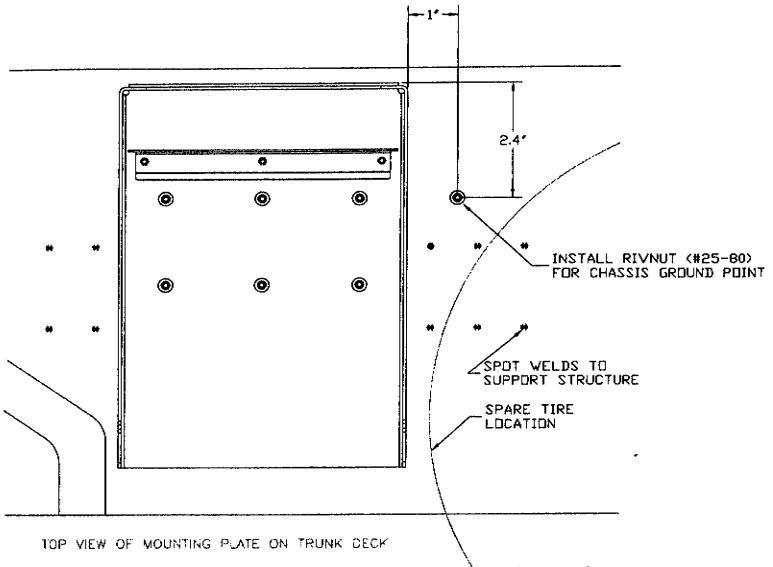
ROCKWELL INTERNATIONAL CORPORATION
COLLINS AVIONICS & COMMUNICATIONS DIVISION
350 COLLINS ROAD NE CEDAR RAPIDS, IA 52498

PUBLIC SAFETY RVLU
AUTOMOBILE INSTALLATION

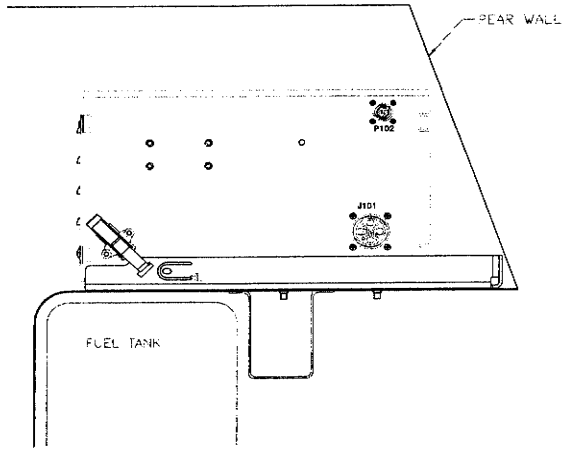
SIZE D | CAGEC | DWG NO. XXX | REV
SCALE | SHEET 4 OF 7

USER R. Everett Williams, Rockwell Collins
REVDATE 5/11/99 4:59 PM
FNAME VENT INSTALATION V2.dwg

REVISIONS			
LTR	DESCRIPTION	DATE	APVD



TOP VIEW OF MOUNTING PLATE ON TRUNK DECK



SIDE VIEW OF MOUNTING BASE AND RVLU ON TRUNK DECK

1. Position the RVLU MOUNTING BASE in the trunk on the deck next to the spare tire. Slide unit to the left until the form of the deck would start to cause separation between mounting base and the deck. There should be a minimum of 1 to 2 inches clearance between the side of the VLU and the spare tire. Verify that no structure will interfere with the VLU when mounted in this location.
2. A minimum of 4 mounting bolts will be used in the 6 holes provided in the MOUNTING BASE. Verify holes drilled through the deck will not damage any fluid lines, control cables, electrical harness, or structure of the vehicle. Using the BASE as a template, drill (6) 0.332(Q)" diameter holes through the deck. A maximum of 2 holes may be omitted if there is interference with the auto structure.
3. Drill an additional hole in the approximate location shown for a chassis ground point.
4. Install a #25-80 RIVNUT fastener in each hole and clinch securely in place.
5. Fasten the MOUNTING BASE to the deck with ¼"-20 x 1"self-locking socket head cap screws and a flat washer. Torque cap screws to 35 Lb.-In.
6. Mount the RVLU on the base to verify fit in the vehicle and function of the MOUNTING BASE latches.

DASH NO	NEXT ASSY	USED ON
APPLICATION		

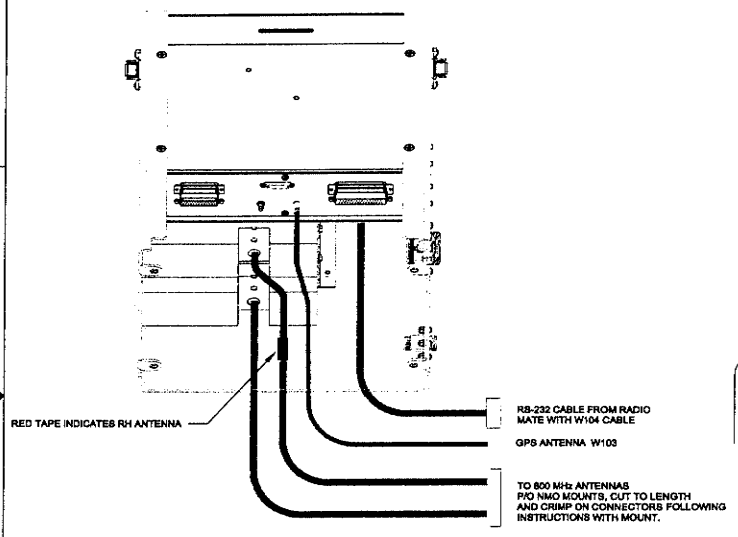
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOL ON DIM: XX=±.02, XXX=±.006
HOLE DIA: UNDER Ø.251=±.005
Ø.251 TO .500 = +.006-.005
OVER Ø.500 =+.008-.005
ANGLES: ±1.0°
CONCENTRICITY BETWEEN DIA ON A COMMON AXIS TO BE WITHIN Ø.010
THIRD ANGLE PROJECTION

CONTRACT NO
PREP R EVERETT WILLIAMS 4-21-99
CHK
APVD

ROCKWELL INTERNATIONAL CORPORATION
COLLINS AVIONICS & COMMUNICATIONS DIVISION
350 COLLINS ROAD NE CEDAR RAPIDS, IA 52498

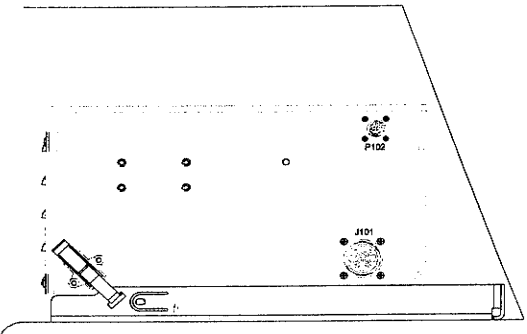
PUBLIC SAFETY RVLU AUTOMOBILE INSTALATION

SIZE	CAGEC	DWG NO.	SIZE
D		XXX	
SCALE		SHEET 5 OF 7	



CONNECTING ANTENNAS TO RVLU

1. SET RVLU IN BOTTOM OF TRUNK WITH FRONT COVER DOWN AND BOTTOM FACING THE FRONT OF THE AUTO.
2. ATTACH ANTENNA CABLES TO CONNECTORS AS SHOW ABOVE.



RVLU INSTALATION

1. VERIFY THE RS-232 CABLE TO THE LAPTOP COMPUTER IS ROUTED OUT OF THE RVLU CORECTLY, AND THE ANTENNA COAXIAL CABLES ARE PROPERLY CONNECTED.
2. WITH THE RVLU THE IN THE SERVICE POSSITION, SECURE THE CABLES TO THE BACK WALL WHERE THE SERVICE LOOP WILL START.
3. SET THE REAR OF THE RVLU ON THE BASE BETWEEN THE SIDES.
4. SLIDE THE RVLU TOWARD THE FRONT OF THE AUTO WHILE MAKING SURE THE COAXIAL CABLES ARE NOT PINCHED AND THEY FORM A SERVICE LOOP THAT CAN BE SECURED WHERE THE CABLES WILL NOT BE DAMAGED.
5. AS THE RVLU IS MOVED FORWARD THE FLANGES WILL ENGAGE A RETAINER PLATE AND THE LAST HALF-INCH OF MOVMENT WILL REQUIRE ADDITIONAL FORCE TO BRING THE RVLU INTO CONTACT WITH THE MECHANICAL STOP IN THE BASE.
6. WHEN THE RVLU IS SEATED AGAINST THE STOPS, REMOVE THE SAFETY PINS IN THE LATCHES, ENGAGE THE LATCH BLADES IN THE BASE SLOTS, AND LATCH THE RVLU DOWN TO THE BASE. REPLACE THE SAFETY PINS.
7. CONNECT THE BATTERY POWER SUPPLY CABLE CONNECTOR.
8. CONNECT THE BLOWER - CONFIGURATION MODULE CABLE CONNECTOR.

REVISIONS

LTR	DESCRIPTION	DATE	APVD

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOL ON DIM: .XX=±.02, .XXX=±.005
HOLE DIA: UNDER Ø.251=±.005
Ø.251 TO .500 = +.005-.000
OVER Ø.500 = +.008-.000
ANGLES: ±1.0°
CONCENTRICITY BETWEEN DIA ON A
COMMON AXIS TO BE WITHIN Ø.010
THIRD ANGLE PROJECTION

DASH NO | NEXT ASSY | USED ON
APPLICATION

CONTRACT NO
DRWN A EVERETT WILLIAMS 4-21-99
CHK
APVD

ROCKWELL INTERNATIONAL CORPORATION
COLLINS AVIONICS & COMMUNICATIONS DIVISION
350 COLLINS ROAD NE CEDAR RAPIDS, IA 52498

PUBLIC SAFETY RVLU
AUTOMOBILE INSTALATION

SIZE D | CAGEC | DWG NO. XXX | REV
SCALE | SHEET 1 OF 1

R. Everett Williams, Rockwell Collins 5/2/99 12:09 PM RVLU CABLE HOOK UP2.dwg

POWER AND DATA CABLE INSTALATION

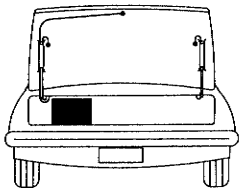
1. DATA CABLE W104 XXX-XXXX-XXX CABLE NEXT TO DB9S CONNECTOR IS ATTACHED TO STRUCTURE BEHIND REAR SEAT AND NEXT TO RVLU MOUNTING. THE CABLE IS THEN ROUTED UNDER BACK SEAR, UNDER CARPET TO THE CENTER COUNSOLE WHERE IT CAN BE ATTACHED TO DOCKING STATION (CUSTOMER SUPPLIED EQUIPMENT).

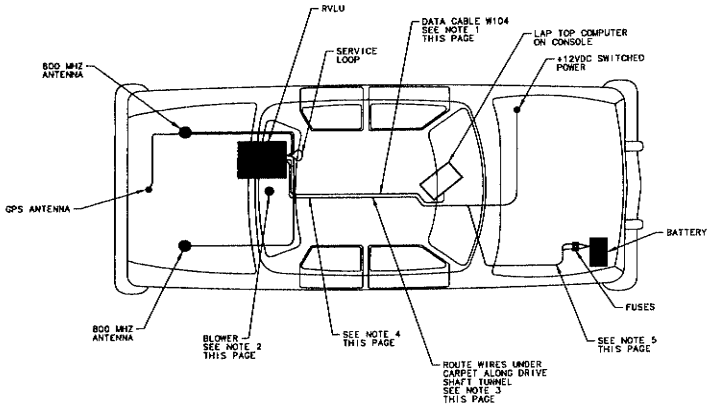
2. BLOWER XXX-XXXX-XXX BLOWER CABLE W102 DOES NOT HAVE A SERVICE LOOP.

3. ROUTE WIRES UNDER CARPET ALONG DRIVE SHAFT TUNNEL NEXT TO EXISTING VOICE RADIO POWER CABLES.

4. POWER CABLE WILL NOT HAVE A SERVICE LOOP. CABLE IS ROUTED UNDER REAR SEAT, UNDER CARPET ALONG TRANSMISSION TUNNEL AND THROUGH FIREWALL. IT WILL PASS THROUGH THE SAME HOLE USED BY THE VOICE RADIO POWER CABLE.

5. POWER CABLES ARE ROUTED FROM THE FIREWALL, OVER THE TOP OF THE FENDER WELL TO THE BATTERY TERMINALS. INLINE FUSES ARE INSTALLED IN THE (2) +12VDC WIRES AT THE TOP OF THE FENDERWELL.





SIZE	CAGEC	DWG NO	REV
D	13499		LTR -
SCALE			SHEET 7 3 2

ANTENNA INSTALATION

1. VERIFY THE 800MHz ANTENNA MOUNTS CAN BE LOCATED IN THE POSISTIONS INDICATED WITHOUT INTERFERANCE WITH THE SUPPORT STRUCTURE UNDER THE OUTER SKIN OF THE TRUNK. ADJUST LOCATION AS REQUIRED TO ACCOMIDATE THE MOUNTS.

2. INSTALL THE TWO NMO MOUNTS FOLOWING THE PROCEDURE IN THE MANUFACTURES INSTRUCTIONS.

3. ROUTE COAXIAL CABLES IN THE CAVITIES BETWEEN THE SKIN AND THE SUPPORT STRUCTURE TO THE CLOSEST OPENING WHERE THE HINGES ATTACH TO THE TRUNK LID.

4. MOUNT THE 800MHz ANTENNAS ON THE MOUNTS.

5. VERIFY THE GPS ANTENNA CAN BE LOCATED IN THE POSISTION INDICATED WITHOUT MOUNTING PROBLEMS. ADJUST LOCATION AS REQUIRED TO ALOW MOUNTING OF THE ANTENNA.

6. DRILL A 1 HOLE FOR COAXIAL CABLE. NOTE, THE CONNECTOR IS NOT LOCATED IN THE CENTER OF THE ANTENNA.

7. USING TEMPLATE 989-6636-nnn, DRILL THE FOUR 0.125 CLEARANC HOLES FOR THE ANTENNA MOUNTING SCREWS.

8. APPLY A Ø BEAD OF CLEAR SILICON SEALANT TO THE ANTENNA ALONG THE BOLT CIRCLE OF THE TAPED HOLES (2.45 DIA.).

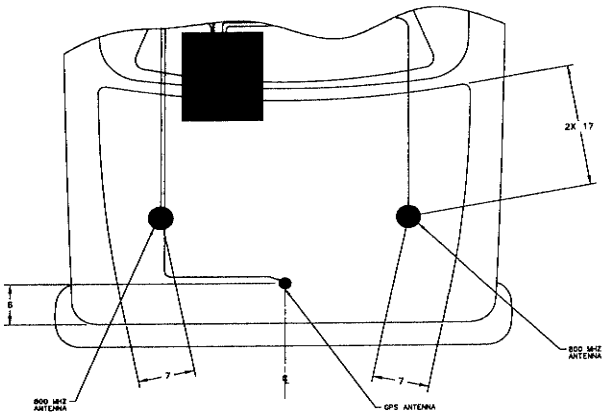
9. MOUNT THE GPS ANTENNA USING FOUR 0.164-32 x 0.375 CRES SHCS.

10. FINISH THE SILICON SEALANT LEAVING A 3/16 FILLIT AROUND THE PERIMETER OF THE ANTENNA.

11. ATTACH THE CABLE (W103) TO THE ANTENNA AND ROUTE ALONG THE EXISTING WIRING HARNESS TO THE HINGE.

12. TAPE THE CABLES TO THE HINGES WHERE THEY EXIT THE TRUNK LID AND CONTINUE ALONG THE ROUTE USED BY THE EXISTING WIRING HARNESES. MAKE SURE THE CABLE ROUTING AND ATTACHMENTS WILL ALLOW THE TRUNK TO CLOSE WITHOUT CAUSING ANY STRAIN IN THE CABLES. CONTINUE ROUTING THE CABLES TO A POINT JUST BEHIND THE AREA WHEAR THE RVLU WILL BE MOUNTED ON THE DECK.

13. INSPECT THE GROUNDING STRAPS ACROSS THE HINGE JOINTS. REPAIR OR REPLACE ANY DAMAGED GROUNDING STRAPS.

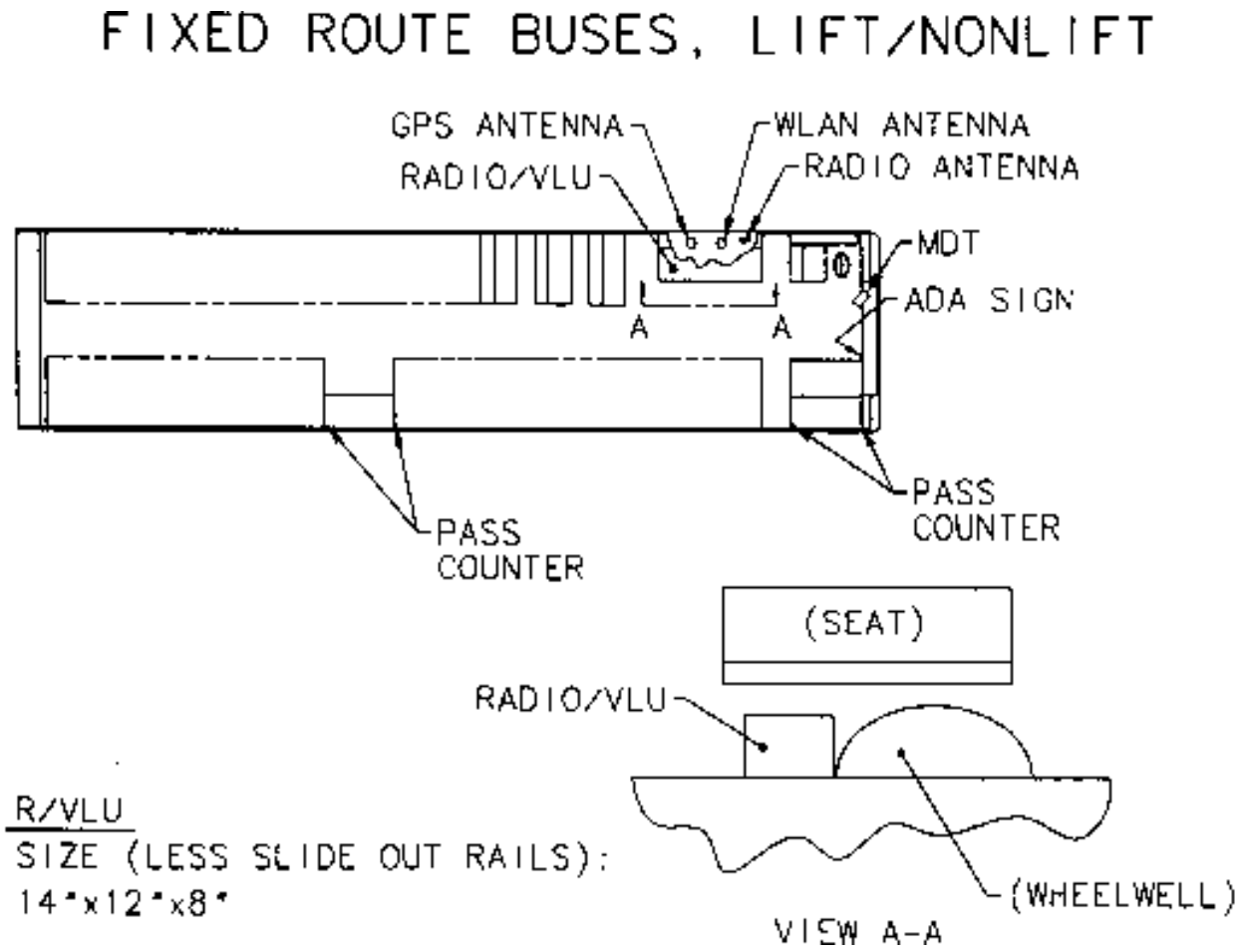


SIZE	CAGE	DWG NO	REV
D	13499		LTR
SCALE			SHEET 357

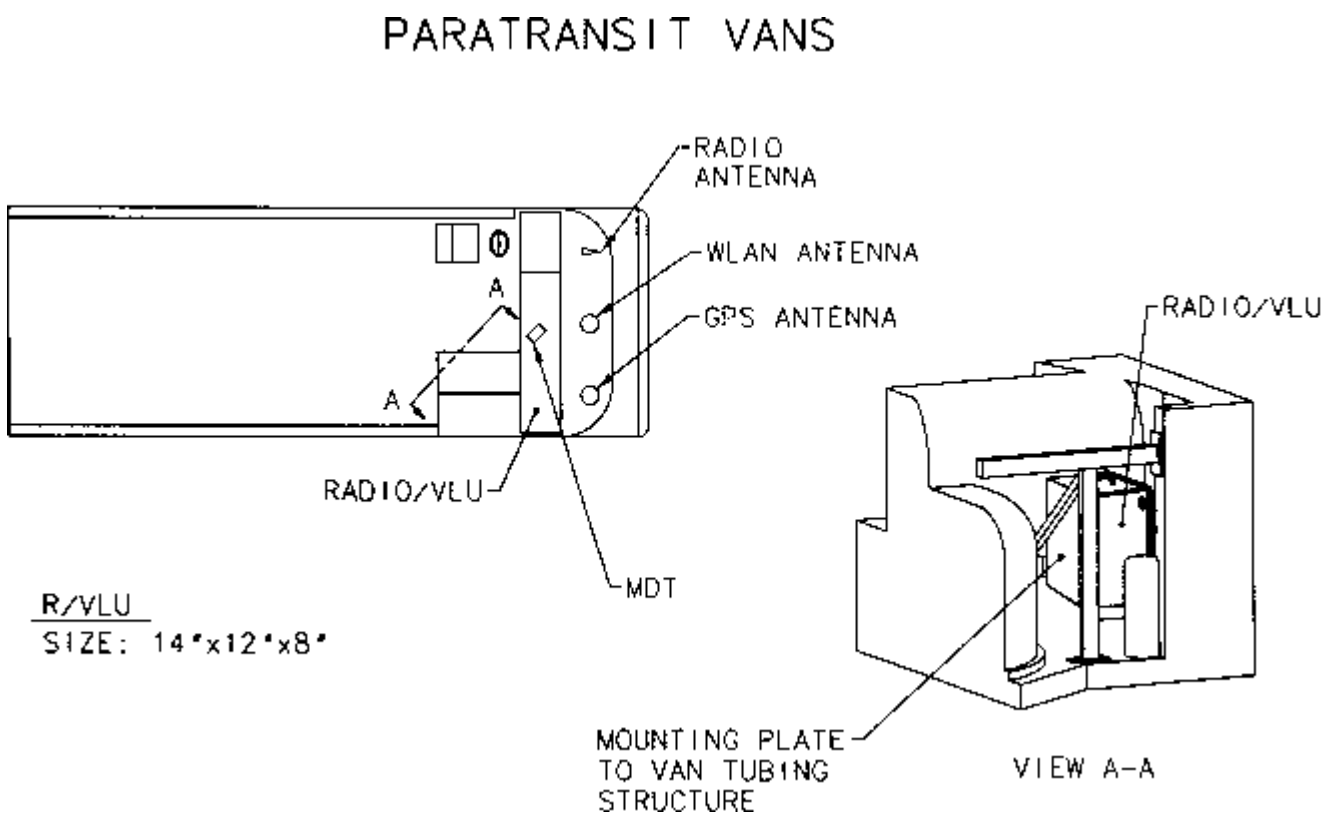
Standard RVLU &Antenna Installations

- **MECHANICAL INSTALLATION**
  - Fixed Route Buses
  - Paratransit Vans
  - Chance Coaches
  - Supervisor Cars
  - Service Trucks
  - Caravans / Voyagers

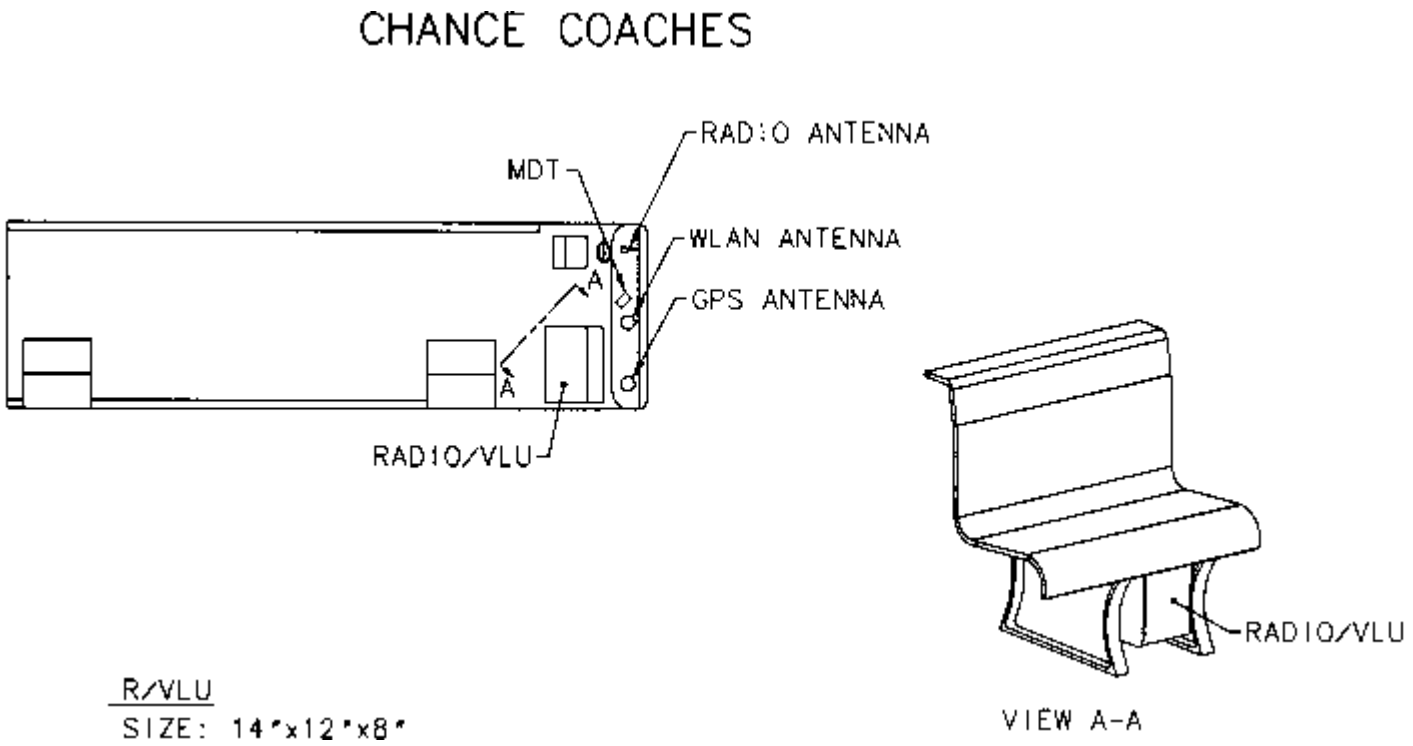
Standard RVLU &Antenna Installations



Standard RVLU &Antenna Installations

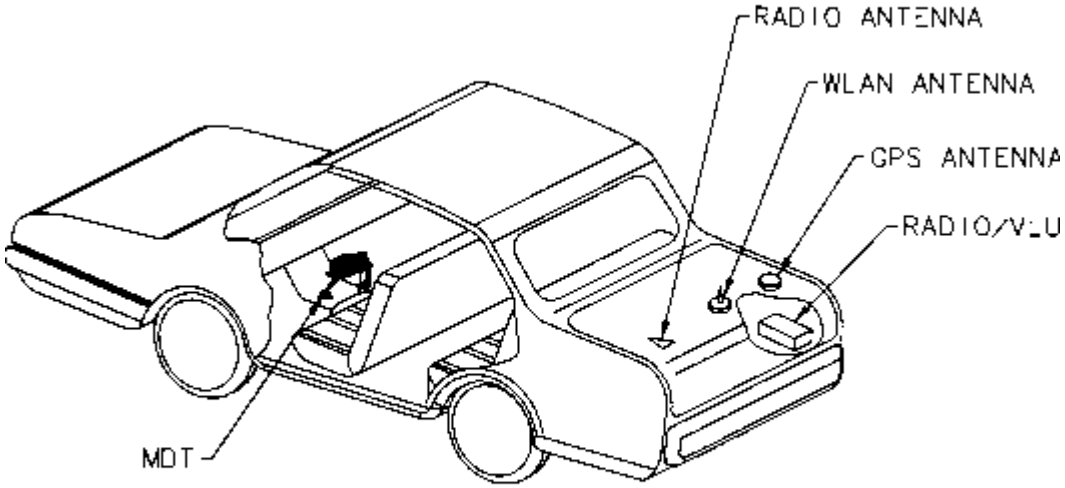


Standard RVLU &Antenna Installations



Standard RVLU &Antenna Installations

SUPERVISOR CARS

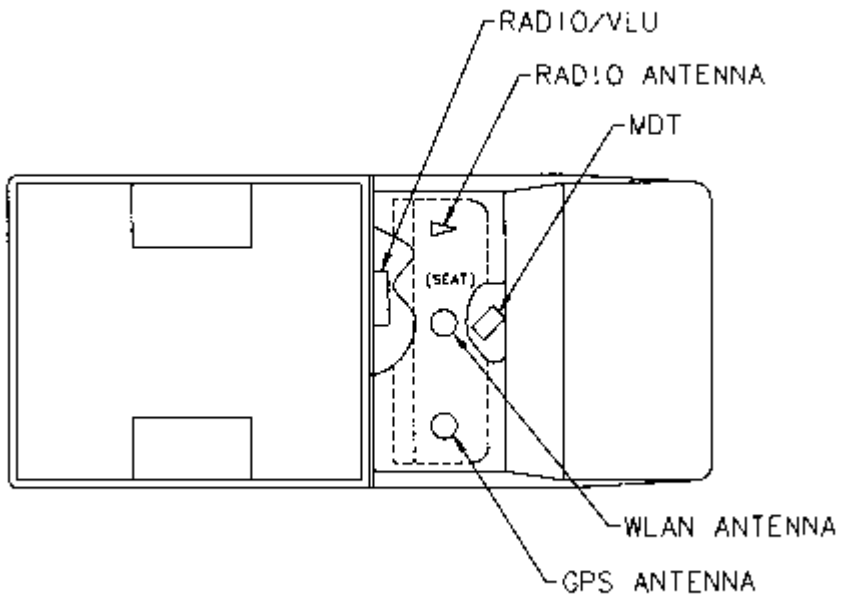


R/VLU
SIZE: 21.5"x16"x3.5"

Standard RVLU &Antenna Installations

-

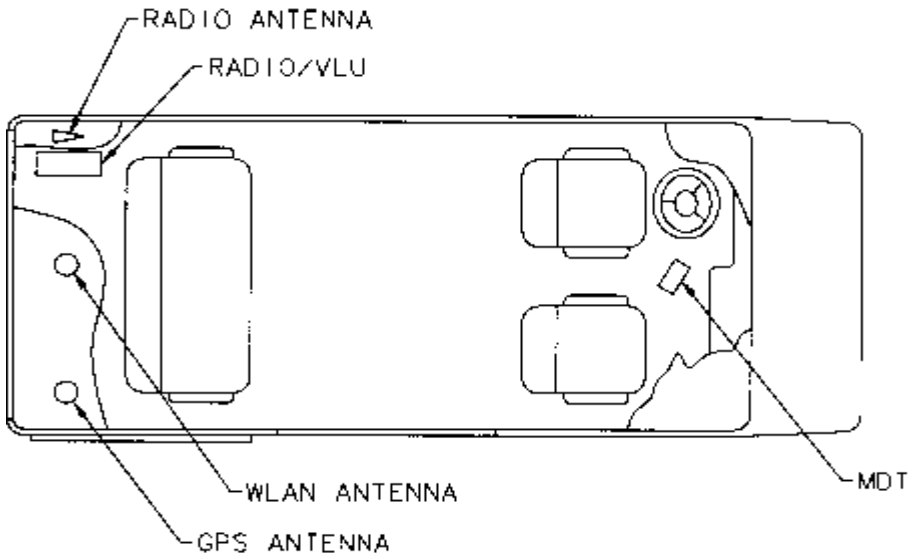
SERVICE TRUCKS



R/VLU
SIZE: 21.5"x16"x3.5"

Standard RVLU &Antenna Installations

CARAVANS/VOYAGERS



R/VLU
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