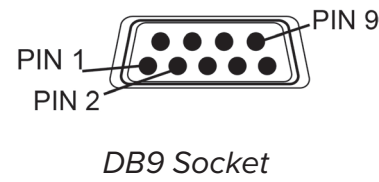


Encompass® 6 Multiprotocol Reader Quick Reference Card

1 ANTENNA MULTIPLEXING/CHECK TAG PORT

Recommended Data Cable:
9-pin ribbon cable

Recommended Check Tag Antenna Cable:
50-ohm coaxial cable (≤3 dB loss in cable)



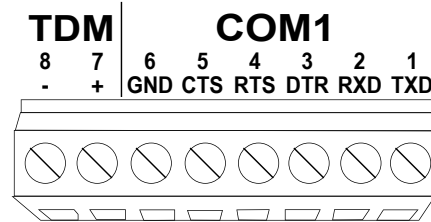
2 TDM/COM1 PORT

Recommended COM1 Port Data Cable:
20 AWG cable

Recommended TDM Cable:
Belden 89182 (outdoor-rated)

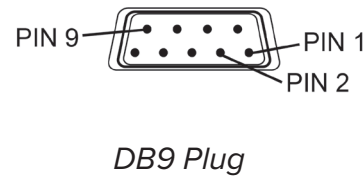
Recommended TDM Cable:
Belden 8132 (not outdoor-rated)

Mating connector:
TransCore P/N 33357-01



3 COM2 PORT

Recommended Cable:
20 AWG cable



4 ANTENNA PORT

Recommended Cable:
50-ohm coaxial cable

Recommended Antenna:
AA3152 Universal Toll Antenna

NOTE: Use the RF MONO port for single-antenna installation

CAUTION: Tighten antenna SMA connector to 10 in/lb only. Do not cross-thread the connector when tightening.

5 ETHERNET PORT

Recommended Data Cable:
Belden 7929A Paired Category 5e (outdoor-rated)

Maximum Length:
330 feet (100 m)

Encompass jack is RJ-45

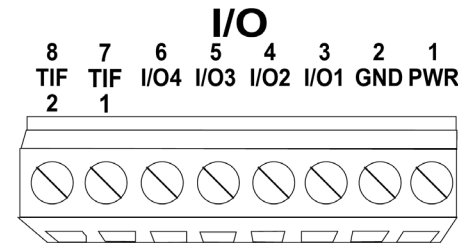
6 DIAGNOSTIC TEST PORT

Used for factory diagnostic testing only

7 EXTERNAL DIGITAL INPUT/OUTPUT PORT

Data Cable:
20 AWG wire

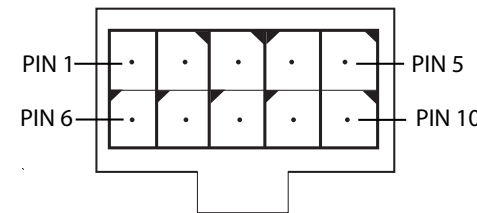
Mating Connector:
TransCore P/N 33357-01



8 GPS TIMING PORT

Data Cable:
20 AWG wire

Antenna Cable:
50-ohm coaxial cable
≤12 dB @1.575 GHz



9 POWER REQUIREMENTS

Input Supply Voltages:

19V DC to 30V DC or 19V AC to 27V AC RMS @47 to 63 Hz

Input Power:

DC or AC: 40 watts maximum

In-rush Current:

8 amps (A) maximum, ≤25 milliseconds (ms)

Transformer:

(TransCore P/N 76-6000-001) 110V AC or 220V AC input, 24V AC output

Power Cable:

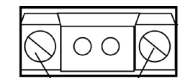
12-22 AWG cable

Mating Connector:

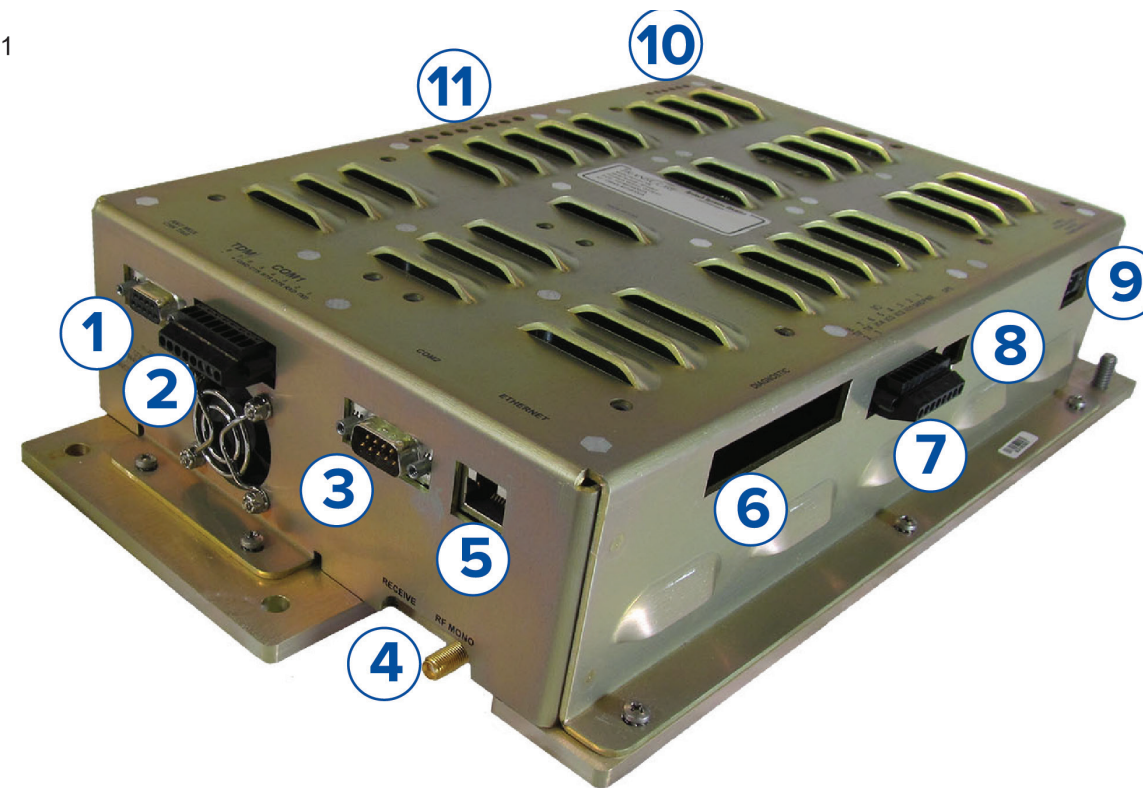
TransCore P/N 33356-01 (1 each) and P/N 33358-01 (2 each)

CAUTION: Wire gauge depends on wire resistance versus overall wire length with respect to the Encompass 6 reader's specified voltage range and power rating.

(See Page 2 for AC power supply wiring.)



CAUTION:
Loosen mounting screws before removing plug



10 Power LEDs

See Page 2 for descriptions.

11 FAULT/OPERATIONAL LEDs

See Page 2 for descriptions.

Choosing a Power Supply

Consider these factors when choosing a power supply:

1. Input voltage: 19V to 30V DC or 19V to 27V AC RMS @47 to 63 Hz
In-rush current: 8A maximum, ≤25 ms.
(See Power Requirements on Page 1 for additional Encompass 6 requirements)
2. Operating temperature of power supply and power cable
3. Power cable gauge and length: 12 to 22 AWG cable, depending on length of cable route

Power Supply Accessory Kit

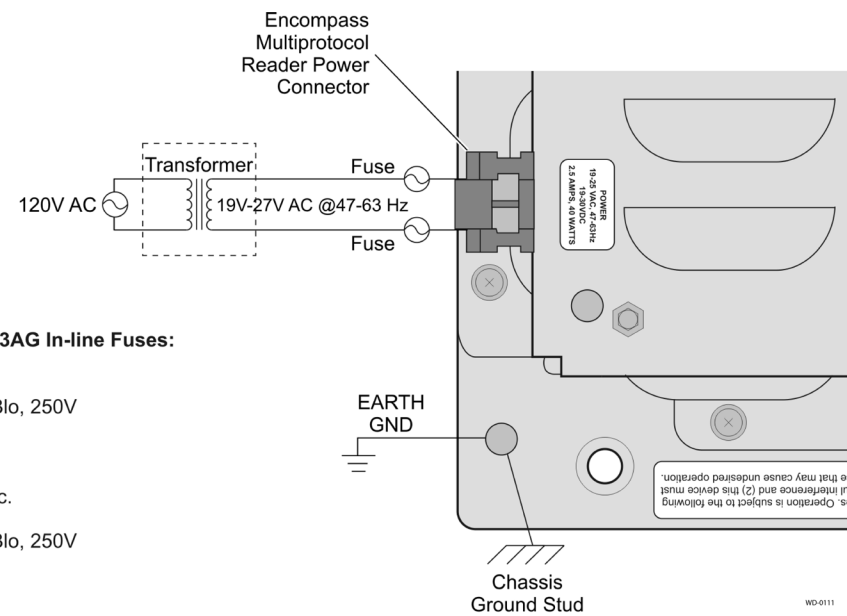
Part Number	Description
76-6000-001	110V AC or 220V AC to 24V AC transformer



CAUTION: Wire gauge depends on wire resistance versus overall wire length with respect to the Encompass 6 reader's specified voltage range and power rating.

AC Power Wiring Diagram

Refer to Encompass Reader System Guide for DC Power Wiring Diagram.



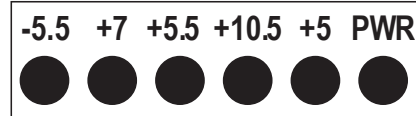
Recommended 3AG In-line Fuses:

BEL FUSE, Inc.
P/N: 3SB 5
Rating: 5A, Slo-Blo, 250V

or

LITTELFUSE, Inc.
P/N: 313 005P
Rating: 5A, Slo-Blo, 250V

Power LEDs (Item 10 on Page 1)



POWER LED	INDICATION
-5.5	-5.5 volt power supply functioning
+7	+7 volt power supply functioning
+5.5	+5.5 volt power supply functioning
+10.5	+10.5 volt power supply functioning
+5	+5 volt power supply functioning
PWR	19V to 30V DC or 19V to 27V AC supplied

Fault/Operational LEDs (Item 11 on Page 1)



OPERATIONAL LEDs	INDICATION
DL	RF downlink signal on
UL	RF uplink signal on
TIF	Encompass 6 transacting with tag. LED lit when Encompass 6 receives correctly decoded tag message including correct cyclic redundancy check for message. The LED is lit for 250 ms following a tag transaction.
LC	Host communicating with Encompass 6
RDR	Encompass 6 communicating with host

THREE FAULT INDICATION LEDs*			
ERR3	ERR2	ERR1	FAILURE MODE
●	●	●	Microprocessor resetting
●	●	○	Power supply failure
●	○	●	Transceiver failure
●	○	○	TDM/GPS failure
○	●	●	No communication with lane controller/host
○	●	○	Other failure
○	○	●	Data in buffer
○	○	○	No failure

*If multiple faults occur, the highest priority fault displays. For example, if the microprocessor is resetting (highest priority) and the power supply fails (second highest priority), the microprocessor fault indication displays until it is cleared.

Equipment Licensing

The user is required to obtain a Part 90 site license from the FCC to operate the unit in the United States. Access the FCC Web site at www.fcc.gov for more information.

FCC ID: FIHMPI6000 A

Users in all countries should check with the appropriate local authorities for licensing requirements.

Start Up

Perform the following startup procedures:

1. Connect antenna to Encompass 6 at RF MONO port.
2. Connect COM1 or Ethernet cable depending on communication configuration.
3. Connect other options as needed.
4. Connect AC or DC power to Encompass 6. Power LEDs should light.
5. Encompass 6 starts up in Mode 0 (Stop).
6. Set commands as required for your configuration.
7. Send Set Mode command to Encompass 6 from host.

Troubleshooting

Perform these troubleshooting procedures:

1. Make sure all connectors are secure.
2. Make sure Encompass 6 is powered up by checking Power LEDs.
3. Make sure Encompass 6 is communicating with host.

If system does not respond to troubleshooting, contact TransCore Customer Service at transcore.com/rfidsupport.

For more information:

Sales Support 800.923.4824

Technical Support 505.856.8007

transcore.com

