

# DTR550™ / DTR650™

Digital On-Site Two-Way Radios and Accessories



# Do you speak digital?

Introducing the DTR550™ and DTR650™  
Digital On-Site Two-Way Radios for  
Small Business



The better a team communicates, the more efficiently it operates. Motorola DTR Series™ digital on-site two-way radios are the power tools that enable that communication. Unlike alternative technologies, there are no monthly fees. No service towers. No per-minute charges. Moreover, these durable on-site two-way radios help businesses keep operations on schedule, maximize job shift productivity, enhance security, and increase overall customer satisfaction.

What would two-way radios have to provide to be perfect for your on-site operation? Perhaps the ability to call specific groups of radios—or even a single unit. Or coverage extended by 20%\*. Or up to 45% longer operation on a single charge.\* Remarkably, you'll have all that productivity-enhancing capability—and more—in the DTR550 and DTR650.

You get many other benefits, too, including digital audio quality—which stays loud and clear everywhere you have coverage. And best of all, this pacesetting performance is yours without monthly fees or annual contracts—and at a very affordable price.

The digital performance of the DTR550™ and DTR650™ enables you to build bridges that expand the capabilities of individuals and teams, enabling them to get the job done right, fast, and safely. That means powerful productivity that's perfect for:



DTR550

DTR650



#### EDUCATION

Maintaining order and enhancing student safety are priorities for any school. DTR Series™ radios keep everyone in touch—from teachers and administrators to crossing guards and maintenance personnel. That enables a quick response to any situation, often preventing small problems from escalating into bigger ones.



#### RETAIL

Responsive service is essential to sales and customer satisfaction. DTR Series radios make responsiveness easier to provide, whether it's an answer to a customer's question, a price check, a clean-up or an emergency. With clear, constant communication ensured, customer satisfaction can be taken to the next level.



#### MANUFACTURING

Success in industry depends on two things...efficiency and responsiveness. Clear communication, often in noisy environments, is essential to avoid downtime—and to enable the fastest response to production problems or injuries. The DTR Series delivers. Its rugged construction stands up to industrial environments, and its long battery life meets the demands of overtime and multi-shift operations.



#### PROPERTY MANAGEMENT

With DTR Series radios, building managers, maintenance technicians, groundskeepers and security personnel can respond fast to tenant needs or emergencies, minimizing costs and enhancing tenant satisfaction.



#### HOSPITALITY

Excellent service and customer satisfaction are the keys to loyalty and repeat business. DTR Series radios keep your staff connected, from the front desk and concierge to event planners and maintenance personnel. That means a more productive staff and fast response to guest needs, special events, spills and emergencies.



#### CONSTRUCTION

To keep any construction project on track, you need timely coordination from management to foremen, subcontractors, and individual tradespeople. DTR Series radios make it easy, helping keep projects on schedule, avoid errors, meet deadlines and keep costs on budget.

# The Digital Difference

## Why Motorola Digital On-Site Two-Way Radios Meet Your Needs Best

Enhanced coverage, battery life, and audio quality aren't the only advantages of our new digital on-site two-way radios. No license is required to operate our 900 MHz units. And for enhanced security, we added Frequency Hopping Spread Spectrum (FHSS) with 50 non-overlapping groups. Unlike analog radios, multiple group communications can occur simultaneously on the same channel.

In addition to these overall benefits, you'll be able take advantage of many leading-edge operational features that were never available previously. And you'll soon wonder how you managed without them.

Because the digital technology of the DTR550™ and DTR650™ enables each unit to have its own unique 11-digit identification, you get a new level of radio communication versatility with these calling options:

### **DIGITAL ONE-TO-ONE CALLING**

Allows you to call and talk privately with a specific user's radio. A private-call recipient can receive an alert—either an audible or vibrating signal. And the recipient's unit displays the caller's ID.

### **DIGITAL ONE-TO-MANY CALLING**

- Public group call—all other DTR Series™ radios on the same group ID and channel hear communications, similar to analog radio operation.
- Private group call—enables you to program DTR Series radios to communicate with specific sets of group members. Caller ID displays group identification.

Individual unit identification also enables:

- Call forwarding to other radio IDs—notify others that you're unavailable and allow them to speak with another contact for assistance.
- Transmit ID—receiving radios will display the radio ID of the transmitting unit and, if listed in the receiving radio's contact list, the transmitting unit's radio name.

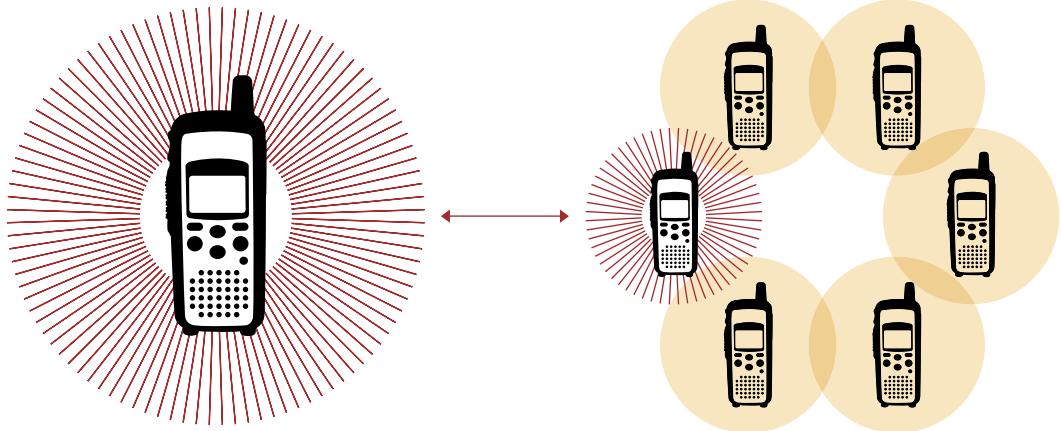
The DTR550 and DTR650 also feature:

- Short message service (SMS) text messaging—with ten preset messages (five on DTR550) for example, "I'll call you back in 5 minutes," and support for keyed-in custom messages to meet more specific needs.
- Scroll list—can display frequently used group and private IDs for easiest access. You can also view a recent-calls list, showing the source and target of the last 10 transmissions with time and date information.

It all adds up to a superb combination of features for your convenience, management, and productivity all at an extraordinary value.

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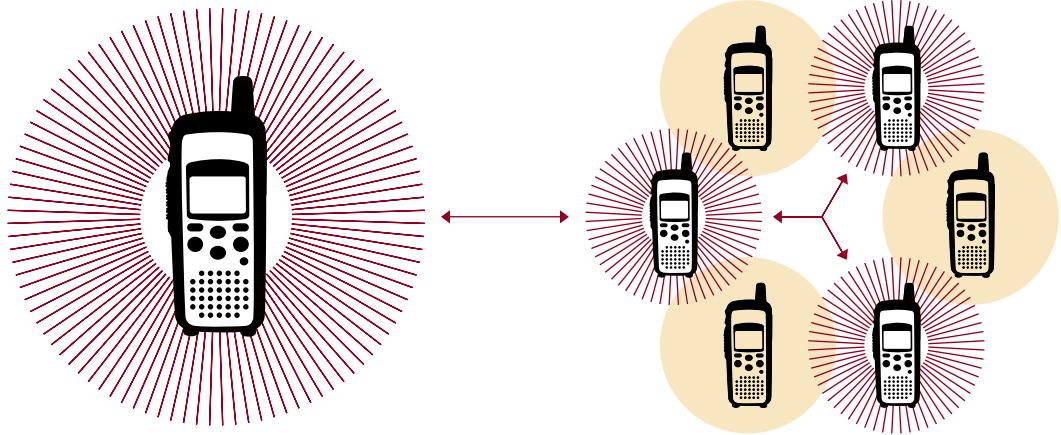
#### DIGITAL ONE-TO-ONE CALLING



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#### DIGITAL ONE-TO-MANY CALLING

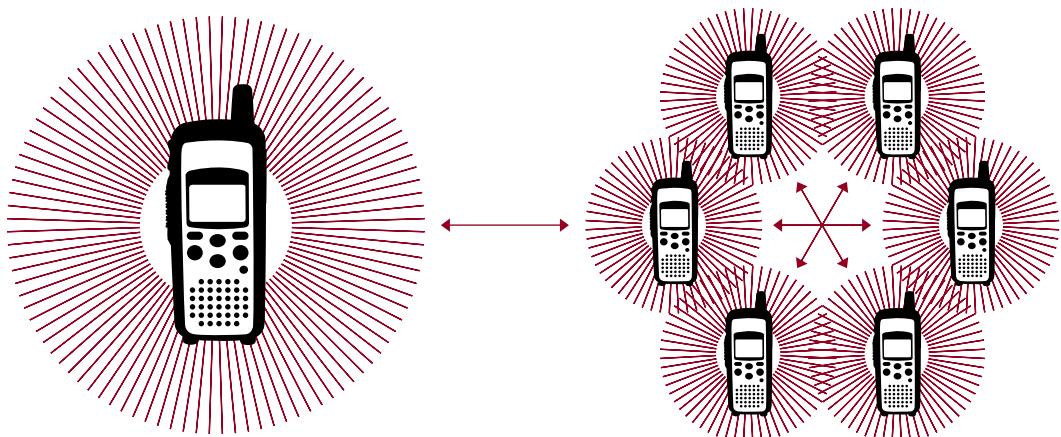
Private Group Call



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#### DIGITAL ONE-TO-MANY CALLING

Public Group Call



# Digital On-Site Two-Way Radio Features



Shown 33% larger than actual size.

## BOTH THE DTR550™ AND DTR650™ FEATURE:

- 900 MHz ISM license-free band
- Frequency hopping spread spectrum (FHSS)
- Rugged, compact polycarbonate housing with rubber overmold for comfort—5.2" H x 2.3" W x 1.4" D
- Meets military 810 C, D, E, and F specifications for shock, vibration, water, dust and temperature extremes
- 2-pin audio accessory jack with captive connector cover
- Connector programming interface with captive connector cover
- Full-graphic backlit display with contrast adjustment and backlight timer
- Battery gauge
- Electronic on/off control
- Up/down electronic volume control
- Lithium ion battery with included desktop charger
- Swivel carry holster
- Public-group calling
- Private-group calling

- Private-call reception, return, origination, and audio/VibraCall® vibration alert
- Private- and group-call name aliasing (via optional Mini Keyboard)
- Short Message Service (SMS) text messaging reception and origination
- Preprogrammed messages for quick and easy response
- Free-form messages (via optional Mini Keyboard)
- SMS time/date stamping
- Alert reminder tone
- Caller ID
- Recent call list—last 10 transmissions
- Call forwarding
- 150-unit contact list
- Remote-disable and remote-monitor receipt
- Over-the-air time/date update receipt
- Unit-to-unit configuration cloning (via optional Cloning Cable)

## ADDITIONAL DTR650 FEATURES

The DTR650 is ideal for managers, as it provides the ability to monitor, manage and program a group's DTR550 radios. Its added features include:

- High-capacity battery for up to 19 hours of operation per charge (up to 14.5 hours for DTR550)
- One-hour charger (three-hour charger for DTR550)
- Up to 50 public groups (up to 20 for DTR550)

- Up to 20 private groups (10 for DTR550)
- Capability for up to 25 preprogrammed messages (15 available and 5 preprogrammed on DTR550; 25 available and 10 preprogrammed on DTR650)
- Remote monitor and disable origination
- Over-the-air time and date update origination

## Excellence in Design; Exceptional Durability

Rugged and reliable, the DTR550 and DTR650 digital on-site radios undergo rigorous testing in the design process using U.S. Military 810 C,D,E and F Standards—so you can rest assured they will hold up under demanding conditions. These tests are designed to simulate the very harshest environments, including:

### Blowing Rain

Steady rainfall and wind for 30 minutes on every surface

### Salt Fog

48 hours of exposure

### Blowing Dust

Six hours of blowing dust on all surfaces

### Vibration

Up to nine hours of exposure to vibration that simulates the rigors that a radio could undergo while being carried or transported

### Shock

18 shocks with a minimum G force of 40 G each

### Temperature Storage

Multiple hours of exposure to storage temperatures as low as -67° F and as high as 160° F



# DTR550™/DTR650™ Accessories



## Standard Package Includes:

- One DTR Series™ Digital On-Site Two-Way Radio
- Swivel Belt Holster
- Charger
- Drop-in Charging Tray
- Lithium Ion Battery
- Quick Reference Guide
- User's Guide CD-Rom

### AUDIO ACCESSORIES



#### Lightweight Headset with Boom Microphone

Part #53815

Ideal for fast-paced work environments. Enables discreet operation.



#### Remote Speaker Microphone

Part #53862

Convenient way to speak and listen without having to reach for your Motorola two-way radio. Clips on shirt or collar.



#### Earpiece with Microphone

Part #53863

Fits over ear for clear reception even in noisy areas.



#### Headset with Swivel Boom Microphone

Part #53865

Ideal for noisy work areas or to avoid disturbing those around you. Convenient way to speak and listen without having to remove radio from its holster.



#### Earbud with Clip Microphone and Push-to-Talk (PTT)

Part #53866

For convenience and uninterrupted productivity. Push-to-talk button activates microphone when you're ready to speak.



#### Earpiece with Inline Push-to-Talk (PTT) Microphone

Part #56517

Convenient earpiece enables communication without removing the radio from its holster. Push-to-talk button activates microphone when you're ready to speak.



#### Earpiece with Boom Microphone

Part #56518

Convenient earpiece enables communication without removing the radio from its holster.

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## HOLSTERS & CARRY CASES



### DTR Series™ Holster

Part #53961

Replacement for the durable holster that comes standard with each DTR Series radio purchased.

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## CONNECTIVITY



### Mini Keyboard

Part #NTN2074PA

Access options, update contacts and enter commands on your radio keyboard. Also enables quick and easy text messaging. *(Radio not included)*



### Cloning Cable

Part #53968

Provides time-saving cloning capability of all configurations and user menu settings at the touch of a button.

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## BATTERIES & CHARGERS



### High Capacity Lithium Ion Battery

Part #53964

High capacity rechargeable battery provides up to 19 hours of battery life per full charge.



### Standard Capacity Lithium Ion Battery

Part #53963

Have a spare battery ready for when you need it. Rechargeable battery provides up to 14.5 hours of battery life per full charge.



### 1-Hr Rapid Charger

Part #53969

Enables you to fully charge your DTR Series radio in 1 hour.



### 3-Hr Standard Charger

Part #NNTN4841A

Enables you to fully charge your DTR Series radio in 3 hours.



### Vehicle Power Charger

Part #NNTN4679A

Conveniently plugs into a standard vehicle cigarette lighter port for remote charging.



### Replacement Drop-In Charging Tray

Part #53962

An extra charger gives you even more places to recharge—at home, in the office, or while traveling. Recharge your radio wherever there is an electrical outlet available.



### Multi-Unit Charger

Part #53960

Allows drop-in charging for up to six radios and/or batteries from a single outlet in three hours. This wall mountable unit also provides a central storage location for radios at the end of a workshift.



# DTR550™/DTR650™ Specifications

## GENERAL SPECIFICATIONS

Frequency	900 MHz ISM FHSS
Contact List Capacity	100 (Shared Group/Private)
Default Programming	5 Public Groups
Power Supply	3.8V ± 0.4V
Dimensions	132.3mm H x 57.2mm W x 35.4mm D (5.2" H x 2.3" W x 1.4" D)
Weight:	
with 1200 mAH Li-Ion Battery	200.2g (7.1oz.)
with 1500 mAH Li-Ion Battery	205.7g (7.3oz.)
Average Battery Life @ 5-5-90 Duty Cycle:	
with 1200 mAH Li-Ion Battery	14.5 Hrs.
with 1500 mAH Li-Ion Battery	19 Hrs.
FCC Designation	AZ489FT5842
IC Designation	109U-89FT5842

## RECEIVER SPECIFICATIONS

Sensitivity: (3% BER Sensitivity)	-125 dBm
Frequency Stability: (-30° C to +60° C)	± 0.0005% (± 5PPM)
Spur Rejection	55 dB
Blocking Immunity:	
Interferer from ±500 KHz to ±1 MHz	75 dB
Interferer from ±1MHz to ±15 MHz	80 dB
Audio Output @ < 5% Distortion	1W

## TRANSMITTER SPECIFICATIONS

RF Output	1W
Channel Spacing	50 kHz
Frequency Stability: (-30° C to +60° C)	± 0.0005% (± 5PPM)
Spurs/Harmonics	500 uV/m ( 3m)
Audio Response:	
(from 6 dB/oct. Premphasis, 300 to 30000 Hz)	+1, -3 dB
Audio Distortion	
@ 1000 Hz, 60% Rated Max. Dev.	<3%
TX ACCPR	-50 dBc
FCC Modulation	8-level FSK 900 MHz ISM FHSS

## ACCELERATED LIFE TEST

Motorola's Accelerated Life Test (ALT) is a developmental process of rigorous laboratory testing that simulates years of field use. Motorola has a firm commitment to quality and reliability. These radios have been designed, manufactured, and tested to achieve high levels of component and workmanship quality. Motorola radios are designed to minimize costly repairs and downtime.



## Motorola—A Name You Know and Trust

For more than 75 years, Motorola has been a leader in creating state-of-the-art wireless communications for people like you. The DTR550™ and DTR650™ digital on-site two-way radios uphold that superior standard. And each radio (and radio accessory) is backed by a limited one-year warranty. So when you select the DTR550 or DTR650 radio, you'll experience the same exceptional quality you've come to expect from all Motorola products.

**For more information:**



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