

# REMTRON® Technical Specifications

## T10A Handheld Transmitter

- Up to 9 Functions
- On/Alarm and Off/Stop Buttons
- Up to 4 Discrete Rockers
- Uses 2 standard AA batteries
- IP66/67 design (waterproof/dustproof)



### RF Characteristics

RF unit.....	Microprocessor controlled PLL synthesizer with up to 85 different channels
Frequency Range.....	902-928 Megahertz (MHz)
Channel Spacing.....	300 Kilohertz(KHz)
RF Power.....	FCC Part 15: 50,000 microvolts per meter field strength
RF Approval.....	License-free in North America
FCC ID #.....	EGT814TX
Industry Canada Certification #.....	249 710 31887
Modulation.....	Packet Mode, Digital Frequency, Modulation(FM) based on Manchester code
Response Time.....	60 Milliseconds
Update Rate.....	16 packets per second command, 4 packets per second idle
Range.....	300- ft. obstructed view, 1000-ft. line of sight (unobstructed)
Antenna.....	Internal circuit board

### Safety and Operational Characteristics

Maintained Link.....	Receive at least one valid transmission each second to continue operations
Loss of Maintained Link.....	Safety shutdown, positive restart required
Addressing.....	16-bit, 65,535 unique addresses with 85 channels providing over 5 million variations
Safety Decoding.....	16-bit Cyclic Redundancy Codes (CRC) check
Safety Stop.....	Over-riding Stop command with safety relay
Start-Up Safety.....	Start inhibited if controls pressed before start
Inadvertant Command Safety.....	Programmable time-out requiring positive restart (Push-to-Operate(PTO) commanding mode available)
Status Indications.....	LED indicators with status for power, active transmission and low-battery and failure (or control pressed on Start)
Battery Type.....	2 standard AA
Battery Operating Time.....	130 hours of continuous operation

### Environmental Characteristics

Temperature Range.....	-20° to +160° F (-29° to +71° C)
Humidity Range.....	0-97% maximum non-condensing
Environmental Protection.....	Humisealed electronics
UL Rating.....	UL 508 (Class I, Division I, and Group D and Class II, Division I and Groups E, F, and G also available)
IP Rating.....	IP 66/67 (Water resistant/Dust Resistant)

### Physical Characteristics

Style.....	Ergonomic handheld with Remtron patented rocker controls
Main Components.....	Surface mount technology, single board design
Housing Material.....	Remtron custom high impact fiber reinforced nylon
Weight.....	9 oz. (0.255 kg)
Dimensions.....	2.75" x 6.5" x 1.0" (6.99 cm x 16.51 cm x 2.54 cm)

# REMTRON® Technical Specifications

## T14A Handheld Transmitter

- Up to 13 Functions
- On/Alarm and Off/Stop Buttons
- 6 Discrete Rockers
- Uses 2 standard AA batteries
- IP66/67 design (waterproof/dustproof)



### RF Characteristics

RF unit.....	Microprocessor controlled PLL synthesizer with up to 85 different channels
Frequency Range.....	902-928 Megahertz (MHz)
Channel Spacing.....	300 Kilohertz(KHz)
RF Power.....	FCC Part 15: 50,000 microvolts per meter field strength
RF Approval.....	License-free in North America
FCC ID #.....	EGT814TX
Industry Canada Certification #.....	249 710 31887
Modulation.....	Packet Mode, Digital Frequency, Modulation(FM) based on Manchester code
Response Time.....	60 Milliseconds
Update Rate.....	16 packets per second command, 4 packets per second idle
Range.....	300- ft. obstructed view, 1000-ft. line of sight (unobstructed)
Antenna.....	Internal circuit board

### Safety and Operational Characteristics

Maintained Link.....	Receive at least one valid transmission each second to continue operations
Loss of Maintained Link.....	Safety shutdown, positive restart required
Addressing.....	16-bit, 65,535 unique addresses with 85 channels providing over 5 million variations
Safety Decoding.....	16-bit Cyclic Redundancy Codes (CRC) check
Safety Stop.....	Over-riding Stop command with safety relay
Start-Up Safety.....	Start inhibited if controls pressed before start
Inadvertant Command Safety.....	Programmable time-out requiring positive restart (Push-to-Operate(PTO) commanding mode available)
Status Indications.....	LED indicators with status for power, active transmission and low-battery and failure (or control pressed on Start)
Battery Type.....	2 standard AA
Battery Operating Time.....	130 hours of continuous operation

### Environmental Characteristics

Temperature Range.....	-20° to +160° F (-29° to +71° C)
Humidity Range.....	0-97% maximum non-condensing
Environmental Protection.....	Humisealed electronics
UL Rating.....	UL 508 (Class I, Division I, and Group D and Class II, Division I and Groups E, F, and G also available)
IP Rating.....	IP 66/67 (Water resistant/Dust Resistant)

### Physical Characteristics

Style.....	Ergonomic handheld with Remtron patented rocker controls
Main Components.....	Surface mount technology, single board design
Housing Material.....	Remtron custom high impact fiber reinforced nylon
Weight.....	10 oz. (0.283 kg)
Dimensions.....	2.75" x 8.1" 1.0" (6.99 cm x 20.57 cm x 2.54cm)

# REMTRON® Technical Specifications

## T18A Handheld Transmitter

- Up to 18 Functions
- On/Alarm and Off/Stop Buttons
- Up to 3 Two-Step Discrete Rockers
- Up to 6 Push Buttons
- Optional Multiplex Selector



### RF Characteristics

RF unit.....	Microprocessor controlled PLL synthesizer with up to 85 different channels
Frequency Range.....	902-928 Megahertz (MHz)
Channel Spacing.....	300 Kilohertz(KHz)
RF Power.....	FCC Part 15: 50,000 microvolts per meter field strength
RF Approval.....	License-free in North America
FCC ID #.....	EGT814TX
Industry Canada Certification #.....	249 710 31887
Modulation.....	Packet Mode, Digital Frequency, Modulation(FM) based on Manchester code
Response Time.....	60 Milliseconds
Update Rate.....	16 packets per second command, 4 packets per second idle
Range.....	300- ft. obstructed view, 1000-ft. line of sight (unobstructed)
Antenna.....	Internal circuit board

### Safety and Operational Characteristics

Maintained Link.....	Receive at least one valid transmission each second to continue operations
Loss of Maintained Link.....	Safety shutdown, positive restart required
Addressing.....	16-bit, 65,535 unique addresses with 85 channels providing over 5 million variations
Safety Decoding.....	16-bit Cyclic Redundancy Codes (CRC) check
Safety Stop.....	Over-riding Stop command with safety relay
Start-Up Safety.....	Start inhibited if controls pressed before start
Inadvertant Command Safety.....	Programmable time-out requiring positive restart (Push-to-Operate(PTO) commanding mode available)
Status Indications.....	LED indicators with status for power, active transmission and low-battery and failure (or control pressed on Start)
Battery Type.....	2 standard AA
Battery Operating Time.....	130 hours of continuous operation

### Environmental Characteristics

Temperature Range.....	-20° to +160° F (-29° to +71° C)
Humidity Range.....	0-97% maximum non-condensing
Environmental Protection.....	Humisealed electronics
UL Rating.....	UL 508 (Class I, Division I, and Group D and Class II, Division I and Groups E, F, and G also available)
IP Rating.....	IP 66/67 (Water resistant/Dust Resistant)

### Physical Characteristics

Style.....	Ergonomic handheld with Remtron patented rocker controls
Main Components.....	Surface mount technology, single board design
Housing Material.....	Remtron custom high impact fiber reinforced nylon
Weight.....	10 oz. (0.283 kg)
Dimensions.....	2.75" x 8.1" x 1.0" (6.99 cm x 20.57 cm x 2.54 cm)

# REMTRON® Technical Specifications

## T20 Handheld Transmitter

- Up to 20 Functions • On/Alarm and Off/Stop Buttons
- Up to 3 Large Two-Step Discrete Rockers
- Up to 8 Push Buttons
- Optional Multiplex Selector and Key Switch



### RF Characteristics

RF unit.....	Microprocessor controlled PLL synthesizer with up to 85 different channels
Frequency Range.....	902-928 Megahertz (MHz)
Channel Spacing.....	300 Kilohertz(KHz)
RF Power.....	FCC Part 15: 50,000 microvolts per meter field strength
RF Approval.....	License-free in North America
FCC ID #.....	EGT820TX
Industry Canada Certification #.....	249 710 31891
Modulation.....	Packet Mode, Digital Frequency, Modulation(FM) based on Manchester code
Response Time.....	60 Milliseconds
Update Rate.....	16 packets per second command, 4 packets per second idle
Range.....	300- ft. obstructed view, 1000-ft. line of sight (unobstructed)
Antenna.....	Internal circuit board

### Safety and Operational Characteristics

Maintained Link.....	Receive at least one valid transmission each second to continue operations
Loss of Maintained Link.....	Safety shutdown, positive restart required
Addressing.....	16-bit, 65,535 unique addresses with 85 channels providing over 5 million variations
Safety Decoding.....	16-bit Cyclic Redundancy Codes (CRC) check
Safety Stop.....	Over-riding Stop command with safety relay
Start-Up Safety.....	Start inhibited if controls pressed before start
Inadvertant Command Safety.....	Programmable time-out requiring positive restart (Push-to-Operate(PTO) commanding mode available)
Status Indications.....	LED indicators with status for power, active transmission and low-battery and failure (or control pressed on Start)
Battery Type.....	3 standard AA
Battery Operating Time.....	200 hours of continuous operation

### Environmental Characteristics

Temperature Range.....	-20° to +160° F (-29° to +71° C)
Humidity Range.....	0-97% maximum non-condensing
Environmental Protection.....	Humisealed electronics
UL Rating.....	UL 508

### Physical Characteristics

Style.....	Ergonomic handheld with Remtron patented rocker controls
Main Components.....	Surface mount technology, single board design
Housing Material.....	Remtron custom high impact fiber reinforced nylon
Weight.....	20 oz. (0.566 kg)
Dimensions.....	4" x 12" x 1.0" (10.16 cm x 30.48 cm x 2.54 cm)

# REMTRON® Technical Specifications

## T23 Handheld Transmitter

- Up to 18 Functions
- On/Alarm and Off/Stop Buttons
- Up to 9 Discrete Rockers
- Up to 3 Push Buttons
- Trolley/Hoist Selector Push Button
- Optional Multiplex Selector or Key Switch



### RF Characteristics

RF unit.....	Microprocessor controlled PLL synthesizer with up to 85 different channels
Frequency Range.....	902-928 Megahertz (MHz)
Channel Spacing.....	300 Kilohertz(KHz)
RF Power.....	FCC Part 15: 50,000 microvolts per meter field strength
RF Approval.....	License-free in North America
FCC ID #.....	EGT823TX
Industry Canada Certification #.....	249 710 31892
Modulation.....	Packet Mode, Digital Frequency, Modulation(FM) based on Manchester code
Response Time.....	60 Milliseconds
Update Rate.....	16 packets per second command, 4 packets per second idle
Range.....	300- ft. obstructed view, 1000-ft. line of sight (unobstructed)
Antenna.....	Internal circuit board

### Safety and Operational Characteristics

Maintained Link.....	Receive at least one valid transmission each second to continue operations
Loss of Maintained Link.....	Safety shutdown, positive restart required
Addressing.....	16-bit, 65,535 unique addresses with 85 channels providing over 5 million variations
Safety Decoding.....	16-bit Cyclic Redundancy Codes (CRC) check
Safety Stop.....	Over-riding Stop command with safety relay
Start-Up Safety.....	Start inhibited if controls pressed before start
Inadvertant Command Safety.....	Programmable time-out requiring positive restart (Push-to-Operate(PTO) commanding mode available)
Status Indications.....	LED indicators with status for power, active transmission and low-battery and failure (or control pressed on Start)
Battery Type.....	3 standard AA
Battery Operating Time.....	200 hours of continuous operation

### Environmental Characteristics

Temperature Range.....	-20° to +160° F (-29° to +71° C)
Humidity Range.....	0-97% maximum non-condensing
Environmental Protection.....	Humisealed electronics
UL Rating.....	UL 508

### Physical Characteristics

Style.....	Ergonomic handheld with Remtron patented rocker controls
Main Components.....	Surface mount technology, single board design
Housing Material.....	Remtron custom high impact fiber reinforced nylon
Weight.....	20 oz. (0.566 kg)
Dimensions.....	4" x 12" x 1.0" (10.16 cm x 30.48 cm x 2.54 cm)