A TEREX BRAND

Operator's Manual

Serial number range

Radio Remote Control

GTH4016 SR	From serial n.: 17857
GTH4018 SR	From serial n.: 17888
GTH4016 R	From serial n.: GTH4016R15M-101
GTH4018 R	From serial n.: GTH4018R15M-101
GTH5021 R	From serial n.: GTH5021R14B-101

With Maintenance Information

Original Instructions
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Introduction

INTRODUCTION

This document is a quick guide for using the radio remote control in conjunction with the TEREX GLOBAL GmbH telehandlers. The operators must read all the manuals supplied since these instructions are an integral part of the original manual provided by the radio remote control manufacturer.

RADIO FREQUENCIES

The radio frequencies programmed in the radio remote control are among those admitted by the European regulations in force when the control is put on the market.

NOTICE

It should be remembered that in some countries the use and possession of a radio remote control is regulated by specific rules. There may also be some national limitations for the use of the frequencies. Before using the radio remote control, verify if its operating frequency band is permitted by the national radiocommunication laws. The radio remote control dealt with in this manual uses frequencies of 434 MHz.

Symbols



Safety alert symbol: used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death

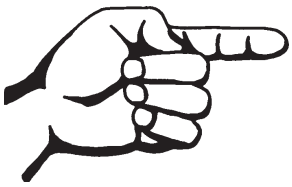
DANGER ***Red: indicates a hazardous situation which, if not avoided, will result in death or serious injury.***

WARNING ***Orange: indicates a hazardous situation which, if not avoided, could result in death or serious injury.***

CAUTION ***Yellow : indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.***

NOTICE ***Blue: indicates a hazardous situation which, if not avoided, could result in property damage.***

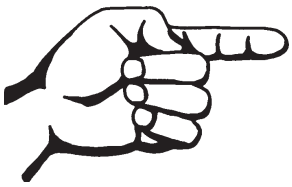
PROTECT THE ENVIRONMENT ***Green: used to draw the attention to important information on environment protection.***



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Symbols Used On The Radio Remote Control

 Boom Extension	 Boom Retraction	 Forks Forwards Tilting	 Forks Backwards Tilting	 Boom Lifting
 Boom Lowering	 Winch Rope Lowering/Lifting	 Winch Rope Lowering	 Winch Rope Lifting	 Clockwise Turret Rotation
 Counter Clockwise Turret Rotation	 Attachment Unlock	 Attachment Lock	 Hare Position	 Tortoise Position
 Battery	 Radio Remote Control Start and Horn			



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Safety Precaution

DAMAGED MACHINE HAZARDS

- Do not use a damaged or defective radio remote control.
- Do a thorough pre-operation inspection of the radio remote control and test all functions before each work shift. Tag and remove from service a damaged or defective radio remote control.
- Make sure that all maintenance jobs have been carried out as specified in this manual and in the telehandler's specific manuals.
- Make sure that all plates are in place and legible.
- Make sure that the operator's manual is intact, legible and placed in the special container located in the machine.

PERSONAL INJURY HAZARDS

- Do not operate the telehandler in case of hydraulic oil or air leak. Air or hydraulic oil leaks can penetrate or burn the skin.
- Always operate the telehandler in a well ventilated area to avoid carbon monoxide poisoning.
- Do not lower the boom if the area underneath is not clear of personnel or obstructions.

SAFETY DEVICES



Several safety devices have been fitted to the telehandler. They must never be tampered with or removed.
Regularly check the efficiency of such devices. In case of faults, stop working immediately and proceed in replacing the defective device.
For the checking procedures, read chap. "Maintenance" of the telehandler Operator's Manual.

MOMENT LIMITING SYSTEM

The moment limiting system has been developed to help the operator to maintain the telehandler longitudinal stability. Audible and visual messages are provided when the limits of longitudinal stability are being approached.
However this device cannot replace the experience of the operator. It is up to the user to adopt the necessary safety measures to work within the rated limits of the machine.

Safety Precautions



Not observing the instructions and safety rules in this manual may result in death or serious injury.

Do not operate the machine unless:

- You learn and practice the principles of safe machine operation contained in this operator's manual.
  1. **Avoid hazardous situations.** Read and understand the safety instructions before going on to the next chapter.
  2. **Always perform a pre-operation inspection.**
  3. **Always test the machine functions prior to use.**
  4. **Inspect the work place.**
  5. **Only use the machine for the intended application.**

- Read, understand and obey the manufacturer's instructions and the safety rules, the safety and operator's manuals, and the decals applied on the machine.
- Read, understand and obey the employer's safety rules and worksite regulations.
- Read, understand and obey the applicable national regulations.
- Only trained personnel informed on the safety rules can operate the machine.

DANGER

It is forbidden to use the radio remote control with an aerial work platform.

GENERAL REMARKS

Most accidents occurring while working, repairing or maintaining machines, are caused by not complying with the basic safety precautions.
Therefore, it is necessary to pay steady attention to the potential hazards and the effects that may come of operations carried out on the telehandler.

NOTICE

If you recognise hazardous situations, you can prevent accidents!

DANGER

The instructions given in this handbook are the ones established by TEREX GLOBAL GmbH. They do not exclude other safe and most convenient ways for the telehandler and/or the radio remote control installation, operation and maintenance that take into account the available spaces and means.

If you decide to follow instructions other than those given in this manual, you shall absolutely:

- be sure that the operations you are going to carry out are not explicitly forbidden;
- be sure that the methods are safe, say, in compliance with the rules and provisions given in this section;
- be sure that the methods cannot damage the telehandler and/or the radio remote control, directly or indirectly, or make it unsafe;
- contact TEREX GLOBAL GmbH Assistance Service for any suggestion and the necessary written permission.

Safety Precautions

REQUISITES OF THE PERSONNEL IN CHARGE

Requisites of the TELEHANDLER OPERATORS

The operators who use the telehandler and/or the equipment, regularly or occasionally, shall have the following prerequisites:

health:
before and during any operation, operators shall never take alcoholic beverages, medicines or other substances that may alter their psycho-physical conditions and, consequently, their working abilities.

physical:
good eyesight, acute hearing, good co-ordination and ability to carry out all required operations in a safe way, according to the instructions of this manual.

mental:
ability to understand and apply the enforced rules, regulations and safety precautions. They shall be careful and sensible for their own as well as for the others' safety and shall desire to carry out the work correctly and in a responsible way.

emotional:
they shall keep calm and always be able to evaluate their own physical and mental conditions.

training:
they shall read and be familiar with this handbook, its enclosed graphs and diagrams. They shall be skilled and trained about the telehandler and/or the equipment use.

NOTICE

The operator shall have a licence (or a driving licence) when provided for by the laws enforced in the country where the machine works. Please, ask the competent bodies.

Requisites of the SERVICEMEN

The personnel charged with the telehandler and the equipment maintenance shall be qualified, specialized in their maintenance, and shall have the following prerequisites:

physical:
good eyesight, acute hearing, good co-ordination and ability to carry out all required maintenance operations in a safe way, according to this manual.

mental:
ability to understand and apply the enforced rules, regulations and safety precautions. They shall be careful and sensible for their own as well as for the others' safety and shall desire to carry out the work correctly and in a responsible way.

training:
they shall read and be familiar with this handbook, its enclosed graphs and diagrams, the identification and warning plates. They shall be skilled and trained about the machine functioning.

NOTICE

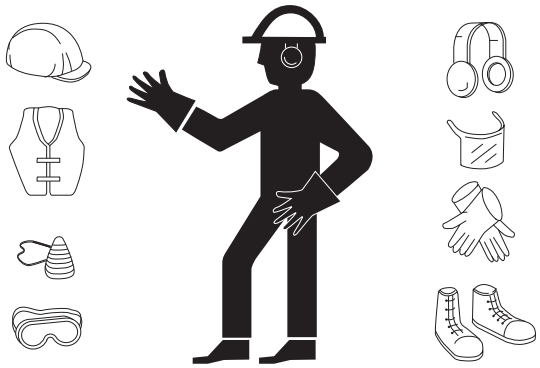
From a technical point of view, the ordinary maintenance of the telehandler and/or the radio remote control is not a complex intervention and can be carried out by the operator too, provided he has a basic knowledge of mechanics.

Safety Precautions

■ WORKING CLOTHES

During work, but especially when maintaining or repairing the machine, operators must wear suitable protective clothing:

- Overalls or any other comfortable garments. Operators should not wear clothes with large sleeves or objects that can get stuck in moving parts of the machine.
- Ear-protectors or equivalent equipment.
- Protective helmet.
- Protective gloves.
- Working shoes.



Use only type-approved working clothing in good condition.

■ Personal PROTECTIVE EQUIPMENT

Under special working conditions, the following personal protective equipment should be used:

- Breathing set (or dust mask).
- Goggles or facial masks.

■ OTHER DANGERS

■ Hazards on the JOBSITE

Always take into account the features of the job site where you are going to work:

- Always examine the working area and compare it with the telehandler dimensions in the different configurations.

DANGER

The telehandler is not electrically insulated and does not provide protection from contact with or proximity to electrical power lines.
Always keep at a minimum safe distance from the telescopic boom and the lifted load. Electrical hazards!

- Keep away from the machine in case of contact with energized power lines. Personnel on the ground must never touch or operate the telehandler until energized power lines are shut off.

DEATH OR INJURY CAN RESULT FROM CONTACTING ELECTRIC POWER LINES.

ALWAYS CONTACT THE ELECTRIC POWER LINES OWNER. THE ELECTRIC POWER SHALL BE DISCONNECTED OR THE POWER LINES MOVED OR INSULATED BEFORE MACHINE OPERATIONS BEGIN

POWER LINE VOLTAGE			REQUIRED CLEARANCE	
0	to	50 kV	10 ft	3.00 m
50	to	200 kV	15 ft	4.60 m
200	to	350 kV	20 ft	6.10 m
350	to	500 kV	25 ft	7.62 m
500	to	750 kV	35 ft	10.67 m
750	to	1000 kV	45 ft	13.72 m

DANGER

Do not, at any time, use the machine during a storm.

WARNING

Operator have to survey his/her field of vision when operating the telehandler.

Safety Precautions

OPERATION or MAINTENANCE hazards

Before any operation, following precautions should be taken:

- First of all, make sure that the maintenance interventions have been carried out with care according to the established schedule.

WARNING

Set the telehandler to working configuration and level it.

- Ensure you have enough fuel to avoid a sudden stop of the engine, especially during a crucial manoeuvre.
- Clean instruments, data plates, lights and the cab windscreen thoroughly.
- Check the correct functioning of all the safety devices installed on the telehandler and/or on the equipment.
- In case of troubles or difficulties, inform the foreman at once. Never start working under unsafe conditions.
- Do not carry out any repair work in a makeshift way to start working!

During work, and especially maintenance, always pay the greatest attention:

- Do not walk or stop under raised loads or machine parts supported by hydraulic cylinders or ropes only.
- Keep the machine handholds and access steps always clean from oil, grease or dirt to prevent falls or slips.
- When entering/leaving the cab or other raised parts, always face the machine; never turn the back.



- When carrying out operations at hazardous heights (over **1.5** meters from the ground), always use approved fall restraint or fall arrest devices.
- Do not enter/leave the machine while it is running.
- Do not leave the driving place when the machine is running.
- Neither stop nor carry out interventions under or between the machine wheels when engine is running. When maintenance in this area is required, stop the engine.
- Do not carry out maintenance or repair works without a sufficient lighting.
- When using the machine lights, the beam should be oriented in order not to blind the personnel at work.
- Before applying voltage to electric cables or components, check their connection and proper functioning.
- Do not carry out interventions on electric components with voltage over **48V**.
- Do not connect wet plugs or sockets.
- Plates and hazard warning stickers shall never be removed, hidden or become unreadable.
- Except for maintenance purposes, do not remove safety devices, shields, protection cases, etc. Should their removal be necessary, stop the engine, remove them with the greatest care and always remember to refit them before starting the engine and using the machine again.
- Before any maintenance or repair work, stop the engine and disconnect the batteries.
- Do not lubricate, clean or adjust moving parts.

Safety Precautions

- Do not carry out operations manually when specific tools are provided for this purpose.
- Avoid the use of tools in bad condition or use in an improper way i.e. pliers instead of adjustable wrenches, etc.
- Applying loads in different points of the attachment holding plate is forbidden.

WARNING

Any intervention on the hydraulic circuit must be carried out by authorised personnel.
The hydraulic circuit of this machine is fitted with pressure accumulators. You and others could be seriously injured if accumulators are not completely depressurised.
For this purpose, shut the engine down and step on the brake pedal 8/10 times.



- Before carrying out operations on hydraulic lines under pressure or disconnecting hydraulic components, ensure the relevant line has been previously depressurised and does not contain any hot fluid.
- Do not empty catalytic mufflers or other vessels containing burning materials without taking the necessary precautions.
- After any maintenance or repair work, make sure that no tool, cloth or other object has been left within machine compartments, fitted with moving parts, or where suction and cooling air circulates.
- When working, do not give instructions or signs to several people at the same time. Instructions and signs must be given by one person only.
- Always pay due attention to the instructions given by the foreman.
- Never distract the operator during working phases or crucial manoeuvres.
- Do not call an operator suddenly, if unnecessary.
- Do not frighten an operator or throw objects by any means.
- After work, never leave the machine under potentially dangerous conditions.
- Before any maintenance or repair work, remove the attachment.

■ MACHINE OPERATION hazards

Absolutely avoid the following work situations:

- Do not handle loads beyond the maximum capacity of the machine.
- Do not raise or extend the boom if the machine is not on a firm, level surface.
- Do not operate the machine in strong wind. Do not increase the surface area of the machine or forked load exposed to the wind. Increasing the area exposed to the wind will decrease machine stability.
- Use extreme caution and slow speeds when the machine is driven across uneven or unstable grounds, slippery surfaces or near trenches or drop-offs.
- Limit travel speed according to ground conditions, slopes, presence of personnel or other factors which may cause collision.
- Do not place or attach overhanging loads to any part of the machine.

Safety Precautions

EXPLOSION OR FIRE hazards

- Do not start the engine if you smell or detect LPG, gasoline, diesel fuel or other explosive substances.
- Do not refuel the machine with the engine running.
- Refuel the machine and charge the battery only in a well ventilated area away from sparks, naked flames and lighted cigarettes.
- Do not operate the machine in dangerous environments or in places with flammable or explosive gases or materials.
- Do not inject ether in engines equipped with glow plugs.
- Do not leave fuel cans or bottles in unsuitable places.
- Neither smoke nor use open flames in areas subject to fire dangers and in presence of fuel, oil or batteries.
- Carefully handle all flammable or dangerous substances.
- Do not tamper with fire-extinguishers or pressure accumulators.



DAMAGED COMPONENT hazards

- Do not use battery chargers or batteries with a voltage above 12V to start the engine.
- Do not use the machine as a ground for welding.

PERSONAL INJURY hazards

- Do not operate the machine in case of hydraulic oil or air leak. Air or hydraulic oil leaks can penetrate or burn the skin.
- Always operate the machine in a well ventilated area to avoid carbon monoxide poisoning.
- Do not lower the boom if the area underneath is not clear of personnel or obstructions.

WARNINGS FOR THE USE OF THE RADIO REMOTE CONTROL

The use of the radio remote control is restricted to operators who:

- have read and understood the literature supplied,
- are qualified and trained,
- have a thorough knowledge of the “radio remote control + machine” system.

TEREX GLOBAL GmbH accepts no liability in case of misuse or abuse or if the radio remote control is used for applications other than those envisaged.

When the transmitter does not turn on, you should check that the STOP button is in efficient working order and its operation stops the machine movements immediately and switches the machine engine off. Should this not be the case, don’t use the radio remote control.

The operator should always check that both units and the gaskets, bellows and caps of the actuators (joysticks, selectors, pushbuttons) are intact. If not, the radio remote control must be repaired before use.

Safety Precaution



In order to work in an efficient way and to avoid hazardous situations, the operator should choose a position which lets him:

- ***remain within the working range of the radio remote control (50 m),***
- ***visually inspect the machine, its movements and any handled load at any times.***



During operation the operator should :
- turn off the transmitter when work is interrupted;
- NEVER leave the transmitter unattended with the starting key inserted;
- avoid working when the battery charge is low.



The operator must turn on and use the transmitter only for working purposes, as it is possible to establish a radio-electrical connection capable of transmitting undesired commands to the machine under control even from outside the working range and from enclosed areas.



The operator must read, understand and obey the operating instructions of the machine used with the radio remote control in order to understand further warnings that have to be obeyed during its use. When the radio remote control is placed out of service the operator must switch it off and put it in a safe and locked place to avoid its use by not authorized personnel.



If a hazardous situation occurs, the operator must intervene immediately by pressing the STOP button which stops any machine movement immediately and turns the engine off.



If the radio remote control is malfunctioning or damaged, the "radio remote control + machine" system must be placed out of service until the problem is rectified. Failures can be repaired only by authorized personnel using original spare parts.

■ WARNINGS FOR THE ROUTINE MAINTENANCE OF THE RADIO REMOTE CONTROL



An ordinary maintenance according to the instructions in this manual is fundamental for a safe use of the radio remote control.After any maintenance intervention, check that the controls sent from the transmitter activate only the expected manoeuvres.

Radio Remote Control Description

RADIO REMOTE CONTROL DESCRIPTION

The radio remote control is used to remotely control machines. It consists of a portable transmitter through which the operator can remotely control the machine, and of a receiver installed on board the same machine. The transmitter sends a codified message via a radio frequency transmission. This message contains a value, the so-called address, which enables the receiver to decode only the messages coming from the transmitter connected to it (the one with the same address). This avoids that a control can be activated due to an interference. In fact, if the radio frequency is disturbed, wrong or interrupted, the receiver stops the entire system automatically.

ALLOWED USE:

The radio remote control is designed to remotely operate a telehandler in a parked and stable position
Any other use is considered contrary to what established and, therefore, improper.
The compliance with and the strict respect of the use, maintenance and repair instructions of the Manufacturer represent an essential part of the allowed use.
The use, maintenance and repair of the radio remote control shall be carried out by skilled personnel having the necessary knowledge of its special features and the safety precautions to be taken.
It is also essential to comply with the national safety at work legislation, the provisions concerning the safety and health of workers at work, and the road traffic regulations.

NOTICE

Effecting changes or carrying out interventions on the telehandler and/or on the radio remote control other than those of routine maintenance is expressly forbidden. Any modification of the telehandler and/or of the radio remote control not carried out by TEREX GLOBAL GmbH or an authorized assistance centre involves the automatic invalidation of the conformity of the machine.

IMPROPER USE:

Improper use means any utilisation of the radio remote control following working criteria which do not comply with the instructions of this manual, and which, in general, may result in risks for both operator and bystanders.

DANGER

We list below some improper use of the radio remote control.

- ***Not strictly complying with the operation and maintenance instructions of this handbook and of the telehandler handobook;***
- ***Machines used in explosive environments;***
- ***Machine powered with alternating current;***
- ***Machines used in conditions outside those described in the telehandler operator's manual.***
- ***It is forbidden to use the radio remote control when an aerial work platform is coupled to the telehandler.***

Radio Remote Control Description

RADIO REMOTE CONTROL APPLICATION FIELD

The following table represents the application field of the radio remote control installed on TEREX GLOBAL GmbH telehandlers

	RADIO REMOTE CONTROL
GTH-4016 SR	✖
GTH-4018 SR	✖
GTH-4016R	✖
GTH-4018R	✖
GTH-5021R	✖

Inspections



Make sure:

☑ You learn and practice the principles of safe machine operation contained in this operator's manual and in the telehandler one.

1 Avoid hazardous situations.

2 Always perform a pre-operation inspection.

Know and understand the pre-operation inspection before going on to the next section.

3 Always perform function tests prior to use.

4 Inspect the workplace.

5 Only use the machine as it was intended.

Pre-operation Inspection Fundamentals

It is the responsibility of the operator to perform a pre-operation inspection and routine maintenance.

The pre-operation inspection is a visual inspection performed by the operator prior to each work shift. The inspection is designed to discover if anything is apparently wrong with a telehandler and/or with the radio remote control before the operator performs the function tests.

The pre-operation inspection also serves to determine if routine maintenance procedures are required. Only routine maintenance items specified in this manual may be performed by the operator.

If damage or any unauthorized variation from factory delivered condition is discovered, the telehandler and/or the radio remote control must be tagged and removed from service.

Repairs to the telehandler and/or the radio remote control may only be made by a qualified service technician, according to the manufacturer's specifications. After repairs are completed, the operator must perform a pre-operation inspection again before going on to the function tests.

Scheduled maintenance inspections shall be performed by qualified service technicians, according to the manufacturer's specifications.

Inspections

PRE-OPERATION INSPECTION

For the Maintenance and the Pre-operation Inspection of the telehandler, refer to the specific Operator's Manual presents placed inside the cabin.

For the radio remote control:

- Make sure the operator's manual is intact, legible and placed inside the telehandler.
- Follow the instructions here below for the components of the radio remote control transmitter:

1. eliminate dust and other foreign matters from the transmitter. Never clean the transmitter using solvents or flammable/corrosive products or with high-pressure water cleaners or steam cleaners;
2. check that gaskets, bellows and caps of joysticks, selectors and pushbuttons are intact, soft and elastic;
3. make sure the transmitter is intact;
4. verify the symbols of the control panel are well visible (if not, replace the panel);
5. verify the identification plate in the image here below is intact and legible.



WARNING

If even one single item is damaged or defective, do not start work. Stop the machine and repair the fault.

FUNCTION TESTS FUNDAMENTALS

The function tests are designed to discover any malfunctions before the machine is put into service. The operator must follow the step-by-step instructions to test all machine functions. A malfunctioning machine must never be used. If malfunctions are discovered, the machine must be tagged and removed from service. Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications. After repairs are completed, the operator must perform a pre-operation inspection and function tests again before putting the machine into service.

Make sure:

☑ You learn and practice the principles of safe machine operation contained in this operator's manual and in the telehandler one.

1. Avoid hazardous situations.
2. **Always perform a pre-operation inspection.**

Know and understand the pre-operation inspection before going on to the next section.

3. Always perform function tests prior to use.
4. Inspect the workplace.
5. Only use the telehandler and the radio remote control as they were intended.

Inspections

TESTS

About the telehandler:

1. Select a test area that is firm, level and free of obstruction.
2. Enter the operator's compartment and sit on the seat.
3. Fasten the seat belt.
4. Adjust all the mirrors.
5. Be sure the parking brake is on and the transmission control is in neutral.
6. Start the engine.



Perform all the tests provided for the telehandler and listed in the machine Operator's Manual.

About the radio remote control:

7. Check the transmitter controls and instruments functioning.

O Result: All the controls should operate smoothly.

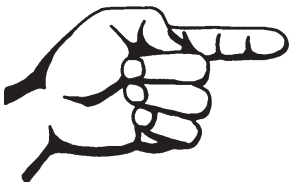
WORKPLACE INSPECTION

The workplace inspection helps the operator determine if the workplace is suitable for safe machine operation. It should be performed by the operator prior to moving the machine to the workplace.

It is the operator's responsibility to read and remember the workplace hazards, then watch for and avoid them while moving, setting up and operating the machine

Be aware of and avoid the following hazardous situations:

- drop-offs or holes
- bumps, floor obstructions or debris
- sloped surfaces
- unstable or slippery surfaces
- overhead obstructions and high voltage conductors
- hazardous locations
- inadequate surface support to withstand all load forces imposed by the machine
- wind and weather conditions
- the presence of unauthorized personnel
- other possible unsafe conditions



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Operating Instructions

This section provides the operator and the ground staff a practical guide for the gradual learning of the use of the telehandler remotely operated by means of the radio remote control.
Both operator and ground staff shall have all the necessary requisites and shall become familiar with both telehandler and radio remote control before starting using them.
This familiarisation ensures a proper use during work.

WARNING

Before using the telehandler, inspect the job site and check for possible hazardous conditions. Make sure that there are no holes, moving banks or debris that may cause you to lose the control of the machine.

DANGER

Pay the greatest attention when working close to electric lines. Check their position and ensure that no part of the machine operates at less than 6 meters from the power lines.

WARNING

For a safe use of the telehandler always check the weight of the loads going to be handled.

Operating Instructions

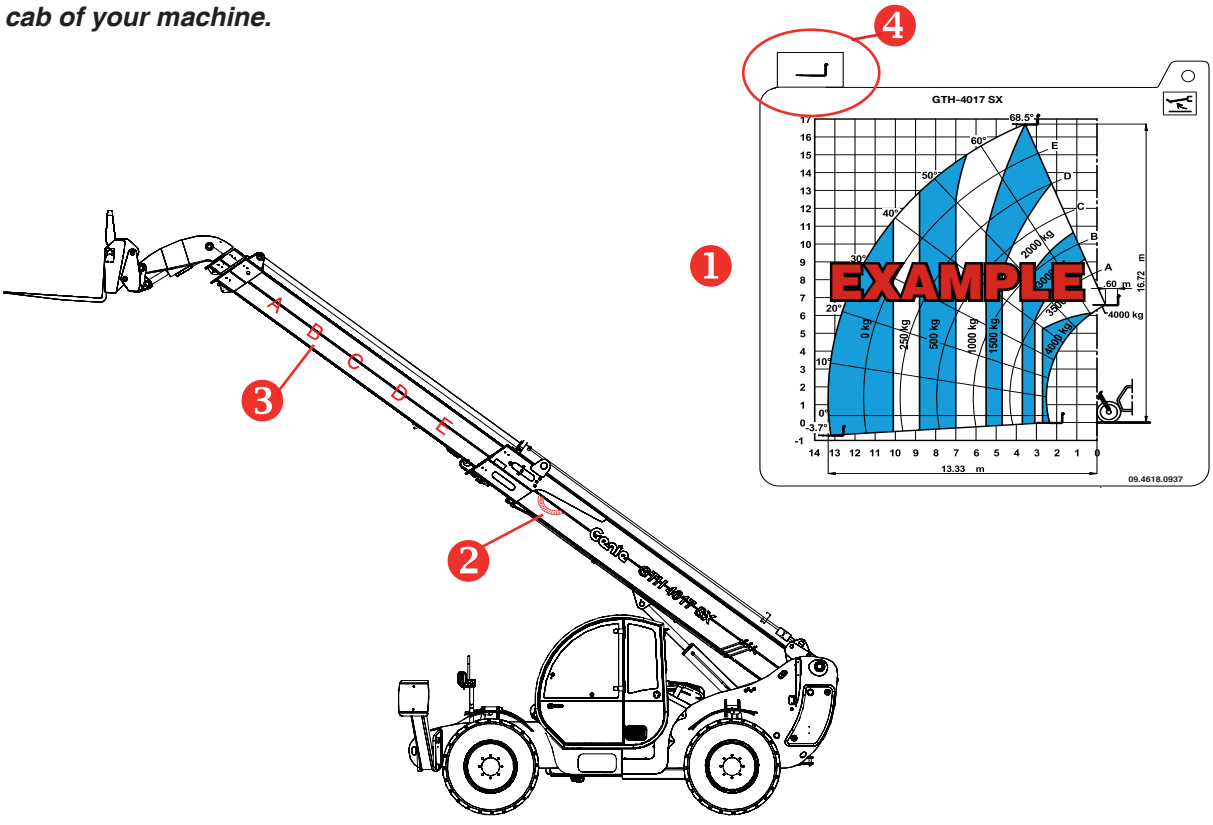
■ USING THE LOAD CHARTS

The load charts **1** indicates the maximum permissible load in relation to the boom extension and the type of attachment used. To operate under safe conditions, always refer to these charts.
The extension level of the boom can be checked with the help of the letters (**A**, **B**, **C**, **D**, **E**) painted on the same boom (pos.**3**), while the actual degrees of inclination of the boom are shown by the angle indicator **2.**
All the load charts are placed into a dedicated holder installed in the cabin.
The tag **4** located at the top of each load chart, indicates the type of attachment used**.**

WARNING

The load charts applied on the cab refer to a stationary machine standing on a solid and level ground.

The load chart illustrated in this chapter is given only as a mere example. To define the payload limits, refer to the load charts applied within the cab of your machine.



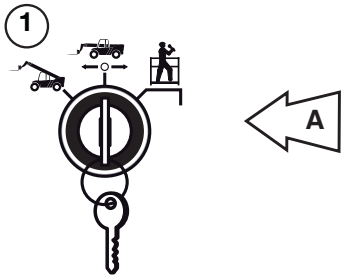
Operating Instructions

■ ACTIVATION PROCEDURE

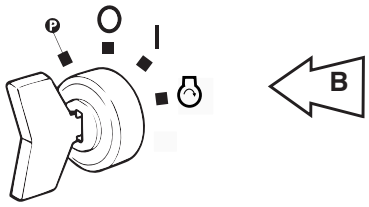
■ SWITCHING THE CONTROLS FROM THE TELEHANDLER TO THE RADIO REMOTE CONTROL

For a safe use of the radio remote control, follow the instructions below:

- drive the machine to the site where you wish to operate using the radio remote control;
- the radio remote control can be operated with the machine stabilizers raised (machine on wheels) or lowered to the ground. To lower the stabilizers, follow the instructions provided in the machine operator's manual;
- Set the Road/Jobsite/Platform switch A (see the image here below) to "Jobsite", position 1;



- on the antioverload display that is inside the cab select the attachment you are going to use and confirm it selecting "enter";
- engage the parking brake and put the forward/reverse selector in neutral position;
- set the ignition switch B to position 1, power on;



- remove the key from Road/Jobsite/Platform switch, get off the machine and lock the cab door up.

Now the machine can be remotely operated.

DANGER

The radio remote control cannot be used when the machine is equipped with an aerial work platform.

NOTICE

Controls can be operated only if the radio connection has been established. The transmitter switches off automatically. It is however recommended to switch it off every time you stop working.

After about 5 minutes of inactivity the radio remote control turns off, to turn it on again you should repeat the activation procedure.

DANGER

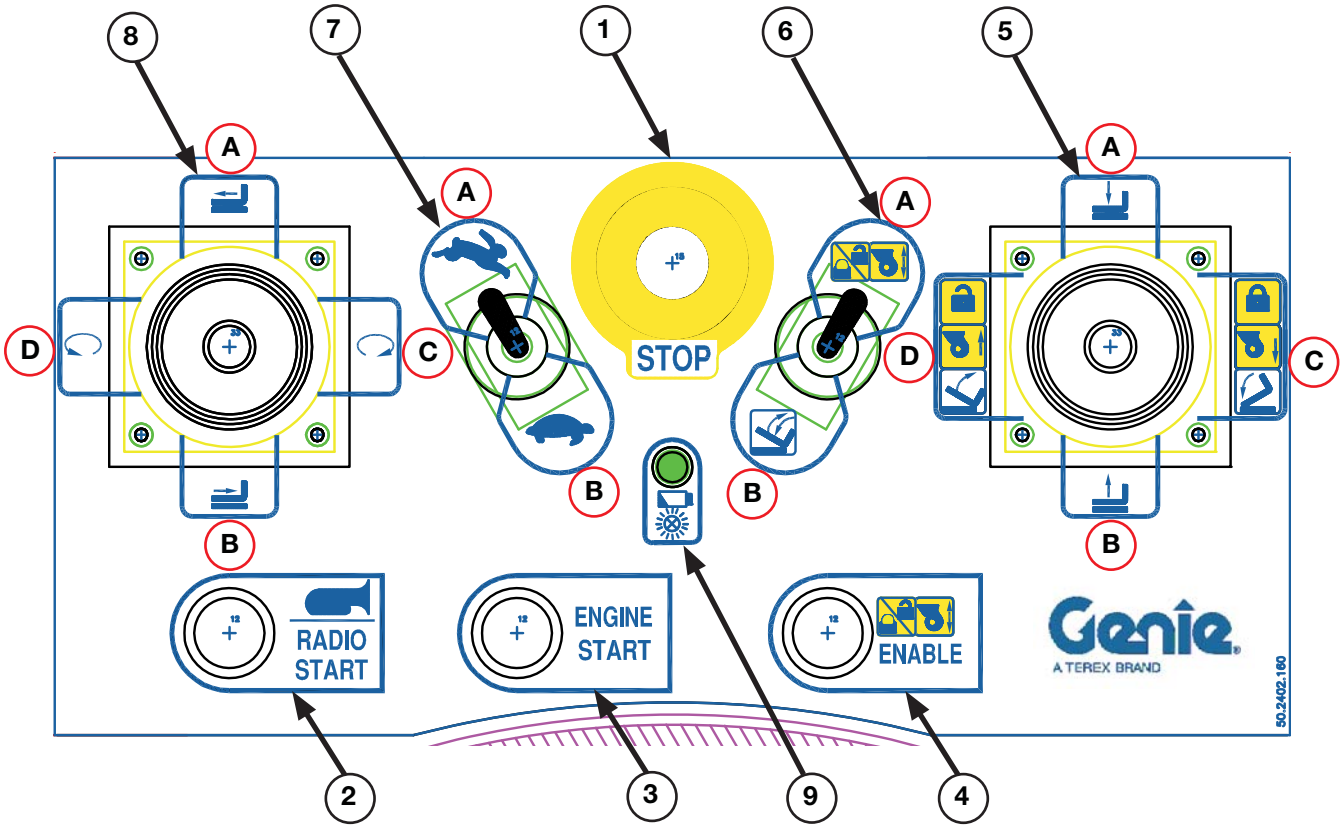
The operator must steadily check the transported load and all the movements of the different parts of the machine remotely operated.

NOTICE

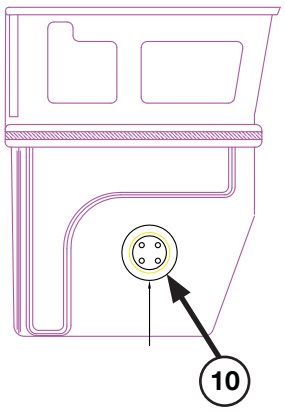
The radio connection can be established only if the radio remote control battery and the one that is in the dashboard inside the cab are charged sufficiently (12 v), and if all the manoeuvre actuators are in zero position (not engaged).

Operating Instructions

■ CONTROLS



1. **Emergency stop pushbutton (STOP)**
2. **Radio Remote Control Start Button (RADIO START) and Horn Button**
3. **Engine start button (ENGINE START)**
4. **Button enabling the controls of attachment lock/unlock and winch rope lowering/lifting (ENABLE)**
5. **Boom lifting/lowering, forks forwards/ backwards tilting, attachment lock/unlock, winch rope lowering/lifting control lever**
6. **Selector enabling the controls of attachment lock/unlock, winch rope lowering/lifting**
7. **Movements speed selector**
8. **Boom extension/retraction and turret right/ left rotation lever**
9. **Radio remote control battery warning led**
10. **Battery charger connector**



Operating Instructions

■ DESCRIPTION OF THE CONTROLS

1. **Emergency stop pushbutton (STOP):**
   this pushbutton has two functions: a) press it down while turning clockwise to enable the radio remote control functioning, the LED in position 9 will light up; b) press the pushbutton down to switch off the radio remote control and the machine engine.
2. **Radio Remote Control Start Button (RADIO START):**
   this button has two functions: a) press it at the beginning of the operations to pass the controls from the machine to the radio remote control; b) once the radio remote control has been enabled this button function as a horn.
3. **Engine start button (ENGINE START):**
   press this button to start the telehandler engine.
4. **Button enabling the controls of attachment lock/unlock and winch rope lowering/lifting (ENABLE):**
   after moving the selector in position 6 toward A press the enable button one time to enable the control lever in position 5 to the functions of attachment lock/unlock and winch rope lowering/lifting. Press the enable button again to disable the control lever in position 5 from these functions.
5. **Boom lifting/lowering, forks forwards/backwards tilting, attachment lock/unlock, winch rope lowering/lifting control lever:**
- move the control lever toward B to lift the boom;
- move the control lever toward A to lower the boom;
- move the control lever toward C to tilt the forks forwards;
- move the control lever toward D to tilt the forks backwards;
- after moving the selector in position 6 toward A and after pressing the button in position 4, move the control lever toward C to lock the attachment or to lower the winch rope;
- after moving the selector in position 6 toward A and after pressing the button in position 4, move the control lever toward D to unlock the attachment or to lift the winch rope up.

6. **Selector enabling the controls of attachment lock/unlock, winch rope lowering/lifting:**
- move the selector toward A to enable the control lever in position 5 to the functions of attachment lock/unlock and winch rope lowering/lifting;
- move the selector toward B to enable the control lever in position 5 to the functions of forks forwards/backwards tilting.

7. **Movements speed selector:**
   The speed selector lets you to operate the machine at the best operating speed. This selector has two stable positions one toward A (hare) and one toward B (tortoise):
- move the selector toward A to speed up the movements activated by the radio remote control;
- move the selector toward B to slow down the movements activated by the radio remote control.

   While you are working with the selector in position B (tortoise), if you move the selector to position A (hare), you will not have an increase of the movements speed if you first don't put the control lever you are using in neutral position. On the contrary, if you move the selector from A (hare) to B (tortoise), you will have an immediate slowdown of the movements even if you first don't put the control lever you are using in neutral position.

8. **Boom extension/retraction and turret right/left rotation lever:**
- move the control lever toward A to extend the boom;
- move the control lever toward B to retract the boom;
- move the control lever toward C to rotate the turret clockwise (as viewed from the normal operating position);
- move the control lever toward D to rotate the turret counter clockwise (as viewed from the normal operating position).

Operating Instructions

9. **Radio remote control battery warning led:**
- if the green LED flashes slowly the radio remote control battery is discharged, connect the radio remote control to a current socket using the provided battery charger;
- the green LED flashes two times quickly and then it turns off for a moment when the remote control is connected to the current socket;
- the LED is lit up with a fixed light when the radio remote control is turned on.

10. **Battery charger connector:**
connect the battery charger to the connector and to the current socket to charge the radio remote control battery.

■ RADIO REMOTE CONTROL TURNING ON

Before turning on the radio remote control:

- put on the transmitting unit;
- adjust the length of the shoulder belt in order to move and operate all the controls with ease;
- check if the battery is fully charged;
- press and rotate clockwise the emergency stop button in position 1;
- press the radio remote control start button in position 2(RADIO START);
- press the engine start button in position 3 (ENGINE START);
- perform the desired movements activating the control levers in position 5 and 8 with the assistance of the selectors in position 6 and 7 and of the attachment lock/unlock - winch rope lowering/lifting enabling button in position 4;
- as soon as you have finished to work press the emergency stop button in position 1 (STOP) to turn off the radio remote control and the machine engine.

Always keep at a safe distance from the machine, in a place that ensures a good visibility of the working area. If the controls of the transmitter do not work, turn off the machine and repeat the activation procedure.

DANGER

The use of the radio transmitter to operate machines is only permitted to trained and qualified operators who must have a thorough knowledge of both machine and radio remote control.

DANGER

Do not, at any times, leave the turned on radio remote control unguarded. Don't forget that a radio connection can be established and the controls can be operated accidentally even from a closed place far from the machine.

NOTICE

After about 5 minutes of inactivity the radio remote control turns off and it is necessary to repeat the activation procedure to turn it on.

Maintenance

Observe and obey:



* The operator can only perform the routine maintenance operations envisaged in this manual.
* Scheduled maintenance procedures shall be completed by qualified technical personnel according to the manufacturer's specifications.

INTRODUCTION

A thorough and regular maintenance keeps the machine and the radio remote control in a safe and efficient working condition.

For this reason, it is advisable to wash, grease and service the machine properly, especially after having worked under particular conditions (muddy or dusty environments, heavy operations, etc.).

Always ensure all machine components are in good condition. Check for oil leaks or loosening of guards, and make sure that the safety devices are efficient. In case of defects, find and rectify them before using the machine again.

Not respecting the ordinary maintenance schedule of this manual automatically voids TEREX GLOBAL GmbH warranty.

NOTICE

Effecting changes or carrying out interventions on the telehndler or the radio remote control other than those of routine maintenance is expressly forbidden. Any modification not carried out by TEREX GLOBAL GmbH or an authorized assistance centre involves the automatic invalidation of the conformity of the machine to the Directive 2006/42/EC

Maintenance

ROUTINE MAINTENANCE

Receiver
Every three months, you should:
1. eliminate dust and other foreign matters from the receiver. Never clean the receiver using solvents or flammable/corrosive products or with highpressure water cleaners or steam cleaners;
2. make sure the receiver is intact;
3. verify that the receiver's wire is intact and properly connected;
4. verify the identification plate is intact and legible;
5. verify the receiving antenna and its wiring are intact, they are magnetically fixed on the top of the cab.

External electric conductors
Every twelve months, you should:
1. verify the connecting cable between the receiver and the machine is intact in its full length;
2. verify the integrity and connection of power plugs and sockets;
3. verify and replace if necessary, clamps or other retaining devices;
4. verify that the protective sheath of the connecting cable is not damaged, especially near the cable clamps.

Store the transmitter in a clean and dry place.

DIAGNOSTIC

If the radio remote control cannot be operated verify if the battery is charged: if the green warning LED flashes the radio remote control battery is discharged, use the provided battery charger to charge it. When the remote control is connected to the current socket to charge its battery the green LED flashes two times quickly and then it turns off for a moment.



If you find any problem during a routine maintenance intervention, place the "machine + radio remote control" out of service and contact your nearest TEREX GLOBAL GmbH Service Centre.