



Collapsible Human Interactive Target (GTI-CHIT-1.1)

User's Manual, 10 April 2018



Global Technology Integrators, LLC
3251 Progress Drive
Orlando, FL 32826
407-401-8919

A Florida Limited Liability Corporation, Woman Owned Small Business
Duns: 080132849, Cage: 7KGB4, EIN: 810942856

GTI Proprietary Information

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1 General Safety Warning/Caution Description

Warning, cautions and notes general use in this manual is defined below:

WARNING – A warning identifies a clear danger for injury or death to the person doing that process

CAUTION – A caution identifies risk of damage to the equipment

NOTE – A note is used to highlight essential procedures, conditions, or statements or convey important instructional data to the user




1.1 Warning Summary

This warning summary contains general safety warnings and hazardous materials warnings that must be understood and applied during operation and maintenance of this equipment. Failure to observe these precautions could result in serious injury or death to personnel. Also included are explanations of safety and hazardous materials icons used within the technical manual. Below is a summary of warnings that appear in this manual.

1.2 First Aid

First aid can be defined as urgent and immediate lifesaving and other measures, which can be performed for casualties by non-medical personnel when medical personnel are not immediately available. See FM 4-25.11_C1 for more information.

1.3 Explanation of Safety Warning ICONS

	ELECTRICAL – Electrical wire to hand with electricity symbol running through hand shows that shock hazard is present.
	FALLING PARTS – Arrow bouncing off human shoulder and head shows that falling parts present a danger to life or limb.
	PINCH POINT – Watch your hands. A pinching potential exist at this or with this device. Injury may occur.

2 CHANGE HISTORY

Summary of Changes:

Change information will be listed in the table below. The latest change version supersedes all previous change versions.

CHANGE	DESCRIPTION	DATE
Original Manual	GTI-CHIT-1.1 - User's Manual	10 April 2018

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3 How to use this manual

3.1 Overview

The purpose of the Global Technology Integrators (GTI) Collapsible Human Interactive Target (CHIT) Operator & Maintenance Manual (O&MM) is to instruct the user on how to operate, maintain, and sustain the CHIT for live and non-live fire training exercises.

ILLUSTRATIONS

Illustrations are examples-only that enhances the task steps; illustrations do not necessarily represent the actual equipment or screen captures that may be seen or used in the field during operations.

ORGANIZATION

This manual contains operator and operator maintenance information for the operating and maintenance teams and is divided into the following sections:

- Front Matter
 - Warning Summary
 - List of Effective Pages
 - Table of Contents
 - How to Use this Manual
- Content Material
 - Overview/Introduction
 - Description
 - Unpacking/Setup
 - Operating
 - Characteristics
 - Maintenance/Repair
- Back Matter
 - Acronym List

4 Introduction

Congratulations on the purchase of your Global Technology Integrator's (GTI) Collapsible Human Interactive Target (CHIT) complete with a human like mannequin, hit sensors, a stand with Collapsing Human Interface Module (CHIM), and power/network cables to connect to the CHIM. GTI's CHIT's are designed with the latest state-of-the art technologies and are water resistant for outdoor use.

4.1 Objective

The overall objective of the Collapsible Human Interactive Target (CHIT) is to provide increased realism in the Urban Operations Training Environment for the Department of Defense. Our target provides the same level of realism for law enforcement, federal and state government agencies that have a training need to combat terrorist activities and civil unrest situations. The CHIT provides a realistic portrayal of a threat, threat escalation, and a threat reduction. The target is a stationary, physical, three dimensional, full body target designed to realistically portray a human being.

4.2 Purpose

The CHIT Target is a full body three dimensional target designed to realistically portray a human being and can be presented as a terrorist, military combatant, or civilian (armed or unarmed) to simulate an attacker or an innocent bystander. The intent of the target is to provide training in urban area operations, shoot houses, and Combined Arms Tactical Training Facilities (CACTFs) or any combination of structures, buildings, or areas that could be potential targets or conflict areas.

4.3 Description

The Collapsible Human Interactive Target arrives fully assemble and ready to operate. The mannequin when disassemble consist of a head, torso, upper left and right arms (2), lower left and right arms (2), left and right hands (2), upper left and right legs (2), and lower left and right legs (2). See figure 1 and figure 2 below

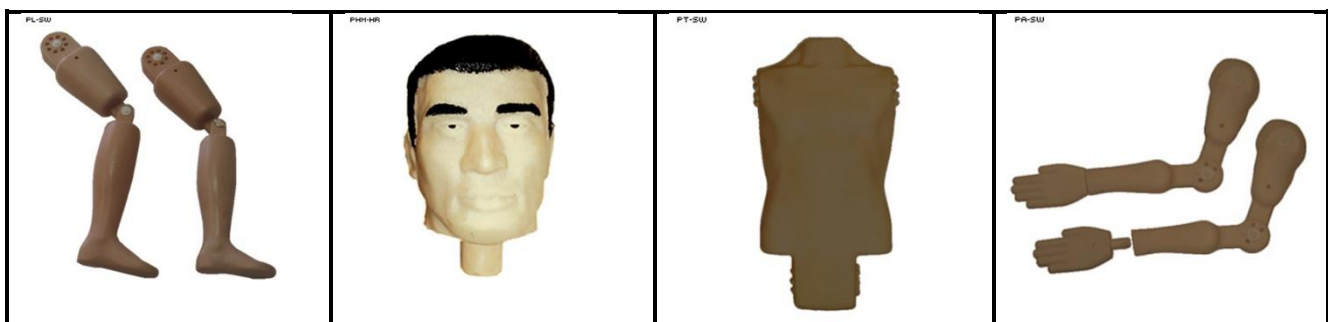
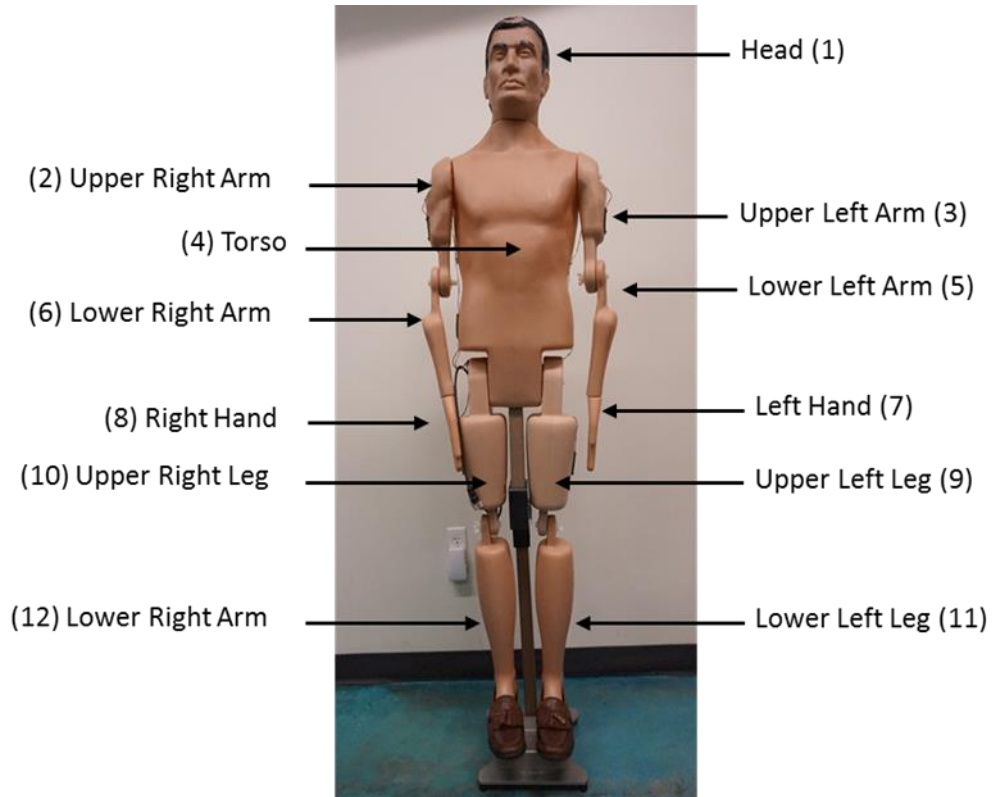


Figure 1. Mannequin Components.

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(1) Head	(5) Lower Left Arm	(9) Upper Left Leg
(2) Upper Right Arm	(6) Lower Right Arm	(10) Upper Right Leg
(3) Upper Left Arm	(7) Left Hand	(11) Lower Left Leg
(4) Torso	(8) Right Hand	(12) Lower Right Leg

Figure 2. Mannequin Assembly.

The Collapsible Human Interactive Target includes a stand that consist of a base plate, Collapsing Human Interface Module (CHIM), upper and lower extensions, break-a-way Hinge Block Assembly, and wiring to provide power to the magnet. See figure 3 and figure 4 below



Figure 3. Target Stand Components.

Collapsible Human Interactive Target (GTI-CHIT-1.1)

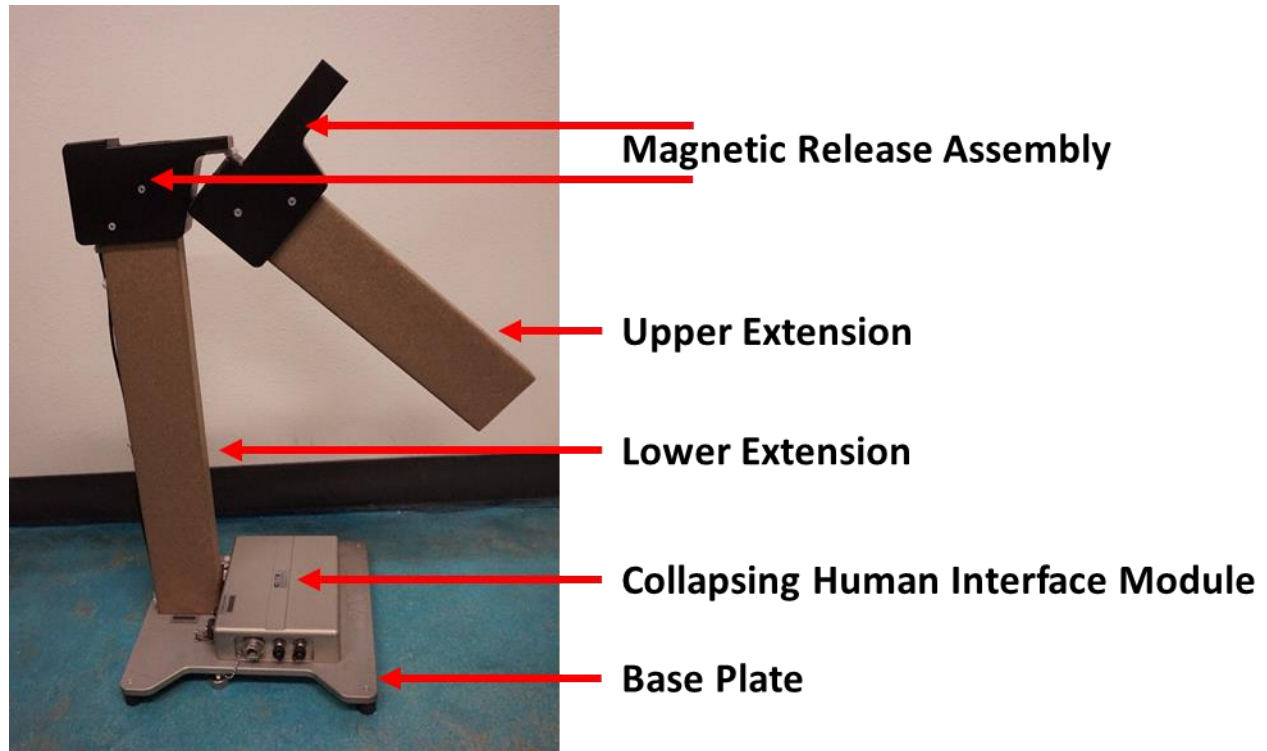


Figure 4. Target Stand Components.

There are six hit sensors pre-mounted on the CHIT when it arrives. The six piezoelectric hit sensors are mounted on the neck (1), Arms (2), Legs (2), and the right hip (1) of the mannequin. The sensors must be affixed such that they are snug with the surface. The hit sensor locations on the mannequin is specific with a tolerance of plus/minus an inch from factory installation. Each sensor is connected to the CHIM by a twisted pair of 22 gauge wire. The wire is designed to be easily field-repairable by simply stripping back the insulation and twisting the conductors back together and making a splice. A more permanent repair can be made during a maintenance window opportunity. The hit sensor is shown in the figure below.



Figure 5. Target Hit Sensor

Placement of the Hit sensors are shown in the diagram below:

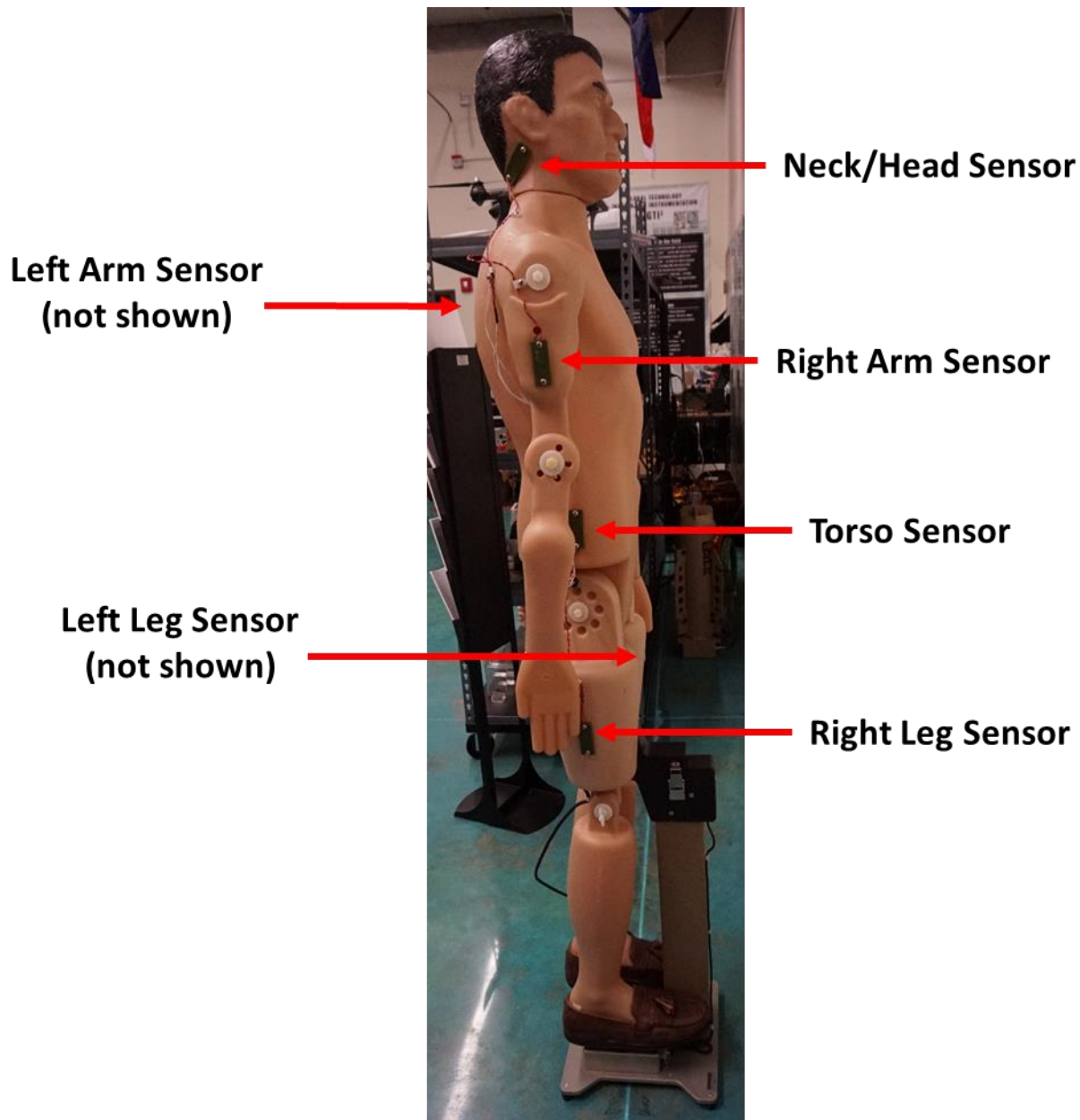


Figure 6. Target Hit Sensor

There are three cables that are included with the standard purchase of a CHIT. A network cable is included. A 110 volt AC Power cord to power the CHIM is included and shown in the figure below. A 12VDC cable is included and will normally have flying leads on the battery connections end, however if desired eyelets or alligator clips (at an additional cost) can be installed and shipped with the order. The cable below is configured with eyelets.

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110VAC Power Cord

12VDC Power Cord

Network Cable

Figure 7. Target Power and Network Cable/Cords

Collapsing Human Interface Module (CHIM)

The CHIM contains the control interface for the target. There are no repairable parts or components in the CHIM. The CHIM comes from the factory pre-assembled in an aluminum casing that is manufactured and sealed to be water resistant under normal operations. The CHIM is designed with two aluminum components, the case that the electronics are house in and the top that seals the unit. There are four connectors on the back panel of the lower case and there are three connectors on the right side lower case. We use right side as it relates to the position of the mannequins right side. See the figure below.

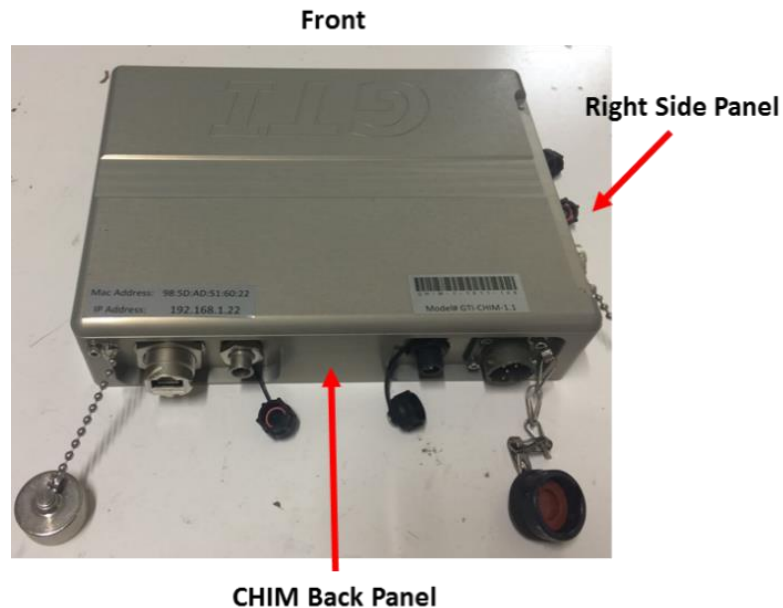


Figure 8. CHIM

The CHIM Cable/Cord connections and connectors are shown in the figures below.

Collapsible Human Interactive Target (GTI-CHIT-1.1)

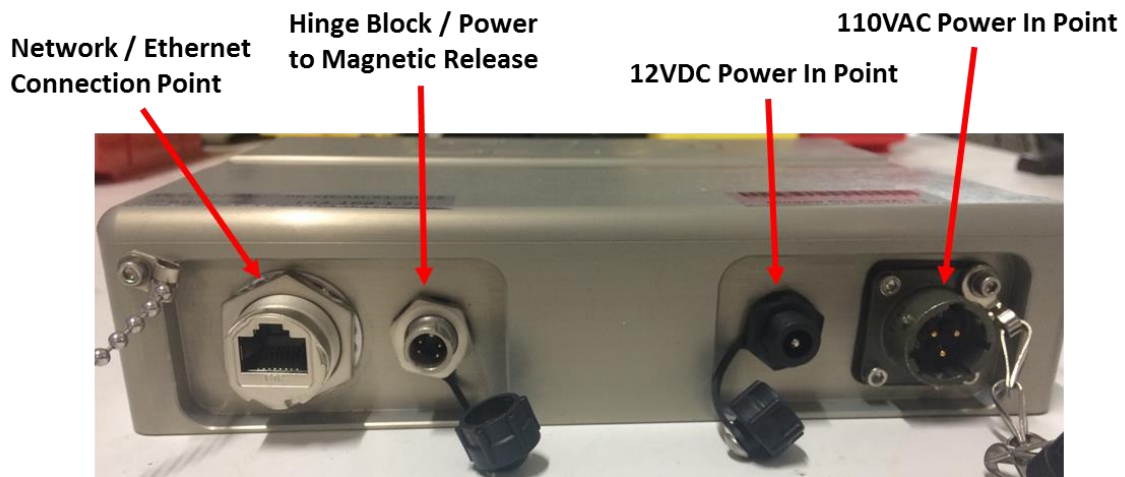


Figure 9. CHIM Back Panel Connectors



Figure 10. CHIM Right Side Panel Connectors

5 Unpacking Your CHIT

The Collapsible Human Interactive Target (CHIT) arrives fully assembled and very little installation and setup time is needed. The fully assembled mannequin is placed on the stand and secured with a packing screw to keep it from falling off of the stand during shipping. The cardboard box that your CHIT arrives in will be just shy of six feet (the CHIT stands 5'10"). Inside the shipping box all the items listed above will be in the container. The cables and cords will be in a separate box within the main shipping container.

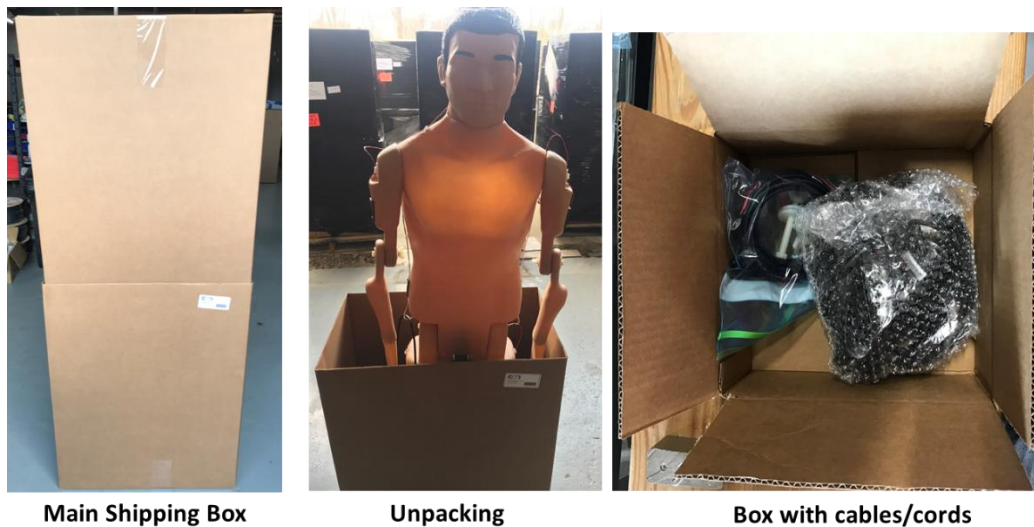


Figure 11. Shipping Container and CHIT components

6 Setting Up Your CHIT

Now that the CHIT has been unpacked, you are within minutes of being ready to train with your new target. Since the mannequin is pre-assembled, there is very little to accomplish in order to start training. Take the power cords out of their storage bag, choose the 12VDC or 110VAC cord that is appropriate for your power source, connect the cord to the CHIM and either a wall outlet or the battery for operations. Make sure that the power cable to the magnetic release mechanism is connected and that it did not come loose in shipping. There are several ways you can utilize your CHIT during operations. You can let the mannequin fall forward or fall backwards during which time the mannequin will come off of the stand. You can leave the shipping screw in place, shown in the figure below, and allow the mannequin to fall forward or fall backwards and remain attached to the stand. It is your choice how you would like to use the target however if you want it to fall away from the stand, then you need to remove the shipping screw as shown below. Use a Phillip head screwdriver or driver tips to remove the screw.

Collapsible Human Interactive Target (GTI-CHIT-1.1)

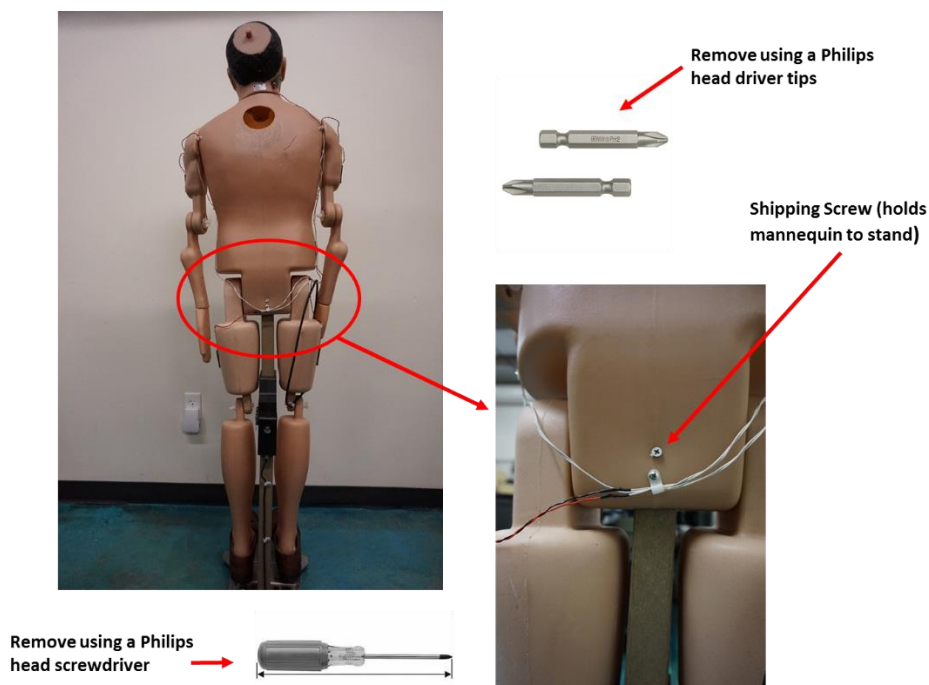


Figure 12. Removal of the Shipping Screw

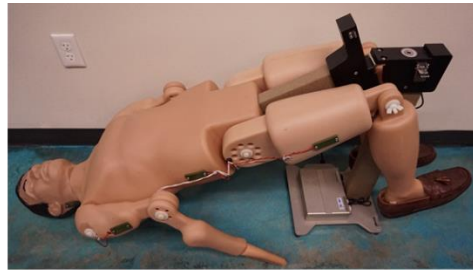
6.1 Attaching the Mannequin to the Target Stand Device

The mannequin is attached to the target standing device (TSD) by inserting the top mannequin support extension into the bottom of the mannequin. Remember, to allow the mannequin the ability to fall away from the stand, you must remove the shipping screw as shown above. You determine which way the mannequin falls when you place the mannequin on the target stand device. If your mannequin is facing away from the stand (looks like he/she can walk forward and away) then the mannequin will fall forward and be face down when it falls off the stand. If you place the mannequin on the stand where the back side is facing outward (he/she would have to walk backwards), then the mannequin will fall backwards with the face of the mannequin facing upwards. The mannequin may be set on the TSD so that the mannequin falls forward or backward. Place the mannequin facing the stand to fall backwards or place the mannequin away from the stand to fall forward as shown in the figures below.

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Forward Fall w/shipping Screw installed (Stays connected to Stand)



Backward Fall w/shipping Screw installed (Stays connected to Stand)



Forward Fall shipping Screw removed (Falls away from the Stand)



Backward Fall shipping Screw removed (Falls away from the Stand)

Figure 13. Operational Fall Technique of the Mannequin



Warning: When operating the Collapsible Human Interactive Target, remain at least six feet away from the falling mannequin device. Although injury is suspected to be light, a falling mannequin can bruise, possibly cut the skin, or hit you on the head and could cause injury to persons working in the area.

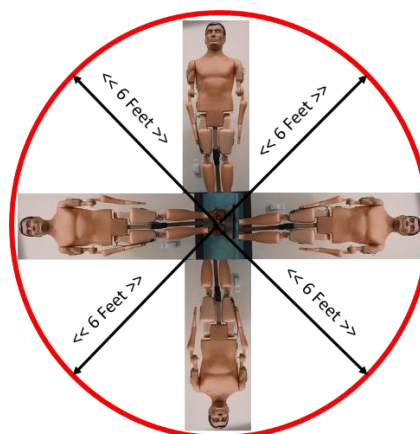


Figure 14. Fall Warning Zone

6.2 Cables

The standard delivery includes a Device Power Cable for 110VAC Operations. The power cord/cable is twenty feet long. Part number for the AC power cord is DPC-1.1. A 12VDC cable/cord is included with the standard delivery and is 10 feet in length. Part number for the DC power cord is DPC-12. The power cables/cords are shown in the figures below.

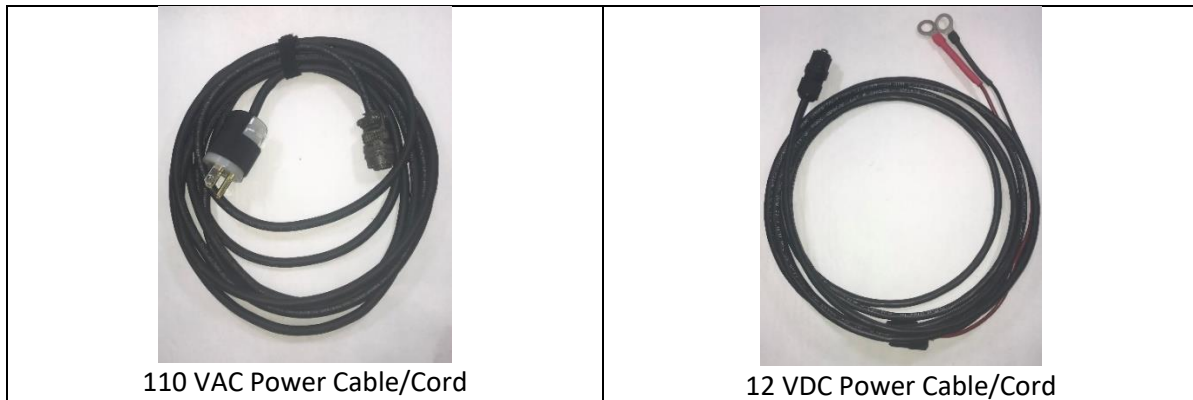


Figure 15. CHIM Power Cables/Cords

On the back panel of the CHIM locate the appropriate power input and plug in your cable to either the 110VAC or 12VDC power receptacle. Attach the cable to the connector and then plug into a wall receptacle or a 12 VDC battery.

CAUTION: Ensure all cables are free of kinks, bends, or crimps. Pinched cables can cause the equipment to malfunction. Pinched or damaged cables could cause equipment damage and may cause the unit to fail or inflict damage on internal components

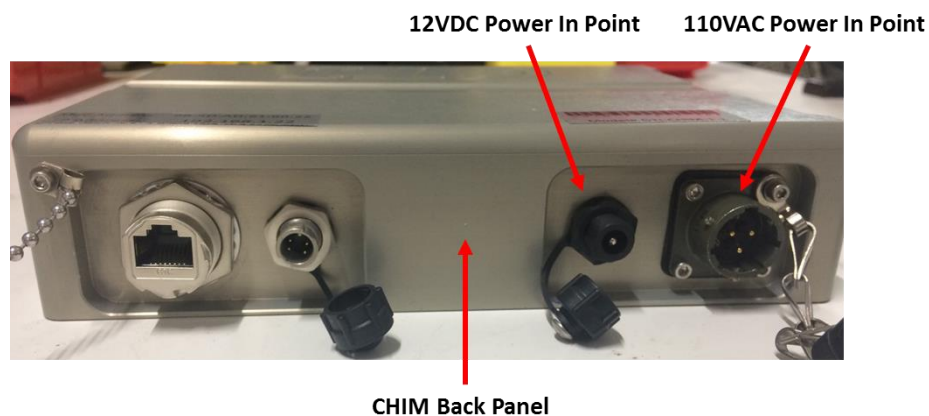


Figure 16. CHIM Back Panel Power Input Receptacles



WARNING: Ensure that all electrical connections and cables are free of damage. Worn, torn, or exposed cabling / wiring could cause an electrical shock. **Electric shock** can result in a minor or severe injury to a person. Symptoms of **electric shock** include burns, chest pain, and shortness of breath. **Electric shock** can result in cardiac arrest and death

The Hinge Block Assembly shown in Figure 4 is powered and controlled through a connector on the back panel of the CHIM, located on the left side of the mannequin lower stand extension as shown in the figure below. Ensure that the Hinge Block Assembly cable is connected to the CHIM and is securely connect to the release assembly prior to beginning operations.

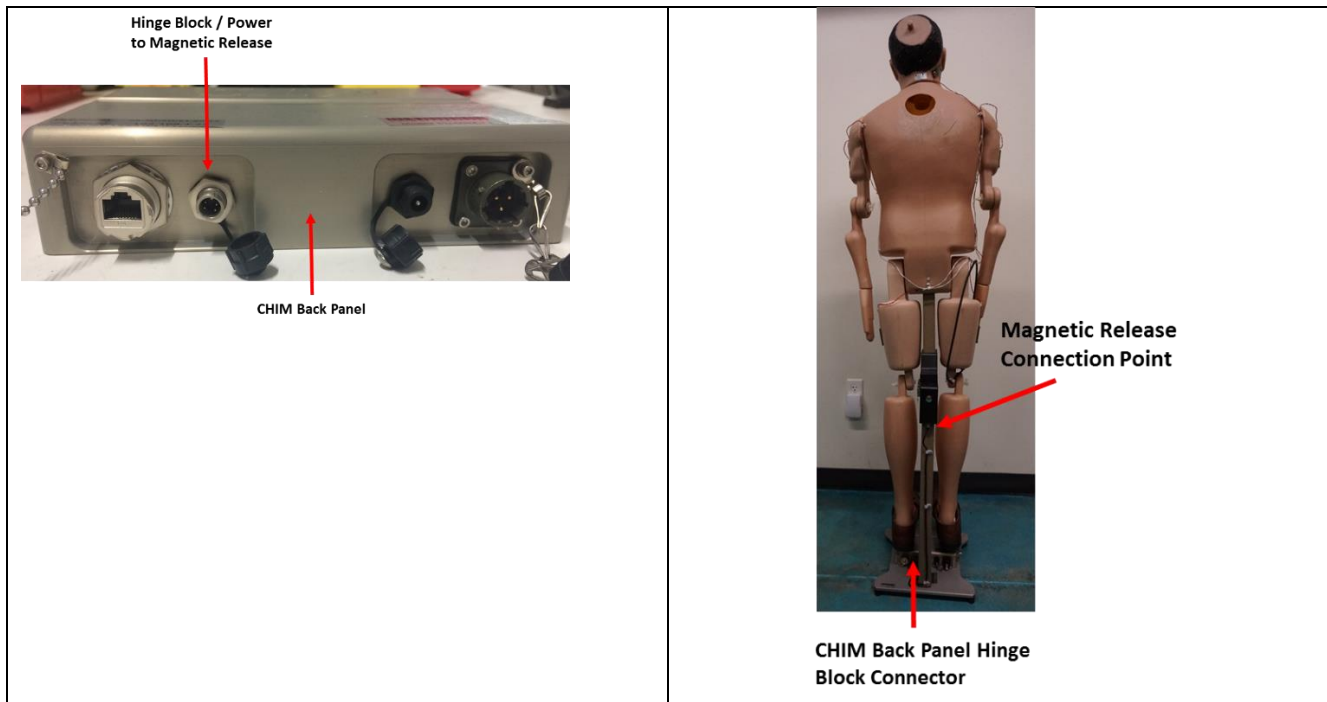


Figure 17. CHIM Back Panel Magnetic Release Connector

6.3 Configuring the CHIT for Operations

The CHIT is designed to operate as a stand-alone device and is programmed/setup through a web interface/IP Address directly connected to the CHIM device. You can access the interface page by connecting the provided Ethernet network cable to the CHIM back panel and then to your laptop computer (you need to ensure that your IPv4 protocol is set to 192.168.1.1 on your computer). Plug the provide network cable into the back panel of the CHIM. See the figure below.



Figure 18. Network Connection Point

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Now connect the other end of the network cable to your Ethernet receptacle on your computer/laptop. Find the device IP address on the top of the CHIM located on a metallic label that includes the Mac address as well as the device IP address. Open your browser on your computer and type in the IP address. The following page will open.



Figure 19. GTI-CHIT Opening Page

From the page in the figure above you can select configure or network. The configure page is shown in the figure below.



Figure 20. Configure Page

Once on the configure page, you can set your Hits to Kill and your Ammo Type as well as the stand alone mode. There are also MILES features that you can set from this page. Once you have selected

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and set your parameters, you can submit your request and the new parameters will be set. On this page you can go back to the HOME page or continue to the network page if needed. The network page is shown below.



Figure 21. Network Page

In most cases you will not need to set the network unless you are using the CHIT with another software program designed to work with the device. However the information and the page is here if needed. The figure below shows where to find the device IP address.



Figure 22. IP Address

6.4 Set up Summary

Now that you have unpacked your Collapsible Human Interactive Target, you should be ready to train. Here is just a quick step-by-step action checklist to ensure you are ready to go!

- Step 1. Unpack your CHIT
- Step 2. Remove the shipping Screw
- Step 3. Place the Mannequin on the Stand for the direction of fall required
- Step 4. Power the CHIM by plugging in the 110VAC or 12VDC power cable/cord
- Step 5. Verify the power connections to the CHIM and to the Hinge Block Assembly are securely connected
- Step 6. Configure the CHIM / CHIT via a network cable connected through a web interface using your laptop
- Step 7. Place the CHIT downrange or in an area where needed for training
- Step 8. Begin Training and ensure all warning and safety precautions are adhered to

7 CHIT Characteristics and Target Features

The CHIT is designed to FASIT specifications and supports two modes of operation; FASIT and Standalone. Each mode also supports MILES. The modes of operation can be configured via a web interface or with software specifically designed to operate with the Collapsible Human Interactive Target.

The Target is designed to operate in severe environments (hot, cold, and wet). It supports hit detection of various types and calibers of ammunition. The target can function reliably with > 250 shots fired within a 6" square area using standard 5.56mm ammunition (using other ammunitions may alter this shot density). Once the CHIT mannequin shot density exceeds reliable operation, the mannequin should be replaced. The CHIT technical specifications are provided in the table below.

Table 1. CHIT Characteristics

Physical Characteristics:	Parameters
Target Weight	31 lbs.
Target Connectors	Mil Spec Locking Bayonet Type
Collapsing Human Interface Module Case Material	Aluminum (660 degree C Melting Point)
CHIT Material	High density polyethylene (250deg C Melting Pt.)
Standing Target Height	5' 10" / 5' 11"
CHIT Types	Male or Female (complexions available: white, swarthy, black)
Mortal Hit Zones	Head and Torso
Non-Mortal Hit Zones	Arms and Legs
Electrical Characteristics:	
Power Consumption	150 mA @ 120 VAC
Data Connectivity	RJ45: 10/100 base T Ethernet TCP/IP
Motion Detector Supply Voltage	+12 VDC
Target Interface Module Control Outputs	Contact Closure Type rated 1A @ 48V
Target Interface Module Control Inputs	Opto-isolated rated 10-36 VDC input
Environmental Characteristics:	
Operating Temperature Range	-40 – 140 deg F
Environmental Rating	IP65
Hazard/Toxicity Indications	None
Performance Characteristics:	
C-HT Destructive Hit Rating	> 200 penetrations within 6-inch square area
Target input/output Response Time	< .25 sec

8 CHIT Angles of Engagement

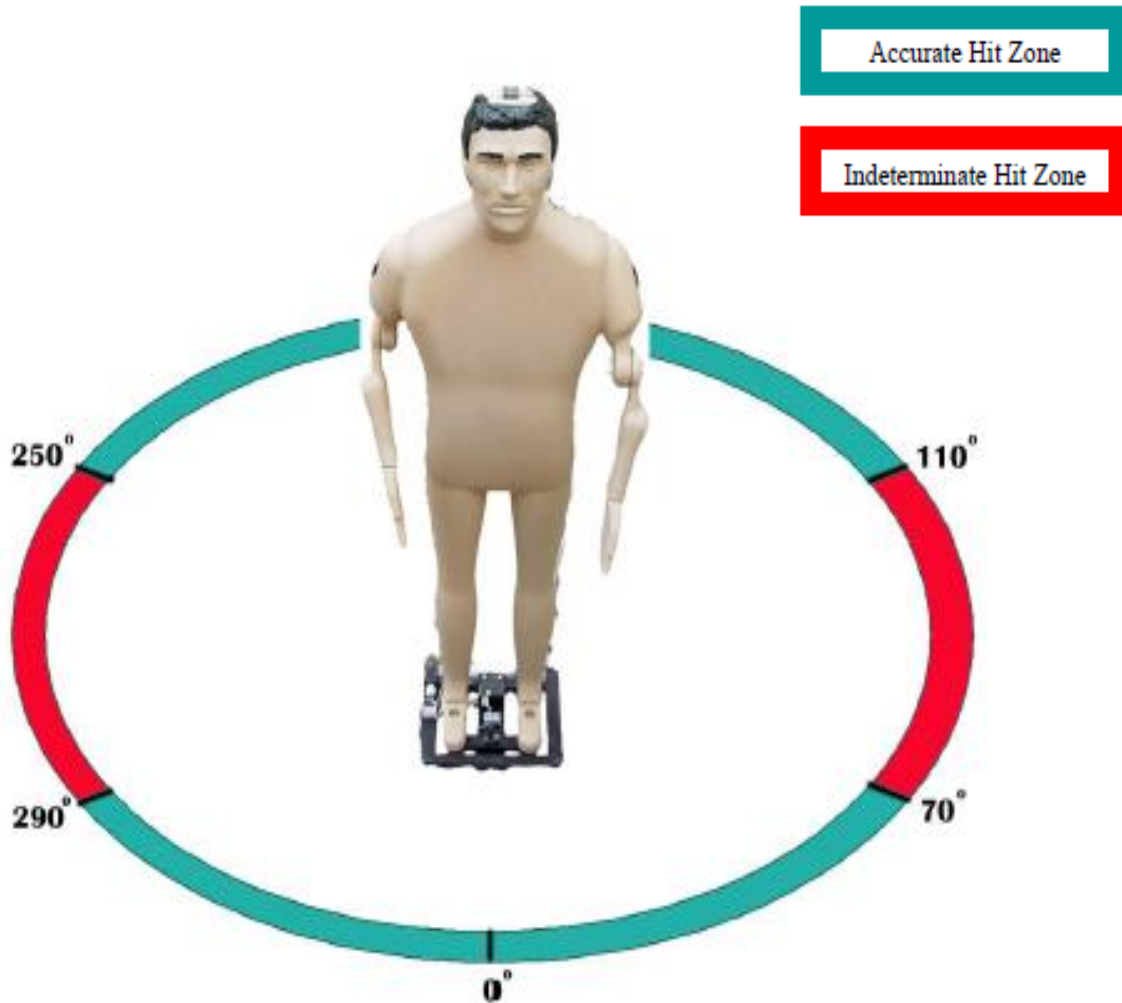


Figure 23. CHIT Angles of Engagement

The CHIT responds to an accurate degree only within the specified angle range. Any shots fired at the target in the Indeterminate Hit Zone, will result in an indeterminate data output. The forearms with hands and the calves with feet are part of the Indeterminate Hit Zone.

9 Collapsible Human Interactive Target Operations

The CHIT mannequin is molded of high density polyethylene plastic. The mannequin is mounted onto the stand and powered via a battery or 110VAC power outlet. A magnet releases the mannequin based on the defined successful engagement and allows the mannequin to fall either forward or backwards depending on the setup and desire. The mannequin has adjustable joints at the arms and legs. The figure below shows the arm joint with a plastic bolt in place to hold the arm at a 90 degree angle. These joints can be adjusted at 22.5 degree increments and locked in place with a plastic pin or bolt (plastic bolts are provide with your CHIT order). This adjustment allows the target to take on various postures (aggressive/non aggressive, etc...). The mannequin has a life span determined by the number of times it has been shot. The mannequin can easily be replaced by unscrewing the hit sensors and unbolting the mannequin from the target standing device.

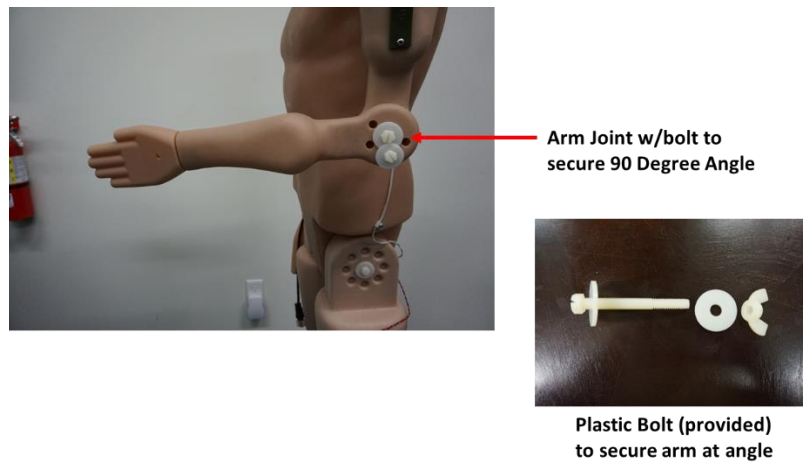


Figure 24. Arm Joint w/bolt at 90 Degree Position

Set your target in a cleared area for live fire and begin training.

When resetting your target to the upright position use caution and keep your hand and fingers clear of the Hinge Block Assembly. You can pinch your hand or finger.



Figure 25. Hinge Block Assembly and Ready Mannequin

CAUTION: The Hinge Block Assembly can pinch your hand and/or fingers when resetting the target. Pinching can cause slight injury to your hand and/or fingers.



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NOTE: The Hinge Block Assembly has a safety release latch located on the side of the assembly. The safety latch is to secure the mannequin from falling over when not powered or while not in use and for shipping. Ensure the latch is release prior to operating the CHIT



WARNING: If the CHIT is on the stand and the locking mechanism is not secured/locked when power is removed, the target will fall. Any persons in the six foot radius of the target could be hit by the falling target and cause personal injury.

The Hinge Block Assembly and Locking Latch are shown in the figure below.



**Latch on the Hinge
Block Assembly**

Figure 26. Hinge Block Assembly and Latch Locking Mechanism

Outfitting your CHIT

The Collapsible Human Interactive Target provides a realism like no other mechanical lifting target device however right out of the box the mannequin is just that a mannequin. Since the mannequin is molded in the image of a human the mannequin can be outfitted with clothing and ancillary devices to provide the fidelity required for your specific training needs. Here are the size of clothing necessary to dress the mannequin.

The target stands 5'11" tall

Shirt size: XL 17" Collar and 40" Chest

Pant size: 32/34" Waist and 32" Length

Shoe size: 10 1/2 Medium

You can Velcro/tape weapons (hand guns, rifles, knives etc...) to the hands and arms of the mannequin to simulate hostile aggressors or you can Velcro/tape in place a cup, plate, non-lethal items to simulate friendly's as well. Weapons or props should be made with non-fragmenting materials.

You can dress the mannequin as a "Man" or a "Woman" however the standard head that comes with your CHIT is a Man's head. GTI has a full line of mask that can be purchased separately in order to change the scenario. Several of those options are listed in the figure below.



Figure 27. Optional Masks for the CHIT

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Below are some of the weapons that can be purchased and secured to the mannequin hands and arms

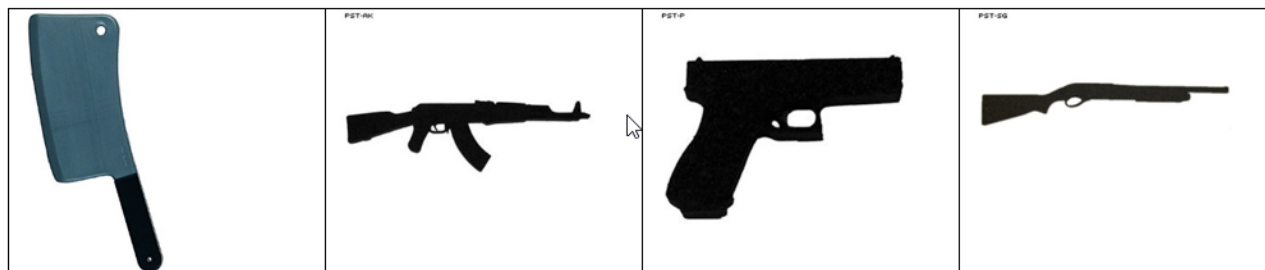


Figure 28. Optional ancillary devices for the CHIT

WARNING: Do not use fragmenting materials that could produce a ricochet event from a live fire ammunition round. All ancillary devices should be made of non-fragmenting materials such as plastic in order to limit ricochet potential. The ricochet can penetrate the skin, puncture an eye, and/or cause physical injury or death to persons in the immediate and surrounding areas

Powering Your CHIT

The CHIT can only be powered by only one source of power at a time (12VDC or 110VAC).

CAUTION: Do not attempt to power the CHIM with both 12VCD and 110VAC and do not connect both sources to the CHIM at any time. This action may render the target inoperative and may damage internal electronics.

10 Preventative Maintenance Suggestions

There is very little to do in the maintenance category for the CHIT. The device is extremely durable, built to take a beating, and considering its operational use, it is built to last. Although the target is durable we do have a few preventative maintenance suggestions to extend to life of your CHIT.

When not in use, we recommend storing the device inside a facility out of direct sunlight and preferably in a facility that is relatively dry. These conditions may prolong the life of the mannequin.

During maintenance down periods, check hit sensor wiring for damage from weapons fire, check that all connections are secure and not damaged, check all other cables and cords for damage and that they are securely attached and connected.

Perform a visual inspection of plastic bolts, washers, and nuts to ensure weapons fire has not damaged those components and replace as necessary. Component part numbers and ordering information is included later in this manual.

Clean the Magnetic Release at least once a quarter (every three months) and spray a light coat of DuPont Silicone Lubricant on the magnetic and magnetic strike plate to prevent any rust issues with the device. See figure below.

CAUTION: Do not use just any silicone lubricant, each variant of silicone contains different materials and may contain particles that may damage the Hinge Block Assembly and/or the magnetic release mechanism. Use only the approved DuPont Silicone spray that is included with your CHIT

NOTE: DuPont Silicon Spray can be purchased though GTI or local hardware stores.



Figure 29. Silicone Spray for the Magnetic Release

11 Special Tools and Test

There are no special Tools and/or Test equipment needed for the CHIT.

12 Repairs

All of the components on the CHIT are replaceable and most items can be field repaired without the assistance or return to the manufacture. As mentioned above, they are built to last!

If a Hit Sensor is damaged, the sensor can be replaced or if the wiring to the sensor is damaged it can be spliced back together and will continue to operate. The wiring for the hit sensors is not parity sensitive.

NOTE: The Hit Sensor has the logo GTI imprinted on the sensor and must be facing outward in order for the sensor to work properly. When performing maintenance ensure that when replacing the Hit Sensor that you can see and read the letters GTI on the sensor. If you cannot read or see GTI on the sensor, then it is installed upside down/backwards.

The complete mannequin comes apart as shown in figure 2, Mannequin Assembly. Any one of the 12 components can be replaced if a part becomes unserviceable. This is a field or local repair and is a very simple concept. No special tools or test equipment is needed to assemble new parts and pieces on the mannequin. All components are just like the example in the figure below.

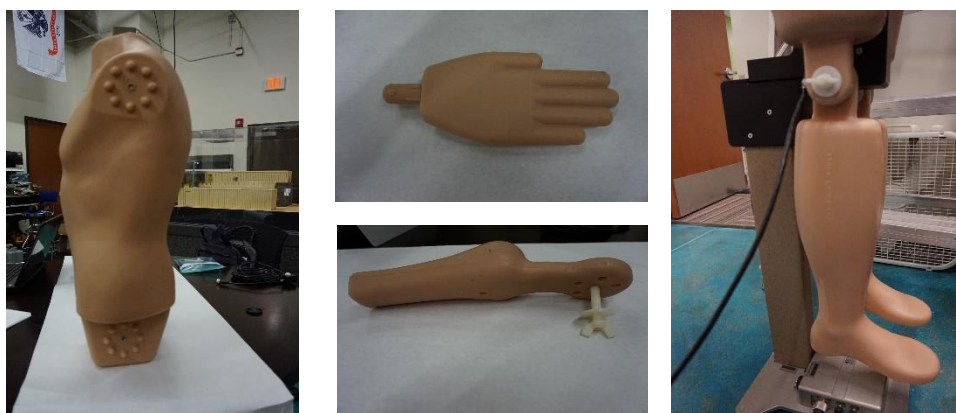


Figure 30. Mannequin Parts (Torso, Hand, Arm, Leg)

The only component that is not field repairable (as long as the mannequin still has shelf life), is the CHIM. No field repair is authorized or supported by the manufacture. No internal electronics are sold as stand-alone items. The line unit may replace an entire CHIM on a CHIT however if the CHIM is to be repaired that is considered a return to the manufacture component for repair.

CAUTION: Although the CHIM is water resistant, it is not considered water proof. It is not recommended to allow the CHIM to remain in standing water for very long periods of time. Water intrusion of any kind into the electronics could damage components and render the unit inoperable.

The Hinge Block Assembly and the Target Stand Device may also be repaired in the field however, these components are not broken down into smaller pieces. The Hinge Block is one assemble and the stand with extensions is also sold as one assembly.

13 Parts List

Nomenclature / Assembly Name	Part Number
Collapsible Human Interactive Target (CHIT)	GTI-CHI-1.1
Collapsing Human Interface Module (CHIM)	GTI-CHIM-1.1
Collapsing Human Target Hinge Block Assembly	GHTHA-1.1
Target Hit Sensor	
Target Hit Sensor Wire (1000')	1055
Device Power Cable 110VAC - 20Feet	DPC-1.1
Device Power Cable 12VDC - 10 Feet	DPC-12
Target Stand	GTI-C-STND
Target Nylon Bolt (3/8")	NB-1
Target Nylon Bolt (5/16")	NB-2
Target Nylon Washer (3/8")	NW-1
Target Nylon Washer (5/16")	NW-2
Target Nylon Wing Nut (3/8")	NWN-1
Target Nylon Wing Nut (5/16")	NWN-2
Target Arms	MA-1
Target Hands	MH-1
Target Legs	ML-1
Target Un-instrumented Mannequin Collapsing (Male)	UIM-C

14 Warranty Instructions

GTI's Collapsible Human Interactive Target (CHIT) is built to last and is durable in all weather and live fire conditions as long as used properly, maintained, and repaired during maintenance down times. We have an extremely low failure rate and stand by the quality of our product. If for any reason you or your team are having issues with our product please give us a call. Our technicians are ready to assist.



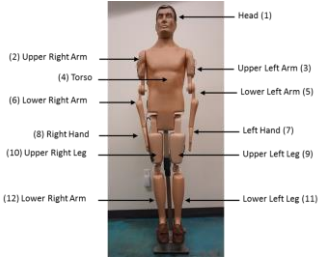

In the unlikely event that an item needs to be returned to our facility for repairs, Please use the contract information listed in the paragraph below. We will provide you with a Return Merchandise Authorization (RMA) number for the return and tracking.


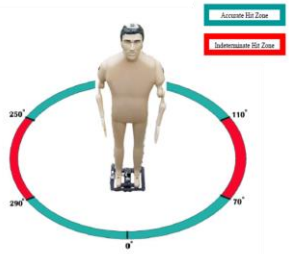

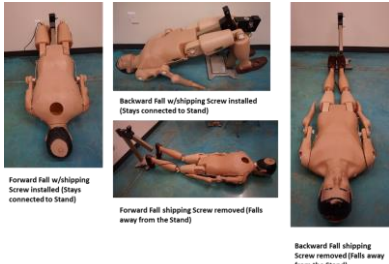

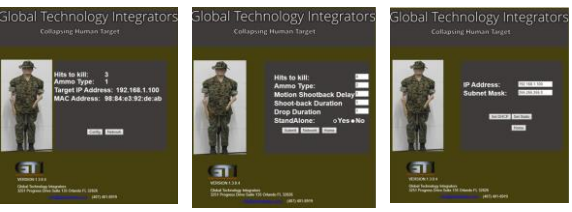





15 Contact Information and Parts Ordering Information

Contact Tonya or Tony Oxford at the following address and contact information:

Global Technology Integrators, LLC.
3251 Progress Drive, Suite 135
Orlando, FL 32826
Phone: 407-401-8919
Fax: 888-412-0303
info@gtintegrators.com

16 Training for your CHIT

<p>GTI Global Technology Integrators</p> <p>COLLAPSABLE HUMAN INTERACTIVE TARGET (CHIT)</p> <p>GTI - Training Course 1.1</p> 	<p>GTI Global Technology Integrators</p> <p>Introduction</p> <ul style="list-style-type: none"> Welcome <ul style="list-style-type: none"> Instructor Introduction Student Introductions What is the Collapsible Human Interactive Target (CHIT) <ul style="list-style-type: none"> Human like mannequin with hit sensors, a stand with a Collapsing Human Interface Module (CHIM), power / network cables to connect the CHIM Objective <ul style="list-style-type: none"> The objective is to provide increased realism in the Urban Operations Training Environment for DoD, Federal and State Government Agencies, and Law Enforcement
<p>GTI Global Technology Integrators</p> <p>Agenda</p> <ul style="list-style-type: none"> Introduction Overview Unpacking Setup Operations CHIT Characteristics Preventative Maintenance Maintenance / Repair Warranty / Contact Information 	<p>GTI Global Technology Integrators</p> <p>Overview</p> <ul style="list-style-type: none"> The CHIT arrives fully assemble and ready to operate <ul style="list-style-type: none"> Here are the main components  
<p>GTI Global Technology Integrators</p> <p>Unpacking</p> <ul style="list-style-type: none"> The Collapsible Human Interactive Target (CHIT) arrives fully assembled and very little installation and setup time is needed The cardboard box that your CHIT arrives in will be just shy of six feet (the CHIT stands 5'10").  <p>Main Shipping Box Unpacking Box with cables/cords</p>	<p>GTI Global Technology Integrators</p> <p>Setup</p> <ul style="list-style-type: none"> Now that you have unpacked your Collapsible Human Interactive Target, you should be ready to train. Here is just a quick step-by-step action checklist to ensure you are ready to go! <ul style="list-style-type: none"> Step 1. Unpack your CHIT Step 2. Remove the shipping Screw Step 3. Place the Mannequin on the Stand for the direction of fall required Step 4. Power the CHIM by plugging in the 110VAC or 12VDC power cable/cord Step 5. Verify the power connections to the CHIM and to the Hinge Block Assembly are securely connected Step 6. Configure the CHIM / CHIT via a network cable connected through a web interface using your laptop Step 7. Place the CHIT downrange or in an area where needed for training Step 8. Begin Training and ensure all warning and safety precautions are adhered to

<div>  <h2>Operations</h2> </div> <ul style="list-style-type: none"> CHIT Angles of Engagement 	<div>  <h2>Operations Continued</h2> </div> <ul style="list-style-type: none"> CHIT Falling Characteristics 																																												
<div>  <h2>Configuring the CHIT</h2> </div> <ul style="list-style-type: none"> The CHIT is designed to operate as a stand-alone device and is programmed/setup through a web interface/IP Address directly connected to the CHIM device —Connect your laptop to the CHIP via the network cable provided 	<div>  <h2>CHIT Characteristics</h2> </div> <table border="1"> <thead> <tr> <th>Physical Characteristics:</th><th>Parameters</th></tr> </thead> <tbody> <tr> <td>Target Weight</td><td>31 lbs.</td></tr> <tr> <td>Target Connectors</td><td>Mil Spec Locking Bayonet Type</td></tr> <tr> <td>Collapsing Human Interface Module Case Material</td><td>Aluminum (660 degree C Melting Pt.)</td></tr> <tr> <td>CHIT Material</td><td>High density polyethylene (250deg C Melting Pt.)</td></tr> <tr> <td>Standing Target Height</td><td>5' 10" / 5'11"</td></tr> <tr> <td>CHIT Types</td><td>Male or Female (complexions available: white, swarthy, black)</td></tr> <tr> <td>Mortal Hit Zones</td><td>Head and Torso</td></tr> <tr> <td>Non-Mortal Hit Zones</td><td>Arms and Legs</td></tr> <tr> <td>Electrical Characteristics:</td><td></td></tr> <tr> <td>Power Consumption</td><td>150 mA @ 120 VAC</td></tr> <tr> <td>Data Connectivity</td><td>RJ45: 10/100 base T Ethernet TCP/IP</td></tr> <tr> <td>Motion Detector Supply Voltage</td><td>+12 VDC</td></tr> <tr> <td>Target Interface Module Control Outputs</td><td>Contact Closure Type rated 1A @ 48V</td></tr> <tr> <td>Target Interface Module Control Inputs</td><td>Opto-isolated rated 10-36 VDC input</td></tr> <tr> <td>Environmental Characteristics:</td><td></td></tr> <tr> <td>Operating Temperature Range</td><td>-40 – 140 deg F</td></tr> <tr> <td>Environmental Rating</td><td>IP65</td></tr> <tr> <td>Hazard/Toxicity Indications</td><td>None</td></tr> <tr> <td>Performance Characteristics:</td><td></td></tr> <tr> <td>C-HIT Destructive Hit Rating</td><td>> 200 penetrations within 6-inch square area</td></tr> <tr> <td>Target input/output Response Time</td><td>< .25 sec</td></tr> </tbody> </table>	Physical Characteristics:	Parameters	Target Weight	31 lbs.	Target Connectors	Mil Spec Locking Bayonet Type	Collapsing Human Interface Module Case Material	Aluminum (660 degree C Melting Pt.)	CHIT Material	High density polyethylene (250deg C Melting Pt.)	Standing Target Height	5' 10" / 5'11"	CHIT Types	Male or Female (complexions available: white, swarthy, black)	Mortal Hit Zones	Head and Torso	Non-Mortal Hit Zones	Arms and Legs	Electrical Characteristics:		Power Consumption	150 mA @ 120 VAC	Data Connectivity	RJ45: 10/100 base T Ethernet TCP/IP	Motion Detector Supply Voltage	+12 VDC	Target Interface Module Control Outputs	Contact Closure Type rated 1A @ 48V	Target Interface Module Control Inputs	Opto-isolated rated 10-36 VDC input	Environmental Characteristics:		Operating Temperature Range	-40 – 140 deg F	Environmental Rating	IP65	Hazard/Toxicity Indications	None	Performance Characteristics:		C-HIT Destructive Hit Rating	> 200 penetrations within 6-inch square area	Target input/output Response Time	< .25 sec
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<div>  <h2>Options</h2> </div>   <p>The target stands 5'11" tall Shirt size: XL 17" Collar and 40" Chest Pant size: 32/34" Waist and 32" Length Shoe size: 10 1/2 Medium</p>	<div>  <h2>Preventative Maintenance</h2> </div> <ul style="list-style-type: none"> When not in use, we recommend storing the device inside a facility out of direct sunlight and preferably in a facility that is relatively dry During maintenance down periods, check hit sensor wiring for damage from weapons fire, check that all connections are secure and not damaged, check all other cables and cords for damage and that they are securely attached and connected Perform a visual inspection of plastic bolts, washers, and nuts to ensure weapons fire has not damaged those components and replace as necessary. Component part numbers and ordering information is included later in this manual Clean the Magnetic Release at least once a quarter (every three months) and spray a light coat of DuPont Silicone Lubricant on the magnetic and magnetic strike plate to prevent any rust issues with the device 																																												

<div data-bbox="186 304 292 367"> </div> <div data-bbox="495 304 568 336"> Repairs </div> <ul style="list-style-type: none"> • All of the components on the CHIT are replaceable and most items can be field repaired without the assistance or return to the manufacture • If a Hit Sensor is damaged, the sensor can be replaced or if the wiring to the sensor is damaged it can be spliced back together and will continue to operate. The wiring for the hit sensors is not parity sensitive • The complete mannequin comes apart <div data-bbox="332 577 649 714"> </div>	<div data-bbox="847 304 953 367"> </div> <div data-bbox="1079 304 1307 336"> Warranty / Contact Info </div> <ul style="list-style-type: none"> • GTI's Collapsible Human Interactive Target (CHIT is built to last and is durable in all weather and live fire conditions as long as used properly, maintained, and repaired during maintenance down times. We have an extremely low failure rate and stand by the quality of our product. If for any reason you or your team are having issues with our product please give us a call. Our technicians are ready to assist • In the unlikely event that an item needs to be returned to our facility for repairs, Please use the contract information listed in the paragraph below. We will provide you with a Return Merchandise Authorization (RMA) number for the return and tracking • Contact Tonya or Tony Oxford at the following address and contact information: <div data-bbox="1055 619 1258 724"> <p>Global Technology Integrators, LLC. 3251 Progress Drive, Suite 135 Orlando, FL 32826 Phone: 407-401-8919 Fax: 888-412-0303 info@gtintegrators.com</p> </div>
<div data-bbox="186 802 292 865"> </div> <div data-bbox="373 808 625 840"> GTI - Training Course 1.1 </div> <div data-bbox="235 976 527 1081"> <p>COLLAPSABLE HUMAN INTERACTIVE TARGET (CHIT)</p> </div> <div data-bbox="235 1165 560 1228"> <p>Now, enjoy your brand new training ready CHIT !!</p> </div> <div data-bbox="609 882 771 1186"> </div>	

17 - ABBREVIATIONS AND ACRONYMS

Table 2. Acronym List

ACRONYM	DEFINITION
AC	Alternating Current
CACTF	Combined Arms Tactical Facilities
CHIM	Collapsing Human Interface Module
CHIT	Collapsible Human Interactive Target
DC	Direct Current
FASIT	Future Army System of Integrated Targets
FL	Florida
FM	Field Manual
GTI	Global Technology Integrators
IP	Internet Protocol
LLC	Limited Liability Company
MAC	Media Access Control
Mil	Military
O&MM	Operator & Maintenance Manual
TSD	Target Stand Device