

## SELECTING THE RIGHT TORCH PACKAGE FOR YOUR NEEDS...

### STEP 1 Torch and Leads Selection

**STEP 1** gives you all the information to select the right torch.  
 - Manual Torch (pg 9)  
 - Mechanized & Automation Torch (pg 10)

- Select:
- Torch – Standard or Shielded
  - Connection – RPT (O2B) or ATC
  - Lead Length
  - ATC Lead Extensions (Optional, w/ ATC only)
  - Remote Control Options (Mechanized or Automation only)

### STEP 2 Adapter Kit Selection

**STEP 2** (pg 12)  
 Select the appropriate Adapter Kit. If you selected a torch with the ATC connection, you will also need an ATC Receptacle Adapter shown in **STEP 1** (pgs 9 or 10).

### STEP 3 Spare Parts Selection

**STEP 3** (pg. 13)  
 Select spare parts or parts kit that best suits your needs.

## STEP

Torch and Lead Selection



## 1TORCHSL60

LIGHT/MEDIUM DUTY TORCH (20-80 AMPS)

As a replacement (RPT<sup>®</sup>) torch, the 1Torch<sup>®</sup> has the ability to work on the majority of plasma power supplies on the market today. Its unique design allows the 1Torch the ability to work with high frequency, touch, CD, and moving parts (blow back) start systems.



STANDARD RPT (O2B)  
TORCH CONNECTION

A	Part No.		Description
	75°	90°	TORCH & LEADS
	7-5200	7-5261	SL60, 20' (6.1 m)
	7-5201	7-5262	SL60, 50' (15.2 m)

ATC<sup>®</sup> TORCH CONNECTION

B	Part No.		Description
	75°	90°	TORCH & LEADS
	7-5204	7-5260	SL60, 20' (6.1 m)
	7-5205	7-5260 <sup>1</sup>	SL60, 50' (15.2 m) <sup>1</sup>

ATC ADAPTER KIT

B	Part No.		Description
	<b>ATC RECEPTACLE ADAPTER</b>		
	7-5207 <sup>3</sup>		ATC Receptacle Connector
<b>ATC LEAD EXTENSIONS: OPTIONAL (FOR ATC CONNECTIONS ONLY)</b>			
	7-7544		15' (4.5 m) Lead Extension
	7-7545		25' (7.6 m) Lead Extension
	7-7552		50' (15.2 m) Lead Extension

<sup>1</sup> Use 7-5260 with 7-7545 for a SL60 45' (13.7 m)

<sup>2</sup> Use 7-5263 with 7-7545 for a SL100 45' (13.7 m)

<sup>3</sup> This receptacle adapter is required for each power supply using an ATC torch connection. This is connected to the torch adapter kit specific to each power supply. Total lead length including torch and extension(s), should not exceed the maximum length specified by the power supply manufacturer.

## 1TORCHSL100

MEDIUM/HEAVY DUTY TORCH (20-120 AMPS)

Hand Torches offer ergonomic handles with easy-to-use trigger release that provides comfort during prolonged use. 75° and 90° heads offer operators a choice of positions.



STANDARD RPT (O2B)  
TORCH CONNECTION

A	Part No.		Description
	75°	90°	TORCH & LEADS
	7-5202	7-5264	SL100, 20' (6.1 m)
	7-5203	7-5265	SL100, 50' (15.2 m)

ATC TORCH CONNECTION

B	Part No.		Description
	75°	90°	TORCH & LEADS
	7-5206	7-5263	SL100, 20' (6.1 m)
	7-5208	7-5263 <sup>2</sup>	SL100, 50' (15.2 m) <sup>2</sup>

ATC ADAPTER KIT

B	Part No.		Description
	<b>ATC RECEPTACLE ADAPTER</b>		
	7-5207 <sup>3</sup>		ATC Receptacle Connector
<b>ATC LEAD EXTENSIONS: OPTIONAL (FOR ATC CONNECTIONS ONLY)</b>			
	7-7544		15' (4.5 m) Lead Extension
	7-7545		25' (7.6 m) Lead Extension
	7-7552		50' (15.2 m) Lead Extension

# 1TORCH MECHANIZED SL100, AUTOMATION SL100SV

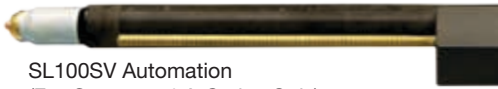
MEDIUM/HEAVY DUTY TORCH (20-120 AMPS)

Only 34 consumable parts cover the full range of cutting and gouging up to 120 amps. Inventorying parts for a fleet of plasma units can be simplified using the 1Torch.

**STEP**  
Torch and Lead Selection  
**1**



SL100 Mechanized



SL100SV Automation  
(For Cutmaster® A-Series Only)

## STANDARD



STANDARD RPT (O2B) TORCH CONNECTION

Part No.	Description
<b>SL100 MECHANIZED TORCH &amp; LEADS</b> (Fiberglass Tube w/Rack)	
7-5209	SL100, 180°, 25' (7.6 m)
7-5210	SL100, 180°, 50 (15.2 m)
Remote Interface Adapter 7-3452 included with torch.	

## SHIELDED\*



STANDARD RPT (O2B) TORCH CONNECTION

Part No.	Description
<b>SL100 MECHANIZED TORCH &amp; LEADS</b> (Fiberglass Tube w/Rack)	
7-5211	SL100, 180°, 25' (7.6 m)
7-5212	SL100, 180°, 50 (15.2 m)
Remote Interface Adapter 7-3452 included with torch.	

ATC TORCH CONNECTION



Part No.	Description
<b>TORCH &amp; LEADS</b> (For Cutmaster Series Only. Does Not Work With Lead Extensions)	
<b>SL100</b> Mechanized Torch	<b>SL100SV®</b> Automated Torch <sup>3</sup>
7-5213	SL100, 180°, 5' (1.5 m)
7-5214	SL100, 180°, 10' (3.0 m)
7-5215	7-4001 SL100, 180°, 25' (7.6 m)
-	7-4002 SL100, 180°, 35' (10.6 m)
7-5216	7-4003 SL100, 180°, 50' (15.2 m)
-	7-4004 SL100, 180°, 75' (22.8 m)
-	7-4005 SL100, 180°, 100' (30.4 m)

ATC TORCH CONNECTION



Part No.	Description
<b>SL100 MECHANIZED TORCH &amp; LEADS - SHIELDED</b> (Fiberglass Tube w/Rack)	
7-5219	SL100 <sup>1</sup> , 180°, 5' (1.5 m)
7-5220	SL100 <sup>1</sup> , 180°, 10' (3.0 m)
7-5221	SL100 <sup>1</sup> , 180°, 25' (7.6 m)
7-5222	SL100 <sup>1</sup> , 180°, 50' (15.2 m)

ATC ADAPTER KIT



Part No.	Description
<b>ATC RECEPTACLE ADAPTER</b>	
7-5207	ATC Receptacle Connector <sup>2</sup>
<b>ATC LEAD EXTENSIONS<sup>2</sup>: OPTIONAL (FOR ATC CONNECTIONS ONLY)</b>	
7-7544	15' (4.5 m) Lead Extension
7-7545	25' (7.6 m) Lead Extension
7-7552	50' (15.2 m) Lead Extension
<b>MECHANIZED REMOTE CONTROLS</b>	
7-3474	ATC Remote Interface Kit - Provides an optional remote interface connection to allow the use of any remote control. Can be placed anywhere between the ATC Torch connection or Lead Extension & ATC Adapter
7-3452	Remote Pendant Interface Kit - Interfaces into any torch adapter kit to allow the use of a Remote Pendant (7-3460) on any Mechanized torch system.
7-3460	Remote Pendant Control
9-8312	25' (7.6 m) CNC Remote Cable
9-8313	50' (15.2 m) CNC Remote Cable

ATC ADAPTER KIT



Part No.	Description
<b>ATC RECEPTACLE ADAPTER</b>	
7-3472	ATC Receptacle Connector <sup>2</sup>
<b>MECHANIZED REMOTE CONTROLS</b>	
7-3452	Remote Pendant Interface Kit - Interfaces into any torch adapter kit to allow the use of a Remote Pendant (7-3460) on any Mechanized torch system.
7-3460	Remote Pendant Control
9-8312	25' (7.6 m) CNC Remote Cable
9-8313	50' (15.2 m) CNC Remote Cable

- 1 It is only recommended to install shielded torches onto a shielded ready system. Installation onto a non-shielded system may result in reduced performance. Installing a shielded torch on to a shielded system requires the shield connections to be terminated to a proper shield termination or earth ground point.
- 2 This receptacle adapter is required for each power supply using an ATC torch connection. This is connected to the torch adapter kit specific to each power supply. Total lead length including torch and extension(s), should not exceed the maximum length specified by the power supply manufacturer.
- 3 ATC Lead Extensions are for use on hand and mechanized torches only. Will not work with automated torches.

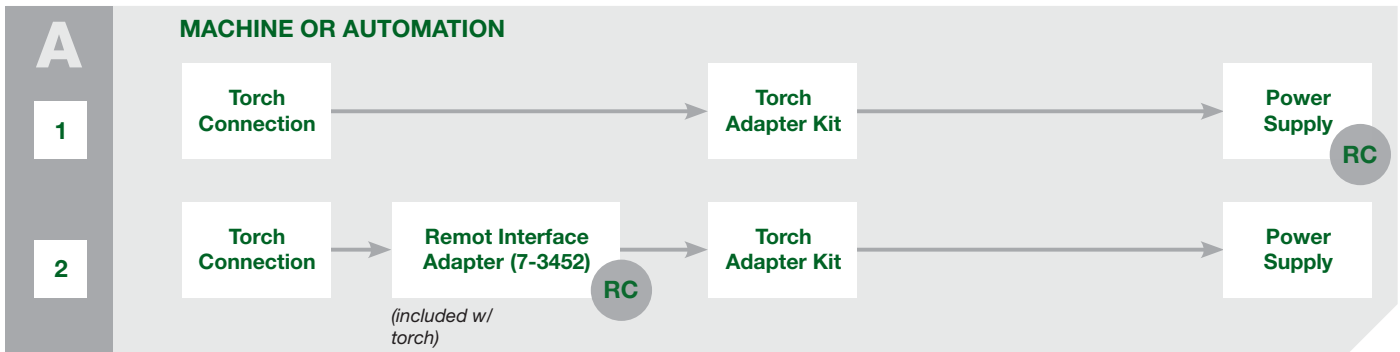
PLASMA TORCHES

# TORCH CONNECTION OPTIONS - REMOTE CONTROL

The diagrams below show the different torch connections with remote connection options.

## Standard RPT Connection

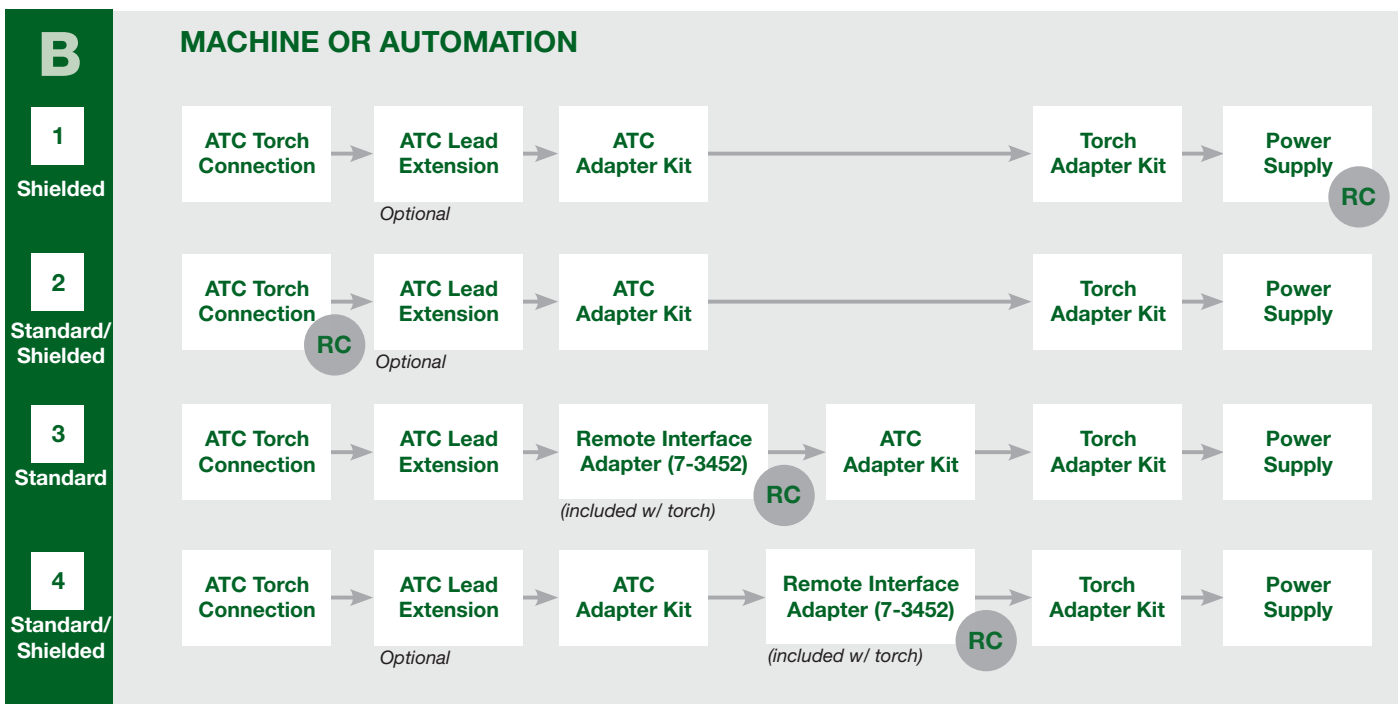
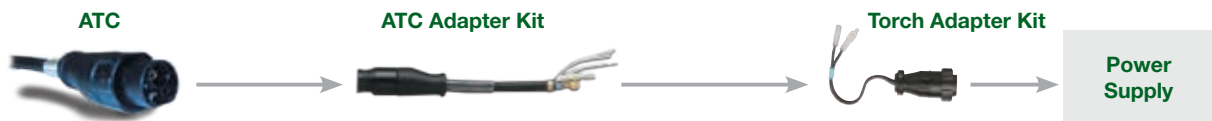
(Note: Remote control is either 7-3460 Remote Pendant Control or is user supplied.)



RC = Remote Control

## ATC Torch Connection

(Note: Remote control is either 7-3460 Remote Pendant Control or is user supplied.)



RC = Remote Control

PLASMA TORCHES

# PLASMA TORCH ADAPTER KITS SELECTION

Listed below is the Adapter Kit selection charts for the Hand 1Torch® RPT® torch.

## STEP Adapter Kit Selection 2

PLASMA TORCHES

Manufacturer	Power Supply Model	Part No.
<b>ESAB®</b>	PCM-SMi, 500i, 625i, PCS-43	7-3425
	PCS-53, 80, 90	7-3435
	ESP-100i	7-3426
	PCM-750i, 875, 1000i, 1125	7-3429
	Sidewinder 30,55,105	7-3434
	Powercut® 650	7-3464
	Powercut 875, 1125	7-3465
	Powercut 1250, 1500	7-3462
<b>HARRIS®</b>	System 50, 65 and 100	7-3439
<b>HOBART®</b>	Smoothcut II 35A, 60A, and 100A	7-3427
<b>HYPERTHERM®</b>	Max® 40, HT®40 (H/F Start) Max 70, 80, 100 (w/ & w/o Q.D.)	7-3430
	Max 42*, 43*, 40cs*, Powermax® 600*, 800*, 900* (w/ Q.D.)	7-3454
	Powermax 1100*	7-3455
	Powermax 1000*, 1250*	7-3461
	Max 40cs* (w/o Q.D.)	7-3476
	Powermax 380*	7-3477
	Powermax 600* (w/o Q.D.)	7-3480
	Powermax 800*, 900* (w/o Q.D.)	7-3481
	Powermax 1650*	7-3483
	Powermax 350*	7-3484
<b>L TEC®</b>	PCM-31, SMi, 32i/34i, VPi PCM-500i, 625i, PCS-80i	7-3425
	PCM-50A, 70, 80, 52i/54i, 82i/84i ESP-100i, PCM-50, PCM-100 (Single Gas)	7-3426
	PCM-50, P-MC-100 (Dual Gas)	
	PCS-40	7-3430
	PCM-750i, 1000i	7-3435
	PCM-101	7-3436

Manufacturer	Power Supply Model	Part No.
<b>LINCOLN®</b>	Procut 60	7-3431
	Plazcut 60†/Zipcut	7-3432
<b>MILLER®</b>	Spectrum® 250D, 500, 750	7-3433
	Spectrum 700, 1000,1250,PLUS	7-3430
	Spectrum 3080*	7-3456
	Spectrum 650*, 701*, 2050*	7-3457
	Spectrum 300*	7-3476
	Spectrum 375*	7-3477
	Spectrum 625*	7-3478
<b>OTHERS</b>	OTC®: D-5000 and D-7000 PTRON®: P-TRON 75 and 100 Daihen®: MRAT-70 Multiquip®: PCX50SS	7-3437
	<b>SMITH</b>	Powerpro 55 and 75
<b>THERMAL DYNAMICS</b>	PAK® 3XR, 5XT, 6XR, 7XR, 625XR, 750XR	7-3446
	PAK 8XR, 10XR, 1000XR, 1250XR, PakMaster® 75, 100	7-3434
	PakMaster 50XL/XLP, 75XL/XLP, 100XL/XLP Cutmaster® 50, 75, 80XL, 100	7-3447
	PakMaster 25, 38XL, EconoPAK® 25, Drag-Gun® 38, PAK 4Xi, 6Xi, PAK 2XT, Dynapak® 110	7-3443
	PakMaster 50 w/Smart Torch (Q.D)	7-3445
	EconoPAK 50	7-3449
	EconoPAK 100	7-3450
	PAK 5	7-3444
	PAK 10	7-3436

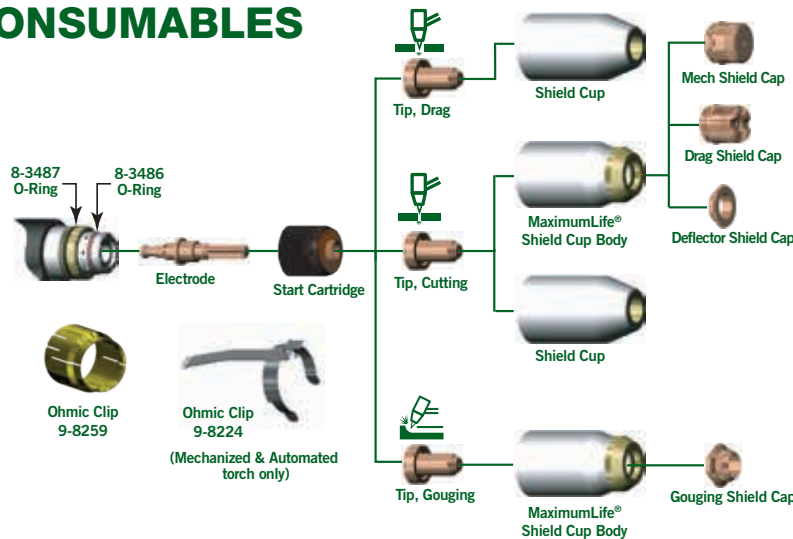
\* Non-HF Systems.

† The Miller PlazCut machines with Serial Numbers beginning JE are not compatible with 1Torch® RPT Torches.

NOTES: Each Adapter Kit includes connection fitting, electrical connectors and installation instruction sheets for the selected power supply.

ESAB, L-TEC and Power-Cut are registered trademarks of ESAB AB; LINCOLN and Pro-Cut are registered trademarks of Lincoln Electric Co.; HYPERTHERM, Max and powermax are registered trademarks of Hypertherm, Inc.; MILLER and Spectrum are registered trademarks of Miller Electric Mfg. Co.; none of the afore mentioned registered trademarks are in any way affiliated with Thermal Dynamics or Victor Technologies; Thermal Dynamics, PAK, Cutmaster, PakMaster, EconoPAK, Dynapak and Drag-Gun are registered trademarks of Victor Technologies International, Inc.

# 1TORCH CONSUMABLES



## STEP Spare Parts Selection 3

Description	Part No.	
O-Ring	8-3487	
O-Ring	8-3486	
O-Ring Lubricant	8-4025	
Electrode	9-8215	
Start Cartridge	9-8213	
Heavy Duty Start Cartridge (Non HF Systems only)	9-8277	
Drag	Tip, 20A, Drag	9-8205
	Tip, 30A, Drag	9-8206
	Tip, 40A, Drag	9-8207
	Tip, 60A, Drag	9-8252
	Tip, 40A, Standoff	9-8208
	Tip, 50/55A, Standoff	9-8209
Standoff	Tip, 60A, Standoff	9-8210
	Tip, 70A, Standoff	9-8231
	Tip, 80A, Standoff	9-8211
	Tip, 90/100A, Standoff	9-8212
	Tip, 120A, Standoff	9-8253
Gouge	Tip, A, Gouging	9-8225
	Tip, B, Gouging	9-8226
	Tip, C, Gouging	9-8227
	Tip, D, Gouging	9-8228
	Tip, E, Gouging	9-8254
Shield Cup	9-8218	
Shield Cup Body, MaximumLife®	9-8237	

Description	Part No.	
Drag	Shield Cap, Drag, 40A	9-8244
	Shield Cap, Drag, 50-60A	9-8235
	Shield Cap, Drag, 70-100A	9-8236
	Shield Cap, Drag, 120A	9-8258
	Shield Cap, Mechanized, 40A	9-8245
Mechanized	Shield Cap, Mechanized, 50-60A	9-8238
	Shield Cap, Mechanized, 70-100A	9-8239
	Shield Cap, Mechanized, 120A	9-8256
Deflector	Shield Cap, Deflector	9-8243
Gouging	Shield Cap, Gouging	9-8241
Ohmic Clip		9-8224
Ohmic clip for manual torches		9-8259
Spare Parts Kit, 30 Amp		5-2550
Spare Parts Kit, 40 Amp		5-2551
Spare Parts Kit, 50/55 Amp		5-2552
Spare Parts Kit, 60 Amp		5-2553
Spare Parts Kit, 70 Amp		5-2554
Spare Parts Kit, 80 Amp		5-2555
Spare Parts Kit, 90/100 Amp		5-2556

Note: All Spare Parts Kits include ten (10) Tips, five (5) Electrodes and one (1) Start Cartridge.

PLASMA TORCHES

# 1TORCH CONSUMABLES PARTS APPLICATION GUIDE

For SL60® / SL100® Manual Cutting and Gouging Operations.

**DRAG TIP CUTTING** The preferred method of cutting light gauge metal up to 1/4" (6 mm) thickness. Produces the best cut quality narrowest kerf width, fastest cutting speeds, and with little to no distortion. Traditional drag cutting was limited to 40 Amps or less; now with Thermal Dynamics TRUE Cut Drag Tip Series™ technology, it is possible to cut up to 60 Amps. For best results, use the Shield Cup with the torch tip in direct contact with the work (up to 60 Amps).

**DRAG SHIELD CUTTING** This is an operator-friendly method of cutting between 70 to 120 Amps while maintaining a constant standoff distance. For metal thickness greater than 1/4" (6 mm), simply drag the shield cap in contact with the work piece. Use the shield cup body with the appropriate drag shield cap matching the current level being used. This method is not recommended for cutting light-gauge sheet metal.

**STANDOFF CUTTING** The preferred method of cutting metal thicker than 1/4" (6 mm) and at current levels above 60 Amps. Provides maximum visibility and accessibility. Shield cup for 'standoff' cutting (with the torch tip 1/8" (3 mm) to 1/4" (6 mm) from the work piece). Use the shield cup body together with the deflector for extended parts life and improved resistance to reflect heat. This combination provides cutting results similar to the single piece shield cup, as well as easy changeover to gouging or drag shield cutting.

**GOUGING** A simple method of metal removal by angling the torch to a lead angle of 35°-45°, and using a gouging tip. While maintaining a constant standoff distance, this allows for only a partial penetration into the work, thus removing metal from the surface. The amount of current, travel speed, standoff distance, lead angle, and tip size will determine the amount of material removed and the profile of the gouge. You can use the shield cup body with either the gouging shield cap or the shield deflector. Also, you can use the single piece shield cup.

Gouging Profiles			
	Output Range	Depth	Width
<b>Tip A</b>	40A (MAX)	Shallow	Narrow
<b>Tip B</b>	50-100A	Deep	Narrow
<b>Tip C</b>	60-120A	Moderate	Moderate
<b>Tip D</b>	60-120A	Shallow	Wide
<b>Tip E</b>	120A	Moderate	Wide