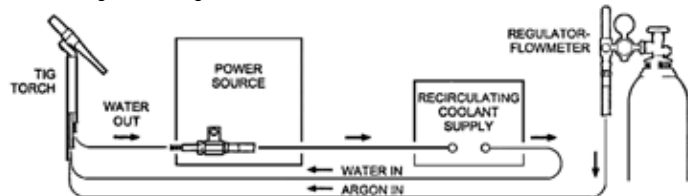


**WARRANTY:** CK Worldwide, Inc. warrants products manufactured by CK Worldwide, Inc. to be free of defects in materials and workmanship. CK Worldwide, Inc. limits this warranty to replacement of the product or parts thereof and excludes liability for injury, property damage or economic loss attributable to product use or misuse. In any event, CK Worldwide, Inc. will only be responsible for its products when used with accessory items manufactured by CK Worldwide, Inc.

**INSTALLATION:** Before using this torch, - tighten regulator, hose and power cable fittings with proper wrenches. Using small pliers, securely tighten all knurled hose fittings (Slide the torch handle back for access to the torch connections). Purge the regulator and TIG torch with inert gas at 20 cubic feet per hour. Following these steps will ensure contamination free welds. Repeat this procedure whenever torch or regulator fittings have been detached.

**CONNECTION DIAGRAM:**

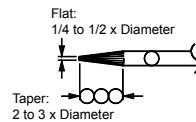


**INFORMATION CHART:**

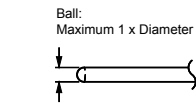
Electrode Diameter in inches (mm)	Cup Size	WELDING CURRENT (AMPS) - TUNGSTEN TYPE				ARGON FLOW - FERROUS METALS		ARGON FLOW - ALUMINUM	
		AC Pure	AC Thoriated	DCSP Pure	DCSP Thoriated	Standard Body (Liters)	Gas Lens Body (Liters)	Standard Body (Liters)	Gas Lens Body (Liters)
.020 (0.50)	4 or 5	5 - 15	5 - 20	5 - 15	5 - 20	5-8 (3-4)	5-8 (3-4)	5-8 (3-4)	5-8 (3-4)
.040 (1.00)	4 or 5	10 - 60	15-80	15 - 70	20 - 80	5-10 (3-5)	5-8 (3-4)	5-12 (3-6)	5-10 (3-5)
1/16 (1.60)	4, 5 or 6	50 - 100	70 - 150	70 - 130	80 - 150	7-12 (4-6)	5-10 (3-5)	8-15 (4-7)	7-12 (4-6)
3/32 (2.40)	6, 7 or 8	100 - 160	140 - 235	150 - 220	150 - 250	10-15 (5-7)	8-10 (4-5)	10-20 (5-10)	10-15 (5-7)
1/8 (3.20)	7, 8 or 10	150 - 210	220 - 325	220 - 330	240 - 350	10-18 (5-9)	8-12 (4-6)	12-25 (6-12)	10-20 (5-10)
5/32 (4.00)	8 or 10	200 - 275	300 - 425	375 - 475	400 - 500	15-25 (7-12)	10-15 (5-7)	15-30 (7-14)	12-25 (6-12)
3/16 (4.80)	8 or 10	250 - 350	400 - 525	475-800	475-800	20-35 (10-17)	12-25 (6-12)	25-40 (12-19)	15-30 (7-14)
1/4 (6.40)	10	325 - 700	500 - 700	750 - 1000	700 - 1100	25-50 (12-24)	20-35 (10-17)	30-55 (14-26)	25-45 (12-21)

**TUNGSTEN PREPARATION:**

**END PREPARATION: DCSP (EN)**  
General Purpose:

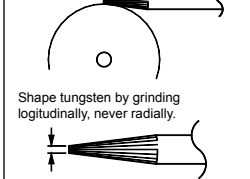


**ACHF**  
General Purpose:



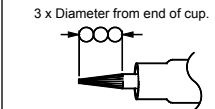
Ball tip by arcing on clean metal at low current DCRP (EP) then slowly increase current to form the desired ball diameter.

**GRINDING PREPARATION:**  
Use a 60 Grit or finer aluminum oxide wheel

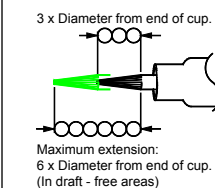


Remove sharp point to leave a truncated point with a flat spot. Diameter of flat spot determines amperage.  
The included angle determines weld bead shape and size. Generally, as the included angle increases, penetration increases and bead width decreases.

**EXTENSION INSTRUCTION: STANDARD PARTS**  
General Purpose:



**GAS LENS PARTS**  
General Purpose:



**CAUTION:** Personal harm will result from touching the hot parts of a TIG torch without insulative protection, or from looking directly or indirectly at an arc or reflected arc. At no time should bare skin be exposed to a welding arc.



TIG TORCH MANUAL



CK200 & CK200V RIGID

TECHNICAL INFORMATION

RATING @ 100% DUTY CYCLE: 250 AMP ACHF OR DCSP  
COOLING METHOD: WATER COOLED

ACCESSORY ITEMS REQUIRED FOR COMPLETE INSTALLATION:

HEAD ACCESSORIES: 2 SERIES HEAD ACCESSORIES  
POWER CABLE ADAPTOR: 45V11 (2PCA)

MODEL SELECTOR - TORCH PACKAGES

HEAD STYLE	CABLE STYLE	CABLE LENGTH	STANDARD CABLE	SUPERFLEX CABLE
RIGID HEAD -w/ VALVE	TRIFLEX	12-1/2 ft. (3.8 m)	CK212	CK212SF
		25 ft. (7.6 m)	CK225	CK225SF
RIGID HEAD -w/o VALVE	TRIFLEX	12-1/2 ft. (3.8 m)	CK212V	CK212VSF
		25 ft. (7.6 m)	CK225V	CK225VSF

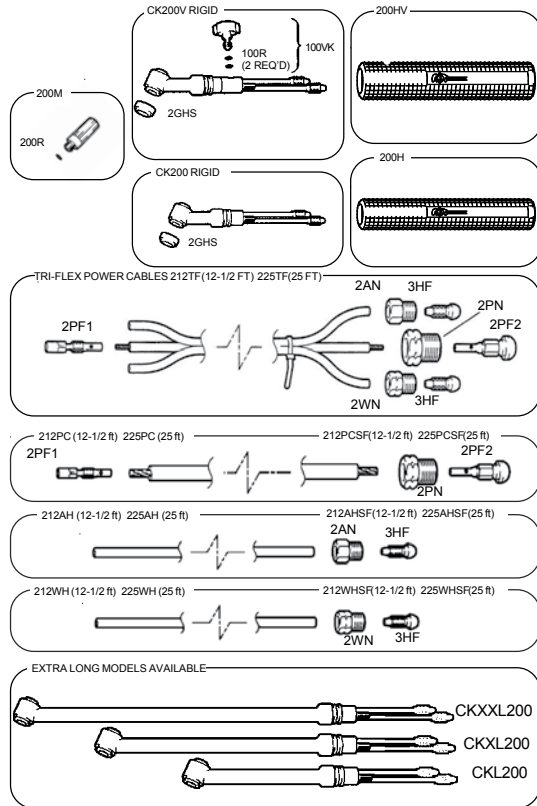
**IMPORTANT !!**  
**READ AND UNDERSTAND THE INFORMATION CONTAINED IN THIS MANUAL BEFORE OPERATING THE EQUIPMENT !**

CK WORLDWIDE INC.  
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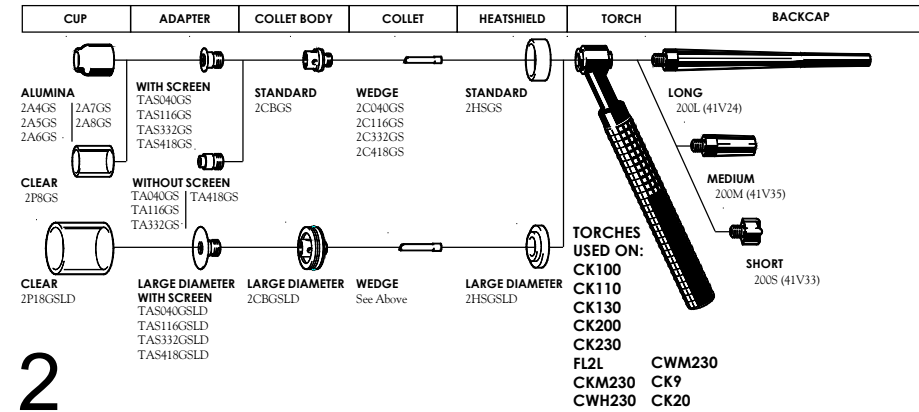
www.ckworldwide.com  
ck@ckworldwide.com

PARTS:



PART #	DESCRIPTION
<b>TORCH</b>	
CK200 RIGID.....	TORCH BODY
CK200V RIGID.....	TORCH BODY VALVED
200H.....	HANDLE
200HV.....	HANDLE FOR VALVED
<b>TRI-FLEX POWER CABLE</b>	
212TF.....	TRI-FLEX POWER CABLE & HOSE ASSEMBLY -12-1/2 FOOT (INCLUDES FITTINGS)
225TF.....	TRI-FLEX POWER CABLE & HOSE ASSEMBLY -25 FOOT (INCLUDES FITTINGS)
01-0032.....	CABLE TIE
2AN.....	GAS HOSE NUT
2PF1.....	POWER CABLE FITTING
2PF2.....	POWER CABLE FITTING
2PN.....	POWER CABLE NUT
2WN.....	WATER HOSE NUT
3HF.....	HOSE FITTING (2 REQUIRED)
<b>INDIVIDUAL CABLE, HOSES</b>	
212AH (45V09).....	GAS HOSE-12-1/2 FOOT (INCLUDES FITTINGS)
212AHSF (45V09SF).....	GAS HOSE-12-1/2 FOOT (INCLUDES FITTINGS)
212PC (45V03).....	POWER CABLE-12-1/2 FOOT (INCLUDES FITTINGS)
212PCSF (45V03SF).....	POWER CABLE-12-1/2 FOOT (INCLUDES FITTINGS)
212WH (45V07).....	WATER HOSE-12-1/2 FOOT (INCLUDES FITTINGS)
212WHSF (45V07SF).....	WATER HOSE-12-1/2 FOOT (INCLUDES FITTINGS)
225AH (45V10).....	GAS HOSE-25 FOOT (INCLUDES FITTINGS)
225AHSF (45V10SF).....	GAS HOSE-25 FOOT (INCLUDES FITTINGS)
225PC (45V04).....	POWER CABLE-25 FOOT (INCLUDES FITTINGS)
225PCSF (45V04SF).....	POWER CABLE-25 FOOT (INCLUDES FITTINGS)
225WH (45V08).....	WATER HOSE-25 FOOT (INCLUDES FITTINGS)
225WHSF (45V08SF).....	WATER HOSE-25 FOOT (INCLUDES FITTINGS)
<b>ACCESSORIES</b>	
2PCA (45V11).....	POWER CABLE ADAPTER (ORDER SEPARATELY)
SLWHA-T.....	SAFE LOCK QUICK CONNECT
SLWHA-T-25.....	TWECO POWER CABLE ADAPTER
SLWHA-T-35.....	DINSE 25 POWER CABLE ADAPTER
SLWHA-T-35M.....	DINSE 35 POWER CABLE ADAPTER
SLWHA-T-35M.....	DINSE 35 FLOW-THRU GAS POWER CABLE ADAPTER
200R.....	O-RING
200M.....	BACKCAP
2GHS.....	HEATSHIELD
<b>EXTRA LONG TORCH HEADS</b>	
CKXL200	10-1/2" LONG MODEL
CKXL200	7-1/2" LONG MODEL
CKL200	4-1/2" LONG MODEL
NOTE: TRI-FLEX CABLE CAN BE SEPERATED TO REPLACE GAS HOSE, WATER HOSE OR POWER CABLE INDIVIDUALLY	

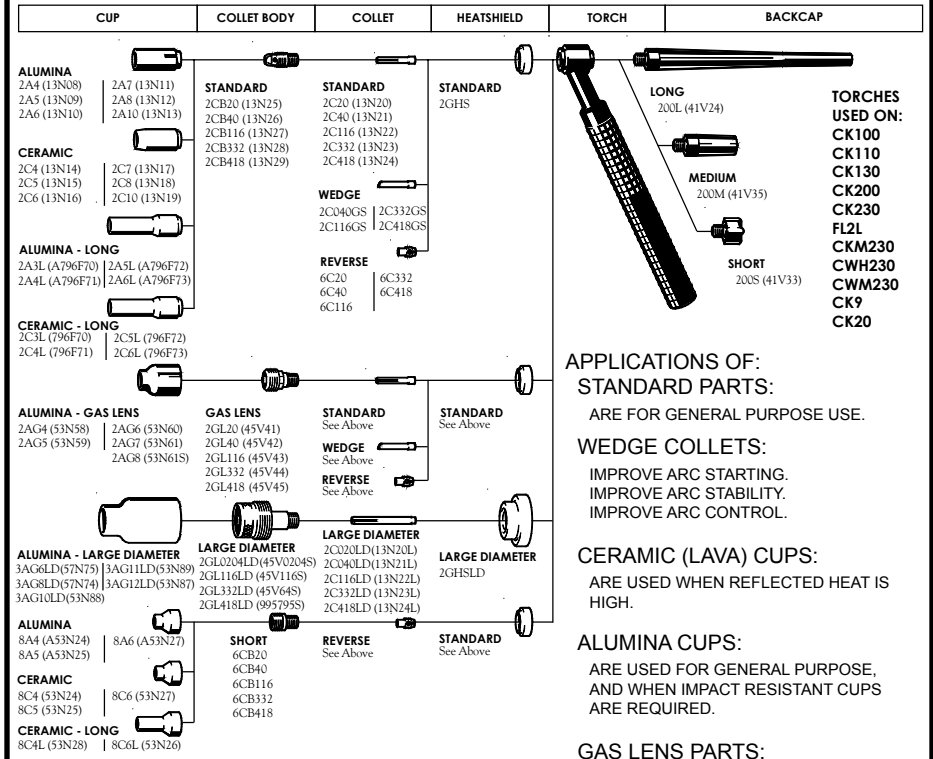
2 SERIES HEAD ACCESSORIES GAS SAVER



2

CUP	ADAPTER	COLLET BODY	COLLET	HEATSHIELD	TORCH	BACKCAP
<b>ALUMINA</b> 2A4GS 2A5GS 2A6GS	<b>WITH SCREEN</b> TAS04GS TAS11GS TAS33GS TAS41GS	<b>STANDARD</b> 2CBGS	<b>WEDGE</b> 2C04GS 2C11GS 2C33GS 2C41GS	<b>STANDARD</b> 2HSGS	<b>LONG</b> 200L (41V24)	<b>SHORT</b> 200S (41V33)
<b>CLEAR</b> 2P8GS	<b>WITHOUT SCREEN</b> TA04GS TA11GS TA33GS	<b>LARGE DIAMETER</b> 2CBGSLD	<b>WEDGE</b> See Above	<b>LARGE DIAMETER</b> 2HSGSLD	<b>MEDIUM</b> 200M (41V35)	
<b>CLEAR</b> 2P18GSLD	<b>LARGE DIAMETER WITH SCREEN</b> TAS04GSLD TAS11GSLD TAS33GSLD TAS41GSLD	<b>LARGE DIAMETER</b> 2CBGSLD	<b>WEDGE</b> See Above	<b>LARGE DIAMETER</b> 2HSGSLD	<b>SHORT</b> 200S (41V33)	

2 SERIES HEAD ACCESSORIES



CUP	COLLET BODY	COLLET	HEATSHIELD	TORCH	BACKCAP
<b>ALUMINA</b> 2A4 (13N08) 2A5 (13N09) 2A6 (13N10)	2A7 (13N11) 2A8 (13N12) 2A10 (13N13)	<b>STANDARD</b> 2CB20 (13N25) 2CB40 (13N26) 2CB116 (13N27) 2CB332 (13N28) 2CB418 (13N29)	<b>STANDARD</b> 2C20 (13N20) 2C40 (13N21) 2C116 (13N22) 2C332 (13N23) 2C418 (13N24)	<b>STANDARD</b> 2GHS	
<b>CERAMIC</b> 2C4 (13N14) 2C5 (13N15) 2C6 (13N16)	2C7 (13N17) 2C8 (13N18) 2C10 (13N19)	<b>WEDGE</b> 2C040GS 2C116GS	<b>STANDARD</b> 2C332GS 2C418GS		
<b>ALUMINA - LONG</b> 2A3L (A796F70) 2A4L (A796F71)	2A5L (A796F72) 2A6L (A796F73)		<b>REVERSE</b> 6C20 6C40 6C116	<b>REVERSE</b> 2C332GS 2C418GS	
<b>CERAMIC - LONG</b> 2C3L (796F70) 2C4L (796F71)	2C5L (796F72) 2C6L (796F73)				
<b>ALUMINA - GAS LENS</b> 2AG4 (53N58) 2AG5 (53N59)	2AG6 (53N60) 2AG7 (53N61) 2AG8 (53N61S)	<b>GAS LENS</b> 2GL20 (45V41) 2GL40 (45V42) 2GL116 (45V43) 2GL332 (45V44) 2GL418 (45V45)	<b>STANDARD</b> See Above	<b>STANDARD</b> See Above	
<b>ALUMINA - LARGE DIAMETER</b> 3AG6LD(57N75) 3AG8LD(57N74) 3AG1LD(53N88)	<b>LARGE DIAMETER</b> 3AG11LD(53N89) 3AG116LD (45V116S) 3AG332LD (45V64S) 3AG418LD (995795S)	<b>LARGE DIAMETER</b> 2C020LD(13N20L) 2C040LD(13N21L) 2C116LD (13N22L) 2C332LD (13N23L) 2C418LD (13N24L)	<b>LARGE DIAMETER</b> 2GHSLD		
<b>ALUMINA</b> 8A4 (A53N24) 8A5 (A53N25)	8A6 (A53N27)	<b>SHORT</b> 6CB20 6CB40 6CB116	<b>REVERSE</b> See Above	<b>STANDARD</b> See Above	
<b>CERAMIC</b> 8C4 (53N24) 8C5 (53N25)	8C6 (53N27)	6CB332 6CB418			
<b>CERAMIC - LONG</b> 8C4L (53N28)	8C6L (53N26)				

**TORCHES USED ON:**  
CK100  
CK110  
CK130  
CK200  
CK230  
FL2L  
CKM230  
CWH230  
CWM230  
CK9  
CK20

**APPLICATIONS OF: STANDARD PARTS:**  
ARE FOR GENERAL PURPOSE USE.  
**WEDGE COLLETS:**  
IMPROVE ARC STARTING.  
IMPROVE ARC STABILITY.  
IMPROVE ARC CONTROL.

**CERAMIC (LAVA) CUPS:**  
ARE USED WHEN REFLECTED HEAT IS HIGH.

**ALUMINA CUPS:**  
ARE USED FOR GENERAL PURPOSE,  
AND WHEN IMPACT RESISTANT CUPS  
ARE REQUIRED.

**GAS SAVER® PARTS:**  
ARE USED TO REDUCE TURBULENCE  
AND IMPROVE SHIELD GAS COVERAGE  
PATTERNS,  
INCREASES DUTY CYCLE OF TORCH  
AND INCREASES TUNGSTEN STICK  
OUT.

**SHORT (STUBBY) PARTS:**  
ARE USED TO SHORTEN THE OVERALL  
LENGTH OF THE TORCH HEAD.  
REDUCES DUTY CYCLE OF TORCH

**GAS SAVER® PARTS:**  
ARE USED TO SAVE UP TO 40% ON GAS  
CONSUMPTION.  
ARE USED TO SAVE UP TO 60% ON  
CONSUMABLE PARTS.  
ARE USED TO CLEARLY SEE THE WELD  
PUDDLE.  
ARE USED TO ACHIEVE GAS LENS

**TUNGSTEN ELECTRODE CONVERSION CHART**

Size Suffix	Inches	Millimeters
020	.020"	.5mm
040	.040"	1.0mm
116	1/16"	1.6mm
332	3/32"	2.4mm
418	1/8"	3.2mm
532	5/32"	4.0mm

3